

COMMITTENTE:



ALTA SORVEGLIANZA:



GENERAL CONTRACTOR:

Cepav due



INFRASTRUTTURE FERROVIARIE STRATEGICHE DEFINITE DALLA LEGGE OBIETTIVO N. 443/01

LINEA A.V. /A.C. TORINO – VENEZIA Tratta MILANO – VERONA
Lotto funzionale Brescia-Verona

PROGETTO ESECUTIVO

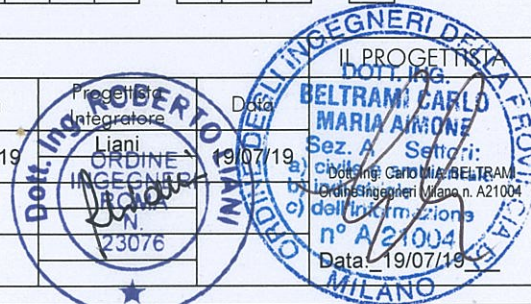
IV40 – CVF BRESCIA EST SU LINEA STORICA pk 106+100,000
OPERE DI SOSTEGNO DEGLI SCAVI – TABULATI DI CALCOLO

GENERAL CONTRACTOR	DIRETTORE LAVORI
Consorzio Cepav due Consorzio Cepav due Il Direttore del Consorzio (Ing. T. Tarantola) Data: <u>2-9 MAG 2020</u>	 Data: _____

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA/DISCIPLINA	PROGR	REV
I N O R	1 2	E	E 2	C L	I V 4 0 A 1	0 0 2	A

PROGETTAZIONE

Rev.	Descrizione	Redatto	Data	Verificato	Data	Progettista	Data
A	Emissione	R. Mariani	19/07/19	C. Beltrami	19/07/19	Dott. Ing. ROBERTO LIANI	19/07/19
B							
C							



CIG. 751447334A

File: INOR12EE2CLIV40A1002A_10.docx



Progetto cofinanziato dalla Unione Europea

Stampato dal Service di ploggingio ITALFERR S.p.A. ALBA s.r.l.

CUP: F81H91000000008

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

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11Codifica Documento
E E2 CL IV 40A 1 002Rev.
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1. SEZIONE 1 – PARATIA DI PALI

1.1. Design Assumption : Nominal - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal

* Time:mercoledì 24 luglio 2019 10:49:24

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -16 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -16 0 1 0

SOIL 0_R LeftWall_32 -16 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 5.84 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 13 0 15 45

STRIP LeftWall_32 2 5 0 40 0 10 30

* 7: Defining Steps

STEP Stage1_31

CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32

CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KA=0.478 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KP=5.914 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KA=0.333 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KP=8.331 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32

CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32

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```

CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ADD WallElement_33
ENDSTEP

STEP Stage2_759103
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage3_158
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage4_617
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ADD Tieback_768111
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -6.73
WATER -26 0 -16 0 0
ENDSTEP

```

1.2. Design Assumption : Nominal - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  10:49:24                               |
|                                                                                               |
-----

```

```

*****
*                                                                 *
*  PARATIE PLUS Non-Linear Spring Engine                               *
*                                                                 *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM                   *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES                     *
*                                                                 *
*          Written by Ce.A.S. s.r.l. (ITALY)                           *
*          with the scientific supervision of                           *
*          Roberto Nova - full professor SOIL MECHANICS              *
*          at Politecnico di Milano (ITALY)                           *
*                                                                 *
*****
*  RELEASE  2017.1  *Build date:Jul 11, 2017*  *                                                                 *
*                                                                 *
*  Ce.A.S.    S.R.L  CENTRO DI ANALISI STRUTTURALE                    *
*          VIALE GIUSTINIANO 10                                       *
*          20129  M I L A N O (ITALIA)                                  *
*  TEL.      +39 02 2020221  (+39 035 23 67 19)                       *
*  FAX       +39 02 29512533  (+39 035 42285 49)                       *

```



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```
* email      bruno.becci@ceas.it      *
* Web Page   www.ceas.it              *
*****
```

JOB : NewProject.BaseDesignSection_28.Nominal_63
STARTING

```
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL_STRESS >
ACCEPTED <PARAM ITEMAX 100 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****
*
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
* BY THE PROGRAM. *
*****
```

PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019   10:49:24                               |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 82
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 164
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 89
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 ( M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F

RELEVANT ITEMS UNITS

```
STRESSES          kPa
Y-DISPLACEMENTS  m
ROTATIONS         RADIANs
BEAM AND SLAB MOMENTS kN*m/m
BEAM SHEAR FORCES kN/m
ANCHOR FORCES     kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS kN/m
Y-REACTIONS       kN/m
X-MOMENT REACTIONS kN*m/m
ETC.
```

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019   10:49:24                               |
+-----+
```

P R E P R O C E S S O R D A T A

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N O . O F C O M M A N D S 89

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Strato1_2_8_L_0 5.84 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0
29 : STRIP LeftWall_32 2 5 0 13 0 15 45
30 : STRIP LeftWall_32 2 5 0 40 0 10 30
31 : STEP Stage1_31
32 : CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KA=0.478 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 U-KP=5.914 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
37 : CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KA=0.333 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 U-KP=8.331 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
43 : CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
45 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
47 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
48 : SETWALL LeftWall_32
49 : GEOM 0 0
50 : WATER -26 0 -16 0 0
51 : ADD WallElement_33
52 : ENDSTEP
53 : STEP Stage2_759103
54 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
55 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
56 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
57 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
58 : SETWALL LeftWall_32
59 : GEOM 0 0
60 : WATER -26 0 -16 0 0
61 : ENDSTEP
62 : STEP Stage3_158
63 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
64 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
65 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
66 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
67 : SETWALL LeftWall_32
68 : GEOM 0 -3
69 : WATER -26 0 -16 0 0
70 : ENDSTEP
71 : STEP Stage4_617
72 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
73 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
74 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
75 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
76 : SETWALL LeftWall_32
77 : GEOM 0 -3
78 : WATER -26 0 -16 0 0
79 : ADD Tieback_768111
80 : ENDSTEP
81 : STEP Stage5_714
82 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
83 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32

```



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```

84 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
85 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
86 : SETWALL LeftWall_32
87 : GEOM 0 -6.73
88 : WATER -26 0 -16 0 0
89 : ENDSTEP
    
```

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      10:49:24
|
-----
    
```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE
1	0.0000	0.0000 /	2	0.0000	-0.20000	/	3	0.0000	-0.40000	/
5	0.0000	-0.80000 /	6	0.0000	-1.0000	/	7	0.0000	-1.2000	/
9	0.0000	-1.6000 /	10	0.0000	-1.8000	/	11	0.0000	-2.0000	/
13	0.0000	-2.4000 /	14	0.0000	-2.5000	/	15	0.0000	-2.7000	/
17	0.0000	-3.1000 /	18	0.0000	-3.3000	/	19	0.0000	-3.5000	/
21	0.0000	-3.9000 /	22	0.0000	-4.1000	/	23	0.0000	-4.3000	/
25	0.0000	-4.7000 /	26	0.0000	-4.9000	/	27	0.0000	-5.1000	/
29	0.0000	-5.5000 /	30	0.0000	-5.7000	/	31	0.0000	-5.9000	/
33	0.0000	-6.3000 /	34	0.0000	-6.5000	/	35	0.0000	-6.7000	/
37	0.0000	-7.1000 /	38	0.0000	-7.3000	/	39	0.0000	-7.5000	/
41	0.0000	-7.9000 /	42	0.0000	-8.1000	/	43	0.0000	-8.3000	/
45	0.0000	-8.7000 /	46	0.0000	-8.9000	/	47	0.0000	-9.1000	/
49	0.0000	-9.5000 /	50	0.0000	-9.7000	/	51	0.0000	-9.9000	/
53	0.0000	-10.300 /	54	0.0000	-10.500	/	55	0.0000	-10.700	/
57	0.0000	-11.100 /	58	0.0000	-11.300	/	59	0.0000	-11.500	/
61	0.0000	-11.900 /	62	0.0000	-12.100	/	63	0.0000	-12.300	/
65	0.0000	-12.700 /	66	0.0000	-12.900	/	67	0.0000	-13.100	/
69	0.0000	-13.500 /	70	0.0000	-13.700	/	71	0.0000	-13.900	/
73	0.0000	-14.300 /	74	0.0000	-14.500	/	75	0.0000	-14.700	/
77	0.0000	-15.100 /	78	0.0000	-15.300	/	79	0.0000	-15.500	/
81	0.0000	-15.900 /	82	0.0000	-16.000	/				

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      10:49:24
|
-----
    
```

```

ELEMENT GROUP NO. 1

0_L      :
  5 82  0  1  0  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0
    
```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

```

material set no. 1

prop( 1) angle      0.00000
prop( 2) layer as foreseen 1.00000
    
```

```

material set no. 2

prop( 1) angle      0.00000
prop( 2) layer as foreseen 2.00000
    
```

element data

el	n	mat	area	flag
----	---	-----	------	-------	-------	-------	------

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GRUPPO FERROVIE DELLO STATO ITALIANE

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1	1	1	0.1000	0.000	0.000	0.000	1.000					
2	2	1	0.2000	0.000	0.000	0.000	1.000					
3	3	1	0.2000	0.000	0.000	0.000	1.000					
4	4	1	0.2000	0.000	0.000	0.000	1.000					
5	5	1	0.2000	0.000	0.000	0.000	1.000					
6	6	1	0.2000	0.000	0.000	0.000	1.000					
7	7	1	0.2000	0.000	0.000	0.000	1.000					
8	8	1	0.2000	0.000	0.000	0.000	1.000					
9	9	1	0.2000	0.000	0.000	0.000	1.000					
10	10	1	0.2000	0.000	0.000	0.000	1.000					
11	11	1	0.2000	0.000	0.000	0.000	1.000					
12	12	1	0.2000	0.000	0.000	0.000	1.000					
13	13	1	0.1500	0.000	0.000	0.000	1.000					
14	14	1	0.1500	0.000	0.000	0.000	1.000					
15	15	1	0.2000	0.000	0.000	0.000	1.000					
16	16	1	0.2000	0.000	0.000	0.000	1.000					
17	17	1	0.2000	0.000	0.000	0.000	1.000					
18	18	1	0.2000	0.000	0.000	0.000	1.000					
19	19	1	0.2000	0.000	0.000	0.000	1.000					
20	20	1	0.2000	0.000	0.000	0.000	1.000					
21	21	1	0.2000	0.000	0.000	0.000	1.000					
22	22	1	0.2000	0.000	0.000	0.000	1.000					
23	23	1	0.2000	0.000	0.000	0.000	1.000					
24	24	1	0.2000	0.000	0.000	0.000	1.000					
25	25	1	0.2000	0.000	0.000	0.000	1.000					
26	26	1	0.2000	0.000	0.000	0.000	1.000					
27	27	1	0.2000	0.000	0.000	0.000	1.000					
28	28	1	0.2000	0.000	0.000	0.000	1.000					
29	29	1	0.2000	0.000	0.000	0.000	1.000					
30	30	1	0.2000	0.000	0.000	0.000	1.000					
31	31	1	0.2000	0.000	0.000	0.000	1.000					
32	32	1	0.2000	0.000	0.000	0.000	1.000					
33	33	1	0.2000	0.000	0.000	0.000	1.000					
34	34	1	0.2000	0.000	0.000	0.000	1.000					
35	35	1	0.2000	0.000	0.000	0.000	1.000					
36	36	1	0.2000	0.000	0.000	0.000	1.000					
37	37	1	0.2000	0.000	0.000	0.000	1.000					
38	38	1	0.2000	0.000	0.000	0.000	1.000					
39	39	1	0.2000	0.000	0.000	0.000	1.000					
40	40	1	0.2000	0.000	0.000	0.000	1.000					
41	41	1	0.2000	0.000	0.000	0.000	1.000					
42	42	1	0.2000	0.000	0.000	0.000	1.000					
43	43	1	0.2000	0.000	0.000	0.000	1.000					
44	44	1	0.2000	0.000	0.000	0.000	1.000					
45	45	1	0.2000	0.000	0.000	0.000	1.000					
46	46	1	0.2000	0.000	0.000	0.000	1.000					
47	47	1	0.2000	0.000	0.000	0.000	1.000					
48	48	1	0.2000	0.000	0.000	0.000	1.000					
49	49	1	0.2000	0.000	0.000	0.000	1.000					
50	50	2	0.2000	0.000	0.000	0.000	1.000					
51	51	2	0.2000	0.000	0.000	0.000	1.000					
52	52	2	0.2000	0.000	0.000	0.000	1.000					
53	53	2	0.2000	0.000	0.000	0.000	1.000					
54	54	2	0.2000	0.000	0.000	0.000	1.000					
55	55	2	0.2000	0.000	0.000	0.000	1.000					
56	56	2	0.2000	0.000	0.000	0.000	1.000					
57	57	2	0.2000	0.000	0.000	0.000	1.000					
58	58	2	0.2000	0.000	0.000	0.000	1.000					
59	59	2	0.2000	0.000	0.000	0.000	1.000					
60	60	2	0.2000	0.000	0.000	0.000	1.000					
61	61	2	0.2000	0.000	0.000	0.000	1.000					
62	62	2	0.2000	0.000	0.000	0.000	1.000					
63	63	2	0.2000	0.000	0.000	0.000	1.000					
64	64	2	0.2000	0.000	0.000	0.000	1.000					
65	65	2	0.2000	0.000	0.000	0.000	1.000					
66	66	2	0.2000	0.000	0.000	0.000	1.000					
67	67	2	0.2000	0.000	0.000	0.000	1.000					
68	68	2	0.2000	0.000	0.000	0.000	1.000					
69	69	2	0.2000	0.000	0.000	0.000	1.000					
70	70	2	0.2000	0.000	0.000	0.000	1.000					
71	71	2	0.2000	0.000	0.000	0.000	1.000					
72	72	2	0.2000	0.000	0.000	0.000	1.000					
73	73	2	0.2000	0.000	0.000	0.000	1.000					
74	74	2	0.2000	0.000	0.000	0.000	1.000					
75	75	2	0.2000	0.000	0.000	0.000	1.000					
76	76	2	0.2000	0.000	0.000	0.000	1.000					
77	77	2	0.2000	0.000	0.000	0.000	1.000					
78	78	2	0.2000	0.000	0.000	0.000	1.000					
79	79	2	0.2000	0.000	0.000	0.000	1.000					
80	80	2	0.2000	0.000	0.000	0.000	1.000					
81	81	2	0.1500	0.000	0.000	0.000	1.000					
82	82	2	0.5000E-01	0.000	0.000	0.000	1.000					

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|                                                                    |
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```

ELEMENT GROUP NO. 2

```

O_R      :
 5 82 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

material set no. 1

prop(1) angle 180.000
prop(2) layer as foreseen 1.00000

material set no. 2

prop(1) angle 180.000
prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.1500	0.000	0.000	0.000	2.000
14	14	1	0.1500	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000
42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000

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44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	2	0.2000	0.000	0.000	0.000	2.000
51	51	2	0.2000	0.000	0.000	0.000	2.000
52	52	2	0.2000	0.000	0.000	0.000	2.000
53	53	2	0.2000	0.000	0.000	0.000	2.000
54	54	2	0.2000	0.000	0.000	0.000	2.000
55	55	2	0.2000	0.000	0.000	0.000	2.000
56	56	2	0.2000	0.000	0.000	0.000	2.000
57	57	2	0.2000	0.000	0.000	0.000	2.000
58	58	2	0.2000	0.000	0.000	0.000	2.000
59	59	2	0.2000	0.000	0.000	0.000	2.000
60	60	2	0.2000	0.000	0.000	0.000	2.000
61	61	2	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1500	0.000	0.000	0.000	2.000
82	82	2	0.5000E-01	0.000	0.000	0.000	2.000

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|                                                                                               |
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|-----

```

ELEMENT GROUP NO. 3

```

WallElement_33      :
  2 81 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0

```

```

.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----

```

- 1 active
- 2 active
- 3 active
- 4 active
- 5 active

material set no. 1

```

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus   0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....0.252200E-43

```

```

no. of step variable items: 1
step inertia multiplier
-----

```

- 1 1.000
- 2 1.000
- 3 1.000
- 4 1.000
- 5 1.000

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000
29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000

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37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000
39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000
62	62	63	1	0.000	0.000	0.6848	0.000	0.000
63	63	64	1	0.000	0.000	0.6848	0.000	0.000
64	64	65	1	0.000	0.000	0.6848	0.000	0.000
65	65	66	1	0.000	0.000	0.6848	0.000	0.000
66	66	67	1	0.000	0.000	0.6848	0.000	0.000
67	67	68	1	0.000	0.000	0.6848	0.000	0.000
68	68	69	1	0.000	0.000	0.6848	0.000	0.000
69	69	70	1	0.000	0.000	0.6848	0.000	0.000
70	70	71	1	0.000	0.000	0.6848	0.000	0.000
71	71	72	1	0.000	0.000	0.6848	0.000	0.000
72	72	73	1	0.000	0.000	0.6848	0.000	0.000
73	73	74	1	0.000	0.000	0.6848	0.000	0.000
74	74	75	1	0.000	0.000	0.6848	0.000	0.000
75	75	76	1	0.000	0.000	0.6848	0.000	0.000
76	76	77	1	0.000	0.000	0.6848	0.000	0.000
77	77	78	1	0.000	0.000	0.6848	0.000	0.000
78	78	79	1	0.000	0.000	0.6848	0.000	0.000
79	79	80	1	0.000	0.000	0.6848	0.000	0.000
80	80	81	1	0.000	0.000	0.6848	0.000	0.000
81	81	82	1	0.000	0.000	0.6848	0.000	0.000

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019      10:49:24                             |
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```

```

ELEMENT GROUP NO.  4

Tieback_768111      :
 6  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  2  0

```

```

.....2D POST-TENSION ANCHOR.....
.....
element group behaviour throughout stage analysis

```

```

stage  status
-----
 1  inactive
 2  inactive
 3  inactive
 4  active
 5  active

```

```

material set no.  1

prop( 1) angle      15.0000
prop( 2) young modulus 0.200100E+09
prop( 3) modification time 0.00000
prop( 4) new young modulus 0.00000

```

```

no. of step variable items:  2
step  -ve lim  +ve lim
-----
 1  0.000  0.000
 2  0.000  0.000

```

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Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

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13 di 560

3 0.000 0.000
4 0.000 0.000
5 0.000 0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	14	1	0.2211E-04	163.6	0.000	0.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      10:49:24        |
+-----+

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```

NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 10
MAXIMUM POINTS/LCURVE (NPTM)..... 5

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      10:49:24        |
+-----+

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L O A D D A T A

```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
0.80000        0.0000E+00
1.00000        0.1000E+01
1.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
1.80000        0.0000E+00
2.00000        0.1000E+01
2.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
2.80000        0.0000E+00
3.00000        0.1000E+01
3.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
3.80000        0.0000E+00
4.00000        0.1000E+01
4.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION

```

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0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
|                                                                                                                                           |
|                                                                                                                                           |
|                                                                                                                                           |
|          NewProject.BaseDesignSection_28.Nominal_63          |
|          Exe Time :24 July 2019          10:49:24          |
|                                                                                                                                           |
+-----+

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L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000



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STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      10:49:24
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NO. OF LAYERS 2
 NO. OF DATA PER LAYER..... 100

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      10:49:24
+-----+
    
```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 5.8400	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.47800	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.9140	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -9.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.33300	WALL NO.	1
ITEM NO.	11<U-KP	>= 8.3310	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)

GENERAL CONTRACTOR



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ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.00000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.00000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.00000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.00000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.00000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.00000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.00000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.00000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.00000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.00000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.00000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.00000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.00000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.00000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.00000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 10 VALUES

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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|                                                                 |
|          NewProject.BaseDesignSection_28.Nominal_63          |
|          Exe Time :24 July 2019          10:49:24          |
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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

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PHASE DESCRIPTORS

STEP NO.	1	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 1

STEP NO.	2	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 2

STEP NO.	3	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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z-WATER_TABLE                -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL    0.000    0.000
ZQ                            0.000    0.000
DZW_OF_THE_WATER_TABLE       0.000    0.000
QS_ON_THE_EXCAVATION_SIDE    0.000    0.000
ZQS                          -0.9990E+30  -0.9990E+30
ZCUT                          0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000    0.000
PORE_UPDATE_FLAG             0.000    0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000    0.000
lateral thrusts reduction elevatio  0.000    0.000
Downhill reduction factor for effe  0.000    0.000
Downhill reduction factor for pore  0.000    0.000
Uphill reduction factor for effect  0.000    0.000
Uphill reduction factor for pore p  0.000    0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000    0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000    0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]    0.000    0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000    0.000
UPHILL DELTA/PHI RATIO          0.000    0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000    0.000
DOWNHILL DELTA/PHI RATIO         0.000    0.000
DYN.WATER BEHAVIOUR            0.000    0.000
Excess pore pressure RATIO Ru      0.000    0.000
SEISMIC PRESSURE LOWER VALUE      0.000    0.000
SEISMIC PRESSURE UPPER VALUE      0.000    0.000
SEISMIC PRESSURE LOWER LEVEL      0.000    0.000
SEISMIC PRESSURE UPPER LEVEL      0.000    0.000
    
```

=====end of step 3

```

STEP NO.      4

LEFT WALL    RIGHT WALL
Y            0.000    -0.9990E+30
Z-PC        0.000    0.000
Z-EXCAVATION -3.000    0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ          0.000    0.000
DZW_OF_THE_WATER_TABLE     0.000    0.000
QS_ON_THE_EXCAVATION_SIDE  0.000    0.000
ZQS        -0.9990E+30  -0.9990E+30
ZCUT        0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000    0.000
PORE_UPDATE_FLAG           0.000    0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000    0.000
lateral thrusts reduction elevatio  0.000    0.000
Downhill reduction factor for effe  0.000    0.000
Downhill reduction factor for pore  0.000    0.000
Uphill reduction factor for effect  0.000    0.000
Uphill reduction factor for pore p  0.000    0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000    0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000    0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]    0.000    0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000    0.000
UPHILL DELTA/PHI RATIO          0.000    0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000    0.000
DOWNHILL DELTA/PHI RATIO         0.000    0.000
DYN.WATER BEHAVIOUR            0.000    0.000
Excess pore pressure RATIO Ru      0.000    0.000
SEISMIC PRESSURE LOWER VALUE      0.000    0.000
SEISMIC PRESSURE UPPER VALUE      0.000    0.000
SEISMIC PRESSURE LOWER LEVEL      0.000    0.000
SEISMIC PRESSURE UPPER LEVEL      0.000    0.000
    
```

=====end of step 4

```

STEP NO.      5

LEFT WALL    RIGHT WALL
Y            0.000    -0.9990E+30
Z-PC        0.000    0.000
Z-EXCAVATION -6.730    0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ          0.000    0.000
DZW_OF_THE_WATER_TABLE     0.000    0.000
QS_ON_THE_EXCAVATION_SIDE  0.000    0.000
ZQS        -0.9990E+30  -0.9990E+30
ZCUT        0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000    0.000
    
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PORE_UPDATE_FLAG          0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO      0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO    0.000      0.000
DYN.WATER BEHAVIOUR        0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000
    
```

=====end of step 5

LEFT-HAND WALL

```

LOWER LEVEL      -16.00000
UPPER LEVEL      0.00000
    
```

RIGHT-HAND WALL

```

LOWER LEVEL      -16.00000
UPPER LEVEL      0.00000
    
```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      10:49:24  |
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 2

```

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000
    
```

```

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000
    
```

TYPE BOUSSINESQ

```

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 13.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 15.000000000000000
BETA ..... 45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000
    
```

```

INPUT DATA FOR INITIAL STRESS SET NO. 2
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000
    
```

```

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000
    
```

TYPE BOUSSINESQ

```

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 40.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 10.000000000000000
BETA ..... 30.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000
    
```




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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      10:49:24
|
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New Project

STRESS RESULTS FOR GROUP NO. 1

O_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	1.5916E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	1.5916E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Strato1_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	1.5916E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Strato1_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	1.5916E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Strato1_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	1.5916E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Strato1_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	1.5916E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	1.5916E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Strato1_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	1.5916E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Strato1_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	1.5916E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Strato1_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	1.5916E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Strato1_2_8_L_0									
11 D	4.028	0.000	38.00	20.14	38.00	20.14	V-C	1.5916E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Strato1_2_8_L_0									
12 D	4.431	0.000	41.80	22.15	41.80	22.15	V-C	1.5916E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Strato1_2_8_L_0									
13 D	3.625	0.000	45.60	24.17	45.60	24.17	V-C	1.5916E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Strato1_2_8_L_0									
14 D	3.776	0.000	47.50	25.18	47.50	25.18	V-C	1.5916E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Strato1_2_8_L_0									
15 D	5.438	0.000	51.30	27.19	51.30	27.19	V-C	1.5916E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Strato1_2_8_L_0									
16 D	5.841	0.000	55.10	29.20	55.10	29.20	V-C	1.5916E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Strato1_2_8_L_0									
17 D	6.243	0.000	58.90	31.22	58.90	31.22	V-C	1.5916E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Strato1_2_8_L_0									
18 D	6.646	0.000	62.70	33.23	62.70	33.23	V-C	1.5916E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Strato1_2_8_L_0									
19 D	7.049	0.000	66.50	35.25	66.50	35.25	V-C	1.5916E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Strato1_2_8_L_0									
20 D	7.452	0.000	70.30	37.26	70.30	37.26	V-C	1.5916E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Strato1_2_8_L_0									
21 D	7.855	0.000	74.10	39.27	74.10	39.27	V-C	1.5916E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Strato1_2_8_L_0									
22 D	8.257	0.000	77.90	41.29	77.90	41.29	V-C	1.5916E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Strato1_2_8_L_0									
23 D	8.660	0.000	81.70	43.30	81.70	43.30	V-C	1.5916E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Strato1_2_8_L_0									
24 D	9.063	0.000	85.50	45.32	85.50	45.32	V-C	1.5916E+04	-4.500	0.000	1.000	1.000
45.31	0.000	0.000	Strato1_2_8_L_0									
25 D	9.466	0.000	89.30	47.33	89.30	47.33	V-C	1.5916E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Strato1_2_8_L_0									
26 D	9.869	0.000	93.10	49.34	93.10	49.34	V-C	1.5916E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Strato1_2_8_L_0									
27 D	10.27	0.000	96.90	51.36	96.90	51.36	V-C	1.5916E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Strato1_2_8_L_0									
28 D	10.67	0.000	100.7	53.37	100.7	53.37	V-C	1.5916E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Strato1_2_8_L_0									
29 D	11.08	0.000	104.5	55.38	104.5	55.38	V-C	1.5916E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Strato1_2_8_L_0									
30 D	11.48	0.000	108.3	57.40	108.3	57.40	V-C	1.5916E+04	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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57.40	0.000	0.000	Strato1_2_8_L_0		
31 D	11.88	0.000	112.1 59.41	112.1	59.41
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.91	0.000	150.1 79.55	150.1	79.55
79.55	0.000	0.000	Strato1_2_8_L_0		
42 D	16.31	0.000	153.9 81.57	153.9	81.57
81.57	0.000	0.000	Strato1_2_8_L_0		
43 D	16.72	0.000	157.7 83.58	157.7	83.58
83.58	0.000	0.000	Strato1_2_8_L_0		
44 D	17.12	0.000	161.5 85.59	161.5	85.59
85.59	0.000	0.000	Strato1_2_8_L_0		
45 D	17.52	0.000	165.3 87.61	165.3	87.61
87.61	0.000	0.000	Strato1_2_8_L_0		
46 D	17.92	0.000	169.1 89.62	169.1	89.62
89.62	0.000	0.000	Strato1_2_8_L_0		
47 D	18.33	0.000	172.9 91.64	172.9	91.64
91.64	0.000	0.000	Strato1_2_8_L_0		
48 D	18.73	0.000	176.7 93.65	176.7	93.65
93.65	0.000	0.000	Strato1_2_8_L_0		
49 D	19.13	0.000	180.5 95.66	180.5	95.66
95.66	0.000	0.000	Strato1_2_8_L_0		
50 D	18.45	0.000	184.5 92.25	184.5	92.25
92.25	0.000	0.000	Strato2_3095_82743_L_0		
51 D	18.85	0.000	188.5 94.25	188.5	94.25
94.25	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.25	0.000	192.5 96.25	192.5	96.25
96.25	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.65	0.000	196.5 98.25	196.5	98.25
98.25	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.05	0.000	200.5 100.2	200.5	100.2
100.2	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.45	0.000	204.5 102.2	204.5	102.2
102.2	0.000	0.000	Strato2_3095_82743_L_0		
56 D	20.85	0.000	208.5 104.2	208.5	104.2
104.2	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.25	0.000	212.5 106.2	212.5	106.2
106.2	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.65	0.000	216.5 108.2	216.5	108.2
108.2	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.05	0.000	220.5 110.2	220.5	110.2
110.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.45	0.000	224.5 112.2	224.5	112.2
112.2	0.000	0.000	Strato2_3095_82743_L_0		
61 D	22.85	0.000	228.5 114.2	228.5	114.2
114.2	0.000	0.000	Strato2_3095_82743_L_0		
62 D	23.25	0.000	232.5 116.2	232.5	116.2
116.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.65	0.000	236.5 118.2	236.5	118.2
118.2	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.05	0.000	240.5 120.2	240.5	120.2
120.2	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.45	0.000	244.5 122.2	244.5	122.2
122.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	24.85	0.000	248.5 124.2	248.5	124.2
124.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.25	0.000	252.5 126.2	252.5	126.2
126.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.65	0.000	256.5 128.2	256.5	128.2
128.2	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.05	0.000	260.5 130.2	260.5	130.2
130.2	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.45	0.000	264.5 132.2	264.5	132.2
132.2	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.85	0.000	268.5 134.2	268.5	134.2
134.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.25	0.000	272.5 136.2	272.5	136.2
136.2	0.000	0.000	Strato2_3095_82743_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 26 di 560
73 D 27.65 0.000 276.5 138.2 276.5 138.2 V-C 4.5023E+04 -14.30 0.000 1.000 1.000					
138.2 0.000 0.000 Strato2_3095_82743_L_0					
74 D 28.05 0.000 280.5 140.2 280.5 140.2 V-C 4.5023E+04 -14.50 0.000 1.000 1.000					
140.2 0.000 0.000 Strato2_3095_82743_L_0					
75 D 28.45 0.000 284.5 142.2 284.5 142.2 V-C 4.5023E+04 -14.70 0.000 1.000 1.000					
142.2 0.000 0.000 Strato2_3095_82743_L_0					
76 D 28.85 0.000 288.5 144.2 288.5 144.2 V-C 4.5023E+04 -14.90 0.000 1.000 1.000					
144.2 0.000 0.000 Strato2_3095_82743_L_0					
77 D 29.25 0.000 292.5 146.2 292.5 146.2 V-C 4.5023E+04 -15.10 0.000 1.000 1.000					
146.2 0.000 0.000 Strato2_3095_82743_L_0					
78 D 29.65 0.000 296.5 148.2 296.5 148.2 V-C 4.5023E+04 -15.30 0.000 1.000 1.000					
148.2 0.000 0.000 Strato2_3095_82743_L_0					
79 D 30.05 0.000 300.5 150.2 300.5 150.2 V-C 4.5023E+04 -15.50 0.000 1.000 1.000					
150.2 0.000 0.000 Strato2_3095_82743_L_0					
80 D 30.45 0.000 304.5 152.2 304.5 152.2 V-C 4.5023E+04 -15.70 0.000 1.000 1.000					
152.2 0.000 0.000 Strato2_3095_82743_L_0					
81 D 23.14 0.000 308.5 154.2 308.5 154.2 V-C 4.5023E+04 -15.90 0.000 1.000 1.000					
154.2 0.000 0.000 Strato2_3095_82743_L_0					
82 D 7.763 0.000 310.5 155.2 310.5 155.2 V-C 4.5023E+04 -16.00 0.000 1.000 1.000					
155.2 0.000 0.000 Strato2_3095_82743_L_0					

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  10:49:24                               |
+-----+
    
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New Project

STRESS RESULTS FOR GROUP NO. 2

0_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D 0.000 0.000 0.000 0.000 0.000 0.000 0.000 V-C 1.1045E+04 0.000 0.000 1.000 1.000												
0.000 0.000 0.000 Strato1_2_8_L_0												
2 D 0.4028 0.000 3.800 2.014 3.800 2.014 V-C 1.1045E+04 -0.2000 0.000 1.000 1.000												
2.014 0.000 0.000 Strato1_2_8_L_0												
3 D 0.8056 0.000 7.600 4.028 7.600 4.028 V-C 1.1045E+04 -0.4000 0.000 1.000 1.000												
4.028 0.000 0.000 Strato1_2_8_L_0												
4 D 1.208 0.000 11.40 6.042 11.40 6.042 V-C 1.1045E+04 -0.6000 0.000 1.000 1.000												
6.042 0.000 0.000 Strato1_2_8_L_0												
5 D 1.611 0.000 15.20 8.056 15.20 8.056 V-C 1.1045E+04 -0.8000 0.000 1.000 1.000												
8.056 0.000 0.000 Strato1_2_8_L_0												
6 D 2.014 0.000 19.00 10.07 19.00 10.07 V-C 1.1045E+04 -1.000 0.000 1.000 1.000												
10.07 0.000 0.000 Strato1_2_8_L_0												
7 D 2.417 0.000 22.80 12.08 22.80 12.08 V-C 1.1045E+04 -1.200 0.000 1.000 1.000												
12.08 0.000 0.000 Strato1_2_8_L_0												
8 D 2.820 0.000 26.60 14.10 26.60 14.10 V-C 1.1045E+04 -1.400 0.000 1.000 1.000												
14.10 0.000 0.000 Strato1_2_8_L_0												
9 D 3.222 0.000 30.40 16.11 30.40 16.11 V-C 1.1045E+04 -1.600 0.000 1.000 1.000												
16.11 0.000 0.000 Strato1_2_8_L_0												
10 D 3.625 0.000 34.20 18.13 34.20 18.13 V-C 1.1045E+04 -1.800 0.000 1.000 1.000												
18.13 0.000 0.000 Strato1_2_8_L_0												
11 D 4.028 0.000 38.00 20.14 38.00 20.14 V-C 1.1045E+04 -2.000 0.000 1.000 1.000												
20.14 0.000 0.000 Strato1_2_8_L_0												
12 D 4.431 0.000 41.80 22.15 41.80 22.15 V-C 1.1045E+04 -2.200 0.000 1.000 1.000												
22.15 0.000 0.000 Strato1_2_8_L_0												
13 D 3.625 0.000 45.60 24.17 45.60 24.17 V-C 1.1045E+04 -2.400 0.000 1.000 1.000												
24.17 0.000 0.000 Strato1_2_8_L_0												
14 D 3.776 0.000 47.50 25.18 47.50 25.18 V-C 1.1045E+04 -2.500 0.000 1.000 1.000												
25.18 0.000 0.000 Strato1_2_8_L_0												
15 D 5.438 0.000 51.30 27.19 51.30 27.19 V-C 1.1045E+04 -2.700 0.000 1.000 1.000												
27.19 0.000 0.000 Strato1_2_8_L_0												
16 D 5.841 0.000 55.10 29.20 55.10 29.20 V-C 1.1045E+04 -2.900 0.000 1.000 1.000												
29.20 0.000 0.000 Strato1_2_8_L_0												
17 D 6.243 0.000 58.90 31.22 58.90 31.22 V-C 1.1045E+04 -3.100 0.000 1.000 1.000												
31.22 0.000 0.000 Strato1_2_8_L_0												
18 D 6.646 0.000 62.70 33.23 62.70 33.23 V-C 1.1045E+04 -3.300 0.000 1.000 1.000												
33.23 0.000 0.000 Strato1_2_8_L_0												
19 D 7.049 0.000 66.50 35.25 66.50 35.25 V-C 1.1045E+04 -3.500 0.000 1.000 1.000												
35.25 0.000 0.000 Strato1_2_8_L_0												

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 27 di 560						
20 D	7.452	0.000	70.30 37.26	70.30	37.26	V-C	1.1045E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Strato1_2_8_L_0								
21 D	7.855	0.000	74.10 39.27	74.10	39.27	V-C	1.1045E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Strato1_2_8_L_0								
22 D	8.257	0.000	77.90 41.29	77.90	41.29	V-C	1.1045E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Strato1_2_8_L_0								
23 D	8.660	0.000	81.70 43.30	81.70	43.30	V-C	1.1045E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Strato1_2_8_L_0								
24 D	9.063	0.000	85.50 45.32	85.50	45.32	V-C	1.1045E+04	-4.500	0.000	1.000	1.000
45.31	0.000	0.000	Strato1_2_8_L_0								
25 D	9.466	0.000	89.30 47.33	89.30	47.33	V-C	1.1045E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Strato1_2_8_L_0								
26 D	9.869	0.000	93.10 49.34	93.10	49.34	V-C	1.1045E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Strato1_2_8_L_0								
27 D	10.27	0.000	96.90 51.36	96.90	51.36	V-C	1.1045E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Strato1_2_8_L_0								
28 D	10.67	0.000	100.7 53.37	100.7	53.37	V-C	1.1045E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Strato1_2_8_L_0								
29 D	11.08	0.000	104.5 55.38	104.5	55.38	V-C	1.1045E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Strato1_2_8_L_0								
30 D	11.48	0.000	108.3 57.40	108.3	57.40	V-C	1.1045E+04	-5.700	0.000	1.000	1.000
57.40	0.000	0.000	Strato1_2_8_L_0								
31 D	11.88	0.000	112.1 59.41	112.1	59.41	V-C	1.1045E+04	-5.900	0.000	1.000	1.000
59.41	0.000	0.000	Strato1_2_8_L_0								
32 D	12.29	0.000	115.9 61.43	115.9	61.43	V-C	1.1045E+04	-6.100	0.000	1.000	1.000
61.43	0.000	0.000	Strato1_2_8_L_0								
33 D	12.69	0.000	119.7 63.44	119.7	63.44	V-C	1.1045E+04	-6.300	0.000	1.000	1.000
63.44	0.000	0.000	Strato1_2_8_L_0								
34 D	13.09	0.000	123.5 65.45	123.5	65.45	V-C	1.1045E+04	-6.500	0.000	1.000	1.000
65.45	0.000	0.000	Strato1_2_8_L_0								
35 D	13.49	0.000	127.3 67.47	127.3	67.47	V-C	1.1045E+04	-6.700	0.000	1.000	1.000
67.47	0.000	0.000	Strato1_2_8_L_0								
36 D	13.90	0.000	131.1 69.48	131.1	69.48	V-C	1.1045E+04	-6.900	0.000	1.000	1.000
69.48	0.000	0.000	Strato1_2_8_L_0								
37 D	14.30	0.000	134.9 71.50	134.9	71.50	V-C	1.1045E+04	-7.100	0.000	1.000	1.000
71.50	0.000	0.000	Strato1_2_8_L_0								
38 D	14.70	0.000	138.7 73.51	138.7	73.51	V-C	1.1045E+04	-7.300	0.000	1.000	1.000
73.51	0.000	0.000	Strato1_2_8_L_0								
39 D	15.10	0.000	142.5 75.52	142.5	75.52	V-C	1.1045E+04	-7.500	0.000	1.000	1.000
75.52	0.000	0.000	Strato1_2_8_L_0								
40 D	15.51	0.000	146.3 77.54	146.3	77.54	V-C	1.1045E+04	-7.700	0.000	1.000	1.000
77.54	0.000	0.000	Strato1_2_8_L_0								
41 D	15.91	0.000	150.1 79.55	150.1	79.55	V-C	1.1045E+04	-7.900	0.000	1.000	1.000
79.55	0.000	0.000	Strato1_2_8_L_0								
42 D	16.31	0.000	153.9 81.57	153.9	81.57	V-C	1.1045E+04	-8.100	0.000	1.000	1.000
81.57	0.000	0.000	Strato1_2_8_L_0								
43 D	16.72	0.000	157.7 83.58	157.7	83.58	V-C	1.1045E+04	-8.300	0.000	1.000	1.000
83.58	0.000	0.000	Strato1_2_8_L_0								
44 D	17.12	0.000	161.5 85.59	161.5	85.59	V-C	1.1045E+04	-8.500	0.000	1.000	1.000
85.59	0.000	0.000	Strato1_2_8_L_0								
45 D	17.52	0.000	165.3 87.61	165.3	87.61	V-C	1.1045E+04	-8.700	0.000	1.000	1.000
87.61	0.000	0.000	Strato1_2_8_L_0								
46 D	17.92	0.000	169.1 89.62	169.1	89.62	V-C	1.1045E+04	-8.900	0.000	1.000	1.000
89.62	0.000	0.000	Strato1_2_8_L_0								
47 D	18.33	0.000	172.9 91.64	172.9	91.64	V-C	1.1045E+04	-9.100	0.000	1.000	1.000
91.64	0.000	0.000	Strato1_2_8_L_0								
48 D	18.73	0.000	176.7 93.65	176.7	93.65	V-C	1.1045E+04	-9.300	0.000	1.000	1.000
93.65	0.000	0.000	Strato1_2_8_L_0								
49 D	19.13	0.000	180.5 95.66	180.5	95.66	V-C	1.1045E+04	-9.500	0.000	1.000	1.000
95.66	0.000	0.000	Strato1_2_8_L_0								
50 D	18.45	0.000	184.5 92.25	184.5	92.25	V-C	2.4402E+04	-9.700	0.000	1.000	1.000
92.25	0.000	0.000	Strato2_3095_82743_L_0								
51 D	18.85	0.000	188.5 94.25	188.5	94.25	V-C	2.4402E+04	-9.900	0.000	1.000	1.000
94.25	0.000	0.000	Strato2_3095_82743_L_0								
52 D	19.25	0.000	192.5 96.25	192.5	96.25	V-C	2.4402E+04	-10.10	0.000	1.000	1.000
96.25	0.000	0.000	Strato2_3095_82743_L_0								
53 D	19.65	0.000	196.5 98.25	196.5	98.25	V-C	2.4402E+04	-10.30	0.000	1.000	1.000
98.25	0.000	0.000	Strato2_3095_82743_L_0								
54 D	20.05	0.000	200.5 100.2	200.5	100.2	V-C	2.4402E+04	-10.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0								
55 D	20.45	0.000	204.5 102.2	204.5	102.2	V-C	2.4402E+04	-10.70	0.000	1.000	1.000
102.2	0.000	0.000	Strato2_3095_82743_L_0								
56 D	20.85	0.000	208.5 104.2	208.5	104.2	V-C	2.4402E+04	-10.90	0.000	1.000	1.000
104.2	0.000	0.000	Strato2_3095_82743_L_0								
57 D	21.25	0.000	212.5 106.2	212.5	106.2	V-C	2.4402E+04	-11.10	0.000	1.000	1.000
106.2	0.000	0.000	Strato2_3095_82743_L_0								
58 D	21.65	0.000	216.5 108.2	216.5	108.2	V-C	2.4402E+04	-11.30	0.000	1.000	1.000
108.2	0.000	0.000	Strato2_3095_82743_L_0								
59 D	22.05	0.000	220.5 110.2	220.5	110.2	V-C	2.4402E+04	-11.50	0.000	1.000	1.000
110.2	0.000	0.000	Strato2_3095_82743_L_0								
60 D	22.45	0.000	224.5 112.2	224.5	112.2	V-C	2.4402E+04	-11.70	0.000	1.000	1.000
112.2	0.000	0.000	Strato2_3095_82743_L_0								
61 D	22.85	0.000	228.5 114.2	228.5	114.2	V-C	2.4402E+04	-11.90	0.000	1.000	1.000
114.2	0.000	0.000	Strato2_3095_82743_L_0								
62 D	23.25	0.000	232.5 116.2	232.5	116.2	V-C	2.4402E+04	-12.10	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 28 di 560
116.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.65	0.000	236.5 118.2 236.5	118.2	V-C 2.4402E+04 -12.30 0.000 1.000 1.000
118.2	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.05	0.000	240.5 120.2 240.5	120.2	V-C 2.4402E+04 -12.50 0.000 1.000 1.000
120.2	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.45	0.000	244.5 122.2 244.5	122.2	V-C 2.4402E+04 -12.70 0.000 1.000 1.000
122.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	24.85	0.000	248.5 124.2 248.5	124.2	V-C 2.4402E+04 -12.90 0.000 1.000 1.000
124.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.25	0.000	252.5 126.2 252.5	126.2	V-C 2.4402E+04 -13.10 0.000 1.000 1.000
126.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.65	0.000	256.5 128.2 256.5	128.2	V-C 2.4402E+04 -13.30 0.000 1.000 1.000
128.2	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.05	0.000	260.5 130.2 260.5	130.2	V-C 2.4402E+04 -13.50 0.000 1.000 1.000
130.2	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.45	0.000	264.5 132.2 264.5	132.2	V-C 2.4402E+04 -13.70 0.000 1.000 1.000
132.2	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.85	0.000	268.5 134.2 268.5	134.2	V-C 2.4402E+04 -13.90 0.000 1.000 1.000
134.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.25	0.000	272.5 136.2 272.5	136.2	V-C 2.4402E+04 -14.10 0.000 1.000 1.000
136.2	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.65	0.000	276.5 138.2 276.5	138.2	V-C 2.4402E+04 -14.30 0.000 1.000 1.000
138.2	0.000	0.000	Strato2_3095_82743_L_0		
74 D	28.05	0.000	280.5 140.2 280.5	140.2	V-C 2.4402E+04 -14.50 0.000 1.000 1.000
140.2	0.000	0.000	Strato2_3095_82743_L_0		
75 D	28.45	0.000	284.5 142.2 284.5	142.2	V-C 2.4402E+04 -14.70 0.000 1.000 1.000
142.2	0.000	0.000	Strato2_3095_82743_L_0		
76 D	28.85	0.000	288.5 144.2 288.5	144.2	V-C 2.4402E+04 -14.90 0.000 1.000 1.000
144.2	0.000	0.000	Strato2_3095_82743_L_0		
77 D	29.25	0.000	292.5 146.2 292.5	146.2	V-C 2.4402E+04 -15.10 0.000 1.000 1.000
146.2	0.000	0.000	Strato2_3095_82743_L_0		
78 D	29.65	0.000	296.5 148.2 296.5	148.2	V-C 2.4402E+04 -15.30 0.000 1.000 1.000
148.2	0.000	0.000	Strato2_3095_82743_L_0		
79 D	30.05	0.000	300.5 150.2 300.5	150.2	V-C 2.4402E+04 -15.50 0.000 1.000 1.000
150.2	0.000	0.000	Strato2_3095_82743_L_0		
80 D	30.45	0.000	304.5 152.2 304.5	152.2	V-C 2.4402E+04 -15.70 0.000 1.000 1.000
152.2	0.000	0.000	Strato2_3095_82743_L_0		
81 D	23.14	0.000	308.5 154.2 308.5	154.2	V-C 2.4402E+04 -15.90 0.000 1.000 1.000
154.2	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.763	0.000	310.5 155.2 310.5	155.2	V-C 2.4402E+04 -16.00 0.000 1.000 1.000
155.2	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019  10:49:24  |
|          |                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000	0.0000
72	0.0000	0.0000	0.0000	0.0000
73	0.0000	0.0000	0.0000	0.0000
74	0.0000	0.0000	0.0000	0.0000
75	0.0000	0.0000	0.0000	0.0000
76	0.0000	0.0000	0.0000	0.0000
77	0.0000	0.0000	0.0000	0.0000
78	0.0000	0.0000	0.0000	0.0000
79	0.0000	0.0000	0.0000	0.0000
80	0.0000	0.0000	0.0000	0.0000
81	0.0000	0.0000	0.0000	0.0000

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                                                                       |
|          Exe Time :24 July 2019          10:49:24                                                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 4

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Tieback_768111          :
ELEMENT TYPE  6 NO.OF ELEMENTS. IN THIS GROUP  1
CURRENT TIME IS  1.0000

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POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****



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```

ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM= 251.1      REMNOR= 0.000      RATIO =0.6722E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5557E+05 RDR = 0.000
            RATIO=0.6722E-01 RATIO= 0.000
            MAX UN= 1.885      IEQ= 13 NODE      7 DOF 1 Y-DISPL.F
            MIN UN= 0.000      IEQ= 2 NODE      1 DOF 2 X-ROT. F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM= 20.45      REMNOR=0.8025E-21 RATIO =0.1918E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5557E+05 RDR = 0.000
            RATIO=0.1918E-01 RATIO= 0.000
            MAX UN= 1.366      IEQ= 3 NODE      2 DOF 1 Y-DISPL.F
            MIN UN=-.7417E-10 IEQ= 65 NODE      33 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM= 1.241      REMNOR=0.8160E-20 RATIO =0.4725E-02 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5557E+05 RDR = 0.000
            RATIO=0.4725E-02 RATIO= 0.000
            MAX UN=0.7313      IEQ= 65 NODE      33 DOF 1 Y-DISPL.F
            MIN UN=-.6996E-09 IEQ= 25 NODE      13 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM=0.9188E-03 REMNOR=0.9286E-21 RATIO =0.1286E-03 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5557E+05 RDR = 0.000
            RATIO=0.1286E-03 RATIO= 0.000
            MAX UN=0.2064E-01 IEQ= 95 NODE      48 DOF 1 Y-DISPL.F
            MIN UN=-.1821E-09 IEQ= 23 NODE      12 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM=0.4066E-07 REMNOR=0.1315E-20 RATIO =0.8554E-06 TOLER =0.1000E-03 CONVERGED !
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5557E+05 RDR = 0.000
            RATIO=0.8554E-06 RATIO= 0.000
            MAX UN=0.1656E-03 IEQ= 3 NODE      2 DOF 1 Y-DISPL.F
            MIN UN=-.5826E-09 IEQ= 27 NODE      14 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019  10:49:24            |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	7.3632134E-04	-8.8298491E-05	
2	7.1866353E-04	-8.8270122E-05	
3	7.0101684E-04	-8.8188444E-05	
4	6.8339156E-04	-8.8055668E-05	
5	6.6579805E-04	-8.7870759E-05	
6	6.4824682E-04	-8.7632332E-05	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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7	6.3074883E-04	-8.7338225E-05
8	6.1331540E-04	-8.6986195E-05
9	5.9595839E-04	-8.6573677E-05
10	5.7869003E-04	-8.6099620E-05
11	5.6152263E-04	-8.5564178E-05
12	5.4446846E-04	-8.4967235E-05
13	5.2753986E-04	-8.4308381E-05
14	5.1912653E-04	-8.3955635E-05
15	5.0240963E-04	-8.3202894E-05
16	4.8584958E-04	-8.2387103E-05
17	4.6945901E-04	-8.1508015E-05
18	4.5325061E-04	-8.0565314E-05
19	4.3723714E-04	-7.9558708E-05
20	4.2143141E-04	-7.8487922E-05
21	4.0584626E-04	-7.7352780E-05
22	3.9049455E-04	-7.6153851E-05
23	3.7538888E-04	-7.4892488E-05
24	3.6054165E-04	-7.3569642E-05
25	3.4596505E-04	-7.2186441E-05
26	3.3167101E-04	-7.0744248E-05
27	3.1767125E-04	-6.9244684E-05
28	3.0397690E-04	-6.7689659E-05
29	2.9059890E-04	-6.6081921E-05
30	2.7754741E-04	-6.4425061E-05
31	2.6483188E-04	-6.2723044E-05
32	2.5246097E-04	-6.0980279E-05
33	2.4044223E-04	-5.9201607E-05
34	2.2878236E-04	-5.7392413E-05
35	2.1748690E-04	-5.5558619E-05
36	2.0656012E-04	-5.3706750E-05
37	1.9600493E-04	-5.1844021E-05
38	1.8582273E-04	-4.9978703E-05
39	1.7601307E-04	-4.8119756E-05
40	1.6657376E-04	-4.6276920E-05
41	1.5750070E-04	-4.4458077E-05
42	1.4878872E-04	-4.2666313E-05
43	1.4043254E-04	-4.0899691E-05
44	1.3242764E-04	-3.9151764E-05
45	1.2477131E-04	-3.7411818E-05
46	1.1746339E-04	-3.5664684E-05
47	1.1050721E-04	-3.3890943E-05
48	1.0391039E-04	-3.2067137E-05
49	9.7685545E-05	-3.0165928E-05
50	9.1851255E-05	-2.8156111E-05
51	8.6429558E-05	-2.6049426E-05
52	8.1434564E-05	-2.3898396E-05
53	7.6870333E-05	-2.1747271E-05
54	7.2733221E-05	-1.9632663E-05
55	6.9012865E-05	-1.7584087E-05
56	6.5693636E-05	-1.5624755E-05
57	6.2755840E-05	-1.3772282E-05
58	6.0176754E-05	-1.2039355E-05
59	5.7931553E-05	-1.0434599E-05
60	5.5994027E-05	-8.9631507E-06
61	5.4337276E-05	-7.6269433E-06
62	5.2934286E-05	-6.4251957E-06
63	5.1758451E-05	-5.3546532E-06
64	5.0784021E-05	-4.4101689E-06
65	4.9986426E-05	-3.5850510E-06
66	4.9342558E-05	-2.8715733E-06
67	4.8830920E-05	-2.2612356E-06
68	4.8431794E-05	-1.7449424E-06
69	4.8127284E-05	-1.3135424E-06
70	4.7901321E-05	-9.5797518E-07
71	4.7739628E-05	-6.6939190E-07
72	4.7629668E-05	-4.3925186E-07
73	4.7560575E-05	-2.5939847E-07
74	4.7523058E-05	-1.2230752E-07
75	4.7509258E-05	-2.1127569E-08
76	4.7512636E-05	5.0482285E-08
77	4.7527867E-05	9.8331964E-08
78	4.7550740E-05	1.2775957E-07
79	4.7578072E-05	1.4370021E-07
80	4.7607624E-05	1.5068785E-07
81	4.7638014E-05	1.5268393E-07
82	4.7653291E-05	1.5278336E-07



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 New Project
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S T R E S S R E S U L T S F O R G R O U P N O . 1

O_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 C U R R E N T T I M E I S 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	1.195	-7.3632E-04	25.00	11.95	25.00	13.25	UL-RL	4.7747E+04	0.000	0.000	1.000	1.000
11.95	0.000	0.000	Stratol_2_8_L_0									
2 D	1.846	-7.1866E-04	19.31	9.229	19.31	10.23	UL-RL	4.7747E+04	-0.2000	0.000	1.000	1.000
9.229	0.000	0.000	Stratol_2_8_L_0									
3 D	2.405	-7.0102E-04	25.16	12.03	25.16	13.34	UL-RL	4.7747E+04	-0.4000	0.000	1.000	1.000
12.03	0.000	0.000	Stratol_2_8_L_0									
4 D	2.710	-6.8339E-04	28.35	13.55	28.35	15.03	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
13.55	0.000	0.000	Stratol_2_8_L_0									
5 D	3.148	-6.6580E-04	32.93	15.74	32.93	17.45	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
15.74	0.000	0.000	Stratol_2_8_L_0									
6 D	3.471	-6.4825E-04	36.31	17.35	36.31	19.24	ACTIVE	0.000	-1.000	0.000	1.000	1.000
17.35	0.000	0.000	Stratol_2_8_L_0									
7 D	3.880	-6.3075E-04	40.58	19.40	40.58	21.51	ACTIVE	0.000	-1.200	0.000	1.000	1.000
19.40	0.000	0.000	Stratol_2_8_L_0									
8 D	4.213	-6.1332E-04	44.07	21.06	44.07	23.35	ACTIVE	0.000	-1.400	0.000	1.000	1.000
21.06	0.000	0.000	Stratol_2_8_L_0									
9 D	4.545	-5.9596E-04	47.54	22.72	47.54	25.20	ACTIVE	0.000	-1.600	0.000	1.000	1.000
22.72	0.000	0.000	Stratol_2_8_L_0									
10 D	4.891	-5.7869E-04	51.16	24.45	51.16	27.12	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.45	0.000	0.000	Stratol_2_8_L_0									
11 D	5.286	-5.6152E-04	55.29	26.43	55.29	29.30	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.43	0.000	0.000	Stratol_2_8_L_0									
12 D	5.633	-5.4447E-04	58.93	28.17	58.93	31.23	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.17	0.000	0.000	Stratol_2_8_L_0									
13 D	4.516	-5.2754E-04	62.99	30.11	62.99	33.38	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.11	0.000	0.000	Stratol_2_8_L_0									
14 D	4.645	-5.1913E-04	64.78	30.97	64.78	34.33	ACTIVE	0.000	-2.500	0.000	1.000	1.000
30.97	0.000	0.000	Stratol_2_8_L_0									
15 D	6.544	-5.0241E-04	68.45	32.72	68.45	36.28	ACTIVE	0.000	-2.700	0.000	1.000	1.000
32.72	0.000	0.000	Stratol_2_8_L_0									
16 D	6.928	-4.8585E-04	72.47	34.64	72.47	38.41	ACTIVE	0.000	-2.900	0.000	1.000	1.000
34.64	0.000	0.000	Stratol_2_8_L_0									
17 D	7.280	-4.6946E-04	76.15	36.40	76.15	40.36	ACTIVE	0.000	-3.100	0.000	1.000	1.000
36.40	0.000	0.000	Stratol_2_8_L_0									
18 D	7.661	-4.5325E-04	80.13	38.30	80.13	42.47	ACTIVE	0.000	-3.300	0.000	1.000	1.000
38.30	0.000	0.000	Stratol_2_8_L_0									
19 D	8.013	-4.3724E-04	83.82	40.07	83.82	44.42	ACTIVE	0.000	-3.500	0.000	1.000	1.000
40.07	0.000	0.000	Stratol_2_8_L_0									
20 D	8.392	-4.2143E-04	87.78	41.96	87.78	46.52	ACTIVE	0.000	-3.700	0.000	1.000	1.000
41.96	0.000	0.000	Stratol_2_8_L_0									
21 D	8.718	-4.0585E-04	91.19	43.59	91.19	48.33	ACTIVE	0.000	-3.900	0.000	1.000	1.000
43.59	0.000	0.000	Stratol_2_8_L_0									
22 D	9.096	-3.9049E-04	95.15	45.48	95.15	50.43	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.48	0.000	0.000	Stratol_2_8_L_0									
23 D	9.473	-3.7539E-04	99.09	47.37	99.09	52.52	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.37	0.000	0.000	Stratol_2_8_L_0									
24 D	9.828	-3.6054E-04	102.8	49.14	102.8	54.49	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.14	0.000	0.000	Stratol_2_8_L_0									
25 D	10.20	-3.4597E-04	106.7	51.02	106.7	56.57	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.02	0.000	0.000	Stratol_2_8_L_0									
26 D	10.56	-3.3167E-04	110.5	52.80	110.5	58.54	ACTIVE	0.000	-4.900	0.000	1.000	1.000
52.80	0.000	0.000	Stratol_2_8_L_0									
27 D	10.93	-3.1767E-04	114.4	54.67	114.4	60.62	ACTIVE	0.000	-5.100	0.000	1.000	1.000
54.67	0.000	0.000	Stratol_2_8_L_0									
28 D	11.27	-3.0398E-04	117.9	56.35	117.9	62.48	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.35	0.000	0.000	Stratol_2_8_L_0									
29 D	11.64	-2.9060E-04	121.8	58.22	121.8	64.55	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.22	0.000	0.000	Stratol_2_8_L_0									
30 D	12.00	-2.7755E-04	125.5	60.00	125.5	66.53	ACTIVE	0.000	-5.700	0.000	1.000	1.000
60.00	0.000	0.000	Stratol_2_8_L_0									
31 D	12.37	-2.6483E-04	129.4	61.87	129.4	68.60	ACTIVE	0.000	-5.900	0.000	1.000	1.000
61.87	0.000	0.000	Stratol_2_8_L_0									
32 D	12.73	-2.5246E-04	133.2	63.66	133.2	70.58	ACTIVE	0.000	-6.100	0.000	1.000	1.000
63.66	0.000	0.000	Stratol_2_8_L_0									
33 D	13.10	-2.4044E-04	137.1	65.52	137.1	72.65	ACTIVE	0.000	-6.300	0.000	1.000	1.000
65.52	0.000	0.000	Stratol_2_8_L_0									
34 D	13.46	-2.2878E-04	140.8	67.31	140.8	74.63	ACTIVE	0.000	-6.500	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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67.31	0.000	0.000	Strato1_2_8_L_0				
35 D	13.83	-2.1749E-04	144.7 69.17	144.7	76.69	ACTIVE	0.000 -6.700 0.000 1.000 1.000
69.17	0.000	0.000	Strato1_2_8_L_0				
36 D	14.19	-2.0656E-04	148.4 70.95	148.4	78.67	ACTIVE	0.000 -6.900 0.000 1.000 1.000
70.95	0.000	0.000	Strato1_2_8_L_0				
37 D	14.55	-1.9600E-04	152.2 72.74	152.2	80.65	ACTIVE	0.000 -7.100 0.000 1.000 1.000
72.74	0.000	0.000	Strato1_2_8_L_0				
38 D	14.92	-1.8582E-04	156.1 74.60	156.1	82.71	ACTIVE	0.000 -7.300 0.000 1.000 1.000
74.60	0.000	0.000	Strato1_2_8_L_0				
39 D	15.28	-1.7601E-04	159.8 76.39	159.8	84.70	ACTIVE	0.000 -7.500 0.000 1.000 1.000
76.39	0.000	0.000	Strato1_2_8_L_0				
40 D	15.76	-1.6657E-04	163.7 78.80	163.7	86.75	UL-RL	4.7747E+04 -7.700 0.000 1.000 1.000
78.80	0.000	0.000	Strato1_2_8_L_0				
41 D	16.24	-1.5750E-04	167.4 81.22	167.4	88.74	UL-RL	4.7747E+04 -7.900 0.000 1.000 1.000
81.22	0.000	0.000	Strato1_2_8_L_0				
42 D	16.74	-1.4879E-04	171.3 83.69	171.3	90.79	UL-RL	4.7747E+04 -8.100 0.000 1.000 1.000
83.69	0.000	0.000	Strato1_2_8_L_0				
43 D	17.20	-1.4043E-04	174.9 86.01	174.9	92.71	UL-RL	4.7747E+04 -8.300 0.000 1.000 1.000
86.01	0.000	0.000	Strato1_2_8_L_0				
44 D	17.69	-1.3243E-04	178.8 88.44	178.8	94.76	UL-RL	4.7747E+04 -8.500 0.000 1.000 1.000
88.44	0.000	0.000	Strato1_2_8_L_0				
45 D	18.16	-1.2477E-04	182.6 90.80	182.6	96.76	UL-RL	4.7747E+04 -8.700 0.000 1.000 1.000
90.80	0.000	0.000	Strato1_2_8_L_0				
46 D	18.64	-1.1746E-04	186.4 93.20	186.4	98.81	UL-RL	4.7747E+04 -8.900 0.000 1.000 1.000
93.20	0.000	0.000	Strato1_2_8_L_0				
47 D	19.10	-1.1051E-04	190.2 95.52	190.2	100.8	UL-RL	4.7747E+04 -9.100 0.000 1.000 1.000
95.52	0.000	0.000	Strato1_2_8_L_0				
48 D	19.58	-1.0391E-04	194.1 97.89	194.1	102.8	UL-RL	4.7747E+04 -9.300 0.000 1.000 1.000
97.89	0.000	0.000	Strato1_2_8_L_0				
49 D	20.05	-9.7686E-05	197.9 100.2	197.9	104.9	UL-RL	4.7747E+04 -9.500 0.000 1.000 1.000
100.2	0.000	0.000	Strato1_2_8_L_0				
50 D	17.71	-9.1851E-05	201.9 88.53	201.9	100.9	UL-RL	1.3507E+05 -9.700 0.000 1.000 1.000
88.53	0.000	0.000	Strato2_3095_82743_L_0				
51 D	18.25	-8.6430E-05	205.8 91.24	205.8	102.9	UL-RL	1.3507E+05 -9.900 0.000 1.000 1.000
91.24	0.000	0.000	Strato2_3095_82743_L_0				
52 D	18.78	-8.1435E-05	209.8 93.89	209.8	104.9	UL-RL	1.3507E+05 -10.10 0.000 1.000 1.000
93.89	0.000	0.000	Strato2_3095_82743_L_0				
53 D	19.31	-7.6870E-05	213.8 96.54	213.8	106.9	UL-RL	1.3507E+05 -10.30 0.000 1.000 1.000
96.54	0.000	0.000	Strato2_3095_82743_L_0				
54 D	19.82	-7.2733E-05	217.8 99.08	217.8	108.9	UL-RL	1.3507E+05 -10.50 0.000 1.000 1.000
99.08	0.000	0.000	Strato2_3095_82743_L_0				
55 D	20.32	-6.9013E-05	221.9 101.6	221.9	110.9	UL-RL	1.3507E+05 -10.70 0.000 1.000 1.000
101.6	0.000	0.000	Strato2_3095_82743_L_0				
56 D	20.81	-6.5694E-05	225.8 104.0	225.8	112.9	UL-RL	1.3507E+05 -10.90 0.000 1.000 1.000
104.0	0.000	0.000	Strato2_3095_82743_L_0				
57 D	21.29	-6.2756E-05	229.9 106.5	229.9	114.9	UL-RL	1.3507E+05 -11.10 0.000 1.000 1.000
106.5	0.000	0.000	Strato2_3095_82743_L_0				
58 D	21.75	-6.0177E-05	233.7 108.7	233.7	116.9	UL-RL	1.3507E+05 -11.30 0.000 1.000 1.000
108.7	0.000	0.000	Strato2_3095_82743_L_0				
59 D	22.22	-5.7932E-05	237.8 111.1	237.8	118.9	UL-RL	1.3507E+05 -11.50 0.000 1.000 1.000
111.1	0.000	0.000	Strato2_3095_82743_L_0				
60 D	22.66	-5.5994E-05	241.8 113.3	241.8	120.9	UL-RL	1.3507E+05 -11.70 0.000 1.000 1.000
113.3	0.000	0.000	Strato2_3095_82743_L_0				
61 D	23.11	-5.4337E-05	245.8 115.6	245.8	122.9	UL-RL	1.3507E+05 -11.90 0.000 1.000 1.000
115.6	0.000	0.000	Strato2_3095_82743_L_0				
62 D	23.56	-5.2934E-05	249.9 117.8	249.9	124.9	UL-RL	1.3507E+05 -12.10 0.000 1.000 1.000
117.8	0.000	0.000	Strato2_3095_82743_L_0				
63 D	23.99	-5.1758E-05	253.8 119.9	253.8	126.9	UL-RL	1.3507E+05 -12.30 0.000 1.000 1.000
119.9	0.000	0.000	Strato2_3095_82743_L_0				
64 D	24.42	-5.0784E-05	257.9 122.1	257.9	128.9	UL-RL	1.3507E+05 -12.50 0.000 1.000 1.000
122.1	0.000	0.000	Strato2_3095_82743_L_0				
65 D	24.83	-4.9986E-05	261.8 124.1	261.8	130.9	UL-RL	1.3507E+05 -12.70 0.000 1.000 1.000
124.1	0.000	0.000	Strato2_3095_82743_L_0				
66 D	25.25	-4.9343E-05	265.8 126.2	265.8	132.9	UL-RL	1.3507E+05 -12.90 0.000 1.000 1.000
126.2	0.000	0.000	Strato2_3095_82743_L_0				
67 D	25.65	-4.8831E-05	269.7 128.3	269.7	134.9	UL-RL	1.3507E+05 -13.10 0.000 1.000 1.000
128.3	0.000	0.000	Strato2_3095_82743_L_0				
68 D	26.05	-4.8432E-05	273.6 130.3	273.6	136.8	UL-RL	1.3507E+05 -13.30 0.000 1.000 1.000
130.3	0.000	0.000	Strato2_3095_82743_L_0				
69 D	26.45	-4.8127E-05	277.5 132.3	277.5	138.8	UL-RL	1.3507E+05 -13.50 0.000 1.000 1.000
132.3	0.000	0.000	Strato2_3095_82743_L_0				
70 D	26.85	-4.7901E-05	281.4 134.2	281.4	140.7	UL-RL	1.3507E+05 -13.70 0.000 1.000 1.000
134.2	0.000	0.000	Strato2_3095_82743_L_0				
71 D	27.24	-4.7740E-05	285.3 136.2	285.3	142.7	UL-RL	1.3507E+05 -13.90 0.000 1.000 1.000
136.2	0.000	0.000	Strato2_3095_82743_L_0				
72 D	27.64	-4.7630E-05	289.2 138.2	289.2	144.6	UL-RL	1.3507E+05 -14.10 0.000 1.000 1.000
138.2	0.000	0.000	Strato2_3095_82743_L_0				
73 D	28.02	-4.7561E-05	293.1 140.1	293.1	146.5	UL-RL	1.3507E+05 -14.30 0.000 1.000 1.000
140.1	0.000	0.000	Strato2_3095_82743_L_0				
74 D	28.41	-4.7523E-05	297.0 142.1	297.0	148.5	UL-RL	1.3507E+05 -14.50 0.000 1.000 1.000
142.1	0.000	0.000	Strato2_3095_82743_L_0				
75 D	28.81	-4.7509E-05	300.9 144.0	300.9	150.4	UL-RL	1.3507E+05 -14.70 0.000 1.000 1.000
144.0	0.000	0.000	Strato2_3095_82743_L_0				
76 D	29.20	-4.7513E-05	304.8 146.0	304.8	152.4	UL-RL	1.3507E+05 -14.90 0.000 1.000 1.000
146.0	0.000	0.000	Strato2_3095_82743_L_0				

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24 D	9.859	3.6054E-04	85.50	49.30	85.50	49.30	V-C	1.1045E+04	-4.500	0.000	1.000	1.000
49.30	0.000	0.000	Strato1_2_8_L_0									
25 D	10.23	3.4597E-04	89.30	51.15	89.30	51.15	V-C	1.1045E+04	-4.700	0.000	1.000	1.000
51.15	0.000	0.000	Strato1_2_8_L_0									
26 D	10.60	3.3167E-04	93.10	53.01	93.10	53.01	V-C	1.1045E+04	-4.900	0.000	1.000	1.000
53.01	0.000	0.000	Strato1_2_8_L_0									
27 D	10.97	3.1767E-04	96.90	54.87	96.90	54.87	V-C	1.1045E+04	-5.100	0.000	1.000	1.000
54.87	0.000	0.000	Strato1_2_8_L_0									
28 D	11.35	3.0398E-04	100.7	56.73	100.7	56.73	V-C	1.1045E+04	-5.300	0.000	1.000	1.000
56.73	0.000	0.000	Strato1_2_8_L_0									
29 D	11.72	2.9060E-04	104.5	58.59	104.5	58.59	V-C	1.1045E+04	-5.500	0.000	1.000	1.000
58.59	0.000	0.000	Strato1_2_8_L_0									
30 D	12.09	2.7755E-04	108.3	60.46	108.3	60.46	V-C	1.1045E+04	-5.700	0.000	1.000	1.000
60.46	0.000	0.000	Strato1_2_8_L_0									
31 D	12.47	2.6483E-04	112.1	62.34	112.1	62.34	V-C	1.1045E+04	-5.900	0.000	1.000	1.000
62.34	0.000	0.000	Strato1_2_8_L_0									
32 D	12.84	2.5246E-04	115.9	64.22	115.9	64.22	V-C	1.1045E+04	-6.100	0.000	1.000	1.000
64.22	0.000	0.000	Strato1_2_8_L_0									
33 D	13.22	2.4044E-04	119.7	66.10	119.7	66.10	V-C	1.1045E+04	-6.300	0.000	1.000	1.000
66.10	0.000	0.000	Strato1_2_8_L_0									
34 D	13.60	2.2878E-04	123.5	67.98	123.5	67.98	V-C	1.1045E+04	-6.500	0.000	1.000	1.000
67.98	0.000	0.000	Strato1_2_8_L_0									
35 D	13.97	2.1749E-04	127.3	69.87	127.3	69.87	V-C	1.1045E+04	-6.700	0.000	1.000	1.000
69.87	0.000	0.000	Strato1_2_8_L_0									
36 D	14.35	2.0656E-04	131.1	71.76	131.1	71.76	V-C	1.1045E+04	-6.900	0.000	1.000	1.000
71.76	0.000	0.000	Strato1_2_8_L_0									
37 D	14.73	1.9600E-04	134.9	73.66	134.9	73.66	V-C	1.1045E+04	-7.100	0.000	1.000	1.000
73.66	0.000	0.000	Strato1_2_8_L_0									
38 D	15.11	1.8582E-04	138.7	75.56	138.7	75.56	V-C	1.1045E+04	-7.300	0.000	1.000	1.000
75.56	0.000	0.000	Strato1_2_8_L_0									
39 D	15.49	1.7601E-04	142.5	77.47	142.5	77.47	V-C	1.1045E+04	-7.500	0.000	1.000	1.000
77.47	0.000	0.000	Strato1_2_8_L_0									
40 D	15.88	1.6657E-04	146.3	79.38	146.3	79.38	V-C	1.1045E+04	-7.700	0.000	1.000	1.000
79.38	0.000	0.000	Strato1_2_8_L_0									
41 D	16.26	1.5750E-04	150.1	81.29	150.1	81.29	V-C	1.1045E+04	-7.900	0.000	1.000	1.000
81.29	0.000	0.000	Strato1_2_8_L_0									
42 D	16.64	1.4879E-04	153.9	83.21	153.9	83.21	V-C	1.1045E+04	-8.100	0.000	1.000	1.000
83.21	0.000	0.000	Strato1_2_8_L_0									
43 D	17.03	1.4043E-04	157.7	85.13	157.7	85.13	V-C	1.1045E+04	-8.300	0.000	1.000	1.000
85.13	0.000	0.000	Strato1_2_8_L_0									
44 D	17.41	1.3243E-04	161.5	87.06	161.5	87.06	V-C	1.1045E+04	-8.500	0.000	1.000	1.000
87.06	0.000	0.000	Strato1_2_8_L_0									
45 D	17.80	1.2477E-04	165.3	88.99	165.3	88.99	V-C	1.1045E+04	-8.700	0.000	1.000	1.000
88.99	0.000	0.000	Strato1_2_8_L_0									
46 D	18.18	1.1746E-04	169.1	90.92	169.1	90.92	V-C	1.1045E+04	-8.900	0.000	1.000	1.000
90.92	0.000	0.000	Strato1_2_8_L_0									
47 D	18.57	1.1051E-04	172.9	92.86	172.9	92.86	V-C	1.1045E+04	-9.100	0.000	1.000	1.000
92.86	0.000	0.000	Strato1_2_8_L_0									
48 D	18.96	1.0391E-04	176.7	94.80	176.7	94.80	V-C	1.1045E+04	-9.300	0.000	1.000	1.000
94.80	0.000	0.000	Strato1_2_8_L_0									
49 D	19.35	9.7686E-05	180.5	96.74	180.5	96.74	V-C	1.1045E+04	-9.500	0.000	1.000	1.000
96.74	0.000	0.000	Strato1_2_8_L_0									
50 D	18.90	9.1851E-05	184.5	94.49	184.5	94.49	V-C	2.4402E+04	-9.700	0.000	1.000	1.000
94.49	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.27	8.6430E-05	188.5	96.33	188.5	96.38	UL-RL	7.3205E+04	-9.900	0.000	1.000	1.000
96.33	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.63	8.1435E-05	192.5	98.14	192.5	98.28	UL-RL	7.3205E+04	-10.10	0.000	1.000	1.000
98.14	0.000	0.000	Strato2_3095_82743_L_0									
53 D	20.00	7.6870E-05	196.5	99.99	196.5	100.2	UL-RL	7.3205E+04	-10.30	0.000	1.000	1.000
99.99	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.37	7.2733E-05	200.5	101.8	200.5	102.1	UL-RL	7.3205E+04	-10.50	0.000	1.000	1.000
101.8	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.75	6.9013E-05	204.5	103.7	204.5	104.0	UL-RL	7.3205E+04	-10.70	0.000	1.000	1.000
103.7	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.13	6.5694E-05	208.5	105.6	208.5	106.0	UL-RL	7.3205E+04	-10.90	0.000	1.000	1.000
105.6	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.51	6.2756E-05	212.5	107.5	212.5	107.9	UL-RL	7.3205E+04	-11.10	0.000	1.000	1.000
107.5	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.90	6.0177E-05	216.5	109.5	216.5	109.8	UL-RL	7.3205E+04	-11.30	0.000	1.000	1.000
109.5	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.28	5.7932E-05	220.5	111.4	220.5	111.8	UL-RL	7.3205E+04	-11.50	0.000	1.000	1.000
111.4	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.68	5.5994E-05	224.5	113.4	224.5	113.7	UL-RL	7.3205E+04	-11.70	0.000	1.000	1.000
113.4	0.000	0.000	Strato2_3095_82743_L_0									
61 D	23.07	5.4337E-05	228.5	115.3	228.5	115.7	UL-RL	7.3205E+04	-11.90	0.000	1.000	1.000
115.3	0.000	0.000	Strato2_3095_82743_L_0									
62 D	23.46	5.2934E-05	232.5	117.3	232.5	117.7	UL-RL	7.3205E+04	-12.10	0.000	1.000	1.000
117.3	0.000	0.000	Strato2_3095_82743_L_0									
63 D	23.86	5.1758E-05	236.5	119.3	236.5	119.6	UL-RL	7.3205E+04	-12.30	0.000	1.000	1.000
119.3	0.000	0.000	Strato2_3095_82743_L_0									
64 D	24.26	5.0784E-05	240.5	121.3	240.5	121.6	UL-RL	7.3205E+04	-12.50	0.000	1.000	1.000
121.3	0.000	0.000	Strato2_3095_82743_L_0									
65 D	24.66	4.9986E-05	244.5	123.3	244.5	123.6	UL-RL	7.3205E+04	-12.70	0.000	1.000	1.000
123.3	0.000	0.000	Strato2_3095_82743_L_0									
66 D	25.06	4.9343E-05	248.5	125.3	248.5	125.5	UL-RL	7.3205E+04	-12.90	0.000	1.000	1.000

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125.3	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.46	4.8831E-05	252.5 127.3	252.5	127.5
127.3	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.86	4.8432E-05	256.5 129.3	256.5	129.5
129.3	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.26	4.8127E-05	260.5 131.3	260.5	131.5
131.3	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.66	4.7901E-05	264.5 133.3	264.5	133.5
133.3	0.000	0.000	Strato2_3095_82743_L_0		
71 D	27.07	4.7740E-05	268.5 135.3	268.5	135.5
135.3	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.47	4.7630E-05	272.5 137.3	272.5	137.4
137.3	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.87	4.7561E-05	276.5 139.4	276.5	139.4
139.4	0.000	0.000	Strato2_3095_82743_L_0		
74 D	28.27	4.7523E-05	280.5 141.4	280.5	141.4
141.4	0.000	0.000	Strato2_3095_82743_L_0		
75 D	28.68	4.7509E-05	284.5 143.4	284.5	143.4
143.4	0.000	0.000	Strato2_3095_82743_L_0		
76 D	29.08	4.7513E-05	288.5 145.4	288.5	145.4
145.4	0.000	0.000	Strato2_3095_82743_L_0		
77 D	29.48	4.7528E-05	292.5 147.4	292.5	147.4
147.4	0.000	0.000	Strato2_3095_82743_L_0		
78 D	29.88	4.7551E-05	296.5 149.4	296.5	149.4
149.4	0.000	0.000	Strato2_3095_82743_L_0		
79 D	30.28	4.7578E-05	300.5 151.4	300.5	151.4
151.4	0.000	0.000	Strato2_3095_82743_L_0		
80 D	30.68	4.7608E-05	304.5 153.4	304.5	153.4
153.4	0.000	0.000	Strato2_3095_82743_L_0		
81 D	23.31	4.7638E-05	308.5 155.4	308.5	155.4
155.4	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.820	4.7653E-05	310.5 156.4	310.5	156.4
156.4	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.1950	-1.1950	4.15307E-12	0.23900
2	1.0505	-1.0505	-0.23900	0.44910
3	1.1018	-1.1018	-0.44910	0.66947
4	1.0941	-1.0941	-0.66947	0.88830
5	1.1602	-1.1602	-0.88830	1.1203
6	1.1851	-1.1851	-1.1203	1.3574
7	1.2548	-1.2548	-1.3574	1.6083
8	1.2931	-1.2931	-1.6083	1.8669
9	1.2991	-1.2991	-1.8669	2.1268
10	1.2866	-1.2866	-2.1268	2.3841
11	1.3039	-1.3039	-2.3841	2.6449
12	1.3039	-1.3039	-2.6449	2.9057
13	1.3211	-1.3211	-2.9057	3.0378
14	1.3297	-1.3297	-3.0378	3.3037
15	1.3261	-1.3261	-3.3037	3.5689
16	1.3401	-1.3401	-3.5689	3.8370
17	1.3394	-1.3394	-3.8370	4.1048
18	1.3525	-1.3525	-4.1048	4.3753
19	1.3509	-1.3509	-4.3753	4.6455
20	1.3600	-1.3600	-4.6455	4.9175
21	1.3268	-1.3268	-4.9175	5.1829
22	1.3031	-1.3031	-5.1829	5.4435
23	1.2867	-1.2867	-5.4435	5.7008
24	1.2556	-1.2556	-5.7008	5.9520
25	1.2293	-1.2293	-5.9520	6.1978
26	1.1876	-1.1876	-6.1978	6.4353
27	1.1483	-1.1483	-6.4353	6.6650
28	1.0722	-1.0722	-6.6650	6.8794
29	0.99699	-0.99699	-6.8794	7.0788

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30	0.90508	-0.90508	-7.0788	7.2598
31	0.81173	-0.81173	-7.2598	7.4222
32	0.70039	-0.70039	-7.4222	7.5623
33	0.58530	-0.58530	-7.5623	7.6793
34	0.45088	-0.45088	-7.6793	7.7695
35	0.31047	-0.31047	-7.7695	7.8316
36	0.14701	-0.14701	-7.8316	7.8610
37	-3.75682E-02	3.75682E-02	-7.8610	7.8535
38	-0.23120	0.23120	-7.8535	7.8072
39	-0.44744	0.44744	-7.8072	7.7178
40	-0.56321	0.56321	-7.7178	7.6051
41	-0.57739	0.57739	-7.6051	7.4896
42	-0.48133	0.48133	-7.4896	7.3934
43	-0.30647	0.30647	-7.3934	7.3321
44	-2.97546E-02	2.97546E-02	-7.3321	7.3261
45	0.33257	-0.33257	-7.3261	7.3926
46	0.78814	-0.78814	-7.3926	7.5503
47	1.3212	-1.3212	-7.5503	7.8145
48	1.9388	-1.9388	-7.8145	8.2023
49	2.6361	-2.6361	-8.2023	8.7295
50	1.4442	-1.4442	-8.7295	9.0183
51	0.42608	-0.42608	-9.0183	9.1035
52	-0.42436	0.42436	-9.1035	9.0187
53	-1.1138	1.1138	-9.0187	8.7959
54	-1.6676	1.6676	-8.7959	8.4624
55	-2.0916	2.0916	-8.4624	8.0440
56	-2.4095	2.4095	-8.0440	7.5621
57	-2.6261	2.6261	-7.5621	7.0369
58	-2.7728	2.7728	-7.0369	6.4824
59	-2.8425	2.8425	-6.4824	5.9139
60	-2.8543	2.8543	-5.9139	5.3430
61	-2.8095	2.8095	-5.3430	4.7811
62	-2.7171	2.7171	-4.7811	4.2377
63	-2.5928	2.5928	-4.2377	3.7191
64	-2.4353	2.4353	-3.7191	3.2321
65	-2.2673	2.2673	-3.2321	2.7786
66	-2.0772	2.0772	-2.7786	2.3632
67	-1.8842	1.8842	-2.3632	1.9863
68	-1.6917	1.6917	-1.9863	1.6480
69	-1.5026	1.5026	-1.6480	1.3475
70	-1.3190	1.3190	-1.3475	1.0837
71	-1.1428	1.1428	-1.0837	0.85513
72	-0.97540	0.97540	-0.85513	0.66005
73	-0.82586	0.82586	-0.66005	0.49488
74	-0.68680	0.68680	-0.49488	0.35752
75	-0.55876	0.55876	-0.35752	0.24576
76	-0.44207	0.44207	-0.24576	0.15735
77	-0.33391	0.33391	-0.15735	9.05656E-02
78	-0.23420	0.23420	-9.05656E-02	4.37264E-02
79	-0.14293	0.14293	-4.37264E-02	1.51410E-02
80	-6.73297E-02	6.73297E-02	-1.51410E-02	1.67504E-03
81	-1.67488E-02	1.67488E-02	-1.67504E-03	1.60583E-12

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|                                     PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0 RNORM = 0.000      RMNORM= 0.000
          RINORM=0.4833E+05  RIMNOR= 4910.
          RENORM= 642.1      REMNOR=0.1315E-20 RATIO =0.1153      TOLER =0.1000E-03  NOT CONVERGED
          RFMAX = 30.76      RMMAX = 9.104
          RTSMAL=0.1000E-03  RMSMAL=0.1000E-04
          RDT  =0.4833E+05  RDR   = 4910.
          RATIOT=0.1153    RATIOR= 0.000

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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MAX UN= 6.914 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
 MIN UN=-.8776E-10 IEQ= 53 NODE 27 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.4833E+05 RIMNOR= 4910.
 RENORM= 132.8 REMNOR=0.2099E-17 RATIO =0.5242E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 30.76 RMMAX = 9.104
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.4833E+05 RDR = 4910.
 RATIOT=0.5242E-01 RATIO= 0.000
 MAX UN= 5.824 IEQ= 79 NODE 40 DOF 1 Y-DISPL.F
 MIN UN=-.1132E-03 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.4833E+05 RIMNOR= 4910.
 RENORM=0.1631E-01 REMNOR=0.2299E-18 RATIO =0.5809E-03 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 30.76 RMMAX = 9.104
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.4833E+05 RDR = 4910.
 RATIOT=0.5809E-03 RATIO= 0.000
 MAX UN=0.1277 IEQ= 99 NODE 50 DOF 1 Y-DISPL.F
 MIN UN=-.8303E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.4833E+05 RIMNOR= 4910.
 RENORM=0.2720E-15 REMNOR=0.2827E-18 RATIO =0.7502E-10 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 30.76 RMMAX = 9.104
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.4833E+05 RDR = 4910.
 RATIOT=0.7502E-10 RATIO= 0.000
 MAX UN=0.1044E-07 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 MIN UN=-.1096E-07 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
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|                                                                                               |
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New Project
 SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.4493888E-02	-1.9975505E-03	
2	1.4094380E-02	-1.9975222E-03	
3	1.3694886E-02	-1.9973932E-03	
4	1.3295436E-02	-1.9970628E-03	
5	1.2896082E-02	-1.9964095E-03	
6	1.2496903E-02	-1.9952941E-03	
7	1.2098006E-02	-1.9935596E-03	
8	1.1699532E-02	-1.9910315E-03	
9	1.1301659E-02	-1.9875176E-03	
10	1.0904604E-02	-1.9828101E-03	
11	1.0508629E-02	-1.9766849E-03	
12	1.0114041E-02	-1.9689004E-03	
13	9.7211971E-03	-1.9591974E-03	
14	9.5255551E-03	-1.9535495E-03	
15	9.1361143E-03	-1.9404435E-03	
16	8.7495538E-03	-1.9246948E-03	
17	8.3664339E-03	-1.9059838E-03	
18	7.9873779E-03	-1.8840096E-03	
19	7.6130615E-03	-1.8585633E-03	
20	7.2441894E-03	-1.8295644E-03	
21	6.8814693E-03	-1.7970610E-03	
22	6.5255868E-03	-1.7612302E-03	
23	6.1771796E-03	-1.7223651E-03	
24	5.8368207E-03	-1.6808007E-03	
25	5.5050181E-03	-1.6368535E-03	
26	5.1822182E-03	-1.5908223E-03	

GENERAL CONTRACTOR

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27 4.8688109E-03 -1.5429889E-03
 28 4.5651268E-03 -1.4936177E-03
 29 4.2714498E-03 -1.4429581E-03
 30 3.9880138E-03 -1.3912442E-03
 31 3.7150077E-03 -1.3386952E-03
 32 3.4525791E-03 -1.2855160E-03
 33 3.2008320E-03 -1.2318968E-03
 34 2.9598378E-03 -1.1780157E-03
 35 2.7296322E-03 -1.1240377E-03
 36 2.5102190E-03 -1.0701159E-03
 37 2.3015726E-03 -1.0163924E-03
 38 2.1036410E-03 -9.6299887E-04
 39 1.9163440E-03 -9.1005638E-04
 40 1.7395809E-03 -8.5767721E-04
 41 1.5732287E-03 -8.0596456E-04
 42 1.4171443E-03 -7.5501339E-04
 43 1.2711674E-03 -7.0491128E-04
 44 1.1351186E-03 -6.5573830E-04
 45 1.0088052E-03 -6.0756913E-04
 46 8.9201945E-04 -5.6047229E-04
 47 7.8454056E-04 -5.1451092E-04
 48 6.8613596E-04 -4.6974361E-04
 49 5.9656043E-04 -4.2622397E-04
 50 5.1555984E-04 -3.8400233E-04
 51 4.4285971E-04 -3.4327757E-04
 52 3.7812966E-04 -3.0436384E-04
 53 3.2097912E-04 -2.6750069E-04
 54 2.7098096E-04 -2.3286389E-04
 55 2.2767740E-04 -2.0056950E-04
 56 1.9059267E-04 -1.7068251E-04
 57 1.5924251E-04 -1.4322384E-04
 58 1.3314235E-04 -1.1817698E-04
 59 1.1181412E-04 -9.5494160E-05
 60 9.4791977E-05 -7.5101898E-05
 61 8.1626955E-05 -5.6905694E-05
 62 7.1890699E-05 -4.0794509E-05
 63 6.5178402E-05 -2.6644567E-05
 64 6.1110976E-05 -1.4323069E-05
 65 5.9336525E-05 -3.6913018E-06
 66 5.9531254E-05 5.3924530E-06
 67 6.1399799E-05 1.3070595E-05
 68 6.4675194E-05 1.9484259E-05
 69 6.9118394E-05 2.4771288E-05
 70 7.4517477E-05 2.9064840E-05
 71 8.0686587E-05 3.2492246E-05
 72 8.7464671E-05 3.5174086E-05
 73 9.4714056E-05 3.7223445E-05
 74 1.0231887E-04 3.8745155E-05
 75 1.1018335E-04 3.9835355E-05
 76 1.1823007E-04 4.0581367E-05
 77 1.2639817E-04 4.1061467E-05
 78 1.3464154E-04 4.1344800E-05
 79 1.4292697E-04 4.1491362E-05
 80 1.5123235E-04 4.1551947E-05
 81 1.5954478E-04 4.1567953E-05
 82 1.6370204E-04 4.1568670E-05

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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 C U R R E N T T I M E I S 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	1.195	-1.4494E-02	25.00	11.95	25.00	13.25	ACTIVE	0.000	0.000	0.000	1.000	1.000
11.95	0.000	0.000	Strato1_2_8_L_0									

GENERAL CONTRACTOR



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GRUPPO FERROVIE DELLO STATO ITALIANE

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2 D	1.846	-1.4094E-02	19.31	9.229	19.31	10.23	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
9.229	0.000	0.000	Stratol_2_8_L_0									
3 D	2.405	-1.3695E-02	25.16	12.03	25.16	13.34	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
12.03	0.000	0.000	Stratol_2_8_L_0									
4 D	2.710	-1.3295E-02	28.35	13.55	28.35	15.03	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
13.55	0.000	0.000	Stratol_2_8_L_0									
5 D	3.148	-1.2896E-02	32.93	15.74	32.93	17.45	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
15.74	0.000	0.000	Stratol_2_8_L_0									
6 D	3.471	-1.2497E-02	36.31	17.35	36.31	19.24	ACTIVE	0.000	-1.000	0.000	1.000	1.000
17.35	0.000	0.000	Stratol_2_8_L_0									
7 D	3.880	-1.2098E-02	40.58	19.40	40.58	21.51	ACTIVE	0.000	-1.200	0.000	1.000	1.000
19.40	0.000	0.000	Stratol_2_8_L_0									
8 D	4.213	-1.1700E-02	44.07	21.06	44.07	23.35	ACTIVE	0.000	-1.400	0.000	1.000	1.000
21.06	0.000	0.000	Stratol_2_8_L_0									
9 D	4.545	-1.1302E-02	47.54	22.72	47.54	25.20	ACTIVE	0.000	-1.600	0.000	1.000	1.000
22.72	0.000	0.000	Stratol_2_8_L_0									
10 D	4.891	-1.0905E-02	51.16	24.45	51.16	27.12	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.45	0.000	0.000	Stratol_2_8_L_0									
11 D	5.286	-1.0509E-02	55.29	26.43	55.29	29.30	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.43	0.000	0.000	Stratol_2_8_L_0									
12 D	5.633	-1.0114E-02	58.93	28.17	58.93	31.23	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.17	0.000	0.000	Stratol_2_8_L_0									
13 D	4.516	-9.7212E-03	62.99	30.11	62.99	33.38	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.11	0.000	0.000	Stratol_2_8_L_0									
14 D	4.645	-9.5256E-03	64.78	30.97	64.78	34.33	ACTIVE	0.000	-2.500	0.000	1.000	1.000
30.97	0.000	0.000	Stratol_2_8_L_0									
15 D	6.544	-9.1361E-03	68.45	32.72	68.45	36.28	ACTIVE	0.000	-2.700	0.000	1.000	1.000
32.72	0.000	0.000	Stratol_2_8_L_0									
16 D	6.928	-8.7496E-03	72.47	34.64	72.47	38.41	ACTIVE	0.000	-2.900	0.000	1.000	1.000
34.64	0.000	0.000	Stratol_2_8_L_0									
17 D	7.280	-8.3664E-03	76.15	36.40	76.15	40.36	ACTIVE	0.000	-3.100	0.000	1.000	1.000
36.40	0.000	0.000	Stratol_2_8_L_0									
18 D	7.661	-7.9874E-03	80.13	38.30	80.13	42.47	ACTIVE	0.000	-3.300	0.000	1.000	1.000
38.30	0.000	0.000	Stratol_2_8_L_0									
19 D	8.013	-7.6131E-03	83.82	40.07	83.82	44.42	ACTIVE	0.000	-3.500	0.000	1.000	1.000
40.07	0.000	0.000	Stratol_2_8_L_0									
20 D	8.392	-7.2442E-03	87.78	41.96	87.78	46.52	ACTIVE	0.000	-3.700	0.000	1.000	1.000
41.96	0.000	0.000	Stratol_2_8_L_0									
21 D	8.718	-6.8815E-03	91.19	43.59	91.19	48.33	ACTIVE	0.000	-3.900	0.000	1.000	1.000
43.59	0.000	0.000	Stratol_2_8_L_0									
22 D	9.096	-6.5256E-03	95.15	45.48	95.15	50.43	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.48	0.000	0.000	Stratol_2_8_L_0									
23 D	9.473	-6.1772E-03	99.09	47.37	99.09	52.52	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.37	0.000	0.000	Stratol_2_8_L_0									
24 D	9.828	-5.8368E-03	102.8	49.14	102.8	54.49	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.14	0.000	0.000	Stratol_2_8_L_0									
25 D	10.20	-5.5050E-03	106.7	51.02	106.7	56.57	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.02	0.000	0.000	Stratol_2_8_L_0									
26 D	10.56	-5.1822E-03	110.5	52.80	110.5	58.54	ACTIVE	0.000	-4.900	0.000	1.000	1.000
52.80	0.000	0.000	Stratol_2_8_L_0									
27 D	10.93	-4.8688E-03	114.4	54.67	114.4	60.62	ACTIVE	0.000	-5.100	0.000	1.000	1.000
54.67	0.000	0.000	Stratol_2_8_L_0									
28 D	11.27	-4.5651E-03	117.9	56.35	117.9	62.48	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.35	0.000	0.000	Stratol_2_8_L_0									
29 D	11.64	-4.2714E-03	121.8	58.22	121.8	64.55	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.22	0.000	0.000	Stratol_2_8_L_0									
30 D	12.00	-3.9880E-03	125.5	60.00	125.5	66.53	ACTIVE	0.000	-5.700	0.000	1.000	1.000
60.00	0.000	0.000	Stratol_2_8_L_0									
31 D	12.37	-3.7150E-03	129.4	61.87	129.4	68.60	ACTIVE	0.000	-5.900	0.000	1.000	1.000
61.87	0.000	0.000	Stratol_2_8_L_0									
32 D	12.73	-3.4526E-03	133.2	63.66	133.2	70.58	ACTIVE	0.000	-6.100	0.000	1.000	1.000
63.66	0.000	0.000	Stratol_2_8_L_0									
33 D	13.10	-3.2008E-03	137.1	65.52	137.1	72.65	ACTIVE	0.000	-6.300	0.000	1.000	1.000
65.52	0.000	0.000	Stratol_2_8_L_0									
34 D	13.46	-2.9598E-03	140.8	67.31	140.8	74.63	ACTIVE	0.000	-6.500	0.000	1.000	1.000
67.31	0.000	0.000	Stratol_2_8_L_0									
35 D	13.83	-2.7296E-03	144.7	69.17	144.7	76.69	ACTIVE	0.000	-6.700	0.000	1.000	1.000
69.17	0.000	0.000	Stratol_2_8_L_0									
36 D	14.19	-2.5102E-03	148.4	70.95	148.4	78.67	ACTIVE	0.000	-6.900	0.000	1.000	1.000
70.95	0.000	0.000	Stratol_2_8_L_0									
37 D	14.55	-2.3016E-03	152.2	72.74	152.2	80.65	ACTIVE	0.000	-7.100	0.000	1.000	1.000
72.74	0.000	0.000	Stratol_2_8_L_0									
38 D	14.92	-2.1036E-03	156.1	74.60	156.1	82.71	ACTIVE	0.000	-7.300	0.000	1.000	1.000
74.60	0.000	0.000	Stratol_2_8_L_0									
39 D	15.28	-1.9163E-03	159.8	76.39	159.8	84.70	ACTIVE	0.000	-7.500	0.000	1.000	1.000
76.39	0.000	0.000	Stratol_2_8_L_0									
40 D	15.65	-1.7396E-03	163.7	78.24	163.7	86.75	ACTIVE	0.000	-7.700	0.000	1.000	1.000
78.24	0.000	0.000	Stratol_2_8_L_0									
41 D	16.01	-1.5732E-03	167.4	80.03	167.4	88.74	ACTIVE	0.000	-7.900	0.000	1.000	1.000
80.03	0.000	0.000	Stratol_2_8_L_0									
42 D	16.38	-1.4171E-03	171.3	81.89	171.3	90.79	ACTIVE	0.000	-8.100	0.000	1.000	1.000
81.89	0.000	0.000	Stratol_2_8_L_0									
43 D	16.72	-1.2712E-03	174.9	83.62	174.9	92.71	ACTIVE	0.000	-8.300	0.000	1.000	1.000
83.62	0.000	0.000	Stratol_2_8_L_0									
44 D	17.09	-1.1351E-03	178.8	85.47	178.8	94.76	ACTIVE	0.000	-8.500	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.			Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 41 di 560					
85.47	0.000	0.000	Strato1_2_8_L_0									
45 D	17.45	-1.0088E-03	182.6	87.26	182.6	96.76	ACTIVE	0.000	-8.700	0.000	1.000	1.000
87.26	0.000	0.000	Strato1_2_8_L_0									
46 D	17.82	-8.9202E-04	186.4	89.11	186.4	98.81	ACTIVE	0.000	-8.900	0.000	1.000	1.000
89.11	0.000	0.000	Strato1_2_8_L_0									
47 D	18.18	-7.8454E-04	190.2	90.91	190.2	100.8	ACTIVE	0.000	-9.100	0.000	1.000	1.000
90.91	0.000	0.000	Strato1_2_8_L_0									
48 D	18.55	-6.8614E-04	194.1	92.76	194.1	102.8	ACTIVE	0.000	-9.300	0.000	1.000	1.000
92.76	0.000	0.000	Strato1_2_8_L_0									
49 D	18.92	-5.9656E-04	197.9	94.60	197.9	104.9	ACTIVE	0.000	-9.500	0.000	1.000	1.000
94.60	0.000	0.000	Strato1_2_8_L_0									
50 D	11.60	-5.1556E-04	201.9	58.01	201.9	100.9	UL-RL	7.2037E+04	-9.700	0.000	1.000	1.000
58.01	0.000	0.000	Strato2_3095_82743_L_0									
51 D	13.11	-4.4286E-04	205.8	65.56	205.8	102.9	UL-RL	7.2037E+04	-9.900	0.000	1.000	1.000
65.56	0.000	0.000	Strato2_3095_82743_L_0									
52 D	14.50	-3.7813E-04	209.8	72.52	209.8	104.9	UL-RL	7.2037E+04	-10.10	0.000	1.000	1.000
72.52	0.000	0.000	Strato2_3095_82743_L_0									
53 D	15.79	-3.2098E-04	213.8	78.95	213.8	106.9	UL-RL	7.2037E+04	-10.30	0.000	1.000	1.000
78.95	0.000	0.000	Strato2_3095_82743_L_0									
54 D	16.96	-2.7098E-04	217.8	84.80	217.8	108.9	UL-RL	7.2037E+04	-10.50	0.000	1.000	1.000
84.80	0.000	0.000	Strato2_3095_82743_L_0									
55 D	18.04	-2.2768E-04	221.9	90.18	221.9	110.9	UL-RL	7.2037E+04	-10.70	0.000	1.000	1.000
90.18	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.01	-1.9059E-04	225.8	95.04	225.8	112.9	UL-RL	7.2037E+04	-10.90	0.000	1.000	1.000
95.04	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.90	-1.5924E-04	229.9	99.51	229.9	114.9	UL-RL	7.2037E+04	-11.10	0.000	1.000	1.000
99.51	0.000	0.000	Strato2_3095_82743_L_0									
58 D	20.70	-1.3314E-04	233.7	103.5	233.7	116.9	UL-RL	7.2037E+04	-11.30	0.000	1.000	1.000
103.5	0.000	0.000	Strato2_3095_82743_L_0									
59 D	21.44	-1.1181E-04	237.8	107.2	237.8	118.9	UL-RL	7.2037E+04	-11.50	0.000	1.000	1.000
107.2	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.11	-9.4792E-05	241.8	110.5	241.8	120.9	UL-RL	7.2037E+04	-11.70	0.000	1.000	1.000
110.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	22.72	-8.1627E-05	245.8	113.6	245.8	122.9	UL-RL	7.2037E+04	-11.90	0.000	1.000	1.000
113.6	0.000	0.000	Strato2_3095_82743_L_0									
62 D	23.28	-7.1891E-05	249.9	116.4	249.9	124.9	UL-RL	7.2037E+04	-12.10	0.000	1.000	1.000
116.4	0.000	0.000	Strato2_3095_82743_L_0									
63 D	23.79	-6.5178E-05	253.8	119.0	253.8	126.9	UL-RL	7.2037E+04	-12.30	0.000	1.000	1.000
119.0	0.000	0.000	Strato2_3095_82743_L_0									
64 D	24.27	-6.1111E-05	257.9	121.3	257.9	128.9	UL-RL	7.2037E+04	-12.50	0.000	1.000	1.000
121.3	0.000	0.000	Strato2_3095_82743_L_0									
65 D	24.69	-5.9337E-05	261.8	123.5	261.8	130.9	UL-RL	7.2037E+04	-12.70	0.000	1.000	1.000
123.5	0.000	0.000	Strato2_3095_82743_L_0									
66 D	25.10	-5.9531E-05	265.8	125.5	265.8	132.9	UL-RL	7.2037E+04	-12.90	0.000	1.000	1.000
125.5	0.000	0.000	Strato2_3095_82743_L_0									
67 D	25.47	-6.1400E-05	269.7	127.4	269.7	134.9	UL-RL	7.2037E+04	-13.10	0.000	1.000	1.000
127.4	0.000	0.000	Strato2_3095_82743_L_0									
68 D	25.82	-6.4675E-05	273.6	129.1	273.6	136.8	UL-RL	7.2037E+04	-13.30	0.000	1.000	1.000
129.1	0.000	0.000	Strato2_3095_82743_L_0									
69 D	26.15	-6.9118E-05	277.5	130.7	277.5	138.8	UL-RL	7.2037E+04	-13.50	0.000	1.000	1.000
130.7	0.000	0.000	Strato2_3095_82743_L_0									
70 D	26.46	-7.4517E-05	281.4	132.3	281.4	140.7	UL-RL	7.2037E+04	-13.70	0.000	1.000	1.000
132.3	0.000	0.000	Strato2_3095_82743_L_0									
71 D	26.77	-8.0687E-05	285.3	133.8	285.3	142.7	UL-RL	7.2037E+04	-13.90	0.000	1.000	1.000
133.8	0.000	0.000	Strato2_3095_82743_L_0									
72 D	27.06	-8.7465E-05	289.2	135.3	289.2	144.6	UL-RL	7.2037E+04	-14.10	0.000	1.000	1.000
135.3	0.000	0.000	Strato2_3095_82743_L_0									
73 D	27.34	-9.4714E-05	293.1	136.7	293.1	146.5	UL-RL	7.2037E+04	-14.30	0.000	1.000	1.000
136.7	0.000	0.000	Strato2_3095_82743_L_0									
74 D	27.62	-1.0232E-04	297.0	138.1	297.0	148.5	UL-RL	7.2037E+04	-14.50	0.000	1.000	1.000
138.1	0.000	0.000	Strato2_3095_82743_L_0									
75 D	27.90	-1.1018E-04	300.9	139.5	300.9	150.4	UL-RL	7.2037E+04	-14.70	0.000	1.000	1.000
139.5	0.000	0.000	Strato2_3095_82743_L_0									
76 D	28.18	-1.1823E-04	304.8	140.9	304.8	152.4	UL-RL	7.2037E+04	-14.90	0.000	1.000	1.000
140.9	0.000	0.000	Strato2_3095_82743_L_0									
77 D	28.45	-1.2640E-04	308.7	142.3	308.7	154.4	UL-RL	7.2037E+04	-15.10	0.000	1.000	1.000
142.3	0.000	0.000	Strato2_3095_82743_L_0									
78 D	28.73	-1.3464E-04	312.6	143.6	312.6	156.3	UL-RL	7.2037E+04	-15.30	0.000	1.000	1.000
143.6	0.000	0.000	Strato2_3095_82743_L_0									
79 D	29.00	-1.4293E-04	316.6	145.0	316.6	158.3	UL-RL	7.2037E+04	-15.50	0.000	1.000	1.000
145.0	0.000	0.000	Strato2_3095_82743_L_0									
80 D	29.26	-1.5123E-04	320.4	146.3	320.4	160.2	UL-RL	7.2037E+04	-15.70	0.000	1.000	1.000
146.3	0.000	0.000	Strato2_3095_82743_L_0									
81 D	22.15	-1.5954E-04	324.3	147.7	324.3	162.2	UL-RL	7.2037E+04	-15.90	0.000	1.000	1.000
147.7	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.419	-1.6370E-04	326.3	148.4	326.3	163.2	UL-RL	7.2037E+04	-16.00	0.000	1.000	1.000
148.4	0.000	0.000	Strato2_3095_82743_L_0									

PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017*

NewProject.BaseDesignSection_28.Nominal_63

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 43 di 560							
34 D	16.81	2.9598E-03	66.50	84.07	123.5	84.07	V-C	5890.	-6.500	0.000	1.000	1.000
84.07	0.000	0.000	Strato1_2_8_L_0									
35 D	16.93	2.7296E-03	70.30	84.67	127.3	84.67	V-C	5890.	-6.700	0.000	1.000	1.000
84.67	0.000	0.000	Strato1_2_8_L_0									
36 D	17.07	2.5102E-03	74.10	85.33	131.1	85.33	V-C	5890.	-6.900	0.000	1.000	1.000
85.33	0.000	0.000	Strato1_2_8_L_0									
37 D	17.21	2.3016E-03	77.90	86.06	134.9	86.06	V-C	5890.	-7.100	0.000	1.000	1.000
86.06	0.000	0.000	Strato1_2_8_L_0									
38 D	17.37	2.1036E-03	81.70	86.86	138.7	86.86	V-C	5890.	-7.300	0.000	1.000	1.000
86.86	0.000	0.000	Strato1_2_8_L_0									
39 D	17.54	1.9163E-03	85.50	87.72	142.5	87.72	V-C	5890.	-7.500	0.000	1.000	1.000
87.72	0.000	0.000	Strato1_2_8_L_0									
40 D	17.73	1.7396E-03	89.30	88.64	146.3	88.64	V-C	5890.	-7.700	0.000	1.000	1.000
88.64	0.000	0.000	Strato1_2_8_L_0									
41 D	17.93	1.5732E-03	93.10	89.63	150.1	89.63	V-C	5890.	-7.900	0.000	1.000	1.000
89.63	0.000	0.000	Strato1_2_8_L_0									
42 D	18.14	1.4171E-03	96.90	90.68	153.9	90.68	V-C	5890.	-8.100	0.000	1.000	1.000
90.68	0.000	0.000	Strato1_2_8_L_0									
43 D	18.36	1.2712E-03	100.7	91.79	157.7	91.79	V-C	5890.	-8.300	0.000	1.000	1.000
91.79	0.000	0.000	Strato1_2_8_L_0									
44 D	18.59	1.1351E-03	104.5	92.96	161.5	92.96	V-C	5890.	-8.500	0.000	1.000	1.000
92.96	0.000	0.000	Strato1_2_8_L_0									
45 D	18.84	1.0088E-03	108.3	94.19	165.3	94.19	V-C	5890.	-8.700	0.000	1.000	1.000
94.19	0.000	0.000	Strato1_2_8_L_0									
46 D	19.10	8.9202E-04	112.1	95.48	169.1	95.48	V-C	5890.	-8.900	0.000	1.000	1.000
95.48	0.000	0.000	Strato1_2_8_L_0									
47 D	19.37	7.8454E-04	115.9	96.83	172.9	96.83	V-C	5890.	-9.100	0.000	1.000	1.000
96.83	0.000	0.000	Strato1_2_8_L_0									
48 D	19.65	6.8614E-04	119.7	98.23	176.7	98.23	V-C	5890.	-9.300	0.000	1.000	1.000
98.23	0.000	0.000	Strato1_2_8_L_0									
49 D	19.94	5.9656E-04	123.5	99.68	180.5	99.68	V-C	5890.	-9.500	0.000	1.000	1.000
99.68	0.000	0.000	Strato1_2_8_L_0									
50 D	18.96	5.1556E-04	127.5	94.82	184.5	94.82	V-C	1.3014E+04	-9.700	0.000	1.000	1.000
94.82	0.000	0.000	Strato2_3095_82743_L_0									
51 D	18.94	4.4286E-04	131.5	94.71	188.5	96.38	UL-RL	3.9043E+04	-9.900	0.000	1.000	1.000
94.71	0.000	0.000	Strato2_3095_82743_L_0									
52 D	18.85	3.7813E-04	135.5	94.23	192.5	98.28	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
94.23	0.000	0.000	Strato2_3095_82743_L_0									
53 D	18.81	3.2098E-04	139.5	94.05	196.5	100.2	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
94.05	0.000	0.000	Strato2_3095_82743_L_0									
54 D	18.83	2.7098E-04	143.5	94.15	200.5	102.1	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
94.15	0.000	0.000	Strato2_3095_82743_L_0									
55 D	18.90	2.2768E-04	147.5	94.51	204.5	104.0	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
94.51	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.02	1.9059E-04	151.5	95.12	208.5	106.0	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
95.12	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.19	1.5924E-04	155.5	95.95	212.5	107.9	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
95.95	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.40	1.3314E-04	159.5	96.99	216.5	109.8	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
96.99	0.000	0.000	Strato2_3095_82743_L_0									
59 D	19.64	1.1181E-04	163.5	98.21	220.5	111.8	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
98.21	0.000	0.000	Strato2_3095_82743_L_0									
60 D	19.92	9.4792E-05	167.5	99.60	224.5	113.7	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
99.60	0.000	0.000	Strato2_3095_82743_L_0									
61 D	20.23	8.1627E-05	171.5	101.1	228.5	115.7	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0									
62 D	20.56	7.1891E-05	175.5	102.8	232.5	117.7	UL-RL	3.9043E+04	-12.10	0.000	1.000	1.000
102.8	0.000	0.000	Strato2_3095_82743_L_0									
63 D	20.92	6.5178E-05	179.5	104.6	236.5	119.6	UL-RL	3.9043E+04	-12.30	0.000	1.000	1.000
104.6	0.000	0.000	Strato2_3095_82743_L_0									
64 D	21.30	6.1111E-05	183.5	106.5	240.5	121.6	UL-RL	3.9043E+04	-12.50	0.000	1.000	1.000
106.5	0.000	0.000	Strato2_3095_82743_L_0									
65 D	21.69	5.9337E-05	187.5	108.5	244.5	123.6	UL-RL	3.9043E+04	-12.70	0.000	1.000	1.000
108.5	0.000	0.000	Strato2_3095_82743_L_0									
66 D	22.10	5.9531E-05	191.5	110.5	248.5	125.5	UL-RL	3.9043E+04	-12.90	0.000	1.000	1.000
110.5	0.000	0.000	Strato2_3095_82743_L_0									
67 D	22.53	6.1400E-05	195.5	112.6	252.5	127.5	UL-RL	3.9043E+04	-13.10	0.000	1.000	1.000
112.6	0.000	0.000	Strato2_3095_82743_L_0									
68 D	22.96	6.4675E-05	199.5	114.8	256.5	129.5	UL-RL	3.9043E+04	-13.30	0.000	1.000	1.000
114.8	0.000	0.000	Strato2_3095_82743_L_0									
69 D	23.40	6.9118E-05	203.5	117.0	260.5	131.5	UL-RL	3.9043E+04	-13.50	0.000	1.000	1.000
117.0	0.000	0.000	Strato2_3095_82743_L_0									
70 D	23.85	7.4517E-05	207.5	119.2	264.5	133.5	UL-RL	3.9043E+04	-13.70	0.000	1.000	1.000
119.2	0.000	0.000	Strato2_3095_82743_L_0									
71 D	24.30	8.0687E-05	211.5	121.5	268.5	135.5	UL-RL	3.9043E+04	-13.90	0.000	1.000	1.000
121.5	0.000	0.000	Strato2_3095_82743_L_0									
72 D	24.76	8.7465E-05	215.5	123.8	272.5	137.4	UL-RL	3.9043E+04	-14.10	0.000	1.000	1.000
123.8	0.000	0.000	Strato2_3095_82743_L_0									
73 D	25.23	9.4714E-05	219.5	126.1	276.5	139.4	UL-RL	3.9043E+04	-14.30	0.000	1.000	1.000
126.1	0.000	0.000	Strato2_3095_82743_L_0									
74 D	25.69	1.0232E-04	223.5	128.5	280.5	141.4	UL-RL	3.9043E+04	-14.50	0.000	1.000	1.000
128.5	0.000	0.000	Strato2_3095_82743_L_0									
75 D	26.16	1.1018E-04	227.5	130.8	284.5	143.4	UL-RL	3.9043E+04	-14.70	0.000	1.000	1.000
130.8	0.000	0.000	Strato2_3095_82743_L_0									
76 D	26.63	1.1823E-04	231.5	133.1	288.5	145.4	UL-RL	3.9043E+04	-14.90	0.000	1.000	1.000



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133.1	0.000	0.000	Strato2_3095_82743_L_0		
77 D	27.09	1.2640E-04	235.5 135.5	292.5	147.4
135.5	0.000	0.000	Strato2_3095_82743_L_0		
78 D	27.56	1.3464E-04	239.5 137.8	296.5	149.4
137.8	0.000	0.000	Strato2_3095_82743_L_0		
79 D	28.02	1.4293E-04	243.5 140.1	300.5	151.4
140.1	0.000	0.000	Strato2_3095_82743_L_0		
80 D	28.49	1.5123E-04	247.5 142.5	304.5	153.4
142.5	0.000	0.000	Strato2_3095_82743_L_0		
81 D	21.72	1.5954E-04	251.5 144.8	308.5	155.4
144.8	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.298	1.6370E-04	253.5 146.0	310.5	156.4
146.0	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019      10:49:24                             |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.1950	-1.1950	4.57415E-12	0.23900
2	3.0408	-3.0408	-0.23900	0.84715
3	5.4462	-5.4462	-0.84715	1.9364
4	8.1565	-8.1565	-1.9364	3.5677
5	11.304	-11.304	-3.5677	5.8286
6	14.775	-14.775	-5.8286	8.7836
7	18.655	-18.655	-8.7836	12.515
8	22.868	-22.868	-12.515	17.088
9	27.412	-27.412	-17.088	22.571
10	32.303	-32.303	-22.571	29.031
11	37.589	-37.589	-29.031	36.549
12	43.223	-43.223	-36.549	45.194
13	47.739	-47.739	-45.194	49.968
14	52.384	-52.384	-49.968	60.444
15	58.928	-58.928	-60.444	72.230
16	65.856	-65.856	-72.230	85.401
17	71.600	-71.600	-85.401	99.721
18	74.654	-74.654	-99.721	114.65
19	74.989	-74.989	-114.65	129.65
20	72.632	-72.632	-129.65	144.18
21	67.529	-67.529	-144.18	157.68
22	60.278	-60.278	-157.68	169.74
23	53.426	-53.426	-169.74	180.42
24	46.944	-46.944	-180.42	189.81
25	40.840	-40.840	-189.81	197.98
26	35.084	-35.084	-197.98	205.00
27	29.683	-29.683	-205.00	210.93
28	24.586	-24.586	-210.93	215.85
29	19.821	-19.821	-215.85	219.81
30	15.358	-15.358	-219.81	222.89
31	11.200	-11.200	-222.89	225.13
32	7.3190	-7.3190	-225.13	226.59
33	3.7163	-3.7163	-226.59	227.33
34	0.36444	-0.36444	-227.33	227.41
35	-2.7355	2.7355	-227.41	226.86
36	-5.6129	5.6129	-226.86	225.74
37	-8.2780	8.2780	-225.74	224.08
38	-10.731	10.731	-224.08	221.93
39	-12.998	12.998	-221.93	219.33
40	-15.078	15.078	-219.33	216.32
41	-16.997	16.997	-216.32	212.92
42	-18.756	18.756	-212.92	209.17
43	-20.392	20.392	-209.17	205.09
44	-21.891	21.891	-205.09	200.71
45	-23.278	23.278	-200.71	196.06
46	-24.552	24.552	-196.06	191.15
47	-25.735	25.735	-191.15	186.00
48	-26.830	26.830	-186.00	180.63
49	-27.845	27.845	-180.63	175.06

GENERAL CONTRACTOR



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50	-35.207	35.207	-175.06	168.02
51	-41.038	41.038	-168.02	159.82
52	-45.380	45.380	-159.82	150.74
53	-48.399	48.399	-150.74	141.06
54	-50.269	50.269	-141.06	131.01
55	-51.136	51.136	-131.01	120.78
56	-51.152	51.152	-120.78	110.55
57	-50.440	50.440	-110.55	100.46
58	-49.140	49.140	-100.46	90.632
59	-47.344	47.344	-90.632	81.163
60	-45.159	45.159	-81.163	72.131
61	-42.667	42.667	-72.131	63.598
62	-39.946	39.946	-63.598	55.609
63	-37.073	37.073	-55.609	48.194
64	-34.103	34.103	-48.194	41.373
65	-31.104	31.104	-41.373	35.153
66	-28.104	28.104	-35.153	29.532
67	-25.159	25.159	-29.532	24.500
68	-22.298	22.298	-24.500	20.041
69	-19.550	19.550	-20.041	16.131
70	-16.935	16.935	-16.131	12.744
71	-14.471	14.471	-12.744	9.8495
72	-12.171	12.171	-9.8495	7.4153
73	-10.055	10.055	-7.4153	5.4043
74	-8.1214	8.1214	-5.4043	3.7801
75	-6.3766	6.3766	-3.7801	2.5047
76	-4.8243	4.8243	-2.5047	1.5399
77	-3.4640	3.4640	-1.5399	0.84707
78	-2.2971	2.2971	-0.84707	0.38764
79	-1.3244	1.3244	-0.38764	0.12276
80	-0.55338	0.55338	-0.12276	1.20826E-02
81	-0.12081	0.12081	-1.20826E-02	3.83560E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  10:49:24                               |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06  RIMNOR=0.3018E+07
            RENORM=0.2497E+05  REMNOR=0.2827E-18  RATIO =0.3024      TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 158.0      RRMAX = 227.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.2731E+06  RDR =0.3018E+07
            RATIO=0.3024      RATOR= 0.000
            MAX UN=0.1044E-07  IEQ= 25 NODE      13 DOF  1  Y-DISPL.F
            MIN UN=-158.0      IEQ= 27 NODE      14 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06  RIMNOR=0.3018E+07
            RENORM= 207.3      REMNOR=0.8132E-18  RATIO =0.2755E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 158.0      RRMAX = 227.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.2731E+06  RDR =0.3018E+07
            RATIO=0.2755E-01  RATOR= 0.000
            MAX UN=0.6393E-09  IEQ= 67 NODE      34 DOF  1  Y-DISPL.F
            MIN UN=-4.070      IEQ= 33 NODE      17 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06  RIMNOR=0.3018E+07
            RENORM= 2.795      REMNOR=0.1112E-18  RATIO =0.3199E-02  TOLER =0.1000E-03  NOT CONVERGED

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

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RFMAX = 158.0      RMMAX = 227.4
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT  =0.2731E+06 RDR  =0.3018E+07
RATIOT=0.3199E-02 RATIO= 0.000
MAX UN=0.7255E-01 IEQ= 101 NODE 51 DOF 1 Y-DISPL.F
MIN UN=-1.521 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 4 RNORM = 0.000      RMNORM= 0.000
RINORM=0.2731E+06 RIMNOR=0.3018E+07
RENORM=0.2277E-02 REMNOR=0.2248E-18 RATIO =0.9132E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 158.0      RMMAX = 227.4
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT  =0.2731E+06 RDR  =0.3018E+07
RATIOT=0.9132E-04 RATIO= 0.000
MAX UN=0.2680E-01 IEQ= 89 NODE 45 DOF 1 Y-DISPL.F
MIN UN=-.4379E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
|                               NewProject.BaseDesignSection_28.Nominal_63                |
|                               Exe Time :24 July 2019 10:49:24                          |
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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.1406680E-02	-1.6036829E-03	
2	1.1085950E-02	-1.6035902E-03	
3	1.0765268E-02	-1.6031441E-03	
4	1.0444739E-02	-1.6019968E-03	
5	1.0124540E-02	-1.5997853E-03	
6	9.8049209E-03	-1.5961336E-03	
7	9.4862084E-03	-1.5906532E-03	
8	9.1688082E-03	-1.5829431E-03	
9	8.8532074E-03	-1.5725900E-03	
10	8.5399767E-03	-1.5591702E-03	
11	8.2297727E-03	-1.5422495E-03	
12	7.9233400E-03	-1.5213816E-03	
13	7.6215137E-03	-1.4961084E-03	
14	7.4726135E-03	-1.4816883E-03	
15	7.1792131E-03	-1.4526738E-03	
16	6.8914171E-03	-1.4255623E-03	
17	6.6088944E-03	-1.3998571E-03	
18	6.3314142E-03	-1.3750533E-03	
19	6.0588468E-03	-1.3506441E-03	
20	5.7911615E-03	-1.3261609E-03	
21	5.5284109E-03	-1.3012501E-03	
22	5.2707033E-03	-1.2757107E-03	
23	5.0181726E-03	-1.2494815E-03	
24	4.7709565E-03	-1.2225654E-03	
25	4.5291918E-03	-1.1949695E-03	
26	4.2930133E-03	-1.1667044E-03	
27	4.0625548E-03	-1.1377844E-03	
28	3.8379433E-03	-1.1082266E-03	
29	3.6193053E-03	-1.0780516E-03	
30	3.4067622E-03	-1.0472827E-03	
31	3.2004302E-03	-1.0159452E-03	
32	3.0004213E-03	-9.8406566E-04	
33	2.8068392E-03	-9.5167144E-04	
34	2.6197851E-03	-9.1879076E-04	
35	2.4393535E-03	-8.8545181E-04	
36	2.2656331E-03	-8.5168289E-04	
37	2.0987068E-03	-8.1751635E-04	
38	1.9386512E-03	-7.8299230E-04	
39	1.7855315E-03	-7.4815657E-04	
40	1.6394059E-03	-7.1306078E-04	
41	1.5003208E-03	-6.7776083E-04	
42	1.3683112E-03	-6.4231621E-04	
43	1.2434004E-03	-6.0678951E-04	
44	1.1255972E-03	-5.7124526E-04	
45	1.0148990E-03	-5.3575042E-04	
46	9.1128926E-04	-5.0037173E-04	

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



ITALFERR

GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 48 di 560							
12 D	9.761	-7.9233E-03	58.93	48.81	58.93	48.81	V-C	8488.	-2.200	0.000	1.000	1.000
48.81	0.000	0.000	Strato1_2_8_L_0									
13 D	7.517	-7.6215E-03	62.99	50.12	62.99	50.12	V-C	8488.	-2.400	0.000	1.000	1.000
50.12	0.000	0.000	Strato1_2_8_L_0									
14 D	7.596	-7.4726E-03	64.78	50.64	64.78	50.64	V-C	8488.	-2.500	0.000	1.000	1.000
50.64	0.000	0.000	Strato1_2_8_L_0									
15 D	10.34	-7.1792E-03	68.45	51.70	68.45	51.70	V-C	8488.	-2.700	0.000	1.000	1.000
51.70	0.000	0.000	Strato1_2_8_L_0									
16 D	10.58	-6.8914E-03	72.47	52.92	72.47	52.92	V-C	8488.	-2.900	0.000	1.000	1.000
52.92	0.000	0.000	Strato1_2_8_L_0									
17 D	10.79	-6.6089E-03	76.15	53.96	76.15	53.96	V-C	8488.	-3.100	0.000	1.000	1.000
53.96	0.000	0.000	Strato1_2_8_L_0									
18 D	11.03	-6.3314E-03	80.13	55.14	80.13	55.14	V-C	8488.	-3.300	0.000	1.000	1.000
55.14	0.000	0.000	Strato1_2_8_L_0									
19 D	11.23	-6.0588E-03	83.82	56.16	83.82	56.16	V-C	8488.	-3.500	0.000	1.000	1.000
56.16	0.000	0.000	Strato1_2_8_L_0									
20 D	11.47	-5.7912E-03	87.78	57.34	87.78	57.34	V-C	8488.	-3.700	0.000	1.000	1.000
57.34	0.000	0.000	Strato1_2_8_L_0									
21 D	11.65	-5.5284E-03	91.19	58.24	91.19	58.24	V-C	8488.	-3.900	0.000	1.000	1.000
58.24	0.000	0.000	Strato1_2_8_L_0									
22 D	11.89	-5.2707E-03	95.15	59.43	95.15	59.43	V-C	8488.	-4.100	0.000	1.000	1.000
59.43	0.000	0.000	Strato1_2_8_L_0									
23 D	12.13	-5.0182E-03	99.09	60.64	99.09	60.64	V-C	8488.	-4.300	0.000	1.000	1.000
60.64	0.000	0.000	Strato1_2_8_L_0									
24 D	12.35	-4.7710E-03	102.8	61.75	102.8	61.75	V-C	8488.	-4.500	0.000	1.000	1.000
61.75	0.000	0.000	Strato1_2_8_L_0									
25 D	12.60	-4.5292E-03	106.7	63.00	106.7	63.00	V-C	8488.	-4.700	0.000	1.000	1.000
63.00	0.000	0.000	Strato1_2_8_L_0									
26 D	12.83	-4.2930E-03	110.5	64.17	110.5	64.17	V-C	8488.	-4.900	0.000	1.000	1.000
64.17	0.000	0.000	Strato1_2_8_L_0									
27 D	13.10	-4.0626E-03	114.4	65.48	114.4	65.48	V-C	8488.	-5.100	0.000	1.000	1.000
65.48	0.000	0.000	Strato1_2_8_L_0									
28 D	13.32	-3.8379E-03	117.9	66.61	117.9	66.61	V-C	8488.	-5.300	0.000	1.000	1.000
66.61	0.000	0.000	Strato1_2_8_L_0									
29 D	13.60	-3.6193E-03	121.8	67.98	121.8	67.98	V-C	8488.	-5.500	0.000	1.000	1.000
67.98	0.000	0.000	Strato1_2_8_L_0									
30 D	13.86	-3.4068E-03	125.5	69.29	125.5	69.29	V-C	8488.	-5.700	0.000	1.000	1.000
69.29	0.000	0.000	Strato1_2_8_L_0									
31 D	14.15	-3.2004E-03	129.4	70.73	129.4	70.73	V-C	8488.	-5.900	0.000	1.000	1.000
70.73	0.000	0.000	Strato1_2_8_L_0									
32 D	14.42	-3.0004E-03	133.2	72.11	133.2	72.11	V-C	8488.	-6.100	0.000	1.000	1.000
72.11	0.000	0.000	Strato1_2_8_L_0									
33 D	14.72	-2.8068E-03	137.1	73.62	137.1	73.62	V-C	8488.	-6.300	0.000	1.000	1.000
73.62	0.000	0.000	Strato1_2_8_L_0									
34 D	15.02	-2.6198E-03	140.8	75.08	140.8	75.08	V-C	8488.	-6.500	0.000	1.000	1.000
75.08	0.000	0.000	Strato1_2_8_L_0									
35 D	15.31	-2.4394E-03	144.7	76.56	144.7	76.69	UL-RL	2.5465E+04	-6.700	0.000	1.000	1.000
76.56	0.000	0.000	Strato1_2_8_L_0									
36 D	15.44	-2.2656E-03	148.4	77.18	148.4	78.67	UL-RL	2.5465E+04	-6.900	0.000	1.000	1.000
77.18	0.000	0.000	Strato1_2_8_L_0									
37 D	15.58	-2.0987E-03	152.2	77.90	152.2	80.65	UL-RL	2.5465E+04	-7.100	0.000	1.000	1.000
77.90	0.000	0.000	Strato1_2_8_L_0									
38 D	15.76	-1.9387E-03	156.1	78.80	156.1	82.71	UL-RL	2.5465E+04	-7.300	0.000	1.000	1.000
78.80	0.000	0.000	Strato1_2_8_L_0									
39 D	15.94	-1.7855E-03	159.8	79.72	159.8	84.70	UL-RL	2.5465E+04	-7.500	0.000	1.000	1.000
79.72	0.000	0.000	Strato1_2_8_L_0									
40 D	16.16	-1.6394E-03	163.7	80.79	163.7	86.75	UL-RL	2.5465E+04	-7.700	0.000	1.000	1.000
80.79	0.000	0.000	Strato1_2_8_L_0									
41 D	16.38	-1.5003E-03	167.4	81.89	167.4	88.74	UL-RL	2.5465E+04	-7.900	0.000	1.000	1.000
81.89	0.000	0.000	Strato1_2_8_L_0									
42 D	16.63	-1.3683E-03	171.3	83.13	171.3	90.79	UL-RL	2.5465E+04	-8.100	0.000	1.000	1.000
83.13	0.000	0.000	Strato1_2_8_L_0									
43 D	16.86	-1.2434E-03	174.9	84.32	174.9	92.71	UL-RL	2.5465E+04	-8.300	0.000	1.000	1.000
84.32	0.000	0.000	Strato1_2_8_L_0									
44 D	17.14	-1.1256E-03	178.8	85.71	178.8	94.76	UL-RL	2.5465E+04	-8.500	0.000	1.000	1.000
85.71	0.000	0.000	Strato1_2_8_L_0									
45 D	17.47	-1.0149E-03	182.6	87.35	182.6	96.76	UL-RL	2.5465E+04	-8.700	0.000	1.000	1.000
87.35	0.000	0.000	Strato1_2_8_L_0									
46 D	17.84	-9.1129E-04	186.4	89.19	186.4	98.81	UL-RL	2.5465E+04	-8.900	0.000	1.000	1.000
89.19	0.000	0.000	Strato1_2_8_L_0									
47 D	18.20	-8.1474E-04	190.2	90.98	190.2	100.8	UL-RL	2.5465E+04	-9.100	0.000	1.000	1.000
90.98	0.000	0.000	Strato1_2_8_L_0									
48 D	18.56	-7.2520E-04	194.1	92.82	194.1	102.8	UL-RL	2.5465E+04	-9.300	0.000	1.000	1.000
92.82	0.000	0.000	Strato1_2_8_L_0									
49 D	18.93	-6.4263E-04	197.9	94.65	197.9	104.9	UL-RL	2.5465E+04	-9.500	0.000	1.000	1.000
94.65	0.000	0.000	Strato1_2_8_L_0									
50 D	10.86	-5.6696E-04	201.9	54.31	201.9	100.9	UL-RL	7.2037E+04	-9.700	0.000	1.000	1.000
54.31	0.000	0.000	Strato2_3095_82743_L_0									
51 D	12.32	-4.9810E-04	205.8	61.58	205.8	102.9	UL-RL	7.2037E+04	-9.900	0.000	1.000	1.000
61.58	0.000	0.000	Strato2_3095_82743_L_0									
52 D	13.67	-4.3590E-04	209.8	68.36	209.8	104.9	UL-RL	7.2037E+04	-10.10	0.000	1.000	1.000
68.36	0.000	0.000	Strato2_3095_82743_L_0									
53 D	14.94	-3.8015E-04	213.8	74.69	213.8	106.9	UL-RL	7.2037E+04	-10.30	0.000	1.000	1.000
74.69	0.000	0.000	Strato2_3095_82743_L_0									
54 D	16.10	-3.3057E-04	217.8	80.51	217.8	108.9	UL-RL	7.2037E+04	-10.50	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 49 di 560
80.51	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.18	-2.8685E-04	221.9 85.92 221.9	110.9	UL-RL 7.2037E+04 -10.70 0.000 1.000 1.000
85.92	0.000	0.000	Strato2_3095_82743_L_0		
56 D	18.17	-2.4865E-04	225.8 90.86 225.8	112.9	UL-RL 7.2037E+04 -10.90 0.000 1.000 1.000
90.86	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.09	-2.1561E-04	229.9 95.45 229.9	114.9	UL-RL 7.2037E+04 -11.10 0.000 1.000 1.000
95.45	0.000	0.000	Strato2_3095_82743_L_0		
58 D	19.92	-1.8734E-04	233.7 99.59 233.7	116.9	UL-RL 7.2037E+04 -11.30 0.000 1.000 1.000
99.59	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.69	-1.6348E-04	237.8 103.5 237.8	118.9	UL-RL 7.2037E+04 -11.50 0.000 1.000 1.000
103.5	0.000	0.000	Strato2_3095_82743_L_0		
60 D	21.40	-1.4363E-04	241.8 107.0 241.8	120.9	UL-RL 7.2037E+04 -11.70 0.000 1.000 1.000
107.0	0.000	0.000	Strato2_3095_82743_L_0		
61 D	22.06	-1.2742E-04	245.8 110.3 245.8	122.9	UL-RL 7.2037E+04 -11.90 0.000 1.000 1.000
110.3	0.000	0.000	Strato2_3095_82743_L_0		
62 D	22.67	-1.1449E-04	249.9 113.4 249.9	124.9	UL-RL 7.2037E+04 -12.10 0.000 1.000 1.000
113.4	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.23	-1.0449E-04	253.8 116.1 253.8	126.9	UL-RL 7.2037E+04 -12.30 0.000 1.000 1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0		
64 D	23.75	-9.7078E-05	257.9 118.8 257.9	128.9	UL-RL 7.2037E+04 -12.50 0.000 1.000 1.000
118.8	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.22	-9.1949E-05	261.8 121.1 261.8	130.9	UL-RL 7.2037E+04 -12.70 0.000 1.000 1.000
121.1	0.000	0.000	Strato2_3095_82743_L_0		
66 D	24.68	-8.8804E-05	265.8 123.4 265.8	132.9	UL-RL 7.2037E+04 -12.90 0.000 1.000 1.000
123.4	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.10	-8.7372E-05	269.7 125.5 269.7	134.9	UL-RL 7.2037E+04 -13.10 0.000 1.000 1.000
125.5	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.49	-8.7400E-05	273.6 127.5 273.6	136.8	UL-RL 7.2037E+04 -13.30 0.000 1.000 1.000
127.5	0.000	0.000	Strato2_3095_82743_L_0		
69 D	25.87	-8.8661E-05	277.5 129.3 277.5	138.8	UL-RL 7.2037E+04 -13.50 0.000 1.000 1.000
129.3	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.23	-9.0950E-05	281.4 131.1 281.4	140.7	UL-RL 7.2037E+04 -13.70 0.000 1.000 1.000
131.1	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.58	-9.4082E-05	285.3 132.9 285.3	142.7	UL-RL 7.2037E+04 -13.90 0.000 1.000 1.000
132.9	0.000	0.000	Strato2_3095_82743_L_0		
72 D	26.91	-9.7896E-05	289.2 134.6 289.2	144.6	UL-RL 7.2037E+04 -14.10 0.000 1.000 1.000
134.6	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.23	-1.0225E-04	293.1 136.2 293.1	146.5	UL-RL 7.2037E+04 -14.30 0.000 1.000 1.000
136.2	0.000	0.000	Strato2_3095_82743_L_0		
74 D	27.56	-1.0702E-04	297.0 137.8 297.0	148.5	UL-RL 7.2037E+04 -14.50 0.000 1.000 1.000
137.8	0.000	0.000	Strato2_3095_82743_L_0		
75 D	27.88	-1.1210E-04	300.9 139.4 300.9	150.4	UL-RL 7.2037E+04 -14.70 0.000 1.000 1.000
139.4	0.000	0.000	Strato2_3095_82743_L_0		
76 D	28.19	-1.1741E-04	304.8 141.0 304.8	152.4	UL-RL 7.2037E+04 -14.90 0.000 1.000 1.000
141.0	0.000	0.000	Strato2_3095_82743_L_0		
77 D	28.50	-1.2287E-04	308.7 142.5 308.7	154.4	UL-RL 7.2037E+04 -15.10 0.000 1.000 1.000
142.5	0.000	0.000	Strato2_3095_82743_L_0		
78 D	28.81	-1.2843E-04	312.6 144.1 312.6	156.3	UL-RL 7.2037E+04 -15.30 0.000 1.000 1.000
144.1	0.000	0.000	Strato2_3095_82743_L_0		
79 D	29.13	-1.3405E-04	316.6 145.6 316.6	158.3	UL-RL 7.2037E+04 -15.50 0.000 1.000 1.000
145.6	0.000	0.000	Strato2_3095_82743_L_0		
80 D	29.43	-1.3971E-04	320.4 147.1 320.4	160.2	UL-RL 7.2037E+04 -15.70 0.000 1.000 1.000
147.1	0.000	0.000	Strato2_3095_82743_L_0		
81 D	22.30	-1.4537E-04	324.3 148.7 324.3	162.2	UL-RL 7.2037E+04 -15.90 0.000 1.000 1.000
148.7	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.475	-1.4820E-04	326.3 149.5 326.3	163.2	UL-RL 7.2037E+04 -16.00 0.000 1.000 1.000
149.5	0.000	0.000	Strato2_3095_82743_L_0		

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|
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.Nominal_63
|
|          Exe Time :24 July 2019  10:49:24
|
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 51 di 560							
44 D	18.56	1.1256E-03	104.5	92.80	161.5	92.96	UL-RL	1.7671E+04	-8.500	0.000	1.000	1.000
92.80	0.000	0.000	Strato1_2_8_L_0									
45 D	18.84	1.0149E-03	108.3	94.19	165.3	94.25	UL-RL	1.7671E+04	-8.700	0.000	1.000	1.000
94.19	0.000	0.000	Strato1_2_8_L_0									
46 D	19.11	9.1129E-04	112.1	95.56	169.1	95.61	UL-RL	1.7671E+04	-8.900	0.000	1.000	1.000
95.56	0.000	0.000	Strato1_2_8_L_0									
47 D	19.39	8.1474E-04	115.9	96.97	172.9	97.02	UL-RL	1.7671E+04	-9.100	0.000	1.000	1.000
96.97	0.000	0.000	Strato1_2_8_L_0									
48 D	19.69	7.2520E-04	119.7	98.43	176.7	98.47	UL-RL	1.7671E+04	-9.300	0.000	1.000	1.000
98.43	0.000	0.000	Strato1_2_8_L_0									
49 D	19.99	6.4263E-04	123.5	99.93	180.5	99.97	UL-RL	1.7671E+04	-9.500	0.000	1.000	1.000
99.93	0.000	0.000	Strato1_2_8_L_0									
50 D	19.09	5.6696E-04	127.5	95.45	184.5	95.51	UL-RL	3.9043E+04	-9.700	0.000	1.000	1.000
95.45	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.30	4.9810E-04	131.5	96.51	188.5	96.56	UL-RL	3.9043E+04	-9.900	0.000	1.000	1.000
96.51	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.30	4.3590E-04	135.5	96.49	192.5	98.28	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
96.49	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.27	3.8015E-04	139.5	96.36	196.5	100.2	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
96.36	0.000	0.000	Strato2_3095_82743_L_0									
54 D	19.30	3.3057E-04	143.5	96.48	200.5	102.1	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
96.48	0.000	0.000	Strato2_3095_82743_L_0									
55 D	19.36	2.8685E-04	147.5	96.82	204.5	104.0	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
96.82	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.48	2.4865E-04	151.5	97.39	208.5	106.0	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
97.39	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.63	2.1561E-04	155.5	98.16	212.5	107.9	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
98.16	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.82	1.8734E-04	159.5	99.11	216.5	109.8	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
99.11	0.000	0.000	Strato2_3095_82743_L_0									
59 D	20.05	1.6348E-04	163.5	100.2	220.5	111.8	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0									
60 D	20.30	1.4363E-04	167.5	101.5	224.5	113.7	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
101.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	20.59	1.2742E-04	171.5	102.9	228.5	115.7	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000
102.9	0.000	0.000	Strato2_3095_82743_L_0									
62 D	20.90	1.1449E-04	175.5	104.5	232.5	117.7	UL-RL	3.9043E+04	-12.10	0.000	1.000	1.000
104.5	0.000	0.000	Strato2_3095_82743_L_0									
63 D	21.23	1.0449E-04	179.5	106.1	236.5	119.6	UL-RL	3.9043E+04	-12.30	0.000	1.000	1.000
106.1	0.000	0.000	Strato2_3095_82743_L_0									
64 D	21.58	9.7078E-05	183.5	107.9	240.5	121.6	UL-RL	3.9043E+04	-12.50	0.000	1.000	1.000
107.9	0.000	0.000	Strato2_3095_82743_L_0									
65 D	21.95	9.1949E-05	187.5	109.7	244.5	123.6	UL-RL	3.9043E+04	-12.70	0.000	1.000	1.000
109.7	0.000	0.000	Strato2_3095_82743_L_0									
66 D	22.33	8.8804E-05	191.5	111.7	248.5	125.5	UL-RL	3.9043E+04	-12.90	0.000	1.000	1.000
111.7	0.000	0.000	Strato2_3095_82743_L_0									
67 D	22.73	8.7372E-05	195.5	113.6	252.5	127.5	UL-RL	3.9043E+04	-13.10	0.000	1.000	1.000
113.6	0.000	0.000	Strato2_3095_82743_L_0									
68 D	23.14	8.7400E-05	199.5	115.7	256.5	129.5	UL-RL	3.9043E+04	-13.30	0.000	1.000	1.000
115.7	0.000	0.000	Strato2_3095_82743_L_0									
69 D	23.55	8.8661E-05	203.5	117.8	260.5	131.5	UL-RL	3.9043E+04	-13.50	0.000	1.000	1.000
117.8	0.000	0.000	Strato2_3095_82743_L_0									
70 D	23.98	9.0950E-05	207.5	119.9	264.5	133.5	UL-RL	3.9043E+04	-13.70	0.000	1.000	1.000
119.9	0.000	0.000	Strato2_3095_82743_L_0									
71 D	24.41	9.4082E-05	211.5	122.0	268.5	135.5	UL-RL	3.9043E+04	-13.90	0.000	1.000	1.000
122.0	0.000	0.000	Strato2_3095_82743_L_0									
72 D	24.84	9.7896E-05	215.5	124.2	272.5	137.4	UL-RL	3.9043E+04	-14.10	0.000	1.000	1.000
124.2	0.000	0.000	Strato2_3095_82743_L_0									
73 D	25.28	1.0225E-04	219.5	126.4	276.5	139.4	UL-RL	3.9043E+04	-14.30	0.000	1.000	1.000
126.4	0.000	0.000	Strato2_3095_82743_L_0									
74 D	25.73	1.0702E-04	223.5	128.6	280.5	141.4	UL-RL	3.9043E+04	-14.50	0.000	1.000	1.000
128.6	0.000	0.000	Strato2_3095_82743_L_0									
75 D	26.17	1.1210E-04	227.5	130.9	284.5	143.4	UL-RL	3.9043E+04	-14.70	0.000	1.000	1.000
130.9	0.000	0.000	Strato2_3095_82743_L_0									
76 D	26.62	1.1741E-04	231.5	133.1	288.5	145.4	UL-RL	3.9043E+04	-14.90	0.000	1.000	1.000
133.1	0.000	0.000	Strato2_3095_82743_L_0									
77 D	27.06	1.2287E-04	235.5	135.3	292.5	147.4	UL-RL	3.9043E+04	-15.10	0.000	1.000	1.000
135.3	0.000	0.000	Strato2_3095_82743_L_0									
78 D	27.51	1.2843E-04	239.5	137.5	296.5	149.4	UL-RL	3.9043E+04	-15.30	0.000	1.000	1.000
137.5	0.000	0.000	Strato2_3095_82743_L_0									
79 D	27.96	1.3405E-04	243.5	139.8	300.5	151.4	UL-RL	3.9043E+04	-15.50	0.000	1.000	1.000
139.8	0.000	0.000	Strato2_3095_82743_L_0									
80 D	28.40	1.3971E-04	247.5	142.0	304.5	153.4	UL-RL	3.9043E+04	-15.70	0.000	1.000	1.000
142.0	0.000	0.000	Strato2_3095_82743_L_0									
81 D	21.64	1.4537E-04	251.5	144.2	308.5	155.4	UL-RL	3.9043E+04	-15.90	0.000	1.000	1.000
144.2	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.268	1.4820E-04	253.5	145.4	310.5	156.4	UL-RL	3.9043E+04	-16.00	0.000	1.000	1.000
145.4	0.000	0.000	Strato2_3095_82743_L_0									

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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.9022	-3.9022	1.06243E-10	0.78044
2	10.989	-10.989	-0.78044	2.9783
3	18.543	-18.543	-2.9783	6.6868
4	26.289	-26.289	-6.6868	11.945
5	34.370	-34.370	-11.945	18.819
6	42.663	-42.663	-18.819	27.351
7	51.258	-51.258	-27.351	37.603
8	60.072	-60.072	-37.603	49.617
9	69.104	-69.104	-49.617	63.438
10	78.364	-78.364	-63.438	79.111
11	87.901	-87.901	-79.111	96.691
12	97.662	-97.662	-96.691	116.22
13	105.18	-105.18	-116.22	126.74
14	-45.250	45.250	-126.74	117.69
15	-34.909	34.909	-117.69	110.71
16	-24.325	24.325	-110.71	105.84
17	-13.649	13.649	-105.84	103.11
18	-2.9680	2.9680	-103.11	102.52
19	6.0800	-6.0800	-102.52	103.74
20	11.934	-11.934	-103.74	106.12
21	14.543	-14.543	-106.12	109.03
22	14.516	-14.516	-109.03	111.94
23	14.416	-14.416	-111.94	114.82
24	14.222	-14.222	-114.82	117.66
25	13.964	-13.964	-117.66	120.46
26	13.626	-13.626	-120.46	123.18
27	13.236	-13.236	-123.18	125.83
28	12.762	-12.762	-125.83	128.38
29	12.253	-12.253	-128.38	130.83
30	11.702	-11.702	-130.83	133.17
31	11.133	-11.133	-133.17	135.40
32	10.541	-10.541	-135.40	137.51
33	9.9500	-9.9500	-137.51	139.50
34	9.3536	-9.3536	-139.50	141.37
35	8.7579	-8.7579	-141.37	143.12
36	7.9907	-7.9907	-143.12	144.72
37	7.0757	-7.0757	-144.72	146.13
38	6.0461	-6.0461	-146.13	147.34
39	4.9082	-4.9082	-147.34	148.32
40	3.6918	-3.6918	-148.32	149.06
41	2.4015	-2.4015	-149.06	149.54
42	1.0638	-1.0638	-149.54	149.75
43	-0.33209	0.33209	-149.75	149.69
44	-1.7494	1.7494	-149.69	149.34
45	-3.1429	3.1429	-149.34	148.71
46	-4.4396	4.4396	-148.71	147.82
47	-5.6589	5.6589	-147.82	146.69
48	-6.7992	6.7992	-146.69	145.33
49	-7.8692	7.8692	-145.33	143.76
50	-16.105	16.105	-143.76	140.54
51	-23.097	23.097	-140.54	135.92
52	-28.723	28.723	-135.92	130.17
53	-33.057	33.057	-130.17	123.56
54	-36.251	36.251	-123.56	116.31
55	-38.432	38.432	-116.31	108.62
56	-39.737	39.737	-108.62	100.68
57	-40.278	40.278	-100.68	92.620
58	-40.182	40.182	-92.620	84.584
59	-39.534	39.534	-84.584	76.677
60	-38.434	38.434	-76.677	68.990
61	-36.959	36.959	-68.990	61.599
62	-35.184	35.184	-61.599	54.562
63	-33.185	33.185	-54.562	47.925
64	-31.013	31.013	-47.925	41.722
65	-28.739	28.739	-41.722	35.974
66	-26.390	26.390	-35.974	30.697
67	-24.021	24.021	-30.697	25.892
68	-21.665	21.665	-25.892	21.559
69	-19.351	19.351	-21.559	17.689

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70	-17.101	17.101	-17.689	14.269
71	-14.935	14.935	-14.269	11.282
72	-12.867	12.867	-11.282	8.7084
73	-10.918	10.918	-8.7084	6.5248
74	-9.0890	9.0890	-6.5248	4.7070
75	-7.3868	7.3868	-4.7070	3.2296
76	-5.8161	5.8161	-3.2296	2.0664
77	-4.3774	4.3774	-2.0664	1.1909
78	-3.0726	3.0726	-1.1909	0.57638
79	-1.9028	1.9028	-0.57638	0.19583
80	-0.87567	0.87567	-0.19583	2.06925E-02
81	-0.20690	0.20690	-2.06925E-02	-7.83418E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  10:49:24                               |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	163.60	-1.98299E-03	-1.98299E-03	0.0000	0.0000	0.0000	0.0000	BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 3921. REMNOR=0.2248E-18 RATIO =0.1328 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.1328 RATOR= 0.000
MAX UN= 15.91 IEQ= 69 NODE 35 DOF 1 Y-DISPL.F
MIN UN=-.4379E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 506.3 REMNOR=0.3565E-18 RATIO =0.4770E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.4770E-01 RATOR= 0.000
MAX UN= 6.341 IEQ= 81 NODE 41 DOF 1 Y-DISPL.F
MIN UN=-.1922E-08 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 154.6 REMNOR=0.4985E-18 RATIO =0.2636E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.2636E-01 RATOR= 0.000
MAX UN= 7.418 IEQ= 107 NODE 54 DOF 1 Y-DISPL.F
MIN UN=-.3485E-08 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 11.76 REMNOR=0.4655E-18 RATIO =0.7270E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.7270E-02 RATOR= 0.000
MAX UN= 2.151 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
MIN UN=-.4019E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER      5 RNORM = 0.000      RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM=0.6646E-03 REMNOR=0.1143E-17 RATIO =0.5465E-04 TOLER =0.1000E-03      CONVERGED !
RFMAX = 158.0      RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT      =0.2225E+06 RDR      =0.1665E+07
RATIOT=0.5465E-04 RATIO= 0.000
MAX UN=0.1315E-07 IEQ=      27 NODE      14 DOF      1 Y-DISPL.F
MIN UN=-.2578E-01 IEQ=     163 NODE      82 DOF      1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|          NewProject.BaseDesignSection_28.Nominal_63                                                                                       |
|          Exe Time :24 July 2019      10:49:24                                                                                             |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.5617324E-02	-9.7228586E-04	
2	1.5422869E-02	-9.7225749E-04	
3	1.5228428E-02	-9.7212856E-04	
4	1.5034031E-02	-9.7179815E-04	
5	1.4839730E-02	-9.7114481E-04	
6	1.4645603E-02	-9.7002946E-04	
7	1.4451759E-02	-9.6829497E-04	
8	1.4258338E-02	-9.6576685E-04	
9	1.4065518E-02	-9.6225296E-04	
10	1.3873517E-02	-9.5754541E-04	
11	1.3682595E-02	-9.5142019E-04	
12	1.3493059E-02	-9.4363570E-04	
13	1.3305268E-02	-9.3393272E-04	
14	1.3212153E-02	-9.2828483E-04	
15	1.3027477E-02	-9.1949281E-04	
16	1.2843956E-02	-9.1668625E-04	
17	1.2660425E-02	-9.1954532E-04	
18	1.2475783E-02	-9.2773275E-04	
19	1.2289000E-02	-9.4089385E-04	
20	1.2099119E-02	-9.5865652E-04	
21	1.1905257E-02	-9.8063129E-04	
22	1.1706613E-02	-1.0064120E-03	
23	1.1502467E-02	-1.0355757E-03	
24	1.1292186E-02	-1.0676816E-03	
25	1.1075228E-02	-1.1022714E-03	
26	1.0851144E-02	-1.1388696E-03	
27	1.0619581E-02	-1.1769831E-03	
28	1.0380285E-02	-1.2161020E-03	
29	1.0133108E-02	-1.2556990E-03	
30	9.8780094E-03	-1.2952301E-03	
31	9.6150578E-03	-1.3341340E-03	
32	9.3444376E-03	-1.3718318E-03	
33	9.0664465E-03	-1.4077279E-03	
34	8.7815074E-03	-1.4412088E-03	
35	8.4901661E-03	-1.4716437E-03	
36	8.1930962E-03	-1.4983847E-03	
37	7.8910987E-03	-1.5208284E-03	
38	7.5850852E-03	-1.5384895E-03	
39	7.2760471E-03	-1.5510111E-03	
40	6.9650386E-03	-1.5581649E-03	
41	6.6531456E-03	-1.5598509E-03	
42	6.3414609E-03	-1.5560978E-03	
43	6.0310607E-03	-1.5470545E-03	
44	5.7229800E-03	-1.5329211E-03	
45	5.4182189E-03	-1.5138881E-03	
46	5.1177393E-03	-1.4901360E-03	
47	4.8224677E-03	-1.4618360E-03	
48	4.5332988E-03	-1.4291505E-03	
49	4.2510912E-03	-1.3922325E-03	
50	3.9766782E-03	-1.3512272E-03	
51	3.7108483E-03	-1.3065023E-03	
52	3.4542924E-03	-1.2586471E-03	
53	3.2075663E-03	-1.2082357E-03	
54	2.9711308E-03	-1.1558345E-03	
55	2.7453282E-03	-1.1019985E-03	



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- 56 2.5303906E-03 -1.0472736E-03
- 57 2.3264421E-03 -9.9219730E-04
- 58 2.1334998E-03 -9.3730003E-04
- 59 1.9514754E-03 -8.8310429E-04
- 60 1.7801776E-03 -8.3011495E-04
- 61 1.6193170E-03 -7.7881166E-04
- 62 1.4685113E-03 -7.2963402E-04
- 63 1.3272968E-03 -6.8295470E-04
- 64 1.1951430E-03 -6.3907201E-04
- 65 1.0714662E-03 -5.9821598E-04
- 66 9.5564362E-04 -5.6055407E-04
- 67 8.4702433E-04 -5.2619634E-04
- 68 7.4494099E-04 -4.9520002E-04
- 69 6.4871964E-04 -4.6757399E-04
- 70 5.5768909E-04 -4.4328252E-04
- 71 4.7118948E-04 -4.2224845E-04
- 72 3.8858027E-04 -4.0435605E-04
- 73 3.0924774E-04 -3.8945337E-04
- 74 2.3261200E-04 -3.7735449E-04
- 75 1.5813358E-04 -3.6784110E-04
- 76 8.5319825E-05 -3.6066371E-04
- 77 1.3731011E-05 -3.5554259E-04
- 78 -5.7013682E-05 -3.5216852E-04
- 79 -1.2723031E-04 -3.5020318E-04
- 80 -1.9716440E-04 -3.4927956E-04
- 81 -2.6698522E-04 -3.4900223E-04
- 82 -3.0188799E-04 -3.4898809E-04

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	1.195	-1.5617E-02	25.00	11.95	25.00	39.02	ACTIVE	0.000	0.000	0.000	1.000	1.000
11.95	0.000	0.000	Strato1_2_8_L_0									
2 D	1.846	-1.5423E-02	19.31	9.229	19.31	35.43	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
9.229	0.000	0.000	Strato1_2_8_L_0									
3 D	2.405	-1.5228E-02	25.16	12.03	25.16	37.77	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
12.03	0.000	0.000	Strato1_2_8_L_0									
4 D	2.710	-1.5034E-02	28.35	13.55	28.35	38.73	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
13.55	0.000	0.000	Strato1_2_8_L_0									
5 D	3.148	-1.4840E-02	32.93	15.74	32.93	40.41	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
15.74	0.000	0.000	Strato1_2_8_L_0									
6 D	3.471	-1.4646E-02	36.31	17.35	36.31	41.46	ACTIVE	0.000	-1.000	0.000	1.000	1.000
17.35	0.000	0.000	Strato1_2_8_L_0									
7 D	3.880	-1.4452E-02	40.58	19.40	40.58	42.98	ACTIVE	0.000	-1.200	0.000	1.000	1.000
19.40	0.000	0.000	Strato1_2_8_L_0									
8 D	4.213	-1.4258E-02	44.07	21.06	44.07	44.07	ACTIVE	0.000	-1.400	0.000	1.000	1.000
21.06	0.000	0.000	Strato1_2_8_L_0									
9 D	4.545	-1.4066E-02	47.54	22.72	47.54	45.16	ACTIVE	0.000	-1.600	0.000	1.000	1.000
22.72	0.000	0.000	Strato1_2_8_L_0									
10 D	4.891	-1.3874E-02	51.16	24.45	51.16	46.30	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.45	0.000	0.000	Strato1_2_8_L_0									
11 D	5.286	-1.3683E-02	55.29	26.43	55.29	47.69	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.43	0.000	0.000	Strato1_2_8_L_0									
12 D	5.633	-1.3493E-02	58.93	28.17	58.93	48.81	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.17	0.000	0.000	Strato1_2_8_L_0									
13 D	4.516	-1.3305E-02	62.99	30.11	62.99	50.12	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.11	0.000	0.000	Strato1_2_8_L_0									
14 D	4.645	-1.3212E-02	64.78	30.97	64.78	50.64	ACTIVE	0.000	-2.500	0.000	1.000	1.000
30.97	0.000	0.000	Strato1_2_8_L_0									
15 D	6.544	-1.3027E-02	68.45	32.72	68.45	51.70	ACTIVE	0.000	-2.700	0.000	1.000	1.000
32.72	0.000	0.000	Strato1_2_8_L_0									
16 D	6.928	-1.2844E-02	72.47	34.64	72.47	52.92	ACTIVE	0.000	-2.900	0.000	1.000	1.000

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ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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34.64	0.000	0.000	Strato1_2_8_L_0				
17 D	7.280	-1.2660E-02	76.15	36.40	76.15	53.96	ACTIVE 0.000 -3.100 0.000 1.000 1.000
36.40	0.000	0.000	Strato1_2_8_L_0				
18 D	7.661	-1.2476E-02	80.13	38.30	80.13	55.14	ACTIVE 0.000 -3.300 0.000 1.000 1.000
38.30	0.000	0.000	Strato1_2_8_L_0				
19 D	8.013	-1.2289E-02	83.82	40.07	83.82	56.16	ACTIVE 0.000 -3.500 0.000 1.000 1.000
40.07	0.000	0.000	Strato1_2_8_L_0				
20 D	8.392	-1.2099E-02	87.78	41.96	87.78	57.34	ACTIVE 0.000 -3.700 0.000 1.000 1.000
41.96	0.000	0.000	Strato1_2_8_L_0				
21 D	8.718	-1.1905E-02	91.19	43.59	91.19	58.24	ACTIVE 0.000 -3.900 0.000 1.000 1.000
43.59	0.000	0.000	Strato1_2_8_L_0				
22 D	9.096	-1.1707E-02	95.15	45.48	95.15	59.43	ACTIVE 0.000 -4.100 0.000 1.000 1.000
45.48	0.000	0.000	Strato1_2_8_L_0				
23 D	9.473	-1.1502E-02	99.09	47.37	99.09	60.64	ACTIVE 0.000 -4.300 0.000 1.000 1.000
47.37	0.000	0.000	Strato1_2_8_L_0				
24 D	9.828	-1.1292E-02	102.8	49.14	102.8	61.75	ACTIVE 0.000 -4.500 0.000 1.000 1.000
49.14	0.000	0.000	Strato1_2_8_L_0				
25 D	10.20	-1.1075E-02	106.7	51.02	106.7	63.00	ACTIVE 0.000 -4.700 0.000 1.000 1.000
51.02	0.000	0.000	Strato1_2_8_L_0				
26 D	10.56	-1.0851E-02	110.5	52.80	110.5	64.17	ACTIVE 0.000 -4.900 0.000 1.000 1.000
52.80	0.000	0.000	Strato1_2_8_L_0				
27 D	10.93	-1.0620E-02	114.4	54.67	114.4	65.48	ACTIVE 0.000 -5.100 0.000 1.000 1.000
54.67	0.000	0.000	Strato1_2_8_L_0				
28 D	11.27	-1.0380E-02	117.9	56.35	117.9	66.61	ACTIVE 0.000 -5.300 0.000 1.000 1.000
56.35	0.000	0.000	Strato1_2_8_L_0				
29 D	11.64	-1.0133E-02	121.8	58.22	121.8	67.98	ACTIVE 0.000 -5.500 0.000 1.000 1.000
58.22	0.000	0.000	Strato1_2_8_L_0				
30 D	12.00	-9.8780E-03	125.5	60.00	125.5	69.29	ACTIVE 0.000 -5.700 0.000 1.000 1.000
60.00	0.000	0.000	Strato1_2_8_L_0				
31 D	12.37	-9.6151E-03	129.4	61.87	129.4	70.73	ACTIVE 0.000 -5.900 0.000 1.000 1.000
61.87	0.000	0.000	Strato1_2_8_L_0				
32 D	12.73	-9.3444E-03	133.2	63.66	133.2	72.11	ACTIVE 0.000 -6.100 0.000 1.000 1.000
63.66	0.000	0.000	Strato1_2_8_L_0				
33 D	13.10	-9.0664E-03	137.1	65.52	137.1	73.62	ACTIVE 0.000 -6.300 0.000 1.000 1.000
65.52	0.000	0.000	Strato1_2_8_L_0				
34 D	13.46	-8.7815E-03	140.8	67.31	140.8	75.08	ACTIVE 0.000 -6.500 0.000 1.000 1.000
67.31	0.000	0.000	Strato1_2_8_L_0				
35 D	13.83	-8.4902E-03	144.7	69.17	144.7	76.69	ACTIVE 0.000 -6.700 0.000 1.000 1.000
69.17	0.000	0.000	Strato1_2_8_L_0				
36 D	14.19	-8.1931E-03	148.4	70.95	148.4	78.67	ACTIVE 0.000 -6.900 0.000 1.000 1.000
70.95	0.000	0.000	Strato1_2_8_L_0				
37 D	14.55	-7.8911E-03	152.2	72.74	152.2	80.65	ACTIVE 0.000 -7.100 0.000 1.000 1.000
72.74	0.000	0.000	Strato1_2_8_L_0				
38 D	14.92	-7.5851E-03	156.1	74.60	156.1	82.71	ACTIVE 0.000 -7.300 0.000 1.000 1.000
74.60	0.000	0.000	Strato1_2_8_L_0				
39 D	15.28	-7.2760E-03	159.8	76.39	159.8	84.70	ACTIVE 0.000 -7.500 0.000 1.000 1.000
76.39	0.000	0.000	Strato1_2_8_L_0				
40 D	15.65	-6.9650E-03	163.7	78.24	163.7	86.75	ACTIVE 0.000 -7.700 0.000 1.000 1.000
78.24	0.000	0.000	Strato1_2_8_L_0				
41 D	16.01	-6.6531E-03	167.4	80.03	167.4	88.74	ACTIVE 0.000 -7.900 0.000 1.000 1.000
80.03	0.000	0.000	Strato1_2_8_L_0				
42 D	16.38	-6.3415E-03	171.3	81.89	171.3	90.79	ACTIVE 0.000 -8.100 0.000 1.000 1.000
81.89	0.000	0.000	Strato1_2_8_L_0				
43 D	16.72	-6.0311E-03	174.9	83.62	174.9	92.71	ACTIVE 0.000 -8.300 0.000 1.000 1.000
83.62	0.000	0.000	Strato1_2_8_L_0				
44 D	17.09	-5.7230E-03	178.8	85.47	178.8	94.76	ACTIVE 0.000 -8.500 0.000 1.000 1.000
85.47	0.000	0.000	Strato1_2_8_L_0				
45 D	17.45	-5.4182E-03	182.6	87.26	182.6	96.76	ACTIVE 0.000 -8.700 0.000 1.000 1.000
87.26	0.000	0.000	Strato1_2_8_L_0				
46 D	17.82	-5.1177E-03	186.4	89.11	186.4	98.81	ACTIVE 0.000 -8.900 0.000 1.000 1.000
89.11	0.000	0.000	Strato1_2_8_L_0				
47 D	18.18	-4.8225E-03	190.2	90.91	190.2	100.8	ACTIVE 0.000 -9.100 0.000 1.000 1.000
90.91	0.000	0.000	Strato1_2_8_L_0				
48 D	18.55	-4.5333E-03	194.1	92.76	194.1	102.8	ACTIVE 0.000 -9.300 0.000 1.000 1.000
92.76	0.000	0.000	Strato1_2_8_L_0				
49 D	18.92	-4.2511E-03	197.9	94.60	197.9	104.9	ACTIVE 0.000 -9.500 0.000 1.000 1.000
94.60	0.000	0.000	Strato1_2_8_L_0				
50 D	8.828	-3.9767E-03	201.9	44.14	201.9	100.9	ACTIVE 0.000 -9.700 0.000 1.000 1.000
44.14	0.000	0.000	Strato2_3095_82743_L_0				
51 D	9.091	-3.7108E-03	205.8	45.46	205.8	102.9	ACTIVE 0.000 -9.900 0.000 1.000 1.000
45.46	0.000	0.000	Strato2_3095_82743_L_0				
52 D	9.355	-3.4543E-03	209.8	46.78	209.8	104.9	ACTIVE 0.000 -10.10 0.000 1.000 1.000
46.78	0.000	0.000	Strato2_3095_82743_L_0				
53 D	9.625	-3.2076E-03	213.8	48.13	213.8	106.9	ACTIVE 0.000 -10.30 0.000 1.000 1.000
48.13	0.000	0.000	Strato2_3095_82743_L_0				
54 D	9.889	-2.9711E-03	217.8	49.45	217.8	108.9	ACTIVE 0.000 -10.50 0.000 1.000 1.000
49.45	0.000	0.000	Strato2_3095_82743_L_0				
55 D	10.16	-2.7453E-03	221.9	50.80	221.9	110.9	ACTIVE 0.000 -10.70 0.000 1.000 1.000
50.80	0.000	0.000	Strato2_3095_82743_L_0				
56 D	10.42	-2.5304E-03	225.8	52.12	225.8	112.9	ACTIVE 0.000 -10.90 0.000 1.000 1.000
52.12	0.000	0.000	Strato2_3095_82743_L_0				
57 D	10.69	-2.3264E-03	229.9	53.47	229.9	114.9	ACTIVE 0.000 -11.10 0.000 1.000 1.000
53.47	0.000	0.000	Strato2_3095_82743_L_0				
58 D	10.95	-2.1335E-03	233.7	54.76	233.7	116.9	ACTIVE 0.000 -11.30 0.000 1.000 1.000
54.76	0.000	0.000	Strato2_3095_82743_L_0				

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6	0.000	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-1.200	0.000	1.000	1.000	
7	0.000	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-1.600	0.000	1.000	1.000	
8	0.000	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-2.000	0.000	1.000	1.000	
9	0.000	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-2.400	0.000	1.000	1.000	
10	0.000	--	--	--	--	REMOVED	--	-2.500	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-2.700	0.000	1.000	1.000	
11	0.000	--	--	--	--	REMOVED	--	-2.900	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-3.100	0.000	1.000	1.000	
12	0.000	--	--	--	--	REMOVED	--	-3.300	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-3.500	0.000	1.000	1.000	
13	0.000	--	--	--	--	REMOVED	--	-3.700	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-3.900	0.000	1.000	1.000	
14	0.000	--	--	--	--	REMOVED	--	-4.100	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-4.300	0.000	1.000	1.000	
15	0.000	--	--	--	--	REMOVED	--	-4.500	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-4.700	0.000	1.000	1.000	
16	0.000	--	--	--	--	REMOVED	--	-4.900	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-5.100	0.000	1.000	1.000	
17	0.000	--	--	--	--	REMOVED	--	-5.300	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-5.500	0.000	1.000	1.000	
18	0.000	--	--	--	--	REMOVED	--	-5.700	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-5.900	0.000	1.000	1.000	
19	0.000	--	--	--	--	REMOVED	--	-6.100	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-6.300	0.000	1.000	1.000	
20	0.000	--	--	--	--	REMOVED	--	-6.500	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-6.700	0.000	1.000	1.000	
21	0.000	--	--	--	--	REMOVED	--	-6.900	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-7.100	0.000	1.000	1.000	
22	0.000	--	--	--	--	REMOVED	--	-7.300	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-7.500	0.000	1.000	1.000	
23	0.000	--	--	--	--	REMOVED	--	-7.700	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-7.900	0.000	1.000	1.000	
24	0.000	--	--	--	--	REMOVED	--	-8.100	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-8.300	0.000	1.000	1.000	
25	0.000	--	--	--	--	REMOVED	--	-8.500	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-8.700	0.000	1.000	1.000	
26	0.000	--	--	--	--	REMOVED	--	-8.900	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--	-9.100	0.000	1.000	1.000	
27	0.000	--	--	--	--	REMOVED	--	-9.300	0.000	1.000	1.000	
0.000	0.000	0.000	not available	--	--	REMOVED	--					
28	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
29	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
30	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
31	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
32	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
33	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
34	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
35	0.000	--	--	--	--	REMOVED	--					
0.000	0.000	0.000	not available	--	--	REMOVED	--					
36 D	2.610	8.1931E-03	3.230	13.05	131.1	85.33	PASSIVE	0.000	-6.900	0.000	1.000	1.000
13.05	0.000	0.000	Strat01_2_8_L_0									
37 D	5.682	7.8911E-03	7.030	28.41	134.9	86.06	PASSIVE	0.000	-7.100	0.000	1.000	1.000
28.41	0.000	0.000	Strat01_2_8_L_0									
38 D	8.753	7.5851E-03	10.83	43.76	138.7	86.86	PASSIVE	0.000	-7.300	0.000	1.000	1.000
43.76	0.000	0.000	Strat01_2_8_L_0									
39 D	11.82	7.2760E-03	14.63	59.12	142.5	87.72	PASSIVE	0.000	-7.500	0.000	1.000	1.000
59.12	0.000	0.000	Strat01_2_8_L_0									
40 D	14.90	6.9650E-03	18.43	74.48	146.3	88.64	PASSIVE	0.000	-7.700	0.000	1.000	1.000
74.48	0.000	0.000	Strat01_2_8_L_0									
41 D	17.97	6.6531E-03	22.23	89.83	150.1	89.83	PASSIVE	0.000	-7.900	0.000	1.000	1.000
89.83	0.000	0.000	Strat01_2_8_L_0									
42 D	20.69	6.3415E-03	26.03	103.5	153.9	103.5	V-C	2626.	-8.100	0.000	1.000	1.000
103.5	0.000	0.000	Strat01_2_8_L_0									
43 D	20.84	6.0311E-03	29.83	104.2	157.7	104.2	V-C	2626.	-8.300	0.000	1.000	1.000
104.2	0.000	0.000	Strat01_2_8_L_0									
44 D	21.00	5.7230E-03	33.63	105.0	161.5	105.0	V-C	2626.	-8.500	0.000	1.000	1.000
105.0	0.000	0.000	Strat01_2_8_L_0									
45 D	21.16	5.4182E-03	37.43	105.8	165.3	105.8	V-C	2626.	-8.700	0.000	1.000	1.000
105.8	0.000	0.000	Strat01_2_8_L_0									
46 D	21.33	5.1177E-03	41.23	106.6	169.1	106.6	V-C	2626.	-8.900	0.000	1.000	1.000
106.6	0.000	0.000	Strat01_2_8_L_0									
47 D	21.51	4.8225E-03	45.03	107.5	172.9	107.5	V-C	2626.	-9.100	0.000	1.000	1.000
107.5	0.000	0.000	Strat01_2_8_L_0									
48 D	21.69	4.5333E-03	48.83	108.5	176.7	108.5	V-C	2626.	-9.300	0.000	1.000	1.000

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108.5	0.000	0.000	Strato1_2_8_L_0		
49 D	21.89	4.2511E-03	52.63 109.4	180.5	109.4
109.4	0.000	0.000	Strato1_2_8_L_0		
50 D	21.35	3.9767E-03	56.63 106.7	184.5	106.7
106.7	0.000	0.000	Strato2_3095_82743_L_0		
51 D	21.35	3.7108E-03	60.63 106.8	188.5	106.8
106.8	0.000	0.000	Strato2_3095_82743_L_0		
52 D	21.37	3.4543E-03	64.63 106.9	192.5	106.9
106.9	0.000	0.000	Strato2_3095_82743_L_0		
53 D	21.42	3.2076E-03	68.63 107.1	196.5	107.1
107.1	0.000	0.000	Strato2_3095_82743_L_0		
54 D	21.48	2.9711E-03	72.63 107.4	200.5	107.4
107.4	0.000	0.000	Strato2_3095_82743_L_0		
55 D	21.56	2.7453E-03	76.63 107.8	204.5	107.8
107.8	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.67	2.5304E-03	80.63 108.3	208.5	108.3
108.3	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.79	2.3264E-03	84.63 108.9	212.5	108.9
108.9	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.87	2.1335E-03	88.63 109.3	216.5	109.8
109.3	0.000	0.000	Strato2_3095_82743_L_0		
59 D	21.57	1.9515E-03	92.63 107.9	220.5	111.8
107.9	0.000	0.000	Strato2_3095_82743_L_0		
60 D	21.34	1.7802E-03	96.63 106.7	224.5	113.7
106.7	0.000	0.000	Strato2_3095_82743_L_0		
61 D	21.15	1.6193E-03	100.6 105.7	228.5	115.7
105.7	0.000	0.000	Strato2_3095_82743_L_0		
62 D	21.01	1.4685E-03	104.6 105.0	232.5	117.7
105.0	0.000	0.000	Strato2_3095_82743_L_0		
63 D	20.91	1.3273E-03	108.6 104.5	236.5	119.6
104.5	0.000	0.000	Strato2_3095_82743_L_0		
64 D	20.85	1.1951E-03	112.6 104.3	240.5	121.6
104.3	0.000	0.000	Strato2_3095_82743_L_0		
65 D	20.83	1.0715E-03	116.6 104.2	244.5	123.6
104.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	20.85	9.5564E-04	120.6 104.2	248.5	125.5
104.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	20.89	8.4702E-04	124.6 104.5	252.5	127.5
104.5	0.000	0.000	Strato2_3095_82743_L_0		
68 D	20.97	7.4494E-04	128.6 104.8	256.5	129.5
104.8	0.000	0.000	Strato2_3095_82743_L_0		
69 D	21.07	6.4872E-04	132.6 105.3	260.5	131.5
105.3	0.000	0.000	Strato2_3095_82743_L_0		
70 D	21.19	5.5769E-04	136.6 105.9	264.5	133.5
105.9	0.000	0.000	Strato2_3095_82743_L_0		
71 D	21.32	4.7119E-04	140.6 106.6	268.5	135.5
106.6	0.000	0.000	Strato2_3095_82743_L_0		
72 D	21.48	3.8858E-04	144.6 107.4	272.5	137.4
107.4	0.000	0.000	Strato2_3095_82743_L_0		
73 D	21.64	3.0925E-04	148.6 108.2	276.5	139.4
108.2	0.000	0.000	Strato2_3095_82743_L_0		
74 D	21.82	2.3261E-04	152.6 109.1	280.5	141.4
109.1	0.000	0.000	Strato2_3095_82743_L_0		
75 D	22.00	1.5813E-04	156.6 110.0	284.5	143.4
110.0	0.000	0.000	Strato2_3095_82743_L_0		
76 D	22.19	8.5320E-05	160.6 111.0	288.5	145.4
111.0	0.000	0.000	Strato2_3095_82743_L_0		
77 D	22.38	1.3731E-05	164.6 111.9	292.5	147.4
111.9	0.000	0.000	Strato2_3095_82743_L_0		
78 D	22.58	-5.7014E-05	168.6 112.9	296.5	149.4
112.9	0.000	0.000	Strato2_3095_82743_L_0		
79 D	22.77	-1.2723E-04	172.6 113.9	300.5	151.4
113.9	0.000	0.000	Strato2_3095_82743_L_0		
80 D	22.97	-1.9716E-04	176.6 114.8	304.5	153.4
114.8	0.000	0.000	Strato2_3095_82743_L_0		
81 D	17.37	-2.6699E-04	180.6 115.8	308.5	155.4
115.8	0.000	0.000	Strato2_3095_82743_L_0		
82 D	5.815	-3.0189E-04	182.6 116.3	310.5	156.4
116.3	0.000	0.000	Strato2_3095_82743_L_0		

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Progetto
INOR

Lotto
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|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      10:49:24
|
-----
    
```

New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.1950	-1.1950	1.84786E-10	0.23900
2	3.0408	-3.0408	-0.23900	0.84715
3	5.4462	-5.4462	-0.84715	1.9364
4	8.1565	-8.1565	-1.9364	3.5677
5	11.304	-11.304	-3.5677	5.8286
6	14.775	-14.775	-5.8286	8.7836
7	18.655	-18.655	-8.7836	12.515
8	22.868	-22.868	-12.515	17.088
9	27.412	-27.412	-17.088	22.571
10	32.303	-32.303	-22.571	29.031
11	37.589	-37.589	-29.031	36.549
12	43.223	-43.223	-36.549	45.194
13	47.739	-47.739	-45.194	49.968
14	-129.33	129.33	-49.968	24.101
15	-122.79	122.79	-24.101	-0.45700
16	-115.86	115.86	0.45700	-23.629
17	-108.58	108.58	23.629	-45.346
18	-100.92	100.92	45.346	-65.530
19	-92.908	92.908	65.530	-84.112
20	-84.517	84.517	84.112	-101.02
21	-75.799	75.799	101.02	-116.17
22	-66.702	66.702	116.17	-129.52
23	-57.229	57.229	129.52	-140.96
24	-47.401	47.401	140.96	-150.44
25	-37.197	37.197	150.44	-157.88
26	-26.638	26.638	157.88	-163.21
27	-15.704	15.704	163.21	-166.35
28	-4.4345	4.4345	166.35	-167.24
29	7.2093	-7.2093	167.24	-165.79
30	19.210	-19.210	165.79	-161.95
31	31.584	-31.584	161.95	-155.64
32	44.316	-44.316	155.64	-146.77
33	57.420	-57.420	146.77	-135.29
34	70.882	-70.882	135.29	-121.11
35	84.716	-84.716	121.11	-104.17
36	96.295	-96.295	104.17	-84.909
37	105.16	-105.16	84.909	-63.877
38	111.33	-111.33	63.877	-41.612
39	114.78	-114.78	41.612	-18.655
40	115.53	-115.53	18.655	4.4515
41	113.58	-113.58	-4.4515	27.167
42	109.26	-109.26	-27.167	49.019
43	105.15	-105.15	-49.019	70.048
44	101.24	-101.24	-70.048	90.296
45	97.537	-97.537	-90.296	109.80
46	94.031	-94.031	-109.80	128.61
47	90.707	-90.707	-128.61	146.75
48	87.567	-87.567	-146.75	164.26
49	84.602	-84.602	-164.26	181.18
50	72.082	-72.082	-181.18	195.60
51	59.822	-59.822	-195.60	207.57
52	47.804	-47.804	-207.57	217.13
53	36.013	-36.013	-217.13	224.33
54	24.423	-24.423	-224.33	229.21
55	13.021	-13.021	-229.21	231.82
56	1.7783	-1.7783	-231.82	232.17
57	-9.3179	9.3179	-232.17	230.31
58	-20.232	20.232	-230.31	226.26
59	-30.585	30.585	-226.26	220.15
60	-40.435	40.435	-220.15	212.06
61	-49.102	49.102	-212.06	202.24
62	-56.133	56.133	-202.24	191.01
63	-61.668	61.668	-191.01	178.68

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64	-65.822	65.822	-178.68	165.51
65	-68.723	68.723	-165.51	151.77
66	-70.458	70.458	-151.77	137.68
67	-71.133	71.133	-137.68	123.45
68	-70.832	70.832	-123.45	109.28
69	-69.628	69.628	-109.28	95.359
70	-67.583	67.583	-95.359	81.843
71	-64.752	64.752	-81.843	68.892
72	-61.183	61.183	-68.892	56.656
73	-56.920	56.920	-56.656	45.272
74	-51.988	51.988	-45.272	34.874
75	-46.410	46.410	-34.874	25.592
76	-40.206	40.206	-25.592	17.551
77	-33.384	33.384	-17.551	10.874
78	-25.955	25.955	-10.874	5.6829
79	-17.924	17.924	-5.6829	2.0981
80	-9.2997	9.2997	-2.0981	0.23821
81	-2.3818	2.3818	-0.23821	-7.49312E-12

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019    10:49:24
|
-----

```

New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	188.13	-1.98299E-03	3.56098E-03	0.0000	4424.2	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019    10:49:24
|
-----

```

FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	4
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	5

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.27 [sec]

1.3. Design Assumption : SLE (Rara) - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SLE (Rara)

* Time:mercoledì 24 luglio 2019 10:49:25

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

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```
* 2: Defining wall(s)
WALL LeftWall_32 0 -16 0 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 -16 0 1 0
SOIL 0_R LeftWall_32 -16 0 2 180

* 4: Defining soil layers
*
* Soil Profile (Strato1_2_8_L_0)
*
LDATA Strato1_2_8_L_0 5.84 LeftWall_32
ATREST 0.53 1 1
WEIGHT 19 9 10
PERMEABILITY 1E-06
RESISTANCE 0 29
YOUNG 2E+04 6E+04
ENDL
*
* Soil Profile (Strato2_3095_82743_L_0)
*
LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32
ATREST 0.5 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 20 35
YOUNG 5E+04 1.5E+05
ENDL

* 5: Defining structural materials
* Steel material: 108 Name=Fe360 E=206000200 kPa
MATERIAL Fe360_108 2.06E+08
* Concrete material: 104 Name=C25/30 E=31475800 kPa
MATERIAL C2530_104 3.148E+07
* Rebar material: 124 Name=acciaio armonico E=200100000 kPa
MATERIAL acciaioarmonico_124 2.001E+08
* Concrete material: 103 Name=C20/25 E=29962000 kPa
MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0

* 6.2: Supports
WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0

* 6.3: Strips
STRIP LeftWall_32 2 5 0 13 0 15 45
STRIP LeftWall_32 2 5 0 40 0 10 30

* 7: Defining Steps
STEP Stage1_31
CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KA=0.478 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KP=5.914 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KA=0.333 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KP=8.331 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ADD WallElement_33
ENDSTEP

STEP Stage2_759103
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
```

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```

SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage3_158
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage4_617
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ADD Tieback_768111
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -6.73
WATER -26 0 -16 0 0
ENDSTEP

```

1.4. Design Assumption : SLE (Rara) - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                       |
|                               Exe Time :24 July 2019  10:49:25                               |
|                                                                                               |
-----

```

```

*****
*
* PARATIE PLUS Non-Linear Spring Engine
*
* AN ELASTOPLASTIC FINITE ELEMENT PROGRAM
* FOR FLEXIBLE EARTH-RETAINING STRUCTURES
*
* Written by Ce.A.S. s.r.l. (ITALY)
* with the scientific supervision of
* Roberto Nova - full professor SOIL MECHANICS
* at Politecnico di Milano (ITALY)
*
*****
*
* RELEASE  2017.1  *Build date:Jul 11, 2017*  *
*
*
* Ce.A.S.  S.R.L  CENTRO DI ANALISI STRUTTURALE
* VIALE GIUSTINIANO 10
* 20129  M I L A N O (ITALIA)
* TEL.    +39 02 2020221  (+39 035 23 67 19)
* FAX     +39 02 29512533  (+39 035 42285 49)
* email   bruno.becci@ceas.it
* Web Page www.ceas.it
*****

```

```

JOB : NewProject.BaseDesignSection_28.SLERara_3454
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL_STRESS >
ACCEPTED <PARAM ITEMAX 100 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >

```



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```
*****
*
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED
* BY THE PROGRAM.
*
*****
```

PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

```
-----
| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
|                               NewProject.BaseDesignSection_28.SLERara_3454           |
|                               Exe Time :24 July 2019 10:49:25                       |
|-----
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 82
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 164
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 89
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 ( M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES kPa
Y-DISPLACEMENTS m
ROTATIONS RADIANS
BEAM AND SLAB MOMENTS kN*m/m
BEAM SHEAR FORCES kN/m
ANCHOR FORCES kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS kN/m
Y-REACTIONS kN/m
X-MOMENT REACTIONS kN*m/m
ETC.
```

```
-----
| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
|                               NewProject.BaseDesignSection_28.SLERara_3454           |
|                               Exe Time :24 July 2019 10:49:25                       |
|-----
```

PREPROCESSOR DATA

NO. OF COMMANDS 89

```
1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Stratol_2_8_L_0 5.84 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
```

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```

13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0
29 : STRIP LeftWall_32 2 5 0 13 0 15 45
30 : STRIP LeftWall_32 2 5 0 40 0 10 30
31 : STEP Stage1_31
32 : CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KA=0.478 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 U-KP=5.914 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
37 : CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KA=0.333 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 U-KP=8.331 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
43 : CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
45 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
47 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
48 : SETWALL LeftWall_32
49 : GEOM 0 0
50 : WATER -26 0 -16 0 0
51 : ADD WallElement_33
52 : ENDSTEP
53 : STEP Stage2_759103
54 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
55 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
56 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
57 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
58 : SETWALL LeftWall_32
59 : GEOM 0 0
60 : WATER -26 0 -16 0 0
61 : ENDSTEP
62 : STEP Stage3_158
63 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
64 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
65 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
66 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
67 : SETWALL LeftWall_32
68 : GEOM 0 -3
69 : WATER -26 0 -16 0 0
70 : ENDSTEP
71 : STEP Stage4_617
72 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
73 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
74 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
75 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
76 : SETWALL LeftWall_32
77 : GEOM 0 -3
78 : WATER -26 0 -16 0 0
79 : ADD Tieback_768111
80 : ENDSTEP
81 : STEP Stage5_714
82 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
83 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
84 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
85 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
86 : SETWALL LeftWall_32
87 : GEOM 0 -6.73
88 : WATER -26 0 -16 0 0
89 : ENDSTEP

```


GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019          10:49:25      |
|-----

```

ELEMENT GROUP NO. 1

```

0_L          :
 5 82 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0 0

```

```

.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

stage status

```

-----
1 active
2 active
3 active
4 active
5 active

```

material set no. 1

```

prop( 1) angle          0.00000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle          0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.1500	0.000	0.000	0.000	1.000
14	14	1	0.1500	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	2	0.2000	0.000	0.000	0.000	1.000
51	51	2	0.2000	0.000	0.000	0.000	1.000
52	52	2	0.2000	0.000	0.000	0.000	1.000
53	53	2	0.2000	0.000	0.000	0.000	1.000
54	54	2	0.2000	0.000	0.000	0.000	1.000
55	55	2	0.2000	0.000	0.000	0.000	1.000
56	56	2	0.2000	0.000	0.000	0.000	1.000
57	57	2	0.2000	0.000	0.000	0.000	1.000
58	58	2	0.2000	0.000	0.000	0.000	1.000
59	59	2	0.2000	0.000	0.000	0.000	1.000
60	60	2	0.2000	0.000	0.000	0.000	1.000
61	61	2	0.2000	0.000	0.000	0.000	1.000
62	62	2	0.2000	0.000	0.000	0.000	1.000
63	63	2	0.2000	0.000	0.000	0.000	1.000
64	64	2	0.2000	0.000	0.000	0.000	1.000
65	65	2	0.2000	0.000	0.000	0.000	1.000
66	66	2	0.2000	0.000	0.000	0.000	1.000
67	67	2	0.2000	0.000	0.000	0.000	1.000
68	68	2	0.2000	0.000	0.000	0.000	1.000
69	69	2	0.2000	0.000	0.000	0.000	1.000
70	70	2	0.2000	0.000	0.000	0.000	1.000
71	71	2	0.2000	0.000	0.000	0.000	1.000
72	72	2	0.2000	0.000	0.000	0.000	1.000
73	73	2	0.2000	0.000	0.000	0.000	1.000
74	74	2	0.2000	0.000	0.000	0.000	1.000
75	75	2	0.2000	0.000	0.000	0.000	1.000
76	76	2	0.2000	0.000	0.000	0.000	1.000
77	77	2	0.2000	0.000	0.000	0.000	1.000
78	78	2	0.2000	0.000	0.000	0.000	1.000
79	79	2	0.2000	0.000	0.000	0.000	1.000
80	80	2	0.2000	0.000	0.000	0.000	1.000
81	81	2	0.1500	0.000	0.000	0.000	1.000
82	82	2	0.5000E-01	0.000	0.000	0.000	1.000

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
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```

ELEMENT GROUP NO.  2

O_R      :
  5 82  0  1  0  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0  0

```

```

.....2D PLASTIC SOIL .....
.....

```

```

element group behaviour throughout stage analysis

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active

material set no.  1

prop( 1) angle      180.000
prop( 2) layer as foreseen  1.00000

material set no.  2

prop( 1) angle      180.000
prop( 2) layer as foreseen  2.00000

element data

el  n  mat  area  ....  ....  ....  flag
-----

```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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1	1	1	0.1000	0.000	0.000	0.000	2.000					
2	2	1	0.2000	0.000	0.000	0.000	2.000					
3	3	1	0.2000	0.000	0.000	0.000	2.000					
4	4	1	0.2000	0.000	0.000	0.000	2.000					
5	5	1	0.2000	0.000	0.000	0.000	2.000					
6	6	1	0.2000	0.000	0.000	0.000	2.000					
7	7	1	0.2000	0.000	0.000	0.000	2.000					
8	8	1	0.2000	0.000	0.000	0.000	2.000					
9	9	1	0.2000	0.000	0.000	0.000	2.000					
10	10	1	0.2000	0.000	0.000	0.000	2.000					
11	11	1	0.2000	0.000	0.000	0.000	2.000					
12	12	1	0.2000	0.000	0.000	0.000	2.000					
13	13	1	0.1500	0.000	0.000	0.000	2.000					
14	14	1	0.1500	0.000	0.000	0.000	2.000					
15	15	1	0.2000	0.000	0.000	0.000	2.000					
16	16	1	0.2000	0.000	0.000	0.000	2.000					
17	17	1	0.2000	0.000	0.000	0.000	2.000					
18	18	1	0.2000	0.000	0.000	0.000	2.000					
19	19	1	0.2000	0.000	0.000	0.000	2.000					
20	20	1	0.2000	0.000	0.000	0.000	2.000					
21	21	1	0.2000	0.000	0.000	0.000	2.000					
22	22	1	0.2000	0.000	0.000	0.000	2.000					
23	23	1	0.2000	0.000	0.000	0.000	2.000					
24	24	1	0.2000	0.000	0.000	0.000	2.000					
25	25	1	0.2000	0.000	0.000	0.000	2.000					
26	26	1	0.2000	0.000	0.000	0.000	2.000					
27	27	1	0.2000	0.000	0.000	0.000	2.000					
28	28	1	0.2000	0.000	0.000	0.000	2.000					
29	29	1	0.2000	0.000	0.000	0.000	2.000					
30	30	1	0.2000	0.000	0.000	0.000	2.000					
31	31	1	0.2000	0.000	0.000	0.000	2.000					
32	32	1	0.2000	0.000	0.000	0.000	2.000					
33	33	1	0.2000	0.000	0.000	0.000	2.000					
34	34	1	0.2000	0.000	0.000	0.000	2.000					
35	35	1	0.2000	0.000	0.000	0.000	2.000					
36	36	1	0.2000	0.000	0.000	0.000	2.000					
37	37	1	0.2000	0.000	0.000	0.000	2.000					
38	38	1	0.2000	0.000	0.000	0.000	2.000					
39	39	1	0.2000	0.000	0.000	0.000	2.000					
40	40	1	0.2000	0.000	0.000	0.000	2.000					
41	41	1	0.2000	0.000	0.000	0.000	2.000					
42	42	1	0.2000	0.000	0.000	0.000	2.000					
43	43	1	0.2000	0.000	0.000	0.000	2.000					
44	44	1	0.2000	0.000	0.000	0.000	2.000					
45	45	1	0.2000	0.000	0.000	0.000	2.000					
46	46	1	0.2000	0.000	0.000	0.000	2.000					
47	47	1	0.2000	0.000	0.000	0.000	2.000					
48	48	1	0.2000	0.000	0.000	0.000	2.000					
49	49	1	0.2000	0.000	0.000	0.000	2.000					
50	50	2	0.2000	0.000	0.000	0.000	2.000					
51	51	2	0.2000	0.000	0.000	0.000	2.000					
52	52	2	0.2000	0.000	0.000	0.000	2.000					
53	53	2	0.2000	0.000	0.000	0.000	2.000					
54	54	2	0.2000	0.000	0.000	0.000	2.000					
55	55	2	0.2000	0.000	0.000	0.000	2.000					
56	56	2	0.2000	0.000	0.000	0.000	2.000					
57	57	2	0.2000	0.000	0.000	0.000	2.000					
58	58	2	0.2000	0.000	0.000	0.000	2.000					
59	59	2	0.2000	0.000	0.000	0.000	2.000					
60	60	2	0.2000	0.000	0.000	0.000	2.000					
61	61	2	0.2000	0.000	0.000	0.000	2.000					
62	62	2	0.2000	0.000	0.000	0.000	2.000					
63	63	2	0.2000	0.000	0.000	0.000	2.000					
64	64	2	0.2000	0.000	0.000	0.000	2.000					
65	65	2	0.2000	0.000	0.000	0.000	2.000					
66	66	2	0.2000	0.000	0.000	0.000	2.000					
67	67	2	0.2000	0.000	0.000	0.000	2.000					
68	68	2	0.2000	0.000	0.000	0.000	2.000					
69	69	2	0.2000	0.000	0.000	0.000	2.000					
70	70	2	0.2000	0.000	0.000	0.000	2.000					
71	71	2	0.2000	0.000	0.000	0.000	2.000					
72	72	2	0.2000	0.000	0.000	0.000	2.000					
73	73	2	0.2000	0.000	0.000	0.000	2.000					
74	74	2	0.2000	0.000	0.000	0.000	2.000					
75	75	2	0.2000	0.000	0.000	0.000	2.000					
76	76	2	0.2000	0.000	0.000	0.000	2.000					
77	77	2	0.2000	0.000	0.000	0.000	2.000					
78	78	2	0.2000	0.000	0.000	0.000	2.000					
79	79	2	0.2000	0.000	0.000	0.000	2.000					
80	80	2	0.2000	0.000	0.000	0.000	2.000					
81	81	2	0.1500	0.000	0.000	0.000	2.000					
82	82	2	0.5000E-01	0.000	0.000	0.000	2.000					



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
|                                                                    |
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ELEMENT GROUP NO. 3

WallElement_33 :

2 81 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0

.....2D WALL ELEMENT.....

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

material set no. 1

prop(1) young modulus 0.314800E+08

prop(2) modification time 0.00000

prop(3) new young modulus 0.00000

prop(4) poisson ratio 0.00000

prop(5) future0.252200E-43

no. of step variable items: 1

step	inertia multiplier
1	1.000
2	1.000
3	1.000
4	1.000
5	1.000

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000
29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000
37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000

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ALTA SORVEGLIANZA



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39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000
62	62	63	1	0.000	0.000	0.6848	0.000	0.000
63	63	64	1	0.000	0.000	0.6848	0.000	0.000
64	64	65	1	0.000	0.000	0.6848	0.000	0.000
65	65	66	1	0.000	0.000	0.6848	0.000	0.000
66	66	67	1	0.000	0.000	0.6848	0.000	0.000
67	67	68	1	0.000	0.000	0.6848	0.000	0.000
68	68	69	1	0.000	0.000	0.6848	0.000	0.000
69	69	70	1	0.000	0.000	0.6848	0.000	0.000
70	70	71	1	0.000	0.000	0.6848	0.000	0.000
71	71	72	1	0.000	0.000	0.6848	0.000	0.000
72	72	73	1	0.000	0.000	0.6848	0.000	0.000
73	73	74	1	0.000	0.000	0.6848	0.000	0.000
74	74	75	1	0.000	0.000	0.6848	0.000	0.000
75	75	76	1	0.000	0.000	0.6848	0.000	0.000
76	76	77	1	0.000	0.000	0.6848	0.000	0.000
77	77	78	1	0.000	0.000	0.6848	0.000	0.000
78	78	79	1	0.000	0.000	0.6848	0.000	0.000
79	79	80	1	0.000	0.000	0.6848	0.000	0.000
80	80	81	1	0.000	0.000	0.6848	0.000	0.000
81	81	82	1	0.000	0.000	0.6848	0.000	0.000

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|                                                                                               |
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ELEMENT GROUP NO.  4

Tieback_768111      :
6  1  0  1  0  0  0  0  0  0  0  0  0  0  0  1  0  0  2  0
.....
.....2D POST-TENSION ANCHOR....
.....

```

element group behaviour throughout stage analysis

stage	status
1	inactive
2	inactive
3	inactive
4	active
5	active

```

material set no.  1

prop( 1) angle  15.0000
prop( 2) young modulus 0.200100E+09
prop( 3) modification time 0.000000
prop( 4) new young modulus 0.000000

```

```

no. of step variable items:  2
step  -ve lim  +ve lim
-----
1  0.000  0.000
2  0.000  0.000
3  0.000  0.000
4  0.000  0.000

```

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5 0.000 0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	14	1	0.2211E-04	163.6	0.000	0.000

```
-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
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NO. OF NODAL LOADS (NLOAD) 0
NO. OF LOAD CURVES (NLCUR) 10
MAXIMUM POINTS/LCURVE (NPTM) 5

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L O A D D A T A

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00

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1.00000 0.1000E+01
6.00000 0.1000E+01

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

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Cepav due



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|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
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NO. OF LAYERS 2
 NO. OF DATA PER LAYER..... 100

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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
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LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

- ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
- ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
- ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
- ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
- ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
- ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
- ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
- ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
- ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
- ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
- ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
- ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
- ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
- ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
- ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
- ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
- ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
- ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
- ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
- ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
- ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
- ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
- ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

- ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
- ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
- ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
- ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
- ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
- ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
- ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
- ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
- ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
- ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
- ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
- ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
- ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
- ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
- ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
- ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
- ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
- ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
- ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
- ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
- ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
- ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
- ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
- ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
- ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)

GENERAL CONTRACTOR



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ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 5.8400	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.47800	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.9140	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -9.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.33300	WALL NO.	1
ITEM NO.	11<U-KP	>= 8.3310	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.23500	WALL NO.	1
ITEM NO.	61<D-KP	>= 5.8790	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 10 VALUES

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019    10:49:25
|
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PHASE DESCRIPTORS

STEP NO.	1		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00



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UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 4

STEP NO.	5		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-6.730	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000



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SEISMIC PRESSURE UPPER VALUE 0.000 0.000
 SEISMIC PRESSURE LOWER LEVEL 0.000 0.000
 SEISMIC PRESSURE UPPER LEVEL 0.000 0.000

=====end of step 5

LEFT-HAND WALL

LOWER LEVEL -16.00000
 UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -16.00000
 UPPER LEVEL 0.00000

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+-----+
|                PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                                  |
|                NewProject.BaseDesignSection_28.SLERara_3454  |
|                Exe Time :24 July 2019   10:49:25  |
+-----+
    
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I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 2

INPUT DATA FOR INITIAL STRESS SET NO. 1
 PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 2.0000
 END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
 FOUNDATION WIDTH (B) 13.000000000000000
 ZETA-F..... 0.000000000000000E+000
 Q-F 15.000000000000000
 BETA 45.000000000000000
 BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO. 2
 PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 2.0000
 END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
 FOUNDATION WIDTH (B) 40.000000000000000
 ZETA-F..... 0.000000000000000E+000
 Q-F 10.000000000000000
 BETA 30.000000000000000
 BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
 POSITION 3803

NO. OF D.P.W FOR THIS AREA 9726
 MAX NO. OF D.P.W. AVAILABLE 81920
 ** MAX NO OF ITERATIONS SET TO 100

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ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5099E+05  RIMNOR= 0.000
          RENORM= 0.000    REMNR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 30.45    RFMAX = 0.000
          RTSMAL=0.1000E-03  RMSMAL= 0.000
          RDT  =0.5099E+05  RDR  = 0.000
          RATIOT= 0.000    RATIOR= 0.000
          MAX UN= 0.000    IEQ=  164 NODE    82 DOF    2    X-ROT. F
          MIN UN= 0.000    IEQ=    1 NODE    1 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0
    
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GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



ITALFERR

GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 84 di 560						
6 D	2.014	0.000	19.00 10.07	19.00	10.07	V-C	1.5916E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0								
7 D	2.417	0.000	22.80 12.08	22.80	12.08	V-C	1.5916E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Strato1_2_8_L_0								
8 D	2.820	0.000	26.60 14.10	26.60	14.10	V-C	1.5916E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Strato1_2_8_L_0								
9 D	3.222	0.000	30.40 16.11	30.40	16.11	V-C	1.5916E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Strato1_2_8_L_0								
10 D	3.625	0.000	34.20 18.13	34.20	18.13	V-C	1.5916E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Strato1_2_8_L_0								
11 D	4.028	0.000	38.00 20.14	38.00	20.14	V-C	1.5916E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Strato1_2_8_L_0								
12 D	4.431	0.000	41.80 22.15	41.80	22.15	V-C	1.5916E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Strato1_2_8_L_0								
13 D	3.625	0.000	45.60 24.17	45.60	24.17	V-C	1.5916E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Strato1_2_8_L_0								
14 D	3.776	0.000	47.50 25.18	47.50	25.18	V-C	1.5916E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Strato1_2_8_L_0								
15 D	5.438	0.000	51.30 27.19	51.30	27.19	V-C	1.5916E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Strato1_2_8_L_0								
16 D	5.841	0.000	55.10 29.20	55.10	29.20	V-C	1.5916E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Strato1_2_8_L_0								
17 D	6.243	0.000	58.90 31.22	58.90	31.22	V-C	1.5916E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Strato1_2_8_L_0								
18 D	6.646	0.000	62.70 33.23	62.70	33.23	V-C	1.5916E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Strato1_2_8_L_0								
19 D	7.049	0.000	66.50 35.25	66.50	35.25	V-C	1.5916E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Strato1_2_8_L_0								
20 D	7.452	0.000	70.30 37.26	70.30	37.26	V-C	1.5916E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Strato1_2_8_L_0								
21 D	7.855	0.000	74.10 39.27	74.10	39.27	V-C	1.5916E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Strato1_2_8_L_0								
22 D	8.257	0.000	77.90 41.29	77.90	41.29	V-C	1.5916E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Strato1_2_8_L_0								
23 D	8.660	0.000	81.70 43.30	81.70	43.30	V-C	1.5916E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Strato1_2_8_L_0								
24 D	9.063	0.000	85.50 45.32	85.50	45.32	V-C	1.5916E+04	-4.500	0.000	1.000	1.000
45.32	0.000	0.000	Strato1_2_8_L_0								
25 D	9.466	0.000	89.30 47.33	89.30	47.33	V-C	1.5916E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Strato1_2_8_L_0								
26 D	9.869	0.000	93.10 49.34	93.10	49.34	V-C	1.5916E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Strato1_2_8_L_0								
27 D	10.27	0.000	96.90 51.36	96.90	51.36	V-C	1.5916E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Strato1_2_8_L_0								
28 D	10.67	0.000	100.7 53.37	100.7	53.37	V-C	1.5916E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Strato1_2_8_L_0								
29 D	11.08	0.000	104.5 55.38	104.5	55.38	V-C	1.5916E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Strato1_2_8_L_0								
30 D	11.48	0.000	108.3 57.40	108.3	57.40	V-C	1.5916E+04	-5.700	0.000	1.000	1.000
57.40	0.000	0.000	Strato1_2_8_L_0								
31 D	11.88	0.000	112.1 59.41	112.1	59.41	V-C	1.5916E+04	-5.900	0.000	1.000	1.000
59.41	0.000	0.000	Strato1_2_8_L_0								
32 D	12.29	0.000	115.9 61.43	115.9	61.43	V-C	1.5916E+04	-6.100	0.000	1.000	1.000
61.43	0.000	0.000	Strato1_2_8_L_0								
33 D	12.69	0.000	119.7 63.44	119.7	63.44	V-C	1.5916E+04	-6.300	0.000	1.000	1.000
63.44	0.000	0.000	Strato1_2_8_L_0								
34 D	13.09	0.000	123.5 65.45	123.5	65.45	V-C	1.5916E+04	-6.500	0.000	1.000	1.000
65.45	0.000	0.000	Strato1_2_8_L_0								
35 D	13.49	0.000	127.3 67.47	127.3	67.47	V-C	1.5916E+04	-6.700	0.000	1.000	1.000
67.47	0.000	0.000	Strato1_2_8_L_0								
36 D	13.90	0.000	131.1 69.48	131.1	69.48	V-C	1.5916E+04	-6.900	0.000	1.000	1.000
69.48	0.000	0.000	Strato1_2_8_L_0								
37 D	14.30	0.000	134.9 71.50	134.9	71.50	V-C	1.5916E+04	-7.100	0.000	1.000	1.000
71.50	0.000	0.000	Strato1_2_8_L_0								
38 D	14.70	0.000	138.7 73.51	138.7	73.51	V-C	1.5916E+04	-7.300	0.000	1.000	1.000
73.51	0.000	0.000	Strato1_2_8_L_0								
39 D	15.10	0.000	142.5 75.52	142.5	75.52	V-C	1.5916E+04	-7.500	0.000	1.000	1.000
75.52	0.000	0.000	Strato1_2_8_L_0								
40 D	15.51	0.000	146.3 77.54	146.3	77.54	V-C	1.5916E+04	-7.700	0.000	1.000	1.000
77.54	0.000	0.000	Strato1_2_8_L_0								
41 D	15.91	0.000	150.1 79.55	150.1	79.55	V-C	1.5916E+04	-7.900	0.000	1.000	1.000
79.55	0.000	0.000	Strato1_2_8_L_0								
42 D	16.31	0.000	153.9 81.57	153.9	81.57	V-C	1.5916E+04	-8.100	0.000	1.000	1.000
81.57	0.000	0.000	Strato1_2_8_L_0								
43 D	16.72	0.000	157.7 83.58	157.7	83.58	V-C	1.5916E+04	-8.300	0.000	1.000	1.000
83.58	0.000	0.000	Strato1_2_8_L_0								
44 D	17.12	0.000	161.5 85.59	161.5	85.59	V-C	1.5916E+04	-8.500	0.000	1.000	1.000
85.59	0.000	0.000	Strato1_2_8_L_0								
45 D	17.52	0.000	165.3 87.61	165.3	87.61	V-C	1.5916E+04	-8.700	0.000	1.000	1.000
87.61	0.000	0.000	Strato1_2_8_L_0								
46 D	17.92	0.000	169.1 89.62	169.1	89.62	V-C	1.5916E+04	-8.900	0.000	1.000	1.000
89.62	0.000	0.000	Strato1_2_8_L_0								
47 D	18.33	0.000	172.9 91.64	172.9	91.64	V-C	1.5916E+04	-9.100	0.000	1.000	1.000
91.64	0.000	0.000	Strato1_2_8_L_0								
48 D	18.73	0.000	176.7 93.65	176.7	93.65	V-C	1.5916E+04	-9.300	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 85 di 560
93.65	0.000	0.000	Strato1_2_8_L_0		
49 D	19.13	0.000	180.5 95.66	180.5	95.66
95.66	0.000	0.000	Strato1_2_8_L_0		
50 D	18.45	0.000	184.5 92.25	184.5	92.25
92.25	0.000	0.000	Strato2_3095_82743_L_0		
51 D	18.85	0.000	188.5 94.25	188.5	94.25
94.25	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.25	0.000	192.5 96.25	192.5	96.25
96.25	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.65	0.000	196.5 98.25	196.5	98.25
98.25	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.05	0.000	200.5 100.2	200.5	100.2
100.2	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.45	0.000	204.5 102.2	204.5	102.2
102.2	0.000	0.000	Strato2_3095_82743_L_0		
56 D	20.85	0.000	208.5 104.2	208.5	104.2
104.2	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.25	0.000	212.5 106.2	212.5	106.2
106.2	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.65	0.000	216.5 108.2	216.5	108.2
108.2	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.05	0.000	220.5 110.2	220.5	110.2
110.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.45	0.000	224.5 112.2	224.5	112.2
112.2	0.000	0.000	Strato2_3095_82743_L_0		
61 D	22.85	0.000	228.5 114.2	228.5	114.2
114.2	0.000	0.000	Strato2_3095_82743_L_0		
62 D	23.25	0.000	232.5 116.2	232.5	116.2
116.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.65	0.000	236.5 118.2	236.5	118.2
118.2	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.05	0.000	240.5 120.2	240.5	120.2
120.2	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.45	0.000	244.5 122.2	244.5	122.2
122.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	24.85	0.000	248.5 124.2	248.5	124.2
124.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.25	0.000	252.5 126.2	252.5	126.2
126.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.65	0.000	256.5 128.2	256.5	128.2
128.2	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.05	0.000	260.5 130.2	260.5	130.2
130.2	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.45	0.000	264.5 132.2	264.5	132.2
132.2	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.85	0.000	268.5 134.2	268.5	134.2
134.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.25	0.000	272.5 136.2	272.5	136.2
136.2	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.65	0.000	276.5 138.2	276.5	138.2
138.2	0.000	0.000	Strato2_3095_82743_L_0		
74 D	28.05	0.000	280.5 140.2	280.5	140.2
140.2	0.000	0.000	Strato2_3095_82743_L_0		
75 D	28.45	0.000	284.5 142.2	284.5	142.2
142.2	0.000	0.000	Strato2_3095_82743_L_0		
76 D	28.85	0.000	288.5 144.2	288.5	144.2
144.2	0.000	0.000	Strato2_3095_82743_L_0		
77 D	29.25	0.000	292.5 146.2	292.5	146.2
146.2	0.000	0.000	Strato2_3095_82743_L_0		
78 D	29.65	0.000	296.5 148.2	296.5	148.2
148.2	0.000	0.000	Strato2_3095_82743_L_0		
79 D	30.05	0.000	300.5 150.2	300.5	150.2
150.2	0.000	0.000	Strato2_3095_82743_L_0		
80 D	30.45	0.000	304.5 152.2	304.5	152.2
152.2	0.000	0.000	Strato2_3095_82743_L_0		
81 D	23.14	0.000	308.5 154.2	308.5	154.2
154.2	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.763	0.000	310.5 155.2	310.5	155.2
155.2	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|          NewProject.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019          10:49:25          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

0_R :

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 87 di 560						
38 D	14.70	0.000	138.7 73.51	138.7	73.51	V-C	1.1045E+04	-7.300	0.000	1.000	1.000
73.51	0.000	0.000	Strato1_2_8_L_0								
39 D	15.10	0.000	142.5 75.52	142.5	75.52	V-C	1.1045E+04	-7.500	0.000	1.000	1.000
75.52	0.000	0.000	Strato1_2_8_L_0								
40 D	15.51	0.000	146.3 77.54	146.3	77.54	V-C	1.1045E+04	-7.700	0.000	1.000	1.000
77.54	0.000	0.000	Strato1_2_8_L_0								
41 D	15.91	0.000	150.1 79.55	150.1	79.55	V-C	1.1045E+04	-7.900	0.000	1.000	1.000
79.55	0.000	0.000	Strato1_2_8_L_0								
42 D	16.31	0.000	153.9 81.57	153.9	81.57	V-C	1.1045E+04	-8.100	0.000	1.000	1.000
81.57	0.000	0.000	Strato1_2_8_L_0								
43 D	16.72	0.000	157.7 83.58	157.7	83.58	V-C	1.1045E+04	-8.300	0.000	1.000	1.000
83.58	0.000	0.000	Strato1_2_8_L_0								
44 D	17.12	0.000	161.5 85.59	161.5	85.59	V-C	1.1045E+04	-8.500	0.000	1.000	1.000
85.59	0.000	0.000	Strato1_2_8_L_0								
45 D	17.52	0.000	165.3 87.61	165.3	87.61	V-C	1.1045E+04	-8.700	0.000	1.000	1.000
87.61	0.000	0.000	Strato1_2_8_L_0								
46 D	17.92	0.000	169.1 89.62	169.1	89.62	V-C	1.1045E+04	-8.900	0.000	1.000	1.000
89.62	0.000	0.000	Strato1_2_8_L_0								
47 D	18.33	0.000	172.9 91.64	172.9	91.64	V-C	1.1045E+04	-9.100	0.000	1.000	1.000
91.64	0.000	0.000	Strato1_2_8_L_0								
48 D	18.73	0.000	176.7 93.65	176.7	93.65	V-C	1.1045E+04	-9.300	0.000	1.000	1.000
93.65	0.000	0.000	Strato1_2_8_L_0								
49 D	19.13	0.000	180.5 95.66	180.5	95.66	V-C	1.1045E+04	-9.500	0.000	1.000	1.000
95.66	0.000	0.000	Strato1_2_8_L_0								
50 D	18.45	0.000	184.5 92.25	184.5	92.25	V-C	2.4402E+04	-9.700	0.000	1.000	1.000
92.25	0.000	0.000	Strato2_3095_82743_L_0								
51 D	18.85	0.000	188.5 94.25	188.5	94.25	V-C	2.4402E+04	-9.900	0.000	1.000	1.000
94.25	0.000	0.000	Strato2_3095_82743_L_0								
52 D	19.25	0.000	192.5 96.25	192.5	96.25	V-C	2.4402E+04	-10.10	0.000	1.000	1.000
96.25	0.000	0.000	Strato2_3095_82743_L_0								
53 D	19.65	0.000	196.5 98.25	196.5	98.25	V-C	2.4402E+04	-10.30	0.000	1.000	1.000
98.25	0.000	0.000	Strato2_3095_82743_L_0								
54 D	20.05	0.000	200.5 100.2	200.5	100.2	V-C	2.4402E+04	-10.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0								
55 D	20.45	0.000	204.5 102.2	204.5	102.2	V-C	2.4402E+04	-10.70	0.000	1.000	1.000
102.2	0.000	0.000	Strato2_3095_82743_L_0								
56 D	20.85	0.000	208.5 104.2	208.5	104.2	V-C	2.4402E+04	-10.90	0.000	1.000	1.000
104.2	0.000	0.000	Strato2_3095_82743_L_0								
57 D	21.25	0.000	212.5 106.2	212.5	106.2	V-C	2.4402E+04	-11.10	0.000	1.000	1.000
106.2	0.000	0.000	Strato2_3095_82743_L_0								
58 D	21.65	0.000	216.5 108.2	216.5	108.2	V-C	2.4402E+04	-11.30	0.000	1.000	1.000
108.2	0.000	0.000	Strato2_3095_82743_L_0								
59 D	22.05	0.000	220.5 110.2	220.5	110.2	V-C	2.4402E+04	-11.50	0.000	1.000	1.000
110.2	0.000	0.000	Strato2_3095_82743_L_0								
60 D	22.45	0.000	224.5 112.2	224.5	112.2	V-C	2.4402E+04	-11.70	0.000	1.000	1.000
112.2	0.000	0.000	Strato2_3095_82743_L_0								
61 D	22.85	0.000	228.5 114.2	228.5	114.2	V-C	2.4402E+04	-11.90	0.000	1.000	1.000
114.2	0.000	0.000	Strato2_3095_82743_L_0								
62 D	23.25	0.000	232.5 116.2	232.5	116.2	V-C	2.4402E+04	-12.10	0.000	1.000	1.000
116.2	0.000	0.000	Strato2_3095_82743_L_0								
63 D	23.65	0.000	236.5 118.2	236.5	118.2	V-C	2.4402E+04	-12.30	0.000	1.000	1.000
118.2	0.000	0.000	Strato2_3095_82743_L_0								
64 D	24.05	0.000	240.5 120.2	240.5	120.2	V-C	2.4402E+04	-12.50	0.000	1.000	1.000
120.2	0.000	0.000	Strato2_3095_82743_L_0								
65 D	24.45	0.000	244.5 122.2	244.5	122.2	V-C	2.4402E+04	-12.70	0.000	1.000	1.000
122.2	0.000	0.000	Strato2_3095_82743_L_0								
66 D	24.85	0.000	248.5 124.2	248.5	124.2	V-C	2.4402E+04	-12.90	0.000	1.000	1.000
124.2	0.000	0.000	Strato2_3095_82743_L_0								
67 D	25.25	0.000	252.5 126.2	252.5	126.2	V-C	2.4402E+04	-13.10	0.000	1.000	1.000
126.2	0.000	0.000	Strato2_3095_82743_L_0								
68 D	25.65	0.000	256.5 128.2	256.5	128.2	V-C	2.4402E+04	-13.30	0.000	1.000	1.000
128.2	0.000	0.000	Strato2_3095_82743_L_0								
69 D	26.05	0.000	260.5 130.2	260.5	130.2	V-C	2.4402E+04	-13.50	0.000	1.000	1.000
130.2	0.000	0.000	Strato2_3095_82743_L_0								
70 D	26.45	0.000	264.5 132.2	264.5	132.2	V-C	2.4402E+04	-13.70	0.000	1.000	1.000
132.2	0.000	0.000	Strato2_3095_82743_L_0								
71 D	26.85	0.000	268.5 134.2	268.5	134.2	V-C	2.4402E+04	-13.90	0.000	1.000	1.000
134.2	0.000	0.000	Strato2_3095_82743_L_0								
72 D	27.25	0.000	272.5 136.2	272.5	136.2	V-C	2.4402E+04	-14.10	0.000	1.000	1.000
136.2	0.000	0.000	Strato2_3095_82743_L_0								
73 D	27.65	0.000	276.5 138.2	276.5	138.2	V-C	2.4402E+04	-14.30	0.000	1.000	1.000
138.2	0.000	0.000	Strato2_3095_82743_L_0								
74 D	28.05	0.000	280.5 140.2	280.5	140.2	V-C	2.4402E+04	-14.50	0.000	1.000	1.000
140.2	0.000	0.000	Strato2_3095_82743_L_0								
75 D	28.45	0.000	284.5 142.2	284.5	142.2	V-C	2.4402E+04	-14.70	0.000	1.000	1.000
142.2	0.000	0.000	Strato2_3095_82743_L_0								
76 D	28.85	0.000	288.5 144.2	288.5	144.2	V-C	2.4402E+04	-14.90	0.000	1.000	1.000
144.2	0.000	0.000	Strato2_3095_82743_L_0								
77 D	29.25	0.000	292.5 146.2	292.5	146.2	V-C	2.4402E+04	-15.10	0.000	1.000	1.000
146.2	0.000	0.000	Strato2_3095_82743_L_0								
78 D	29.65	0.000	296.5 148.2	296.5	148.2	V-C	2.4402E+04	-15.30	0.000	1.000	1.000
148.2	0.000	0.000	Strato2_3095_82743_L_0								
79 D	30.05	0.000	300.5 150.2	300.5	150.2	V-C	2.4402E+04	-15.50	0.000	1.000	1.000
150.2	0.000	0.000	Strato2_3095_82743_L_0								
80 D	30.45	0.000	304.5 152.2	304.5	152.2	V-C	2.4402E+04	-15.70	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 88 di 560
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152.2	0.000	0.000	Strato2_3095_82743_L_0									
81 D	23.14	0.000	308.5	154.2	308.5	154.2	V-C	2.4402E+04	-15.90	0.000	1.000	1.000
154.2	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.763	0.000	310.5	155.2	310.5	155.2	V-C	2.4402E+04	-16.00	0.000	1.000	1.000
155.2	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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|          NewProject.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019          10:49:25          |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
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Rev.
A

Foglio
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58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000	0.0000
72	0.0000	0.0000	0.0000	0.0000
73	0.0000	0.0000	0.0000	0.0000
74	0.0000	0.0000	0.0000	0.0000
75	0.0000	0.0000	0.0000	0.0000
76	0.0000	0.0000	0.0000	0.0000
77	0.0000	0.0000	0.0000	0.0000
78	0.0000	0.0000	0.0000	0.0000
79	0.0000	0.0000	0.0000	0.0000
80	0.0000	0.0000	0.0000	0.0000
81	0.0000	0.0000	0.0000	0.0000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
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|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :

ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1

CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000  RMNORM= 0.000
RINORM=0.5557E+05 RIMNOR= 0.000
RENORM= 251.1  REMNOR= 0.000  RATIO =0.6722E-01  TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 32.04  RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.5557E+05 RDR = 0.000
RATIOT=0.6722E-01 RATIO= 0.000
MAX UN= 1.885  IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN= 0.000  IEQ= 2 NODE 1 DOF 2 X-ROT. F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 2 RNORM = 0.000  RMNORM= 0.000
RINORM=0.5557E+05 RIMNOR= 0.000
RENORM= 20.45  REMNOR=0.8025E-21  RATIO =0.1918E-01  TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 32.04  RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.5557E+05 RDR = 0.000
RATIOT=0.1918E-01 RATIO= 0.000
MAX UN= 1.366  IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.7417E-10  IEQ= 65 NODE 33 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 3 RNORM = 0.000  RMNORM= 0.000
RINORM=0.5557E+05 RIMNOR= 0.000
RENORM= 1.241  REMNOR=0.8160E-20  RATIO =0.4725E-02  TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 32.04  RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.5557E+05 RDR = 0.000
RATIOT=0.4725E-02 RATIO= 0.000
MAX UN=0.7313  IEQ= 65 NODE 33 DOF 1 Y-DISPL.F
MIN UN=-.6996E-09  IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
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Rev.
A

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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM=0.9188E-03 REMNOR=0.9286E-21 RATIO =0.1286E-03 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.5557E+05 RDR   = 0.000
            RATIO=0.1286E-03 RATIO= 0.000
            MAX UN=0.2064E-01 IEQ=   95 NODE      48 DOF   1  Y-DISPL.F
            MIN UN=-.1821E-09 IEQ=   23 NODE      12 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5557E+05 RIMNOR= 0.000
            RENORM=0.4066E-07 REMNOR=0.1315E-20 RATIO =0.8554E-06 TOLER =0.1000E-03 CONVERGED !
            RFMAX = 32.04      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.5557E+05 RDR   = 0.000
            RATIO=0.8554E-06 RATIO= 0.000
            MAX UN=0.1656E-03 IEQ=    3 NODE       2 DOF   1  Y-DISPL.F
            MIN UN=-.5826E-09 IEQ=   27 NODE      14 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                    |
|                               Exe Time :24 July 2019      10:49:25                            |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	7.3632134E-04	-8.8298491E-05	
2	7.1866353E-04	-8.8270122E-05	
3	7.0101684E-04	-8.8188444E-05	
4	6.8339156E-04	-8.8055668E-05	
5	6.6579805E-04	-8.7870759E-05	
6	6.4824682E-04	-8.7632332E-05	
7	6.3074883E-04	-8.7338225E-05	
8	6.1331540E-04	-8.6986195E-05	
9	5.9595839E-04	-8.6573677E-05	
10	5.7869003E-04	-8.6099620E-05	
11	5.6152263E-04	-8.5564178E-05	
12	5.4446846E-04	-8.4967235E-05	
13	5.2753986E-04	-8.4308381E-05	
14	5.1912653E-04	-8.3955635E-05	
15	5.0240963E-04	-8.3202894E-05	
16	4.8584958E-04	-8.2387103E-05	
17	4.6945901E-04	-8.1508015E-05	
18	4.5325061E-04	-8.0565314E-05	
19	4.3723714E-04	-7.9558708E-05	
20	4.2143141E-04	-7.8487922E-05	
21	4.0584626E-04	-7.7352780E-05	
22	3.9049455E-04	-7.6153851E-05	
23	3.7538888E-04	-7.4892488E-05	
24	3.6054165E-04	-7.3569642E-05	
25	3.4596505E-04	-7.2186441E-05	
26	3.3167101E-04	-7.0744248E-05	
27	3.1767125E-04	-6.9244684E-05	
28	3.0397690E-04	-6.7689659E-05	
29	2.9059890E-04	-6.6081921E-05	
30	2.7754741E-04	-6.4425061E-05	
31	2.6483188E-04	-6.2723044E-05	
32	2.5246097E-04	-6.0980279E-05	
33	2.4044223E-04	-5.9201607E-05	
34	2.2878236E-04	-5.7392413E-05	
35	2.1748690E-04	-5.5558619E-05	
36	2.0656012E-04	-5.3706750E-05	
37	1.9600493E-04	-5.1844021E-05	
38	1.8582273E-04	-4.9978703E-05	
39	1.7601307E-04	-4.8119756E-05	
40	1.6657376E-04	-4.6276920E-05	
41	1.5750070E-04	-4.4458077E-05	
42	1.4878872E-04	-4.2666313E-05	

GENERAL CONTRACTOR

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ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 92 di 560							
10 D	4.891	-5.7869E-04	51.16	24.45	51.16	27.12	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.45	0.000	0.000	Strato1_2_8_L_0									
11 D	5.286	-5.6152E-04	55.29	26.43	55.29	29.30	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.43	0.000	0.000	Strato1_2_8_L_0									
12 D	5.633	-5.4447E-04	58.93	28.17	58.93	31.23	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.17	0.000	0.000	Strato1_2_8_L_0									
13 D	4.516	-5.2754E-04	62.99	30.11	62.99	33.38	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.11	0.000	0.000	Strato1_2_8_L_0									
14 D	4.645	-5.1913E-04	64.78	30.97	64.78	34.33	ACTIVE	0.000	-2.500	0.000	1.000	1.000
30.97	0.000	0.000	Strato1_2_8_L_0									
15 D	6.544	-5.0241E-04	68.45	32.72	68.45	36.28	ACTIVE	0.000	-2.700	0.000	1.000	1.000
32.72	0.000	0.000	Strato1_2_8_L_0									
16 D	6.928	-4.8585E-04	72.47	34.64	72.47	38.41	ACTIVE	0.000	-2.900	0.000	1.000	1.000
34.64	0.000	0.000	Strato1_2_8_L_0									
17 D	7.280	-4.6946E-04	76.15	36.40	76.15	40.36	ACTIVE	0.000	-3.100	0.000	1.000	1.000
36.40	0.000	0.000	Strato1_2_8_L_0									
18 D	7.661	-4.5325E-04	80.13	38.30	80.13	42.47	ACTIVE	0.000	-3.300	0.000	1.000	1.000
38.30	0.000	0.000	Strato1_2_8_L_0									
19 D	8.013	-4.3724E-04	83.82	40.07	83.82	44.42	ACTIVE	0.000	-3.500	0.000	1.000	1.000
40.07	0.000	0.000	Strato1_2_8_L_0									
20 D	8.392	-4.2143E-04	87.78	41.96	87.78	46.52	ACTIVE	0.000	-3.700	0.000	1.000	1.000
41.96	0.000	0.000	Strato1_2_8_L_0									
21 D	8.718	-4.0585E-04	91.19	43.59	91.19	48.33	ACTIVE	0.000	-3.900	0.000	1.000	1.000
43.59	0.000	0.000	Strato1_2_8_L_0									
22 D	9.096	-3.9049E-04	95.15	45.48	95.15	50.43	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.48	0.000	0.000	Strato1_2_8_L_0									
23 D	9.473	-3.7539E-04	99.09	47.37	99.09	52.52	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.37	0.000	0.000	Strato1_2_8_L_0									
24 D	9.828	-3.6054E-04	102.8	49.14	102.8	54.49	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.14	0.000	0.000	Strato1_2_8_L_0									
25 D	10.20	-3.4597E-04	106.7	51.02	106.7	56.57	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.02	0.000	0.000	Strato1_2_8_L_0									
26 D	10.56	-3.3167E-04	110.5	52.80	110.5	58.54	ACTIVE	0.000	-4.900	0.000	1.000	1.000
52.80	0.000	0.000	Strato1_2_8_L_0									
27 D	10.93	-3.1767E-04	114.4	54.67	114.4	60.62	ACTIVE	0.000	-5.100	0.000	1.000	1.000
54.67	0.000	0.000	Strato1_2_8_L_0									
28 D	11.27	-3.0398E-04	117.9	56.35	117.9	62.48	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.35	0.000	0.000	Strato1_2_8_L_0									
29 D	11.64	-2.9060E-04	121.8	58.22	121.8	64.55	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.22	0.000	0.000	Strato1_2_8_L_0									
30 D	12.00	-2.7755E-04	125.5	60.00	125.5	66.53	ACTIVE	0.000	-5.700	0.000	1.000	1.000
60.00	0.000	0.000	Strato1_2_8_L_0									
31 D	12.37	-2.6483E-04	129.4	61.87	129.4	68.60	ACTIVE	0.000	-5.900	0.000	1.000	1.000
61.87	0.000	0.000	Strato1_2_8_L_0									
32 D	12.73	-2.5246E-04	133.2	63.66	133.2	70.58	ACTIVE	0.000	-6.100	0.000	1.000	1.000
63.66	0.000	0.000	Strato1_2_8_L_0									
33 D	13.10	-2.4044E-04	137.1	65.52	137.1	72.65	ACTIVE	0.000	-6.300	0.000	1.000	1.000
65.52	0.000	0.000	Strato1_2_8_L_0									
34 D	13.46	-2.2878E-04	140.8	67.31	140.8	74.63	ACTIVE	0.000	-6.500	0.000	1.000	1.000
67.31	0.000	0.000	Strato1_2_8_L_0									
35 D	13.83	-2.1749E-04	144.7	69.17	144.7	76.69	ACTIVE	0.000	-6.700	0.000	1.000	1.000
69.17	0.000	0.000	Strato1_2_8_L_0									
36 D	14.19	-2.0656E-04	148.4	70.95	148.4	78.67	ACTIVE	0.000	-6.900	0.000	1.000	1.000
70.95	0.000	0.000	Strato1_2_8_L_0									
37 D	14.55	-1.9600E-04	152.2	72.74	152.2	80.65	ACTIVE	0.000	-7.100	0.000	1.000	1.000
72.74	0.000	0.000	Strato1_2_8_L_0									
38 D	14.92	-1.8582E-04	156.1	74.60	156.1	82.71	ACTIVE	0.000	-7.300	0.000	1.000	1.000
74.60	0.000	0.000	Strato1_2_8_L_0									
39 D	15.28	-1.7601E-04	159.8	76.39	159.8	84.70	ACTIVE	0.000	-7.500	0.000	1.000	1.000
76.39	0.000	0.000	Strato1_2_8_L_0									
40 D	15.76	-1.6657E-04	163.7	78.80	163.7	86.75	UL-RL	4.7747E+04	-7.700	0.000	1.000	1.000
78.80	0.000	0.000	Strato1_2_8_L_0									
41 D	16.24	-1.5750E-04	167.4	81.22	167.4	88.74	UL-RL	4.7747E+04	-7.900	0.000	1.000	1.000
81.22	0.000	0.000	Strato1_2_8_L_0									
42 D	16.74	-1.4879E-04	171.3	83.69	171.3	90.79	UL-RL	4.7747E+04	-8.100	0.000	1.000	1.000
83.69	0.000	0.000	Strato1_2_8_L_0									
43 D	17.20	-1.4043E-04	174.9	86.01	174.9	92.71	UL-RL	4.7747E+04	-8.300	0.000	1.000	1.000
86.01	0.000	0.000	Strato1_2_8_L_0									
44 D	17.69	-1.3243E-04	178.8	88.44	178.8	94.76	UL-RL	4.7747E+04	-8.500	0.000	1.000	1.000
88.44	0.000	0.000	Strato1_2_8_L_0									
45 D	18.16	-1.2477E-04	182.6	90.80	182.6	96.76	UL-RL	4.7747E+04	-8.700	0.000	1.000	1.000
90.80	0.000	0.000	Strato1_2_8_L_0									
46 D	18.64	-1.1746E-04	186.4	93.20	186.4	98.81	UL-RL	4.7747E+04	-8.900	0.000	1.000	1.000
93.20	0.000	0.000	Strato1_2_8_L_0									
47 D	19.10	-1.1051E-04	190.2	95.52	190.2	100.8	UL-RL	4.7747E+04	-9.100	0.000	1.000	1.000
95.52	0.000	0.000	Strato1_2_8_L_0									
48 D	19.58	-1.0391E-04	194.1	97.89	194.1	102.8	UL-RL	4.7747E+04	-9.300	0.000	1.000	1.000
97.89	0.000	0.000	Strato1_2_8_L_0									
49 D	20.05	-9.7686E-05	197.9	100.2	197.9	104.9	UL-RL	4.7747E+04	-9.500	0.000	1.000	1.000
100.2	0.000	0.000	Strato1_2_8_L_0									
50 D	17.71	-9.1851E-05	201.9	88.53	201.9	100.9	UL-RL	1.3507E+05	-9.700	0.000	1.000	1.000
88.53	0.000	0.000	Strato2_3095_82743_L_0									
51 D	18.25	-8.6430E-05	205.8	91.24	205.8	102.9	UL-RL	1.3507E+05	-9.900	0.000	1.000	1.000
91.24	0.000	0.000	Strato2_3095_82743_L_0									
52 D	18.78	-8.1435E-05	209.8	93.89	209.8	104.9	UL-RL	1.3507E+05	-10.10	0.000	1.000	1.000



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93.89	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.31	-7.6870E-05	213.8 96.54	213.8	106.9
96.54	0.000	0.000	Strato2_3095_82743_L_0		
54 D	19.82	-7.2733E-05	217.8 99.08	217.8	108.9
99.08	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.32	-6.9013E-05	221.9 101.6	221.9	110.9
101.6	0.000	0.000	Strato2_3095_82743_L_0		
56 D	20.81	-6.5694E-05	225.8 104.0	225.8	112.9
104.0	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.29	-6.2756E-05	229.9 106.5	229.9	114.9
106.5	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.75	-6.0177E-05	233.7 108.7	233.7	116.9
108.7	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.22	-5.7932E-05	237.8 111.1	237.8	118.9
111.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.66	-5.5994E-05	241.8 113.3	241.8	120.9
113.3	0.000	0.000	Strato2_3095_82743_L_0		
61 D	23.11	-5.4337E-05	245.8 115.6	245.8	122.9
115.6	0.000	0.000	Strato2_3095_82743_L_0		
62 D	23.56	-5.2934E-05	249.9 117.8	249.9	124.9
117.8	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.99	-5.1758E-05	253.8 119.9	253.8	126.9
119.9	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.42	-5.0784E-05	257.9 122.1	257.9	128.9
122.1	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.83	-4.9986E-05	261.8 124.1	261.8	130.9
124.1	0.000	0.000	Strato2_3095_82743_L_0		
66 D	25.25	-4.9343E-05	265.8 126.2	265.8	132.9
126.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.65	-4.8831E-05	269.7 128.3	269.7	134.9
128.3	0.000	0.000	Strato2_3095_82743_L_0		
68 D	26.05	-4.8432E-05	273.6 130.3	273.6	136.8
130.3	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.45	-4.8127E-05	277.5 132.3	277.5	138.8
132.3	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.85	-4.7901E-05	281.4 134.2	281.4	140.7
134.2	0.000	0.000	Strato2_3095_82743_L_0		
71 D	27.24	-4.7740E-05	285.3 136.2	285.3	142.7
136.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.64	-4.7630E-05	289.2 138.2	289.2	144.6
138.2	0.000	0.000	Strato2_3095_82743_L_0		
73 D	28.02	-4.7561E-05	293.1 140.1	293.1	146.5
140.1	0.000	0.000	Strato2_3095_82743_L_0		
74 D	28.41	-4.7523E-05	297.0 142.1	297.0	148.5
142.1	0.000	0.000	Strato2_3095_82743_L_0		
75 D	28.81	-4.7509E-05	300.9 144.0	300.9	150.4
144.0	0.000	0.000	Strato2_3095_82743_L_0		
76 D	29.20	-4.7513E-05	304.8 146.0	304.8	152.4
146.0	0.000	0.000	Strato2_3095_82743_L_0		
77 D	29.59	-4.7528E-05	308.7 147.9	308.7	154.4
147.9	0.000	0.000	Strato2_3095_82743_L_0		
78 D	29.98	-4.7551E-05	312.6 149.9	312.6	156.3
149.9	0.000	0.000	Strato2_3095_82743_L_0		
79 D	30.37	-4.7578E-05	316.6 151.9	316.6	158.3
151.9	0.000	0.000	Strato2_3095_82743_L_0		
80 D	30.76	-4.7608E-05	320.4 153.8	320.4	160.2
153.8	0.000	0.000	Strato2_3095_82743_L_0		
81 D	23.36	-4.7638E-05	324.3 155.7	324.3	162.2
155.7	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.837	-4.7653E-05	326.3 156.7	326.3	163.2
156.7	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                                                                   |
|          Exe Time :24 July 2019  10:49:25                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * FORCE DISPL-Y VERTICAL-P HORIZON.-P MAX-V-P MAX-H-P STATE STIFFNESS Z-LEVEL PORE E FACTOR UFACTOR

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



Doc. N.

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      10:49:25
|
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New Project

STRESS RESULTS FOR GROUP NO. 3

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Wallelement_33      :
ELEMENT TYPE        2 NO.OF ELEMENTS. IN THIS GROUP  81
CURRENT TIME IS     2.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.1950	-1.1950	4.15307E-12	0.23900
2	1.0505	-1.0505	-0.23900	0.44910
3	1.1018	-1.1018	-0.44910	0.66947
4	1.0941	-1.0941	-0.66947	0.88830
5	1.1602	-1.1602	-0.88830	1.1203
6	1.1851	-1.1851	-1.1203	1.3574
7	1.2548	-1.2548	-1.3574	1.6083
8	1.2931	-1.2931	-1.6083	1.8669
9	1.2991	-1.2991	-1.8669	2.1268
10	1.2866	-1.2866	-2.1268	2.3841
11	1.3039	-1.3039	-2.3841	2.6449
12	1.3039	-1.3039	-2.6449	2.9057
13	1.3211	-1.3211	-2.9057	3.0378
14	1.3297	-1.3297	-3.0378	3.3037
15	1.3261	-1.3261	-3.3037	3.5689
16	1.3401	-1.3401	-3.5689	3.8370
17	1.3394	-1.3394	-3.8370	4.1048
18	1.3525	-1.3525	-4.1048	4.3753
19	1.3509	-1.3509	-4.3753	4.6455
20	1.3600	-1.3600	-4.6455	4.9175
21	1.3268	-1.3268	-4.9175	5.1829
22	1.3031	-1.3031	-5.1829	5.4435
23	1.2867	-1.2867	-5.4435	5.7008
24	1.2556	-1.2556	-5.7008	5.9520
25	1.2293	-1.2293	-5.9520	6.1978
26	1.1876	-1.1876	-6.1978	6.4353
27	1.1483	-1.1483	-6.4353	6.6650
28	1.0722	-1.0722	-6.6650	6.8794
29	0.99699	-0.99699	-6.8794	7.0788
30	0.90508	-0.90508	-7.0788	7.2598
31	0.81173	-0.81173	-7.2598	7.4222
32	0.70039	-0.70039	-7.4222	7.5623
33	0.58530	-0.58530	-7.5623	7.6793
34	0.45088	-0.45088	-7.6793	7.7695
35	0.31047	-0.31047	-7.7695	7.8316
36	0.14701	-0.14701	-7.8316	7.8610
37	-3.75682E-02	3.75682E-02	-7.8610	7.8535
38	-0.23120	0.23120	-7.8535	7.8072
39	-0.44744	0.44744	-7.8072	7.7178
40	-0.56321	0.56321	-7.7178	7.6051
41	-0.57739	0.57739	-7.6051	7.4896
42	-0.48133	0.48133	-7.4896	7.3934
43	-0.30647	0.30647	-7.3934	7.3321
44	-2.97546E-02	2.97546E-02	-7.3321	7.3261
45	0.33257	-0.33257	-7.3261	7.3926
46	0.78814	-0.78814	-7.3926	7.5503
47	1.3212	-1.3212	-7.5503	7.8145
48	1.9388	-1.9388	-7.8145	8.2023
49	2.6361	-2.6361	-8.2023	8.7295
50	1.4442	-1.4442	-8.7295	9.0183
51	0.42608	-0.42608	-9.0183	9.1035
52	-0.42436	0.42436	-9.1035	9.0187
53	-1.1138	1.1138	-9.0187	8.7959
54	-1.6676	1.6676	-8.7959	8.4624
55	-2.0916	2.0916	-8.4624	8.0440
56	-2.4095	2.4095	-8.0440	7.5621
57	-2.6261	2.6261	-7.5621	7.0369
58	-2.7728	2.7728	-7.0369	6.4824
59	-2.8425	2.8425	-6.4824	5.9139
60	-2.8543	2.8543	-5.9139	5.3430
61	-2.8095	2.8095	-5.3430	4.7811
62	-2.7171	2.7171	-4.7811	4.2377
63	-2.5928	2.5928	-4.2377	3.7191
64	-2.4353	2.4353	-3.7191	3.2321
65	-2.2673	2.2673	-3.2321	2.7786



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66	-2.0772	2.0772	-2.7786	2.3632
67	-1.8842	1.8842	-2.3632	1.9863
68	-1.6917	1.6917	-1.9863	1.6480
69	-1.5026	1.5026	-1.6480	1.3475
70	-1.3190	1.3190	-1.3475	1.0837
71	-1.1428	1.1428	-1.0837	0.85513
72	-0.97540	0.97540	-0.85513	0.66005
73	-0.82586	0.82586	-0.66005	0.49488
74	-0.68680	0.68680	-0.49488	0.35752
75	-0.55876	0.55876	-0.35752	0.24576
76	-0.44207	0.44207	-0.24576	0.15735
77	-0.33391	0.33391	-0.15735	9.05656E-02
78	-0.23420	0.23420	-9.05656E-02	4.37264E-02
79	-0.14293	0.14293	-4.37264E-02	1.51410E-02
80	-6.73297E-02	6.73297E-02	-1.51410E-02	1.67504E-03
81	-1.67488E-02	1.67488E-02	-1.67504E-03	-1.60583E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
----	-------	----	--------	---------	---	-----------	-----------

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000  RMNORM= 0.000
RINORM=0.4833E+05 RIMNOR= 4910.
RENORM= 642.1  REMNOR=0.1315E-20 RATIO =0.1153  TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 30.76  RMMAX = 9.104
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.4833E+05 RDR = 4910.
RATIOT=0.1153  RATIO= 0.000
MAX UN= 6.914  IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.8776E-10 IEQ= 53 NODE 27 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 2 RNORM = 0.000  RMNORM= 0.000
RINORM=0.4833E+05 RIMNOR= 4910.
RENORM= 132.8  REMNOR=0.2099E-17 RATIO =0.5242E-01 TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 30.76  RMMAX = 9.104
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.4833E+05 RDR = 4910.
RATIOT=0.5242E-01 RATIO= 0.000
MAX UN= 5.824  IEQ= 79 NODE 40 DOF 1 Y-DISPL.F
MIN UN=-.1132E-03 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 3 RNORM = 0.000  RMNORM= 0.000
RINORM=0.4833E+05 RIMNOR= 4910.
RENORM=0.1631E-01 REMNOR=0.2299E-18 RATIO =0.5809E-03 TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 30.76  RMMAX = 9.104
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.4833E+05 RDR = 4910.
RATIOT=0.5809E-03 RATIO= 0.000
MAX UN=0.1277  IEQ= 99 NODE 50 DOF 1 Y-DISPL.F
MIN UN=-.8303E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

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ITER 4 RNORM = 0.000  RMNORM= 0.000
RINORM=0.4833E+05 RIMNOR= 4910.
RENORM=0.2720E-15 REMNOR=0.2827E-18 RATIO =0.7502E-10 TOLER =0.1000E-03  CONVERGED !
RFMAX = 30.76  RMMAX = 9.104
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.4833E+05 RDR = 4910.
RATIOT=0.7502E-10 RATIO= 0.000
    
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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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MAX UN=0.1044E-07 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
MIN UN=-.1096E-07 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| |
| NewProject.BaseDesignSection_28.SLERara_3454 |
Exe Time :24 July 2019 10:49:25

New Project
SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.4493888E-02	-1.9975505E-03	
2	1.4094380E-02	-1.9975222E-03	
3	1.3694886E-02	-1.9973932E-03	
4	1.3295436E-02	-1.9970628E-03	
5	1.2896082E-02	-1.9964095E-03	
6	1.2496903E-02	-1.9952941E-03	
7	1.2098006E-02	-1.9935596E-03	
8	1.1699532E-02	-1.9910315E-03	
9	1.1301659E-02	-1.9875176E-03	
10	1.0904604E-02	-1.9828101E-03	
11	1.0508629E-02	-1.9766849E-03	
12	1.0114041E-02	-1.9689004E-03	
13	9.7211971E-03	-1.9591974E-03	
14	9.5255551E-03	-1.9535495E-03	
15	9.1361143E-03	-1.9404435E-03	
16	8.7495538E-03	-1.9246948E-03	
17	8.3664339E-03	-1.9059838E-03	
18	7.9873779E-03	-1.8840096E-03	
19	7.6130615E-03	-1.8585633E-03	
20	7.2441894E-03	-1.8295644E-03	
21	6.8814693E-03	-1.7970610E-03	
22	6.5255868E-03	-1.7612302E-03	
23	6.1771796E-03	-1.7223651E-03	
24	5.8368207E-03	-1.6808007E-03	
25	5.5050181E-03	-1.6368535E-03	
26	5.1822182E-03	-1.5908223E-03	
27	4.8688109E-03	-1.5429889E-03	
28	4.5651268E-03	-1.4936177E-03	
29	4.2714498E-03	-1.4429581E-03	
30	3.9880138E-03	-1.3912442E-03	
31	3.7150077E-03	-1.3386952E-03	
32	3.4525791E-03	-1.2855160E-03	
33	3.2008320E-03	-1.2318968E-03	
34	2.9598378E-03	-1.1780157E-03	
35	2.7296322E-03	-1.1240377E-03	
36	2.5102190E-03	-1.0701159E-03	
37	2.3015726E-03	-1.0163924E-03	
38	2.1036410E-03	-9.6299887E-04	
39	1.9163440E-03	-9.1005638E-04	
40	1.7395809E-03	-8.5767721E-04	
41	1.5732287E-03	-8.0596456E-04	
42	1.4171443E-03	-7.5501339E-04	
43	1.2711674E-03	-7.0491128E-04	
44	1.1351186E-03	-6.5573830E-04	
45	1.0088052E-03	-6.0756913E-04	
46	8.9201945E-04	-5.6047229E-04	
47	7.8454056E-04	-5.1451092E-04	
48	6.8613596E-04	-4.6974361E-04	
49	5.9656043E-04	-4.2622397E-04	
50	5.1555984E-04	-3.8400233E-04	
51	4.4285971E-04	-3.4327757E-04	
52	3.7812966E-04	-3.0436384E-04	
53	3.2097912E-04	-2.6750069E-04	
54	2.7098096E-04	-2.3286389E-04	
55	2.2767740E-04	-2.0056950E-04	
56	1.9059267E-04	-1.7068251E-04	
57	1.5924251E-04	-1.4322384E-04	
58	1.3314235E-04	-1.1817698E-04	
59	1.1181412E-04	-9.5494160E-05	
60	9.4791977E-05	-7.5101898E-05	
61	8.1626955E-05	-5.6905694E-05	
62	7.1890699E-05	-4.0794509E-05	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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20 D	8.392	-7.2442E-03	87.78	41.96	87.78	46.52	ACTIVE	0.000	-3.700	0.000	1.000	1.000
41.96	0.000	0.000	Strato1_2_8_L_0									
21 D	8.718	-6.8815E-03	91.19	43.59	91.19	48.33	ACTIVE	0.000	-3.900	0.000	1.000	1.000
43.59	0.000	0.000	Strato1_2_8_L_0									
22 D	9.096	-6.5256E-03	95.15	45.48	95.15	50.43	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.48	0.000	0.000	Strato1_2_8_L_0									
23 D	9.473	-6.1772E-03	99.09	47.37	99.09	52.52	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.37	0.000	0.000	Strato1_2_8_L_0									
24 D	9.828	-5.8368E-03	102.8	49.14	102.8	54.49	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.14	0.000	0.000	Strato1_2_8_L_0									
25 D	10.20	-5.5050E-03	106.7	51.02	106.7	56.57	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.02	0.000	0.000	Strato1_2_8_L_0									
26 D	10.56	-5.1822E-03	110.5	52.80	110.5	58.54	ACTIVE	0.000	-4.900	0.000	1.000	1.000
52.80	0.000	0.000	Strato1_2_8_L_0									
27 D	10.93	-4.8688E-03	114.4	54.67	114.4	60.62	ACTIVE	0.000	-5.100	0.000	1.000	1.000
54.67	0.000	0.000	Strato1_2_8_L_0									
28 D	11.27	-4.5651E-03	117.9	56.35	117.9	62.48	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.35	0.000	0.000	Strato1_2_8_L_0									
29 D	11.64	-4.2714E-03	121.8	58.22	121.8	64.55	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.22	0.000	0.000	Strato1_2_8_L_0									
30 D	12.00	-3.9880E-03	125.5	60.00	125.5	66.53	ACTIVE	0.000	-5.700	0.000	1.000	1.000
60.00	0.000	0.000	Strato1_2_8_L_0									
31 D	12.37	-3.7150E-03	129.4	61.87	129.4	68.60	ACTIVE	0.000	-5.900	0.000	1.000	1.000
61.87	0.000	0.000	Strato1_2_8_L_0									
32 D	12.73	-3.4526E-03	133.2	63.66	133.2	70.58	ACTIVE	0.000	-6.100	0.000	1.000	1.000
63.66	0.000	0.000	Strato1_2_8_L_0									
33 D	13.10	-3.2008E-03	137.1	65.52	137.1	72.65	ACTIVE	0.000	-6.300	0.000	1.000	1.000
65.52	0.000	0.000	Strato1_2_8_L_0									
34 D	13.46	-2.9598E-03	140.8	67.31	140.8	74.63	ACTIVE	0.000	-6.500	0.000	1.000	1.000
67.31	0.000	0.000	Strato1_2_8_L_0									
35 D	13.83	-2.7296E-03	144.7	69.17	144.7	76.69	ACTIVE	0.000	-6.700	0.000	1.000	1.000
69.17	0.000	0.000	Strato1_2_8_L_0									
36 D	14.19	-2.5102E-03	148.4	70.95	148.4	78.67	ACTIVE	0.000	-6.900	0.000	1.000	1.000
70.95	0.000	0.000	Strato1_2_8_L_0									
37 D	14.55	-2.3016E-03	152.2	72.74	152.2	80.65	ACTIVE	0.000	-7.100	0.000	1.000	1.000
72.74	0.000	0.000	Strato1_2_8_L_0									
38 D	14.92	-2.1036E-03	156.1	74.60	156.1	82.71	ACTIVE	0.000	-7.300	0.000	1.000	1.000
74.60	0.000	0.000	Strato1_2_8_L_0									
39 D	15.28	-1.9163E-03	159.8	76.39	159.8	84.70	ACTIVE	0.000	-7.500	0.000	1.000	1.000
76.39	0.000	0.000	Strato1_2_8_L_0									
40 D	15.65	-1.7396E-03	163.7	78.24	163.7	86.75	ACTIVE	0.000	-7.700	0.000	1.000	1.000
78.24	0.000	0.000	Strato1_2_8_L_0									
41 D	16.01	-1.5732E-03	167.4	80.03	167.4	88.74	ACTIVE	0.000	-7.900	0.000	1.000	1.000
80.03	0.000	0.000	Strato1_2_8_L_0									
42 D	16.38	-1.4171E-03	171.3	81.89	171.3	90.79	ACTIVE	0.000	-8.100	0.000	1.000	1.000
81.89	0.000	0.000	Strato1_2_8_L_0									
43 D	16.72	-1.2712E-03	174.9	83.62	174.9	92.71	ACTIVE	0.000	-8.300	0.000	1.000	1.000
83.62	0.000	0.000	Strato1_2_8_L_0									
44 D	17.09	-1.1351E-03	178.8	85.47	178.8	94.76	ACTIVE	0.000	-8.500	0.000	1.000	1.000
85.47	0.000	0.000	Strato1_2_8_L_0									
45 D	17.45	-1.0088E-03	182.6	87.26	182.6	96.76	ACTIVE	0.000	-8.700	0.000	1.000	1.000
87.26	0.000	0.000	Strato1_2_8_L_0									
46 D	17.82	-8.9202E-04	186.4	89.11	186.4	98.81	ACTIVE	0.000	-8.900	0.000	1.000	1.000
89.11	0.000	0.000	Strato1_2_8_L_0									
47 D	18.18	-7.8454E-04	190.2	90.91	190.2	100.8	ACTIVE	0.000	-9.100	0.000	1.000	1.000
90.91	0.000	0.000	Strato1_2_8_L_0									
48 D	18.55	-6.8614E-04	194.1	92.76	194.1	102.8	ACTIVE	0.000	-9.300	0.000	1.000	1.000
92.76	0.000	0.000	Strato1_2_8_L_0									
49 D	18.92	-5.9656E-04	197.9	94.60	197.9	104.9	ACTIVE	0.000	-9.500	0.000	1.000	1.000
94.60	0.000	0.000	Strato1_2_8_L_0									
50 D	11.60	-5.1556E-04	201.9	58.01	201.9	100.9	UL-RL	7.2037E+04	-9.700	0.000	1.000	1.000
58.01	0.000	0.000	Strato2_3095_82743_L_0									
51 D	13.11	-4.4286E-04	205.8	65.56	205.8	102.9	UL-RL	7.2037E+04	-9.900	0.000	1.000	1.000
65.56	0.000	0.000	Strato2_3095_82743_L_0									
52 D	14.50	-3.7813E-04	209.8	72.52	209.8	104.9	UL-RL	7.2037E+04	-10.10	0.000	1.000	1.000
72.52	0.000	0.000	Strato2_3095_82743_L_0									
53 D	15.79	-3.2098E-04	213.8	78.95	213.8	106.9	UL-RL	7.2037E+04	-10.30	0.000	1.000	1.000
78.95	0.000	0.000	Strato2_3095_82743_L_0									
54 D	16.96	-2.7098E-04	217.8	84.80	217.8	108.9	UL-RL	7.2037E+04	-10.50	0.000	1.000	1.000
84.80	0.000	0.000	Strato2_3095_82743_L_0									
55 D	18.04	-2.2768E-04	221.9	90.18	221.9	110.9	UL-RL	7.2037E+04	-10.70	0.000	1.000	1.000
90.18	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.01	-1.9059E-04	225.8	95.04	225.8	112.9	UL-RL	7.2037E+04	-10.90	0.000	1.000	1.000
95.04	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.90	-1.5924E-04	229.9	99.51	229.9	114.9	UL-RL	7.2037E+04	-11.10	0.000	1.000	1.000
99.51	0.000	0.000	Strato2_3095_82743_L_0									
58 D	20.70	-1.3314E-04	233.7	103.5	233.7	116.9	UL-RL	7.2037E+04	-11.30	0.000	1.000	1.000
103.5	0.000	0.000	Strato2_3095_82743_L_0									
59 D	21.44	-1.1181E-04	237.8	107.2	237.8	118.9	UL-RL	7.2037E+04	-11.50	0.000	1.000	1.000
107.2	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.11	-9.4792E-05	241.8	110.5	241.8	120.9	UL-RL	7.2037E+04	-11.70	0.000	1.000	1.000
110.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	22.72	-8.1627E-05	245.8	113.6	245.8	122.9	UL-RL	7.2037E+04	-11.90	0.000	1.000	1.000
113.6	0.000	0.000	Strato2_3095_82743_L_0									
62 D	23.28	-7.1891E-05	249.9	116.4	249.9	124.9	UL-RL	7.2037E+04	-12.10	0.000	1.000	1.000



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116.4	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.79	-6.5178E-05	253.8 119.0	253.8	126.9
119.0	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.27	-6.1111E-05	257.9 121.3	257.9	128.9
121.3	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.69	-5.9337E-05	261.8 123.5	261.8	130.9
123.5	0.000	0.000	Strato2_3095_82743_L_0		
66 D	25.10	-5.9531E-05	265.8 125.5	265.8	132.9
125.5	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.47	-6.1400E-05	269.7 127.4	269.7	134.9
127.4	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.82	-6.4675E-05	273.6 129.1	273.6	136.8
129.1	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.15	-6.9118E-05	277.5 130.7	277.5	138.8
130.7	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.46	-7.4517E-05	281.4 132.3	281.4	140.7
132.3	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.77	-8.0687E-05	285.3 133.8	285.3	142.7
133.8	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.06	-8.7465E-05	289.2 135.3	289.2	144.6
135.3	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.34	-9.4714E-05	293.1 136.7	293.1	146.5
136.7	0.000	0.000	Strato2_3095_82743_L_0		
74 D	27.62	-1.0232E-04	297.0 138.1	297.0	148.5
138.1	0.000	0.000	Strato2_3095_82743_L_0		
75 D	27.90	-1.1018E-04	300.9 139.5	300.9	150.4
139.5	0.000	0.000	Strato2_3095_82743_L_0		
76 D	28.18	-1.1823E-04	304.8 140.9	304.8	152.4
140.9	0.000	0.000	Strato2_3095_82743_L_0		
77 D	28.45	-1.2640E-04	308.7 142.3	308.7	154.4
142.3	0.000	0.000	Strato2_3095_82743_L_0		
78 D	28.73	-1.3464E-04	312.6 143.6	312.6	156.3
143.6	0.000	0.000	Strato2_3095_82743_L_0		
79 D	29.00	-1.4293E-04	316.6 145.0	316.6	158.3
145.0	0.000	0.000	Strato2_3095_82743_L_0		
80 D	29.26	-1.5123E-04	320.4 146.3	320.4	160.2
146.3	0.000	0.000	Strato2_3095_82743_L_0		
81 D	22.15	-1.5954E-04	324.3 147.7	324.3	162.2
147.7	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.419	-1.6370E-04	326.3 148.4	326.3	163.2
148.4	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019  10:49:25          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 102 di 560
0.000	0.000	0.000	not available		
10	0.000	--	--	--	--
0.000	0.000	0.000	not available		
11	0.000	--	--	--	--
0.000	0.000	0.000	not available		
12	0.000	--	--	--	--
0.000	0.000	0.000	not available		
13	0.000	--	--	--	--
0.000	0.000	0.000	not available		
14	0.000	--	--	--	--
0.000	0.000	0.000	not available		
15	0.000	--	--	--	--
0.000	0.000	0.000	not available		
16	0.000	--	--	--	--
0.000	0.000	0.000	not available		
17 D	1.536	8.3664E-03	1.900 7.678	58.90	36.40
7.678	0.000	0.000	Strato1_2_8_L_0		
18 D	4.607	7.9874E-03	5.700 23.03	62.70	38.24
23.03	0.000	0.000	Strato1_2_8_L_0		
19 D	7.678	7.6131E-03	9.500 38.39	66.50	40.07
38.39	0.000	0.000	Strato1_2_8_L_0		
20 D	10.75	7.2442E-03	13.30 53.75	70.30	53.75
53.75	0.000	0.000	Strato1_2_8_L_0		
21 D	13.82	6.8815E-03	17.10 69.10	74.10	69.10
69.10	0.000	0.000	Strato1_2_8_L_0		
22 D	16.35	6.5256E-03	20.90 81.74	77.90	81.74
81.74	0.000	0.000	Strato1_2_8_L_0		
23 D	16.32	6.1772E-03	24.70 81.62	81.70	81.62
81.62	0.000	0.000	Strato1_2_8_L_0		
24 D	16.31	5.8368E-03	28.50 81.55	85.50	81.55
81.55	0.000	0.000	Strato1_2_8_L_0		
25 D	16.31	5.5050E-03	32.30 81.54	89.30	81.54
81.54	0.000	0.000	Strato1_2_8_L_0		
26 D	16.32	5.1822E-03	36.10 81.58	93.10	81.58
81.58	0.000	0.000	Strato1_2_8_L_0		
27 D	16.33	4.8688E-03	39.90 81.67	96.90	81.67
81.67	0.000	0.000	Strato1_2_8_L_0		
28 D	16.37	4.5651E-03	43.70 81.83	100.7	81.83
81.83	0.000	0.000	Strato1_2_8_L_0		
29 D	16.41	4.2714E-03	47.50 82.04	104.5	82.04
82.04	0.000	0.000	Strato1_2_8_L_0		
30 D	16.46	3.9880E-03	51.30 82.32	108.3	82.32
82.32	0.000	0.000	Strato1_2_8_L_0		
31 D	16.53	3.7150E-03	55.10 82.66	112.1	82.66
82.66	0.000	0.000	Strato1_2_8_L_0		
32 D	16.61	3.4526E-03	58.90 83.07	115.9	83.07
83.07	0.000	0.000	Strato1_2_8_L_0		
33 D	16.71	3.2008E-03	62.70 83.53	119.7	83.53
83.53	0.000	0.000	Strato1_2_8_L_0		
34 D	16.81	2.9598E-03	66.50 84.07	123.5	84.07
84.07	0.000	0.000	Strato1_2_8_L_0		
35 D	16.93	2.7296E-03	70.30 84.67	127.3	84.67
84.67	0.000	0.000	Strato1_2_8_L_0		
36 D	17.07	2.5102E-03	74.10 85.33	131.1	85.33
85.33	0.000	0.000	Strato1_2_8_L_0		
37 D	17.21	2.3016E-03	77.90 86.06	134.9	86.06
86.06	0.000	0.000	Strato1_2_8_L_0		
38 D	17.37	2.1036E-03	81.70 86.86	138.7	86.86
86.86	0.000	0.000	Strato1_2_8_L_0		
39 D	17.54	1.9163E-03	85.50 87.72	142.5	87.72
87.72	0.000	0.000	Strato1_2_8_L_0		
40 D	17.73	1.7396E-03	89.30 88.64	146.3	88.64
88.64	0.000	0.000	Strato1_2_8_L_0		
41 D	17.93	1.5732E-03	93.10 89.63	150.1	89.63
89.63	0.000	0.000	Strato1_2_8_L_0		
42 D	18.14	1.4171E-03	96.90 90.68	153.9	90.68
90.68	0.000	0.000	Strato1_2_8_L_0		
43 D	18.36	1.2712E-03	100.7 91.79	157.7	91.79
91.79	0.000	0.000	Strato1_2_8_L_0		
44 D	18.59	1.1351E-03	104.5 92.96	161.5	92.96
92.96	0.000	0.000	Strato1_2_8_L_0		
45 D	18.84	1.0088E-03	108.3 94.19	165.3	94.19
94.19	0.000	0.000	Strato1_2_8_L_0		
46 D	19.10	8.9202E-04	112.1 95.48	169.1	95.48
95.48	0.000	0.000	Strato1_2_8_L_0		
47 D	19.37	7.8454E-04	115.9 96.83	172.9	96.83
96.83	0.000	0.000	Strato1_2_8_L_0		
48 D	19.65	6.8614E-04	119.7 98.23	176.7	98.23
98.23	0.000	0.000	Strato1_2_8_L_0		
49 D	19.94	5.9656E-04	123.5 99.68	180.5	99.68
99.68	0.000	0.000	Strato1_2_8_L_0		
50 D	18.96	5.1556E-04	127.5 94.82	184.5	94.82
94.82	0.000	0.000	Strato2_3095_82743_L_0		
51 D	18.94	4.4286E-04	131.5 94.71	188.5	96.38
94.71	0.000	0.000	Strato2_3095_82743_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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52 D	18.85	3.7813E-04	135.5	94.23	192.5	98.28	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
94.23	0.000	0.000	Strato2_3095_82743_L_0									
53 D	18.81	3.2098E-04	139.5	94.05	196.5	100.2	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
94.05	0.000	0.000	Strato2_3095_82743_L_0									
54 D	18.83	2.7098E-04	143.5	94.15	200.5	102.1	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
94.15	0.000	0.000	Strato2_3095_82743_L_0									
55 D	18.90	2.2768E-04	147.5	94.51	204.5	104.0	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
94.51	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.02	1.9059E-04	151.5	95.12	208.5	106.0	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
95.12	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.19	1.5924E-04	155.5	95.95	212.5	107.9	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
95.95	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.40	1.3314E-04	159.5	96.99	216.5	109.8	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
96.99	0.000	0.000	Strato2_3095_82743_L_0									
59 D	19.64	1.1181E-04	163.5	98.21	220.5	111.8	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
98.21	0.000	0.000	Strato2_3095_82743_L_0									
60 D	19.92	9.4792E-05	167.5	99.60	224.5	113.7	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
99.60	0.000	0.000	Strato2_3095_82743_L_0									
61 D	20.23	8.1627E-05	171.5	101.1	228.5	115.7	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0									
62 D	20.56	7.1891E-05	175.5	102.8	232.5	117.7	UL-RL	3.9043E+04	-12.10	0.000	1.000	1.000
102.8	0.000	0.000	Strato2_3095_82743_L_0									
63 D	20.92	6.5178E-05	179.5	104.6	236.5	119.6	UL-RL	3.9043E+04	-12.30	0.000	1.000	1.000
104.6	0.000	0.000	Strato2_3095_82743_L_0									
64 D	21.30	6.1111E-05	183.5	106.5	240.5	121.6	UL-RL	3.9043E+04	-12.50	0.000	1.000	1.000
106.5	0.000	0.000	Strato2_3095_82743_L_0									
65 D	21.69	5.9337E-05	187.5	108.5	244.5	123.6	UL-RL	3.9043E+04	-12.70	0.000	1.000	1.000
108.5	0.000	0.000	Strato2_3095_82743_L_0									
66 D	22.10	5.9531E-05	191.5	110.5	248.5	125.5	UL-RL	3.9043E+04	-12.90	0.000	1.000	1.000
110.5	0.000	0.000	Strato2_3095_82743_L_0									
67 D	22.53	6.1400E-05	195.5	112.6	252.5	127.5	UL-RL	3.9043E+04	-13.10	0.000	1.000	1.000
112.6	0.000	0.000	Strato2_3095_82743_L_0									
68 D	22.96	6.4675E-05	199.5	114.8	256.5	129.5	UL-RL	3.9043E+04	-13.30	0.000	1.000	1.000
114.8	0.000	0.000	Strato2_3095_82743_L_0									
69 D	23.40	6.9118E-05	203.5	117.0	260.5	131.5	UL-RL	3.9043E+04	-13.50	0.000	1.000	1.000
117.0	0.000	0.000	Strato2_3095_82743_L_0									
70 D	23.85	7.4517E-05	207.5	119.2	264.5	133.5	UL-RL	3.9043E+04	-13.70	0.000	1.000	1.000
119.2	0.000	0.000	Strato2_3095_82743_L_0									
71 D	24.30	8.0687E-05	211.5	121.5	268.5	135.5	UL-RL	3.9043E+04	-13.90	0.000	1.000	1.000
121.5	0.000	0.000	Strato2_3095_82743_L_0									
72 D	24.76	8.7465E-05	215.5	123.8	272.5	137.4	UL-RL	3.9043E+04	-14.10	0.000	1.000	1.000
123.8	0.000	0.000	Strato2_3095_82743_L_0									
73 D	25.23	9.4714E-05	219.5	126.1	276.5	139.4	UL-RL	3.9043E+04	-14.30	0.000	1.000	1.000
126.1	0.000	0.000	Strato2_3095_82743_L_0									
74 D	25.69	1.0232E-04	223.5	128.5	280.5	141.4	UL-RL	3.9043E+04	-14.50	0.000	1.000	1.000
128.5	0.000	0.000	Strato2_3095_82743_L_0									
75 D	26.16	1.1018E-04	227.5	130.8	284.5	143.4	UL-RL	3.9043E+04	-14.70	0.000	1.000	1.000
130.8	0.000	0.000	Strato2_3095_82743_L_0									
76 D	26.63	1.1823E-04	231.5	133.1	288.5	145.4	UL-RL	3.9043E+04	-14.90	0.000	1.000	1.000
133.1	0.000	0.000	Strato2_3095_82743_L_0									
77 D	27.09	1.2640E-04	235.5	135.5	292.5	147.4	UL-RL	3.9043E+04	-15.10	0.000	1.000	1.000
135.5	0.000	0.000	Strato2_3095_82743_L_0									
78 D	27.56	1.3464E-04	239.5	137.8	296.5	149.4	UL-RL	3.9043E+04	-15.30	0.000	1.000	1.000
137.8	0.000	0.000	Strato2_3095_82743_L_0									
79 D	28.02	1.4293E-04	243.5	140.1	300.5	151.4	UL-RL	3.9043E+04	-15.50	0.000	1.000	1.000
140.1	0.000	0.000	Strato2_3095_82743_L_0									
80 D	28.49	1.5123E-04	247.5	142.5	304.5	153.4	UL-RL	3.9043E+04	-15.70	0.000	1.000	1.000
142.5	0.000	0.000	Strato2_3095_82743_L_0									
81 D	21.72	1.5954E-04	251.5	144.8	308.5	155.4	UL-RL	3.9043E+04	-15.90	0.000	1.000	1.000
144.8	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.298	1.6370E-04	253.5	146.0	310.5	156.4	UL-RL	3.9043E+04	-16.00	0.000	1.000	1.000
146.0	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                          |
|          Exe Time :24 July 2019      10:49:25                                                  |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL TA TB MA MB

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



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1	1.1950	-1.1950	4.57415E-12	0.23900	
2	3.0408	-3.0408	-0.23900	0.84715	
3	5.4462	-5.4462	-0.84715	1.9364	
4	8.1565	-8.1565	-1.9364	3.5677	
5	11.304	-11.304	-3.5677	5.8286	
6	14.775	-14.775	-5.8286	8.7836	
7	18.655	-18.655	-8.7836	12.515	
8	22.868	-22.868	-12.515	17.088	
9	27.412	-27.412	-17.088	22.571	
10	32.303	-32.303	-22.571	29.031	
11	37.589	-37.589	-29.031	36.549	
12	43.223	-43.223	-36.549	45.194	
13	47.739	-47.739	-45.194	49.968	
14	52.384	-52.384	-49.968	60.444	
15	58.928	-58.928	-60.444	72.230	
16	65.856	-65.856	-72.230	85.401	
17	71.600	-71.600	-85.401	99.721	
18	74.654	-74.654	-99.721	114.65	
19	74.989	-74.989	-114.65	129.65	
20	72.632	-72.632	-129.65	144.18	
21	67.529	-67.529	-144.18	157.68	
22	60.278	-60.278	-157.68	169.74	
23	53.426	-53.426	-169.74	180.42	
24	46.944	-46.944	-180.42	189.81	
25	40.840	-40.840	-189.81	197.98	
26	35.084	-35.084	-197.98	205.00	
27	29.683	-29.683	-205.00	210.93	
28	24.586	-24.586	-210.93	215.85	
29	19.821	-19.821	-215.85	219.81	
30	15.358	-15.358	-219.81	222.89	
31	11.200	-11.200	-222.89	225.13	
32	7.3190	-7.3190	-225.13	226.59	
33	3.7163	-3.7163	-226.59	227.33	
34	0.36444	-0.36444	-227.33	227.41	
35	-2.7355	2.7355	-227.41	226.86	
36	-5.6129	5.6129	-226.86	225.74	
37	-8.2780	8.2780	-225.74	224.08	
38	-10.731	10.731	-224.08	221.93	
39	-12.998	12.998	-221.93	219.33	
40	-15.078	15.078	-219.33	216.32	
41	-16.997	16.997	-216.32	212.92	
42	-18.756	18.756	-212.92	209.17	
43	-20.392	20.392	-209.17	205.09	
44	-21.891	21.891	-205.09	200.71	
45	-23.278	23.278	-200.71	196.06	
46	-24.552	24.552	-196.06	191.15	
47	-25.735	25.735	-191.15	186.00	
48	-26.830	26.830	-186.00	180.63	
49	-27.845	27.845	-180.63	175.06	
50	-35.207	35.207	-175.06	168.02	
51	-41.038	41.038	-168.02	159.82	
52	-45.380	45.380	-159.82	150.74	
53	-48.399	48.399	-150.74	141.06	
54	-50.269	50.269	-141.06	131.01	
55	-51.136	51.136	-131.01	120.78	
56	-51.152	51.152	-120.78	110.55	
57	-50.440	50.440	-110.55	100.46	
58	-49.140	49.140	-100.46	90.632	
59	-47.344	47.344	-90.632	81.163	
60	-45.159	45.159	-81.163	72.131	
61	-42.667	42.667	-72.131	63.598	
62	-39.946	39.946	-63.598	55.609	
63	-37.073	37.073	-55.609	48.194	
64	-34.103	34.103	-48.194	41.373	
65	-31.104	31.104	-41.373	35.153	
66	-28.104	28.104	-35.153	29.532	
67	-25.159	25.159	-29.532	24.500	
68	-22.298	22.298	-24.500	20.041	
69	-19.550	19.550	-20.041	16.131	
70	-16.935	16.935	-16.131	12.744	
71	-14.471	14.471	-12.744	9.8495	
72	-12.171	12.171	-9.8495	7.4153	
73	-10.055	10.055	-7.4153	5.4043	
74	-8.1214	8.1214	-5.4043	3.7801	
75	-6.3766	6.3766	-3.7801	2.5047	
76	-4.8243	4.8243	-2.5047	1.5399	
77	-3.4640	3.4640	-1.5399	0.84707	
78	-2.2971	2.2971	-0.84707	0.38764	
79	-1.3244	1.3244	-0.38764	0.12276	
80	-0.55338	0.55338	-0.12276	1.20826E-02	
81	-0.12081	0.12081	-1.20826E-02	3.83560E-12	



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      10:49:25
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06 RIMNOR=0.3018E+07
            RENORM=0.2497E+05 REMNOR=0.2827E-18 RATIO =0.3024      TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 158.0      RMMAX = 227.4
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.2731E+06 RDR =0.3018E+07
            RATIOT=0.3024      RATIO= 0.000
            MAX UN=0.1044E-07 IEQ= 25 NODE      13 DOF      1 Y-DISPL.F
            MIN UN=-158.0      IEQ= 27 NODE      14 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06 RIMNOR=0.3018E+07
            RENORM= 207.3      REMNOR=0.8132E-18 RATIO =0.2755E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 158.0      RMMAX = 227.4
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.2731E+06 RDR =0.3018E+07
            RATIOT=0.2755E-01 RATIO= 0.000
            MAX UN=0.6393E-09 IEQ= 67 NODE      34 DOF      1 Y-DISPL.F
            MIN UN=-4.070      IEQ= 33 NODE      17 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06 RIMNOR=0.3018E+07
            RENORM= 2.795      REMNOR=0.1112E-18 RATIO =0.3199E-02 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 158.0      RMMAX = 227.4
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.2731E+06 RDR =0.3018E+07
            RATIOT=0.3199E-02 RATIO= 0.000
            MAX UN=0.7255E-01 IEQ= 101 NODE     51 DOF      1 Y-DISPL.F
            MIN UN=-1.521      IEQ= 35 NODE      18 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2731E+06 RIMNOR=0.3018E+07
            RENORM=0.2277E-02 REMNOR=0.2248E-18 RATIO =0.9132E-04 TOLER =0.1000E-03      CONVERGED !
            RFMAX = 158.0      RMMAX = 227.4
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.2731E+06 RDR =0.3018E+07
            RATIOT=0.9132E-04 RATIO= 0.000
            MAX UN=0.2680E-01 IEQ= 89 NODE      45 DOF      1 Y-DISPL.F
            MIN UN=-.4379E-08 IEQ= 25 NODE      13 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      10:49:25
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New Project

SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	1.1406680E-02	-1.6036829E-03
2	1.1085950E-02	-1.6035902E-03
3	1.0765268E-02	-1.6031441E-03
4	1.0444739E-02	-1.6019968E-03
5	1.0124540E-02	-1.5997853E-03
6	9.8049209E-03	-1.5961336E-03
7	9.4862084E-03	-1.5906532E-03
8	9.1688082E-03	-1.5829431E-03
9	8.8532074E-03	-1.5725900E-03
10	8.5399767E-03	-1.5591702E-03
11	8.2297727E-03	-1.5422495E-03
12	7.9233400E-03	-1.5213816E-03
13	7.6215137E-03	-1.4961084E-03
14	7.4726135E-03	-1.4816883E-03
15	7.1792131E-03	-1.4526738E-03
16	6.8914171E-03	-1.4255623E-03
17	6.6088944E-03	-1.3998571E-03
18	6.3314142E-03	-1.3750533E-03
19	6.0588468E-03	-1.3506441E-03
20	5.7911615E-03	-1.3261609E-03
21	5.5284109E-03	-1.3012501E-03
22	5.2707033E-03	-1.2757107E-03
23	5.0181726E-03	-1.2494815E-03
24	4.7709565E-03	-1.2225654E-03
25	4.5291918E-03	-1.1949695E-03
26	4.2930133E-03	-1.1667044E-03
27	4.0625548E-03	-1.1377844E-03
28	3.8379433E-03	-1.1082266E-03
29	3.6193053E-03	-1.0780516E-03
30	3.4067622E-03	-1.0472827E-03
31	3.2004302E-03	-1.0159452E-03
32	3.0004213E-03	-9.8406566E-04
33	2.8068392E-03	-9.5167144E-04
34	2.6197851E-03	-9.1879076E-04
35	2.4393535E-03	-8.8545181E-04
36	2.2656331E-03	-8.5168289E-04
37	2.0987068E-03	-8.1751635E-04
38	1.9386512E-03	-7.8299230E-04
39	1.7855315E-03	-7.4815657E-04
40	1.6394059E-03	-7.1306078E-04
41	1.5003208E-03	-6.7776083E-04
42	1.3683112E-03	-6.4231621E-04
43	1.2434004E-03	-6.0678951E-04
44	1.1255972E-03	-5.7124526E-04
45	1.0148990E-03	-5.3575042E-04
46	9.1128926E-04	-5.0037173E-04
47	8.1473829E-04	-4.6517305E-04
48	7.2520449E-04	-4.3021428E-04
49	6.4263333E-04	-3.9555110E-04
50	5.6696083E-04	-3.6123615E-04
51	4.9810093E-04	-3.2749036E-04
52	4.3590412E-04	-2.9467606E-04
53	3.8015012E-04	-2.6309117E-04
54	3.3056987E-04	-2.3297293E-04
55	2.8685126E-04	-2.0450008E-04
56	2.4865164E-04	-1.7780021E-04
57	2.1560745E-04	-1.5295611E-04
58	1.8734256E-04	-1.3001158E-04
59	1.6347548E-04	-1.089719E-04
60	1.4362552E-04	-8.9835277E-05
61	1.2741797E-04	-7.2544345E-05
62	1.1448845E-04	-5.7043263E-05
63	1.0448648E-04	-4.3254870E-05
64	9.7078300E-05	-3.1089566E-05
65	9.1949052E-05	-2.0448340E-05
66	8.8804396E-05	-1.1225643E-05
67	8.7371544E-05	-3.3117127E-06
68	8.7399926E-05	3.4054476E-06
69	8.8661415E-05	9.0379973E-06
70	9.0950209E-05	1.3696803E-05
71	9.4082444E-05	1.7490222E-05
72	9.7895595E-05	2.0523101E-05
73	1.0224768E-04	2.2895960E-05
74	1.0701633E-04	2.4704155E-05
75	1.1209768E-04	2.6037375E-05
76	1.1740521E-04	2.6979456E-05
77	1.2286857E-04	2.7608097E-05
78	1.2843231E-04	2.7994740E-05
79	1.3405467E-04	2.8204518E-05
80	1.3970625E-04	2.8296180E-05
81	1.4536875E-04	2.8321881E-05



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82 1.4820130E-04 2.8323109E-05

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	3.902	-1.1407E-02	25.00	39.02	25.00	39.02	V-C	8488.	0.000	0.000	1.000	1.000
39.02	0.000	0.000	Strat01_2_8_L_0									
2 D	7.087	-1.1086E-02	19.31	35.43	19.31	35.43	V-C	8488.	-0.2000	0.000	1.000	1.000
35.43	0.000	0.000	Strat01_2_8_L_0									
3 D	7.553	-1.0765E-02	25.16	37.77	25.16	37.77	V-C	8488.	-0.4000	0.000	1.000	1.000
37.77	0.000	0.000	Strat01_2_8_L_0									
4 D	7.746	-1.0445E-02	28.35	38.73	28.35	38.73	V-C	8488.	-0.6000	0.000	1.000	1.000
38.73	0.000	0.000	Strat01_2_8_L_0									
5 D	8.081	-1.0125E-02	32.93	40.41	32.93	40.41	V-C	8488.	-0.8000	0.000	1.000	1.000
40.41	0.000	0.000	Strat01_2_8_L_0									
6 D	8.293	-9.8049E-03	36.31	41.46	36.31	41.46	V-C	8488.	-1.000	0.000	1.000	1.000
41.46	0.000	0.000	Strat01_2_8_L_0									
7 D	8.595	-9.4862E-03	40.58	42.98	40.58	42.98	V-C	8488.	-1.200	0.000	1.000	1.000
42.98	0.000	0.000	Strat01_2_8_L_0									
8 D	8.815	-9.1688E-03	44.07	44.07	44.07	44.07	V-C	8488.	-1.400	0.000	1.000	1.000
44.07	0.000	0.000	Strat01_2_8_L_0									
9 D	9.031	-8.8532E-03	47.54	45.16	47.54	45.16	V-C	8488.	-1.600	0.000	1.000	1.000
45.16	0.000	0.000	Strat01_2_8_L_0									
10 D	9.260	-8.5400E-03	51.16	46.30	51.16	46.30	V-C	8488.	-1.800	0.000	1.000	1.000
46.30	0.000	0.000	Strat01_2_8_L_0									
11 D	9.538	-8.2298E-03	55.29	47.69	55.29	47.69	V-C	8488.	-2.000	0.000	1.000	1.000
47.69	0.000	0.000	Strat01_2_8_L_0									
12 D	9.761	-7.9233E-03	58.93	48.81	58.93	48.81	V-C	8488.	-2.200	0.000	1.000	1.000
48.81	0.000	0.000	Strat01_2_8_L_0									
13 D	7.517	-7.6215E-03	62.99	50.12	62.99	50.12	V-C	8488.	-2.400	0.000	1.000	1.000
50.12	0.000	0.000	Strat01_2_8_L_0									
14 D	7.596	-7.4726E-03	64.78	50.64	64.78	50.64	V-C	8488.	-2.500	0.000	1.000	1.000
50.64	0.000	0.000	Strat01_2_8_L_0									
15 D	10.34	-7.1792E-03	68.45	51.70	68.45	51.70	V-C	8488.	-2.700	0.000	1.000	1.000
51.70	0.000	0.000	Strat01_2_8_L_0									
16 D	10.58	-6.8914E-03	72.47	52.92	72.47	52.92	V-C	8488.	-2.900	0.000	1.000	1.000
52.92	0.000	0.000	Strat01_2_8_L_0									
17 D	10.79	-6.6089E-03	76.15	53.96	76.15	53.96	V-C	8488.	-3.100	0.000	1.000	1.000
53.96	0.000	0.000	Strat01_2_8_L_0									
18 D	11.03	-6.3314E-03	80.13	55.14	80.13	55.14	V-C	8488.	-3.300	0.000	1.000	1.000
55.14	0.000	0.000	Strat01_2_8_L_0									
19 D	11.23	-6.0588E-03	83.82	56.16	83.82	56.16	V-C	8488.	-3.500	0.000	1.000	1.000
56.16	0.000	0.000	Strat01_2_8_L_0									
20 D	11.47	-5.7912E-03	87.78	57.34	87.78	57.34	V-C	8488.	-3.700	0.000	1.000	1.000
57.34	0.000	0.000	Strat01_2_8_L_0									
21 D	11.65	-5.5284E-03	91.19	58.24	91.19	58.24	V-C	8488.	-3.900	0.000	1.000	1.000
58.24	0.000	0.000	Strat01_2_8_L_0									
22 D	11.89	-5.2707E-03	95.15	59.43	95.15	59.43	V-C	8488.	-4.100	0.000	1.000	1.000
59.43	0.000	0.000	Strat01_2_8_L_0									
23 D	12.13	-5.0182E-03	99.09	60.64	99.09	60.64	V-C	8488.	-4.300	0.000	1.000	1.000
60.64	0.000	0.000	Strat01_2_8_L_0									
24 D	12.35	-4.7710E-03	102.8	61.75	102.8	61.75	V-C	8488.	-4.500	0.000	1.000	1.000
61.75	0.000	0.000	Strat01_2_8_L_0									
25 D	12.60	-4.5292E-03	106.7	63.00	106.7	63.00	V-C	8488.	-4.700	0.000	1.000	1.000
63.00	0.000	0.000	Strat01_2_8_L_0									
26 D	12.83	-4.2930E-03	110.5	64.17	110.5	64.17	V-C	8488.	-4.900	0.000	1.000	1.000
64.17	0.000	0.000	Strat01_2_8_L_0									
27 D	13.10	-4.0626E-03	114.4	65.48	114.4	65.48	V-C	8488.	-5.100	0.000	1.000	1.000
65.48	0.000	0.000	Strat01_2_8_L_0									
28 D	13.32	-3.8379E-03	117.9	66.61	117.9	66.61	V-C	8488.	-5.300	0.000	1.000	1.000
66.61	0.000	0.000	Strat01_2_8_L_0									
29 D	13.60	-3.6193E-03	121.8	67.98	121.8	67.98	V-C	8488.	-5.500	0.000	1.000	1.000

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67.98	0.000	0.000	Strato1_2_8_L_0				
30 D	13.86	-3.4068E-03	125.5	69.29	125.5	69.29	V-C 8488. -5.700 0.000 1.000 1.000
69.29	0.000	0.000	Strato1_2_8_L_0				
31 D	14.15	-3.2004E-03	129.4	70.73	129.4	70.73	V-C 8488. -5.900 0.000 1.000 1.000
70.73	0.000	0.000	Strato1_2_8_L_0				
32 D	14.42	-3.0004E-03	133.2	72.11	133.2	72.11	V-C 8488. -6.100 0.000 1.000 1.000
72.11	0.000	0.000	Strato1_2_8_L_0				
33 D	14.72	-2.8068E-03	137.1	73.62	137.1	73.62	V-C 8488. -6.300 0.000 1.000 1.000
73.62	0.000	0.000	Strato1_2_8_L_0				
34 D	15.02	-2.6198E-03	140.8	75.08	140.8	75.08	V-C 8488. -6.500 0.000 1.000 1.000
75.08	0.000	0.000	Strato1_2_8_L_0				
35 D	15.31	-2.4394E-03	144.7	76.56	144.7	76.69	UL-RL 2.5465E+04 -6.700 0.000 1.000 1.000
76.56	0.000	0.000	Strato1_2_8_L_0				
36 D	15.44	-2.2656E-03	148.4	77.18	148.4	78.67	UL-RL 2.5465E+04 -6.900 0.000 1.000 1.000
77.18	0.000	0.000	Strato1_2_8_L_0				
37 D	15.58	-2.0987E-03	152.2	77.90	152.2	80.65	UL-RL 2.5465E+04 -7.100 0.000 1.000 1.000
77.90	0.000	0.000	Strato1_2_8_L_0				
38 D	15.76	-1.9387E-03	156.1	78.80	156.1	82.71	UL-RL 2.5465E+04 -7.300 0.000 1.000 1.000
78.80	0.000	0.000	Strato1_2_8_L_0				
39 D	15.94	-1.7855E-03	159.8	79.72	159.8	84.70	UL-RL 2.5465E+04 -7.500 0.000 1.000 1.000
79.72	0.000	0.000	Strato1_2_8_L_0				
40 D	16.16	-1.6394E-03	163.7	80.79	163.7	86.75	UL-RL 2.5465E+04 -7.700 0.000 1.000 1.000
80.79	0.000	0.000	Strato1_2_8_L_0				
41 D	16.38	-1.5003E-03	167.4	81.89	167.4	88.74	UL-RL 2.5465E+04 -7.900 0.000 1.000 1.000
81.89	0.000	0.000	Strato1_2_8_L_0				
42 D	16.63	-1.3683E-03	171.3	83.13	171.3	90.79	UL-RL 2.5465E+04 -8.100 0.000 1.000 1.000
83.13	0.000	0.000	Strato1_2_8_L_0				
43 D	16.86	-1.2434E-03	174.9	84.32	174.9	92.71	UL-RL 2.5465E+04 -8.300 0.000 1.000 1.000
84.32	0.000	0.000	Strato1_2_8_L_0				
44 D	17.14	-1.1256E-03	178.8	85.71	178.8	94.76	UL-RL 2.5465E+04 -8.500 0.000 1.000 1.000
85.71	0.000	0.000	Strato1_2_8_L_0				
45 D	17.47	-1.0149E-03	182.6	87.35	182.6	96.76	UL-RL 2.5465E+04 -8.700 0.000 1.000 1.000
87.35	0.000	0.000	Strato1_2_8_L_0				
46 D	17.84	-9.1129E-04	186.4	89.19	186.4	98.81	UL-RL 2.5465E+04 -8.900 0.000 1.000 1.000
89.19	0.000	0.000	Strato1_2_8_L_0				
47 D	18.20	-8.1474E-04	190.2	90.98	190.2	100.8	UL-RL 2.5465E+04 -9.100 0.000 1.000 1.000
90.98	0.000	0.000	Strato1_2_8_L_0				
48 D	18.56	-7.2520E-04	194.1	92.82	194.1	102.8	UL-RL 2.5465E+04 -9.300 0.000 1.000 1.000
92.82	0.000	0.000	Strato1_2_8_L_0				
49 D	18.93	-6.4263E-04	197.9	94.65	197.9	104.9	UL-RL 2.5465E+04 -9.500 0.000 1.000 1.000
94.65	0.000	0.000	Strato1_2_8_L_0				
50 D	10.86	-5.6696E-04	201.9	54.31	201.9	100.9	UL-RL 7.2037E+04 -9.700 0.000 1.000 1.000
54.31	0.000	0.000	Strato2_3095_82743_L_0				
51 D	12.32	-4.9810E-04	205.8	61.58	205.8	102.9	UL-RL 7.2037E+04 -9.900 0.000 1.000 1.000
61.58	0.000	0.000	Strato2_3095_82743_L_0				
52 D	13.67	-4.3590E-04	209.8	68.36	209.8	104.9	UL-RL 7.2037E+04 -10.10 0.000 1.000 1.000
68.36	0.000	0.000	Strato2_3095_82743_L_0				
53 D	14.94	-3.8015E-04	213.8	74.69	213.8	106.9	UL-RL 7.2037E+04 -10.30 0.000 1.000 1.000
74.69	0.000	0.000	Strato2_3095_82743_L_0				
54 D	16.10	-3.3057E-04	217.8	80.51	217.8	108.9	UL-RL 7.2037E+04 -10.50 0.000 1.000 1.000
80.51	0.000	0.000	Strato2_3095_82743_L_0				
55 D	17.18	-2.8685E-04	221.9	85.92	221.9	110.9	UL-RL 7.2037E+04 -10.70 0.000 1.000 1.000
85.92	0.000	0.000	Strato2_3095_82743_L_0				
56 D	18.17	-2.4865E-04	225.8	90.86	225.8	112.9	UL-RL 7.2037E+04 -10.90 0.000 1.000 1.000
90.86	0.000	0.000	Strato2_3095_82743_L_0				
57 D	19.09	-2.1561E-04	229.9	95.45	229.9	114.9	UL-RL 7.2037E+04 -11.10 0.000 1.000 1.000
95.45	0.000	0.000	Strato2_3095_82743_L_0				
58 D	19.92	-1.8734E-04	233.7	99.59	233.7	116.9	UL-RL 7.2037E+04 -11.30 0.000 1.000 1.000
99.59	0.000	0.000	Strato2_3095_82743_L_0				
59 D	20.69	-1.6348E-04	237.8	103.5	237.8	118.9	UL-RL 7.2037E+04 -11.50 0.000 1.000 1.000
103.5	0.000	0.000	Strato2_3095_82743_L_0				
60 D	21.40	-1.4363E-04	241.8	107.0	241.8	120.9	UL-RL 7.2037E+04 -11.70 0.000 1.000 1.000
107.0	0.000	0.000	Strato2_3095_82743_L_0				
61 D	22.06	-1.2742E-04	245.8	110.3	245.8	122.9	UL-RL 7.2037E+04 -11.90 0.000 1.000 1.000
110.3	0.000	0.000	Strato2_3095_82743_L_0				
62 D	22.67	-1.1449E-04	249.9	113.4	249.9	124.9	UL-RL 7.2037E+04 -12.10 0.000 1.000 1.000
113.4	0.000	0.000	Strato2_3095_82743_L_0				
63 D	23.23	-1.0449E-04	253.8	116.1	253.8	126.9	UL-RL 7.2037E+04 -12.30 0.000 1.000 1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0				
64 D	23.75	-9.7078E-05	257.9	118.8	257.9	128.9	UL-RL 7.2037E+04 -12.50 0.000 1.000 1.000
118.8	0.000	0.000	Strato2_3095_82743_L_0				
65 D	24.22	-9.1949E-05	261.8	121.1	261.8	130.9	UL-RL 7.2037E+04 -12.70 0.000 1.000 1.000
121.1	0.000	0.000	Strato2_3095_82743_L_0				
66 D	24.68	-8.8804E-05	265.8	123.4	265.8	132.9	UL-RL 7.2037E+04 -12.90 0.000 1.000 1.000
123.4	0.000	0.000	Strato2_3095_82743_L_0				
67 D	25.10	-8.7372E-05	269.7	125.5	269.7	134.9	UL-RL 7.2037E+04 -13.10 0.000 1.000 1.000
125.5	0.000	0.000	Strato2_3095_82743_L_0				
68 D	25.49	-8.7400E-05	273.6	127.5	273.6	136.8	UL-RL 7.2037E+04 -13.30 0.000 1.000 1.000
127.5	0.000	0.000	Strato2_3095_82743_L_0				
69 D	25.87	-8.8661E-05	277.5	129.3	277.5	138.8	UL-RL 7.2037E+04 -13.50 0.000 1.000 1.000
129.3	0.000	0.000	Strato2_3095_82743_L_0				
70 D	26.23	-9.0950E-05	281.4	131.1	281.4	140.7	UL-RL 7.2037E+04 -13.70 0.000 1.000 1.000
131.1	0.000	0.000	Strato2_3095_82743_L_0				
71 D	26.58	-9.4082E-05	285.3	132.9	285.3	142.7	UL-RL 7.2037E+04 -13.90 0.000 1.000 1.000
132.9	0.000	0.000	Strato2_3095_82743_L_0				

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19 D	2.185	6.0588E-03	9.500	10.92	66.50	40.07	UL-RL	1.7671E+04	-3.500	0.000	1.000	1.000
10.92	0.000	0.000	Strato1_2_8_L_0									
20 D	5.614	5.7912E-03	13.30	28.07	70.30	53.75	UL-RL	1.7671E+04	-3.700	0.000	1.000	1.000
28.07	0.000	0.000	Strato1_2_8_L_0									
21 D	9.038	5.5284E-03	17.10	45.19	74.10	69.10	UL-RL	1.7671E+04	-3.900	0.000	1.000	1.000
45.19	0.000	0.000	Strato1_2_8_L_0									
22 D	11.91	5.2707E-03	20.90	59.56	77.90	81.74	UL-RL	1.7671E+04	-4.100	0.000	1.000	1.000
59.56	0.000	0.000	Strato1_2_8_L_0									
23 D	12.23	5.0182E-03	24.70	61.14	81.70	81.62	UL-RL	1.7671E+04	-4.300	0.000	1.000	1.000
61.14	0.000	0.000	Strato1_2_8_L_0									
24 D	12.54	4.7710E-03	28.50	62.72	85.50	81.55	UL-RL	1.7671E+04	-4.500	0.000	1.000	1.000
62.72	0.000	0.000	Strato1_2_8_L_0									
25 D	12.86	4.5292E-03	32.30	64.30	89.30	81.54	UL-RL	1.7671E+04	-4.700	0.000	1.000	1.000
64.30	0.000	0.000	Strato1_2_8_L_0									
26 D	13.17	4.2930E-03	36.10	65.86	93.10	81.58	UL-RL	1.7671E+04	-4.900	0.000	1.000	1.000
65.86	0.000	0.000	Strato1_2_8_L_0									
27 D	13.49	4.0626E-03	39.90	67.43	96.90	81.67	UL-RL	1.7671E+04	-5.100	0.000	1.000	1.000
67.43	0.000	0.000	Strato1_2_8_L_0									
28 D	13.80	3.8379E-03	43.70	68.98	100.7	81.83	UL-RL	1.7671E+04	-5.300	0.000	1.000	1.000
68.98	0.000	0.000	Strato1_2_8_L_0									
29 D	14.10	3.6193E-03	47.50	70.52	104.5	82.04	UL-RL	1.7671E+04	-5.500	0.000	1.000	1.000
70.52	0.000	0.000	Strato1_2_8_L_0									
30 D	14.41	3.4068E-03	51.30	72.05	108.3	82.32	UL-RL	1.7671E+04	-5.700	0.000	1.000	1.000
72.05	0.000	0.000	Strato1_2_8_L_0									
31 D	14.71	3.2004E-03	55.10	73.57	112.1	82.66	UL-RL	1.7671E+04	-5.900	0.000	1.000	1.000
73.57	0.000	0.000	Strato1_2_8_L_0									
32 D	15.02	3.0004E-03	58.90	75.08	115.9	83.07	UL-RL	1.7671E+04	-6.100	0.000	1.000	1.000
75.08	0.000	0.000	Strato1_2_8_L_0									
33 D	15.31	2.8068E-03	62.70	76.57	119.7	83.53	UL-RL	1.7671E+04	-6.300	0.000	1.000	1.000
76.57	0.000	0.000	Strato1_2_8_L_0									
34 D	15.61	2.6198E-03	66.50	78.06	123.5	84.07	UL-RL	1.7671E+04	-6.500	0.000	1.000	1.000
78.06	0.000	0.000	Strato1_2_8_L_0									
35 D	15.91	2.4394E-03	70.30	79.54	127.3	84.67	UL-RL	1.7671E+04	-6.700	0.000	1.000	1.000
79.54	0.000	0.000	Strato1_2_8_L_0									
36 D	16.20	2.2656E-03	74.10	81.01	131.1	85.33	UL-RL	1.7671E+04	-6.900	0.000	1.000	1.000
81.01	0.000	0.000	Strato1_2_8_L_0									
37 D	16.50	2.0987E-03	77.90	82.48	134.9	86.06	UL-RL	1.7671E+04	-7.100	0.000	1.000	1.000
82.48	0.000	0.000	Strato1_2_8_L_0									
38 D	16.79	1.9387E-03	81.70	83.94	138.7	86.86	UL-RL	1.7671E+04	-7.300	0.000	1.000	1.000
83.94	0.000	0.000	Strato1_2_8_L_0									
39 D	17.08	1.7855E-03	85.50	85.41	142.5	87.72	UL-RL	1.7671E+04	-7.500	0.000	1.000	1.000
85.41	0.000	0.000	Strato1_2_8_L_0									
40 D	17.37	1.6394E-03	89.30	86.87	146.3	88.64	UL-RL	1.7671E+04	-7.700	0.000	1.000	1.000
86.87	0.000	0.000	Strato1_2_8_L_0									
41 D	17.67	1.5003E-03	93.10	88.34	150.1	89.63	UL-RL	1.7671E+04	-7.900	0.000	1.000	1.000
88.34	0.000	0.000	Strato1_2_8_L_0									
42 D	17.96	1.3683E-03	96.90	89.82	153.9	90.68	UL-RL	1.7671E+04	-8.100	0.000	1.000	1.000
89.82	0.000	0.000	Strato1_2_8_L_0									
43 D	18.26	1.2434E-03	100.7	91.30	157.7	91.79	UL-RL	1.7671E+04	-8.300	0.000	1.000	1.000
91.30	0.000	0.000	Strato1_2_8_L_0									
44 D	18.56	1.1256E-03	104.5	92.80	161.5	92.96	UL-RL	1.7671E+04	-8.500	0.000	1.000	1.000
92.80	0.000	0.000	Strato1_2_8_L_0									
45 D	18.84	1.0149E-03	108.3	94.19	165.3	94.25	UL-RL	1.7671E+04	-8.700	0.000	1.000	1.000
94.19	0.000	0.000	Strato1_2_8_L_0									
46 D	19.11	9.1129E-04	112.1	95.56	169.1	95.61	UL-RL	1.7671E+04	-8.900	0.000	1.000	1.000
95.56	0.000	0.000	Strato1_2_8_L_0									
47 D	19.39	8.1474E-04	115.9	96.97	172.9	97.02	UL-RL	1.7671E+04	-9.100	0.000	1.000	1.000
96.97	0.000	0.000	Strato1_2_8_L_0									
48 D	19.69	7.2520E-04	119.7	98.43	176.7	98.47	UL-RL	1.7671E+04	-9.300	0.000	1.000	1.000
98.43	0.000	0.000	Strato1_2_8_L_0									
49 D	19.99	6.4263E-04	123.5	99.93	180.5	99.97	UL-RL	1.7671E+04	-9.500	0.000	1.000	1.000
99.93	0.000	0.000	Strato1_2_8_L_0									
50 D	19.09	5.6696E-04	127.5	95.45	184.5	95.51	UL-RL	3.9043E+04	-9.700	0.000	1.000	1.000
95.45	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.30	4.9810E-04	131.5	96.51	188.5	96.56	UL-RL	3.9043E+04	-9.900	0.000	1.000	1.000
96.51	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.30	4.3590E-04	135.5	96.49	192.5	98.28	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
96.49	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.27	3.8015E-04	139.5	96.36	196.5	100.2	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
96.36	0.000	0.000	Strato2_3095_82743_L_0									
54 D	19.30	3.3057E-04	143.5	96.48	200.5	102.1	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
96.48	0.000	0.000	Strato2_3095_82743_L_0									
55 D	19.36	2.8685E-04	147.5	96.82	204.5	104.0	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
96.82	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.48	2.4865E-04	151.5	97.39	208.5	106.0	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
97.39	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.63	2.1561E-04	155.5	98.16	212.5	107.9	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
98.16	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.82	1.8734E-04	159.5	99.11	216.5	109.8	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
99.11	0.000	0.000	Strato2_3095_82743_L_0									
59 D	20.05	1.6348E-04	163.5	100.2	220.5	111.8	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0									
60 D	20.30	1.4363E-04	167.5	101.5	224.5	113.7	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
101.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	20.59	1.2742E-04	171.5	102.9	228.5	115.7	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000



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102.9	0.000	0.000	Strato2_3095_82743_L_0		
62 D	20.90	1.1449E-04	175.5 104.5	232.5	117.7
104.5	0.000	0.000	Strato2_3095_82743_L_0		
63 D	21.23	1.0449E-04	179.5 106.1	236.5	119.6
106.1	0.000	0.000	Strato2_3095_82743_L_0		
64 D	21.58	9.7078E-05	183.5 107.9	240.5	121.6
107.9	0.000	0.000	Strato2_3095_82743_L_0		
65 D	21.95	9.1949E-05	187.5 109.7	244.5	123.6
109.7	0.000	0.000	Strato2_3095_82743_L_0		
66 D	22.33	8.8804E-05	191.5 111.7	248.5	125.5
111.7	0.000	0.000	Strato2_3095_82743_L_0		
67 D	22.73	8.7372E-05	195.5 113.6	252.5	127.5
113.6	0.000	0.000	Strato2_3095_82743_L_0		
68 D	23.14	8.7400E-05	199.5 115.7	256.5	129.5
115.7	0.000	0.000	Strato2_3095_82743_L_0		
69 D	23.55	8.8661E-05	203.5 117.8	260.5	131.5
117.8	0.000	0.000	Strato2_3095_82743_L_0		
70 D	23.98	9.0950E-05	207.5 119.9	264.5	133.5
119.9	0.000	0.000	Strato2_3095_82743_L_0		
71 D	24.41	9.4082E-05	211.5 122.0	268.5	135.5
122.0	0.000	0.000	Strato2_3095_82743_L_0		
72 D	24.84	9.7896E-05	215.5 124.2	272.5	137.4
124.2	0.000	0.000	Strato2_3095_82743_L_0		
73 D	25.28	1.0225E-04	219.5 126.4	276.5	139.4
126.4	0.000	0.000	Strato2_3095_82743_L_0		
74 D	25.73	1.0702E-04	223.5 128.6	280.5	141.4
128.6	0.000	0.000	Strato2_3095_82743_L_0		
75 D	26.17	1.1210E-04	227.5 130.9	284.5	143.4
130.9	0.000	0.000	Strato2_3095_82743_L_0		
76 D	26.62	1.1741E-04	231.5 133.1	288.5	145.4
133.1	0.000	0.000	Strato2_3095_82743_L_0		
77 D	27.06	1.2287E-04	235.5 135.3	292.5	147.4
135.3	0.000	0.000	Strato2_3095_82743_L_0		
78 D	27.51	1.2843E-04	239.5 137.5	296.5	149.4
137.5	0.000	0.000	Strato2_3095_82743_L_0		
79 D	27.96	1.3405E-04	243.5 139.8	300.5	151.4
139.8	0.000	0.000	Strato2_3095_82743_L_0		
80 D	28.40	1.3971E-04	247.5 142.0	304.5	153.4
142.0	0.000	0.000	Strato2_3095_82743_L_0		
81 D	21.64	1.4537E-04	251.5 144.2	308.5	155.4
144.2	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.268	1.4820E-04	253.5 145.4	310.5	156.4
145.4	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
|          |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.9022	-3.9022	1.06243E-10	0.78044
2	10.989	-10.989	-0.78044	2.9783
3	18.543	-18.543	-2.9783	6.6868
4	26.289	-26.289	-6.6868	11.945
5	34.370	-34.370	-11.945	18.819
6	42.663	-42.663	-18.819	27.351
7	51.258	-51.258	-27.351	37.603
8	60.072	-60.072	-37.603	49.617
9	69.104	-69.104	-49.617	63.438
10	78.364	-78.364	-63.438	79.111
11	87.901	-87.901	-79.111	96.691
12	97.662	-97.662	-96.691	116.22
13	105.18	-105.18	-116.22	126.74
14	-45.250	45.250	-126.74	117.69
15	-34.909	34.909	-117.69	110.71
16	-24.325	24.325	-110.71	105.84
17	-13.649	13.649	-105.84	103.11
18	-2.9680	2.9680	-103.11	102.52
19	6.0800	-6.0800	-102.52	103.74

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 112 di 560
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20	11.934	-11.934	-103.74	106.12
21	14.543	-14.543	-106.12	109.03
22	14.516	-14.516	-109.03	111.94
23	14.416	-14.416	-111.94	114.82
24	14.222	-14.222	-114.82	117.66
25	13.964	-13.964	-117.66	120.46
26	13.626	-13.626	-120.46	123.18
27	13.236	-13.236	-123.18	125.83
28	12.762	-12.762	-125.83	128.38
29	12.253	-12.253	-128.38	130.83
30	11.702	-11.702	-130.83	133.17
31	11.133	-11.133	-133.17	135.40
32	10.541	-10.541	-135.40	137.51
33	9.9500	-9.9500	-137.51	139.50
34	9.3536	-9.3536	-139.50	141.37
35	8.7579	-8.7579	-141.37	143.12
36	7.9907	-7.9907	-143.12	144.72
37	7.0757	-7.0757	-144.72	146.13
38	6.0461	-6.0461	-146.13	147.34
39	4.9082	-4.9082	-147.34	148.32
40	3.6918	-3.6918	-148.32	149.06
41	2.4015	-2.4015	-149.06	149.54
42	1.0638	-1.0638	-149.54	149.75
43-0.33209	0.33209		-149.75	149.69
44	-1.7494	1.7494	-149.69	149.34
45	-3.1429	3.1429	-149.34	148.71
46	-4.4396	4.4396	-148.71	147.82
47	-5.6589	5.6589	-147.82	146.69
48	-6.7992	6.7992	-146.69	145.33
49	-7.8692	7.8692	-145.33	143.76
50	-16.105	16.105	-143.76	140.54
51	-23.097	23.097	-140.54	135.92
52	-28.723	28.723	-135.92	130.17
53	-33.057	33.057	-130.17	123.56
54	-36.251	36.251	-123.56	116.31
55	-38.432	38.432	-116.31	108.62
56	-39.737	39.737	-108.62	100.68
57	-40.278	40.278	-100.68	92.620
58	-40.182	40.182	-92.620	84.584
59	-39.534	39.534	-84.584	76.677
60	-38.434	38.434	-76.677	68.990
61	-36.959	36.959	-68.990	61.599
62	-35.184	35.184	-61.599	54.562
63	-33.185	33.185	-54.562	47.925
64	-31.013	31.013	-47.925	41.722
65	-28.739	28.739	-41.722	35.974
66	-26.390	26.390	-35.974	30.697
67	-24.021	24.021	-30.697	25.892
68	-21.665	21.665	-25.892	21.559
69	-19.351	19.351	-21.559	17.689
70	-17.101	17.101	-17.689	14.269
71	-14.935	14.935	-14.269	11.282
72	-12.867	12.867	-11.282	8.7084
73	-10.918	10.918	-8.7084	6.5248
74	-9.0890	9.0890	-6.5248	4.7070
75	-7.3868	7.3868	-4.7070	3.2296
76	-5.8161	5.8161	-3.2296	2.0664
77	-4.3774	4.3774	-2.0664	1.1909
78	-3.0726	3.0726	-1.1909	0.57638
79	-1.9028	1.9028	-0.57638	0.19583
80-0.87567	0.87567		-0.19583	2.06925E-02
81-0.20690	0.20690		-2.06925E-02	-7.83418E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                       |
|                               Exe Time :24 July 2019      10:49:25                             |
|                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL FORCE d0 EDISPL pl. eps K -ve limit +ve limit

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 113 di 560
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ANCHOR 1 163.60 -1.98299E-03 -1.98299E-03 0.0000 0.0000 0.0000 0.0000 BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 3921. REMNOR=0.2248E-18 RATIO =0.1328 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.1328 RATIO= 0.000
MAX UN= 15.91 IEQ= 69 NODE 35 DOF 1 Y-DISPL.F
MIN UN=-.4379E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 506.3 REMNOR=0.3565E-18 RATIO =0.4770E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.4770E-01 RATIO= 0.000
MAX UN= 6.341 IEQ= 81 NODE 41 DOF 1 Y-DISPL.F
MIN UN=-.1922E-08 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 154.6 REMNOR=0.4985E-18 RATIO =0.2636E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.2636E-01 RATIO= 0.000
MAX UN= 7.418 IEQ= 107 NODE 54 DOF 1 Y-DISPL.F
MIN UN=-.3485E-08 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM= 11.76 REMNOR=0.4655E-18 RATIO =0.7270E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.7270E-02 RATIO= 0.000
MAX UN= 2.151 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
MIN UN=-.4019E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2225E+06 RIMNOR=0.1665E+07
RENORM=0.6646E-03 REMNOR=0.1143E-17 RATIO =0.5465E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 158.0 RMMAX = 149.8
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.2225E+06 RDR =0.1665E+07
RATIOT=0.5465E-04 RATIO= 0.000
MAX UN=0.1315E-07 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
MIN UN=-.2578E-01 IEQ= 163 NODE 82 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019  10:49:25
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	
1	1.5617324E-02	-9.7228586E-04	(
2	1.5422869E-02	-9.7225749E-04	
3	1.5228428E-02	-9.7212856E-04	
4	1.5034031E-02	-9.7179815E-04	
5	1.4839730E-02	-9.7114481E-04	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 114 di 560
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- 6 1.4645603E-02 -9.7002946E-04
- 7 1.4451759E-02 -9.6829497E-04
- 8 1.4258338E-02 -9.6576685E-04
- 9 1.4065518E-02 -9.6225296E-04
- 10 1.3873517E-02 -9.5754541E-04
- 11 1.3682595E-02 -9.5142019E-04
- 12 1.3493059E-02 -9.4363570E-04
- 13 1.3305268E-02 -9.3393272E-04
- 14 1.3212153E-02 -9.2828483E-04
- 15 1.3027477E-02 -9.1949281E-04
- 16 1.2843956E-02 -9.1668625E-04
- 17 1.2660425E-02 -9.1954532E-04
- 18 1.2475783E-02 -9.2773275E-04
- 19 1.2289000E-02 -9.4089385E-04
- 20 1.2099119E-02 -9.5865652E-04
- 21 1.1905257E-02 -9.8063129E-04
- 22 1.1706613E-02 -1.0064120E-03
- 23 1.1502467E-02 -1.0355757E-03
- 24 1.1292186E-02 -1.0676816E-03
- 25 1.1075228E-02 -1.1022714E-03
- 26 1.0851144E-02 -1.1388696E-03
- 27 1.0619581E-02 -1.1769831E-03
- 28 1.0380285E-02 -1.2161020E-03
- 29 1.0133108E-02 -1.2556990E-03
- 30 9.8780094E-03 -1.2952301E-03
- 31 9.6150578E-03 -1.3341340E-03
- 32 9.3444376E-03 -1.3718318E-03
- 33 9.0664465E-03 -1.4077279E-03
- 34 8.7815074E-03 -1.4412088E-03
- 35 8.4901661E-03 -1.4716437E-03
- 36 8.1930962E-03 -1.4983847E-03
- 37 7.8910987E-03 -1.5208284E-03
- 38 7.5850852E-03 -1.5384895E-03
- 39 7.2760471E-03 -1.5510111E-03
- 40 6.9650386E-03 -1.5581649E-03
- 41 6.6531456E-03 -1.5598509E-03
- 42 6.3414609E-03 -1.5560978E-03
- 43 6.0310607E-03 -1.5470545E-03
- 44 5.7229800E-03 -1.5329211E-03
- 45 5.4182189E-03 -1.5138881E-03
- 46 5.1177393E-03 -1.4901360E-03
- 47 4.8224677E-03 -1.4618360E-03
- 48 4.5332988E-03 -1.4291505E-03
- 49 4.2510912E-03 -1.3922325E-03
- 50 3.9766782E-03 -1.3512272E-03
- 51 3.7108483E-03 -1.3065023E-03
- 52 3.4542924E-03 -1.2586471E-03
- 53 3.2075663E-03 -1.2082357E-03
- 54 2.9711308E-03 -1.1558345E-03
- 55 2.7453282E-03 -1.1019985E-03
- 56 2.5303906E-03 -1.0472736E-03
- 57 2.3264421E-03 -9.9219730E-04
- 58 2.1334998E-03 -9.3730003E-04
- 59 1.9514754E-03 -8.8310429E-04
- 60 1.7801776E-03 -8.3011495E-04
- 61 1.6193170E-03 -7.7881166E-04
- 62 1.4685113E-03 -7.2963402E-04
- 63 1.3272968E-03 -6.8295470E-04
- 64 1.1951430E-03 -6.3907201E-04
- 65 1.0714662E-03 -5.9821598E-04
- 66 9.5564362E-04 -5.6055407E-04
- 67 8.4702433E-04 -5.2619634E-04
- 68 7.4494099E-04 -4.9520002E-04
- 69 6.4871964E-04 -4.6757399E-04
- 70 5.5768909E-04 -4.4328252E-04
- 71 4.7118948E-04 -4.2224845E-04
- 72 3.8858027E-04 -4.0435605E-04
- 73 3.0924774E-04 -3.8945337E-04
- 74 2.3261200E-04 -3.7735449E-04
- 75 1.5813358E-04 -3.6784110E-04
- 76 8.5319825E-05 -3.6066371E-04
- 77 1.3731011E-05 -3.5554259E-04
- 78 -5.7013682E-05 -3.5216852E-04
- 79 -1.2723031E-04 -3.5020318E-04
- 80 -1.9716440E-04 -3.4927956E-04
- 81 -2.6698522E-04 -3.4900223E-04
- 82 -3.0188799E-04 -3.4898809E-04

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 116 di 560							
34 D	13.46	-8.7815E-03	140.8	67.31	140.8	75.08	ACTIVE	0.000	-6.500	0.000	1.000	1.000
67.31	0.000	0.000	Strato1_2_8_L_0									
35 D	13.83	-8.4902E-03	144.7	69.17	144.7	76.69	ACTIVE	0.000	-6.700	0.000	1.000	1.000
69.17	0.000	0.000	Strato1_2_8_L_0									
36 D	14.19	-8.1931E-03	148.4	70.95	148.4	78.67	ACTIVE	0.000	-6.900	0.000	1.000	1.000
70.95	0.000	0.000	Strato1_2_8_L_0									
37 D	14.55	-7.8911E-03	152.2	72.74	152.2	80.65	ACTIVE	0.000	-7.100	0.000	1.000	1.000
72.74	0.000	0.000	Strato1_2_8_L_0									
38 D	14.92	-7.5851E-03	156.1	74.60	156.1	82.71	ACTIVE	0.000	-7.300	0.000	1.000	1.000
74.60	0.000	0.000	Strato1_2_8_L_0									
39 D	15.28	-7.2760E-03	159.8	76.39	159.8	84.70	ACTIVE	0.000	-7.500	0.000	1.000	1.000
76.39	0.000	0.000	Strato1_2_8_L_0									
40 D	15.65	-6.9650E-03	163.7	78.24	163.7	86.75	ACTIVE	0.000	-7.700	0.000	1.000	1.000
78.24	0.000	0.000	Strato1_2_8_L_0									
41 D	16.01	-6.6531E-03	167.4	80.03	167.4	88.74	ACTIVE	0.000	-7.900	0.000	1.000	1.000
80.03	0.000	0.000	Strato1_2_8_L_0									
42 D	16.38	-6.3415E-03	171.3	81.89	171.3	90.79	ACTIVE	0.000	-8.100	0.000	1.000	1.000
81.89	0.000	0.000	Strato1_2_8_L_0									
43 D	16.72	-6.0311E-03	174.9	83.62	174.9	92.71	ACTIVE	0.000	-8.300	0.000	1.000	1.000
83.62	0.000	0.000	Strato1_2_8_L_0									
44 D	17.09	-5.7230E-03	178.8	85.47	178.8	94.76	ACTIVE	0.000	-8.500	0.000	1.000	1.000
85.47	0.000	0.000	Strato1_2_8_L_0									
45 D	17.45	-5.4182E-03	182.6	87.26	182.6	96.76	ACTIVE	0.000	-8.700	0.000	1.000	1.000
87.26	0.000	0.000	Strato1_2_8_L_0									
46 D	17.82	-5.1177E-03	186.4	89.11	186.4	98.81	ACTIVE	0.000	-8.900	0.000	1.000	1.000
89.11	0.000	0.000	Strato1_2_8_L_0									
47 D	18.18	-4.8225E-03	190.2	90.91	190.2	100.8	ACTIVE	0.000	-9.100	0.000	1.000	1.000
90.91	0.000	0.000	Strato1_2_8_L_0									
48 D	18.55	-4.5333E-03	194.1	92.76	194.1	102.8	ACTIVE	0.000	-9.300	0.000	1.000	1.000
92.76	0.000	0.000	Strato1_2_8_L_0									
49 D	18.92	-4.2511E-03	197.9	94.60	197.9	104.9	ACTIVE	0.000	-9.500	0.000	1.000	1.000
94.60	0.000	0.000	Strato1_2_8_L_0									
50 D	8.828	-3.9767E-03	201.9	44.14	201.9	100.9	ACTIVE	0.000	-9.700	0.000	1.000	1.000
44.14	0.000	0.000	Strato2_3095_82743_L_0									
51 D	9.091	-3.7108E-03	205.8	45.46	205.8	102.9	ACTIVE	0.000	-9.900	0.000	1.000	1.000
45.46	0.000	0.000	Strato2_3095_82743_L_0									
52 D	9.355	-3.4543E-03	209.8	46.78	209.8	104.9	ACTIVE	0.000	-10.10	0.000	1.000	1.000
46.78	0.000	0.000	Strato2_3095_82743_L_0									
53 D	9.625	-3.2076E-03	213.8	48.13	213.8	106.9	ACTIVE	0.000	-10.30	0.000	1.000	1.000
48.13	0.000	0.000	Strato2_3095_82743_L_0									
54 D	9.889	-2.9711E-03	217.8	49.45	217.8	108.9	ACTIVE	0.000	-10.50	0.000	1.000	1.000
49.45	0.000	0.000	Strato2_3095_82743_L_0									
55 D	10.16	-2.7453E-03	221.9	50.80	221.9	110.9	ACTIVE	0.000	-10.70	0.000	1.000	1.000
50.80	0.000	0.000	Strato2_3095_82743_L_0									
56 D	10.42	-2.5304E-03	225.8	52.12	225.8	112.9	ACTIVE	0.000	-10.90	0.000	1.000	1.000
52.12	0.000	0.000	Strato2_3095_82743_L_0									
57 D	10.69	-2.3264E-03	229.9	53.47	229.9	114.9	ACTIVE	0.000	-11.10	0.000	1.000	1.000
53.47	0.000	0.000	Strato2_3095_82743_L_0									
58 D	10.95	-2.1335E-03	233.7	54.76	233.7	116.9	ACTIVE	0.000	-11.30	0.000	1.000	1.000
54.76	0.000	0.000	Strato2_3095_82743_L_0									
59 D	11.22	-1.9515E-03	237.8	56.11	237.8	118.9	ACTIVE	0.000	-11.50	0.000	1.000	1.000
56.11	0.000	0.000	Strato2_3095_82743_L_0									
60 D	11.49	-1.7802E-03	241.8	57.43	241.8	120.9	ACTIVE	0.000	-11.70	0.000	1.000	1.000
57.43	0.000	0.000	Strato2_3095_82743_L_0									
61 D	12.48	-1.6193E-03	245.8	62.40	245.8	122.9	UL-RL	3.2112E+04	-11.90	0.000	1.000	1.000
62.40	0.000	0.000	Strato2_3095_82743_L_0									
62 D	13.97	-1.4685E-03	249.9	69.87	249.9	124.9	UL-RL	3.2112E+04	-12.10	0.000	1.000	1.000
69.87	0.000	0.000	Strato2_3095_82743_L_0									
63 D	15.37	-1.3273E-03	253.8	76.87	253.8	126.9	UL-RL	3.2112E+04	-12.30	0.000	1.000	1.000
76.87	0.000	0.000	Strato2_3095_82743_L_0									
64 D	16.70	-1.1951E-03	257.9	83.49	257.9	128.9	UL-RL	3.2112E+04	-12.50	0.000	1.000	1.000
83.49	0.000	0.000	Strato2_3095_82743_L_0									
65 D	17.93	-1.0715E-03	261.8	89.66	261.8	130.9	UL-RL	3.2112E+04	-12.70	0.000	1.000	1.000
89.66	0.000	0.000	Strato2_3095_82743_L_0									
66 D	19.11	-9.5564E-04	265.8	95.57	265.8	132.9	UL-RL	3.2112E+04	-12.90	0.000	1.000	1.000
95.57	0.000	0.000	Strato2_3095_82743_L_0									
67 D	20.22	-8.4702E-04	269.7	101.1	269.7	134.9	UL-RL	3.2112E+04	-13.10	0.000	1.000	1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0									
68 D	21.27	-7.4494E-04	273.6	106.3	273.6	136.8	UL-RL	3.2112E+04	-13.30	0.000	1.000	1.000
106.3	0.000	0.000	Strato2_3095_82743_L_0									
69 D	22.27	-6.4872E-04	277.5	111.4	277.5	138.8	UL-RL	3.2112E+04	-13.50	0.000	1.000	1.000
111.4	0.000	0.000	Strato2_3095_82743_L_0									
70 D	23.23	-5.5769E-04	281.4	116.2	281.4	140.7	UL-RL	3.2112E+04	-13.70	0.000	1.000	1.000
116.2	0.000	0.000	Strato2_3095_82743_L_0									
71 D	24.15	-4.7119E-04	285.3	120.8	285.3	142.7	UL-RL	3.2112E+04	-13.90	0.000	1.000	1.000
120.8	0.000	0.000	Strato2_3095_82743_L_0									
72 D	25.05	-3.8858E-04	289.2	125.2	289.2	144.6	UL-RL	3.2112E+04	-14.10	0.000	1.000	1.000
125.2	0.000	0.000	Strato2_3095_82743_L_0									
73 D	25.90	-3.0925E-04	293.1	129.5	293.1	146.5	UL-RL	3.2112E+04	-14.30	0.000	1.000	1.000
129.5	0.000	0.000	Strato2_3095_82743_L_0									
74 D	26.75	-2.3261E-04	297.0	133.8	297.0	148.5	UL-RL	3.2112E+04	-14.50	0.000	1.000	1.000
133.8	0.000	0.000	Strato2_3095_82743_L_0									
75 D	27.58	-1.5813E-04	300.9	137.9	300.9	150.4	UL-RL	3.2112E+04	-14.70	0.000	1.000	1.000
137.9	0.000	0.000	Strato2_3095_82743_L_0									
76 D	28.40	-8.5320E-05	304.8	142.0	304.8	152.4	UL-RL	3.2112E+04	-14.90	0.000	1.000	1.000

GENERAL CONTRACTOR

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ALTA SORVEGLIANZA



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GRUPPO FERROVIE DELLO STATO ITALIANE

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142.0	0.000	0.000	Strato2_3095_82743_L_0		
77 D	29.20	-1.3731E-05	308.7 146.0	308.7	154.4
146.0	0.000	0.000	Strato2_3095_82743_L_0		
78 D	30.01	5.7014E-05	312.6 150.0	312.6	156.3
150.0	0.000	0.000	Strato2_3095_82743_L_0		
79 D	30.80	1.2723E-04	316.6 154.0	316.6	158.3
154.0	0.000	0.000	Strato2_3095_82743_L_0		
80 D	31.59	1.9716E-04	320.4 158.0	320.4	160.2
158.0	0.000	0.000	Strato2_3095_82743_L_0		
81 D	24.29	2.6699E-04	324.3 161.9	324.3	162.2
161.9	0.000	0.000	Strato2_3095_82743_L_0		
82 D	8.171	3.0189E-04	326.3 163.4	326.3	163.4
163.4	0.000	0.000	Strato2_3095_82743_L_0		



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
2	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
3	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
4	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
5	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
6	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
7	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-2.500	0.000	1.000	1.000
8	0.000	--	--	--	--	--	REMOVED	--	-2.700	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-2.900	0.000	1.000	1.000
9	0.000	--	--	--	--	--	REMOVED	--	-3.100	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-3.300	0.000	1.000	1.000
10	0.000	--	--	--	--	--	REMOVED	--	-3.500	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-3.700	0.000	1.000	1.000
11	0.000	--	--	--	--	--	REMOVED	--	-3.900	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-4.100	0.000	1.000	1.000
12	0.000	--	--	--	--	--	REMOVED	--	-4.300	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-4.500	0.000	1.000	1.000
13	0.000	--	--	--	--	--	REMOVED	--	-4.700	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-4.900	0.000	1.000	1.000
14	0.000	--	--	--	--	--	REMOVED	--	-5.100	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-5.300	0.000	1.000	1.000
15	0.000	--	--	--	--	--	REMOVED	--	-5.500	0.000	1.000	1.000
0.000	0.000	0.000	not available	--	--	--	REMOVED	--	-5.700	0.000	1.000	1.000
16	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
17	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
18	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
19	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
20	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
21	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
22	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
23	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
24	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
25	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
26	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
27	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
28	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
29	0.000	--	--	--	--	--	REMOVED	--				
0.000	0.000	0.000	not available	--	--	--	REMOVED	--				
30	0.000	--	--	--	--	--	REMOVED	--				

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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0.000	0.000	0.000	not available		
31	0.000	--	--	--	--
0.000	0.000	0.000	not available		
32	0.000	--	--	--	--
0.000	0.000	0.000	not available		
33	0.000	--	--	--	--
0.000	0.000	0.000	not available		
34	0.000	--	--	--	--
0.000	0.000	0.000	not available		
35	0.000	--	--	--	--
0.000	0.000	0.000	not available		
36 D	2.610	8.1931E-03	3.230 13.05	131.1	85.33
13.05	0.000	0.000	Strato1_2_8_L_0		
37 D	5.682	7.8911E-03	7.030 28.41	134.9	86.06
28.41	0.000	0.000	Strato1_2_8_L_0		
38 D	8.753	7.5851E-03	10.83 43.76	138.7	86.86
43.76	0.000	0.000	Strato1_2_8_L_0		
39 D	11.82	7.2760E-03	14.63 59.12	142.5	87.72
59.12	0.000	0.000	Strato1_2_8_L_0		
40 D	14.90	6.9650E-03	18.43 74.48	146.3	88.64
74.48	0.000	0.000	Strato1_2_8_L_0		
41 D	17.97	6.6531E-03	22.23 89.83	150.1	89.83
89.83	0.000	0.000	Strato1_2_8_L_0		
42 D	20.69	6.3415E-03	26.03 103.5	153.9	103.5
103.5	0.000	0.000	Strato1_2_8_L_0		
43 D	20.84	6.0311E-03	29.83 104.2	157.7	104.2
104.2	0.000	0.000	Strato1_2_8_L_0		
44 D	21.00	5.7230E-03	33.63 105.0	161.5	105.0
105.0	0.000	0.000	Strato1_2_8_L_0		
45 D	21.16	5.4182E-03	37.43 105.8	165.3	105.8
105.8	0.000	0.000	Strato1_2_8_L_0		
46 D	21.33	5.1177E-03	41.23 106.6	169.1	106.6
106.6	0.000	0.000	Strato1_2_8_L_0		
47 D	21.51	4.8225E-03	45.03 107.5	172.9	107.5
107.5	0.000	0.000	Strato1_2_8_L_0		
48 D	21.69	4.5333E-03	48.83 108.5	176.7	108.5
108.5	0.000	0.000	Strato1_2_8_L_0		
49 D	21.89	4.2511E-03	52.63 109.4	180.5	109.4
109.4	0.000	0.000	Strato1_2_8_L_0		
50 D	21.35	3.9767E-03	56.63 106.7	184.5	106.7
106.7	0.000	0.000	Strato2_3095_82743_L_0		
51 D	21.35	3.7108E-03	60.63 106.8	188.5	106.8
106.8	0.000	0.000	Strato2_3095_82743_L_0		
52 D	21.37	3.4543E-03	64.63 106.9	192.5	106.9
106.9	0.000	0.000	Strato2_3095_82743_L_0		
53 D	21.42	3.2076E-03	68.63 107.1	196.5	107.1
107.1	0.000	0.000	Strato2_3095_82743_L_0		
54 D	21.48	2.9711E-03	72.63 107.4	200.5	107.4
107.4	0.000	0.000	Strato2_3095_82743_L_0		
55 D	21.56	2.7453E-03	76.63 107.8	204.5	107.8
107.8	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.67	2.5304E-03	80.63 108.3	208.5	108.3
108.3	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.79	2.3264E-03	84.63 108.9	212.5	108.9
108.9	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.87	2.1335E-03	88.63 109.3	216.5	109.8
109.3	0.000	0.000	Strato2_3095_82743_L_0		
59 D	21.57	1.9515E-03	92.63 107.9	220.5	111.8
107.9	0.000	0.000	Strato2_3095_82743_L_0		
60 D	21.34	1.7802E-03	96.63 106.7	224.5	113.7
106.7	0.000	0.000	Strato2_3095_82743_L_0		
61 D	21.15	1.6193E-03	100.6 105.7	228.5	115.7
105.7	0.000	0.000	Strato2_3095_82743_L_0		
62 D	21.01	1.4685E-03	104.6 105.0	232.5	117.7
105.0	0.000	0.000	Strato2_3095_82743_L_0		
63 D	20.91	1.3273E-03	108.6 104.5	236.5	119.6
104.5	0.000	0.000	Strato2_3095_82743_L_0		
64 D	20.85	1.1951E-03	112.6 104.3	240.5	121.6
104.3	0.000	0.000	Strato2_3095_82743_L_0		
65 D	20.83	1.0715E-03	116.6 104.2	244.5	123.6
104.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	20.85	9.5564E-04	120.6 104.2	248.5	125.5
104.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	20.89	8.4702E-04	124.6 104.5	252.5	127.5
104.5	0.000	0.000	Strato2_3095_82743_L_0		
68 D	20.97	7.4494E-04	128.6 104.8	256.5	129.5
104.8	0.000	0.000	Strato2_3095_82743_L_0		
69 D	21.07	6.4872E-04	132.6 105.3	260.5	131.5
105.3	0.000	0.000	Strato2_3095_82743_L_0		
70 D	21.19	5.5769E-04	136.6 105.9	264.5	133.5
105.9	0.000	0.000	Strato2_3095_82743_L_0		
71 D	21.32	4.7119E-04	140.6 106.6	268.5	135.5
106.6	0.000	0.000	Strato2_3095_82743_L_0		
72 D	21.48	3.8858E-04	144.6 107.4	272.5	137.4
107.4	0.000	0.000	Strato2_3095_82743_L_0		

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73 D	21.64	3.0925E-04	148.6	108.2	276.5
108.2	0.000	0.000	Strato2_3095_82743_L_0		139.4
74 D	21.82	2.3261E-04	152.6	109.1	280.5
109.1	0.000	0.000	Strato2_3095_82743_L_0		141.4
75 D	22.00	1.5813E-04	156.6	110.0	284.5
110.0	0.000	0.000	Strato2_3095_82743_L_0		143.4
76 D	22.19	8.5320E-05	160.6	111.0	288.5
111.0	0.000	0.000	Strato2_3095_82743_L_0		145.4
77 D	22.38	1.3731E-05	164.6	111.9	292.5
111.9	0.000	0.000	Strato2_3095_82743_L_0		147.4
78 D	22.58	-5.7014E-05	168.6	112.9	296.5
112.9	0.000	0.000	Strato2_3095_82743_L_0		149.4
79 D	22.77	-1.2723E-04	172.6	113.9	300.5
113.9	0.000	0.000	Strato2_3095_82743_L_0		151.4
80 D	22.97	-1.9716E-04	176.6	114.8	304.5
114.8	0.000	0.000	Strato2_3095_82743_L_0		153.4
81 D	17.37	-2.6699E-04	180.6	115.8	308.5
115.8	0.000	0.000	Strato2_3095_82743_L_0		155.4
82 D	5.815	-3.0189E-04	182.6	116.3	310.5
116.3	0.000	0.000	Strato2_3095_82743_L_0		156.4

```

-----
|                                     PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     NewProject.BaseDesignSection_28.SLERara_3454
|                                     Exe Time :24 July 2019      10:49:25
|
-----

```

New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.1950	-1.1950	1.84786E-10	0.23900
2	3.0408	-3.0408	-0.23900	0.84715
3	5.4462	-5.4462	-0.84715	1.9364
4	8.1565	-8.1565	-1.9364	3.5677
5	11.304	-11.304	-3.5677	5.8286
6	14.775	-14.775	-5.8286	8.7836
7	18.655	-18.655	-8.7836	12.515
8	22.868	-22.868	-12.515	17.088
9	27.412	-27.412	-17.088	22.571
10	32.303	-32.303	-22.571	29.031
11	37.589	-37.589	-29.031	36.549
12	43.223	-43.223	-36.549	45.194
13	47.739	-47.739	-45.194	49.968
14	-129.33	129.33	-49.968	24.101
15	-122.79	122.79	-24.101	-0.45700
16	-115.86	115.86	0.45700	-23.629
17	-108.58	108.58	23.629	-45.346
18	-100.92	100.92	45.346	-65.530
19	-92.908	92.908	65.530	-84.112
20	-84.517	84.517	84.112	-101.02
21	-75.799	75.799	101.02	-116.17
22	-66.702	66.702	116.17	-129.52
23	-57.229	57.229	129.52	-140.96
24	-47.401	47.401	140.96	-150.44
25	-37.197	37.197	150.44	-157.88
26	-26.638	26.638	157.88	-163.21
27	-15.704	15.704	163.21	-166.35
28	-4.4345	4.4345	166.35	-167.24
29	7.2093	-7.2093	167.24	-165.79
30	19.210	-19.210	165.79	-161.95
31	31.584	-31.584	161.95	-155.64
32	44.316	-44.316	155.64	-146.77
33	57.420	-57.420	146.77	-135.29
34	70.882	-70.882	135.29	-121.11
35	84.716	-84.716	121.11	-104.17
36	96.295	-96.295	104.17	-84.909
37	105.16	-105.16	84.909	-63.877
38	111.33	-111.33	63.877	-41.612
39	114.78	-114.78	41.612	-18.655
40	115.53	-115.53	18.655	4.4515
41	113.58	-113.58	-4.4515	27.167
42	109.26	-109.26	-27.167	49.019

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GRUPPO FERROVIE DELLO STATO ITALIANE

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43	105.15	-105.15	-49.019	70.048
44	101.24	-101.24	-70.048	90.296
45	97.537	-97.537	-90.296	109.80
46	94.031	-94.031	-109.80	128.61
47	90.707	-90.707	-128.61	146.75
48	87.567	-87.567	-146.75	164.26
49	84.602	-84.602	-164.26	181.18
50	72.082	-72.082	-181.18	195.60
51	59.822	-59.822	-195.60	207.57
52	47.804	-47.804	-207.57	217.13
53	36.013	-36.013	-217.13	224.33
54	24.423	-24.423	-224.33	229.21
55	13.021	-13.021	-229.21	231.82
56	1.7783	-1.7783	-231.82	232.17
57	-9.3179	9.3179	-232.17	230.31
58	-20.232	20.232	-230.31	226.26
59	-30.585	30.585	-226.26	220.15
60	-40.435	40.435	-220.15	212.06
61	-49.102	49.102	-212.06	202.24
62	-56.133	56.133	-202.24	191.01
63	-61.668	61.668	-191.01	178.68
64	-65.822	65.822	-178.68	165.51
65	-68.723	68.723	-165.51	151.77
66	-70.458	70.458	-151.77	137.68
67	-71.133	71.133	-137.68	123.45
68	-70.832	70.832	-123.45	109.28
69	-69.628	69.628	-109.28	95.359
70	-67.583	67.583	-95.359	81.843
71	-64.752	64.752	-81.843	68.892
72	-61.183	61.183	-68.892	56.656
73	-56.920	56.920	-56.656	45.272
74	-51.988	51.988	-45.272	34.874
75	-46.410	46.410	-34.874	25.592
76	-40.206	40.206	-25.592	17.551
77	-33.384	33.384	-17.551	10.874
78	-25.955	25.955	-10.874	5.6829
79	-17.924	17.924	-5.6829	2.0981
80	-9.2997	9.2997	-2.0981	0.23821
81	-2.3818	2.3818	-0.23821	-7.49312E-12

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
+-----+

```

New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	188.13	-1.98299E-03	3.56098E-03	0.0000	4424.2	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  10:49:25  |
+-----+

```

FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	4
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	5

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```
END OF PROCESS FOR PROBLEM
New Project
NONLINEAR SOLUTION CPU TIME .... 0.06 [sec]
DATABASE CREATION CPU TIME..... 0.27 [sec]
```

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1.5. Design Assumption : A1+M1+R1 - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A1+M1+R1

* Time:mercoledì 24 luglio 2019 10:49:26

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -16 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -16 0 1 0

SOIL 0_R LeftWall_32 -16 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 5.84 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 13 0 15 45

STRIP LeftWall_32 2 5 0 40 0 11.54 30

* 7: Defining Steps

STEP Stage1_31

CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32

CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KA=0.478 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KP=5.914 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KA=0.333 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KP=8.331 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32

CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32

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```

CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ADD WallElement_33
ENDSTEP

STEP Stage2_759103
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage3_158
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage4_617
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ADD Tieback_768111
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -6.73
WATER -26 0 -16 0 0
ENDSTEP

```

1.6. Design Assumption : A1+M1+R1 - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484  |
|                               Exe Time :24 July 2019  10:49:26  |
|                                                                    |
-----

*****
*
*  PARATIE PLUS Non-Linear Spring Engine  *
*
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM  *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES  *
*
*          Written by Ce.A.S. s.r.l. (ITALY)  *
*          with the scientific supervision of  *
*          Roberto Nova - full professor SOIL MECHANICS  *
*          at Politecnico di Milano (ITALY)  *
*
*****
*
*  RELEASE  2017.1  *Build date:Jul 11, 2017*  *
*
*
*  Ce.A.S.  S.R.L  CENTRO DI ANALISI STRUTTURALE  *
*          VIALE GIUSTINIANO 10  *
*          20129  M I L A N O (ITALIA)  *
*  TEL.  +39 02 2020221  (+39 035 23 67 19)  *
*  FAX  +39 02 29512533  (+39 035 42285 49)  *

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```
* email      bruno.becci@ceas.it      *
* Web Page   www.ceas.it              *
*****
```

```
JOB : NewProject.BaseDesignSection_28.A1M1R1_3484
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL_STRESS >
ACCEPTED <PARAM ITEMAX 100 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****
*
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
* BY THE PROGRAM. *
*****
```

PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

```
-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_3484 |
|          Exe Time :24 July 2019  10:49:26 |
|-----+-----
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 82
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 164
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 89
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES          kPa
Y-DISPLACEMENTS  m
ROTATIONS         RADIANS
BEAM AND SLAB MOMENTS kN*m/m
BEAM SHEAR FORCES kN/m
ANCHOR FORCES     kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS kN/m
Y-REACTIONS       kN/m
X-MOMENT REACTIONS kN*m/m
ETC.
```

```
-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_3484 |
|          Exe Time :24 July 2019  10:49:26 |
|-----+-----
```

P R E P R O C E S S O R D A T A

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N O . O F C O M M A N D S 89

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Strato1_2_8_L_0 5.84 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0
29 : STRIP LeftWall_32 2 5 0 13 0 15 45
30 : STRIP LeftWall_32 2 5 0 40 0 11.54 30
31 : STEP Stage1_31
32 : CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KA=0.478 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 U-KP=5.914 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
37 : CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KA=0.333 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 U-KP=8.331 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
43 : CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
45 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
47 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
48 : SETWALL LeftWall_32
49 : GEOM 0 0
50 : WATER -26 0 -16 0 0
51 : ADD WallElement_33
52 : ENDSTEP
53 : STEP Stage2_759103
54 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
55 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
56 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
57 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
58 : SETWALL LeftWall_32
59 : GEOM 0 0
60 : WATER -26 0 -16 0 0
61 : ENDSTEP
62 : STEP Stage3_158
63 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
64 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
65 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
66 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
67 : SETWALL LeftWall_32
68 : GEOM 0 -3
69 : WATER -26 0 -16 0 0
70 : ENDSTEP
71 : STEP Stage4_617
72 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
73 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
74 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
75 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
76 : SETWALL LeftWall_32
77 : GEOM 0 -3
78 : WATER -26 0 -16 0 0
79 : ADD Tieback_768111
80 : ENDSTEP
81 : STEP Stage5_714
82 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
83 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32

```



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```

84 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
85 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
86 : SETWALL LeftWall_32
87 : GEOM 0 -6.73
88 : WATER -26 0 -16 0 0
89 : ENDSTEP
    
```

```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      10:49:26
|
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N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE
1	0.0000	0.0000 /	2	0.0000	-0.20000	/	3	0.0000
5	0.0000	-0.80000 /	6	0.0000	-1.0000	/	7	0.0000
9	0.0000	-1.6000 /	10	0.0000	-1.8000	/	11	0.0000
13	0.0000	-2.4000 /	14	0.0000	-2.5000	/	15	0.0000
17	0.0000	-3.1000 /	18	0.0000	-3.3000	/	19	0.0000
21	0.0000	-3.9000 /	22	0.0000	-4.1000	/	23	0.0000
25	0.0000	-4.7000 /	26	0.0000	-4.9000	/	27	0.0000
29	0.0000	-5.5000 /	30	0.0000	-5.7000	/	31	0.0000
33	0.0000	-6.3000 /	34	0.0000	-6.5000	/	35	0.0000
37	0.0000	-7.1000 /	38	0.0000	-7.3000	/	39	0.0000
41	0.0000	-7.9000 /	42	0.0000	-8.1000	/	43	0.0000
45	0.0000	-8.7000 /	46	0.0000	-8.9000	/	47	0.0000
49	0.0000	-9.5000 /	50	0.0000	-9.7000	/	51	0.0000
53	0.0000	-10.300 /	54	0.0000	-10.500	/	55	0.0000
57	0.0000	-11.100 /	58	0.0000	-11.300	/	59	0.0000
61	0.0000	-11.900 /	62	0.0000	-12.100	/	63	0.0000
65	0.0000	-12.700 /	66	0.0000	-12.900	/	67	0.0000
69	0.0000	-13.500 /	70	0.0000	-13.700	/	71	0.0000
73	0.0000	-14.300 /	74	0.0000	-14.500	/	75	0.0000
77	0.0000	-15.100 /	78	0.0000	-15.300	/	79	0.0000
81	0.0000	-15.900 /	82	0.0000	-16.000	/		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      10:49:26
|
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```

ELEMENT GROUP NO. 1

```

0_L :
5 82 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0
    
```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

material set no. 1
prop(1) angle 0.00000
prop(2) layer as foreseen 1.00000

material set no. 2
prop(1) angle 0.00000
prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	flag
----	---	-----	------	-------	-------	-------	------

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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1	1	1	0.1000	0.000	0.000	0.000	1.000					
2	2	1	0.2000	0.000	0.000	0.000	1.000					
3	3	1	0.2000	0.000	0.000	0.000	1.000					
4	4	1	0.2000	0.000	0.000	0.000	1.000					
5	5	1	0.2000	0.000	0.000	0.000	1.000					
6	6	1	0.2000	0.000	0.000	0.000	1.000					
7	7	1	0.2000	0.000	0.000	0.000	1.000					
8	8	1	0.2000	0.000	0.000	0.000	1.000					
9	9	1	0.2000	0.000	0.000	0.000	1.000					
10	10	1	0.2000	0.000	0.000	0.000	1.000					
11	11	1	0.2000	0.000	0.000	0.000	1.000					
12	12	1	0.2000	0.000	0.000	0.000	1.000					
13	13	1	0.1500	0.000	0.000	0.000	1.000					
14	14	1	0.1500	0.000	0.000	0.000	1.000					
15	15	1	0.2000	0.000	0.000	0.000	1.000					
16	16	1	0.2000	0.000	0.000	0.000	1.000					
17	17	1	0.2000	0.000	0.000	0.000	1.000					
18	18	1	0.2000	0.000	0.000	0.000	1.000					
19	19	1	0.2000	0.000	0.000	0.000	1.000					
20	20	1	0.2000	0.000	0.000	0.000	1.000					
21	21	1	0.2000	0.000	0.000	0.000	1.000					
22	22	1	0.2000	0.000	0.000	0.000	1.000					
23	23	1	0.2000	0.000	0.000	0.000	1.000					
24	24	1	0.2000	0.000	0.000	0.000	1.000					
25	25	1	0.2000	0.000	0.000	0.000	1.000					
26	26	1	0.2000	0.000	0.000	0.000	1.000					
27	27	1	0.2000	0.000	0.000	0.000	1.000					
28	28	1	0.2000	0.000	0.000	0.000	1.000					
29	29	1	0.2000	0.000	0.000	0.000	1.000					
30	30	1	0.2000	0.000	0.000	0.000	1.000					
31	31	1	0.2000	0.000	0.000	0.000	1.000					
32	32	1	0.2000	0.000	0.000	0.000	1.000					
33	33	1	0.2000	0.000	0.000	0.000	1.000					
34	34	1	0.2000	0.000	0.000	0.000	1.000					
35	35	1	0.2000	0.000	0.000	0.000	1.000					
36	36	1	0.2000	0.000	0.000	0.000	1.000					
37	37	1	0.2000	0.000	0.000	0.000	1.000					
38	38	1	0.2000	0.000	0.000	0.000	1.000					
39	39	1	0.2000	0.000	0.000	0.000	1.000					
40	40	1	0.2000	0.000	0.000	0.000	1.000					
41	41	1	0.2000	0.000	0.000	0.000	1.000					
42	42	1	0.2000	0.000	0.000	0.000	1.000					
43	43	1	0.2000	0.000	0.000	0.000	1.000					
44	44	1	0.2000	0.000	0.000	0.000	1.000					
45	45	1	0.2000	0.000	0.000	0.000	1.000					
46	46	1	0.2000	0.000	0.000	0.000	1.000					
47	47	1	0.2000	0.000	0.000	0.000	1.000					
48	48	1	0.2000	0.000	0.000	0.000	1.000					
49	49	1	0.2000	0.000	0.000	0.000	1.000					
50	50	2	0.2000	0.000	0.000	0.000	1.000					
51	51	2	0.2000	0.000	0.000	0.000	1.000					
52	52	2	0.2000	0.000	0.000	0.000	1.000					
53	53	2	0.2000	0.000	0.000	0.000	1.000					
54	54	2	0.2000	0.000	0.000	0.000	1.000					
55	55	2	0.2000	0.000	0.000	0.000	1.000					
56	56	2	0.2000	0.000	0.000	0.000	1.000					
57	57	2	0.2000	0.000	0.000	0.000	1.000					
58	58	2	0.2000	0.000	0.000	0.000	1.000					
59	59	2	0.2000	0.000	0.000	0.000	1.000					
60	60	2	0.2000	0.000	0.000	0.000	1.000					
61	61	2	0.2000	0.000	0.000	0.000	1.000					
62	62	2	0.2000	0.000	0.000	0.000	1.000					
63	63	2	0.2000	0.000	0.000	0.000	1.000					
64	64	2	0.2000	0.000	0.000	0.000	1.000					
65	65	2	0.2000	0.000	0.000	0.000	1.000					
66	66	2	0.2000	0.000	0.000	0.000	1.000					
67	67	2	0.2000	0.000	0.000	0.000	1.000					
68	68	2	0.2000	0.000	0.000	0.000	1.000					
69	69	2	0.2000	0.000	0.000	0.000	1.000					
70	70	2	0.2000	0.000	0.000	0.000	1.000					
71	71	2	0.2000	0.000	0.000	0.000	1.000					
72	72	2	0.2000	0.000	0.000	0.000	1.000					
73	73	2	0.2000	0.000	0.000	0.000	1.000					
74	74	2	0.2000	0.000	0.000	0.000	1.000					
75	75	2	0.2000	0.000	0.000	0.000	1.000					
76	76	2	0.2000	0.000	0.000	0.000	1.000					
77	77	2	0.2000	0.000	0.000	0.000	1.000					
78	78	2	0.2000	0.000	0.000	0.000	1.000					
79	79	2	0.2000	0.000	0.000	0.000	1.000					
80	80	2	0.2000	0.000	0.000	0.000	1.000					
81	81	2	0.1500	0.000	0.000	0.000	1.000					
82	82	2	0.5000E-01	0.000	0.000	0.000	1.000					

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
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|          |
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```

```

ELEMENT GROUP NO. 2

O_R
 5 82 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0 0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active

```

```

material set no. 1

prop( 1) angle          180.000
prop( 2) layer as foreseen 1.00000

```

```

material set no. 2

prop( 1) angle          180.000
prop( 2) layer as foreseen 2.00000

```

```

element data

el  n  mat  area  ....  ....  ....  flag
-----
 1  1  1  0.1000  0.000  0.000  0.000  2.000
 2  2  1  0.2000  0.000  0.000  0.000  2.000
 3  3  1  0.2000  0.000  0.000  0.000  2.000
 4  4  1  0.2000  0.000  0.000  0.000  2.000
 5  5  1  0.2000  0.000  0.000  0.000  2.000
 6  6  1  0.2000  0.000  0.000  0.000  2.000
 7  7  1  0.2000  0.000  0.000  0.000  2.000
 8  8  1  0.2000  0.000  0.000  0.000  2.000
 9  9  1  0.2000  0.000  0.000  0.000  2.000
10 10  1  0.2000  0.000  0.000  0.000  2.000
11 11  1  0.2000  0.000  0.000  0.000  2.000
12 12  1  0.2000  0.000  0.000  0.000  2.000
13 13  1  0.1500  0.000  0.000  0.000  2.000
14 14  1  0.1500  0.000  0.000  0.000  2.000
15 15  1  0.2000  0.000  0.000  0.000  2.000
16 16  1  0.2000  0.000  0.000  0.000  2.000
17 17  1  0.2000  0.000  0.000  0.000  2.000
18 18  1  0.2000  0.000  0.000  0.000  2.000
19 19  1  0.2000  0.000  0.000  0.000  2.000
20 20  1  0.2000  0.000  0.000  0.000  2.000
21 21  1  0.2000  0.000  0.000  0.000  2.000
22 22  1  0.2000  0.000  0.000  0.000  2.000
23 23  1  0.2000  0.000  0.000  0.000  2.000
24 24  1  0.2000  0.000  0.000  0.000  2.000
25 25  1  0.2000  0.000  0.000  0.000  2.000
26 26  1  0.2000  0.000  0.000  0.000  2.000
27 27  1  0.2000  0.000  0.000  0.000  2.000
28 28  1  0.2000  0.000  0.000  0.000  2.000
29 29  1  0.2000  0.000  0.000  0.000  2.000
30 30  1  0.2000  0.000  0.000  0.000  2.000
31 31  1  0.2000  0.000  0.000  0.000  2.000
32 32  1  0.2000  0.000  0.000  0.000  2.000
33 33  1  0.2000  0.000  0.000  0.000  2.000
34 34  1  0.2000  0.000  0.000  0.000  2.000
35 35  1  0.2000  0.000  0.000  0.000  2.000
36 36  1  0.2000  0.000  0.000  0.000  2.000
37 37  1  0.2000  0.000  0.000  0.000  2.000
38 38  1  0.2000  0.000  0.000  0.000  2.000
39 39  1  0.2000  0.000  0.000  0.000  2.000
40 40  1  0.2000  0.000  0.000  0.000  2.000
41 41  1  0.2000  0.000  0.000  0.000  2.000
42 42  1  0.2000  0.000  0.000  0.000  2.000
43 43  1  0.2000  0.000  0.000  0.000  2.000

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GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



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44	44	1	0.2000	0.000	0.000	0.000	2.000					
45	45	1	0.2000	0.000	0.000	0.000	2.000					
46	46	1	0.2000	0.000	0.000	0.000	2.000					
47	47	1	0.2000	0.000	0.000	0.000	2.000					
48	48	1	0.2000	0.000	0.000	0.000	2.000					
49	49	1	0.2000	0.000	0.000	0.000	2.000					
50	50	2	0.2000	0.000	0.000	0.000	2.000					
51	51	2	0.2000	0.000	0.000	0.000	2.000					
52	52	2	0.2000	0.000	0.000	0.000	2.000					
53	53	2	0.2000	0.000	0.000	0.000	2.000					
54	54	2	0.2000	0.000	0.000	0.000	2.000					
55	55	2	0.2000	0.000	0.000	0.000	2.000					
56	56	2	0.2000	0.000	0.000	0.000	2.000					
57	57	2	0.2000	0.000	0.000	0.000	2.000					
58	58	2	0.2000	0.000	0.000	0.000	2.000					
59	59	2	0.2000	0.000	0.000	0.000	2.000					
60	60	2	0.2000	0.000	0.000	0.000	2.000					
61	61	2	0.2000	0.000	0.000	0.000	2.000					
62	62	2	0.2000	0.000	0.000	0.000	2.000					
63	63	2	0.2000	0.000	0.000	0.000	2.000					
64	64	2	0.2000	0.000	0.000	0.000	2.000					
65	65	2	0.2000	0.000	0.000	0.000	2.000					
66	66	2	0.2000	0.000	0.000	0.000	2.000					
67	67	2	0.2000	0.000	0.000	0.000	2.000					
68	68	2	0.2000	0.000	0.000	0.000	2.000					
69	69	2	0.2000	0.000	0.000	0.000	2.000					
70	70	2	0.2000	0.000	0.000	0.000	2.000					
71	71	2	0.2000	0.000	0.000	0.000	2.000					
72	72	2	0.2000	0.000	0.000	0.000	2.000					
73	73	2	0.2000	0.000	0.000	0.000	2.000					
74	74	2	0.2000	0.000	0.000	0.000	2.000					
75	75	2	0.2000	0.000	0.000	0.000	2.000					
76	76	2	0.2000	0.000	0.000	0.000	2.000					
77	77	2	0.2000	0.000	0.000	0.000	2.000					
78	78	2	0.2000	0.000	0.000	0.000	2.000					
79	79	2	0.2000	0.000	0.000	0.000	2.000					
80	80	2	0.2000	0.000	0.000	0.000	2.000					
81	81	2	0.1500	0.000	0.000	0.000	2.000					
82	82	2	0.5000E-01	0.000	0.000	0.000	2.000					

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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```

ELEMENT GROUP NO. 3

WallElement_33      :
  2 81 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active

```

```

material set no. 1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....0.252200E-43

```

```

no. of step variable items: 1
step inertia multiplier
-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000

```

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000
29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000
39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000
62	62	63	1	0.000	0.000	0.6848	0.000	0.000
63	63	64	1	0.000	0.000	0.6848	0.000	0.000
64	64	65	1	0.000	0.000	0.6848	0.000	0.000
65	65	66	1	0.000	0.000	0.6848	0.000	0.000
66	66	67	1	0.000	0.000	0.6848	0.000	0.000
67	67	68	1	0.000	0.000	0.6848	0.000	0.000
68	68	69	1	0.000	0.000	0.6848	0.000	0.000
69	69	70	1	0.000	0.000	0.6848	0.000	0.000
70	70	71	1	0.000	0.000	0.6848	0.000	0.000
71	71	72	1	0.000	0.000	0.6848	0.000	0.000
72	72	73	1	0.000	0.000	0.6848	0.000	0.000
73	73	74	1	0.000	0.000	0.6848	0.000	0.000
74	74	75	1	0.000	0.000	0.6848	0.000	0.000
75	75	76	1	0.000	0.000	0.6848	0.000	0.000
76	76	77	1	0.000	0.000	0.6848	0.000	0.000
77	77	78	1	0.000	0.000	0.6848	0.000	0.000
78	78	79	1	0.000	0.000	0.6848	0.000	0.000
79	79	80	1	0.000	0.000	0.6848	0.000	0.000
80	80	81	1	0.000	0.000	0.6848	0.000	0.000
81	81	82	1	0.000	0.000	0.6848	0.000	0.000

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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```

ELEMENT GROUP NO.  4

Tieback_768111      :
 6  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  2  0
.....
.....2D POST-TENSION ANCHOR.....
.....

```

element group behaviour throughout stage analysis

stage	status
1	inactive
2	inactive
3	inactive
4	active
5	active

```

material set no.  1

prop( 1) angle          15.0000
prop( 2) young modulus  0.200100E+09
prop( 3) modification time  0.00000
prop( 4) new young modulus  0.00000

```

step	-ve lim	+ve lim
1	0.000	0.000
2	0.000	0.000

GENERAL CONTRACTOR

Cepav due



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ITALFERR

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3	0.000	0.000
4	0.000	0.000
5	0.000	0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	14	1	0.2211E-04	163.6	0.000	0.000

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```

NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 10
MAXIMUM POINTS/LCURVE (NPTM)..... 5

```

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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|                                                                                                                                            |
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L O A D D A T A

```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
0.80000        0.0000E+00
1.00000        0.1000E+01
1.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
1.80000        0.0000E+00
2.00000        0.1000E+01
2.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
2.80000        0.0000E+00
3.00000        0.1000E+01
3.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
3.80000        0.0000E+00
4.00000        0.1000E+01
4.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION

```

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0.00000 0.0000E+00
 4.80000 0.0000E+00
 5.00000 0.1000E+01
 5.20000 0.0000E+00
 6.00000 0.0000E+00

LOAD FUNCTION NUMBER = 6
 NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 7
 NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
 NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
 NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
 NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

```

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|                                                                                               |
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L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000



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STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

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NO. OF LAYERS 2
 NO. OF DATA PER LAYER..... 100

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+-----+
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```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 5.8400	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.47800	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.9140	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -9.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.33300	WALL NO.	1
ITEM NO.	11<U-KP	>= 8.3310	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	

GENERAL CONTRACTOR



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ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)

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ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.47800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.9140 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.33300 WALL NO. 1
 ITEM NO. 11<U-KP >= 8.3310 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 10 VALUES

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.AlMIR1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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PHASE DESCRIPTORS

STEP NO.	1	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 1

STEP NO.	2	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 2

STEP NO.	3	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000

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z-WATER_TABLE          -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ                      0.000    0.000
DZW_OF_THE_WATER_TABLE  0.000    0.000
QS_ON_THE_EXCAVATION_SIDE 0.000    0.000
ZQS                    -0.9990E+30 -0.9990E+30
ZCUT                   0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000    0.000
PORE_UPDATE_FLAG       0.000    0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000    0.000
lateral thrusts reduction elevatio 0.000    0.000
Downhill reduction factor for effe 0.000    0.000
Downhill reduction factor for pore 0.000    0.000
Uphill reduction factor for effect  0.000    0.000
Uphill reduction factor for pore p  0.000    0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]   0.000    0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]   0.000    0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000    0.000
UPHILL BETA ANGLE (SLOPE) [deg]    0.000    0.000
UPHILL DELTA/PHI RATIO              0.000    0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000    0.000
DOWNHILL DELTA/PHI RATIO            0.000    0.000
DYN.WATER BEHAVIOUR                 0.000    0.000
Excess pore pressure RATIO Ru       0.000    0.000
SEISMIC PRESSURE LOWER VALUE        0.000    0.000
SEISMIC PRESSURE UPPER VALUE        0.000    0.000
SEISMIC PRESSURE LOWER LEVEL        0.000    0.000
SEISMIC PRESSURE UPPER LEVEL        0.000    0.000
    
```

=====end of step 3

```

STEP NO.      4
                LEFT WALL  RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000    0.000
Z-EXCAVATION   -3.000    0.000
Z-WATER_TABLE  -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ             0.000    0.000
DZW_OF_THE_WATER_TABLE  0.000    0.000
QS_ON_THE_EXCAVATION_SIDE 0.000    0.000
ZQS           -0.9990E+30 -0.9990E+30
ZCUT           0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000    0.000
PORE_UPDATE_FLAG       0.000    0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000    0.000
lateral thrusts reduction elevatio 0.000    0.000
Downhill reduction factor for effe 0.000    0.000
Downhill reduction factor for pore 0.000    0.000
Uphill reduction factor for effect  0.000    0.000
Uphill reduction factor for pore p  0.000    0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]   0.000    0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]   0.000    0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000    0.000
UPHILL BETA ANGLE (SLOPE) [deg]    0.000    0.000
UPHILL DELTA/PHI RATIO              0.000    0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000    0.000
DOWNHILL DELTA/PHI RATIO            0.000    0.000
DYN.WATER BEHAVIOUR                 0.000    0.000
Excess pore pressure RATIO Ru       0.000    0.000
SEISMIC PRESSURE LOWER VALUE        0.000    0.000
SEISMIC PRESSURE UPPER VALUE        0.000    0.000
SEISMIC PRESSURE LOWER LEVEL        0.000    0.000
SEISMIC PRESSURE UPPER LEVEL        0.000    0.000
    
```

=====end of step 4

```

STEP NO.      5
                LEFT WALL  RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000    0.000
Z-EXCAVATION   -6.730    0.000
Z-WATER_TABLE  -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ             0.000    0.000
DZW_OF_THE_WATER_TABLE  0.000    0.000
QS_ON_THE_EXCAVATION_SIDE 0.000    0.000
ZQS           -0.9990E+30 -0.9990E+30
ZCUT           0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000    0.000
    
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PORE_UPDATE_FLAG          0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO      0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO    0.000      0.000
DYN.WATER BEHAVIOUR        0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000
    
```

=====end of step 5

LEFT-HAND WALL

```

LOWER LEVEL      -16.00000
UPPER LEVEL      0.00000
    
```

RIGHT-HAND WALL

```

LOWER LEVEL      -16.00000
UPPER LEVEL      0.00000
    
```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      10:49:26  |
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 2

```

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000
    
```

```

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000
    
```

TYPE BOUSSINESQ

```

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 13.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 15.000000000000000
BETA ..... 45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000
    
```

```

INPUT DATA FOR INITIAL STRESS SET NO. 2
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000
    
```

```

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000
    
```

TYPE BOUSSINESQ

```

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 40.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 11.540000000000000
BETA ..... 30.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000
    
```

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ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 3803

NO. OF D.P.W FOR THIS AREA 9726
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.5099E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 30.45 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.5099E+05 RDR = 0.000
RATIOT= 0.000 RATIO= 0.000
MAX UN= 0.000 IEQ= 164 NODE 82 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
RINORM=0.5099E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 30.45 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.5099E+05 RDR = 0.000
RATIOT= 0.000 RATIO= 0.000
MAX UN= 0.000 IEQ= 164 NODE 82 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.5099E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 30.45 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.5099E+05 RDR = 0.000
RATIOT= 0.000 RATIO= 0.000
MAX UN= 0.000 IEQ= 164 NODE 82 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| | |
| NewProject.BaseDesignSection_28.A1M1R1_3484 |
Exe Time :24 July 2019 10:49:26

New Project
SOLUTION REACHED USING 2 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F X-ROT. F
(02) (04) (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      10:49:26        |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	1.5916E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Stratol_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	1.5916E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Stratol_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	1.5916E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Stratol_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	1.5916E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Stratol_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	1.5916E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Stratol_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	1.5916E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Stratol_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	1.5916E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Stratol_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	1.5916E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Stratol_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	1.5916E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Stratol_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	1.5916E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Stratol_2_8_L_0									
11 D	4.028	0.000	38.00	20.14	38.00	20.14	V-C	1.5916E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Stratol_2_8_L_0									
12 D	4.431	0.000	41.80	22.15	41.80	22.15	V-C	1.5916E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Stratol_2_8_L_0									
13 D	3.625	0.000	45.60	24.17	45.60	24.17	V-C	1.5916E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Stratol_2_8_L_0									
14 D	3.776	0.000	47.50	25.18	47.50	25.18	V-C	1.5916E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Stratol_2_8_L_0									
15 D	5.438	0.000	51.30	27.19	51.30	27.19	V-C	1.5916E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Stratol_2_8_L_0									
16 D	5.841	0.000	55.10	29.20	55.10	29.20	V-C	1.5916E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Stratol_2_8_L_0									
17 D	6.243	0.000	58.90	31.22	58.90	31.22	V-C	1.5916E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Stratol_2_8_L_0									
18 D	6.646	0.000	62.70	33.23	62.70	33.23	V-C	1.5916E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Stratol_2_8_L_0									
19 D	7.049	0.000	66.50	35.25	66.50	35.25	V-C	1.5916E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Stratol_2_8_L_0									
20 D	7.452	0.000	70.30	37.26	70.30	37.26	V-C	1.5916E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Stratol_2_8_L_0									
21 D	7.855	0.000	74.10	39.27	74.10	39.27	V-C	1.5916E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Stratol_2_8_L_0									
22 D	8.257	0.000	77.90	41.29	77.90	41.29	V-C	1.5916E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Stratol_2_8_L_0									
23 D	8.660	0.000	81.70	43.30	81.70	43.30	V-C	1.5916E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Stratol_2_8_L_0									
24 D	9.063	0.000	85.50	45.32	85.50	45.32	V-C	1.5916E+04	-4.500	0.000	1.000	1.000
45.31	0.000	0.000	Stratol_2_8_L_0									
25 D	9.466	0.000	89.30	47.33	89.30	47.33	V-C	1.5916E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Stratol_2_8_L_0									
26 D	9.869	0.000	93.10	49.34	93.10	49.34	V-C	1.5916E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Stratol_2_8_L_0									
27 D	10.27	0.000	96.90	51.36	96.90	51.36	V-C	1.5916E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Stratol_2_8_L_0									
28 D	10.67	0.000	100.7	53.37	100.7	53.37	V-C	1.5916E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Stratol_2_8_L_0									
29 D	11.08	0.000	104.5	55.38	104.5	55.38	V-C	1.5916E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Stratol_2_8_L_0									
30 D	11.48	0.000	108.3	57.40	108.3	57.40	V-C	1.5916E+04	-5.700	0.000	1.000	1.000

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57.40	0.000	0.000	Strato1_2_8_L_0		
31 D	11.88	0.000	112.1 59.41	112.1	59.41
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.91	0.000	150.1 79.55	150.1	79.55
79.55	0.000	0.000	Strato1_2_8_L_0		
42 D	16.31	0.000	153.9 81.57	153.9	81.57
81.57	0.000	0.000	Strato1_2_8_L_0		
43 D	16.72	0.000	157.7 83.58	157.7	83.58
83.58	0.000	0.000	Strato1_2_8_L_0		
44 D	17.12	0.000	161.5 85.59	161.5	85.59
85.59	0.000	0.000	Strato1_2_8_L_0		
45 D	17.52	0.000	165.3 87.61	165.3	87.61
87.61	0.000	0.000	Strato1_2_8_L_0		
46 D	17.92	0.000	169.1 89.62	169.1	89.62
89.62	0.000	0.000	Strato1_2_8_L_0		
47 D	18.33	0.000	172.9 91.64	172.9	91.64
91.64	0.000	0.000	Strato1_2_8_L_0		
48 D	18.73	0.000	176.7 93.65	176.7	93.65
93.65	0.000	0.000	Strato1_2_8_L_0		
49 D	19.13	0.000	180.5 95.66	180.5	95.66
95.66	0.000	0.000	Strato1_2_8_L_0		
50 D	18.45	0.000	184.5 92.25	184.5	92.25
92.25	0.000	0.000	Strato2_3095_82743_L_0		
51 D	18.85	0.000	188.5 94.25	188.5	94.25
94.25	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.25	0.000	192.5 96.25	192.5	96.25
96.25	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.65	0.000	196.5 98.25	196.5	98.25
98.25	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.05	0.000	200.5 100.2	200.5	100.2
100.2	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.45	0.000	204.5 102.2	204.5	102.2
102.2	0.000	0.000	Strato2_3095_82743_L_0		
56 D	20.85	0.000	208.5 104.2	208.5	104.2
104.2	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.25	0.000	212.5 106.2	212.5	106.2
106.2	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.65	0.000	216.5 108.2	216.5	108.2
108.2	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.05	0.000	220.5 110.2	220.5	110.2
110.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.45	0.000	224.5 112.2	224.5	112.2
112.2	0.000	0.000	Strato2_3095_82743_L_0		
61 D	22.85	0.000	228.5 114.2	228.5	114.2
114.2	0.000	0.000	Strato2_3095_82743_L_0		
62 D	23.25	0.000	232.5 116.2	232.5	116.2
116.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.65	0.000	236.5 118.2	236.5	118.2
118.2	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.05	0.000	240.5 120.2	240.5	120.2
120.2	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.45	0.000	244.5 122.2	244.5	122.2
122.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	24.85	0.000	248.5 124.2	248.5	124.2
124.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.25	0.000	252.5 126.2	252.5	126.2
126.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.65	0.000	256.5 128.2	256.5	128.2
128.2	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.05	0.000	260.5 130.2	260.5	130.2
130.2	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.45	0.000	264.5 132.2	264.5	132.2
132.2	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.85	0.000	268.5 134.2	268.5	134.2
134.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.25	0.000	272.5 136.2	272.5	136.2
136.2	0.000	0.000	Strato2_3095_82743_L_0		

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116.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.65	0.000	236.5 118.2	236.5	118.2
118.2	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.05	0.000	240.5 120.2	240.5	120.2
120.2	0.000	0.000	Strato2_3095_82743_L_0		
65 D	24.45	0.000	244.5 122.2	244.5	122.2
122.2	0.000	0.000	Strato2_3095_82743_L_0		
66 D	24.85	0.000	248.5 124.2	248.5	124.2
124.2	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.25	0.000	252.5 126.2	252.5	126.2
126.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	25.65	0.000	256.5 128.2	256.5	128.2
128.2	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.05	0.000	260.5 130.2	260.5	130.2
130.2	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.45	0.000	264.5 132.2	264.5	132.2
132.2	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.85	0.000	268.5 134.2	268.5	134.2
134.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.25	0.000	272.5 136.2	272.5	136.2
136.2	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.65	0.000	276.5 138.2	276.5	138.2
138.2	0.000	0.000	Strato2_3095_82743_L_0		
74 D	28.05	0.000	280.5 140.2	280.5	140.2
140.2	0.000	0.000	Strato2_3095_82743_L_0		
75 D	28.45	0.000	284.5 142.2	284.5	142.2
142.2	0.000	0.000	Strato2_3095_82743_L_0		
76 D	28.85	0.000	288.5 144.2	288.5	144.2
144.2	0.000	0.000	Strato2_3095_82743_L_0		
77 D	29.25	0.000	292.5 146.2	292.5	146.2
146.2	0.000	0.000	Strato2_3095_82743_L_0		
78 D	29.65	0.000	296.5 148.2	296.5	148.2
148.2	0.000	0.000	Strato2_3095_82743_L_0		
79 D	30.05	0.000	300.5 150.2	300.5	150.2
150.2	0.000	0.000	Strato2_3095_82743_L_0		
80 D	30.45	0.000	304.5 152.2	304.5	152.2
152.2	0.000	0.000	Strato2_3095_82743_L_0		
81 D	23.14	0.000	308.5 154.2	308.5	154.2
154.2	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.763	0.000	310.5 155.2	310.5	155.2
155.2	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.AlMIR1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
|          |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000	0.0000
72	0.0000	0.0000	0.0000	0.0000
73	0.0000	0.0000	0.0000	0.0000
74	0.0000	0.0000	0.0000	0.0000
75	0.0000	0.0000	0.0000	0.0000
76	0.0000	0.0000	0.0000	0.0000
77	0.0000	0.0000	0.0000	0.0000
78	0.0000	0.0000	0.0000	0.0000
79	0.0000	0.0000	0.0000	0.0000
80	0.0000	0.0000	0.0000	0.0000
81	0.0000	0.0000	0.0000	0.0000

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1r1_3484                                                                                       |
|          Exe Time :24 July 2019          10:49:26                                                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 4

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Tieback_768111          :
ELEMENT TYPE      6 NO.OF ELEMENTS. IN THIS GROUP      1
CURRENT TIME IS      1.0000

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POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5587E+05 RIMNOR= 0.000
            RENORM= 283.1      REMNOR= 0.000      RATIO =0.7119E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.15      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5587E+05 RDR = 0.000
            RATIO=0.7119E-01 RATIO= 0.000
            MAX UN= 2.002      IEQ= 13 NODE      7 DOF 1 Y-DISPL.F
            MIN UN= 0.000      IEQ= 2 NODE      1 DOF 2 X-ROT. F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5587E+05 RIMNOR= 0.000
            RENORM= 24.29      REMNOR=0.1278E-20 RATIO =0.2085E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.15      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5587E+05 RDR = 0.000
            RATIO=0.2085E-01 RATIO= 0.000
            MAX UN= 1.452      IEQ= 3 NODE      2 DOF 1 Y-DISPL.F
            MIN UN=-.1197E-09 IEQ= 163 NODE     82 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5587E+05 RIMNOR= 0.000
            RENORM= 1.481      REMNOR=0.1564E-19 RATIO =0.5148E-02 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.15      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5587E+05 RDR = 0.000
            RATIO=0.5148E-02 RATIO= 0.000
            MAX UN=0.7923      IEQ= 67 NODE     34 DOF 1 Y-DISPL.F
            MIN UN=-.6568E-09 IEQ= 3 NODE      2 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5587E+05 RIMNOR= 0.000
            RENORM=0.3130E-02 REMNOR=0.9412E-21 RATIO =0.2367E-03 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 32.15      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5587E+05 RDR = 0.000
            RATIO=0.2367E-03 RATIO= 0.000
            MAX UN=0.4167E-01 IEQ= 79 NODE     40 DOF 1 Y-DISPL.F
            MIN UN=-.2908E-09 IEQ= 25 NODE     13 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

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ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5587E+05 RIMNOR= 0.000
            RENORM=0.1256E-06 REMNOR=0.7544E-21 RATIO =0.1499E-05 TOLER =0.1000E-03 CONVERGED !
            RFMAX = 32.15      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT =0.5587E+05 RDR = 0.000
            RATIO=0.1499E-05 RATIO= 0.000
            MAX UN=0.2933E-03 IEQ= 3 NODE      2 DOF 1 Y-DISPL.F
            MIN UN=-.1265E-09 IEQ= 27 NODE     14 DOF 1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1r1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	7.9492717E-04	-9.3071189E-05	
2	7.7631494E-04	-9.3041072E-05	
3	7.5771445E-04	-9.2955301E-05	
4	7.3913625E-04	-9.2817995E-05	
5	7.2059067E-04	-9.2629445E-05	
6	7.0208792E-04	-9.2389271E-05	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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7	6.8363849E-04	-9.2096103E-05
8	6.6525312E-04	-9.1748300E-05
9	6.4694296E-04	-9.1343751E-05
10	6.2871944E-04	-9.0881947E-05
11	6.1059394E-04	-9.0363664E-05
12	5.9257771E-04	-8.9789233E-05
13	5.7468200E-04	-8.9158533E-05
14	5.6578285E-04	-8.8822025E-05
15	5.4808908E-04	-8.8106166E-05
16	5.3054420E-04	-8.7333168E-05
17	5.1315964E-04	-8.6502714E-05
18	4.9594698E-04	-8.5614280E-05
19	4.7891784E-04	-8.4667223E-05
20	4.6208405E-04	-8.3660788E-05
21	4.4545754E-04	-8.2594182E-05
22	4.2905039E-04	-8.1467329E-05
23	4.1287458E-04	-8.0280897E-05
24	3.9694199E-04	-7.9035019E-05
25	3.8126452E-04	-7.7729861E-05
26	3.6585398E-04	-7.6365687E-05
27	3.5072223E-04	-7.4942882E-05
28	3.3588078E-04	-7.3461983E-05
29	3.2134122E-04	-7.1924300E-05
30	3.0711471E-04	-7.0331921E-05
31	2.9321195E-04	-6.8687165E-05
32	2.7964323E-04	-6.6992650E-05
33	2.6641808E-04	-6.5251282E-05
34	2.5354562E-04	-6.3466371E-05
35	2.4103419E-04	-6.1641620E-05
36	2.2889135E-04	-5.9781190E-05
37	2.1712377E-04	-5.7889851E-05
38	2.0573714E-04	-5.5973343E-05
39	1.9473575E-04	-5.4037952E-05
40	1.8412276E-04	-5.2090604E-05
41	1.7389980E-04	-5.0138879E-05
42	1.6406709E-04	-4.8188879E-05
43	1.5462408E-04	-4.6242099E-05
44	1.4557032E-04	-4.4294944E-05
45	1.3690669E-04	-4.2338999E-05
46	1.2863621E-04	-4.0360804E-05
47	1.2076507E-04	-3.8342084E-05
48	1.1330363E-04	-3.6259989E-05
49	1.0626715E-04	-3.4087278E-05
50	9.9676870E-05	-3.1792363E-05
51	9.3557367E-05	-2.9390047E-05
52	8.7924221E-05	-2.6939264E-05
53	8.2781704E-05	-2.4489989E-05
54	7.8125359E-05	-2.2083723E-05
55	7.3943121E-05	-1.9753865E-05
56	7.0216971E-05	-1.7526628E-05
57	6.6924306E-05	-1.5421839E-05
58	6.4039124E-05	-1.3453720E-05
59	6.1533067E-05	-1.1631871E-05
60	5.9376248E-05	-9.9619395E-06
61	5.7538029E-05	-8.4459433E-06
62	5.5987678E-05	-7.0828322E-06
63	5.4694958E-05	-5.8687937E-06
64	5.3630618E-05	-4.7978940E-06
65	5.2766768E-05	-3.8624757E-06
66	5.2077182E-05	-3.0537475E-06
67	5.1537465E-05	-2.3620831E-06
68	5.1125230E-05	-1.7772005E-06
69	5.0820157E-05	-1.2887301E-06
70	5.0603996E-05	-8.8638610E-07
71	5.0460532E-05	-5.6010684E-07
72	5.0375530E-05	-3.0016797E-07
73	5.0336662E-05	-9.7271592E-08
74	5.0333391E-05	5.7165844E-08
75	5.0356819E-05	1.7096561E-07
76	5.0399551E-05	2.5137251E-07
77	5.0455585E-05	3.0503009E-07
78	5.0520184E-05	3.3800007E-07
79	5.0589776E-05	3.5584006E-07
80	5.0661852E-05	3.6365171E-07
81	5.0734865E-05	3.6588181E-07
82	5.0771464E-05	3.6599291E-07



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New Project

STRESS RESULTS FOR GROUP NO. 1

O_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	1.269	-7.9493E-04	26.54	12.69	26.54	14.07	UL-RL	4.7747E+04	0.000	0.000	1.000	1.000
12.69	0.000	0.000	Stratol_2_8_L_0									
2 D	1.925	-7.7631E-04	20.13	9.624	20.13	10.67	UL-RL	4.7747E+04	-0.2000	0.000	1.000	1.000
9.624	0.000	0.000	Stratol_2_8_L_0									
3 D	2.499	-7.5771E-04	26.14	12.49	26.14	13.85	UL-RL	4.7747E+04	-0.4000	0.000	1.000	1.000
12.49	0.000	0.000	Stratol_2_8_L_0									
4 D	2.809	-7.3914E-04	29.39	14.05	29.39	15.58	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
14.05	0.000	0.000	Stratol_2_8_L_0									
5 D	3.250	-7.2059E-04	34.00	16.25	34.00	18.02	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
16.25	0.000	0.000	Stratol_2_8_L_0									
6 D	3.575	-7.0209E-04	37.40	17.88	37.40	19.82	ACTIVE	0.000	-1.000	0.000	1.000	1.000
17.88	0.000	0.000	Stratol_2_8_L_0									
7 D	3.986	-6.8364E-04	41.69	19.93	41.69	22.10	ACTIVE	0.000	-1.200	0.000	1.000	1.000
19.93	0.000	0.000	Stratol_2_8_L_0									
8 D	4.319	-6.6525E-04	45.18	21.60	45.18	23.95	ACTIVE	0.000	-1.400	0.000	1.000	1.000
21.60	0.000	0.000	Stratol_2_8_L_0									
9 D	4.642	-6.4694E-04	48.56	23.21	48.56	25.74	ACTIVE	0.000	-1.600	0.000	1.000	1.000
23.21	0.000	0.000	Stratol_2_8_L_0									
10 D	4.990	-6.2872E-04	52.20	24.95	52.20	27.67	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.95	0.000	0.000	Stratol_2_8_L_0									
11 D	5.386	-6.1059E-04	56.34	26.93	56.34	29.86	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.93	0.000	0.000	Stratol_2_8_L_0									
12 D	5.735	-5.9258E-04	59.99	28.68	59.99	31.80	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.68	0.000	0.000	Stratol_2_8_L_0									
13 D	4.593	-5.7468E-04	64.06	30.62	64.06	33.95	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.62	0.000	0.000	Stratol_2_8_L_0									
14 D	4.720	-5.6578E-04	65.83	31.47	65.83	34.89	ACTIVE	0.000	-2.500	0.000	1.000	1.000
31.47	0.000	0.000	Stratol_2_8_L_0									
15 D	6.645	-5.4809E-04	69.51	33.22	69.51	36.84	ACTIVE	0.000	-2.700	0.000	1.000	1.000
33.22	0.000	0.000	Stratol_2_8_L_0									
16 D	7.030	-5.3054E-04	73.53	35.15	73.53	38.97	ACTIVE	0.000	-2.900	0.000	1.000	1.000
35.15	0.000	0.000	Stratol_2_8_L_0									
17 D	7.382	-5.1316E-04	77.22	36.91	77.22	40.93	ACTIVE	0.000	-3.100	0.000	1.000	1.000
36.91	0.000	0.000	Stratol_2_8_L_0									
18 D	7.764	-4.9595E-04	81.21	38.82	81.21	43.04	ACTIVE	0.000	-3.300	0.000	1.000	1.000
38.82	0.000	0.000	Stratol_2_8_L_0									
19 D	8.117	-4.7892E-04	84.90	40.58	84.90	45.00	ACTIVE	0.000	-3.500	0.000	1.000	1.000
40.58	0.000	0.000	Stratol_2_8_L_0									
20 D	8.496	-4.6208E-04	88.87	42.48	88.87	47.10	ACTIVE	0.000	-3.700	0.000	1.000	1.000
42.48	0.000	0.000	Stratol_2_8_L_0									
21 D	8.818	-4.4546E-04	92.24	44.09	92.24	48.89	ACTIVE	0.000	-3.900	0.000	1.000	1.000
44.09	0.000	0.000	Stratol_2_8_L_0									
22 D	9.197	-4.2905E-04	96.21	45.99	96.21	50.99	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.99	0.000	0.000	Stratol_2_8_L_0									
23 D	9.575	-4.1287E-04	100.2	47.87	100.2	53.08	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.87	0.000	0.000	Stratol_2_8_L_0									
24 D	9.930	-3.9694E-04	103.9	49.65	103.9	55.05	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.65	0.000	0.000	Stratol_2_8_L_0									
25 D	10.31	-3.8126E-04	107.8	51.53	107.8	57.14	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.53	0.000	0.000	Stratol_2_8_L_0									
26 D	10.66	-3.6585E-04	111.5	53.31	111.5	59.11	ACTIVE	0.000	-4.900	0.000	1.000	1.000
53.31	0.000	0.000	Stratol_2_8_L_0									
27 D	11.04	-3.5072E-04	115.5	55.19	115.5	61.19	ACTIVE	0.000	-5.100	0.000	1.000	1.000
55.19	0.000	0.000	Stratol_2_8_L_0									
28 D	11.37	-3.3588E-04	118.9	56.85	118.9	63.04	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.85	0.000	0.000	Stratol_2_8_L_0									
29 D	11.74	-3.2134E-04	122.9	58.72	122.9	65.11	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.72	0.000	0.000	Stratol_2_8_L_0									
30 D	12.10	-3.0711E-04	126.6	60.51	126.6	67.10	ACTIVE	0.000	-5.700	0.000	1.000	1.000
60.51	0.000	0.000	Stratol_2_8_L_0									
31 D	12.48	-2.9321E-04	130.5	62.38	130.5	69.17	ACTIVE	0.000	-5.900	0.000	1.000	1.000
62.38	0.000	0.000	Stratol_2_8_L_0									
32 D	12.83	-2.7964E-04	134.2	64.17	134.2	71.15	ACTIVE	0.000	-6.100	0.000	1.000	1.000
64.17	0.000	0.000	Stratol_2_8_L_0									
33 D	13.21	-2.6642E-04	138.1	66.03	138.1	73.22	ACTIVE	0.000	-6.300	0.000	1.000	1.000
66.03	0.000	0.000	Stratol_2_8_L_0									
34 D	13.56	-2.5355E-04	141.9	67.82	141.9	75.20	ACTIVE	0.000	-6.500	0.000	1.000	1.000

GENERAL CONTRACTOR



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67.82	0.000	0.000	Strato1_2_8_L_0				
35 D	13.94	-2.4103E-04	145.8	69.69	145.8	77.27	ACTIVE
69.69	0.000	0.000	Strato1_2_8_L_0				
36 D	14.29	-2.2889E-04	149.5	71.45	149.5	79.23	ACTIVE
71.45	0.000	0.000	Strato1_2_8_L_0				
37 D	14.65	-2.1712E-04	153.2	73.25	153.2	81.21	ACTIVE
73.25	0.000	0.000	Strato1_2_8_L_0				
38 D	15.02	-2.0574E-04	157.1	75.10	157.1	83.27	ACTIVE
75.10	0.000	0.000	Strato1_2_8_L_0				
39 D	15.38	-1.9474E-04	160.9	76.90	160.9	85.26	ACTIVE
76.90	0.000	0.000	Strato1_2_8_L_0				
40 D	15.75	-1.8412E-04	164.8	78.75	164.8	87.32	ACTIVE
78.75	0.000	0.000	Strato1_2_8_L_0				
41 D	16.20	-1.7390E-04	168.5	81.01	168.5	89.31	UL-RL
81.01	0.000	0.000	Strato1_2_8_L_0				
42 D	16.71	-1.6407E-04	172.4	83.53	172.4	91.37	UL-RL
83.53	0.000	0.000	Strato1_2_8_L_0				
43 D	17.18	-1.5462E-04	176.0	85.89	176.0	93.27	UL-RL
85.89	0.000	0.000	Strato1_2_8_L_0				
44 D	17.68	-1.4557E-04	179.9	88.38	179.9	95.33	UL-RL
88.38	0.000	0.000	Strato1_2_8_L_0				
45 D	18.16	-1.3691E-04	183.6	90.78	183.6	97.32	UL-RL
90.78	0.000	0.000	Strato1_2_8_L_0				
46 D	18.65	-1.2864E-04	187.5	93.23	187.5	99.37	UL-RL
93.23	0.000	0.000	Strato1_2_8_L_0				
47 D	19.12	-1.2077E-04	191.3	95.60	191.3	101.4	UL-RL
95.60	0.000	0.000	Strato1_2_8_L_0				
48 D	19.60	-1.1330E-04	195.1	98.01	195.1	103.4	UL-RL
98.01	0.000	0.000	Strato1_2_8_L_0				
49 D	20.08	-1.0627E-04	199.0	100.4	199.0	105.5	UL-RL
100.4	0.000	0.000	Strato1_2_8_L_0				
50 D	17.60	-9.9677E-05	203.0	88.01	203.0	101.5	UL-RL
88.01	0.000	0.000	Strato2_3095_82743_L_0				
51 D	18.16	-9.3557E-05	206.9	90.80	206.9	103.4	UL-RL
90.80	0.000	0.000	Strato2_3095_82743_L_0				
52 D	18.71	-8.7924E-05	210.8	93.55	210.8	105.4	UL-RL
93.55	0.000	0.000	Strato2_3095_82743_L_0				
53 D	19.25	-8.2782E-05	214.9	96.27	214.9	107.5	UL-RL
96.27	0.000	0.000	Strato2_3095_82743_L_0				
54 D	19.78	-7.8125E-05	218.9	98.89	218.9	109.4	UL-RL
98.89	0.000	0.000	Strato2_3095_82743_L_0				
55 D	20.30	-7.3943E-05	222.9	101.5	222.9	111.5	UL-RL
101.5	0.000	0.000	Strato2_3095_82743_L_0				
56 D	20.79	-7.0217E-05	226.9	104.0	226.9	113.5	UL-RL
104.0	0.000	0.000	Strato2_3095_82743_L_0				
57 D	21.29	-6.6924E-05	231.0	106.4	231.0	115.5	UL-RL
106.4	0.000	0.000	Strato2_3095_82743_L_0				
58 D	21.75	-6.4039E-05	234.8	108.8	234.8	117.4	UL-RL
108.8	0.000	0.000	Strato2_3095_82743_L_0				
59 D	22.22	-6.1533E-05	238.9	111.1	238.9	119.4	UL-RL
111.1	0.000	0.000	Strato2_3095_82743_L_0				
60 D	22.68	-5.9376E-05	242.8	113.4	242.8	121.4	UL-RL
113.4	0.000	0.000	Strato2_3095_82743_L_0				
61 D	23.13	-5.7538E-05	246.9	115.7	246.9	123.4	UL-RL
115.7	0.000	0.000	Strato2_3095_82743_L_0				
62 D	23.58	-5.5988E-05	250.9	117.9	250.9	125.5	UL-RL
117.9	0.000	0.000	Strato2_3095_82743_L_0				
63 D	24.01	-5.4695E-05	254.9	120.1	254.9	127.5	UL-RL
120.1	0.000	0.000	Strato2_3095_82743_L_0				
64 D	24.45	-5.3631E-05	259.0	122.2	259.0	129.5	UL-RL
122.2	0.000	0.000	Strato2_3095_82743_L_0				
65 D	24.86	-5.2767E-05	262.8	124.3	262.8	131.4	UL-RL
124.3	0.000	0.000	Strato2_3095_82743_L_0				
66 D	25.28	-5.2077E-05	266.9	126.4	266.9	133.4	UL-RL
126.4	0.000	0.000	Strato2_3095_82743_L_0				
67 D	25.69	-5.1537E-05	270.8	128.4	270.8	135.4	UL-RL
128.4	0.000	0.000	Strato2_3095_82743_L_0				
68 D	26.09	-5.1125E-05	274.7	130.4	274.7	137.3	UL-RL
130.4	0.000	0.000	Strato2_3095_82743_L_0				
69 D	26.49	-5.0820E-05	278.6	132.4	278.6	139.3	UL-RL
132.4	0.000	0.000	Strato2_3095_82743_L_0				
70 D	26.88	-5.0604E-05	282.5	134.4	282.5	141.2	UL-RL
134.4	0.000	0.000	Strato2_3095_82743_L_0				
71 D	27.28	-5.0461E-05	286.4	136.4	286.4	143.2	UL-RL
136.4	0.000	0.000	Strato2_3095_82743_L_0				
72 D	27.67	-5.0376E-05	290.3	138.3	290.3	145.2	UL-RL
138.3	0.000	0.000	Strato2_3095_82743_L_0				
73 D	28.05	-5.0337E-05	294.1	140.3	294.1	147.1	UL-RL
140.3	0.000	0.000	Strato2_3095_82743_L_0				
74 D	28.44	-5.0333E-05	298.0	142.2	298.0	149.0	UL-RL
142.2	0.000	0.000	Strato2_3095_82743_L_0				
75 D	28.84	-5.0357E-05	302.0	144.2	302.0	151.0	UL-RL
144.2	0.000	0.000	Strato2_3095_82743_L_0				
76 D	29.23	-5.0400E-05	305.9	146.1	305.9	152.9	UL-RL
146.1	0.000	0.000	Strato2_3095_82743_L_0				

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 155 di 560							
24 D	9.940	3.9694E-04	85.50	49.70	85.50	49.70	V-C	1.1045E+04	-4.500	0.000	1.000	1.000
49.70	0.000	0.000	Strato1_2_8_L_0									
25 D	10.31	3.8126E-04	89.30	51.54	89.30	51.54	V-C	1.1045E+04	-4.700	0.000	1.000	1.000
51.54	0.000	0.000	Strato1_2_8_L_0									
26 D	10.68	3.6585E-04	93.10	53.38	93.10	53.38	V-C	1.1045E+04	-4.900	0.000	1.000	1.000
53.38	0.000	0.000	Strato1_2_8_L_0									
27 D	11.05	3.5072E-04	96.90	55.23	96.90	55.23	V-C	1.1045E+04	-5.100	0.000	1.000	1.000
55.23	0.000	0.000	Strato1_2_8_L_0									
28 D	11.42	3.3588E-04	100.7	57.08	100.7	57.08	V-C	1.1045E+04	-5.300	0.000	1.000	1.000
57.08	0.000	0.000	Strato1_2_8_L_0									
29 D	11.79	3.2134E-04	104.5	58.93	104.5	58.93	V-C	1.1045E+04	-5.500	0.000	1.000	1.000
58.93	0.000	0.000	Strato1_2_8_L_0									
30 D	12.16	3.0711E-04	108.3	60.79	108.3	60.79	V-C	1.1045E+04	-5.700	0.000	1.000	1.000
60.79	0.000	0.000	Strato1_2_8_L_0									
31 D	12.53	2.9321E-04	112.1	62.65	112.1	62.65	V-C	1.1045E+04	-5.900	0.000	1.000	1.000
62.65	0.000	0.000	Strato1_2_8_L_0									
32 D	12.90	2.7964E-04	115.9	64.52	115.9	64.52	V-C	1.1045E+04	-6.100	0.000	1.000	1.000
64.52	0.000	0.000	Strato1_2_8_L_0									
33 D	13.28	2.6642E-04	119.7	66.38	119.7	66.38	V-C	1.1045E+04	-6.300	0.000	1.000	1.000
66.38	0.000	0.000	Strato1_2_8_L_0									
34 D	13.65	2.5355E-04	123.5	68.26	123.5	68.26	V-C	1.1045E+04	-6.500	0.000	1.000	1.000
68.26	0.000	0.000	Strato1_2_8_L_0									
35 D	14.03	2.4103E-04	127.3	70.13	127.3	70.13	V-C	1.1045E+04	-6.700	0.000	1.000	1.000
70.13	0.000	0.000	Strato1_2_8_L_0									
36 D	14.40	2.2889E-04	131.1	72.01	131.1	72.01	V-C	1.1045E+04	-6.900	0.000	1.000	1.000
72.01	0.000	0.000	Strato1_2_8_L_0									
37 D	14.78	2.1712E-04	134.9	73.90	134.9	73.90	V-C	1.1045E+04	-7.100	0.000	1.000	1.000
73.90	0.000	0.000	Strato1_2_8_L_0									
38 D	15.16	2.0574E-04	138.7	75.78	138.7	75.78	V-C	1.1045E+04	-7.300	0.000	1.000	1.000
75.78	0.000	0.000	Strato1_2_8_L_0									
39 D	15.54	1.9474E-04	142.5	77.68	142.5	77.68	V-C	1.1045E+04	-7.500	0.000	1.000	1.000
77.68	0.000	0.000	Strato1_2_8_L_0									
40 D	15.91	1.8412E-04	146.3	79.57	146.3	79.57	V-C	1.1045E+04	-7.700	0.000	1.000	1.000
79.57	0.000	0.000	Strato1_2_8_L_0									
41 D	16.29	1.7390E-04	150.1	81.47	150.1	81.47	V-C	1.1045E+04	-7.900	0.000	1.000	1.000
81.47	0.000	0.000	Strato1_2_8_L_0									
42 D	16.68	1.6407E-04	153.9	83.38	153.9	83.38	V-C	1.1045E+04	-8.100	0.000	1.000	1.000
83.38	0.000	0.000	Strato1_2_8_L_0									
43 D	17.06	1.5462E-04	157.7	85.29	157.7	85.29	V-C	1.1045E+04	-8.300	0.000	1.000	1.000
85.29	0.000	0.000	Strato1_2_8_L_0									
44 D	17.44	1.4557E-04	161.5	87.20	161.5	87.20	V-C	1.1045E+04	-8.500	0.000	1.000	1.000
87.20	0.000	0.000	Strato1_2_8_L_0									
45 D	17.82	1.3691E-04	165.3	89.12	165.3	89.12	V-C	1.1045E+04	-8.700	0.000	1.000	1.000
89.12	0.000	0.000	Strato1_2_8_L_0									
46 D	18.21	1.2864E-04	169.1	91.04	169.1	91.04	V-C	1.1045E+04	-8.900	0.000	1.000	1.000
91.04	0.000	0.000	Strato1_2_8_L_0									
47 D	18.59	1.2077E-04	172.9	92.97	172.9	92.97	V-C	1.1045E+04	-9.100	0.000	1.000	1.000
92.97	0.000	0.000	Strato1_2_8_L_0									
48 D	18.98	1.1330E-04	176.7	94.90	176.7	94.90	V-C	1.1045E+04	-9.300	0.000	1.000	1.000
94.90	0.000	0.000	Strato1_2_8_L_0									
49 D	19.37	1.0627E-04	180.5	96.84	180.5	96.84	V-C	1.1045E+04	-9.500	0.000	1.000	1.000
96.84	0.000	0.000	Strato1_2_8_L_0									
50 D	18.94	9.9677E-05	184.5	94.68	184.5	94.68	V-C	2.4402E+04	-9.700	0.000	1.000	1.000
94.68	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.31	9.3557E-05	188.5	96.53	188.5	96.53	V-C	2.4402E+04	-9.900	0.000	1.000	1.000
96.53	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.67	8.7924E-05	192.5	98.37	192.5	98.41	UL-RL	7.3205E+04	-10.10	0.000	1.000	1.000
98.37	0.000	0.000	Strato2_3095_82743_L_0									
53 D	20.04	8.2782E-05	196.5	100.2	196.5	100.3	UL-RL	7.3205E+04	-10.30	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.40	7.8125E-05	200.5	102.0	200.5	102.2	UL-RL	7.3205E+04	-10.50	0.000	1.000	1.000
102.0	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.77	7.3943E-05	204.5	103.9	204.5	104.1	UL-RL	7.3205E+04	-10.70	0.000	1.000	1.000
103.9	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.15	7.0217E-05	208.5	105.8	208.5	106.1	UL-RL	7.3205E+04	-10.90	0.000	1.000	1.000
105.8	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.53	6.6924E-05	212.5	107.6	212.5	108.0	UL-RL	7.3205E+04	-11.10	0.000	1.000	1.000
107.6	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.91	6.4039E-05	216.5	109.6	216.5	109.9	UL-RL	7.3205E+04	-11.30	0.000	1.000	1.000
109.6	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.30	6.1533E-05	220.5	111.5	220.5	111.9	UL-RL	7.3205E+04	-11.50	0.000	1.000	1.000
111.5	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.69	5.9376E-05	224.5	113.4	224.5	113.8	UL-RL	7.3205E+04	-11.70	0.000	1.000	1.000
113.4	0.000	0.000	Strato2_3095_82743_L_0									
61 D	23.08	5.7538E-05	228.5	115.4	228.5	115.8	UL-RL	7.3205E+04	-11.90	0.000	1.000	1.000
115.4	0.000	0.000	Strato2_3095_82743_L_0									
62 D	23.47	5.5988E-05	232.5	117.4	232.5	117.7	UL-RL	7.3205E+04	-12.10	0.000	1.000	1.000
117.4	0.000	0.000	Strato2_3095_82743_L_0									
63 D	23.87	5.4695E-05	236.5	119.4	236.5	119.7	UL-RL	7.3205E+04	-12.30	0.000	1.000	1.000
119.4	0.000	0.000	Strato2_3095_82743_L_0									
64 D	24.27	5.3631E-05	240.5	121.3	240.5	121.7	UL-RL	7.3205E+04	-12.50	0.000	1.000	1.000
121.3	0.000	0.000	Strato2_3095_82743_L_0									
65 D	24.67	5.2767E-05	244.5	123.3	244.5	123.6	UL-RL	7.3205E+04	-12.70	0.000	1.000	1.000
123.3	0.000	0.000	Strato2_3095_82743_L_0									
66 D	25.07	5.2077E-05	248.5	125.3	248.5	125.6	UL-RL	7.3205E+04	-12.90	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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125.3	0.000	0.000	Strato2_3095_82743_L_0									
67 D	25.47	5.1537E-05	252.5	127.3	252.5	127.6	UL-RL	7.3205E+04	-13.10	0.000	1.000	1.000
127.3	0.000	0.000	Strato2_3095_82743_L_0									
68 D	25.87	5.1125E-05	256.5	129.3	256.5	129.6	UL-RL	7.3205E+04	-13.30	0.000	1.000	1.000
129.3	0.000	0.000	Strato2_3095_82743_L_0									
69 D	26.27	5.0820E-05	260.5	131.4	260.5	131.6	UL-RL	7.3205E+04	-13.50	0.000	1.000	1.000
131.4	0.000	0.000	Strato2_3095_82743_L_0									
70 D	26.67	5.0604E-05	264.5	133.4	264.5	133.5	UL-RL	7.3205E+04	-13.70	0.000	1.000	1.000
133.4	0.000	0.000	Strato2_3095_82743_L_0									
71 D	27.08	5.0461E-05	268.5	135.4	268.5	135.5	UL-RL	7.3205E+04	-13.90	0.000	1.000	1.000
135.4	0.000	0.000	Strato2_3095_82743_L_0									
72 D	27.48	5.0376E-05	272.5	137.4	272.5	137.5	UL-RL	7.3205E+04	-14.10	0.000	1.000	1.000
137.4	0.000	0.000	Strato2_3095_82743_L_0									
73 D	27.88	5.0337E-05	276.5	139.4	276.5	139.5	UL-RL	7.3205E+04	-14.30	0.000	1.000	1.000
139.4	0.000	0.000	Strato2_3095_82743_L_0									
74 D	28.29	5.0333E-05	280.5	141.4	280.5	141.5	UL-RL	7.3205E+04	-14.50	0.000	1.000	1.000
141.4	0.000	0.000	Strato2_3095_82743_L_0									
75 D	28.69	5.0357E-05	284.5	143.4	284.5	143.5	UL-RL	7.3205E+04	-14.70	0.000	1.000	1.000
143.4	0.000	0.000	Strato2_3095_82743_L_0									
76 D	29.09	5.0400E-05	288.5	145.5	288.5	145.5	UL-RL	7.3205E+04	-14.90	0.000	1.000	1.000
145.5	0.000	0.000	Strato2_3095_82743_L_0									
77 D	29.49	5.0456E-05	292.5	147.5	292.5	147.5	UL-RL	7.3205E+04	-15.10	0.000	1.000	1.000
147.5	0.000	0.000	Strato2_3095_82743_L_0									
78 D	29.89	5.0520E-05	296.5	149.5	296.5	149.5	UL-RL	7.3205E+04	-15.30	0.000	1.000	1.000
149.5	0.000	0.000	Strato2_3095_82743_L_0									
79 D	30.29	5.0590E-05	300.5	151.5	300.5	151.5	UL-RL	7.3205E+04	-15.50	0.000	1.000	1.000
151.5	0.000	0.000	Strato2_3095_82743_L_0									
80 D	30.69	5.0662E-05	304.5	153.5	304.5	153.5	UL-RL	7.3205E+04	-15.70	0.000	1.000	1.000
153.5	0.000	0.000	Strato2_3095_82743_L_0									
81 D	23.32	5.0735E-05	308.5	155.5	308.5	155.5	UL-RL	7.3205E+04	-15.90	0.000	1.000	1.000
155.5	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.824	5.0771E-05	310.5	156.5	310.5	156.5	UL-RL	7.3205E+04	-16.00	0.000	1.000	1.000
156.5	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
C U R R E N T T I M E I S 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.2686	-1.2686	1.27509E-12	0.25372
2	1.0757	-1.0757	-0.25372	0.46885
3	1.0951	-1.0951	-0.46885	0.68788
4	1.0635	-1.0635	-0.68788	0.90057
5	1.1110	-1.1110	-0.90057	1.1228
6	1.1213	-1.1213	-1.1228	1.3470
7	1.1800	-1.1800	-1.3470	1.5830
8	1.2103	-1.2103	-1.5830	1.8251
9	1.2014	-1.2014	-1.8251	2.0654
10	1.1777	-1.1777	-2.0654	2.3009
11	1.1873	-1.1873	-2.3009	2.5384
12	1.1829	-1.1829	-2.5384	2.7750
13	1.1990	-1.1990	-2.7750	2.8949
14	1.2052	-1.2052	-2.8949	3.1359
15	1.2016	-1.2016	-3.1359	3.3762
16	1.2186	-1.2186	-3.3762	3.6199
17	1.2237	-1.2237	-3.6199	3.8647
18	1.2456	-1.2456	-3.8647	4.1138
19	1.2555	-1.2555	-4.1138	4.3649
20	1.2790	-1.2790	-4.3649	4.6207
21	1.2587	-1.2587	-4.6207	4.8725
22	1.2508	-1.2508	-4.8725	5.1226
23	1.2532	-1.2532	-5.1226	5.3733
24	1.2438	-1.2438	-5.3733	5.6220
25	1.2421	-1.2421	-5.6220	5.8705
26	1.2278	-1.2278	-5.8705	6.1160
27	1.2189	-1.2189	-6.1160	6.3598
28	1.1730	-1.1730	-6.3598	6.5944
29	1.1310	-1.1310	-6.5944	6.8206

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30	1.0753	-1.0753	-6.8206	7.0357
31	1.0211	-1.0211	-7.0357	7.2399
32	0.95202	-0.95202	-7.2399	7.4303
33	0.88217	-0.88217	-7.4303	7.6067
34	0.79601	-0.79601	-7.6067	7.7659
35	0.70683	-0.70683	-7.7659	7.9073
36	0.59517	-0.59517	-7.9073	8.0263
37	0.46541	-0.46541	-8.0263	8.1194
38	0.32958	-0.32958	-8.1194	8.1853
39	0.17408	-0.17408	-8.1853	8.2201
40	1.02780E-02	-1.02780E-02	-8.2201	8.2222
41	-8.29011E-02	8.29011E-02	-8.2222	8.2056
42	-5.23658E-02	5.23658E-02	-8.2056	8.1951
43	6.77804E-02	-6.77804E-02	-8.1951	8.2087
44	0.30244	-0.30244	-8.2087	8.2692
45	0.63485	-0.63485	-8.2692	8.3962
46	1.0721	-1.0721	-8.3962	8.6106
47	1.5979	-1.5979	-8.6106	8.9302
48	2.2186	-2.2186	-8.9302	9.3739
49	2.9290	-2.9290	-9.3739	9.9597
50	1.5950	-1.5950	-9.9597	10.279
51	0.44915	-0.44915	-10.279	10.368
52	-0.51522	0.51522	-10.368	10.265
53	-1.2964	1.2964	-10.265	10.006
54	-1.9221	1.9221	-10.006	9.6217
55	-2.4005	2.4005	-9.6217	9.1416
56	-2.7574	2.7574	-9.1416	8.5902
57	-2.9995	2.9995	-8.5902	7.9903
58	-3.1618	3.1618	-7.9903	7.3579
59	-3.2373	3.2373	-7.3579	6.7104
60	-3.2468	3.2468	-6.7104	6.0611
61	-3.1931	3.1931	-6.0611	5.4225
62	-3.0862	3.0862	-5.4225	4.8052
63	-2.9431	2.9431	-4.8052	4.2166
64	-2.7637	2.7637	-4.2166	3.6639
65	-2.5728	2.5728	-3.6639	3.1493
66	-2.3582	2.3582	-3.1493	2.6776
67	-2.1397	2.1397	-2.6776	2.2497
68	-1.9214	1.9214	-2.2497	1.8654
69	-1.7065	1.7065	-1.8654	1.5241
70	-1.4976	1.4976	-1.5241	1.2246
71	-1.2968	1.2968	-1.2246	0.96524
72	-1.1059	1.1059	-0.96524	0.74406
73	-0.93529	0.93529	-0.74406	0.55700
74	-0.77647	0.77647	-0.55700	0.40171
75	-0.63012	0.63012	-0.40171	0.27568
76	-0.49663	0.49663	-0.27568	0.17636
77	-0.37478	0.37478	-0.17636	0.10140
78	-0.26253	0.26253	-0.10140	4.88935E-02
79	-0.15989	0.15989	-4.88935E-02	1.69158E-02
80	-7.52207E-02	7.52207E-02	-1.69158E-02	1.87168E-03
81	-1.87149E-02	1.87149E-02	-1.87168E-03	-2.39497E-12

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER  0 RNORM = 0.000  RMNORM= 0.000
      RINORM=0.4854E+05 RIMNOR= 5595.
      RENORM= 657.8  REMNOR=0.7544E-21 RATIO =0.1164  TOLER =0.1000E-03  NOT CONVERGED
      RFMAX = 30.78  RMMAX = 10.37
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
      RDT =0.4854E+05 RDR = 5595.
      RATIOT=0.1164  RATIO= 0.000

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Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 158 di 560
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MAX UN= 7.013 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
 MIN UN=-.3796E-10 IEQ= 57 NODE 29 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.4854E+05 RIMNOR= 5595.
 RENORM= 124.3 REMNOR=0.7309E-18 RATIO =0.5061E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 30.78 RMMAX = 10.37
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.4854E+05 RDR = 5595.
 RATIO=0.5061E-01 RATIO= 0.000
 MAX UN= 5.543 IEQ= 81 NODE 41 DOF 1 Y-DISPL.F
 MIN UN=-.2005E-03 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.4854E+05 RIMNOR= 5595.
 RENORM=0.4529E-01 REMNOR=0.7457E-18 RATIO =0.9660E-03 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 30.78 RMMAX = 10.37
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.4854E+05 RDR = 5595.
 RATIO=0.9660E-03 RATIO= 0.000
 MAX UN=0.2128 IEQ= 99 NODE 50 DOF 1 Y-DISPL.F
 MIN UN=-.1551E-07 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.4854E+05 RIMNOR= 5595.
 RENORM=0.1825E-15 REMNOR=0.5956E-18 RATIO =0.6131E-10 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 30.78 RMMAX = 10.37
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.4854E+05 RDR = 5595.
 RATIO=0.6131E-10 RATIO= 0.000
 MAX UN=0.8004E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 MIN UN=-.8737E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.AlM1r1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project
 SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.5003090E-02	-2.0634878E-03	
2	1.4590394E-02	-2.0634577E-03	
3	1.4177714E-02	-2.0633217E-03	
4	1.3765080E-02	-2.0629747E-03	
5	1.3352546E-02	-2.0622908E-03	
6	1.2940195E-02	-2.0611260E-03	
7	1.2528139E-02	-2.0593184E-03	
8	1.2116523E-02	-2.0566884E-03	
9	1.1705531E-02	-2.0530389E-03	
10	1.1295389E-02	-2.0481571E-03	
11	1.0886366E-02	-2.0418143E-03	
12	1.0478778E-02	-2.0337643E-03	
13	1.0072992E-02	-2.0237428E-03	
14	9.8709040E-03	-2.0179146E-03	
15	9.4686298E-03	-2.0044018E-03	
16	9.0693237E-03	-1.9881815E-03	
17	8.6735594E-03	-1.9689292E-03	
18	8.2819746E-03	-1.9463391E-03	
19	7.8952605E-03	-1.9201975E-03	
20	7.5141380E-03	-1.8904191E-03	
21	7.1393324E-03	-1.8570468E-03	
22	6.7715474E-03	-1.8202530E-03	
23	6.4114396E-03	-1.7803340E-03	
24	6.0595991E-03	-1.7376350E-03	
25	5.7165491E-03	-1.6924824E-03	
26	5.3827492E-03	-1.6451840E-03	

GENERAL CONTRACTOR

Cepav due



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2 D	1.925	-1.4590E-02	20.13	9.623	20.13	10.67	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
9.623	0.000	0.000	Stratol_2_8_L_0									
3 D	2.499	-1.4178E-02	26.14	12.49	26.14	13.85	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
12.49	0.000	0.000	Stratol_2_8_L_0									
4 D	2.809	-1.3765E-02	29.39	14.05	29.39	15.58	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
14.05	0.000	0.000	Stratol_2_8_L_0									
5 D	3.250	-1.3353E-02	34.00	16.25	34.00	18.02	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
16.25	0.000	0.000	Stratol_2_8_L_0									
6 D	3.575	-1.2940E-02	37.40	17.88	37.40	19.82	ACTIVE	0.000	-1.000	0.000	1.000	1.000
17.88	0.000	0.000	Stratol_2_8_L_0									
7 D	3.986	-1.2528E-02	41.69	19.93	41.69	22.10	ACTIVE	0.000	-1.200	0.000	1.000	1.000
19.93	0.000	0.000	Stratol_2_8_L_0									
8 D	4.319	-1.2117E-02	45.18	21.60	45.18	23.95	ACTIVE	0.000	-1.400	0.000	1.000	1.000
21.60	0.000	0.000	Stratol_2_8_L_0									
9 D	4.642	-1.1706E-02	48.56	23.21	48.56	25.74	ACTIVE	0.000	-1.600	0.000	1.000	1.000
23.21	0.000	0.000	Stratol_2_8_L_0									
10 D	4.990	-1.1295E-02	52.20	24.95	52.20	27.67	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.95	0.000	0.000	Stratol_2_8_L_0									
11 D	5.386	-1.0886E-02	56.34	26.93	56.34	29.86	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.93	0.000	0.000	Stratol_2_8_L_0									
12 D	5.735	-1.0479E-02	59.99	28.68	59.99	31.80	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.68	0.000	0.000	Stratol_2_8_L_0									
13 D	4.593	-1.0073E-02	64.06	30.62	64.06	33.95	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.62	0.000	0.000	Stratol_2_8_L_0									
14 D	4.720	-9.8709E-03	65.83	31.47	65.83	34.89	ACTIVE	0.000	-2.500	0.000	1.000	1.000
31.47	0.000	0.000	Stratol_2_8_L_0									
15 D	6.645	-9.4686E-03	69.51	33.22	69.51	36.84	ACTIVE	0.000	-2.700	0.000	1.000	1.000
33.22	0.000	0.000	Stratol_2_8_L_0									
16 D	7.030	-9.0693E-03	73.53	35.15	73.53	38.97	ACTIVE	0.000	-2.900	0.000	1.000	1.000
35.15	0.000	0.000	Stratol_2_8_L_0									
17 D	7.382	-8.6736E-03	77.22	36.91	77.22	40.93	ACTIVE	0.000	-3.100	0.000	1.000	1.000
36.91	0.000	0.000	Stratol_2_8_L_0									
18 D	7.764	-8.2820E-03	81.21	38.82	81.21	43.04	ACTIVE	0.000	-3.300	0.000	1.000	1.000
38.82	0.000	0.000	Stratol_2_8_L_0									
19 D	8.117	-7.8953E-03	84.90	40.58	84.90	45.00	ACTIVE	0.000	-3.500	0.000	1.000	1.000
40.58	0.000	0.000	Stratol_2_8_L_0									
20 D	8.496	-7.5141E-03	88.87	42.48	88.87	47.10	ACTIVE	0.000	-3.700	0.000	1.000	1.000
42.48	0.000	0.000	Stratol_2_8_L_0									
21 D	8.818	-7.1393E-03	92.24	44.09	92.24	48.89	ACTIVE	0.000	-3.900	0.000	1.000	1.000
44.09	0.000	0.000	Stratol_2_8_L_0									
22 D	9.197	-6.7715E-03	96.21	45.99	96.21	50.99	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.99	0.000	0.000	Stratol_2_8_L_0									
23 D	9.575	-6.4114E-03	100.2	47.87	100.2	53.08	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.87	0.000	0.000	Stratol_2_8_L_0									
24 D	9.930	-6.0596E-03	103.9	49.65	103.9	55.05	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.65	0.000	0.000	Stratol_2_8_L_0									
25 D	10.31	-5.7165E-03	107.8	51.53	107.8	57.14	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.53	0.000	0.000	Stratol_2_8_L_0									
26 D	10.66	-5.3827E-03	111.5	53.31	111.5	59.11	ACTIVE	0.000	-4.900	0.000	1.000	1.000
53.31	0.000	0.000	Stratol_2_8_L_0									
27 D	11.04	-5.0586E-03	115.5	55.19	115.5	61.19	ACTIVE	0.000	-5.100	0.000	1.000	1.000
55.19	0.000	0.000	Stratol_2_8_L_0									
28 D	11.37	-4.7444E-03	118.9	56.85	118.9	63.04	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.85	0.000	0.000	Stratol_2_8_L_0									
29 D	11.74	-4.4406E-03	122.9	58.72	122.9	65.11	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.72	0.000	0.000	Stratol_2_8_L_0									
30 D	12.10	-4.1472E-03	126.6	60.51	126.6	67.10	ACTIVE	0.000	-5.700	0.000	1.000	1.000
60.51	0.000	0.000	Stratol_2_8_L_0									
31 D	12.48	-3.8646E-03	130.5	62.38	130.5	69.17	ACTIVE	0.000	-5.900	0.000	1.000	1.000
62.38	0.000	0.000	Stratol_2_8_L_0									
32 D	12.83	-3.5928E-03	134.2	64.17	134.2	71.15	ACTIVE	0.000	-6.100	0.000	1.000	1.000
64.17	0.000	0.000	Stratol_2_8_L_0									
33 D	13.21	-3.3321E-03	138.1	66.03	138.1	73.22	ACTIVE	0.000	-6.300	0.000	1.000	1.000
66.03	0.000	0.000	Stratol_2_8_L_0									
34 D	13.56	-3.0824E-03	141.9	67.82	141.9	75.20	ACTIVE	0.000	-6.500	0.000	1.000	1.000
67.82	0.000	0.000	Stratol_2_8_L_0									
35 D	13.94	-2.8437E-03	145.8	69.69	145.8	77.27	ACTIVE	0.000	-6.700	0.000	1.000	1.000
69.69	0.000	0.000	Stratol_2_8_L_0									
36 D	14.29	-2.6162E-03	149.5	71.45	149.5	79.23	ACTIVE	0.000	-6.900	0.000	1.000	1.000
71.45	0.000	0.000	Stratol_2_8_L_0									
37 D	14.65	-2.3997E-03	153.2	73.25	153.2	81.21	ACTIVE	0.000	-7.100	0.000	1.000	1.000
73.25	0.000	0.000	Stratol_2_8_L_0									
38 D	15.02	-2.1943E-03	157.1	75.10	157.1	83.27	ACTIVE	0.000	-7.300	0.000	1.000	1.000
75.10	0.000	0.000	Stratol_2_8_L_0									
39 D	15.38	-1.9998E-03	160.9	76.90	160.9	85.26	ACTIVE	0.000	-7.500	0.000	1.000	1.000
76.90	0.000	0.000	Stratol_2_8_L_0									
40 D	15.75	-1.8162E-03	164.8	78.75	164.8	87.32	ACTIVE	0.000	-7.700	0.000	1.000	1.000
78.75	0.000	0.000	Stratol_2_8_L_0									
41 D	16.11	-1.6432E-03	168.5	80.55	168.5	89.31	ACTIVE	0.000	-7.900	0.000	1.000	1.000
80.55	0.000	0.000	Stratol_2_8_L_0									
42 D	16.48	-1.4809E-03	172.4	82.40	172.4	91.37	ACTIVE	0.000	-8.100	0.000	1.000	1.000
82.40	0.000	0.000	Stratol_2_8_L_0									
43 D	16.82	-1.3289E-03	176.0	84.12	176.0	93.27	ACTIVE	0.000	-8.300	0.000	1.000	1.000
84.12	0.000	0.000	Stratol_2_8_L_0									
44 D	17.19	-1.1872E-03	179.9	85.97	179.9	95.33	ACTIVE	0.000	-8.500	0.000	1.000	1.000

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85.97	0.000	0.000	Strato1_2_8_L_0									
45 D	17.55	-1.0555E-03	183.6	87.77	183.6	97.32	ACTIVE	0.000	-8.700	0.000	1.000	1.000
87.77	0.000	0.000	Strato1_2_8_L_0									
46 D	17.92	-9.3369E-04	187.5	89.62	187.5	99.37	ACTIVE	0.000	-8.900	0.000	1.000	1.000
89.62	0.000	0.000	Strato1_2_8_L_0									
47 D	18.28	-8.2147E-04	191.3	91.42	191.3	101.4	ACTIVE	0.000	-9.100	0.000	1.000	1.000
91.42	0.000	0.000	Strato1_2_8_L_0									
48 D	18.65	-7.1863E-04	195.1	93.27	195.1	103.4	ACTIVE	0.000	-9.300	0.000	1.000	1.000
93.27	0.000	0.000	Strato1_2_8_L_0									
49 D	19.02	-6.2493E-04	199.0	95.12	199.0	105.5	ACTIVE	0.000	-9.500	0.000	1.000	1.000
95.12	0.000	0.000	Strato1_2_8_L_0									
50 D	11.26	-5.4011E-04	203.0	56.28	203.0	101.5	UL-RL	7.2037E+04	-9.700	0.000	1.000	1.000
56.28	0.000	0.000	Strato2_3095_82743_L_0									
51 D	12.82	-4.6391E-04	206.9	64.12	206.9	103.4	UL-RL	7.2037E+04	-9.900	0.000	1.000	1.000
64.12	0.000	0.000	Strato2_3095_82743_L_0									
52 D	14.27	-3.9599E-04	210.8	71.36	210.8	105.4	UL-RL	7.2037E+04	-10.10	0.000	1.000	1.000
71.36	0.000	0.000	Strato2_3095_82743_L_0									
53 D	15.61	-3.3596E-04	214.9	78.03	214.9	107.5	UL-RL	7.2037E+04	-10.30	0.000	1.000	1.000
78.03	0.000	0.000	Strato2_3095_82743_L_0									
54 D	16.82	-2.8337E-04	218.9	84.10	218.9	109.4	UL-RL	7.2037E+04	-10.50	0.000	1.000	1.000
84.10	0.000	0.000	Strato2_3095_82743_L_0									
55 D	17.94	-2.3777E-04	222.9	89.68	222.9	111.5	UL-RL	7.2037E+04	-10.70	0.000	1.000	1.000
89.68	0.000	0.000	Strato2_3095_82743_L_0									
56 D	18.94	-1.9866E-04	226.9	94.71	226.9	113.5	UL-RL	7.2037E+04	-10.90	0.000	1.000	1.000
94.71	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.87	-1.6554E-04	231.0	99.34	231.0	115.5	UL-RL	7.2037E+04	-11.10	0.000	1.000	1.000
99.34	0.000	0.000	Strato2_3095_82743_L_0									
58 D	20.69	-1.3790E-04	234.8	103.4	234.8	117.4	UL-RL	7.2037E+04	-11.30	0.000	1.000	1.000
103.4	0.000	0.000	Strato2_3095_82743_L_0									
59 D	21.45	-1.1526E-04	238.9	107.3	238.9	119.4	UL-RL	7.2037E+04	-11.50	0.000	1.000	1.000
107.3	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.14	-9.7135E-05	242.8	110.7	242.8	121.4	UL-RL	7.2037E+04	-11.70	0.000	1.000	1.000
110.7	0.000	0.000	Strato2_3095_82743_L_0									
61 D	22.77	-8.3050E-05	246.9	113.8	246.9	123.4	UL-RL	7.2037E+04	-11.90	0.000	1.000	1.000
113.8	0.000	0.000	Strato2_3095_82743_L_0									
62 D	23.34	-7.2563E-05	250.9	116.7	250.9	125.5	UL-RL	7.2037E+04	-12.10	0.000	1.000	1.000
116.7	0.000	0.000	Strato2_3095_82743_L_0									
63 D	23.86	-6.5251E-05	254.9	119.3	254.9	127.5	UL-RL	7.2037E+04	-12.30	0.000	1.000	1.000
119.3	0.000	0.000	Strato2_3095_82743_L_0									
64 D	24.35	-6.0720E-05	259.0	121.7	259.0	129.5	UL-RL	7.2037E+04	-12.50	0.000	1.000	1.000
121.7	0.000	0.000	Strato2_3095_82743_L_0									
65 D	24.77	-5.8601E-05	262.8	123.9	262.8	131.4	UL-RL	7.2037E+04	-12.70	0.000	1.000	1.000
123.9	0.000	0.000	Strato2_3095_82743_L_0									
66 D	25.19	-5.8556E-05	266.9	125.9	266.9	133.4	UL-RL	7.2037E+04	-12.90	0.000	1.000	1.000
125.9	0.000	0.000	Strato2_3095_82743_L_0									
67 D	25.56	-6.0276E-05	270.8	127.8	270.8	135.4	UL-RL	7.2037E+04	-13.10	0.000	1.000	1.000
127.8	0.000	0.000	Strato2_3095_82743_L_0									
68 D	25.91	-6.3482E-05	274.7	129.5	274.7	137.3	UL-RL	7.2037E+04	-13.30	0.000	1.000	1.000
129.5	0.000	0.000	Strato2_3095_82743_L_0									
69 D	26.24	-6.7921E-05	278.6	131.2	278.6	139.3	UL-RL	7.2037E+04	-13.50	0.000	1.000	1.000
131.2	0.000	0.000	Strato2_3095_82743_L_0									
70 D	26.55	-7.3372E-05	282.5	132.8	282.5	141.2	UL-RL	7.2037E+04	-13.70	0.000	1.000	1.000
132.8	0.000	0.000	Strato2_3095_82743_L_0									
71 D	26.86	-7.9639E-05	286.4	134.3	286.4	143.2	UL-RL	7.2037E+04	-13.90	0.000	1.000	1.000
134.3	0.000	0.000	Strato2_3095_82743_L_0									
72 D	27.15	-8.6552E-05	290.3	135.7	290.3	145.2	UL-RL	7.2037E+04	-14.10	0.000	1.000	1.000
135.7	0.000	0.000	Strato2_3095_82743_L_0									
73 D	27.42	-9.3966E-05	294.1	137.1	294.1	147.1	UL-RL	7.2037E+04	-14.30	0.000	1.000	1.000
137.1	0.000	0.000	Strato2_3095_82743_L_0									
74 D	27.70	-1.0176E-04	298.0	138.5	298.0	149.0	UL-RL	7.2037E+04	-14.50	0.000	1.000	1.000
138.5	0.000	0.000	Strato2_3095_82743_L_0									
75 D	27.98	-1.0983E-04	302.0	139.9	302.0	151.0	UL-RL	7.2037E+04	-14.70	0.000	1.000	1.000
139.9	0.000	0.000	Strato2_3095_82743_L_0									
76 D	28.25	-1.1809E-04	305.9	141.3	305.9	152.9	UL-RL	7.2037E+04	-14.90	0.000	1.000	1.000
141.3	0.000	0.000	Strato2_3095_82743_L_0									
77 D	28.52	-1.2649E-04	309.8	142.6	309.8	154.9	UL-RL	7.2037E+04	-15.10	0.000	1.000	1.000
142.6	0.000	0.000	Strato2_3095_82743_L_0									
78 D	28.79	-1.3497E-04	313.7	144.0	313.7	156.9	UL-RL	7.2037E+04	-15.30	0.000	1.000	1.000
144.0	0.000	0.000	Strato2_3095_82743_L_0									
79 D	29.06	-1.4349E-04	317.6	145.3	317.6	158.8	UL-RL	7.2037E+04	-15.50	0.000	1.000	1.000
145.3	0.000	0.000	Strato2_3095_82743_L_0									
80 D	29.32	-1.5203E-04	321.5	146.6	321.5	160.7	UL-RL	7.2037E+04	-15.70	0.000	1.000	1.000
146.6	0.000	0.000	Strato2_3095_82743_L_0									
81 D	22.19	-1.6058E-04	325.4	147.9	325.4	162.7	UL-RL	7.2037E+04	-15.90	0.000	1.000	1.000
147.9	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.431	-1.6486E-04	327.4	148.6	327.4	163.7	UL-RL	7.2037E+04	-16.00	0.000	1.000	1.000
148.6	0.000	0.000	Strato2_3095_82743_L_0									

PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017*

NewProject.BaseDesignSection_28.AIM1R1_3484

GENERAL CONTRACTOR



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34 D	16.98	3.0824E-03	66.50	84.92	123.5	84.92	V-C	5890.	-6.500	0.000	1.000	1.000
84.92	0.000	0.000	Strato1_2_8_L_0									
35 D	17.09	2.8437E-03	70.30	85.46	127.3	85.46	V-C	5890.	-6.700	0.000	1.000	1.000
85.46	0.000	0.000	Strato1_2_8_L_0									
36 D	17.21	2.6162E-03	74.10	86.07	131.1	86.07	V-C	5890.	-6.900	0.000	1.000	1.000
86.07	0.000	0.000	Strato1_2_8_L_0									
37 D	17.35	2.3997E-03	77.90	86.75	134.9	86.75	V-C	5890.	-7.100	0.000	1.000	1.000
86.75	0.000	0.000	Strato1_2_8_L_0									
38 D	17.50	2.1943E-03	81.70	87.50	138.7	87.50	V-C	5890.	-7.300	0.000	1.000	1.000
87.50	0.000	0.000	Strato1_2_8_L_0									
39 D	17.66	1.9998E-03	85.50	88.31	142.5	88.31	V-C	5890.	-7.500	0.000	1.000	1.000
88.31	0.000	0.000	Strato1_2_8_L_0									
40 D	17.84	1.8162E-03	89.30	89.19	146.3	89.19	V-C	5890.	-7.700	0.000	1.000	1.000
89.19	0.000	0.000	Strato1_2_8_L_0									
41 D	18.03	1.6432E-03	93.10	90.13	150.1	90.13	V-C	5890.	-7.900	0.000	1.000	1.000
90.13	0.000	0.000	Strato1_2_8_L_0									
42 D	18.23	1.4809E-03	96.90	91.14	153.9	91.14	V-C	5890.	-8.100	0.000	1.000	1.000
91.14	0.000	0.000	Strato1_2_8_L_0									
43 D	18.44	1.3289E-03	100.7	92.21	157.7	92.21	V-C	5890.	-8.300	0.000	1.000	1.000
92.21	0.000	0.000	Strato1_2_8_L_0									
44 D	18.67	1.1872E-03	104.5	93.34	161.5	93.34	V-C	5890.	-8.500	0.000	1.000	1.000
93.34	0.000	0.000	Strato1_2_8_L_0									
45 D	18.91	1.0555E-03	108.3	94.53	165.3	94.53	V-C	5890.	-8.700	0.000	1.000	1.000
94.53	0.000	0.000	Strato1_2_8_L_0									
46 D	19.16	9.3369E-04	112.1	95.79	169.1	95.79	V-C	5890.	-8.900	0.000	1.000	1.000
95.79	0.000	0.000	Strato1_2_8_L_0									
47 D	19.42	8.2147E-04	115.9	97.10	172.9	97.10	V-C	5890.	-9.100	0.000	1.000	1.000
97.10	0.000	0.000	Strato1_2_8_L_0									
48 D	19.69	7.1863E-04	119.7	98.47	176.7	98.47	V-C	5890.	-9.300	0.000	1.000	1.000
98.47	0.000	0.000	Strato1_2_8_L_0									
49 D	19.98	6.2493E-04	123.5	99.89	180.5	99.89	V-C	5890.	-9.500	0.000	1.000	1.000
99.89	0.000	0.000	Strato1_2_8_L_0									
50 D	19.05	5.4011E-04	127.5	95.23	184.5	95.23	V-C	1.3014E+04	-9.700	0.000	1.000	1.000
95.23	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.09	4.6391E-04	131.5	95.46	188.5	96.53	UL-RL	3.9043E+04	-9.900	0.000	1.000	1.000
95.46	0.000	0.000	Strato2_3095_82743_L_0									
52 D	18.98	3.9599E-04	135.5	94.90	192.5	98.41	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
94.90	0.000	0.000	Strato2_3095_82743_L_0									
53 D	18.92	3.3596E-04	139.5	94.60	196.5	100.3	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
94.60	0.000	0.000	Strato2_3095_82743_L_0									
54 D	18.92	2.8337E-04	143.5	94.59	200.5	102.2	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
94.59	0.000	0.000	Strato2_3095_82743_L_0									
55 D	18.97	2.3777E-04	147.5	94.86	204.5	104.1	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
94.86	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.08	1.9866E-04	151.5	95.38	208.5	106.1	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
95.38	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.23	1.6554E-04	155.5	96.14	212.5	108.0	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
96.14	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.42	1.3790E-04	159.5	97.11	216.5	109.9	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
97.11	0.000	0.000	Strato2_3095_82743_L_0									
59 D	19.66	1.1526E-04	163.5	98.28	220.5	111.9	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
98.28	0.000	0.000	Strato2_3095_82743_L_0									
60 D	19.93	9.7135E-05	167.5	99.63	224.5	113.8	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
99.63	0.000	0.000	Strato2_3095_82743_L_0									
61 D	20.23	8.3050E-05	171.5	101.1	228.5	115.8	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0									
62 D	20.55	7.2563E-05	175.5	102.8	232.5	117.7	UL-RL	3.9043E+04	-12.10	0.000	1.000	1.000
102.8	0.000	0.000	Strato2_3095_82743_L_0									
63 D	20.91	6.5251E-05	179.5	104.5	236.5	119.7	UL-RL	3.9043E+04	-12.30	0.000	1.000	1.000
104.5	0.000	0.000	Strato2_3095_82743_L_0									
64 D	21.28	6.0720E-05	183.5	106.4	240.5	121.7	UL-RL	3.9043E+04	-12.50	0.000	1.000	1.000
106.4	0.000	0.000	Strato2_3095_82743_L_0									
65 D	21.67	5.8601E-05	187.5	108.4	244.5	123.6	UL-RL	3.9043E+04	-12.70	0.000	1.000	1.000
108.4	0.000	0.000	Strato2_3095_82743_L_0									
66 D	22.08	5.8556E-05	191.5	110.4	248.5	125.6	UL-RL	3.9043E+04	-12.90	0.000	1.000	1.000
110.4	0.000	0.000	Strato2_3095_82743_L_0									
67 D	22.50	6.0276E-05	195.5	112.5	252.5	127.6	UL-RL	3.9043E+04	-13.10	0.000	1.000	1.000
112.5	0.000	0.000	Strato2_3095_82743_L_0									
68 D	22.94	6.3482E-05	199.5	114.7	256.5	129.6	UL-RL	3.9043E+04	-13.30	0.000	1.000	1.000
114.7	0.000	0.000	Strato2_3095_82743_L_0									
69 D	23.38	6.7921E-05	203.5	116.9	260.5	131.6	UL-RL	3.9043E+04	-13.50	0.000	1.000	1.000
116.9	0.000	0.000	Strato2_3095_82743_L_0									
70 D	23.83	7.3372E-05	207.5	119.1	264.5	133.5	UL-RL	3.9043E+04	-13.70	0.000	1.000	1.000
119.1	0.000	0.000	Strato2_3095_82743_L_0									
71 D	24.28	7.9639E-05	211.5	121.4	268.5	135.5	UL-RL	3.9043E+04	-13.90	0.000	1.000	1.000
121.4	0.000	0.000	Strato2_3095_82743_L_0									
72 D	24.74	8.6552E-05	215.5	123.7	272.5	137.5	UL-RL	3.9043E+04	-14.10	0.000	1.000	1.000
123.7	0.000	0.000	Strato2_3095_82743_L_0									
73 D	25.21	9.3966E-05	219.5	126.0	276.5	139.5	UL-RL	3.9043E+04	-14.30	0.000	1.000	1.000
126.0	0.000	0.000	Strato2_3095_82743_L_0									
74 D	25.68	1.0176E-04	223.5	128.4	280.5	141.5	UL-RL	3.9043E+04	-14.50	0.000	1.000	1.000
128.4	0.000	0.000	Strato2_3095_82743_L_0									
75 D	26.14	1.0983E-04	227.5	130.7	284.5	143.5	UL-RL	3.9043E+04	-14.70	0.000	1.000	1.000
130.7	0.000	0.000	Strato2_3095_82743_L_0									
76 D	26.61	1.1809E-04	231.5	133.1	288.5	145.5	UL-RL	3.9043E+04	-14.90	0.000	1.000	1.000



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133.1	0.000	0.000	Strato2_3095_82743_L_0		
77 D	27.08	1.2649E-04	235.5 135.4	292.5	147.5
135.4	0.000	0.000	Strato2_3095_82743_L_0		
78 D	27.55	1.3497E-04	239.5 137.8	296.5	149.5
137.8	0.000	0.000	Strato2_3095_82743_L_0		
79 D	28.02	1.4349E-04	243.5 140.1	300.5	151.5
140.1	0.000	0.000	Strato2_3095_82743_L_0		
80 D	28.49	1.5203E-04	247.5 142.4	304.5	153.5
142.4	0.000	0.000	Strato2_3095_82743_L_0		
81 D	21.72	1.6058E-04	251.5 144.8	308.5	155.5
144.8	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.298	1.6486E-04	253.5 146.0	310.5	156.5
146.0	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                       |
|                               Exe Time :24 July 2019  10:49:26                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.2686	-1.2686	-1.11991E-11	0.25372
2	3.1933	-3.1933	-0.25372	0.89238
3	5.6920	-5.6920	-0.89238	2.0308
4	8.5015	-8.5015	-2.0308	3.7311
5	11.752	-11.752	-3.7311	6.0815
6	15.327	-15.327	-6.0815	9.1469
7	19.313	-19.313	-9.1469	13.009
8	23.632	-23.632	-13.009	17.736
9	28.275	-28.275	-17.736	23.391
10	33.265	-33.265	-23.391	30.044
11	38.651	-38.651	-30.044	37.774
12	44.387	-44.387	-37.774	46.651
13	48.980	-48.980	-46.651	51.549
14	53.700	-53.700	-51.549	62.289
15	60.345	-60.345	-62.289	74.358
16	67.374	-67.374	-74.358	87.833
17	73.221	-73.221	-87.833	102.48
18	76.378	-76.378	-102.48	117.75
19	76.816	-76.816	-117.75	133.12
20	74.563	-74.563	-133.12	148.03
21	69.561	-69.561	-148.03	161.94
22	62.082	-62.082	-161.94	174.36
23	55.017	-55.017	-174.36	185.36
24	48.337	-48.337	-185.36	195.03
25	42.049	-42.049	-195.03	203.44
26	36.125	-36.125	-203.44	210.66
27	30.570	-30.570	-210.66	216.78
28	25.330	-25.330	-216.78	221.84
29	20.435	-20.435	-221.84	225.93
30	15.855	-15.855	-225.93	229.10
31	11.594	-11.594	-229.10	231.42
32	7.6215	-7.6215	-231.42	232.94
33	3.9400	-3.9400	-232.94	233.73
34	0.52125	-0.52125	-233.73	233.84
35	-2.6341	2.6341	-233.84	233.31
36	-5.5582	5.5582	-233.31	232.20
37	-8.2593	8.2593	-232.20	230.55
38	-10.738	10.738	-230.55	228.40
39	-13.020	13.020	-228.40	225.79
40	-15.106	15.106	-225.79	222.77
41	-17.022	17.022	-222.77	219.37
42	-18.769	18.769	-219.37	215.61
43	-20.386	20.386	-215.61	211.54
44	-21.859	21.859	-211.54	207.17
45	-23.211	23.211	-207.17	202.52
46	-24.444	24.444	-202.52	197.63
47	-25.580	25.580	-197.63	192.52
48	-26.619	26.619	-192.52	187.19
49	-27.575	27.575	-187.19	181.68

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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50	-35.363	35.363	-181.68	174.61
51	-41.631	41.631	-174.61	166.28
52	-46.340	46.340	-166.28	157.01
53	-49.652	49.652	-157.01	147.08
54	-51.749	51.749	-147.08	136.73
55	-52.785	52.785	-136.73	126.18
56	-52.918	52.918	-126.18	115.59
57	-52.279	52.279	-115.59	105.14
58	-51.015	51.015	-105.14	94.934
59	-49.222	49.222	-94.934	85.089
60	-47.012	47.012	-85.089	75.687
61	-44.471	44.471	-75.687	66.793
62	-41.682	41.682	-66.793	58.456
63	-38.727	38.727	-58.456	50.711
64	-35.663	35.663	-50.711	43.578
65	-32.563	32.563	-43.578	37.066
66	-29.457	29.457	-37.066	31.175
67	-26.400	26.400	-31.175	25.895
68	-23.428	23.428	-25.895	21.209
69	-20.567	20.567	-21.209	17.096
70	-17.841	17.841	-17.096	13.527
71	-15.269	15.269	-13.527	10.474
72	-12.864	12.864	-10.474	7.9009
73	-10.649	10.649	-7.9009	5.7711
74	-8.6207	8.6207	-5.7711	4.0470
75	-6.7865	6.7865	-4.0470	2.6897
76	-5.1502	5.1502	-2.6897	1.6596
77	-3.7133	3.7133	-1.6596	0.91699
78	-2.4751	2.4751	-0.91699	0.42197
79	-1.4366	1.4366	-0.42197	0.13465
80	-0.60642	0.60642	-0.13465	1.33671E-02
81	-0.13366	0.13366	-1.33671E-02	-1.95799E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                       |
|                               Exe Time :24 July 2019      10:49:26                             |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2847E+06  RIMNOR=0.3210E+07
            RENORM=0.2497E+05  REMNOR=0.5956E-18  RATIO =0.2962      TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 158.0      RMMAX = 233.8
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.2847E+06  RDR =0.3210E+07
            RATIOT=0.2962      RATIOR= 0.000
            MAX UN=0.2181E-08  IEQ= 21 NODE      11 DOF  1  Y-DISPL.F
            MIN UN=-158.0      IEQ= 27 NODE      14 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2847E+06  RIMNOR=0.3210E+07
            RENORM= 206.3      REMNOR=0.4892E-18  RATIO =0.2692E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 158.0      RMMAX = 233.8
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.2847E+06  RDR =0.3210E+07
            RATIOT=0.2692E-01  RATIOR= 0.000
            MAX UN=0.4786E-09  IEQ= 26 NODE      13 DOF  2  X-ROT. F
            MIN UN=-4.063      IEQ= 33 NODE      17 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2847E+06  RIMNOR=0.3210E+07
            RENORM= 2.768      REMNOR=0.2414E-18  RATIO =0.3118E-02  TOLER =0.1000E-03  NOT CONVERGED

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RFMAX = 158.0 RMMAX = 233.8
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.2847E+06 RDR =0.3210E+07
 RATIO=0.3118E-02 RATIO= 0.000
 MAX UN=0.1515 IEQ= 101 NODE 51 DOF 1 Y-DISPL.F
 MIN UN=-1.514 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2847E+06 RIMNOR=0.3210E+07
 RENORM=0.1784E-02 REMNOR=0.4675E-18 RATIO =0.7916E-04 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 158.0 RMMAX = 233.8
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.2847E+06 RDR =0.3210E+07
 RATIO=0.7916E-04 RATIO= 0.000
 MAX UN=0.2438E-01 IEQ= 89 NODE 45 DOF 1 Y-DISPL.F
 MIN UN=-.8269E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|                                     PARATIEPLUS (TM)   NLS ENGINE RELEASE   2017.1   FULL VERSION   *Build date:Jul 11, 2017*
|
|                                     NewProject.BaseDesignSection_28.AlMlRl_3484
|                                     Exe Time :24 July 2019      10:49:26
|
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New Project
 SOLUTION REACHED USING 4 ITERATIONS ON 100
 PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)
 PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.1920179E-02	-1.6702038E-03	
2	1.1586145E-02	-1.6701094E-03	
3	1.1252159E-02	-1.6696560E-03	
4	1.0918329E-02	-1.6684921E-03	
5	1.0584834E-02	-1.6662498E-03	
6	1.0251927E-02	-1.6625486E-03	
7	9.9199383E-03	-1.6569948E-03	
8	9.5892795E-03	-1.6491823E-03	
9	9.2604438E-03	-1.6386929E-03	
10	8.9340094E-03	-1.6250978E-03	
11	8.6106410E-03	-1.6079581E-03	
12	8.2910925E-03	-1.5868227E-03	
13	7.9762092E-03	-1.5612286E-03	
14	7.8208059E-03	-1.5466266E-03	
15	7.5144578E-03	-1.5172017E-03	
16	7.2138027E-03	-1.4896141E-03	
17	6.9185231E-03	-1.4633620E-03	
18	6.6284029E-03	-1.4379356E-03	
19	6.3433280E-03	-1.4128231E-03	
20	6.0632843E-03	-1.3875510E-03	
21	5.7883421E-03	-1.3617610E-03	
22	5.5186281E-03	-1.3352474E-03	
23	5.2542952E-03	-1.3079520E-03	
24	4.9954985E-03	-1.2798886E-03	
25	4.7423899E-03	-1.2510740E-03	
26	4.4951177E-03	-1.2215279E-03	
27	4.2538272E-03	-1.1912731E-03	
28	4.0186552E-03	-1.1603343E-03	
29	3.7897372E-03	-1.1287392E-03	
30	3.5672013E-03	-1.0965176E-03	
31	3.3511698E-03	-1.0637005E-03	
32	3.1417597E-03	-1.0303199E-03	
33	2.9390784E-03	-9.9640742E-04	
34	2.7432301E-03	-9.6199534E-04	
35	2.5543115E-03	-9.2711517E-04	
36	2.3724131E-03	-8.9179825E-04	
37	2.1976189E-03	-8.5607968E-04	
38	2.0300060E-03	-8.2000187E-04	
39	1.8696398E-03	-7.8361237E-04	
40	1.7165783E-03	-7.4696407E-04	
41	1.5708677E-03	-7.1011364E-04	
42	1.4325424E-03	-6.7312086E-04	
43	1.3016253E-03	-6.3604817E-04	
44	1.1781248E-03	-5.9895958E-04	
45	1.0620381E-03	-5.6192117E-04	
46	9.5334864E-04	-5.2499833E-04	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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12 D	9.865	-8.2911E-03	59.99	49.33	59.99	49.33	V-C	8488.	-2.200	0.000	1.000	1.000
49.33	0.000	0.000	Strato1_2_8_L_0									
13 D	7.596	-7.9762E-03	64.06	50.64	64.06	50.64	V-C	8488.	-2.400	0.000	1.000	1.000
50.64	0.000	0.000	Strato1_2_8_L_0									
14 D	7.672	-7.8208E-03	65.83	51.15	65.83	51.15	V-C	8488.	-2.500	0.000	1.000	1.000
51.15	0.000	0.000	Strato1_2_8_L_0									
15 D	10.44	-7.5145E-03	69.51	52.22	69.51	52.22	V-C	8488.	-2.700	0.000	1.000	1.000
52.22	0.000	0.000	Strato1_2_8_L_0									
16 D	10.69	-7.2138E-03	73.53	53.45	73.53	53.45	V-C	8488.	-2.900	0.000	1.000	1.000
53.45	0.000	0.000	Strato1_2_8_L_0									
17 D	10.90	-6.9185E-03	77.22	54.48	77.22	54.48	V-C	8488.	-3.100	0.000	1.000	1.000
54.48	0.000	0.000	Strato1_2_8_L_0									
18 D	11.13	-6.6284E-03	81.21	55.67	81.21	55.67	V-C	8488.	-3.300	0.000	1.000	1.000
55.67	0.000	0.000	Strato1_2_8_L_0									
19 D	11.34	-6.3433E-03	84.90	56.70	84.90	56.70	V-C	8488.	-3.500	0.000	1.000	1.000
56.70	0.000	0.000	Strato1_2_8_L_0									
20 D	11.58	-6.0633E-03	88.87	57.88	88.87	57.88	V-C	8488.	-3.700	0.000	1.000	1.000
57.88	0.000	0.000	Strato1_2_8_L_0									
21 D	11.75	-5.7883E-03	92.24	58.76	92.24	58.76	V-C	8488.	-3.900	0.000	1.000	1.000
58.76	0.000	0.000	Strato1_2_8_L_0									
22 D	11.99	-5.5186E-03	96.21	59.96	96.21	59.96	V-C	8488.	-4.100	0.000	1.000	1.000
59.96	0.000	0.000	Strato1_2_8_L_0									
23 D	12.23	-5.2543E-03	100.2	61.17	100.2	61.17	V-C	8488.	-4.300	0.000	1.000	1.000
61.17	0.000	0.000	Strato1_2_8_L_0									
24 D	12.46	-4.9955E-03	103.9	62.29	103.9	62.29	V-C	8488.	-4.500	0.000	1.000	1.000
62.29	0.000	0.000	Strato1_2_8_L_0									
25 D	12.71	-4.7424E-03	107.8	63.54	107.8	63.54	V-C	8488.	-4.700	0.000	1.000	1.000
63.54	0.000	0.000	Strato1_2_8_L_0									
26 D	12.94	-4.4951E-03	111.5	64.71	111.5	64.71	V-C	8488.	-4.900	0.000	1.000	1.000
64.71	0.000	0.000	Strato1_2_8_L_0									
27 D	13.20	-4.2538E-03	115.5	66.02	115.5	66.02	V-C	8488.	-5.100	0.000	1.000	1.000
66.02	0.000	0.000	Strato1_2_8_L_0									
28 D	13.43	-4.0187E-03	118.9	67.13	118.9	67.13	V-C	8488.	-5.300	0.000	1.000	1.000
67.13	0.000	0.000	Strato1_2_8_L_0									
29 D	13.70	-3.7897E-03	122.9	68.51	122.9	68.51	V-C	8488.	-5.500	0.000	1.000	1.000
68.51	0.000	0.000	Strato1_2_8_L_0									
30 D	13.96	-3.5672E-03	126.6	69.82	126.6	69.82	V-C	8488.	-5.700	0.000	1.000	1.000
69.82	0.000	0.000	Strato1_2_8_L_0									
31 D	14.25	-3.3512E-03	130.5	71.26	130.5	71.26	V-C	8488.	-5.900	0.000	1.000	1.000
71.26	0.000	0.000	Strato1_2_8_L_0									
32 D	14.53	-3.1418E-03	134.2	72.65	134.2	72.65	V-C	8488.	-6.100	0.000	1.000	1.000
72.65	0.000	0.000	Strato1_2_8_L_0									
33 D	14.83	-2.9391E-03	138.1	74.16	138.1	74.16	V-C	8488.	-6.300	0.000	1.000	1.000
74.16	0.000	0.000	Strato1_2_8_L_0									
34 D	15.12	-2.7432E-03	141.9	75.62	141.9	75.62	V-C	8488.	-6.500	0.000	1.000	1.000
75.62	0.000	0.000	Strato1_2_8_L_0									
35 D	15.41	-2.5543E-03	145.8	77.06	145.8	77.27	UL-RL	2.5465E+04	-6.700	0.000	1.000	1.000
77.06	0.000	0.000	Strato1_2_8_L_0									
36 D	15.53	-2.3724E-03	149.5	77.66	149.5	79.23	UL-RL	2.5465E+04	-6.900	0.000	1.000	1.000
77.66	0.000	0.000	Strato1_2_8_L_0									
37 D	15.68	-2.1976E-03	153.2	78.39	153.2	81.21	UL-RL	2.5465E+04	-7.100	0.000	1.000	1.000
78.39	0.000	0.000	Strato1_2_8_L_0									
38 D	15.86	-2.0300E-03	157.1	79.29	157.1	83.27	UL-RL	2.5465E+04	-7.300	0.000	1.000	1.000
79.29	0.000	0.000	Strato1_2_8_L_0									
39 D	16.04	-1.8696E-03	160.9	80.21	160.9	85.26	UL-RL	2.5465E+04	-7.500	0.000	1.000	1.000
80.21	0.000	0.000	Strato1_2_8_L_0									
40 D	16.26	-1.7166E-03	164.8	81.29	164.8	87.32	UL-RL	2.5465E+04	-7.700	0.000	1.000	1.000
81.29	0.000	0.000	Strato1_2_8_L_0									
41 D	16.48	-1.5709E-03	168.5	82.39	168.5	89.31	UL-RL	2.5465E+04	-7.900	0.000	1.000	1.000
82.39	0.000	0.000	Strato1_2_8_L_0									
42 D	16.73	-1.4325E-03	172.4	83.63	172.4	91.37	UL-RL	2.5465E+04	-8.100	0.000	1.000	1.000
83.63	0.000	0.000	Strato1_2_8_L_0									
43 D	16.96	-1.3016E-03	176.0	84.82	176.0	93.27	UL-RL	2.5465E+04	-8.300	0.000	1.000	1.000
84.82	0.000	0.000	Strato1_2_8_L_0									
44 D	17.24	-1.1781E-03	179.9	86.20	179.9	95.33	UL-RL	2.5465E+04	-8.500	0.000	1.000	1.000
86.20	0.000	0.000	Strato1_2_8_L_0									
45 D	17.57	-1.0620E-03	183.6	87.85	183.6	97.32	UL-RL	2.5465E+04	-8.700	0.000	1.000	1.000
87.85	0.000	0.000	Strato1_2_8_L_0									
46 D	17.94	-9.5335E-04	187.5	89.69	187.5	99.37	UL-RL	2.5465E+04	-8.900	0.000	1.000	1.000
89.69	0.000	0.000	Strato1_2_8_L_0									
47 D	18.30	-8.5203E-04	191.3	91.48	191.3	101.4	UL-RL	2.5465E+04	-9.100	0.000	1.000	1.000
91.48	0.000	0.000	Strato1_2_8_L_0									
48 D	18.66	-7.5803E-04	195.1	93.32	195.1	103.4	UL-RL	2.5465E+04	-9.300	0.000	1.000	1.000
93.32	0.000	0.000	Strato1_2_8_L_0									
49 D	19.03	-6.7131E-04	199.0	95.16	199.0	105.5	UL-RL	2.5465E+04	-9.500	0.000	1.000	1.000
95.16	0.000	0.000	Strato1_2_8_L_0									
50 D	10.51	-5.9180E-04	203.0	52.56	203.0	101.5	UL-RL	7.2037E+04	-9.700	0.000	1.000	1.000
52.56	0.000	0.000	Strato2_3095_82743_L_0									
51 D	12.03	-5.1942E-04	206.9	60.13	206.9	103.4	UL-RL	7.2037E+04	-9.900	0.000	1.000	1.000
60.13	0.000	0.000	Strato2_3095_82743_L_0									
52 D	13.44	-4.5401E-04	210.8	67.18	210.8	105.4	UL-RL	7.2037E+04	-10.10	0.000	1.000	1.000
67.18	0.000	0.000	Strato2_3095_82743_L_0									
53 D	14.75	-3.9535E-04	214.9	73.76	214.9	107.5	UL-RL	7.2037E+04	-10.30	0.000	1.000	1.000
73.76	0.000	0.000	Strato2_3095_82743_L_0									
54 D	15.96	-3.4316E-04	218.9	79.79	218.9	109.4	UL-RL	7.2037E+04	-10.50	0.000	1.000	1.000



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79.79	0.000	0.000	Strato2_3095_82743_L_0									
55 D	17.08	-2.9712E-04	222.9	85.40	222.9	111.5	UL-RL	7.2037E+04	-10.70	0.000	1.000	1.000
85.40	0.000	0.000	Strato2_3095_82743_L_0									
56 D	18.10	-2.5688E-04	226.9	90.52	226.9	113.5	UL-RL	7.2037E+04	-10.90	0.000	1.000	1.000
90.52	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.05	-2.2204E-04	231.0	95.27	231.0	115.5	UL-RL	7.2037E+04	-11.10	0.000	1.000	1.000
95.27	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.90	-1.9222E-04	234.8	99.52	234.8	117.4	UL-RL	7.2037E+04	-11.30	0.000	1.000	1.000
99.52	0.000	0.000	Strato2_3095_82743_L_0									
59 D	20.70	-1.6703E-04	238.9	103.5	238.9	119.4	UL-RL	7.2037E+04	-11.50	0.000	1.000	1.000
103.5	0.000	0.000	Strato2_3095_82743_L_0									
60 D	21.43	-1.4606E-04	242.8	107.2	242.8	121.4	UL-RL	7.2037E+04	-11.70	0.000	1.000	1.000
107.2	0.000	0.000	Strato2_3095_82743_L_0									
61 D	22.11	-1.2892E-04	246.9	110.5	246.9	123.4	UL-RL	7.2037E+04	-11.90	0.000	1.000	1.000
110.5	0.000	0.000	Strato2_3095_82743_L_0									
62 D	22.73	-1.1522E-04	250.9	113.6	250.9	125.5	UL-RL	7.2037E+04	-12.10	0.000	1.000	1.000
113.6	0.000	0.000	Strato2_3095_82743_L_0									
63 D	23.29	-1.0461E-04	254.9	116.5	254.9	127.5	UL-RL	7.2037E+04	-12.30	0.000	1.000	1.000
116.5	0.000	0.000	Strato2_3095_82743_L_0									
64 D	23.83	-9.6727E-05	259.0	119.1	259.0	129.5	UL-RL	7.2037E+04	-12.50	0.000	1.000	1.000
119.1	0.000	0.000	Strato2_3095_82743_L_0									
65 D	24.30	-9.1243E-05	262.8	121.5	262.8	131.4	UL-RL	7.2037E+04	-12.70	0.000	1.000	1.000
121.5	0.000	0.000	Strato2_3095_82743_L_0									
66 D	24.77	-8.7850E-05	266.9	123.8	266.9	133.4	UL-RL	7.2037E+04	-12.90	0.000	1.000	1.000
123.8	0.000	0.000	Strato2_3095_82743_L_0									
67 D	25.19	-8.6261E-05	270.8	125.9	270.8	135.4	UL-RL	7.2037E+04	-13.10	0.000	1.000	1.000
125.9	0.000	0.000	Strato2_3095_82743_L_0									
68 D	25.58	-8.6211E-05	274.7	127.9	274.7	137.3	UL-RL	7.2037E+04	-13.30	0.000	1.000	1.000
127.9	0.000	0.000	Strato2_3095_82743_L_0									
69 D	25.96	-8.7462E-05	278.6	129.8	278.6	139.3	UL-RL	7.2037E+04	-13.50	0.000	1.000	1.000
129.8	0.000	0.000	Strato2_3095_82743_L_0									
70 D	26.32	-8.9797E-05	282.5	131.6	282.5	141.2	UL-RL	7.2037E+04	-13.70	0.000	1.000	1.000
131.6	0.000	0.000	Strato2_3095_82743_L_0									
71 D	26.66	-9.3022E-05	286.4	133.3	286.4	143.2	UL-RL	7.2037E+04	-13.90	0.000	1.000	1.000
133.3	0.000	0.000	Strato2_3095_82743_L_0									
72 D	27.00	-9.6965E-05	290.3	135.0	290.3	145.2	UL-RL	7.2037E+04	-14.10	0.000	1.000	1.000
135.0	0.000	0.000	Strato2_3095_82743_L_0									
73 D	27.32	-1.0148E-04	294.1	136.6	294.1	147.1	UL-RL	7.2037E+04	-14.30	0.000	1.000	1.000
136.6	0.000	0.000	Strato2_3095_82743_L_0									
74 D	27.64	-1.0643E-04	298.0	138.2	298.0	149.0	UL-RL	7.2037E+04	-14.50	0.000	1.000	1.000
138.2	0.000	0.000	Strato2_3095_82743_L_0									
75 D	27.95	-1.1171E-04	302.0	139.8	302.0	151.0	UL-RL	7.2037E+04	-14.70	0.000	1.000	1.000
139.8	0.000	0.000	Strato2_3095_82743_L_0									
76 D	28.26	-1.1724E-04	305.9	141.3	305.9	152.9	UL-RL	7.2037E+04	-14.90	0.000	1.000	1.000
141.3	0.000	0.000	Strato2_3095_82743_L_0									
77 D	28.57	-1.2292E-04	309.8	142.9	309.8	154.9	UL-RL	7.2037E+04	-15.10	0.000	1.000	1.000
142.9	0.000	0.000	Strato2_3095_82743_L_0									
78 D	28.88	-1.2872E-04	313.7	144.4	313.7	156.9	UL-RL	7.2037E+04	-15.30	0.000	1.000	1.000
144.4	0.000	0.000	Strato2_3095_82743_L_0									
79 D	29.19	-1.3457E-04	317.6	145.9	317.6	158.8	UL-RL	7.2037E+04	-15.50	0.000	1.000	1.000
145.9	0.000	0.000	Strato2_3095_82743_L_0									
80 D	29.49	-1.4046E-04	321.5	147.4	321.5	160.7	UL-RL	7.2037E+04	-15.70	0.000	1.000	1.000
147.4	0.000	0.000	Strato2_3095_82743_L_0									
81 D	22.34	-1.4636E-04	325.4	149.0	325.4	162.7	UL-RL	7.2037E+04	-15.90	0.000	1.000	1.000
149.0	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.487	-1.4931E-04	327.4	149.7	327.4	163.7	UL-RL	7.2037E+04	-16.00	0.000	1.000	1.000
149.7	0.000	0.000	Strato2_3095_82743_L_0									

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|
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      10:49:26
|
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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0.000	0.000	0.000	not available		
2	0.000	--	--	--	--
0.000	0.000	0.000	not available		
3	0.000	--	--	--	--
0.000	0.000	0.000	not available		
4	0.000	--	--	--	--
0.000	0.000	0.000	not available		
5	0.000	--	--	--	--
0.000	0.000	0.000	not available		
6	0.000	--	--	--	--
0.000	0.000	0.000	not available		
7	0.000	--	--	--	--
0.000	0.000	0.000	not available		
8	0.000	--	--	--	--
0.000	0.000	0.000	not available		
9	0.000	--	--	--	--
0.000	0.000	0.000	not available		
10	0.000	--	--	--	--
0.000	0.000	0.000	not available		
11	0.000	--	--	--	--
0.000	0.000	0.000	not available		
12	0.000	--	--	--	--
0.000	0.000	0.000	not available		
13	0.000	--	--	--	--
0.000	0.000	0.000	not available		
14	0.000	--	--	--	--
0.000	0.000	0.000	not available		
15	0.000	--	--	--	--
0.000	0.000	0.000	not available		
16	0.000	--	--	--	--
0.000	0.000	0.000	not available		
17 D	0.1155	6.9185E-03	1.900 0.5776	58.90	36.88
0.5776	0.000	0.000	Strato1_2_8_L_0		
18 D	0.3466	6.6284E-03	5.700 1.733	62.70	38.71
1.733	0.000	0.000	Strato1_2_8_L_0		
19 D	2.193	6.3433E-03	9.500 10.96	66.50	40.53
10.96	0.000	0.000	Strato1_2_8_L_0		
20 D	5.621	6.0633E-03	13.30 28.11	70.30	53.75
28.11	0.000	0.000	Strato1_2_8_L_0		
21 D	9.045	5.7883E-03	17.10 45.23	74.10	69.10
45.23	0.000	0.000	Strato1_2_8_L_0		
22 D	12.25	5.5186E-03	20.90 61.25	77.90	83.39
61.25	0.000	0.000	Strato1_2_8_L_0		
23 D	12.55	5.2543E-03	24.70 62.75	81.70	83.20
62.75	0.000	0.000	Strato1_2_8_L_0		
24 D	12.85	4.9955E-03	28.50 64.25	85.50	83.05
64.25	0.000	0.000	Strato1_2_8_L_0		
25 D	13.15	4.7424E-03	32.30 65.75	89.30	82.97
65.75	0.000	0.000	Strato1_2_8_L_0		
26 D	13.45	4.4951E-03	36.10 67.25	93.10	82.94
67.25	0.000	0.000	Strato1_2_8_L_0		
27 D	13.75	4.2538E-03	39.90 68.74	96.90	82.96
68.74	0.000	0.000	Strato1_2_8_L_0		
28 D	14.04	4.0187E-03	43.70 70.22	100.7	83.05
70.22	0.000	0.000	Strato1_2_8_L_0		
29 D	14.34	3.7897E-03	47.50 71.70	104.5	83.20
71.70	0.000	0.000	Strato1_2_8_L_0		
30 D	14.63	3.5672E-03	51.30 73.16	108.3	83.41
73.16	0.000	0.000	Strato1_2_8_L_0		
31 D	14.92	3.3512E-03	55.10 74.62	112.1	83.69
74.62	0.000	0.000	Strato1_2_8_L_0		
32 D	15.21	3.1418E-03	58.90 76.06	115.9	84.03
76.06	0.000	0.000	Strato1_2_8_L_0		
33 D	15.50	2.9391E-03	62.70 77.50	119.7	84.44
77.50	0.000	0.000	Strato1_2_8_L_0		
34 D	15.79	2.7432E-03	66.50 78.93	123.5	84.92
78.93	0.000	0.000	Strato1_2_8_L_0		
35 D	16.07	2.5543E-03	70.30 80.35	127.3	85.46
80.35	0.000	0.000	Strato1_2_8_L_0		
36 D	16.35	2.3724E-03	74.10 81.77	131.1	86.07
81.77	0.000	0.000	Strato1_2_8_L_0		
37 D	16.64	2.1976E-03	77.90 83.18	134.9	86.75
83.18	0.000	0.000	Strato1_2_8_L_0		
38 D	16.92	2.0300E-03	81.70 84.59	138.7	87.50
84.59	0.000	0.000	Strato1_2_8_L_0		
39 D	17.20	1.8696E-03	85.50 86.01	142.5	88.31
86.01	0.000	0.000	Strato1_2_8_L_0		
40 D	17.49	1.7166E-03	89.30 87.43	146.3	89.19
87.43	0.000	0.000	Strato1_2_8_L_0		
41 D	17.77	1.5709E-03	93.10 88.85	150.1	90.13
88.85	0.000	0.000	Strato1_2_8_L_0		
42 D	18.06	1.4325E-03	96.90 90.28	153.9	91.14
90.28	0.000	0.000	Strato1_2_8_L_0		
43 D	18.34	1.3016E-03	100.7 91.72	157.7	92.21
91.72	0.000	0.000	Strato1_2_8_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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44 D	18.64	1.1781E-03	104.5	93.18	161.5	93.34	UL-RL	1.7671E+04	-8.500	0.000	1.000	1.000
93.18	0.000	0.000	Strato1_2_8_L_0									
45 D	18.91	1.0620E-03	108.3	94.53	165.3	94.59	UL-RL	1.7671E+04	-8.700	0.000	1.000	1.000
94.53	0.000	0.000	Strato1_2_8_L_0									
46 D	19.17	9.5335E-04	112.1	95.87	169.1	95.92	UL-RL	1.7671E+04	-8.900	0.000	1.000	1.000
95.87	0.000	0.000	Strato1_2_8_L_0									
47 D	19.45	8.5203E-04	115.9	97.25	172.9	97.29	UL-RL	1.7671E+04	-9.100	0.000	1.000	1.000
97.25	0.000	0.000	Strato1_2_8_L_0									
48 D	19.74	7.5803E-04	119.7	98.68	176.7	98.71	UL-RL	1.7671E+04	-9.300	0.000	1.000	1.000
98.68	0.000	0.000	Strato1_2_8_L_0									
49 D	20.03	6.7131E-04	123.5	100.1	180.5	100.2	UL-RL	1.7671E+04	-9.500	0.000	1.000	1.000
100.1	0.000	0.000	Strato1_2_8_L_0									
50 D	19.17	5.9180E-04	127.5	95.87	184.5	95.92	UL-RL	3.9043E+04	-9.700	0.000	1.000	1.000
95.87	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.37	5.1942E-04	131.5	96.87	188.5	96.91	UL-RL	3.9043E+04	-9.900	0.000	1.000	1.000
96.87	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.43	4.5401E-04	135.5	97.16	192.5	98.41	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
97.16	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.38	3.9535E-04	139.5	96.91	196.5	100.3	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
96.91	0.000	0.000	Strato2_3095_82743_L_0									
54 D	19.38	3.4316E-04	143.5	96.92	200.5	102.2	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
96.92	0.000	0.000	Strato2_3095_82743_L_0									
55 D	19.43	2.9712E-04	147.5	97.17	204.5	104.1	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
97.17	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.53	2.5688E-04	151.5	97.65	208.5	106.1	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
97.65	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.67	2.2204E-04	155.5	98.35	212.5	108.0	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
98.35	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.85	1.9222E-04	159.5	99.23	216.5	109.9	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
99.23	0.000	0.000	Strato2_3095_82743_L_0									
59 D	20.06	1.6703E-04	163.5	100.3	220.5	111.9	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
100.3	0.000	0.000	Strato2_3095_82743_L_0									
60 D	20.31	1.4606E-04	167.5	101.5	224.5	113.8	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
101.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	20.58	1.2892E-04	171.5	102.9	228.5	115.8	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000
102.9	0.000	0.000	Strato2_3095_82743_L_0									
62 D	20.89	1.1522E-04	175.5	104.4	232.5	117.7	UL-RL	3.9043E+04	-12.10	0.000	1.000	1.000
104.4	0.000	0.000	Strato2_3095_82743_L_0									
63 D	21.21	1.0461E-04	179.5	106.1	236.5	119.7	UL-RL	3.9043E+04	-12.30	0.000	1.000	1.000
106.1	0.000	0.000	Strato2_3095_82743_L_0									
64 D	21.56	9.6727E-05	183.5	107.8	240.5	121.7	UL-RL	3.9043E+04	-12.50	0.000	1.000	1.000
107.8	0.000	0.000	Strato2_3095_82743_L_0									
65 D	21.93	9.1243E-05	187.5	109.6	244.5	123.6	UL-RL	3.9043E+04	-12.70	0.000	1.000	1.000
109.6	0.000	0.000	Strato2_3095_82743_L_0									
66 D	22.31	8.7850E-05	191.5	111.6	248.5	125.6	UL-RL	3.9043E+04	-12.90	0.000	1.000	1.000
111.6	0.000	0.000	Strato2_3095_82743_L_0									
67 D	22.71	8.6261E-05	195.5	113.5	252.5	127.6	UL-RL	3.9043E+04	-13.10	0.000	1.000	1.000
113.5	0.000	0.000	Strato2_3095_82743_L_0									
68 D	23.11	8.6211E-05	199.5	115.6	256.5	129.6	UL-RL	3.9043E+04	-13.30	0.000	1.000	1.000
115.6	0.000	0.000	Strato2_3095_82743_L_0									
69 D	23.53	8.7462E-05	203.5	117.7	260.5	131.6	UL-RL	3.9043E+04	-13.50	0.000	1.000	1.000
117.7	0.000	0.000	Strato2_3095_82743_L_0									
70 D	23.96	8.9797E-05	207.5	119.8	264.5	133.5	UL-RL	3.9043E+04	-13.70	0.000	1.000	1.000
119.8	0.000	0.000	Strato2_3095_82743_L_0									
71 D	24.39	9.3022E-05	211.5	121.9	268.5	135.5	UL-RL	3.9043E+04	-13.90	0.000	1.000	1.000
121.9	0.000	0.000	Strato2_3095_82743_L_0									
72 D	24.83	9.6965E-05	215.5	124.1	272.5	137.5	UL-RL	3.9043E+04	-14.10	0.000	1.000	1.000
124.1	0.000	0.000	Strato2_3095_82743_L_0									
73 D	25.27	1.0148E-04	219.5	126.3	276.5	139.5	UL-RL	3.9043E+04	-14.30	0.000	1.000	1.000
126.3	0.000	0.000	Strato2_3095_82743_L_0									
74 D	25.71	1.0643E-04	223.5	128.6	280.5	141.5	UL-RL	3.9043E+04	-14.50	0.000	1.000	1.000
128.6	0.000	0.000	Strato2_3095_82743_L_0									
75 D	26.16	1.1171E-04	227.5	130.8	284.5	143.5	UL-RL	3.9043E+04	-14.70	0.000	1.000	1.000
130.8	0.000	0.000	Strato2_3095_82743_L_0									
76 D	26.61	1.1724E-04	231.5	133.0	288.5	145.5	UL-RL	3.9043E+04	-14.90	0.000	1.000	1.000
133.0	0.000	0.000	Strato2_3095_82743_L_0									
77 D	27.06	1.2292E-04	235.5	135.3	292.5	147.5	UL-RL	3.9043E+04	-15.10	0.000	1.000	1.000
135.3	0.000	0.000	Strato2_3095_82743_L_0									
78 D	27.50	1.2872E-04	239.5	137.5	296.5	149.5	UL-RL	3.9043E+04	-15.30	0.000	1.000	1.000
137.5	0.000	0.000	Strato2_3095_82743_L_0									
79 D	27.95	1.3457E-04	243.5	139.8	300.5	151.5	UL-RL	3.9043E+04	-15.50	0.000	1.000	1.000
139.8	0.000	0.000	Strato2_3095_82743_L_0									
80 D	28.40	1.4046E-04	247.5	142.0	304.5	153.5	UL-RL	3.9043E+04	-15.70	0.000	1.000	1.000
142.0	0.000	0.000	Strato2_3095_82743_L_0									
81 D	21.63	1.4636E-04	251.5	144.2	308.5	155.5	UL-RL	3.9043E+04	-15.90	0.000	1.000	1.000
144.2	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.267	1.4931E-04	253.5	145.3	310.5	156.5	UL-RL	3.9043E+04	-16.00	0.000	1.000	1.000
145.3	0.000	0.000	Strato2_3095_82743_L_0									

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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| Exe Time :24 July 2019 10:49:26 |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.9775	-3.9775	-1.55351E-10	0.79550
2	11.142	-11.142	-0.79550	3.0239
3	18.789	-18.789	-3.0239	6.7816
4	26.635	-26.635	-6.7816	12.109
5	34.819	-34.819	-12.109	19.072
6	43.218	-43.218	-19.072	27.716
7	51.920	-51.920	-27.716	38.100
8	60.843	-60.843	-38.100	50.269
9	69.973	-69.973	-50.269	64.263
10	79.334	-79.334	-64.263	80.130
11	88.975	-88.975	-80.130	97.925
12	98.840	-98.840	-97.925	117.69
13	106.44	-106.44	-117.69	128.34
14	-43.917	43.917	-128.34	119.55
15	-33.473	33.473	-119.55	112.86
16	-22.783	22.783	-112.86	108.30
17	-12.002	12.002	-108.30	105.90
18	-1.2144	1.2144	-105.90	105.66
19	7.9328	-7.9328	-105.66	107.25
20	13.887	-13.887	-107.25	110.02
21	16.593	-16.593	-110.02	113.34
22	16.335	-16.335	-113.34	116.61
23	16.019	-16.019	-116.61	119.81
24	15.626	-15.626	-119.81	122.94
25	15.183	-15.183	-122.94	125.97
26	14.676	-14.676	-125.97	128.91
27	14.131	-14.131	-128.91	131.74
28	13.514	-13.514	-131.74	134.44
29	12.876	-12.876	-134.44	137.01
30	12.208	-12.208	-137.01	139.45
31	11.538	-11.538	-139.45	141.76
32	10.856	-10.856	-141.76	143.93
33	10.189	-10.189	-143.93	145.97
34	9.5281	-9.5281	-145.97	147.88
35	8.8695	-8.8695	-147.88	149.65
36	8.0486	-8.0486	-149.65	151.26
37	7.0912	-7.0912	-151.26	152.68
38	6.0301	-6.0301	-152.68	153.88
39	4.8711	-4.8711	-153.88	154.86
40	3.6437	-3.6437	-154.86	155.59
41	2.3519	-2.3519	-155.59	156.06
42	1.0219	-1.0219	-156.06	156.26
43	-0.35963	0.35963	-156.26	156.19
44	-1.7543	1.7543	-156.19	155.84
45	-3.1140	3.1140	-155.84	155.22
46	-4.3699	4.3699	-155.22	154.34
47	-5.5414	5.5414	-154.34	153.23
48	-6.6276	6.6276	-153.23	151.91
49	-7.6376	7.6376	-151.91	150.38
50	-16.305	16.305	-150.38	147.12
51	-23.660	23.660	-147.12	142.39
52	-29.657	29.657	-142.39	136.46
53	-34.289	34.289	-136.46	129.60
54	-37.715	37.715	-129.60	122.06
55	-40.069	40.069	-122.06	114.04
56	-41.496	41.496	-114.04	105.74
57	-42.112	42.112	-105.74	97.321
58	-42.055	42.055	-97.321	88.910
59	-41.411	41.411	-88.910	80.628
60	-40.288	40.288	-80.628	72.570
61	-38.766	38.766	-72.570	64.817
62	-36.925	36.925	-64.817	57.432
63	-34.845	34.845	-57.432	50.463
64	-32.580	32.580	-50.463	43.947
65	-30.205	30.205	-43.947	37.906
66	-27.750	27.750	-37.906	32.356
67	-25.271	25.271	-32.356	27.302
68	-22.803	22.803	-27.302	22.741
69	-20.377	20.377	-22.741	18.666



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70	-18.016	18.016	-18.666	15.063
71	-15.741	15.741	-15.063	11.915
72	-13.568	13.568	-11.915	9.2010
73	-11.519	11.519	-9.2010	6.8972
74	-9.5948	9.5948	-6.8972	4.9782
75	-7.8024	7.8024	-4.9782	3.4177
76	-6.1470	6.1470	-3.4177	2.1883
77	-4.6308	4.6308	-2.1883	1.2622
78	-3.2538	3.2538	-1.2622	0.61141
79	-2.0172	2.0172	-0.61141	0.20798
80	-0.92987	0.92987	-0.20798	2.20067E-02
81	-0.22004	0.22004	-2.20067E-02	4.84368E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	163.60	-1.98024E-03	-1.98024E-03	0.0000	0.0000	0.0000	0.0000	BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2295E+06 RIMNOR=0.1807E+07
 RENORM= 4027. REMNOR=0.4675E-18 RATIO =0.1325 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 158.0 RMMAX = 156.3
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.2295E+06 RDR =0.1807E+07
 RATIOT=0.1325 RATIO= 0.000
 MAX UN= 16.07 IEQ= 69 NODE 35 DOF 1 Y-DISPL.F
 MIN UN=-.8269E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2295E+06 RIMNOR=0.1807E+07
 RENORM= 537.3 REMNOR=0.4864E-18 RATIO =0.4839E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 158.0 RMMAX = 156.3
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.2295E+06 RDR =0.1807E+07
 RATIOT=0.4839E-01 RATIO= 0.000
 MAX UN= 6.545 IEQ= 81 NODE 41 DOF 1 Y-DISPL.F
 MIN UN=-.2106E-08 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2295E+06 RIMNOR=0.1807E+07
 RENORM= 183.2 REMNOR=0.6910E-18 RATIO =0.2826E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 158.0 RMMAX = 156.3
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.2295E+06 RDR =0.1807E+07
 RATIOT=0.2826E-01 RATIO= 0.000
 MAX UN= 8.163 IEQ= 107 NODE 54 DOF 1 Y-DISPL.F
 MIN UN=-.2945E-08 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2295E+06 RIMNOR=0.1807E+07
 RENORM= 17.74 REMNOR=0.3923E-18 RATIO =0.8793E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 158.0 RMMAX = 156.3
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.2295E+06 RDR =0.1807E+07
 RATIOT=0.8793E-02 RATIO= 0.000
 MAX UN= 2.469 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
 MIN UN=-.3971E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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ITER      5  RNORM = 0.000      RMNORM= 0.000
RINORM=0.2295E+06 RIMNOR=0.1807E+07
RENORM=0.3933E-01 REMNOR=0.6878E-18 RATIO =0.4140E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 158.0      RMMAX = 156.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT      =0.2295E+06 RDR      =0.1807E+07
RATIOT=0.4140E-03 RATIO= 0.000
MAX UN=0.1578      IEQ=      115 NODE      58 DOF      1 Y-DISPL.F
MIN UN=-.9857E-01 IEQ=      161 NODE      81 DOF      1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      6  RNORM = 0.000      RMNORM= 0.000
RINORM=0.2295E+06 RIMNOR=0.1807E+07
RENORM=0.1529E-15 REMNOR=0.4569E-18 RATIO =0.2581E-10 TOLER =0.1000E-03 CONVERGED !
RFMAX = 158.0      RMMAX = 156.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT      =0.2295E+06 RDR      =0.1807E+07
RATIOT=0.2581E-10 RATIO= 0.000
MAX UN=0.3751E-08 IEQ=      11 NODE      6 DOF      1 Y-DISPL.F
MIN UN=-.5165E-08 IEQ=      27 NODE      14 DOF      1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      10:49:26  |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.6692260E-02	-1.0702483E-03	
2	1.6478212E-02	-1.0702181E-03	
3	1.6264180E-02	-1.0700821E-03	
4	1.6050193E-02	-1.0697351E-03	
5	1.5836308E-02	-1.0690512E-03	
6	1.5622605E-02	-1.0678864E-03	
7	1.5409196E-02	-1.0660788E-03	
8	1.5196228E-02	-1.0634488E-03	
9	1.4983885E-02	-1.0597993E-03	
10	1.4772391E-02	-1.0549175E-03	
11	1.4562015E-02	-1.0485747E-03	
12	1.4353075E-02	-1.0405247E-03	
13	1.4145937E-02	-1.0305033E-03	
14	1.4043173E-02	-1.0246750E-03	
15	1.3839256E-02	-1.0155235E-03	
16	1.3636563E-02	-1.0123873E-03	
17	1.3433922E-02	-1.0149416E-03	
18	1.3230229E-02	-1.0228444E-03	
19	1.3024451E-02	-1.0357361E-03	
20	1.2815628E-02	-1.0532396E-03	
21	1.2602874E-02	-1.0749607E-03	
22	1.2385389E-02	-1.1004881E-03	
23	1.2162454E-02	-1.1293944E-03	
24	1.1933436E-02	-1.1612337E-03	
25	1.1697796E-02	-1.1955431E-03	
26	1.1455086E-02	-1.2318422E-03	
27	1.1204961E-02	-1.2696328E-03	
28	1.0947169E-02	-1.3084003E-03	
29	1.0681571E-02	-1.3476126E-03	
30	1.0408131E-02	-1.3867207E-03	
31	1.0126927E-02	-1.4251587E-03	
32	9.8381528E-03	-1.4623429E-03	
33	9.5421152E-03	-1.4976726E-03	
34	9.2392486E-03	-1.5305296E-03	
35	8.9301106E-03	-1.5602783E-03	
36	8.6153880E-03	-1.5862657E-03	
37	8.2958956E-03	-1.6078837E-03	
38	7.9725601E-03	-1.6246420E-03	
39	7.6463885E-03	-1.6361792E-03	
40	7.3184521E-03	-1.6422618E-03	
41	6.9898544E-03	-1.6427853E-03	
42	6.6617070E-03	-1.6377733E-03	
43	6.3351058E-03	-1.6273752E-03	

GENERAL CONTRACTOR

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ALTA SORVEGLIANZA



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44	6.0111039E-03	-1.6117968E-03
45	5.6907194E-03	-1.5912333E-03
46	5.3749306E-03	-1.5658697E-03
47	5.0646799E-03	-1.5358810E-03
48	4.7608771E-03	-1.5014325E-03
49	4.4643953E-03	-1.4626801E-03
50	4.1760822E-03	-1.4197707E-03
51	3.8967393E-03	-1.3730780E-03
52	3.6270699E-03	-1.3232011E-03
53	3.3676391E-03	-1.2707226E-03
54	3.1189161E-03	-1.2162164E-03
55	2.8812502E-03	-1.1602443E-03
56	2.6548793E-03	-1.1033580E-03
57	2.4399318E-03	-1.0460999E-03
58	2.2364285E-03	-9.8900449E-04
59	2.0442840E-03	-9.3259934E-04
60	1.8633085E-03	-8.7739855E-04
61	1.6932116E-03	-8.2389287E-04
62	1.5336076E-03	-7.7254295E-04
63	1.3840239E-03	-7.2375093E-04
64	1.2439152E-03	-6.7784007E-04
65	1.1126790E-03	-6.3506110E-04
66	9.8966964E-04	-5.9559831E-04
67	8.7421042E-04	-5.5957493E-04
68	7.6560591E-04	-5.2705791E-04
69	6.6315247E-04	-4.9806266E-04
70	5.6614821E-04	-4.7255692E-04
71	4.7390217E-04	-4.5046417E-04
72	3.8574286E-04	-4.3166662E-04
73	3.0102628E-04	-4.1600769E-04
74	2.1914342E-04	-4.0329436E-04
75	1.3952734E-04	-3.9329895E-04
76	6.1660056E-05	-3.8576023E-04
77	-1.4920950E-05	-3.8038452E-04
78	-9.0616264E-05	-3.7684648E-04
79	-1.6575828E-04	-3.7478952E-04
80	-2.4060498E-04	-3.7382618E-04
81	-3.1533379E-04	-3.7353845E-04
82	-3.5269040E-04	-3.7352390E-04



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484          |
|          Exe Time :24 July 2019          10:49:26          |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	1.269	-1.6692E-02	26.54	12.69	26.54	39.77	ACTIVE	0.000	0.000	0.000	1.000	1.000
12.69	0.000	0.000	Stratol_2_8_L_0									
2 D	1.925	-1.6478E-02	20.13	9.623	20.13	35.82	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
9.623	0.000	0.000	Stratol_2_8_L_0									
3 D	2.499	-1.6264E-02	26.14	12.49	26.14	38.23	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
12.49	0.000	0.000	Stratol_2_8_L_0									
4 D	2.809	-1.6050E-02	29.39	14.05	29.39	39.23	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
14.05	0.000	0.000	Stratol_2_8_L_0									
5 D	3.250	-1.5836E-02	34.00	16.25	34.00	40.92	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
16.25	0.000	0.000	Stratol_2_8_L_0									
6 D	3.575	-1.5623E-02	37.40	17.88	37.40	41.99	ACTIVE	0.000	-1.000	0.000	1.000	1.000
17.88	0.000	0.000	Stratol_2_8_L_0									
7 D	3.986	-1.5409E-02	41.69	19.93	41.69	43.51	ACTIVE	0.000	-1.200	0.000	1.000	1.000
19.93	0.000	0.000	Stratol_2_8_L_0									
8 D	4.319	-1.5196E-02	45.18	21.60	45.18	44.62	ACTIVE	0.000	-1.400	0.000	1.000	1.000
21.60	0.000	0.000	Stratol_2_8_L_0									
9 D	4.642	-1.4984E-02	48.56	23.21	48.56	45.65	ACTIVE	0.000	-1.600	0.000	1.000	1.000
23.21	0.000	0.000	Stratol_2_8_L_0									
10 D	4.990	-1.4772E-02	52.20	24.95	52.20	46.81	ACTIVE	0.000	-1.800	0.000	1.000	1.000
24.95	0.000	0.000	Stratol_2_8_L_0									
11 D	5.386	-1.4562E-02	56.34	26.93	56.34	48.20	ACTIVE	0.000	-2.000	0.000	1.000	1.000
26.93	0.000	0.000	Stratol_2_8_L_0									
12 D	5.735	-1.4353E-02	59.99	28.68	59.99	49.33	ACTIVE	0.000	-2.200	0.000	1.000	1.000
28.68	0.000	0.000	Stratol_2_8_L_0									
13 D	4.593	-1.4146E-02	64.06	30.62	64.06	50.64	ACTIVE	0.000	-2.400	0.000	1.000	1.000
30.62	0.000	0.000	Stratol_2_8_L_0									
14 D	4.720	-1.4043E-02	65.83	31.47	65.83	51.15	ACTIVE	0.000	-2.500	0.000	1.000	1.000
31.47	0.000	0.000	Stratol_2_8_L_0									
15 D	6.645	-1.3839E-02	69.51	33.22	69.51	52.22	ACTIVE	0.000	-2.700	0.000	1.000	1.000
33.22	0.000	0.000	Stratol_2_8_L_0									
16 D	7.030	-1.3637E-02	73.53	35.15	73.53	53.45	ACTIVE	0.000	-2.900	0.000	1.000	1.000
35.15	0.000	0.000	Stratol_2_8_L_0									
17 D	7.382	-1.3434E-02	77.22	36.91	77.22	54.48	ACTIVE	0.000	-3.100	0.000	1.000	1.000
36.91	0.000	0.000	Stratol_2_8_L_0									
18 D	7.764	-1.3230E-02	81.21	38.82	81.21	55.67	ACTIVE	0.000	-3.300	0.000	1.000	1.000
38.82	0.000	0.000	Stratol_2_8_L_0									
19 D	8.117	-1.3024E-02	84.90	40.58	84.90	56.70	ACTIVE	0.000	-3.500	0.000	1.000	1.000
40.58	0.000	0.000	Stratol_2_8_L_0									
20 D	8.496	-1.2816E-02	88.87	42.48	88.87	57.88	ACTIVE	0.000	-3.700	0.000	1.000	1.000
42.48	0.000	0.000	Stratol_2_8_L_0									
21 D	8.818	-1.2603E-02	92.24	44.09	92.24	58.76	ACTIVE	0.000	-3.900	0.000	1.000	1.000
44.09	0.000	0.000	Stratol_2_8_L_0									
22 D	9.197	-1.2385E-02	96.21	45.99	96.21	59.96	ACTIVE	0.000	-4.100	0.000	1.000	1.000
45.99	0.000	0.000	Stratol_2_8_L_0									
23 D	9.575	-1.2162E-02	100.2	47.87	100.2	61.17	ACTIVE	0.000	-4.300	0.000	1.000	1.000
47.87	0.000	0.000	Stratol_2_8_L_0									
24 D	9.930	-1.1933E-02	103.9	49.65	103.9	62.29	ACTIVE	0.000	-4.500	0.000	1.000	1.000
49.65	0.000	0.000	Stratol_2_8_L_0									
25 D	10.31	-1.1698E-02	107.8	51.53	107.8	63.54	ACTIVE	0.000	-4.700	0.000	1.000	1.000
51.53	0.000	0.000	Stratol_2_8_L_0									
26 D	10.66	-1.1455E-02	111.5	53.31	111.5	64.71	ACTIVE	0.000	-4.900	0.000	1.000	1.000
53.31	0.000	0.000	Stratol_2_8_L_0									
27 D	11.04	-1.1205E-02	115.5	55.19	115.5	66.02	ACTIVE	0.000	-5.100	0.000	1.000	1.000
55.19	0.000	0.000	Stratol_2_8_L_0									
28 D	11.37	-1.0947E-02	118.9	56.85	118.9	67.13	ACTIVE	0.000	-5.300	0.000	1.000	1.000
56.85	0.000	0.000	Stratol_2_8_L_0									
29 D	11.74	-1.0682E-02	122.9	58.72	122.9	68.51	ACTIVE	0.000	-5.500	0.000	1.000	1.000
58.72	0.000	0.000	Stratol_2_8_L_0									
30 D	12.10	-1.0408E-02	126.6	60.51	126.6	69.82	ACTIVE	0.000	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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60.51	0.000	0.000	Strato1_2_8_L_0				
31 D	12.48	-1.0127E-02	130.5	62.38	130.5	71.26	ACTIVE 0.000 -5.900 0.000 1.000 1.000
62.38	0.000	0.000	Strato1_2_8_L_0				
32 D	12.83	-9.8382E-03	134.2	64.17	134.2	72.65	ACTIVE 0.000 -6.100 0.000 1.000 1.000
64.17	0.000	0.000	Strato1_2_8_L_0				
33 D	13.21	-9.5421E-03	138.1	66.03	138.1	74.16	ACTIVE 0.000 -6.300 0.000 1.000 1.000
66.03	0.000	0.000	Strato1_2_8_L_0				
34 D	13.56	-9.2392E-03	141.9	67.82	141.9	75.62	ACTIVE 0.000 -6.500 0.000 1.000 1.000
67.82	0.000	0.000	Strato1_2_8_L_0				
35 D	13.94	-8.9301E-03	145.8	69.69	145.8	77.27	ACTIVE 0.000 -6.700 0.000 1.000 1.000
69.69	0.000	0.000	Strato1_2_8_L_0				
36 D	14.29	-8.6154E-03	149.5	71.45	149.5	79.23	ACTIVE 0.000 -6.900 0.000 1.000 1.000
71.45	0.000	0.000	Strato1_2_8_L_0				
37 D	14.65	-8.2959E-03	153.2	73.25	153.2	81.21	ACTIVE 0.000 -7.100 0.000 1.000 1.000
73.25	0.000	0.000	Strato1_2_8_L_0				
38 D	15.02	-7.9726E-03	157.1	75.10	157.1	83.27	ACTIVE 0.000 -7.300 0.000 1.000 1.000
75.10	0.000	0.000	Strato1_2_8_L_0				
39 D	15.38	-7.6464E-03	160.9	76.90	160.9	85.26	ACTIVE 0.000 -7.500 0.000 1.000 1.000
76.90	0.000	0.000	Strato1_2_8_L_0				
40 D	15.75	-7.3185E-03	164.8	78.75	164.8	87.32	ACTIVE 0.000 -7.700 0.000 1.000 1.000
78.75	0.000	0.000	Strato1_2_8_L_0				
41 D	16.11	-6.9899E-03	168.5	80.55	168.5	89.31	ACTIVE 0.000 -7.900 0.000 1.000 1.000
80.55	0.000	0.000	Strato1_2_8_L_0				
42 D	16.48	-6.6617E-03	172.4	82.40	172.4	91.37	ACTIVE 0.000 -8.100 0.000 1.000 1.000
82.40	0.000	0.000	Strato1_2_8_L_0				
43 D	16.82	-6.3351E-03	176.0	84.12	176.0	93.27	ACTIVE 0.000 -8.300 0.000 1.000 1.000
84.12	0.000	0.000	Strato1_2_8_L_0				
44 D	17.19	-6.0111E-03	179.9	85.97	179.9	95.33	ACTIVE 0.000 -8.500 0.000 1.000 1.000
85.97	0.000	0.000	Strato1_2_8_L_0				
45 D	17.55	-5.6907E-03	183.6	87.77	183.6	97.32	ACTIVE 0.000 -8.700 0.000 1.000 1.000
87.77	0.000	0.000	Strato1_2_8_L_0				
46 D	17.92	-5.3749E-03	187.5	89.62	187.5	99.37	ACTIVE 0.000 -8.900 0.000 1.000 1.000
89.62	0.000	0.000	Strato1_2_8_L_0				
47 D	18.28	-5.0647E-03	191.3	91.42	191.3	101.4	ACTIVE 0.000 -9.100 0.000 1.000 1.000
91.42	0.000	0.000	Strato1_2_8_L_0				
48 D	18.65	-4.7609E-03	195.1	93.27	195.1	103.4	ACTIVE 0.000 -9.300 0.000 1.000 1.000
93.27	0.000	0.000	Strato1_2_8_L_0				
49 D	19.02	-4.4644E-03	199.0	95.12	199.0	105.5	ACTIVE 0.000 -9.500 0.000 1.000 1.000
95.12	0.000	0.000	Strato1_2_8_L_0				
50 D	8.900	-4.1761E-03	203.0	44.50	203.0	101.5	ACTIVE 0.000 -9.700 0.000 1.000 1.000
44.50	0.000	0.000	Strato2_3095_82743_L_0				
51 D	9.162	-3.8967E-03	206.9	45.81	206.9	103.4	ACTIVE 0.000 -9.900 0.000 1.000 1.000
45.81	0.000	0.000	Strato2_3095_82743_L_0				
52 D	9.426	-3.6271E-03	210.8	47.13	210.8	105.4	ACTIVE 0.000 -10.10 0.000 1.000 1.000
47.13	0.000	0.000	Strato2_3095_82743_L_0				
53 D	9.696	-3.3676E-03	214.9	48.48	214.9	107.5	ACTIVE 0.000 -10.30 0.000 1.000 1.000
48.48	0.000	0.000	Strato2_3095_82743_L_0				
54 D	9.961	-3.1189E-03	218.9	49.80	218.9	109.4	ACTIVE 0.000 -10.50 0.000 1.000 1.000
49.80	0.000	0.000	Strato2_3095_82743_L_0				
55 D	10.23	-2.8813E-03	222.9	51.15	222.9	111.5	ACTIVE 0.000 -10.70 0.000 1.000 1.000
51.15	0.000	0.000	Strato2_3095_82743_L_0				
56 D	10.50	-2.6549E-03	226.9	52.48	226.9	113.5	ACTIVE 0.000 -10.90 0.000 1.000 1.000
52.48	0.000	0.000	Strato2_3095_82743_L_0				
57 D	10.77	-2.4399E-03	231.0	53.83	231.0	115.5	ACTIVE 0.000 -11.10 0.000 1.000 1.000
53.83	0.000	0.000	Strato2_3095_82743_L_0				
58 D	11.02	-2.2364E-03	234.8	55.11	234.8	117.4	ACTIVE 0.000 -11.30 0.000 1.000 1.000
55.11	0.000	0.000	Strato2_3095_82743_L_0				
59 D	11.29	-2.0443E-03	238.9	56.46	238.9	119.4	ACTIVE 0.000 -11.50 0.000 1.000 1.000
56.46	0.000	0.000	Strato2_3095_82743_L_0				
60 D	11.56	-1.8633E-03	242.8	57.78	242.8	121.4	ACTIVE 0.000 -11.70 0.000 1.000 1.000
57.78	0.000	0.000	Strato2_3095_82743_L_0				
61 D	12.06	-1.6932E-03	246.9	60.30	246.9	123.4	UL-RL 3.2112E+04 -11.90 0.000 1.000 1.000
60.30	0.000	0.000	Strato2_3095_82743_L_0				
62 D	13.62	-1.5336E-03	250.9	68.09	250.9	125.5	UL-RL 3.2112E+04 -12.10 0.000 1.000 1.000
68.09	0.000	0.000	Strato2_3095_82743_L_0				
63 D	15.08	-1.3840E-03	254.9	75.39	254.9	127.5	UL-RL 3.2112E+04 -12.30 0.000 1.000 1.000
75.39	0.000	0.000	Strato2_3095_82743_L_0				
64 D	16.46	-1.2439E-03	259.0	82.29	259.0	129.5	UL-RL 3.2112E+04 -12.50 0.000 1.000 1.000
82.29	0.000	0.000	Strato2_3095_82743_L_0				
65 D	17.74	-1.1127E-03	262.8	88.72	262.8	131.4	UL-RL 3.2112E+04 -12.70 0.000 1.000 1.000
88.72	0.000	0.000	Strato2_3095_82743_L_0				
66 D	18.97	-9.8967E-04	266.9	94.87	266.9	133.4	UL-RL 3.2112E+04 -12.90 0.000 1.000 1.000
94.87	0.000	0.000	Strato2_3095_82743_L_0				
67 D	20.12	-8.7421E-04	270.8	100.6	270.8	135.4	UL-RL 3.2112E+04 -13.10 0.000 1.000 1.000
100.6	0.000	0.000	Strato2_3095_82743_L_0				
68 D	21.22	-7.6561E-04	274.7	106.1	274.7	137.3	UL-RL 3.2112E+04 -13.30 0.000 1.000 1.000
106.1	0.000	0.000	Strato2_3095_82743_L_0				
69 D	22.26	-6.6315E-04	278.6	111.3	278.6	139.3	UL-RL 3.2112E+04 -13.50 0.000 1.000 1.000
111.3	0.000	0.000	Strato2_3095_82743_L_0				
70 D	23.26	-5.6615E-04	282.5	116.3	282.5	141.2	UL-RL 3.2112E+04 -13.70 0.000 1.000 1.000
116.3	0.000	0.000	Strato2_3095_82743_L_0				
71 D	24.22	-4.7390E-04	286.4	121.1	286.4	143.2	UL-RL 3.2112E+04 -13.90 0.000 1.000 1.000
121.1	0.000	0.000	Strato2_3095_82743_L_0				
72 D	25.14	-3.8574E-04	290.3	125.7	290.3	145.2	UL-RL 3.2112E+04 -14.10 0.000 1.000 1.000
125.7	0.000	0.000	Strato2_3095_82743_L_0				

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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20	0.000	--	--	--	--
0.000	0.000	0.000	not available		
21	0.000	--	--	--	--
0.000	0.000	0.000	not available		
22	0.000	--	--	--	--
0.000	0.000	0.000	not available		
23	0.000	--	--	--	--
0.000	0.000	0.000	not available		
24	0.000	--	--	--	--
0.000	0.000	0.000	not available		
25	0.000	--	--	--	--
0.000	0.000	0.000	not available		
26	0.000	--	--	--	--
0.000	0.000	0.000	not available		
27	0.000	--	--	--	--
0.000	0.000	0.000	not available		
28	0.000	--	--	--	--
0.000	0.000	0.000	not available		
29	0.000	--	--	--	--
0.000	0.000	0.000	not available		
30	0.000	--	--	--	--
0.000	0.000	0.000	not available		
31	0.000	--	--	--	--
0.000	0.000	0.000	not available		
32	0.000	--	--	--	--
0.000	0.000	0.000	not available		
33	0.000	--	--	--	--
0.000	0.000	0.000	not available		
34	0.000	--	--	--	--
0.000	0.000	0.000	not available		
35	0.000	--	--	--	--
0.000	0.000	0.000	not available		
36 D	2.610	8.6154E-03	3.230 13.05	131.1	86.07
13.05	0.000	0.000	Strato1_2_8_L_0		
37 D	5.682	8.2959E-03	7.030 28.41	134.9	86.75
28.41	0.000	0.000	Strato1_2_8_L_0		
38 D	8.753	7.9726E-03	10.83 43.76	138.7	87.50
43.76	0.000	0.000	Strato1_2_8_L_0		
39 D	11.82	7.6464E-03	14.63 59.12	142.5	88.31
59.12	0.000	0.000	Strato1_2_8_L_0		
40 D	14.90	7.3185E-03	18.43 74.48	146.3	89.19
74.48	0.000	0.000	Strato1_2_8_L_0		
41 D	17.97	6.9899E-03	22.23 89.83	150.1	90.13
89.83	0.000	0.000	Strato1_2_8_L_0		
42 D	20.92	6.6617E-03	26.03 104.6	153.9	104.6
104.6	0.000	0.000	Strato1_2_8_L_0		
43 D	21.05	6.3351E-03	29.83 105.3	157.7	105.3
105.3	0.000	0.000	Strato1_2_8_L_0		
44 D	21.20	6.0111E-03	33.63 106.0	161.5	106.0
106.0	0.000	0.000	Strato1_2_8_L_0		
45 D	21.34	5.6907E-03	37.43 106.7	165.3	106.7
106.7	0.000	0.000	Strato1_2_8_L_0		
46 D	21.50	5.3749E-03	41.23 107.5	169.1	107.5
107.5	0.000	0.000	Strato1_2_8_L_0		
47 D	21.67	5.0647E-03	45.03 108.3	172.9	108.3
108.3	0.000	0.000	Strato1_2_8_L_0		
48 D	21.84	4.7609E-03	48.83 109.2	176.7	109.2
109.2	0.000	0.000	Strato1_2_8_L_0		
49 D	22.03	4.4644E-03	52.63 110.1	180.5	110.1
110.1	0.000	0.000	Strato1_2_8_L_0		
50 D	21.63	4.1761E-03	56.63 108.2	184.5	108.2
108.2	0.000	0.000	Strato2_3095_82743_L_0		
51 D	21.61	3.8967E-03	60.63 108.1	188.5	108.1
108.1	0.000	0.000	Strato2_3095_82743_L_0		
52 D	21.61	3.6271E-03	64.63 108.1	192.5	108.1
108.1	0.000	0.000	Strato2_3095_82743_L_0		
53 D	21.64	3.3676E-03	68.63 108.2	196.5	108.2
108.2	0.000	0.000	Strato2_3095_82743_L_0		
54 D	21.68	3.1189E-03	72.63 108.4	200.5	108.4
108.4	0.000	0.000	Strato2_3095_82743_L_0		
55 D	21.75	2.8813E-03	76.63 108.7	204.5	108.7
108.7	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.83	2.6549E-03	80.63 109.2	208.5	109.2
109.2	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.94	2.4399E-03	84.63 109.7	212.5	109.7
109.7	0.000	0.000	Strato2_3095_82743_L_0		
58 D	22.07	2.2364E-03	88.63 110.3	216.5	110.3
110.3	0.000	0.000	Strato2_3095_82743_L_0		
59 D	21.90	2.0443E-03	92.63 109.5	220.5	111.9
109.5	0.000	0.000	Strato2_3095_82743_L_0		
60 D	21.62	1.8633E-03	96.63 108.1	224.5	113.8
108.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	21.40	1.6932E-03	100.6 107.0	228.5	115.8
107.0	0.000	0.000	Strato2_3095_82743_L_0		
62 D	21.22	1.5336E-03	104.6 106.1	232.5	117.7



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106.1	0.000	0.000	Strato2_3095_82743_L_0		
63 D	21.09	1.3840E-03	108.6 105.5	236.5	119.7
105.5	0.000	0.000	Strato2_3095_82743_L_0		
64 D	21.01	1.2439E-03	112.6 105.0	240.5	121.7
105.0	0.000	0.000	Strato2_3095_82743_L_0		
65 D	20.96	1.1127E-03	116.6 104.8	244.5	123.6
104.8	0.000	0.000	Strato2_3095_82743_L_0		
66 D	20.95	9.8967E-04	120.6 104.7	248.5	125.6
104.7	0.000	0.000	Strato2_3095_82743_L_0		
67 D	20.97	8.7421E-04	124.6 104.9	252.5	127.6
104.9	0.000	0.000	Strato2_3095_82743_L_0		
68 D	21.02	7.6561E-04	128.6 105.1	256.5	129.6
105.1	0.000	0.000	Strato2_3095_82743_L_0		
69 D	21.10	6.6315E-04	132.6 105.5	260.5	131.6
105.5	0.000	0.000	Strato2_3095_82743_L_0		
70 D	21.20	5.6615E-04	136.6 106.0	264.5	133.5
106.0	0.000	0.000	Strato2_3095_82743_L_0		
71 D	21.32	4.7390E-04	140.6 106.6	268.5	135.5
106.6	0.000	0.000	Strato2_3095_82743_L_0		
72 D	21.45	3.8574E-04	144.6 107.3	272.5	137.5
107.3	0.000	0.000	Strato2_3095_82743_L_0		
73 D	21.60	3.0103E-04	148.6 108.0	276.5	139.5
108.0	0.000	0.000	Strato2_3095_82743_L_0		
74 D	21.76	2.1914E-04	152.6 108.8	280.5	141.5
108.8	0.000	0.000	Strato2_3095_82743_L_0		
75 D	21.92	1.3953E-04	156.6 109.6	284.5	143.5
109.6	0.000	0.000	Strato2_3095_82743_L_0		
76 D	22.10	6.1660E-05	160.6 110.5	288.5	145.5
110.5	0.000	0.000	Strato2_3095_82743_L_0		
77 D	22.27	-1.4921E-05	164.6 111.4	292.5	147.5
111.4	0.000	0.000	Strato2_3095_82743_L_0		
78 D	22.45	-9.0616E-05	168.6 112.3	296.5	149.5
112.3	0.000	0.000	Strato2_3095_82743_L_0		
79 D	22.63	-1.6576E-04	172.6 113.2	300.5	151.5
113.2	0.000	0.000	Strato2_3095_82743_L_0		
80 D	22.81	-2.4060E-04	176.6 114.1	304.5	153.5
114.1	0.000	0.000	Strato2_3095_82743_L_0		
81 D	17.24	-3.1533E-04	180.6 115.0	308.5	155.5
115.0	0.000	0.000	Strato2_3095_82743_L_0		
82 D	5.770	-3.5269E-04	182.6 115.4	310.5	156.5
115.4	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.AlMIR1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.2686	-1.2686	-3.86617E-11	0.25372
2	3.1933	-3.1933	-0.25372	0.89238
3	5.6920	-5.6920	-0.89238	2.0308
4	8.5015	-8.5015	-2.0308	3.7311
5	11.752	-11.752	-3.7311	6.0815
6	15.327	-15.327	-6.0815	9.1469
7	19.313	-19.313	-9.1469	13.009
8	23.632	-23.632	-13.009	17.736
9	28.275	-28.275	-17.736	23.391
10	33.265	-33.265	-23.391	30.044
11	38.651	-38.651	-30.044	37.774
12	44.387	-44.387	-37.774	46.651
13	48.980	-48.980	-46.651	51.549
14	-130.01	130.01	-51.549	25.547
15	-123.37	123.37	-25.547	0.87412
16	-116.34	116.34	-0.87412	-22.393
17	-108.95	108.95	22.393	-44.184
18	-101.19	101.19	44.184	-64.422
19	-93.074	93.074	64.422	-83.037
20	-84.578	84.578	83.037	-99.952
21	-75.759	75.759	99.952	-115.10

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22	-66.562	66.562	115.10	-128.42
23	-56.988	56.988	128.42	-139.81
24	-47.057	47.057	139.81	-149.23
25	-36.751	36.751	149.23	-156.58
26	-26.088	26.088	156.58	-161.79
27	-15.051	15.051	161.79	-164.80
28	-3.6811	3.6811	164.80	-165.54
29	8.0637	-8.0637	165.54	-163.93
30	20.166	-20.166	163.93	-159.89
31	32.642	-32.642	159.89	-153.37
32	45.476	-45.476	153.37	-144.27
33	58.683	-58.683	144.27	-132.53
34	72.248	-72.248	132.53	-118.08
35	86.185	-86.185	118.08	-100.85
36	97.865	-97.865	100.85	-81.274
37	106.83	-106.83	81.274	-59.908
38	113.10	-113.10	59.908	-37.287
39	116.66	-116.66	37.287	-13.956
40	117.51	-117.51	13.956	9.5464
41	115.66	-115.66	-9.5464	32.677
42	111.22	-111.22	-32.677	54.921
43	106.99	-106.99	-54.921	76.320
44	102.99	-102.99	-76.320	96.918
45	99.201	-99.201	-96.918	116.76
46	95.623	-95.623	-116.76	135.88
47	92.239	-92.239	-135.88	154.33
48	89.051	-89.051	-154.33	172.14
49	86.049	-86.049	-172.14	189.35
50	73.316	-73.316	-189.35	204.01
51	60.864	-60.864	-204.01	216.19
52	48.675	-48.675	-216.19	225.92
53	36.734	-36.734	-225.92	233.27
54	25.014	-25.014	-233.27	238.27
55	13.498	-13.498	-238.27	240.97
56	2.1608	-2.1608	-240.97	241.40
57	-9.0143	9.0143	-241.40	239.60
58	-20.061	20.061	-239.60	235.59
59	-30.669	30.669	-235.59	229.45
60	-40.734	40.734	-229.45	221.31
61	-50.071	50.071	-221.31	211.29
62	-57.674	57.674	-211.29	199.76
63	-63.688	63.688	-199.76	187.02
64	-68.235	68.235	-187.02	173.37
65	-71.451	71.451	-173.37	159.08
66	-73.426	73.426	-159.08	144.40
67	-74.271	74.271	-144.40	129.54
68	-74.075	74.075	-129.54	114.73
69	-72.912	72.912	-114.73	100.15
70	-70.852	70.852	-100.15	85.975
71	-67.950	67.950	-85.975	72.385
72	-64.256	64.256	-72.385	59.534
73	-59.820	59.820	-59.534	47.570
74	-54.665	54.665	-47.570	36.637
75	-48.817	48.817	-36.637	26.873
76	-42.295	42.295	-26.873	18.414
77	-35.112	35.112	-18.414	11.392
78	-27.275	27.275	-11.392	5.9369
79	-18.790	18.790	-5.9369	2.1788
80	-9.6683	9.6683	-2.1788	0.24516
81	-2.4514	2.4514	-0.24516	8.80851E-12

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|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1r1_3484  |
|          Exe Time :24 July 2019  10:49:26  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	190.19	-1.98024E-03	4.03010E-03	0.0000	4424.2	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
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|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      10:49:26  |
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F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	4
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.26 [sec]

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ALTA SORVEGLIANZA



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1.7. Design Assumption : A2+M2+R1 - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A2+M2+R1

* Time:mercoledì 24 luglio 2019 10:49:26

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -16 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -16 0 1 0

SOIL 0_R LeftWall_32 -16 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 5.84 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 13 0 15 45

STRIP LeftWall_32 2 5 0 40 0 13 30

* 7: Defining Steps

STEP Stage1_31

CHANGE Strato1_2_8_L_0 U-FRICT=23.91 LeftWall_32

CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KA=0.787 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KP=4.176 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KA=0.375 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KP=3.038 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-FRICT=29.26 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KA=0.47 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KP=5.524 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KA=0.3 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KP=4.102 LeftWall_32

CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32

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```

CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=16 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ADD WallElement_33
ENDSTEP

STEP Stage2_759103
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage3_158
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ENDSTEP

STEP Stage4_617
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -16 0 0
ADD Tieback_768111
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -6.73
WATER -26 0 -16 0 0
ENDSTEP

```

1.8. Design Assumption : A2+M2+R1 - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS (TM)    NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                           |
|                                     NewProject.BaseDesignSection_28.A2M2R1_3514                                     |
|                                     Exe Time :24 July 2019    10:49:27                                           |
|                                                                           |
|-----
*****
*
*  PARATIE PLUS Non-Linear Spring Engine
*
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES
*
*          Written by Ce.A.S. s.r.l. (ITALY)
*          with the scientific supervision of
*          Roberto Nova - full professor SOIL MECHANICS
*          at Politecnico di Milano (ITALY)
*
*****
*
*  RELEASE  2017.1    *Build date:Jul 11, 2017*
*
*
*  Ce.A.S.    S.R.L    CENTRO DI ANALISI STRUTTURALE
*            VIALE  GIUSTINIANO 10
*            20129  M I L A N O (ITALIA)
*  TEL.      +39 02 2020221  (+39 035 23 67 19)
*  FAX       +39 02 29512533  (+39 035 42285 49)
*

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```
* email      bruno.becci@ceas.it      *
* Web Page   www.ceas.it              *
*****
```

```
JOB : NewProject.BaseDesignSection_28.A2M2R1_3514
STARTING
```

```
ACCEPTED <FILE,GENW                >
ACCEPTED <FILE,PLOTTER,BINARY       >
ACCEPTED <SOLVE TOTAL_STRESS        >
ACCEPTED <PARAM ITEMAX 100          >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****
*
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
* BY THE PROGRAM.                                     *
*****
```

```
PRELIMINARY OPERATIONS CPU TIME      0.00 [sec]
```

```
-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      10:49:27          |
|-----
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 82
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 164
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 89
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES          kPa
Y-DISPLACEMENTS  m
ROTATIONS         RADIANS
BEAM AND SLAB MOMENTS kN*m/m
BEAM SHEAR FORCES kN/m
ANCHOR FORCES     kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS kN/m
Y-REACTIONS       kN/m
X-MOMENT REACTIONS kN*m/m
ETC.
```

```
-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      10:49:27          |
|-----
```

P R E P R O C E S S O R D A T A

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N O . O F C O M M A N D S 89

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Strato1_2_8_L_0 5.84 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -9.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback_768111 LeftWall_32 -2.5 acciaioarmonico_124 2.211E-05 163.6 15 0 0
29 : STRIP LeftWall_32 2 5 0 13 0 15 45
30 : STRIP LeftWall_32 2 5 0 40 0 13 30
31 : STEP Stage1_31
32 : CHANGE Strato1_2_8_L_0 U-FRICT=23.91 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KA=0.787 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 U-KP=4.176 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KA=0.375 LeftWall_32
37 : CHANGE Strato1_2_8_L_0 D-KP=3.038 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 U-FRICT=29.26 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KA=0.47 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 U-KP=5.524 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KA=0.3 LeftWall_32
43 : CHANGE Strato2_3095_82743_L_0 D-KP=4.102 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
45 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 U-COHE=16 LeftWall_32
47 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
48 : SETWALL LeftWall_32
49 : GEOM 0 0
50 : WATER -26 0 -16 0 0
51 : ADD WallElement_33
52 : ENDSTEP
53 : STEP Stage2_759103
54 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
55 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
56 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
57 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
58 : SETWALL LeftWall_32
59 : GEOM 0 0
60 : WATER -26 0 -16 0 0
61 : ENDSTEP
62 : STEP Stage3_158
63 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
64 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
65 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
66 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
67 : SETWALL LeftWall_32
68 : GEOM 0 -3
69 : WATER -26 0 -16 0 0
70 : ENDSTEP
71 : STEP Stage4_617
72 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
73 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
74 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
75 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
76 : SETWALL LeftWall_32
77 : GEOM 0 -3
78 : WATER -26 0 -16 0 0
79 : ADD Tieback_768111
80 : ENDSTEP
81 : STEP Stage5_714
82 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
83 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32

```

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84 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
85 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
86 : SETWALL LeftWall_32
87 : GEOM 0 -6.73
88 : WATER -26 0 -16 0 0
89 : ENDSTEP



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```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
-----
    
```

NODAL POINT DATA

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD /
1	0.0000	0.0000 /	2	0.0000 -0.20000 /	3	0.0000 -0.40000 /	4	0.0000 -0.60000 /
5	0.0000	-0.80000 /	6	0.0000 -1.0000 /	7	0.0000 -1.2000 /	8	0.0000 -1.4000 /
9	0.0000	-1.6000 /	10	0.0000 -1.8000 /	11	0.0000 -2.0000 /	12	0.0000 -2.2000 /
13	0.0000	-2.4000 /	14	0.0000 -2.5000 /	15	0.0000 -2.7000 /	16	0.0000 -2.9000 /
17	0.0000	-3.1000 /	18	0.0000 -3.3000 /	19	0.0000 -3.5000 /	20	0.0000 -3.7000 /
21	0.0000	-3.9000 /	22	0.0000 -4.1000 /	23	0.0000 -4.3000 /	24	0.0000 -4.5000 /
25	0.0000	-4.7000 /	26	0.0000 -4.9000 /	27	0.0000 -5.1000 /	28	0.0000 -5.3000 /
29	0.0000	-5.5000 /	30	0.0000 -5.7000 /	31	0.0000 -5.9000 /	32	0.0000 -6.1000 /
33	0.0000	-6.3000 /	34	0.0000 -6.5000 /	35	0.0000 -6.7000 /	36	0.0000 -6.9000 /
37	0.0000	-7.1000 /	38	0.0000 -7.3000 /	39	0.0000 -7.5000 /	40	0.0000 -7.7000 /
41	0.0000	-7.9000 /	42	0.0000 -8.1000 /	43	0.0000 -8.3000 /	44	0.0000 -8.5000 /
45	0.0000	-8.7000 /	46	0.0000 -8.9000 /	47	0.0000 -9.1000 /	48	0.0000 -9.3000 /
49	0.0000	-9.5000 /	50	0.0000 -9.7000 /	51	0.0000 -9.9000 /	52	0.0000 -10.100 /
53	0.0000	-10.300 /	54	0.0000 -10.500 /	55	0.0000 -10.700 /	56	0.0000 -10.900 /
57	0.0000	-11.100 /	58	0.0000 -11.300 /	59	0.0000 -11.500 /	60	0.0000 -11.700 /
61	0.0000	-11.900 /	62	0.0000 -12.100 /	63	0.0000 -12.300 /	64	0.0000 -12.500 /
65	0.0000	-12.700 /	66	0.0000 -12.900 /	67	0.0000 -13.100 /	68	0.0000 -13.300 /
69	0.0000	-13.500 /	70	0.0000 -13.700 /	71	0.0000 -13.900 /	72	0.0000 -14.100 /
73	0.0000	-14.300 /	74	0.0000 -14.500 /	75	0.0000 -14.700 /	76	0.0000 -14.900 /
77	0.0000	-15.100 /	78	0.0000 -15.300 /	79	0.0000 -15.500 /	80	0.0000 -15.700 /
81	0.0000	-15.900 /	82	0.0000 -16.000 /				

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
-----
    
```

```

ELEMENT GROUP NO. 1

O_L      :
 5 82 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

.....2D PLASTIC SOIL .....
    
```

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

```

material set no. 1

prop( 1) angle      0.00000
prop( 2) layer as foreseen 1.00000
    
```

```

material set no. 2

prop( 1) angle      0.00000
prop( 2) layer as foreseen 2.00000
    
```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000

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GRUPPO FERROVIE DELLO STATO ITALIANE

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6	6	1	0.2000	0.000	0.000	0.000	1.000					
7	7	1	0.2000	0.000	0.000	0.000	1.000					
8	8	1	0.2000	0.000	0.000	0.000	1.000					
9	9	1	0.2000	0.000	0.000	0.000	1.000					
10	10	1	0.2000	0.000	0.000	0.000	1.000					
11	11	1	0.2000	0.000	0.000	0.000	1.000					
12	12	1	0.2000	0.000	0.000	0.000	1.000					
13	13	1	0.1500	0.000	0.000	0.000	1.000					
14	14	1	0.1500	0.000	0.000	0.000	1.000					
15	15	1	0.2000	0.000	0.000	0.000	1.000					
16	16	1	0.2000	0.000	0.000	0.000	1.000					
17	17	1	0.2000	0.000	0.000	0.000	1.000					
18	18	1	0.2000	0.000	0.000	0.000	1.000					
19	19	1	0.2000	0.000	0.000	0.000	1.000					
20	20	1	0.2000	0.000	0.000	0.000	1.000					
21	21	1	0.2000	0.000	0.000	0.000	1.000					
22	22	1	0.2000	0.000	0.000	0.000	1.000					
23	23	1	0.2000	0.000	0.000	0.000	1.000					
24	24	1	0.2000	0.000	0.000	0.000	1.000					
25	25	1	0.2000	0.000	0.000	0.000	1.000					
26	26	1	0.2000	0.000	0.000	0.000	1.000					
27	27	1	0.2000	0.000	0.000	0.000	1.000					
28	28	1	0.2000	0.000	0.000	0.000	1.000					
29	29	1	0.2000	0.000	0.000	0.000	1.000					
30	30	1	0.2000	0.000	0.000	0.000	1.000					
31	31	1	0.2000	0.000	0.000	0.000	1.000					
32	32	1	0.2000	0.000	0.000	0.000	1.000					
33	33	1	0.2000	0.000	0.000	0.000	1.000					
34	34	1	0.2000	0.000	0.000	0.000	1.000					
35	35	1	0.2000	0.000	0.000	0.000	1.000					
36	36	1	0.2000	0.000	0.000	0.000	1.000					
37	37	1	0.2000	0.000	0.000	0.000	1.000					
38	38	1	0.2000	0.000	0.000	0.000	1.000					
39	39	1	0.2000	0.000	0.000	0.000	1.000					
40	40	1	0.2000	0.000	0.000	0.000	1.000					
41	41	1	0.2000	0.000	0.000	0.000	1.000					
42	42	1	0.2000	0.000	0.000	0.000	1.000					
43	43	1	0.2000	0.000	0.000	0.000	1.000					
44	44	1	0.2000	0.000	0.000	0.000	1.000					
45	45	1	0.2000	0.000	0.000	0.000	1.000					
46	46	1	0.2000	0.000	0.000	0.000	1.000					
47	47	1	0.2000	0.000	0.000	0.000	1.000					
48	48	1	0.2000	0.000	0.000	0.000	1.000					
49	49	1	0.2000	0.000	0.000	0.000	1.000					
50	50	2	0.2000	0.000	0.000	0.000	1.000					
51	51	2	0.2000	0.000	0.000	0.000	1.000					
52	52	2	0.2000	0.000	0.000	0.000	1.000					
53	53	2	0.2000	0.000	0.000	0.000	1.000					
54	54	2	0.2000	0.000	0.000	0.000	1.000					
55	55	2	0.2000	0.000	0.000	0.000	1.000					
56	56	2	0.2000	0.000	0.000	0.000	1.000					
57	57	2	0.2000	0.000	0.000	0.000	1.000					
58	58	2	0.2000	0.000	0.000	0.000	1.000					
59	59	2	0.2000	0.000	0.000	0.000	1.000					
60	60	2	0.2000	0.000	0.000	0.000	1.000					
61	61	2	0.2000	0.000	0.000	0.000	1.000					
62	62	2	0.2000	0.000	0.000	0.000	1.000					
63	63	2	0.2000	0.000	0.000	0.000	1.000					
64	64	2	0.2000	0.000	0.000	0.000	1.000					
65	65	2	0.2000	0.000	0.000	0.000	1.000					
66	66	2	0.2000	0.000	0.000	0.000	1.000					
67	67	2	0.2000	0.000	0.000	0.000	1.000					
68	68	2	0.2000	0.000	0.000	0.000	1.000					
69	69	2	0.2000	0.000	0.000	0.000	1.000					
70	70	2	0.2000	0.000	0.000	0.000	1.000					
71	71	2	0.2000	0.000	0.000	0.000	1.000					
72	72	2	0.2000	0.000	0.000	0.000	1.000					
73	73	2	0.2000	0.000	0.000	0.000	1.000					
74	74	2	0.2000	0.000	0.000	0.000	1.000					
75	75	2	0.2000	0.000	0.000	0.000	1.000					
76	76	2	0.2000	0.000	0.000	0.000	1.000					
77	77	2	0.2000	0.000	0.000	0.000	1.000					
78	78	2	0.2000	0.000	0.000	0.000	1.000					
79	79	2	0.2000	0.000	0.000	0.000	1.000					
80	80	2	0.2000	0.000	0.000	0.000	1.000					
81	81	2	0.1500	0.000	0.000	0.000	1.000					
82	82	2	0.5000E-01	0.000	0.000	0.000	1.000					

GENERAL CONTRACTOR



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|-----

```

ELEMENT GROUP NO. 2

```

0_R      :
5 82 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

```

.....2D PLASTIC SOIL .....

```

element group behaviour throughout stage analysis

stage status

```

-----
1 active
2 active
3 active
4 active
5 active

```

material set no. 1

```

prop( 1) angle      180.000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle      180.000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.1500	0.000	0.000	0.000	2.000
14	14	1	0.1500	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000

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42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	2	0.2000	0.000	0.000	0.000	2.000
51	51	2	0.2000	0.000	0.000	0.000	2.000
52	52	2	0.2000	0.000	0.000	0.000	2.000
53	53	2	0.2000	0.000	0.000	0.000	2.000
54	54	2	0.2000	0.000	0.000	0.000	2.000
55	55	2	0.2000	0.000	0.000	0.000	2.000
56	56	2	0.2000	0.000	0.000	0.000	2.000
57	57	2	0.2000	0.000	0.000	0.000	2.000
58	58	2	0.2000	0.000	0.000	0.000	2.000
59	59	2	0.2000	0.000	0.000	0.000	2.000
60	60	2	0.2000	0.000	0.000	0.000	2.000
61	61	2	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1500	0.000	0.000	0.000	2.000
82	82	2	0.5000E-01	0.000	0.000	0.000	2.000

```

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|          |
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```

```

ELEMENT GROUP NO.  3

WallElement_33
2 81 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
1  active
2  active
3  active
4  active
5  active

```

```

material set no.  1

prop( 1) young modulus  0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio  0.00000
prop( 5) future .....0.252200E-43

```

```

no. of step variable items:  1
step  inertia multiplier
-----
1  1.000
2  1.000
3  1.000
4  1.000
5  1.000

```

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element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000
29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000
37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000
39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000
62	62	63	1	0.000	0.000	0.6848	0.000	0.000
63	63	64	1	0.000	0.000	0.6848	0.000	0.000
64	64	65	1	0.000	0.000	0.6848	0.000	0.000
65	65	66	1	0.000	0.000	0.6848	0.000	0.000
66	66	67	1	0.000	0.000	0.6848	0.000	0.000
67	67	68	1	0.000	0.000	0.6848	0.000	0.000
68	68	69	1	0.000	0.000	0.6848	0.000	0.000
69	69	70	1	0.000	0.000	0.6848	0.000	0.000
70	70	71	1	0.000	0.000	0.6848	0.000	0.000
71	71	72	1	0.000	0.000	0.6848	0.000	0.000
72	72	73	1	0.000	0.000	0.6848	0.000	0.000
73	73	74	1	0.000	0.000	0.6848	0.000	0.000
74	74	75	1	0.000	0.000	0.6848	0.000	0.000
75	75	76	1	0.000	0.000	0.6848	0.000	0.000
76	76	77	1	0.000	0.000	0.6848	0.000	0.000
77	77	78	1	0.000	0.000	0.6848	0.000	0.000
78	78	79	1	0.000	0.000	0.6848	0.000	0.000
79	79	80	1	0.000	0.000	0.6848	0.000	0.000

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80	80	81	1	0.000	0.000	0.6848	0.000	0.000
81	81	82	1	0.000	0.000	0.6848	0.000	0.000

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ELEMENT GROUP NO. 4

Tieback_768111 :

6 1 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 2 0

.....2D POST-TENSION ANCHOR....

element group behaviour throughout stage analysis

stage	status
1	inactive
2	inactive
3	inactive
4	active
5	active

material set no. 1

prop(1) angle 15.0000

prop(2) young modulus 0.200100E+09

prop(3) modification time 0.00000

prop(4) new young modulus 0.00000

no. of step variable items: 2

step	-ve lim	+ve lim
1	0.000	0.000
2	0.000	0.000
3	0.000	0.000
4	0.000	0.000
5	0.000	0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	14	1	0.2211E-04	163.6	0.000	0.000

```

+-----+
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NO. OF NODAL LOADS (NLOAD) 0

NO. OF LOAD CURVES (NLCUR) 10

MAXIMUM POINTS/LCURVE (NPTM)..... 5

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L O A D D A T A

LOAD FUNCTION NUMBER = 1

NUMBER OF TIME POINTS = 5

TIME VALUE FUNCTION

0.00000 0.0000E+00

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0.80000 0.0000E+00
1.00000 0.1000E+01
1.20000 0.0000E+00
6.00000 0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

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TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0



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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
+-----+
    
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L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
+-----+
    
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NO. OF LAYERS 2
 NO. OF DATA PER LAYER..... 100

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
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LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 5.8400	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 23.910	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 29.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.78700	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.1760	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 23.910	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 29.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.37500	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.0380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -9.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 16.000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 20.000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 29.260	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 35.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.47000	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.5240	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 16.000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 20.000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 29.260	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 35.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.30000	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.1020	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 5.8400	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 23.910	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 29.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.78700	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.1760	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 23.910	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 29.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.37500	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.0380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -9.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 16.000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 20.000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 29.260	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 35.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.47000	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.5240	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.78700 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1760 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.47000 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.5240 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.78700 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1760 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -9.5000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.47000 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.5240 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 5.8400 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.78700 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1760 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5



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ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -9.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 16.000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 20.000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 29.260	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 35.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.47000	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.5240	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 16.000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 20.000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 29.260	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 35.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.30000	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.1020	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 10 VALUES

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|                                     PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     NewProject.BaseDesignSection_28.A2M2R1_3514
|                                     Exe Time :24 July 2019      10:49:27
|
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PHASE DESCRIPTORS

STEP NO.	1		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 1



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STEP NO. 2

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	0.000	0.000
Z-WATER_TABLE	-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 2

STEP NO. 3

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 3

STEP NO. 4

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000

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DZW_OF_THE_WATER_TABLE          0.000      0.000
QS_ON_THE_EXCAVATION_SIDE        0.000      0.000
ZQS                               -0.9990E+30 -0.9990E+30
ZCUT                              0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000      0.000
PORE_UPDATE_FLAG                 0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]   0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]   0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]    0.000      0.000
UPHILL DELTA/PHI RATIO             0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000      0.000
DOWNHILL DELTA/PHI RATIO           0.000      0.000
DYN.WATER BEHAVIOUR               0.000      0.000
Excess pore pressure RATIO Ru      0.000      0.000
SEISMIC PRESSURE LOWER VALUE       0.000      0.000
SEISMIC PRESSURE UPPER VALUE       0.000      0.000
SEISMIC PRESSURE LOWER LEVEL       0.000      0.000
SEISMIC PRESSURE UPPER LEVEL       0.000      0.000
    
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=====end of step 4

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STEP NO.      5
LEFT WALL     RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC          0.000      0.000
Z-EXCAVATION  -6.730      0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL         0.000      0.000
ZQ            0.000      0.000
DZW_OF_THE_WATER_TABLE          0.000      0.000
QS_ON_THE_EXCAVATION_SIDE        0.000      0.000
ZQS                               -0.9990E+30 -0.9990E+30
ZCUT                              0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00    -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000      0.000
PORE_UPDATE_FLAG                 0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]   0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]   0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]    0.000      0.000
UPHILL DELTA/PHI RATIO             0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000      0.000
DOWNHILL DELTA/PHI RATIO           0.000      0.000
DYN.WATER BEHAVIOUR               0.000      0.000
Excess pore pressure RATIO Ru      0.000      0.000
SEISMIC PRESSURE LOWER VALUE       0.000      0.000
SEISMIC PRESSURE UPPER VALUE       0.000      0.000
SEISMIC PRESSURE LOWER LEVEL       0.000      0.000
SEISMIC PRESSURE UPPER LEVEL       0.000      0.000
    
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=====end of step 5

LEFT-HAND WALL

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LOWER LEVEL    -16.00000
UPPER LEVEL     0.00000
    
```

RIGHT-HAND WALL

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LOWER LEVEL    -16.00000
UPPER LEVEL     0.00000
    
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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  10:49:27
|-----|
    
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 2

INPUT DATA FOR INITIAL STRESS SET NO. 1
 PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 2.0000
 END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
 FOUNDATION WIDTH (B) 13.000000000000000
 ZETA-F..... 0.000000000000000E+000
 Q-F 15.000000000000000
 BETA 45.000000000000000
 BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO. 2
 PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 2.0000
 END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
 FOUNDATION WIDTH (B) 40.000000000000000
 ZETA-F..... 0.000000000000000E+000
 Q-F 13.000000000000000
 BETA 30.000000000000000
 BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
 POSITION 3803

NO. OF D.P.W FOR THIS AREA 9726
 MAX NO. OF D.P.W. AVAILABLE 81920
 ** MAX NO OF ITERATIONS SET TO 100

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ITER 0 RNORM = 0.000  RMNORM= 0.000
      RINORM=0.5099E+05 RIMNOR= 0.000
      RENORM= 0.000  REMNOR= 0.000  RATIO = 0.000  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 30.45  RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.5099E+05 RDR = 0.000
      RATIOT= 0.000  RATIOR= 0.000
      MAX UN= 0.000  IEQ= 164 NODE 82 DOF 2 X-ROT. F
      MIN UN= 0.000  IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 1 RNORM = 0.000  RMNORM= 0.000
      RINORM=0.5099E+05 RIMNOR= 0.000
      RENORM= 0.000  REMNOR= 0.000  RATIO = 0.000  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 30.45  RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.5099E+05 RDR = 0.000
      RATIOT= 0.000  RATIOR= 0.000
      MAX UN= 0.000  IEQ= 164 NODE 82 DOF 2 X-ROT. F
      MIN UN= 0.000  IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 2 RNORM = 0.000  RMNORM= 0.000
      RINORM=0.5099E+05 RIMNOR= 0.000
      RENORM= 0.000  REMNOR= 0.000  RATIO = 0.000  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 30.45  RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.5099E+05 RDR = 0.000
      RATIOT= 0.000  RATIOR= 0.000
      MAX UN= 0.000  IEQ= 164 NODE 82 DOF 2 X-ROT. F
      MIN UN= 0.000  IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```


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18 D	6.646	0.000	62.70 33.23	62.70	33.23	V-C	1.4411E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Strato1_2_8_L_0								
19 D	7.049	0.000	66.50 35.25	66.50	35.25	V-C	1.4411E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Strato1_2_8_L_0								
20 D	7.452	0.000	70.30 37.26	70.30	37.26	V-C	1.4411E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Strato1_2_8_L_0								
21 D	7.855	0.000	74.10 39.27	74.10	39.27	V-C	1.4411E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Strato1_2_8_L_0								
22 D	8.257	0.000	77.90 41.29	77.90	41.29	V-C	1.4411E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Strato1_2_8_L_0								
23 D	8.660	0.000	81.70 43.30	81.70	43.30	V-C	1.4411E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Strato1_2_8_L_0								
24 D	9.063	0.000	85.50 45.32	85.50	45.32	V-C	1.4411E+04	-4.500	0.000	1.000	1.000
45.32	0.000	0.000	Strato1_2_8_L_0								
25 D	9.466	0.000	89.30 47.33	89.30	47.33	V-C	1.4411E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Strato1_2_8_L_0								
26 D	9.869	0.000	93.10 49.34	93.10	49.34	V-C	1.4411E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Strato1_2_8_L_0								
27 D	10.27	0.000	96.90 51.36	96.90	51.36	V-C	1.4411E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Strato1_2_8_L_0								
28 D	10.67	0.000	100.7 53.37	100.7	53.37	V-C	1.4411E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Strato1_2_8_L_0								
29 D	11.08	0.000	104.5 55.38	104.5	55.38	V-C	1.4411E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Strato1_2_8_L_0								
30 D	11.48	0.000	108.3 57.40	108.3	57.40	V-C	1.4411E+04	-5.700	0.000	1.000	1.000
57.40	0.000	0.000	Strato1_2_8_L_0								
31 D	11.88	0.000	112.1 59.41	112.1	59.41	V-C	1.4411E+04	-5.900	0.000	1.000	1.000
59.41	0.000	0.000	Strato1_2_8_L_0								
32 D	12.29	0.000	115.9 61.43	115.9	61.43	V-C	1.4411E+04	-6.100	0.000	1.000	1.000
61.43	0.000	0.000	Strato1_2_8_L_0								
33 D	12.69	0.000	119.7 63.44	119.7	63.44	V-C	1.4411E+04	-6.300	0.000	1.000	1.000
63.44	0.000	0.000	Strato1_2_8_L_0								
34 D	13.09	0.000	123.5 65.45	123.5	65.45	V-C	1.4411E+04	-6.500	0.000	1.000	1.000
65.45	0.000	0.000	Strato1_2_8_L_0								
35 D	13.49	0.000	127.3 67.47	127.3	67.47	V-C	1.4411E+04	-6.700	0.000	1.000	1.000
67.47	0.000	0.000	Strato1_2_8_L_0								
36 D	13.90	0.000	131.1 69.48	131.1	69.48	V-C	1.4411E+04	-6.900	0.000	1.000	1.000
69.48	0.000	0.000	Strato1_2_8_L_0								
37 D	14.30	0.000	134.9 71.50	134.9	71.50	V-C	1.4411E+04	-7.100	0.000	1.000	1.000
71.50	0.000	0.000	Strato1_2_8_L_0								
38 D	14.70	0.000	138.7 73.51	138.7	73.51	V-C	1.4411E+04	-7.300	0.000	1.000	1.000
73.51	0.000	0.000	Strato1_2_8_L_0								
39 D	15.10	0.000	142.5 75.52	142.5	75.52	V-C	1.4411E+04	-7.500	0.000	1.000	1.000
75.52	0.000	0.000	Strato1_2_8_L_0								
40 D	15.51	0.000	146.3 77.54	146.3	77.54	V-C	1.4411E+04	-7.700	0.000	1.000	1.000
77.54	0.000	0.000	Strato1_2_8_L_0								
41 D	15.91	0.000	150.1 79.55	150.1	79.55	V-C	1.4411E+04	-7.900	0.000	1.000	1.000
79.55	0.000	0.000	Strato1_2_8_L_0								
42 D	16.31	0.000	153.9 81.57	153.9	81.57	V-C	1.4411E+04	-8.100	0.000	1.000	1.000
81.57	0.000	0.000	Strato1_2_8_L_0								
43 D	16.72	0.000	157.7 83.58	157.7	83.58	V-C	1.4411E+04	-8.300	0.000	1.000	1.000
83.58	0.000	0.000	Strato1_2_8_L_0								
44 D	17.12	0.000	161.5 85.59	161.5	85.59	V-C	1.4411E+04	-8.500	0.000	1.000	1.000
85.59	0.000	0.000	Strato1_2_8_L_0								
45 D	17.52	0.000	165.3 87.61	165.3	87.61	V-C	1.4411E+04	-8.700	0.000	1.000	1.000
87.61	0.000	0.000	Strato1_2_8_L_0								
46 D	17.92	0.000	169.1 89.62	169.1	89.62	V-C	1.4411E+04	-8.900	0.000	1.000	1.000
89.62	0.000	0.000	Strato1_2_8_L_0								
47 D	18.33	0.000	172.9 91.64	172.9	91.64	V-C	1.4411E+04	-9.100	0.000	1.000	1.000
91.64	0.000	0.000	Strato1_2_8_L_0								
48 D	18.73	0.000	176.7 93.65	176.7	93.65	V-C	1.4411E+04	-9.300	0.000	1.000	1.000
93.65	0.000	0.000	Strato1_2_8_L_0								
49 D	19.13	0.000	180.5 95.66	180.5	95.66	V-C	1.4411E+04	-9.500	0.000	1.000	1.000
95.66	0.000	0.000	Strato1_2_8_L_0								
50 D	18.45	0.000	184.5 92.25	184.5	92.25	V-C	3.9996E+04	-9.700	0.000	1.000	1.000
92.25	0.000	0.000	Strato2_3095_82743_L_0								
51 D	18.85	0.000	188.5 94.25	188.5	94.25	V-C	3.9996E+04	-9.900	0.000	1.000	1.000
94.25	0.000	0.000	Strato2_3095_82743_L_0								
52 D	19.25	0.000	192.5 96.25	192.5	96.25	V-C	3.9996E+04	-10.10	0.000	1.000	1.000
96.25	0.000	0.000	Strato2_3095_82743_L_0								
53 D	19.65	0.000	196.5 98.25	196.5	98.25	V-C	3.9996E+04	-10.30	0.000	1.000	1.000
98.25	0.000	0.000	Strato2_3095_82743_L_0								
54 D	20.05	0.000	200.5 100.2	200.5	100.2	V-C	3.9996E+04	-10.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0								
55 D	20.45	0.000	204.5 102.2	204.5	102.2	V-C	3.9996E+04	-10.70	0.000	1.000	1.000
102.2	0.000	0.000	Strato2_3095_82743_L_0								
56 D	20.85	0.000	208.5 104.2	208.5	104.2	V-C	3.9996E+04	-10.90	0.000	1.000	1.000
104.2	0.000	0.000	Strato2_3095_82743_L_0								
57 D	21.25	0.000	212.5 106.2	212.5	106.2	V-C	3.9996E+04	-11.10	0.000	1.000	1.000
106.2	0.000	0.000	Strato2_3095_82743_L_0								
58 D	21.65	0.000	216.5 108.2	216.5	108.2	V-C	3.9996E+04	-11.30	0.000	1.000	1.000
108.2	0.000	0.000	Strato2_3095_82743_L_0								
59 D	22.05	0.000	220.5 110.2	220.5	110.2	V-C	3.9996E+04	-11.50	0.000	1.000	1.000
110.2	0.000	0.000	Strato2_3095_82743_L_0								
60 D	22.45	0.000	224.5 112.2	224.5	112.2	V-C	3.9996E+04	-11.70	0.000	1.000	1.000

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112.2	0.000	0.000	Strato2_3095_82743_L_0					
61 D	22.85	0.000	228.5 114.2	228.5	114.2	V-C 3.9996E+04 -11.90	0.000	1.000
114.2	0.000	0.000	Strato2_3095_82743_L_0					
62 D	23.25	0.000	232.5 116.2	232.5	116.2	V-C 3.9996E+04 -12.10	0.000	1.000
116.2	0.000	0.000	Strato2_3095_82743_L_0					
63 D	23.65	0.000	236.5 118.2	236.5	118.2	V-C 3.9996E+04 -12.30	0.000	1.000
118.2	0.000	0.000	Strato2_3095_82743_L_0					
64 D	24.05	0.000	240.5 120.2	240.5	120.2	V-C 3.9996E+04 -12.50	0.000	1.000
120.2	0.000	0.000	Strato2_3095_82743_L_0					
65 D	24.45	0.000	244.5 122.2	244.5	122.2	V-C 3.9996E+04 -12.70	0.000	1.000
122.2	0.000	0.000	Strato2_3095_82743_L_0					
66 D	24.85	0.000	248.5 124.2	248.5	124.2	V-C 3.9996E+04 -12.90	0.000	1.000
124.2	0.000	0.000	Strato2_3095_82743_L_0					
67 D	25.25	0.000	252.5 126.2	252.5	126.2	V-C 3.9996E+04 -13.10	0.000	1.000
126.2	0.000	0.000	Strato2_3095_82743_L_0					
68 D	25.65	0.000	256.5 128.2	256.5	128.2	V-C 3.9996E+04 -13.30	0.000	1.000
128.2	0.000	0.000	Strato2_3095_82743_L_0					
69 D	26.05	0.000	260.5 130.2	260.5	130.2	V-C 3.9996E+04 -13.50	0.000	1.000
130.2	0.000	0.000	Strato2_3095_82743_L_0					
70 D	26.45	0.000	264.5 132.2	264.5	132.2	V-C 3.9996E+04 -13.70	0.000	1.000
132.2	0.000	0.000	Strato2_3095_82743_L_0					
71 D	26.85	0.000	268.5 134.2	268.5	134.2	V-C 3.9996E+04 -13.90	0.000	1.000
134.2	0.000	0.000	Strato2_3095_82743_L_0					
72 D	27.25	0.000	272.5 136.2	272.5	136.2	V-C 3.9996E+04 -14.10	0.000	1.000
136.2	0.000	0.000	Strato2_3095_82743_L_0					
73 D	27.65	0.000	276.5 138.2	276.5	138.2	V-C 3.9996E+04 -14.30	0.000	1.000
138.2	0.000	0.000	Strato2_3095_82743_L_0					
74 D	28.05	0.000	280.5 140.2	280.5	140.2	V-C 3.9996E+04 -14.50	0.000	1.000
140.2	0.000	0.000	Strato2_3095_82743_L_0					
75 D	28.45	0.000	284.5 142.2	284.5	142.2	V-C 3.9996E+04 -14.70	0.000	1.000
142.2	0.000	0.000	Strato2_3095_82743_L_0					
76 D	28.85	0.000	288.5 144.2	288.5	144.2	V-C 3.9996E+04 -14.90	0.000	1.000
144.2	0.000	0.000	Strato2_3095_82743_L_0					
77 D	29.25	0.000	292.5 146.2	292.5	146.2	V-C 3.9996E+04 -15.10	0.000	1.000
146.2	0.000	0.000	Strato2_3095_82743_L_0					
78 D	29.65	0.000	296.5 148.2	296.5	148.2	V-C 3.9996E+04 -15.30	0.000	1.000
148.2	0.000	0.000	Strato2_3095_82743_L_0					
79 D	30.05	0.000	300.5 150.2	300.5	150.2	V-C 3.9996E+04 -15.50	0.000	1.000
150.2	0.000	0.000	Strato2_3095_82743_L_0					
80 D	30.45	0.000	304.5 152.2	304.5	152.2	V-C 3.9996E+04 -15.70	0.000	1.000
152.2	0.000	0.000	Strato2_3095_82743_L_0					
81 D	23.14	0.000	308.5 154.2	308.5	154.2	V-C 3.9996E+04 -15.90	0.000	1.000
154.2	0.000	0.000	Strato2_3095_82743_L_0					
82 D	7.763	0.000	310.5 155.2	310.5	155.2	V-C 3.9996E+04 -16.00	0.000	1.000
155.2	0.000	0.000	Strato2_3095_82743_L_0					

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  10:49:27
|
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	1.2197E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	1.2197E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Strato1_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	1.2197E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Strato1_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	1.2197E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Strato1_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	1.2197E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Strato1_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	1.2197E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	1.2197E+04	-1.200	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 207 di 560
12.08	0.000	0.000	Strato1_2_8_L_0		
8 D	2.820	0.000	26.60 14.10	26.60	14.10
14.10	0.000	0.000	Strato1_2_8_L_0		
9 D	3.222	0.000	30.40 16.11	30.40	16.11
16.11	0.000	0.000	Strato1_2_8_L_0		
10 D	3.625	0.000	34.20 18.13	34.20	18.13
18.13	0.000	0.000	Strato1_2_8_L_0		
11 D	4.028	0.000	38.00 20.14	38.00	20.14
20.14	0.000	0.000	Strato1_2_8_L_0		
12 D	4.431	0.000	41.80 22.15	41.80	22.15
22.15	0.000	0.000	Strato1_2_8_L_0		
13 D	3.625	0.000	45.60 24.17	45.60	24.17
24.17	0.000	0.000	Strato1_2_8_L_0		
14 D	3.776	0.000	47.50 25.18	47.50	25.18
25.18	0.000	0.000	Strato1_2_8_L_0		
15 D	5.438	0.000	51.30 27.19	51.30	27.19
27.19	0.000	0.000	Strato1_2_8_L_0		
16 D	5.841	0.000	55.10 29.20	55.10	29.20
29.20	0.000	0.000	Strato1_2_8_L_0		
17 D	6.243	0.000	58.90 31.22	58.90	31.22
31.22	0.000	0.000	Strato1_2_8_L_0		
18 D	6.646	0.000	62.70 33.23	62.70	33.23
33.23	0.000	0.000	Strato1_2_8_L_0		
19 D	7.049	0.000	66.50 35.25	66.50	35.25
35.25	0.000	0.000	Strato1_2_8_L_0		
20 D	7.452	0.000	70.30 37.26	70.30	37.26
37.26	0.000	0.000	Strato1_2_8_L_0		
21 D	7.855	0.000	74.10 39.27	74.10	39.27
39.27	0.000	0.000	Strato1_2_8_L_0		
22 D	8.257	0.000	77.90 41.29	77.90	41.29
41.29	0.000	0.000	Strato1_2_8_L_0		
23 D	8.660	0.000	81.70 43.30	81.70	43.30
43.30	0.000	0.000	Strato1_2_8_L_0		
24 D	9.063	0.000	85.50 45.32	85.50	45.32
45.32	0.000	0.000	Strato1_2_8_L_0		
25 D	9.466	0.000	89.30 47.33	89.30	47.33
47.33	0.000	0.000	Strato1_2_8_L_0		
26 D	9.869	0.000	93.10 49.34	93.10	49.34
49.34	0.000	0.000	Strato1_2_8_L_0		
27 D	10.27	0.000	96.90 51.36	96.90	51.36
51.36	0.000	0.000	Strato1_2_8_L_0		
28 D	10.67	0.000	100.7 53.37	100.7	53.37
53.37	0.000	0.000	Strato1_2_8_L_0		
29 D	11.08	0.000	104.5 55.38	104.5	55.38
55.38	0.000	0.000	Strato1_2_8_L_0		
30 D	11.48	0.000	108.3 57.40	108.3	57.40
57.40	0.000	0.000	Strato1_2_8_L_0		
31 D	11.88	0.000	112.1 59.41	112.1	59.41
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.91	0.000	150.1 79.55	150.1	79.55
79.55	0.000	0.000	Strato1_2_8_L_0		
42 D	16.31	0.000	153.9 81.57	153.9	81.57
81.57	0.000	0.000	Strato1_2_8_L_0		
43 D	16.72	0.000	157.7 83.58	157.7	83.58
83.58	0.000	0.000	Strato1_2_8_L_0		
44 D	17.12	0.000	161.5 85.59	161.5	85.59
85.59	0.000	0.000	Strato1_2_8_L_0		
45 D	17.52	0.000	165.3 87.61	165.3	87.61
87.61	0.000	0.000	Strato1_2_8_L_0		
46 D	17.92	0.000	169.1 89.62	169.1	89.62
89.62	0.000	0.000	Strato1_2_8_L_0		
47 D	18.33	0.000	172.9 91.64	172.9	91.64
91.64	0.000	0.000	Strato1_2_8_L_0		
48 D	18.73	0.000	176.7 93.65	176.7	93.65
93.65	0.000	0.000	Strato1_2_8_L_0		
49 D	19.13	0.000	180.5 95.66	180.5	95.66
95.66	0.000	0.000	Strato1_2_8_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 208 di 560							
50 D	18.45	0.000	184.5	92.25	184.5	92.25	V-C	2.7468E+04	-9.700	0.000	1.000	1.000
92.25	0.000	0.000	Strato2_3095_82743_L_0									
51 D	18.85	0.000	188.5	94.25	188.5	94.25	V-C	2.7468E+04	-9.900	0.000	1.000	1.000
94.25	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.25	0.000	192.5	96.25	192.5	96.25	V-C	2.7468E+04	-10.10	0.000	1.000	1.000
96.25	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.65	0.000	196.5	98.25	196.5	98.25	V-C	2.7468E+04	-10.30	0.000	1.000	1.000
98.25	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.05	0.000	200.5	100.2	200.5	100.2	V-C	2.7468E+04	-10.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.45	0.000	204.5	102.2	204.5	102.2	V-C	2.7468E+04	-10.70	0.000	1.000	1.000
102.2	0.000	0.000	Strato2_3095_82743_L_0									
56 D	20.85	0.000	208.5	104.2	208.5	104.2	V-C	2.7468E+04	-10.90	0.000	1.000	1.000
104.2	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.25	0.000	212.5	106.2	212.5	106.2	V-C	2.7468E+04	-11.10	0.000	1.000	1.000
106.2	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.65	0.000	216.5	108.2	216.5	108.2	V-C	2.7468E+04	-11.30	0.000	1.000	1.000
108.2	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.05	0.000	220.5	110.2	220.5	110.2	V-C	2.7468E+04	-11.50	0.000	1.000	1.000
110.2	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.45	0.000	224.5	112.2	224.5	112.2	V-C	2.7468E+04	-11.70	0.000	1.000	1.000
112.2	0.000	0.000	Strato2_3095_82743_L_0									
61 D	22.85	0.000	228.5	114.2	228.5	114.2	V-C	2.7468E+04	-11.90	0.000	1.000	1.000
114.2	0.000	0.000	Strato2_3095_82743_L_0									
62 D	23.25	0.000	232.5	116.2	232.5	116.2	V-C	2.7468E+04	-12.10	0.000	1.000	1.000
116.2	0.000	0.000	Strato2_3095_82743_L_0									
63 D	23.65	0.000	236.5	118.2	236.5	118.2	V-C	2.7468E+04	-12.30	0.000	1.000	1.000
118.2	0.000	0.000	Strato2_3095_82743_L_0									
64 D	24.05	0.000	240.5	120.2	240.5	120.2	V-C	2.7468E+04	-12.50	0.000	1.000	1.000
120.2	0.000	0.000	Strato2_3095_82743_L_0									
65 D	24.45	0.000	244.5	122.2	244.5	122.2	V-C	2.7468E+04	-12.70	0.000	1.000	1.000
122.2	0.000	0.000	Strato2_3095_82743_L_0									
66 D	24.85	0.000	248.5	124.2	248.5	124.2	V-C	2.7468E+04	-12.90	0.000	1.000	1.000
124.2	0.000	0.000	Strato2_3095_82743_L_0									
67 D	25.25	0.000	252.5	126.2	252.5	126.2	V-C	2.7468E+04	-13.10	0.000	1.000	1.000
126.2	0.000	0.000	Strato2_3095_82743_L_0									
68 D	25.65	0.000	256.5	128.2	256.5	128.2	V-C	2.7468E+04	-13.30	0.000	1.000	1.000
128.2	0.000	0.000	Strato2_3095_82743_L_0									
69 D	26.05	0.000	260.5	130.2	260.5	130.2	V-C	2.7468E+04	-13.50	0.000	1.000	1.000
130.2	0.000	0.000	Strato2_3095_82743_L_0									
70 D	26.45	0.000	264.5	132.2	264.5	132.2	V-C	2.7468E+04	-13.70	0.000	1.000	1.000
132.2	0.000	0.000	Strato2_3095_82743_L_0									
71 D	26.85	0.000	268.5	134.2	268.5	134.2	V-C	2.7468E+04	-13.90	0.000	1.000	1.000
134.2	0.000	0.000	Strato2_3095_82743_L_0									
72 D	27.25	0.000	272.5	136.2	272.5	136.2	V-C	2.7468E+04	-14.10	0.000	1.000	1.000
136.2	0.000	0.000	Strato2_3095_82743_L_0									
73 D	27.65	0.000	276.5	138.2	276.5	138.2	V-C	2.7468E+04	-14.30	0.000	1.000	1.000
138.2	0.000	0.000	Strato2_3095_82743_L_0									
74 D	28.05	0.000	280.5	140.2	280.5	140.2	V-C	2.7468E+04	-14.50	0.000	1.000	1.000
140.2	0.000	0.000	Strato2_3095_82743_L_0									
75 D	28.45	0.000	284.5	142.2	284.5	142.2	V-C	2.7468E+04	-14.70	0.000	1.000	1.000
142.2	0.000	0.000	Strato2_3095_82743_L_0									
76 D	28.85	0.000	288.5	144.2	288.5	144.2	V-C	2.7468E+04	-14.90	0.000	1.000	1.000
144.2	0.000	0.000	Strato2_3095_82743_L_0									
77 D	29.25	0.000	292.5	146.2	292.5	146.2	V-C	2.7468E+04	-15.10	0.000	1.000	1.000
146.2	0.000	0.000	Strato2_3095_82743_L_0									
78 D	29.65	0.000	296.5	148.2	296.5	148.2	V-C	2.7468E+04	-15.30	0.000	1.000	1.000
148.2	0.000	0.000	Strato2_3095_82743_L_0									
79 D	30.05	0.000	300.5	150.2	300.5	150.2	V-C	2.7468E+04	-15.50	0.000	1.000	1.000
150.2	0.000	0.000	Strato2_3095_82743_L_0									
80 D	30.45	0.000	304.5	152.2	304.5	152.2	V-C	2.7468E+04	-15.70	0.000	1.000	1.000
152.2	0.000	0.000	Strato2_3095_82743_L_0									
81 D	23.14	0.000	308.5	154.2	308.5	154.2	V-C	2.7468E+04	-15.90	0.000	1.000	1.000
154.2	0.000	0.000	Strato2_3095_82743_L_0									
82 D	7.763	0.000	310.5	155.2	310.5	155.2	V-C	2.7468E+04	-16.00	0.000	1.000	1.000
155.2	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514                                                                                       |
|          Exe Time :24 July 2019  10:49:27                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

Foglio
209 di 560

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000	0.0000
72	0.0000	0.0000	0.0000	0.0000
73	0.0000	0.0000	0.0000	0.0000
74	0.0000	0.0000	0.0000	0.0000
75	0.0000	0.0000	0.0000	0.0000
76	0.0000	0.0000	0.0000	0.0000
77	0.0000	0.0000	0.0000	0.0000
78	0.0000	0.0000	0.0000	0.0000
79	0.0000	0.0000	0.0000	0.0000
80	0.0000	0.0000	0.0000	0.0000



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81 0.0000 0.0000 0.0000 0.0000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019    10:49:27
|
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
----	-------	----	--------	---------	---	-----------	-----------

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

ITER 0 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.6588E+05 RIMNOR= 0.000
      RENORM= 3330.    REMNOR= 0.000    RATIO =0.2248    TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 32.25    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.6588E+05 RDR = 0.000
      RATIO=0.2248    RATOR= 0.000
      MAX UN= 12.35    IEQ= 97 NODE    49 DOF  1  Y-DISPL.F
      MIN UN= 0.000    IEQ= 2 NODE    1 DOF  2  X-ROT. F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 2 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.6588E+05 RIMNOR= 0.000
      RENORM= 761.4    REMNOR=0.2786E-18 RATIO =0.1075    TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 32.25    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.6588E+05 RDR = 0.000
      RATIO=0.1075    RATOR= 0.000
      MAX UN= 15.46    IEQ= 99 NODE    50 DOF  1  Y-DISPL.F
      MIN UN=-.1672    IEQ= 159 NODE   80 DOF  1  Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 3 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.6588E+05 RIMNOR= 0.000
      RENORM= 27.44    REMNOR=0.3076E-19 RATIO =0.2041E-01 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 32.25    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.6588E+05 RDR = 0.000
      RATIO=0.2041E-01 RATOR= 0.000
      MAX UN= 4.169    IEQ= 119 NODE   60 DOF  1  Y-DISPL.F
      MIN UN=-.2911    IEQ= 141 NODE   71 DOF  1  Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 4 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.6588E+05 RIMNOR= 0.000
      RENORM=0.5507E-01 REMNOR=0.4491E-19 RATIO =0.9142E-03 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 32.25    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.6588E+05 RDR = 0.000
      RATIO=0.9142E-03 RATOR= 0.000
      MAX UN=0.1064    IEQ= 3 NODE    2 DOF  1  Y-DISPL.F
      MIN UN=-.6735E-01 IEQ= 147 NODE   74 DOF  1  Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

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ITER 5 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.6588E+05 RIMNOR= 0.000
      RENORM=0.2016E-02 REMNOR=0.5522E-19 RATIO =0.1749E-03 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 32.25    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =0.6588E+05 RDR = 0.000
      RATIO=0.1749E-03 RATOR= 0.000
      MAX UN=0.1818E-01 IEQ= 31 NODE   16 DOF  1  Y-DISPL.F
      MIN UN=-.1079E-01 IEQ= 3 NODE    2 DOF  1  Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

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ITER      6 RNORM = 0.000      RMNORM= 0.000
RINORM=0.6588E+05 RIMNOR= 0.000
RENORM=0.1368E-03 REMNOR=0.5546E-19 RATIO =0.4557E-04 TOLER =0.1000E-03      CONVERGED !
RFMAX = 32.25      RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT      =0.6588E+05 RDR      = 0.000
RATIOT=0.4557E-04 RATIO= 0.000
MAX UN=0.5196E-02 IEQ=      3 NODE      2 DOF      1 Y-DISPL.F
MIN UN=-.1918E-03 IEQ=      97 NODE     49 DOF     1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      10:49:27      |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.7070174E-03	4.5246100E-05	
2	2.7160701E-03	4.5298414E-05	
3	2.7251453E-03	4.5479450E-05	
4	2.7342715E-03	4.5805477E-05	
5	2.7434733E-03	4.6218312E-05	
6	2.7527569E-03	4.6601645E-05	
7	2.7621033E-03	4.6826187E-05	
8	2.7714687E-03	4.6771197E-05	
9	2.7807857E-03	4.6324786E-05	
10	2.7899654E-03	4.5380125E-05	
11	2.7988978E-03	4.3836024E-05	
12	2.8074537E-03	4.1600191E-05	
13	2.8154862E-03	3.8589346E-05	
14	2.8192561E-03	3.6771867E-05	
15	2.8261948E-03	3.2461998E-05	
16	2.8321778E-03	2.7206374E-05	
17	2.8370107E-03	2.0951544E-05	
18	2.8404889E-03	1.3653177E-05	
19	2.8424000E-03	5.2760790E-06	
20	2.8425257E-03	-4.2056157E-06	
21	2.8406431E-03	-1.4808350E-05	
22	2.8365271E-03	-2.6540291E-05	
23	2.8299517E-03	-3.9401092E-05	
24	2.8206921E-03	-5.3379306E-05	
25	2.8085269E-03	-6.8452998E-05	
26	2.7932401E-03	-8.4589479E-05	
27	2.7746233E-03	-1.0174486E-04	
28	2.7524780E-03	-1.1986407E-04	
29	2.7266178E-03	-1.3888099E-04	
30	2.6968709E-03	-1.5871833E-04	
31	2.6630818E-03	-1.7928606E-04	
32	2.6251148E-03	-2.0048088E-04	
33	2.5828556E-03	-2.2218616E-04	
34	2.5362151E-03	-2.4427082E-04	
35	2.4851317E-03	-2.6658929E-04	
36	2.4295745E-03	-2.8898095E-04	
37	2.3695462E-03	-3.1126985E-04	
38	2.3050865E-03	-3.3326459E-04	
39	2.2362741E-03	-3.5475742E-04	
40	2.1632320E-03	-3.7552308E-04	
41	2.0861296E-03	-3.9531878E-04	
42	2.0051866E-03	-4.1388358E-04	
43	1.9206772E-03	-4.3093789E-04	
44	1.8329324E-03	-4.4618403E-04	
45	1.7423453E-03	-4.5930534E-04	
46	1.6493743E-03	-4.6996547E-04	
47	1.5545469E-03	-4.7780804E-04	
48	1.4584645E-03	-4.8245634E-04	
49	1.3618043E-03	-4.8351327E-04	
50	1.2653265E-03	-4.8056069E-04	
51	1.1698448E-03	-4.7363627E-04	
52	1.0761063E-03	-4.6323253E-04	
53	9.8475488E-04	-4.4981792E-04	



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- 54 8.9635011E-04 -4.3383854E-04
- 55 8.1136222E-04 -4.1571790E-04
- 56 7.3017890E-04 -3.9585799E-04
- 57 6.5310955E-04 -3.7464017E-04
- 58 5.8038924E-04 -3.5242629E-04
- 59 5.1218252E-04 -3.2956001E-04
- 60 4.4858695E-04 -3.0636799E-04
- 61 3.8963634E-04 -2.8316076E-04
- 62 3.3530395E-04 -2.6023399E-04
- 63 2.8550527E-04 -2.3786941E-04
- 64 2.4010075E-04 -2.1633630E-04
- 65 1.9889841E-04 -1.9588821E-04
- 66 1.6165879E-04 -1.7674031E-04
- 67 1.2810491E-04 -1.5905311E-04
- 68 9.7932763E-05 -1.4293761E-04
- 69 7.0820623E-05 -1.2846071E-04
- 70 4.6437424E-05 -1.1564962E-04
- 71 2.4450097E-05 -1.0449869E-04
- 72 4.5294346E-06 -9.4975456E-05
- 73 -1.3644800E-05 -8.7022943E-05
- 74 -3.0378917E-05 -8.0558044E-05
- 75 -4.5959935E-05 -7.5471906E-05
- 76 -6.0650937E-05 -7.1634640E-05
- 77 -7.4687144E-05 -6.8897664E-05
- 78 -8.8272309E-05 -6.7095272E-05
- 79 -1.0157546E-04 -6.6046012E-05
- 80 -1.1472781E-04 -6.5553170E-05
- 81 -1.2781972E-04 -6.5405239E-05
- 82 -1.3436040E-04 -6.5397697E-05

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                     |
|                                                                                                     |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          10:49:27          |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	2.206	-2.7070E-03	28.00	22.06	28.00	22.20	UL-RL	4.3234E+04	0.000	0.000	1.000	1.000
22.06	0.000	0.000	Strato1_2_8_L_0									
2 D	3.297	-2.7161E-03	20.91	16.49	20.91	16.61	UL-RL	4.3234E+04	-0.2000	0.000	1.000	1.000
16.49	0.000	0.000	Strato1_2_8_L_0									
3 D	4.265	-2.7251E-03	27.06	21.32	27.06	21.44	UL-RL	4.3234E+04	-0.4000	0.000	1.000	1.000
21.32	0.000	0.000	Strato1_2_8_L_0									
4 D	4.785	-2.7343E-03	30.37	23.92	30.37	24.03	UL-RL	4.3234E+04	-0.6000	0.000	1.000	1.000
23.92	0.000	0.000	Strato1_2_8_L_0									
5 D	5.515	-2.7435E-03	35.02	27.58	35.02	27.68	UL-RL	4.3234E+04	-0.8000	0.000	1.000	1.000
27.58	0.000	0.000	Strato1_2_8_L_0									
6 D	6.053	-2.7528E-03	38.43	30.26	38.43	30.35	UL-RL	4.3234E+04	-1.000	0.000	1.000	1.000
30.26	0.000	0.000	Strato1_2_8_L_0									
7 D	6.730	-2.7621E-03	42.74	33.65	42.74	33.73	UL-RL	4.3234E+04	-1.200	0.000	1.000	1.000
33.65	0.000	0.000	Strato1_2_8_L_0									
8 D	7.281	-2.7715E-03	46.24	36.40	46.24	36.48	UL-RL	4.3234E+04	-1.400	0.000	1.000	1.000
36.40	0.000	0.000	Strato1_2_8_L_0									
9 D	7.798	-2.7808E-03	49.53	38.99	49.53	39.06	UL-RL	4.3234E+04	-1.600	0.000	1.000	1.000
38.99	0.000	0.000	Strato1_2_8_L_0									
10 D	8.373	-2.7900E-03	53.19	41.86	53.19	41.92	UL-RL	4.3234E+04	-1.800	0.000	1.000	1.000
41.86	0.000	0.000	Strato1_2_8_L_0									
11 D	9.027	-2.7989E-03	57.34	45.13	57.34	45.18	UL-RL	4.3234E+04	-2.000	0.000	1.000	1.000
45.13	0.000	0.000	Strato1_2_8_L_0									
12 D	9.603	-2.8075E-03	61.00	48.01	61.00	48.05	UL-RL	4.3234E+04	-2.200	0.000	1.000	1.000
48.01	0.000	0.000	Strato1_2_8_L_0									
13 D	7.683	-2.8155E-03	65.08	51.22	65.08	51.25	UL-RL	4.3234E+04	-2.400	0.000	1.000	1.000
51.22	0.000	0.000	Strato1_2_8_L_0									
14 D	7.888	-2.8193E-03	66.82	52.59	66.82	52.61	UL-RL	4.3234E+04	-2.500	0.000	1.000	1.000
52.59	0.000	0.000	Strato1_2_8_L_0									
15 D	11.10	-2.8262E-03	70.51	55.49	70.51	55.50	ACTIVE	0.000	-2.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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5 D	8.290	2.7435E-03	15.20	41.45	15.20	41.55	UL-RL	3.6592E+04	-0.8000	0.000	1.000	1.000
41.45	0.000	0.000	Stratol_2_8_L_0									
6 D	8.717	2.7528E-03	19.00	43.59	19.00	43.68	UL-RL	3.6592E+04	-1.000	0.000	1.000	1.000
43.59	0.000	0.000	Stratol_2_8_L_0									
7 D	9.145	2.7621E-03	22.80	45.73	22.80	45.80	UL-RL	3.6592E+04	-1.200	0.000	1.000	1.000
45.73	0.000	0.000	Stratol_2_8_L_0									
8 D	9.573	2.7715E-03	26.60	47.87	26.60	47.92	UL-RL	3.6592E+04	-1.400	0.000	1.000	1.000
47.87	0.000	0.000	Stratol_2_8_L_0									
9 D	10.00	2.7808E-03	30.40	50.01	30.40	50.04	UL-RL	3.6592E+04	-1.600	0.000	1.000	1.000
50.01	0.000	0.000	Stratol_2_8_L_0									
10 D	10.43	2.7900E-03	34.20	52.14	34.20	52.16	UL-RL	3.6592E+04	-1.800	0.000	1.000	1.000
52.14	0.000	0.000	Stratol_2_8_L_0									
11 D	10.86	2.7989E-03	38.00	54.28	38.00	54.28	UL-RL	3.6592E+04	-2.000	0.000	1.000	1.000
54.28	0.000	0.000	Stratol_2_8_L_0									
12 D	11.28	2.8075E-03	41.80	56.40	41.80	56.40	UL-RL	3.6592E+04	-2.200	0.000	1.000	1.000
56.40	0.000	0.000	Stratol_2_8_L_0									
13 D	8.776	2.8155E-03	45.60	58.51	45.60	58.51	UL-RL	3.6592E+04	-2.400	0.000	1.000	1.000
58.51	0.000	0.000	Stratol_2_8_L_0									
14 D	8.934	2.8193E-03	47.50	59.56	47.50	59.56	UL-RL	3.6592E+04	-2.500	0.000	1.000	1.000
59.56	0.000	0.000	Stratol_2_8_L_0									
15 D	12.33	2.8262E-03	51.30	61.66	51.30	61.66	V-C	1.2197E+04	-2.700	0.000	1.000	1.000
61.66	0.000	0.000	Stratol_2_8_L_0									
16 D	12.75	2.8322E-03	55.10	63.75	55.10	63.75	V-C	1.2197E+04	-2.900	0.000	1.000	1.000
63.75	0.000	0.000	Stratol_2_8_L_0									
17 D	13.16	2.8370E-03	58.90	65.82	58.90	65.82	V-C	1.2197E+04	-3.100	0.000	1.000	1.000
65.82	0.000	0.000	Stratol_2_8_L_0									
18 D	13.58	2.8405E-03	62.70	67.88	62.70	67.88	V-C	1.2197E+04	-3.300	0.000	1.000	1.000
67.88	0.000	0.000	Stratol_2_8_L_0									
19 D	13.98	2.8424E-03	66.50	69.91	66.50	69.91	V-C	1.2197E+04	-3.500	0.000	1.000	1.000
69.91	0.000	0.000	Stratol_2_8_L_0									
20 D	14.39	2.8425E-03	70.30	71.93	70.30	71.93	V-C	1.2197E+04	-3.700	0.000	1.000	1.000
71.93	0.000	0.000	Stratol_2_8_L_0									
21 D	14.78	2.8406E-03	74.10	73.92	74.10	73.92	V-C	1.2197E+04	-3.900	0.000	1.000	1.000
73.92	0.000	0.000	Stratol_2_8_L_0									
22 D	15.18	2.8365E-03	77.90	75.89	77.90	75.89	V-C	1.2197E+04	-4.100	0.000	1.000	1.000
75.89	0.000	0.000	Stratol_2_8_L_0									
23 D	15.56	2.8300E-03	81.70	77.82	81.70	77.82	V-C	1.2197E+04	-4.300	0.000	1.000	1.000
77.82	0.000	0.000	Stratol_2_8_L_0									
24 D	15.94	2.8207E-03	85.50	79.72	85.50	79.72	V-C	1.2197E+04	-4.500	0.000	1.000	1.000
79.72	0.000	0.000	Stratol_2_8_L_0									
25 D	16.32	2.8085E-03	89.30	81.59	89.30	81.59	V-C	1.2197E+04	-4.700	0.000	1.000	1.000
81.59	0.000	0.000	Stratol_2_8_L_0									
26 D	16.68	2.7932E-03	93.10	83.41	93.10	83.41	V-C	1.2197E+04	-4.900	0.000	1.000	1.000
83.41	0.000	0.000	Stratol_2_8_L_0									
27 D	17.04	2.7746E-03	96.90	85.20	96.90	85.20	V-C	1.2197E+04	-5.100	0.000	1.000	1.000
85.20	0.000	0.000	Stratol_2_8_L_0									
28 D	17.39	2.7525E-03	100.7	86.94	100.7	86.94	V-C	1.2197E+04	-5.300	0.000	1.000	1.000
86.94	0.000	0.000	Stratol_2_8_L_0									
29 D	17.73	2.7266E-03	104.5	88.64	104.5	88.64	V-C	1.2197E+04	-5.500	0.000	1.000	1.000
88.64	0.000	0.000	Stratol_2_8_L_0									
30 D	18.06	2.6969E-03	108.3	90.29	108.3	90.29	V-C	1.2197E+04	-5.700	0.000	1.000	1.000
90.29	0.000	0.000	Stratol_2_8_L_0									
31 D	18.38	2.6631E-03	112.1	91.90	112.1	91.90	V-C	1.2197E+04	-5.900	0.000	1.000	1.000
91.90	0.000	0.000	Stratol_2_8_L_0									
32 D	18.69	2.6251E-03	115.9	93.45	115.9	93.45	V-C	1.2197E+04	-6.100	0.000	1.000	1.000
93.45	0.000	0.000	Stratol_2_8_L_0									
33 D	18.99	2.5829E-03	119.7	94.94	119.7	94.94	V-C	1.2197E+04	-6.300	0.000	1.000	1.000
94.94	0.000	0.000	Stratol_2_8_L_0									
34 D	19.28	2.5362E-03	123.5	96.39	123.5	96.39	V-C	1.2197E+04	-6.500	0.000	1.000	1.000
96.39	0.000	0.000	Stratol_2_8_L_0									
35 D	19.56	2.4851E-03	127.3	97.78	127.3	97.78	V-C	1.2197E+04	-6.700	0.000	1.000	1.000
97.78	0.000	0.000	Stratol_2_8_L_0									
36 D	19.82	2.4296E-03	131.1	99.12	131.1	99.12	V-C	1.2197E+04	-6.900	0.000	1.000	1.000
99.12	0.000	0.000	Stratol_2_8_L_0									
37 D	20.08	2.3695E-03	134.9	100.4	134.9	100.4	V-C	1.2197E+04	-7.100	0.000	1.000	1.000
100.4	0.000	0.000	Stratol_2_8_L_0									
38 D	20.33	2.3051E-03	138.7	101.6	138.7	101.6	V-C	1.2197E+04	-7.300	0.000	1.000	1.000
101.6	0.000	0.000	Stratol_2_8_L_0									
39 D	20.56	2.2363E-03	142.5	102.8	142.5	102.8	V-C	1.2197E+04	-7.500	0.000	1.000	1.000
102.8	0.000	0.000	Stratol_2_8_L_0									
40 D	20.78	2.1632E-03	146.3	103.9	146.3	103.9	V-C	1.2197E+04	-7.700	0.000	1.000	1.000
103.9	0.000	0.000	Stratol_2_8_L_0									
41 D	21.00	2.0861E-03	150.1	105.0	150.1	105.0	V-C	1.2197E+04	-7.900	0.000	1.000	1.000
105.0	0.000	0.000	Stratol_2_8_L_0									
42 D	21.20	2.0052E-03	153.9	106.0	153.9	106.0	UL-RL	3.6592E+04	-8.100	0.000	1.000	1.000
106.0	0.000	0.000	Stratol_2_8_L_0									
43 D	21.40	1.9207E-03	157.7	107.0	157.7	107.0	UL-RL	3.6592E+04	-8.300	0.000	1.000	1.000
107.0	0.000	0.000	Stratol_2_8_L_0									
44 D	21.59	1.8329E-03	161.5	108.0	161.5	108.0	UL-RL	3.6592E+04	-8.500	0.000	1.000	1.000
108.0	0.000	0.000	Stratol_2_8_L_0									
45 D	21.77	1.7423E-03	165.3	108.9	165.3	108.9	UL-RL	3.6592E+04	-8.700	0.000	1.000	1.000
108.9	0.000	0.000	Stratol_2_8_L_0									
46 D	21.95	1.6494E-03	169.1	109.7	169.1	109.7	UL-RL	3.6592E+04	-8.900	0.000	1.000	1.000
109.7	0.000	0.000	Stratol_2_8_L_0									
47 D	22.12	1.5545E-03	172.9	110.6	172.9	110.6	UL-RL	3.6592E+04	-9.100	0.000	1.000	1.000



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110.6	0.000	0.000	Strato1_2_8_L_0		
48 D	22.29	1.4585E-03	176.7 111.4	176.7	111.4
111.4	0.000	0.000	Strato1_2_8_L_0		
49 D	22.45	1.3618E-03	180.5 112.3	180.5	112.3
112.3	0.000	0.000	Strato1_2_8_L_0		
50 D	25.40	1.2653E-03	184.5 127.0	184.5	127.0
127.0	0.000	0.000	Strato2_3095_82743_L_0		
51 D	25.28	1.1698E-03	188.5 126.4	188.5	126.4
126.4	0.000	0.000	Strato2_3095_82743_L_0		
52 D	25.16	1.0761E-03	192.5 125.8	192.5	125.8
125.8	0.000	0.000	Strato2_3095_82743_L_0		
53 D	25.06	9.8475E-04	196.5 125.3	196.5	125.3
125.3	0.000	0.000	Strato2_3095_82743_L_0		
54 D	24.97	8.9635E-04	200.5 124.9	200.5	124.9
124.9	0.000	0.000	Strato2_3095_82743_L_0		
55 D	24.91	8.1136E-04	204.5 124.5	204.5	124.5
124.5	0.000	0.000	Strato2_3095_82743_L_0		
56 D	24.86	7.3018E-04	208.5 124.3	208.5	124.3
124.3	0.000	0.000	Strato2_3095_82743_L_0		
57 D	24.84	6.5311E-04	212.5 124.2	212.5	124.2
124.2	0.000	0.000	Strato2_3095_82743_L_0		
58 D	24.84	5.8039E-04	216.5 124.2	216.5	124.2
124.2	0.000	0.000	Strato2_3095_82743_L_0		
59 D	24.86	5.1218E-04	220.5 124.3	220.5	124.3
124.3	0.000	0.000	Strato2_3095_82743_L_0		
60 D	24.91	4.4859E-04	224.5 124.6	224.5	124.6
124.6	0.000	0.000	Strato2_3095_82743_L_0		
61 D	24.99	3.8964E-04	228.5 125.0	228.5	125.0
125.0	0.000	0.000	Strato2_3095_82743_L_0		
62 D	25.09	3.3530E-04	232.5 125.5	232.5	125.5
125.5	0.000	0.000	Strato2_3095_82743_L_0		
63 D	25.22	2.8551E-04	236.5 126.1	236.5	126.1
126.1	0.000	0.000	Strato2_3095_82743_L_0		
64 D	25.37	2.4010E-04	240.5 126.8	240.5	126.8
126.8	0.000	0.000	Strato2_3095_82743_L_0		
65 D	25.54	1.9890E-04	244.5 127.7	244.5	127.7
127.7	0.000	0.000	Strato2_3095_82743_L_0		
66 D	25.74	1.6166E-04	248.5 128.7	248.5	128.7
128.7	0.000	0.000	Strato2_3095_82743_L_0		
67 D	25.95	1.2810E-04	252.5 129.8	252.5	129.8
129.8	0.000	0.000	Strato2_3095_82743_L_0		
68 D	26.19	9.7933E-05	256.5 130.9	256.5	130.9
130.9	0.000	0.000	Strato2_3095_82743_L_0		
69 D	26.44	7.0821E-05	260.5 132.2	260.5	132.2
132.2	0.000	0.000	Strato2_3095_82743_L_0		
70 D	26.70	4.6437E-05	264.5 133.5	264.5	133.5
133.5	0.000	0.000	Strato2_3095_82743_L_0		
71 D	26.98	2.4450E-05	268.5 134.9	268.5	134.9
134.9	0.000	0.000	Strato2_3095_82743_L_0		
72 D	27.27	4.5294E-06	272.5 136.4	272.5	136.4
136.4	0.000	0.000	Strato2_3095_82743_L_0		
73 D	27.43	-1.3645E-05	276.5 137.1	276.5	138.2
137.1	0.000	0.000	Strato2_3095_82743_L_0		
74 D	27.55	-3.0379E-05	280.5 137.7	280.5	140.2
137.7	0.000	0.000	Strato2_3095_82743_L_0		
75 D	27.69	-4.5960E-05	284.5 138.5	284.5	142.2
138.5	0.000	0.000	Strato2_3095_82743_L_0		
76 D	27.85	-6.0651E-05	288.5 139.3	288.5	144.2
139.3	0.000	0.000	Strato2_3095_82743_L_0		
77 D	28.02	-7.4687E-05	292.5 140.1	292.5	146.2
140.1	0.000	0.000	Strato2_3095_82743_L_0		
78 D	28.20	-8.8272E-05	296.5 141.0	296.5	148.2
141.0	0.000	0.000	Strato2_3095_82743_L_0		
79 D	28.38	-1.0158E-04	300.5 141.9	300.5	150.2
141.9	0.000	0.000	Strato2_3095_82743_L_0		
80 D	28.56	-1.1473E-04	304.5 142.8	304.5	152.2
142.8	0.000	0.000	Strato2_3095_82743_L_0		
81 D	21.56	-1.2782E-04	308.5 143.7	308.5	154.2
143.7	0.000	0.000	Strato2_3095_82743_L_0		
82 D	7.209	-1.3436E-04	310.5 144.2	310.5	155.2
144.2	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514                                                                                       |
|          Exe Time :24 July 2019  10:49:27                                                                                               |
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New Project

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



ITALFERR

GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.

Progetto
INORLotto
12Codifica Documento
E E2 CL IV 40A1 002Rev.
AFoglio
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WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.2036	-2.2036	2.74505E-11	0.44072
2	3.2185	-3.2185	-0.44072	1.0844
3	2.8889	-2.8889	-1.0844	1.6622
4	0.76767	-0.76767	-1.6622	1.8157
5	-2.0104	2.0104	-1.8157	1.4137
6	-4.6783	4.6783	-1.4137	0.47800
7	-7.0964	7.0964	-0.47800	-0.94127
8	-9.3912	9.3912	0.94127	-2.8195
9	-11.596	11.596	2.8195	-5.1388
10	-13.654	13.654	5.1388	-7.8695
11	-15.484	15.484	7.8695	-10.966
12	-17.162	17.162	10.966	-14.399
13	-18.255	18.255	14.399	-16.224
14	-19.302	19.302	16.224	-20.084
15	-20.536	20.536	20.084	-24.192
16	-21.553	21.553	24.192	-28.502
17	-22.403	22.403	28.502	-32.983
18	-23.036	23.036	32.983	-37.590
19	-23.493	23.493	37.590	-42.289
20	-23.728	23.728	42.289	-47.034
21	-23.837	23.837	47.034	-51.802
22	-23.714	23.714	51.802	-56.544
23	-23.355	23.355	56.544	-61.215
24	-22.790	22.790	61.215	-65.773
25	-21.978	21.978	65.773	-70.169
26	-20.945	20.945	70.169	-74.358
27	-19.651	19.651	74.358	-78.288
28	-18.162	18.162	78.288	-81.920
29	-16.396	16.396	81.920	-85.200
30	-14.370	14.370	85.200	-88.074
31	-12.049	12.049	88.074	-90.483
32	-9.4481	9.4481	90.483	-92.373
33	-6.5326	6.5326	92.373	-93.680
34	-3.3161	3.3161	93.680	-94.343
35	0.23346	-0.23346	94.343	-94.296
36	4.0949	-4.0949	94.296	-93.477
37	8.2914	-8.2914	93.477	-91.819
38	12.855	-12.855	91.819	-89.248
39	17.775	-17.775	89.248	-85.693
40	23.082	-23.082	85.693	-81.076
41	28.766	-28.766	81.076	-75.323
42	34.856	-34.856	75.323	-68.352
43	41.312	-41.312	68.352	-60.089
44	48.191	-48.191	60.089	-50.451
45	55.480	-55.480	50.451	-39.355
46	63.203	-63.203	39.355	-26.715
47	71.347	-71.347	26.715	-12.445
48	79.932	-79.932	12.445	3.5412
49	88.959	-88.959	-3.5412	21.333
50	78.345	-78.345	-21.333	37.002
51	68.225	-68.225	-37.002	50.647
52	58.592	-58.592	-50.647	62.365
53	49.443	-49.443	-62.365	72.254
54	40.752	-40.752	-72.254	80.404
55	32.510	-32.510	-80.404	86.906
56	24.688	-24.688	-86.906	91.844
57	17.269	-17.269	-91.844	95.297
58	10.211	-10.211	-95.297	97.340
59	3.5096	-3.5096	-97.340	98.042
60	-2.8695	2.8695	-98.042	97.468
61	-8.9435	8.9435	-97.468	95.679
62	-14.738	14.738	-95.679	92.732
63	-20.285	20.285	-92.732	88.674
64	-25.418	25.418	-88.674	83.591
65	-29.350	29.350	-83.591	77.721
66	-32.178	32.178	-77.721	71.285
67	-34.027	34.027	-71.285	64.480
68	-34.995	34.995	-64.480	57.481
69	-35.173	35.173	-57.481	50.446
70	-34.757	34.757	-50.446	43.495
71	-33.806	33.806	-43.495	36.734
72	-32.357	32.357	-36.734	30.262
73	-30.305	30.305	-30.262	24.201
74	-27.772	27.772	-24.201	18.647
75	-24.834	24.834	-18.647	13.680
76	-21.513	21.513	-13.680	9.3775



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77	-17.854	17.854	-9.3775	5.8067
78	-13.870	13.870	-5.8067	3.0328
79	-9.5678	9.5678	-3.0328	1.1192
80	-4.9607	4.9607	-1.1192	0.12705
81	-1.2704	1.2704	-0.12705	1.90378E-12

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.2182E+06  RIMNOR=0.5906E+06
      RENORM= 1992.     REMNOR=0.5546E-19 RATIO =0.9555E-01 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 88.96     RMMAX = 98.04
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
      RDT =0.2182E+06  RDR =0.5906E+06
      RATIOT=0.9555E-01 RATIO= 0.000
      MAX UN= 12.75     IEQ= 31 NODE      16 DOF   1 Y-DISPL.F
      MIN UN=-.1918E-03 IEQ= 97 NODE      49 DOF   1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.2182E+06  RIMNOR=0.5906E+06
      RENORM= 1646.     REMNOR=0.1562E-16 RATIO =0.8685E-01 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 88.96     RMMAX = 98.04
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
      RDT =0.2182E+06  RDR =0.5906E+06
      RATIOT=0.8685E-01 RATIO= 0.000
      MAX UN= 18.58     IEQ= 47 NODE      24 DOF   1 Y-DISPL.F
      MIN UN=-1.043     IEQ= 145 NODE     73 DOF   1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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ITER 3 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.2182E+06  RIMNOR=0.5906E+06
      RENORM= 276.1     REMNOR=0.1166E-16 RATIO =0.3557E-01 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 88.96     RMMAX = 98.04
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
      RDT =0.2182E+06  RDR =0.5906E+06
      RATIOT=0.3557E-01 RATIO= 0.000
      MAX UN= 9.104     IEQ= 115 NODE     58 DOF   1 Y-DISPL.F
      MIN UN=-2.875     IEQ= 157 NODE     79 DOF   1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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ITER 4 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.2182E+06  RIMNOR=0.5906E+06
      RENORM= 10.83     REMNOR=0.1105E-16 RATIO =0.7044E-02 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 88.96     RMMAX = 98.04
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
      RDT =0.2182E+06  RDR =0.5906E+06
      RATIOT=0.7044E-02 RATIO= 0.000
      MAX UN= 2.435     IEQ= 125 NODE     63 DOF   1 Y-DISPL.F
      MIN UN=-.9418     IEQ= 133 NODE     67 DOF   1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

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ITER 5 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.2182E+06  RIMNOR=0.5906E+06
      RENORM=0.5534E-04 REMNOR=0.3846E-17 RATIO =0.1593E-04 TOLER =0.1000E-03 CONVERGED !
      RFMAX = 88.96     RMMAX = 98.04
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
      RDT =0.2182E+06  RDR =0.5906E+06
    
```



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 219 di 560
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RATIO=0.1593E-04 RATIO= 0.000
MAX UN=0.1881E-07 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
MIN UN=-.7439E-02 IEQ= 145 NODE 73 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  10:49:27
|
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.5431856E-02	-6.5031609E-03	
2	5.4131227E-02	-6.5031086E-03	
3	5.2830625E-02	-6.5028735E-03	
4	5.1530102E-02	-6.5022763E-03	
5	5.0229753E-02	-6.5011025E-03	
6	4.8929716E-02	-6.4991076E-03	
7	4.7630183E-02	-6.4960173E-03	
8	4.6331402E-02	-6.4915282E-03	
9	4.5033687E-02	-6.4853078E-03	
10	4.3737418E-02	-6.4769982E-03	
11	4.2443052E-02	-6.4662157E-03	
12	4.1151124E-02	-6.4525472E-03	
13	3.9862255E-02	-6.4355504E-03	
14	3.9219186E-02	-6.4256729E-03	
15	3.7936268E-02	-6.4027899E-03	
16	3.6658374E-02	-6.3753480E-03	
17	3.5386469E-02	-6.3428052E-03	
18	3.4121628E-02	-6.3046180E-03	
19	3.2865031E-02	-6.2602964E-03	
20	3.1617946E-02	-6.2094314E-03	
21	3.0381716E-02	-6.1516947E-03	
22	2.9157742E-02	-6.0868404E-03	
23	2.7947465E-02	-6.0147053E-03	
24	2.6752351E-02	-5.9352056E-03	
25	2.5573874E-02	-5.8483389E-03	
26	2.4413502E-02	-5.7541836E-03	
27	2.3272682E-02	-5.6528997E-03	
28	2.2152807E-02	-5.5447266E-03	
29	2.1055229E-02	-5.4299872E-03	
30	1.9981223E-02	-5.3090862E-03	
31	1.8931973E-02	-5.1825090E-03	
32	1.7908565E-02	-5.0508229E-03	
33	1.6911946E-02	-4.9146741E-03	
34	1.5942945E-02	-4.7747807E-03	
35	1.5002236E-02	-4.6318539E-03	
36	1.4090363E-02	-4.4865337E-03	
37	1.3207744E-02	-4.3393909E-03	
38	1.2354698E-02	-4.1909298E-03	
39	1.1531436E-02	-4.0415860E-03	
40	1.0738098E-02	-3.8917327E-03	
41	9.9747558E-03	-3.7416790E-03	
42	9.2414233E-03	-3.5916723E-03	
43	8.5380747E-03	-3.4419012E-03	
44	7.8646421E-03	-3.2924942E-03	
45	7.2210477E-03	-3.1435261E-03	
46	6.6072011E-03	-2.9950162E-03	
47	6.0230130E-03	-2.8469305E-03	
48	5.4684090E-03	-2.6991841E-03	
49	4.9433286E-03	-2.5516404E-03	
50	4.4477516E-03	-2.4041164E-03	
51	3.9816577E-03	-2.2569573E-03	
52	3.5448975E-03	-2.1110268E-03	
53	3.1371241E-03	-1.9671049E-03	
54	2.7578735E-03	-1.8259136E-03	
55	2.4065331E-03	-1.6881068E-03	
56	2.0823656E-03	-1.5542782E-03	
57	1.7845207E-03	-1.4249656E-03	
58	1.5120459E-03	-1.3006550E-03	
59	1.2638960E-03	-1.1817849E-03	
60	1.0389428E-03	-1.0687508E-03	
61	8.3598293E-04	-9.6190823E-04	



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- 62 6.5374548E-04 -8.6157653E-04
- 63 4.9089940E-04 -7.6803848E-04
- 64 3.4606159E-04 -6.8152798E-04
- 65 2.1780782E-04 -6.0222343E-04
- 66 1.0468468E-04 -5.3023185E-04
- 67 5.2277575E-06 -4.6555002E-04
- 68 -8.2014328E-05 -4.0805324E-04
- 69 -1.5845834E-04 -3.5752846E-04
- 70 -2.2547229E-04 -3.1370236E-04
- 71 -2.8436405E-04 -2.7624776E-04
- 72 -3.3637112E-04 -2.4478915E-04
- 73 -3.8265151E-04 -2.1890752E-04
- 74 -4.2427540E-04 -1.9814490E-04
- 75 -4.6221784E-04 -1.8200790E-04
- 76 -4.9735185E-04 -1.6997024E-04
- 77 -5.3044212E-04 -1.6147525E-04
- 78 -5.6213912E-04 -1.5593785E-04
- 79 -5.9297361E-04 -1.5274584E-04
- 80 -6.2335126E-04 -1.5126085E-04
- 81 -6.5354750E-04 -1.5081902E-04
- 82 -6.6862942E-04 -1.5079668E-04

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
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New Project

STRESS RESULTS FOR GROUP NO. 1

O_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	2.204	-5.5432E-02	28.00	22.04	28.00	22.20	ACTIVE	0.000	0.000	0.000	1.000	1.000
22.04	0.000	0.000	Strato1_2_8_L_0									
2 D	3.292	-5.4131E-02	20.91	16.46	20.91	16.61	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
16.46	0.000	0.000	Strato1_2_8_L_0									
3 D	4.260	-5.2831E-02	27.06	21.30	27.06	21.44	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
21.30	0.000	0.000	Strato1_2_8_L_0									
4 D	4.781	-5.1530E-02	30.37	23.90	30.37	24.03	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
23.90	0.000	0.000	Strato1_2_8_L_0									
5 D	5.511	-5.0230E-02	35.02	27.56	35.02	27.68	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
27.56	0.000	0.000	Strato1_2_8_L_0									
6 D	6.049	-4.8930E-02	38.43	30.25	38.43	30.35	ACTIVE	0.000	-1.000	0.000	1.000	1.000
30.25	0.000	0.000	Strato1_2_8_L_0									
7 D	6.727	-4.7630E-02	42.74	33.64	42.74	33.73	ACTIVE	0.000	-1.200	0.000	1.000	1.000
33.64	0.000	0.000	Strato1_2_8_L_0									
8 D	7.278	-4.6331E-02	46.24	36.39	46.24	36.48	ACTIVE	0.000	-1.400	0.000	1.000	1.000
36.39	0.000	0.000	Strato1_2_8_L_0									
9 D	7.796	-4.5034E-02	49.53	38.98	49.53	39.06	ACTIVE	0.000	-1.600	0.000	1.000	1.000
38.98	0.000	0.000	Strato1_2_8_L_0									
10 D	8.371	-4.3737E-02	53.19	41.86	53.19	41.92	ACTIVE	0.000	-1.800	0.000	1.000	1.000
41.86	0.000	0.000	Strato1_2_8_L_0									
11 D	9.026	-4.2443E-02	57.34	45.13	57.34	45.18	ACTIVE	0.000	-2.000	0.000	1.000	1.000
45.13	0.000	0.000	Strato1_2_8_L_0									
12 D	9.602	-4.1151E-02	61.00	48.01	61.00	48.05	ACTIVE	0.000	-2.200	0.000	1.000	1.000
48.01	0.000	0.000	Strato1_2_8_L_0									
13 D	7.683	-3.9862E-02	65.08	51.22	65.08	51.25	ACTIVE	0.000	-2.400	0.000	1.000	1.000
51.22	0.000	0.000	Strato1_2_8_L_0									
14 D	7.888	-3.9219E-02	66.82	52.59	66.82	52.61	ACTIVE	0.000	-2.500	0.000	1.000	1.000
52.59	0.000	0.000	Strato1_2_8_L_0									
15 D	11.10	-3.7936E-02	70.51	55.49	70.51	55.50	ACTIVE	0.000	-2.700	0.000	1.000	1.000
55.49	0.000	0.000	Strato1_2_8_L_0									
16 D	11.73	-3.6658E-02	74.54	58.66	74.54	58.67	ACTIVE	0.000	-2.900	0.000	1.000	1.000
58.66	0.000	0.000	Strato1_2_8_L_0									
17 D	12.31	-3.5386E-02	78.23	61.57	78.23	61.57	ACTIVE	0.000	-3.100	0.000	1.000	1.000
61.57	0.000	0.000	Strato1_2_8_L_0									
18 D	12.94	-3.4122E-02	82.23	64.72	82.23	64.72	ACTIVE	0.000	-3.300	0.000	1.000	1.000
64.72	0.000	0.000	Strato1_2_8_L_0									
19 D	13.53	-3.2865E-02	85.93	67.63	85.93	67.63	ACTIVE	0.000	-3.500	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.			Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 221 di 560
67.63	0.000	0.000	Strato1_2_8_L_0				
20 D	14.15	-3.1618E-02	89.90	70.75	89.90	70.75	ACTIVE 0.000 -3.700 0.000 1.000 1.000
70.75	0.000	0.000	Strato1_2_8_L_0				
21 D	14.68	-3.0382E-02	93.24	73.38	93.24	73.38	ACTIVE 0.000 -3.900 0.000 1.000 1.000
73.38	0.000	0.000	Strato1_2_8_L_0				
22 D	15.30	-2.9158E-02	97.21	76.50	97.21	76.50	ACTIVE 0.000 -4.100 0.000 1.000 1.000
76.50	0.000	0.000	Strato1_2_8_L_0				
23 D	15.92	-2.7947E-02	101.2	79.61	101.2	79.61	ACTIVE 0.000 -4.300 0.000 1.000 1.000
79.61	0.000	0.000	Strato1_2_8_L_0				
24 D	16.51	-2.6752E-02	104.9	82.55	104.9	82.55	ACTIVE 0.000 -4.500 0.000 1.000 1.000
82.55	0.000	0.000	Strato1_2_8_L_0				
25 D	17.13	-2.5574E-02	108.8	85.64	108.8	85.64	ACTIVE 0.000 -4.700 0.000 1.000 1.000
85.64	0.000	0.000	Strato1_2_8_L_0				
26 D	17.72	-2.4414E-02	112.6	88.58	112.6	88.58	ACTIVE 0.000 -4.900 0.000 1.000 1.000
88.58	0.000	0.000	Strato1_2_8_L_0				
27 D	18.33	-2.3273E-02	116.5	91.67	116.5	91.67	ACTIVE 0.000 -5.100 0.000 1.000 1.000
91.67	0.000	0.000	Strato1_2_8_L_0				
28 D	18.88	-2.2153E-02	119.9	94.39	119.9	94.39	ACTIVE 0.000 -5.300 0.000 1.000 1.000
94.39	0.000	0.000	Strato1_2_8_L_0				
29 D	19.49	-2.1055E-02	123.9	97.47	123.9	97.47	ACTIVE 0.000 -5.500 0.000 1.000 1.000
97.47	0.000	0.000	Strato1_2_8_L_0				
30 D	20.08	-1.9981E-02	127.6	100.4	127.6	100.4	ACTIVE 0.000 -5.700 0.000 1.000 1.000
100.4	0.000	0.000	Strato1_2_8_L_0				
31 D	20.70	-1.8932E-02	131.5	103.5	131.5	103.5	ACTIVE 0.000 -5.900 0.000 1.000 1.000
103.5	0.000	0.000	Strato1_2_8_L_0				
32 D	21.29	-1.7909E-02	135.3	106.5	135.3	106.5	ACTIVE 0.000 -6.100 0.000 1.000 1.000
106.5	0.000	0.000	Strato1_2_8_L_0				
33 D	21.90	-1.6912E-02	139.2	109.5	139.2	109.5	ACTIVE 0.000 -6.300 0.000 1.000 1.000
109.5	0.000	0.000	Strato1_2_8_L_0				
34 D	22.49	-1.5943E-02	142.9	112.5	142.9	112.5	ACTIVE 0.000 -6.500 0.000 1.000 1.000
112.5	0.000	0.000	Strato1_2_8_L_0				
35 D	23.11	-1.5002E-02	146.8	115.5	146.8	115.5	ACTIVE 0.000 -6.700 0.000 1.000 1.000
115.5	0.000	0.000	Strato1_2_8_L_0				
36 D	23.69	-1.4090E-02	150.5	118.4	150.5	118.4	ACTIVE 0.000 -6.900 0.000 1.000 1.000
118.4	0.000	0.000	Strato1_2_8_L_0				
37 D	24.28	-1.3208E-02	154.2	121.4	154.2	121.4	ACTIVE 0.000 -7.100 0.000 1.000 1.000
121.4	0.000	0.000	Strato1_2_8_L_0				
38 D	24.89	-1.2355E-02	158.1	124.4	158.1	124.5	ACTIVE 0.000 -7.300 0.000 1.000 1.000
124.4	0.000	0.000	Strato1_2_8_L_0				
39 D	25.48	-1.1531E-02	161.9	127.4	161.9	127.4	ACTIVE 0.000 -7.500 0.000 1.000 1.000
127.4	0.000	0.000	Strato1_2_8_L_0				
40 D	26.09	-1.0738E-02	165.8	130.5	165.8	130.5	ACTIVE 0.000 -7.700 0.000 1.000 1.000
130.5	0.000	0.000	Strato1_2_8_L_0				
41 D	26.68	-9.9748E-03	169.5	133.4	169.5	133.4	ACTIVE 0.000 -7.900 0.000 1.000 1.000
133.4	0.000	0.000	Strato1_2_8_L_0				
42 D	27.29	-9.2414E-03	173.4	136.5	173.4	136.5	ACTIVE 0.000 -8.100 0.000 1.000 1.000
136.5	0.000	0.000	Strato1_2_8_L_0				
43 D	27.86	-8.5381E-03	177.0	139.3	177.0	139.3	ACTIVE 0.000 -8.300 0.000 1.000 1.000
139.3	0.000	0.000	Strato1_2_8_L_0				
44 D	28.47	-7.8646E-03	180.9	142.3	180.9	142.3	ACTIVE 0.000 -8.500 0.000 1.000 1.000
142.3	0.000	0.000	Strato1_2_8_L_0				
45 D	29.06	-7.2210E-03	184.6	145.3	184.6	145.3	ACTIVE 0.000 -8.700 0.000 1.000 1.000
145.3	0.000	0.000	Strato1_2_8_L_0				
46 D	29.67	-6.6072E-03	188.5	148.4	188.5	148.4	ACTIVE 0.000 -8.900 0.000 1.000 1.000
148.4	0.000	0.000	Strato1_2_8_L_0				
47 D	30.26	-6.0230E-03	192.3	151.3	192.3	151.3	ACTIVE 0.000 -9.100 0.000 1.000 1.000
151.3	0.000	0.000	Strato1_2_8_L_0				
48 D	30.87	-5.4684E-03	196.1	154.4	196.1	154.4	ACTIVE 0.000 -9.300 0.000 1.000 1.000
154.4	0.000	0.000	Strato1_2_8_L_0				
49 D	31.48	-4.9433E-03	200.0	157.4	200.0	157.4	ACTIVE 0.000 -9.500 0.000 1.000 1.000
157.4	0.000	0.000	Strato1_2_8_L_0				
50 D	14.79	-4.4478E-03	204.0	73.93	204.0	102.0	ACTIVE 0.000 -9.700 0.000 1.000 1.000
73.93	0.000	0.000	Strato2_3095_82743_L_0				
51 D	15.15	-3.9817E-03	207.9	75.77	207.9	103.9	ACTIVE 0.000 -9.900 0.000 1.000 1.000
75.77	0.000	0.000	Strato2_3095_82743_L_0				
52 D	15.53	-3.5449E-03	211.9	77.63	211.9	105.9	ACTIVE 0.000 -10.10 0.000 1.000 1.000
77.63	0.000	0.000	Strato2_3095_82743_L_0				
53 D	15.91	-3.1371E-03	215.9	79.54	215.9	108.0	ACTIVE 0.000 -10.30 0.000 1.000 1.000
79.54	0.000	0.000	Strato2_3095_82743_L_0				
54 D	16.28	-2.7579E-03	219.9	81.41	219.9	109.9	ACTIVE 0.000 -10.50 0.000 1.000 1.000
81.41	0.000	0.000	Strato2_3095_82743_L_0				
55 D	16.66	-2.4065E-03	223.9	83.32	223.9	112.0	ACTIVE 0.000 -10.70 0.000 1.000 1.000
83.32	0.000	0.000	Strato2_3095_82743_L_0				
56 D	17.04	-2.0824E-03	227.9	85.18	227.9	114.0	ACTIVE 0.000 -10.90 0.000 1.000 1.000
85.18	0.000	0.000	Strato2_3095_82743_L_0				
57 D	17.42	-1.7845E-03	232.0	87.09	232.0	116.0	ACTIVE 0.000 -11.10 0.000 1.000 1.000
87.09	0.000	0.000	Strato2_3095_82743_L_0				
58 D	17.78	-1.5120E-03	235.8	88.89	235.8	117.9	ACTIVE 0.000 -11.30 0.000 1.000 1.000
88.89	0.000	0.000	Strato2_3095_82743_L_0				
59 D	18.16	-1.2639E-03	239.9	90.80	239.9	119.9	ACTIVE 0.000 -11.50 0.000 1.000 1.000
90.80	0.000	0.000	Strato2_3095_82743_L_0				
60 D	18.53	-1.0389E-03	243.8	92.67	243.8	121.9	ACTIVE 0.000 -11.70 0.000 1.000 1.000
92.67	0.000	0.000	Strato2_3095_82743_L_0				
61 D	18.92	-8.3598E-04	247.9	94.58	247.9	124.0	ACTIVE 0.000 -11.90 0.000 1.000 1.000
94.58	0.000	0.000	Strato2_3095_82743_L_0				

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 223 di 560
9	0.000	--	--	--	--
0.000	0.000	0.000	not available		
10	0.000	--	--	--	--
0.000	0.000	0.000	not available		
11	0.000	--	--	--	--
0.000	0.000	0.000	not available		
12	0.000	--	--	--	--
0.000	0.000	0.000	not available		
13	0.000	--	--	--	--
0.000	0.000	0.000	not available		
14	0.000	--	--	--	--
0.000	0.000	0.000	not available		
15	0.000	--	--	--	--
0.000	0.000	0.000	not available		
16	0.000	--	--	--	--
0.000	0.000	0.000	not available		
17 D	1.154	3.5386E-02	1.900 5.772	58.90	65.82
5.772	0.000	0.000	Strato1_2_8_L_0		
18 D	3.463	3.4122E-02	5.700 17.32	62.70	67.88
17.32	0.000	0.000	Strato1_2_8_L_0		
19 D	5.772	3.2865E-02	9.500 28.86	66.50	69.91
28.86	0.000	0.000	Strato1_2_8_L_0		
20 D	8.081	3.1618E-02	13.30 40.41	70.30	71.93
40.41	0.000	0.000	Strato1_2_8_L_0		
21 D	10.39	3.0382E-02	17.10 51.95	74.10	73.92
51.95	0.000	0.000	Strato1_2_8_L_0		
22 D	12.70	2.9158E-02	20.90 63.49	77.90	75.89
63.49	0.000	0.000	Strato1_2_8_L_0		
23 D	15.01	2.7947E-02	24.70 75.04	81.70	77.82
75.04	0.000	0.000	Strato1_2_8_L_0		
24 D	17.32	2.6752E-02	28.50 86.58	85.50	86.58
86.58	0.000	0.000	Strato1_2_8_L_0		
25 D	19.63	2.5574E-02	32.30 98.13	89.30	98.13
98.13	0.000	0.000	Strato1_2_8_L_0		
26 D	21.93	2.4414E-02	36.10 109.7	93.10	109.7
109.7	0.000	0.000	Strato1_2_8_L_0		
27 D	24.24	2.3273E-02	39.90 121.2	96.90	121.2
121.2	0.000	0.000	Strato1_2_8_L_0		
28 D	26.55	2.2153E-02	43.70 132.8	100.7	132.8
132.8	0.000	0.000	Strato1_2_8_L_0		
29 D	28.86	2.1055E-02	47.50 144.3	104.5	144.3
144.3	0.000	0.000	Strato1_2_8_L_0		
30 D	31.17	1.9981E-02	51.30 155.8	108.3	155.8
155.8	0.000	0.000	Strato1_2_8_L_0		
31 D	33.48	1.8932E-02	55.10 167.4	112.1	167.4
167.4	0.000	0.000	Strato1_2_8_L_0		
32 D	35.79	1.7909E-02	58.90 178.9	115.9	178.9
178.9	0.000	0.000	Strato1_2_8_L_0		
33 D	37.63	1.6912E-02	62.70 188.2	119.7	188.2
188.2	0.000	0.000	Strato1_2_8_L_0		
34 D	36.72	1.5943E-02	66.50 183.6	123.5	183.6
183.6	0.000	0.000	Strato1_2_8_L_0		
35 D	35.84	1.5002E-02	70.30 179.2	127.3	179.2
179.2	0.000	0.000	Strato1_2_8_L_0		
36 D	34.99	1.4090E-02	74.10 175.0	131.1	175.0
175.0	0.000	0.000	Strato1_2_8_L_0		
37 D	34.18	1.3208E-02	77.90 170.9	134.9	170.9
170.9	0.000	0.000	Strato1_2_8_L_0		
38 D	33.40	1.2355E-02	81.70 167.0	138.7	167.0
167.0	0.000	0.000	Strato1_2_8_L_0		
39 D	32.65	1.1531E-02	85.50 163.3	142.5	163.3
163.3	0.000	0.000	Strato1_2_8_L_0		
40 D	31.94	1.0738E-02	89.30 159.7	146.3	159.7
159.7	0.000	0.000	Strato1_2_8_L_0		
41 D	31.26	9.9748E-03	93.10 156.3	150.1	156.3
156.3	0.000	0.000	Strato1_2_8_L_0		
42 D	30.62	9.2414E-03	96.90 153.1	153.9	153.1
153.1	0.000	0.000	Strato1_2_8_L_0		
43 D	30.01	8.5381E-03	100.7 150.1	157.7	150.1
150.1	0.000	0.000	Strato1_2_8_L_0		
44 D	29.44	7.8646E-03	104.5 147.2	161.5	147.2
147.2	0.000	0.000	Strato1_2_8_L_0		
45 D	28.90	7.2210E-03	108.3 144.5	165.3	144.5
144.5	0.000	0.000	Strato1_2_8_L_0		
46 D	28.40	6.6072E-03	112.1 142.0	169.1	142.0
142.0	0.000	0.000	Strato1_2_8_L_0		
47 D	27.93	6.0230E-03	115.9 139.7	172.9	139.7
139.7	0.000	0.000	Strato1_2_8_L_0		
48 D	27.51	5.4684E-03	119.7 137.5	176.7	137.5
137.5	0.000	0.000	Strato1_2_8_L_0		
49 D	27.11	4.9433E-03	123.5 135.6	180.5	135.6
135.6	0.000	0.000	Strato1_2_8_L_0		
50 D	33.69	4.4478E-03	127.5 168.4	184.5	168.4
168.4	0.000	0.000	Strato2_3095_82743_L_0		
51 D	32.48	3.9817E-03	131.5 162.4	188.5	162.4



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162.4	0.000	0.000	Strato2_3095_82743_L_0		
52 D	31.36	3.5449E-03	135.5 156.8	192.5	156.8
156.8	0.000	0.000	Strato2_3095_82743_L_0		
53 D	30.34	3.1371E-03	139.5 151.7	196.5	151.7
151.7	0.000	0.000	Strato2_3095_82743_L_0		
54 D	29.40	2.7579E-03	143.5 147.0	200.5	147.0
147.0	0.000	0.000	Strato2_3095_82743_L_0		
55 D	28.55	2.4065E-03	147.5 142.8	204.5	142.8
142.8	0.000	0.000	Strato2_3095_82743_L_0		
56 D	27.80	2.0824E-03	151.5 139.0	208.5	139.0
139.0	0.000	0.000	Strato2_3095_82743_L_0		
57 D	27.13	1.7845E-03	155.5 135.6	212.5	135.6
135.6	0.000	0.000	Strato2_3095_82743_L_0		
58 D	26.55	1.5120E-03	159.5 132.7	216.5	132.7
132.7	0.000	0.000	Strato2_3095_82743_L_0		
59 D	26.05	1.2639E-03	163.5 130.2	220.5	130.2
130.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	25.62	1.0389E-03	167.5 128.1	224.5	128.1
128.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	25.28	8.3598E-04	171.5 126.4	228.5	126.4
126.4	0.000	0.000	Strato2_3095_82743_L_0		
62 D	24.84	6.5375E-04	175.5 124.2	232.5	125.5
124.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	23.98	4.9090E-04	179.5 119.9	236.5	126.1
119.9	0.000	0.000	Strato2_3095_82743_L_0		
64 D	23.26	3.4606E-04	183.5 116.3	240.5	126.8
116.3	0.000	0.000	Strato2_3095_82743_L_0		
65 D	22.67	2.1781E-04	187.5 113.3	244.5	127.7
113.3	0.000	0.000	Strato2_3095_82743_L_0		
66 D	22.20	1.0468E-04	191.5 111.0	248.5	128.7
111.0	0.000	0.000	Strato2_3095_82743_L_0		
67 D	21.84	5.2278E-06	195.5 109.2	252.5	129.8
109.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	21.58	-8.2014E-05	199.5 107.9	256.5	130.9
107.9	0.000	0.000	Strato2_3095_82743_L_0		
69 D	21.40	-1.5846E-04	203.5 107.0	260.5	132.2
107.0	0.000	0.000	Strato2_3095_82743_L_0		
70 D	21.29	-2.2547E-04	207.5 106.5	264.5	133.5
106.5	0.000	0.000	Strato2_3095_82743_L_0		
71 D	21.25	-2.8436E-04	211.5 106.2	268.5	134.9
106.2	0.000	0.000	Strato2_3095_82743_L_0		
72 D	21.26	-3.3637E-04	215.5 106.3	272.5	136.4
106.3	0.000	0.000	Strato2_3095_82743_L_0		
73 D	21.17	-3.8265E-04	219.5 105.8	276.5	138.2
105.8	0.000	0.000	Strato2_3095_82743_L_0		
74 D	21.08	-4.2428E-04	223.5 105.4	280.5	140.2
105.4	0.000	0.000	Strato2_3095_82743_L_0		
75 D	21.02	-4.6222E-04	227.5 105.1	284.5	142.2
105.1	0.000	0.000	Strato2_3095_82743_L_0		
76 D	21.01	-4.9735E-04	231.5 105.0	288.5	144.2
105.0	0.000	0.000	Strato2_3095_82743_L_0		
77 D	21.01	-5.3044E-04	235.5 105.0	292.5	146.2
105.0	0.000	0.000	Strato2_3095_82743_L_0		
78 D	21.03	-5.6214E-04	239.5 105.1	296.5	148.2
105.1	0.000	0.000	Strato2_3095_82743_L_0		
79 D	21.06	-5.9297E-04	243.5 105.3	300.5	150.2
105.3	0.000	0.000	Strato2_3095_82743_L_0		
80 D	21.09	-6.2335E-04	247.5 105.5	304.5	152.2
105.5	0.000	0.000	Strato2_3095_82743_L_0		
81 D	15.85	-6.5355E-04	251.5 105.6	308.5	154.2
105.6	0.000	0.000	Strato2_3095_82743_L_0		
82 D	5.286	-6.6863E-04	253.5 105.7	310.5	155.2
105.7	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514                                                                                       |
|          Exe Time :24 July 2019  10:49:27                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

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Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 225 di 560
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1	2.2036	-2.2036	3.26383E-10	0.44072
2	5.4956	-5.4956	-0.44072	1.5398
3	9.7554	-9.7554	-1.5398	3.4909
4	14.536	-14.536	-3.4909	6.3981
5	20.047	-20.047	-6.3981	10.408
6	26.097	-26.097	-10.408	15.627
7	32.824	-32.824	-15.627	22.192
8	40.102	-40.102	-22.192	30.212
9	47.898	-47.898	-30.212	39.792
10	56.270	-56.270	-39.792	51.046
11	65.295	-65.295	-51.046	64.105
12	74.897	-74.897	-64.105	79.084
13	82.580	-82.580	-79.084	87.342
14	90.468	-90.468	-87.342	105.44
15	101.57	-101.57	-105.44	125.75
16	113.30	-113.30	-125.75	148.41
17	124.46	-124.46	-148.41	173.30
18	133.94	-133.94	-173.30	200.09
19	141.69	-141.69	-200.09	228.43
20	147.76	-147.76	-228.43	257.98
21	152.05	-152.05	-257.98	288.39
22	154.65	-154.65	-288.39	319.32
23	155.56	-155.56	-319.32	350.43
24	154.76	-154.76	-350.43	381.38
25	152.26	-152.26	-381.38	411.83
26	148.04	-148.04	-411.83	441.44
27	142.13	-142.13	-441.44	469.87
28	134.46	-134.46	-469.87	496.76
29	125.09	-125.09	-496.76	521.77
30	114.00	-114.00	-521.77	544.58
31	101.23	-101.23	-544.58	564.82
32	86.728	-86.728	-564.82	582.17
33	71.001	-71.001	-582.17	596.37
34	56.775	-56.775	-596.37	607.72
35	44.041	-44.041	-607.72	616.53
36	32.733	-32.733	-616.53	623.08
37	22.829	-22.829	-623.08	627.64
38	14.319	-14.319	-627.64	630.51
39	7.1459	-7.1459	-630.51	631.94
40	1.2971	-1.2971	-631.94	632.19
41	-3.2821	3.2821	-632.19	631.54
42	-6.6073	6.6073	-631.54	630.22
43	-8.7605	8.7605	-630.22	628.46
44	-9.7299	9.7299	-628.46	626.52
45	-9.5692	9.5692	-626.52	624.60
46	-8.2970	8.2970	-624.60	622.95
47	-5.9671	5.9671	-622.95	621.75
48	-2.5998	2.5998	-621.75	621.23
49	1.7665	-1.7665	-621.23	621.59
50	-17.136	17.136	-621.59	618.16
51	-34.462	34.462	-618.16	611.27
52	-50.297	50.297	-611.27	601.21
53	-64.724	64.724	-601.21	588.26
54	-77.841	77.841	-588.26	572.69
55	-89.731	89.731	-572.69	554.75
56	-100.49	100.49	-554.75	534.65
57	-110.20	110.20	-534.65	512.61
58	-118.97	118.97	-512.61	488.81
59	-126.85	126.85	-488.81	463.44
60	-133.95	133.95	-463.44	436.65
61	-140.31	140.31	-436.65	408.59
62	-145.86	145.86	-408.59	379.42
63	-150.16	150.16	-379.42	349.39
64	-153.37	153.37	-349.39	318.71
65	-154.67	154.67	-318.71	287.78
66	-153.23	153.23	-287.78	257.13
67	-149.42	149.42	-257.13	227.25
68	-144.26	144.26	-227.25	198.40
69	-137.91	137.91	-198.40	170.82
70	-130.48	130.48	-170.82	144.72
71	-122.09	122.09	-144.72	120.30
72	-112.83	112.83	-120.30	97.737
73	-102.80	102.80	-97.737	77.178
74	-92.045	92.045	-77.178	58.769
75	-80.629	80.629	-58.769	42.643
76	-68.597	68.597	-42.643	28.923
77	-55.984	55.984	-28.923	17.727
78	-42.811	42.811	-17.727	9.1645
79	-29.093	29.093	-9.1645	3.3459
80	-14.848	14.848	-3.3459	0.37633
81	-3.7629	3.7629	-0.37633	-1.47840E-12



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1588E+07 RIMNOR=0.2706E+08
            RENORM=0.2497E+05 REMNOR=0.3846E-17 RATIO =0.1254      TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 158.0      RMMAX = 632.2
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.1588E+07 RDR =0.2706E+08
            RATIO=0.1254      RATIO= 0.000
            MAX UN=0.1881E-07 IEQ= 25 NODE      13 DOF      1 Y-DISPL.F
            MIN UN=-158.0      IEQ= 27 NODE      14 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1588E+07 RIMNOR=0.2706E+08
            RENORM= 235.0      REMNOR=0.2035E-17 RATIO =0.1217E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 158.0      RMMAX = 632.2
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.1588E+07 RDR =0.2706E+08
            RATIO=0.1217E-01 RATIO= 0.000
            MAX UN=0.1016      IEQ= 91 NODE      46 DOF      1 Y-DISPL.F
            MIN UN=-4.485      IEQ= 3 NODE      2 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1588E+07 RIMNOR=0.2706E+08
            RENORM= 4.038      REMNOR=0.1455E-17 RATIO =0.1595E-02 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 158.0      RMMAX = 632.2
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.1588E+07 RDR =0.2706E+08
            RATIO=0.1595E-02 RATIO= 0.000
            MAX UN=0.3121      IEQ= 95 NODE      48 DOF      1 Y-DISPL.F
            MIN UN=-1.951      IEQ= 37 NODE      19 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1588E+07 RIMNOR=0.2706E+08
            RENORM=0.4354E-14 REMNOR=0.7363E-17 RATIO =0.5236E-10 TOLER =0.1000E-03      CONVERGED !
            RFMAX = 158.0      RMMAX = 632.2
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
            RDT =0.1588E+07 RDR =0.2706E+08
            RATIO=0.5236E-10 RATIO= 0.000
            MAX UN=0.3929E-07 IEQ= 25 NODE      13 DOF      1 Y-DISPL.F
            MIN UN=-.4354E-07 IEQ= 27 NODE      14 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
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New Project

SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



Doc. N.

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PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	5.1848054E-02	-6.0428072E-03
2	5.0639501E-02	-6.0426892E-03
3	4.9431008E-02	-6.0421293E-03
4	4.8222707E-02	-6.0406957E-03
5	4.7014819E-02	-6.0379281E-03
6	4.5807657E-02	-6.0333436E-03
7	4.4601636E-02	-6.0264355E-03
8	4.3397273E-02	-6.0166755E-03
9	4.2195193E-02	-6.0035130E-03
10	4.0996133E-02	-5.9863788E-03
11	3.9800945E-02	-5.9646850E-03
12	3.8610603E-02	-5.9378219E-03
13	3.7426203E-02	-5.9051578E-03
14	3.6836608E-02	-5.8864678E-03
15	3.5663206E-02	-5.8476216E-03
16	3.4497558E-02	-5.8088069E-03
17	3.3339728E-02	-5.7693198E-03
18	3.2189922E-02	-5.7284393E-03
19	3.1048494E-02	-5.6854340E-03
20	2.9915940E-02	-5.6395658E-03
21	2.8792907E-02	-5.5901004E-03
22	2.7680184E-02	-5.5363670E-03
23	2.6578682E-02	-5.4778058E-03
24	2.5489414E-02	-5.4139660E-03
25	2.4413471E-02	-5.3445049E-03
26	2.3352002E-02	-5.2691881E-03
27	2.2306199E-02	-5.1878884E-03
28	2.1277252E-02	-5.1005835E-03
29	2.0266361E-02	-5.0073585E-03
30	1.9274691E-02	-4.9084028E-03
31	1.8303362E-02	-4.8040090E-03
32	1.7353428E-02	-4.6945715E-03
33	1.6425842E-02	-4.5805840E-03
34	1.5521459E-02	-4.4626301E-03
35	1.4641014E-02	-4.3413037E-03
36	1.3785127E-02	-4.2171437E-03
37	1.2954313E-02	-4.0906347E-03
38	1.2149005E-02	-3.9622090E-03
39	1.1369537E-02	-3.8322429E-03
40	1.0616188E-02	-3.7010621E-03
41	9.8891745E-03	-3.5689401E-03
42	9.1886601E-03	-3.4361010E-03
43	8.5147736E-03	-3.3027191E-03
44	7.8676039E-03	-3.1689162E-03
45	7.2472304E-03	-3.0347649E-03
46	6.6537198E-03	-2.9002853E-03
47	6.0871402E-03	-2.7654457E-03
48	5.5475736E-03	-2.6301647E-03
49	5.0351153E-03	-2.4943100E-03
50	4.5498997E-03	-2.3577041E-03
51	4.0920601E-03	-2.2207020E-03
52	3.6615974E-03	-2.0841819E-03
53	3.2583130E-03	-1.9489400E-03
54	2.8818870E-03	-1.8157148E-03
55	2.5318479E-03	-1.6851772E-03
56	2.2075962E-03	-1.5579383E-03
57	1.9084157E-03	-1.4345531E-03
58	1.6334845E-03	-1.3155251E-03
59	1.3818848E-03	-1.2013100E-03
60	1.1526122E-03	-1.0923196E-03
61	9.4458382E-04	-9.8892581E-04
62	7.5664641E-04	-8.9146335E-04
63	5.8758296E-04	-8.0023372E-04
64	4.3611972E-04	-7.1550211E-04
65	3.0093442E-04	-6.3748590E-04
66	1.8066661E-04	-5.6635094E-04
67	7.3930246E-05	-5.0217296E-04
68	-2.0663009E-05	-4.4490143E-04
69	-1.0448100E-04	-3.9438995E-04
70	-1.7885538E-04	-3.5042432E-04
71	-2.4506874E-04	-3.1272889E-04
72	-3.0434285E-04	-2.8097222E-04
73	-3.5782804E-04	-2.5477182E-04
74	-4.0659342E-04	-2.3369906E-04
75	-4.5161808E-04	-2.1728249E-04
76	-4.9378271E-04	-2.0501034E-04
77	-5.3386188E-04	-1.9633319E-04
78	-5.7251670E-04	-1.9066674E-04
79	-6.1028819E-04	-1.8739451E-04
80	-6.4759099E-04	-1.8586954E-04
81	-6.8470738E-04	-1.8541510E-04



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82 -7.0324921E-04 -1.8539209E-04

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| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
|                               NewProject.BaseDesignSection_28.A2M2R1_3514             |
|                               Exe Time :24 July 2019 10:49:27                        |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
 C U R R E N T T I M E I S 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peg	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	4.969	-5.1848E-02	28.00	49.69	28.00	49.69	V-C	7686.	0.000	0.000	1.000	1.000
49.69	0.000	0.000	Strat01_2_8_L_0									
2 D	8.680	-5.0640E-02	20.91	43.40	20.91	43.40	V-C	7686.	-0.2000	0.000	1.000	1.000
43.40	0.000	0.000	Strat01_2_8_L_0									
3 D	9.504	-4.9431E-02	27.06	47.52	27.06	47.52	V-C	7686.	-0.4000	0.000	1.000	1.000
47.52	0.000	0.000	Strat01_2_8_L_0									
4 D	9.882	-4.8223E-02	30.37	49.41	30.37	49.41	V-C	7686.	-0.6000	0.000	1.000	1.000
49.41	0.000	0.000	Strat01_2_8_L_0									
5 D	10.47	-4.7015E-02	35.02	52.35	35.02	52.35	V-C	7686.	-0.8000	0.000	1.000	1.000
52.35	0.000	0.000	Strat01_2_8_L_0									
6 D	10.86	-4.5808E-02	38.43	54.32	38.43	54.32	V-C	7686.	-1.000	0.000	1.000	1.000
54.32	0.000	0.000	Strat01_2_8_L_0									
7 D	11.40	-4.4602E-02	42.74	56.98	42.74	56.98	V-C	7686.	-1.200	0.000	1.000	1.000
56.98	0.000	0.000	Strat01_2_8_L_0									
8 D	11.80	-4.3397E-02	46.24	59.00	46.24	59.00	V-C	7686.	-1.400	0.000	1.000	1.000
59.00	0.000	0.000	Strat01_2_8_L_0									
9 D	12.17	-4.2195E-02	49.53	60.85	49.53	60.85	V-C	7686.	-1.600	0.000	1.000	1.000
60.85	0.000	0.000	Strat01_2_8_L_0									
10 D	12.59	-4.0996E-02	53.19	62.97	53.19	62.97	V-C	7686.	-1.800	0.000	1.000	1.000
62.97	0.000	0.000	Strat01_2_8_L_0									
11 D	13.09	-3.9801E-02	57.34	65.47	57.34	65.47	V-C	7686.	-2.000	0.000	1.000	1.000
65.47	0.000	0.000	Strat01_2_8_L_0									
12 D	13.51	-3.8611E-02	61.00	67.56	61.00	67.56	V-C	7686.	-2.200	0.000	1.000	1.000
67.56	0.000	0.000	Strat01_2_8_L_0									
13 D	10.49	-3.7426E-02	65.08	69.97	65.08	69.97	V-C	7686.	-2.400	0.000	1.000	1.000
69.97	0.000	0.000	Strat01_2_8_L_0									
14 D	10.64	-3.6837E-02	66.82	70.92	66.82	70.92	V-C	7686.	-2.500	0.000	1.000	1.000
70.92	0.000	0.000	Strat01_2_8_L_0									
15 D	14.59	-3.5663E-02	70.51	72.97	70.51	72.97	V-C	7686.	-2.700	0.000	1.000	1.000
72.97	0.000	0.000	Strat01_2_8_L_0									
16 D	15.05	-3.4498E-02	74.54	75.27	74.54	75.27	V-C	7686.	-2.900	0.000	1.000	1.000
75.27	0.000	0.000	Strat01_2_8_L_0									
17 D	15.46	-3.3340E-02	78.23	77.30	78.23	77.30	V-C	7686.	-3.100	0.000	1.000	1.000
77.30	0.000	0.000	Strat01_2_8_L_0									
18 D	15.91	-3.2190E-02	82.23	79.56	82.23	79.56	V-C	7686.	-3.300	0.000	1.000	1.000
79.56	0.000	0.000	Strat01_2_8_L_0									
19 D	16.32	-3.1048E-02	85.93	81.59	85.93	81.59	V-C	7686.	-3.500	0.000	1.000	1.000
81.59	0.000	0.000	Strat01_2_8_L_0									
20 D	16.77	-2.9916E-02	89.90	83.84	89.90	83.84	V-C	7686.	-3.700	0.000	1.000	1.000
83.84	0.000	0.000	Strat01_2_8_L_0									
21 D	17.12	-2.8793E-02	93.24	85.59	93.24	85.59	V-C	7686.	-3.900	0.000	1.000	1.000
85.59	0.000	0.000	Strat01_2_8_L_0									
22 D	17.57	-2.7680E-02	97.21	87.86	97.21	87.86	V-C	7686.	-4.100	0.000	1.000	1.000
87.86	0.000	0.000	Strat01_2_8_L_0									
23 D	18.03	-2.6579E-02	101.2	90.13	101.2	90.13	V-C	7686.	-4.300	0.000	1.000	1.000
90.13	0.000	0.000	Strat01_2_8_L_0									
24 D	18.45	-2.5489E-02	104.9	92.25	104.9	92.25	V-C	7686.	-4.500	0.000	1.000	1.000
92.25	0.000	0.000	Strat01_2_8_L_0									
25 D	18.91	-2.4413E-02	108.8	94.56	108.8	94.56	V-C	7686.	-4.700	0.000	1.000	1.000
94.56	0.000	0.000	Strat01_2_8_L_0									
26 D	19.35	-2.3352E-02	112.6	96.74	112.6	96.74	V-C	7686.	-4.900	0.000	1.000	1.000
96.74	0.000	0.000	Strat01_2_8_L_0									
27 D	19.82	-2.2306E-02	116.5	99.10	116.5	99.10	V-C	7686.	-5.100	0.000	1.000	1.000
99.10	0.000	0.000	Strat01_2_8_L_0									
28 D	20.22	-2.1277E-02	119.9	101.1	119.9	101.1	V-C	7686.	-5.300	0.000	1.000	1.000
101.1	0.000	0.000	Strat01_2_8_L_0									
29 D	20.71	-2.0266E-02	123.9	103.5	123.9	103.5	V-C	7686.	-5.500	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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103.5	0.000	0.000	Strato1_2_8_L_0				
30 D	21.17	-1.9275E-02	127.6 105.9	127.6	105.9	V-C	7686.
105.9	0.000	0.000	Strato1_2_8_L_0				
31 D	21.67	-1.8303E-02	131.5 108.3	131.5	108.3	V-C	7686.
108.3	0.000	0.000	Strato1_2_8_L_0				
32 D	22.14	-1.7353E-02	135.3 110.7	135.3	110.7	V-C	7686.
110.7	0.000	0.000	Strato1_2_8_L_0				
33 D	22.65	-1.6426E-02	139.2 113.3	139.2	113.3	V-C	7686.
113.3	0.000	0.000	Strato1_2_8_L_0				
34 D	23.14	-1.5521E-02	142.9 115.7	142.9	115.7	V-C	7686.
115.7	0.000	0.000	Strato1_2_8_L_0				
35 D	23.66	-1.4641E-02	146.8 118.3	146.8	118.3	V-C	7686.
118.3	0.000	0.000	Strato1_2_8_L_0				
36 D	24.16	-1.3785E-02	150.5 120.8	150.5	120.8	V-C	7686.
120.8	0.000	0.000	Strato1_2_8_L_0				
37 D	24.67	-1.2954E-02	154.2 123.3	154.2	123.3	V-C	7686.
123.3	0.000	0.000	Strato1_2_8_L_0				
38 D	25.21	-1.2149E-02	158.1 126.0	158.1	126.0	V-C	7686.
126.0	0.000	0.000	Strato1_2_8_L_0				
39 D	25.73	-1.1370E-02	161.9 128.6	161.9	128.7	UL-RL	2.3058E+04
128.6	0.000	0.000	Strato1_2_8_L_0				
40 D	26.23	-1.0616E-02	165.8 131.2	165.8	131.5	UL-RL	2.3058E+04
131.2	0.000	0.000	Strato1_2_8_L_0				
41 D	26.73	-9.8892E-03	169.5 133.6	169.5	134.3	UL-RL	2.3058E+04
133.6	0.000	0.000	Strato1_2_8_L_0				
42 D	27.29	-9.1887E-03	173.4 136.5	173.4	137.2	ACTIVE	0.000
136.5	0.000	0.000	Strato1_2_8_L_0				
43 D	27.86	-8.5148E-03	177.0 139.3	177.0	139.9	ACTIVE	0.000
139.3	0.000	0.000	Strato1_2_8_L_0				
44 D	28.47	-7.8676E-03	180.9 142.3	180.9	142.8	ACTIVE	0.000
142.3	0.000	0.000	Strato1_2_8_L_0				
45 D	29.06	-7.2472E-03	184.6 145.3	184.6	145.6	ACTIVE	0.000
145.3	0.000	0.000	Strato1_2_8_L_0				
46 D	29.67	-6.6537E-03	188.5 148.4	188.5	148.5	ACTIVE	0.000
148.4	0.000	0.000	Strato1_2_8_L_0				
47 D	30.26	-6.0871E-03	192.3 151.3	192.3	151.4	ACTIVE	0.000
151.3	0.000	0.000	Strato1_2_8_L_0				
48 D	30.87	-5.5476E-03	196.1 154.4	196.1	154.4	ACTIVE	0.000
154.4	0.000	0.000	Strato1_2_8_L_0				
49 D	31.48	-5.0351E-03	200.0 157.4	200.0	157.4	ACTIVE	0.000
157.4	0.000	0.000	Strato1_2_8_L_0				
50 D	14.79	-4.5499E-03	204.0 73.93	204.0	102.0	ACTIVE	0.000
73.93	0.000	0.000	Strato2_3095_82743_L_0				
51 D	15.15	-4.0921E-03	207.9 75.77	207.9	103.9	ACTIVE	0.000
75.77	0.000	0.000	Strato2_3095_82743_L_0				
52 D	15.53	-3.6616E-03	211.9 77.63	211.9	105.9	ACTIVE	0.000
77.63	0.000	0.000	Strato2_3095_82743_L_0				
53 D	15.91	-3.2583E-03	215.9 79.54	215.9	108.0	ACTIVE	0.000
79.54	0.000	0.000	Strato2_3095_82743_L_0				
54 D	16.28	-2.8819E-03	219.9 81.41	219.9	109.9	ACTIVE	0.000
81.41	0.000	0.000	Strato2_3095_82743_L_0				
55 D	16.66	-2.5318E-03	223.9 83.32	223.9	112.0	ACTIVE	0.000
83.32	0.000	0.000	Strato2_3095_82743_L_0				
56 D	17.04	-2.2076E-03	227.9 85.18	227.9	114.0	ACTIVE	0.000
85.18	0.000	0.000	Strato2_3095_82743_L_0				
57 D	17.42	-1.9084E-03	232.0 87.09	232.0	116.0	ACTIVE	0.000
87.09	0.000	0.000	Strato2_3095_82743_L_0				
58 D	17.78	-1.6335E-03	235.8 88.89	235.8	117.9	ACTIVE	0.000
88.89	0.000	0.000	Strato2_3095_82743_L_0				
59 D	18.16	-1.3819E-03	239.9 90.80	239.9	119.9	ACTIVE	0.000
90.80	0.000	0.000	Strato2_3095_82743_L_0				
60 D	18.53	-1.1526E-03	243.8 92.67	243.8	121.9	ACTIVE	0.000
92.67	0.000	0.000	Strato2_3095_82743_L_0				
61 D	18.92	-9.4458E-04	247.9 94.58	247.9	124.0	ACTIVE	0.000
94.58	0.000	0.000	Strato2_3095_82743_L_0				
62 D	19.30	-7.5665E-04	252.0 96.48	252.0	126.0	ACTIVE	0.000
96.48	0.000	0.000	Strato2_3095_82743_L_0				
63 D	19.67	-5.8758E-04	255.9 98.35	255.9	128.0	ACTIVE	0.000
98.35	0.000	0.000	Strato2_3095_82743_L_0				
64 D	20.05	-4.3612E-04	260.0 100.3	260.0	130.0	ACTIVE	0.000
100.3	0.000	0.000	Strato2_3095_82743_L_0				
65 D	20.41	-3.0093E-04	263.8 102.1	263.8	131.9	ACTIVE	0.000
102.1	0.000	0.000	Strato2_3095_82743_L_0				
66 D	22.67	-1.8067E-04	267.9 113.3	267.9	133.9	UL-RL	6.3994E+04
113.3	0.000	0.000	Strato2_3095_82743_L_0				
67 D	24.78	-7.3930E-05	271.8 123.9	271.8	135.9	UL-RL	6.3994E+04
123.9	0.000	0.000	Strato2_3095_82743_L_0				
68 D	25.95	2.0663E-05	275.7 129.7	275.7	139.8	UL-RL	6.3994E+04
129.7	0.000	0.000	Strato2_3095_82743_L_0				
69 D	27.06	1.0448E-04	279.6 135.3	279.6	143.4	UL-RL	6.3994E+04
135.3	0.000	0.000	Strato2_3095_82743_L_0				
70 D	28.12	1.7886E-04	283.5 140.6	283.5	146.7	UL-RL	6.3994E+04
140.6	0.000	0.000	Strato2_3095_82743_L_0				
71 D	29.14	2.4507E-04	287.4 145.7	287.4	149.9	UL-RL	6.3994E+04
145.7	0.000	0.000	Strato2_3095_82743_L_0				

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19 D	0.7125	3.1048E-02	9.500	3.562	66.50	69.91	ACTIVE	0.000	-3.500	0.000	1.000	1.000
3.562	0.000	0.000	Strato1_2_8_L_0									
20 D	1.438	2.9916E-02	13.30	7.189	70.30	71.93	UL-RL	1.9516E+04	-3.700	0.000	1.000	1.000
7.189	0.000	0.000	Strato1_2_8_L_0									
21 D	4.189	2.8793E-02	17.10	20.94	74.10	73.92	UL-RL	1.9516E+04	-3.900	0.000	1.000	1.000
20.94	0.000	0.000	Strato1_2_8_L_0									
22 D	6.932	2.7680E-02	20.90	34.66	77.90	75.89	UL-RL	1.9516E+04	-4.100	0.000	1.000	1.000
34.66	0.000	0.000	Strato1_2_8_L_0									
23 D	9.665	2.6579E-02	24.70	48.33	81.70	77.82	UL-RL	1.9516E+04	-4.300	0.000	1.000	1.000
48.33	0.000	0.000	Strato1_2_8_L_0									
24 D	12.39	2.5489E-02	28.50	61.94	85.50	86.58	UL-RL	1.9516E+04	-4.500	0.000	1.000	1.000
61.94	0.000	0.000	Strato1_2_8_L_0									
25 D	15.10	2.4413E-02	32.30	75.48	89.30	98.13	UL-RL	1.9516E+04	-4.700	0.000	1.000	1.000
75.48	0.000	0.000	Strato1_2_8_L_0									
26 D	17.79	2.3352E-02	36.10	88.96	93.10	109.7	UL-RL	1.9516E+04	-4.900	0.000	1.000	1.000
88.96	0.000	0.000	Strato1_2_8_L_0									
27 D	20.47	2.2306E-02	39.90	102.4	96.90	121.2	UL-RL	1.9516E+04	-5.100	0.000	1.000	1.000
102.4	0.000	0.000	Strato1_2_8_L_0									
28 D	23.13	2.1277E-02	43.70	115.7	100.7	132.8	UL-RL	1.9516E+04	-5.300	0.000	1.000	1.000
115.7	0.000	0.000	Strato1_2_8_L_0									
29 D	25.78	2.0266E-02	47.50	128.9	104.5	144.3	UL-RL	1.9516E+04	-5.500	0.000	1.000	1.000
128.9	0.000	0.000	Strato1_2_8_L_0									
30 D	28.41	1.9275E-02	51.30	142.1	108.3	155.8	UL-RL	1.9516E+04	-5.700	0.000	1.000	1.000
142.1	0.000	0.000	Strato1_2_8_L_0									
31 D	31.03	1.8303E-02	55.10	155.1	112.1	167.4	UL-RL	1.9516E+04	-5.900	0.000	1.000	1.000
155.1	0.000	0.000	Strato1_2_8_L_0									
32 D	33.62	1.7353E-02	58.90	168.1	115.9	178.9	UL-RL	1.9516E+04	-6.100	0.000	1.000	1.000
168.1	0.000	0.000	Strato1_2_8_L_0									
33 D	35.73	1.6426E-02	62.70	178.7	119.7	188.2	UL-RL	1.9516E+04	-6.300	0.000	1.000	1.000
178.7	0.000	0.000	Strato1_2_8_L_0									
34 D	35.08	1.5521E-02	66.50	175.4	123.5	183.6	UL-RL	1.9516E+04	-6.500	0.000	1.000	1.000
175.4	0.000	0.000	Strato1_2_8_L_0									
35 D	34.43	1.4641E-02	70.30	172.2	127.3	179.2	UL-RL	1.9516E+04	-6.700	0.000	1.000	1.000
172.2	0.000	0.000	Strato1_2_8_L_0									
36 D	33.80	1.3785E-02	74.10	169.0	131.1	175.0	UL-RL	1.9516E+04	-6.900	0.000	1.000	1.000
169.0	0.000	0.000	Strato1_2_8_L_0									
37 D	33.19	1.2954E-02	77.90	166.0	134.9	170.9	UL-RL	1.9516E+04	-7.100	0.000	1.000	1.000
166.0	0.000	0.000	Strato1_2_8_L_0									
38 D	32.60	1.2149E-02	81.70	163.0	138.7	167.0	UL-RL	1.9516E+04	-7.300	0.000	1.000	1.000
163.0	0.000	0.000	Strato1_2_8_L_0									
39 D	32.02	1.1370E-02	85.50	160.1	142.5	163.3	UL-RL	1.9516E+04	-7.500	0.000	1.000	1.000
160.1	0.000	0.000	Strato1_2_8_L_0									
40 D	31.47	1.0616E-02	89.30	157.3	146.3	159.7	UL-RL	1.9516E+04	-7.700	0.000	1.000	1.000
157.3	0.000	0.000	Strato1_2_8_L_0									
41 D	30.93	9.8892E-03	93.10	154.6	150.1	156.3	UL-RL	1.9516E+04	-7.900	0.000	1.000	1.000
154.6	0.000	0.000	Strato1_2_8_L_0									
42 D	30.41	9.1887E-03	96.90	152.1	153.9	153.1	UL-RL	1.9516E+04	-8.100	0.000	1.000	1.000
152.1	0.000	0.000	Strato1_2_8_L_0									
43 D	29.92	8.5148E-03	100.7	149.6	157.7	150.1	UL-RL	1.9516E+04	-8.300	0.000	1.000	1.000
149.6	0.000	0.000	Strato1_2_8_L_0									
44 D	29.44	7.8676E-03	104.5	147.2	161.5	147.2	V-C	6505.	-8.500	0.000	1.000	1.000
147.2	0.000	0.000	Strato1_2_8_L_0									
45 D	28.93	7.2472E-03	108.3	144.7	165.3	144.7	V-C	6505.	-8.700	0.000	1.000	1.000
144.7	0.000	0.000	Strato1_2_8_L_0									
46 D	28.46	6.6537E-03	112.1	142.3	169.1	142.3	V-C	6505.	-8.900	0.000	1.000	1.000
142.3	0.000	0.000	Strato1_2_8_L_0									
47 D	28.02	6.0871E-03	115.9	140.1	172.9	140.1	V-C	6505.	-9.100	0.000	1.000	1.000
140.1	0.000	0.000	Strato1_2_8_L_0									
48 D	27.61	5.5476E-03	119.7	138.0	176.7	138.0	V-C	6505.	-9.300	0.000	1.000	1.000
138.0	0.000	0.000	Strato1_2_8_L_0									
49 D	27.23	5.0351E-03	123.5	136.2	180.5	136.2	V-C	6505.	-9.500	0.000	1.000	1.000
136.2	0.000	0.000	Strato1_2_8_L_0									
50 D	33.99	4.5499E-03	127.5	169.9	184.5	169.9	V-C	1.4650E+04	-9.700	0.000	1.000	1.000
169.9	0.000	0.000	Strato2_3095_82743_L_0									
51 D	32.80	4.0921E-03	131.5	164.0	188.5	164.0	V-C	1.4650E+04	-9.900	0.000	1.000	1.000
164.0	0.000	0.000	Strato2_3095_82743_L_0									
52 D	31.70	3.6616E-03	135.5	158.5	192.5	158.5	V-C	1.4650E+04	-10.10	0.000	1.000	1.000
158.5	0.000	0.000	Strato2_3095_82743_L_0									
53 D	30.69	3.2583E-03	139.5	153.5	196.5	153.5	V-C	1.4650E+04	-10.30	0.000	1.000	1.000
153.5	0.000	0.000	Strato2_3095_82743_L_0									
54 D	29.76	2.8819E-03	143.5	148.8	200.5	148.8	V-C	1.4650E+04	-10.50	0.000	1.000	1.000
148.8	0.000	0.000	Strato2_3095_82743_L_0									
55 D	28.92	2.5318E-03	147.5	144.6	204.5	144.6	V-C	1.4650E+04	-10.70	0.000	1.000	1.000
144.6	0.000	0.000	Strato2_3095_82743_L_0									
56 D	28.16	2.2076E-03	151.5	140.8	208.5	140.8	V-C	1.4650E+04	-10.90	0.000	1.000	1.000
140.8	0.000	0.000	Strato2_3095_82743_L_0									
57 D	27.49	1.9084E-03	155.5	137.5	212.5	137.5	V-C	1.4650E+04	-11.10	0.000	1.000	1.000
137.5	0.000	0.000	Strato2_3095_82743_L_0									
58 D	26.90	1.6335E-03	159.5	134.5	216.5	134.5	V-C	1.4650E+04	-11.30	0.000	1.000	1.000
134.5	0.000	0.000	Strato2_3095_82743_L_0									
59 D	26.39	1.3819E-03	163.5	132.0	220.5	132.0	V-C	1.4650E+04	-11.50	0.000	1.000	1.000
132.0	0.000	0.000	Strato2_3095_82743_L_0									
60 D	25.96	1.1526E-03	167.5	129.8	224.5	129.8	V-C	1.4650E+04	-11.70	0.000	1.000	1.000
129.8	0.000	0.000	Strato2_3095_82743_L_0									
61 D	25.60	9.4458E-04	171.5	128.0	228.5	128.0	V-C	1.4650E+04	-11.90	0.000	1.000	1.000



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128.0	0.000	0.000	Strato2_3095_82743_L_0		
62 D	25.31	7.5665E-04	175.5 126.5	232.5	126.5
126.5	0.000	0.000	Strato2_3095_82743_L_0		
63 D	24.83	5.8758E-04	179.5 124.1	236.5	126.1
124.1	0.000	0.000	Strato2_3095_82743_L_0		
64 D	24.05	4.3612E-04	183.5 120.2	240.5	126.8
120.2	0.000	0.000	Strato2_3095_82743_L_0		
65 D	23.40	3.0093E-04	187.5 117.0	244.5	127.7
117.0	0.000	0.000	Strato2_3095_82743_L_0		
66 D	22.87	1.8067E-04	191.5 114.3	248.5	128.7
114.3	0.000	0.000	Strato2_3095_82743_L_0		
67 D	22.44	7.3930E-05	195.5 112.2	252.5	129.8
112.2	0.000	0.000	Strato2_3095_82743_L_0		
68 D	22.12	-2.0663E-05	199.5 110.6	256.5	130.9
110.6	0.000	0.000	Strato2_3095_82743_L_0		
69 D	21.87	-1.0448E-04	203.5 109.4	260.5	132.2
109.4	0.000	0.000	Strato2_3095_82743_L_0		
70 D	21.70	-1.7886E-04	207.5 108.5	264.5	133.5
108.5	0.000	0.000	Strato2_3095_82743_L_0		
71 D	21.59	-2.4507E-04	211.5 108.0	268.5	134.9
108.0	0.000	0.000	Strato2_3095_82743_L_0		
72 D	21.54	-3.0434E-04	215.5 107.7	272.5	136.4
107.7	0.000	0.000	Strato2_3095_82743_L_0		
73 D	21.39	-3.5783E-04	219.5 106.9	276.5	138.2
106.9	0.000	0.000	Strato2_3095_82743_L_0		
74 D	21.23	-4.0659E-04	223.5 106.2	280.5	140.2
106.2	0.000	0.000	Strato2_3095_82743_L_0		
75 D	21.12	-4.5162E-04	227.5 105.6	284.5	142.2
105.6	0.000	0.000	Strato2_3095_82743_L_0		
76 D	21.04	-4.9378E-04	231.5 105.2	288.5	144.2
105.2	0.000	0.000	Strato2_3095_82743_L_0		
77 D	20.98	-5.3386E-04	235.5 104.9	292.5	146.2
104.9	0.000	0.000	Strato2_3095_82743_L_0		
78 D	20.94	-5.7252E-04	239.5 104.7	296.5	148.2
104.7	0.000	0.000	Strato2_3095_82743_L_0		
79 D	20.90	-6.1029E-04	243.5 104.5	300.5	150.2
104.5	0.000	0.000	Strato2_3095_82743_L_0		
80 D	20.88	-6.4759E-04	247.5 104.4	304.5	152.2
104.4	0.000	0.000	Strato2_3095_82743_L_0		
81 D	15.64	-6.8471E-04	251.5 104.3	308.5	154.2
104.3	0.000	0.000	Strato2_3095_82743_L_0		
82 D	5.210	-7.0325E-04	253.5 104.2	310.5	155.2
104.2	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|          NewProject.BaseDesignSection_28.A2M2R1_3514                                                                                       |
|          Exe Time :24 July 2019          10:49:27                                                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.9689	-4.9689	-2.75482E-10	0.99378
2	13.648	-13.648	-0.99378	3.7235
3	23.153	-23.153	-3.7235	8.3540
4	33.035	-33.035	-8.3540	14.961
5	43.504	-43.504	-14.961	23.662
6	54.367	-54.367	-23.662	34.535
7	65.763	-65.763	-34.535	47.688
8	77.563	-77.563	-47.688	63.200
9	89.732	-89.732	-63.200	81.147
10	102.33	-102.33	-81.147	101.61
11	115.42	-115.42	-101.61	124.70
12	128.93	-128.93	-124.70	150.48
13	139.43	-139.43	-150.48	164.43
14	-7.9596	7.9596	-164.43	162.83
15	6.6345	-6.6345	-162.83	164.16
16	21.689	-21.689	-164.16	168.50
17	37.007	-37.007	-168.50	175.90
18	52.492	-52.492	-175.90	186.40
19	68.098	-68.098	-186.40	200.02

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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20	83.427	-83.427	-200.02	216.70
21	96.356	-96.356	-216.70	235.97
22	107.00	-107.00	-235.97	257.37
23	115.36	-115.36	-257.37	280.45
24	121.42	-121.42	-280.45	304.73
25	125.24	-125.24	-304.73	329.78
26	126.79	-126.79	-329.78	355.14
27	126.14	-126.14	-355.14	380.36
28	123.23	-123.23	-380.36	405.01
29	118.16	-118.16	-405.01	428.64
30	110.92	-110.92	-428.64	450.83
31	101.56	-101.56	-450.83	471.14
32	90.079	-90.079	-471.14	489.15
33	76.997	-76.997	-489.15	504.55
34	65.063	-65.063	-504.55	517.56
35	54.295	-54.295	-517.56	528.42
36	44.647	-44.647	-528.42	537.35
37	36.123	-36.123	-537.35	544.58
38	28.731	-28.731	-544.58	550.32
39	22.437	-22.437	-550.32	554.81
40	17.205	-17.205	-554.81	558.25
41	13.005	-13.005	-558.25	560.85
42	9.8855	-9.8855	-560.85	562.83
43	7.8233	-7.8233	-562.83	564.39
44	6.8500	-6.8500	-564.39	565.76
45	6.9767	-6.9767	-565.76	567.16
46	8.1884	-8.1884	-567.16	568.80
47	10.435	-10.435	-568.80	570.88
48	13.699	-13.699	-570.88	573.62
49	17.946	-17.946	-573.62	577.21
50	-1.2556	1.2556	-577.21	576.96
51	-18.905	18.905	-576.96	573.18
52	-35.083	35.083	-573.18	566.17
53	-49.864	49.864	-566.17	556.19
54	-63.345	63.345	-556.19	543.52
55	-75.602	75.602	-543.52	528.40
56	-86.730	86.730	-528.40	511.06
57	-96.804	96.804	-511.06	491.70
58	-105.93	105.93	-491.70	470.51
59	-114.16	114.16	-470.51	447.68
60	-121.58	121.58	-447.68	423.36
61	-128.26	128.26	-423.36	397.71
62	-134.28	134.28	-397.71	370.85
63	-139.44	139.44	-370.85	342.97
64	-143.43	143.43	-342.97	314.28
65	-146.42	146.42	-314.28	285.00
66	-146.62	146.62	-285.00	255.67
67	-144.29	144.29	-255.67	226.81
68	-140.46	140.46	-226.81	198.72
69	-135.27	135.27	-198.72	171.67
70	-128.85	128.85	-171.67	145.90
71	-121.31	121.31	-145.90	121.64
72	-112.74	112.74	-121.64	99.089
73	-103.25	103.25	-99.089	78.439
74	-92.880	92.880	-78.439	59.863
75	-81.693	81.693	-59.863	43.524
76	-69.738	69.738	-43.524	29.577
77	-57.080	57.080	-29.577	18.161
78	-43.771	43.771	-18.161	9.4063
79	-29.828	29.828	-9.4063	3.4408
80	-15.266	15.266	-3.4408	0.38763
81	-3.8759	3.8759	-0.38763	-3.58260E-11

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|                PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|                |
|                NewProject.BaseDesignSection_28.A2M2R1_3514 |
|                Exe Time :24 July 2019  10:49:27 |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL FORCE d0 EDISPL pl. eps K -ve limit +ve limit

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.		Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 234 di 560
ANCHOR	1	163.60	-2.30139E-03	-2.30139E-03	0.0000	0.0000 0.0000 0.0000 BORN NOW JUST ACTIVATED
ITER	0	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM=0.1400E+05 REMNOR=0.7363E-17 RATIO =0.1041 TOLER =0.1000E-03 NOT CONVERGED RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.1041 RATOR= 0.000 MAX UN= 35.73 IEQ= 65 NODE 33 DOF 1 Y-DISPL.F MIN UN=-.4354E-07 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				
ITER	2	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM= 3786. REMNOR=0.4278E-17 RATIO =0.5416E-01 TOLER =0.1000E-03 NOT CONVERGED RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.5416E-01 RATOR= 0.000 MAX UN= 13.21 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F MIN UN=-.7775E-08 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				
ITER	3	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM= 1911. REMNOR=0.1438E-16 RATIO =0.3848E-01 TOLER =0.1000E-03 NOT CONVERGED RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.3848E-01 RATOR= 0.000 MAX UN= 18.28 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F MIN UN=-1.768 IEQ= 161 NODE 81 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				
ITER	4	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM= 22.34 REMNOR=0.7740E-16 RATIO =0.4160E-02 TOLER =0.1000E-03 NOT CONVERGED RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.4160E-02 RATOR= 0.000 MAX UN=0.2329 IEQ= 99 NODE 50 DOF 1 Y-DISPL.F MIN UN=-4.508 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				
ITER	5	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM= 2.143 REMNOR=0.4358E-16 RATIO =0.1288E-02 TOLER =0.1000E-03 NOT CONVERGED RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.1288E-02 RATOR= 0.000 MAX UN=0.6319 IEQ= 141 NODE 71 DOF 1 Y-DISPL.F MIN UN=-.4066E-01 IEQ= 149 NODE 75 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				
ITER	6	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM=0.2133 REMNOR=0.5334E-16 RATIO =0.4065E-03 TOLER =0.1000E-03 NOT CONVERGED RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.4065E-03 RATOR= 0.000 MAX UN=0.1512 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F MIN UN=-.2185 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				
ITER	7	RNORM = 0.000 RMNORM= 0.000 RINORM=0.1291E+07 RIMNOR=0.2206E+08 RENORM=0.8196E-03 REMNOR=0.1391E-16 RATIO =0.2520E-04 TOLER =0.1000E-03 CONVERGED ! RFMAX = 158.0 RMMAX = 577.2 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02 RDT =0.1291E+07 RDR =0.2206E+08 RATIO=0.2520E-04 RATOR= 0.000 MAX UN=0.1461E-01 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F MIN UN=-.1855E-07 IEQ= 45 NODE 23 DOF 1 Y-DISPL.F NO. OF CONTACT CONSTRAINT VIOLATIONS 0				

GENERAL CONTRACTOR



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Doc. N.

Progetto
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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_3514                       |
|                               Exe Time :24 July 2019    10:49:27                             |
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New Project
SOLUTION REACHED USING 7 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	9.0561949E-02	-6.2921838E-03	
2	8.9303516E-02	-6.2921313E-03	
3	8.8045109E-02	-6.2918958E-03	
4	8.6786782E-02	-6.2912975E-03	
5	8.5528628E-02	-6.2901216E-03	
6	8.4270788E-02	-6.2881237E-03	
7	8.3013452E-02	-6.2850290E-03	
8	8.1756870E-02	-6.2805344E-03	
9	8.0501354E-02	-6.2743074E-03	
10	7.9247286E-02	-6.2659900E-03	
11	7.7995123E-02	-6.2551988E-03	
12	7.6745399E-02	-6.2415209E-03	
13	7.5498736E-02	-6.2245144E-03	
14	7.4876771E-02	-6.2146319E-03	
15	7.3635563E-02	-6.1992185E-03	
16	7.2396390E-02	-6.1942056E-03	
17	7.1157224E-02	-6.1990515E-03	
18	6.9916150E-02	-6.2131861E-03	
19	6.8671370E-02	-6.2360104E-03	
20	6.7421209E-02	-6.2668963E-03	
21	6.6164118E-02	-6.3051869E-03	
22	6.4898686E-02	-6.3501977E-03	
23	6.3623638E-02	-6.4012171E-03	
24	6.2337848E-02	-6.4575040E-03	
25	6.1040337E-02	-6.5182883E-03	
26	5.9730286E-02	-6.5827715E-03	
27	5.8407044E-02	-6.6501260E-03	
28	5.7070108E-02	-6.7194967E-03	
29	5.5719169E-02	-6.7899998E-03	
30	5.4354093E-02	-6.8607244E-03	
31	5.2974927E-02	-6.9307309E-03	
32	5.1581920E-02	-6.9990506E-03	
33	5.0175493E-02	-7.0646874E-03	
34	4.8756292E-02	-7.1266155E-03	
35	4.7325164E-02	-7.1837808E-03	
36	4.5883170E-02	-7.2351008E-03	
37	4.4431585E-02	-7.2795111E-03	
38	4.2971899E-02	-7.3160209E-03	
39	4.1505771E-02	-7.3437209E-03	
40	4.0035053E-02	-7.3617823E-03	
41	3.8561750E-02	-7.3694577E-03	
42	3.7088007E-02	-7.3660806E-03	
43	3.5616101E-02	-7.3510659E-03	
44	3.4148398E-02	-7.3239097E-03	
45	3.2687375E-02	-7.2841903E-03	
46	3.1235582E-02	-7.2315670E-03	
47	2.9795626E-02	-7.1657800E-03	
48	2.8370166E-02	-7.0866513E-03	
49	2.6961868E-02	-6.9940825E-03	
50	2.5573430E-02	-6.8880572E-03	
51	2.4207471E-02	-6.7696469E-03	
52	2.2866293E-02	-6.6409172E-03	
53	2.1551697E-02	-6.5038046E-03	
54	2.0265209E-02	-6.3601310E-03	
55	1.9007969E-02	-6.2115958E-03	
56	1.7780789E-02	-6.0597827E-03	
57	1.6584176E-02	-5.9061643E-03	
58	1.5418352E-02	-5.7521061E-03	
59	1.4283279E-02	-5.5988710E-03	
60	1.3178671E-02	-5.4476239E-03	
61	1.2104025E-02	-5.2994352E-03	
62	1.1058628E-02	-5.1552854E-03	
63	1.0041582E-02	-5.0160680E-03	
64	9.0518180E-03	-4.8825946E-03	
65	8.0881125E-03	-4.7555974E-03	

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66	7.1491035E-03	-4.6357326E-03
67	6.2333052E-03	-4.5235815E-03
68	5.3391227E-03	-4.4196540E-03
69	4.4648660E-03	-4.3243914E-03
70	3.6087635E-03	-4.2381687E-03
71	2.7689751E-03	-4.1612969E-03
72	1.9436047E-03	-4.0940249E-03
73	1.1307137E-03	-4.0365242E-03
74	3.2834088E-04	-3.9888359E-03
75	-4.6546129E-04	-3.9507572E-03
76	-1.2525658E-03	-3.9217360E-03
77	-2.0347021E-03	-3.9009116E-03
78	-2.8134037E-03	-3.8871856E-03
79	-3.5899607E-03	-3.8792240E-03
80	-4.3653761E-03	-3.8755050E-03
81	-5.1403366E-03	-3.8743944E-03
82	-5.5278110E-03	-3.8743381E-03



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  10:49:27  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 82
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	2.208	-9.0562E-02	28.00	22.08	28.00	49.69	UL-RL	1.0279E+04	0.000	0.000	1.000	1.000
22.08	0.000	0.000	Stratol_2_8_L_0									
2 D	3.299	-8.9304E-02	20.91	16.50	20.91	43.40	UL-RL	1.0279E+04	-0.2000	0.000	1.000	1.000
16.50	0.000	0.000	Stratol_2_8_L_0									
3 D	4.265	-8.8045E-02	27.06	21.33	27.06	47.52	UL-RL	1.0279E+04	-0.4000	0.000	1.000	1.000
21.33	0.000	0.000	Stratol_2_8_L_0									
4 D	4.785	-8.6787E-02	30.37	23.92	30.37	49.41	UL-RL	1.0279E+04	-0.6000	0.000	1.000	1.000
23.92	0.000	0.000	Stratol_2_8_L_0									
5 D	5.514	-8.5529E-02	35.02	27.57	35.02	52.35	UL-RL	1.0279E+04	-0.8000	0.000	1.000	1.000
27.57	0.000	0.000	Stratol_2_8_L_0									
6 D	6.051	-8.4271E-02	38.43	30.25	38.43	54.32	UL-RL	1.0279E+04	-1.000	0.000	1.000	1.000
30.25	0.000	0.000	Stratol_2_8_L_0									
7 D	6.727	-8.3013E-02	42.74	33.64	42.74	56.98	UL-RL	1.0279E+04	-1.200	0.000	1.000	1.000
33.64	0.000	0.000	Stratol_2_8_L_0									
8 D	7.278	-8.1757E-02	46.24	36.39	46.24	59.00	ACTIVE	0.000	-1.400	0.000	1.000	1.000
36.39	0.000	0.000	Stratol_2_8_L_0									
9 D	7.796	-8.0501E-02	49.53	38.98	49.53	60.85	ACTIVE	0.000	-1.600	0.000	1.000	1.000
38.98	0.000	0.000	Stratol_2_8_L_0									
10 D	8.371	-7.9247E-02	53.19	41.86	53.19	62.97	ACTIVE	0.000	-1.800	0.000	1.000	1.000
41.86	0.000	0.000	Stratol_2_8_L_0									
11 D	9.026	-7.7995E-02	57.34	45.13	57.34	65.47	ACTIVE	0.000	-2.000	0.000	1.000	1.000
45.13	0.000	0.000	Stratol_2_8_L_0									
12 D	9.602	-7.6745E-02	61.00	48.01	61.00	67.56	ACTIVE	0.000	-2.200	0.000	1.000	1.000
48.01	0.000	0.000	Stratol_2_8_L_0									
13 D	7.683	-7.5499E-02	65.08	51.22	65.08	69.97	ACTIVE	0.000	-2.400	0.000	1.000	1.000
51.22	0.000	0.000	Stratol_2_8_L_0									
14 D	7.888	-7.4877E-02	66.82	52.59	66.82	70.92	ACTIVE	0.000	-2.500	0.000	1.000	1.000
52.59	0.000	0.000	Stratol_2_8_L_0									
15 D	11.10	-7.3636E-02	70.51	55.49	70.51	72.97	ACTIVE	0.000	-2.700	0.000	1.000	1.000
55.49	0.000	0.000	Stratol_2_8_L_0									
16 D	11.73	-7.2396E-02	74.54	58.66	74.54	75.27	ACTIVE	0.000	-2.900	0.000	1.000	1.000
58.66	0.000	0.000	Stratol_2_8_L_0									
17 D	12.31	-7.1157E-02	78.23	61.57	78.23	77.30	ACTIVE	0.000	-3.100	0.000	1.000	1.000
61.57	0.000	0.000	Stratol_2_8_L_0									
18 D	12.94	-6.9916E-02	82.23	64.72	82.23	79.56	ACTIVE	0.000	-3.300	0.000	1.000	1.000
64.72	0.000	0.000	Stratol_2_8_L_0									
19 D	13.53	-6.8671E-02	85.93	67.63	85.93	81.59	ACTIVE	0.000	-3.500	0.000	1.000	1.000
67.63	0.000	0.000	Stratol_2_8_L_0									
20 D	14.15	-6.7421E-02	89.90	70.75	89.90	83.84	ACTIVE	0.000	-3.700	0.000	1.000	1.000
70.75	0.000	0.000	Stratol_2_8_L_0									
21 D	14.68	-6.6164E-02	93.24	73.38	93.24	85.59	ACTIVE	0.000	-3.900	0.000	1.000	1.000
73.38	0.000	0.000	Stratol_2_8_L_0									
22 D	15.30	-6.4899E-02	97.21	76.50	97.21	87.86	ACTIVE	0.000	-4.100	0.000	1.000	1.000
76.50	0.000	0.000	Stratol_2_8_L_0									
23 D	15.92	-6.3624E-02	101.2	79.61	101.2	90.13	ACTIVE	0.000	-4.300	0.000	1.000	1.000
79.61	0.000	0.000	Stratol_2_8_L_0									
24 D	16.51	-6.2338E-02	104.9	82.55	104.9	92.25	ACTIVE	0.000	-4.500	0.000	1.000	1.000
82.55	0.000	0.000	Stratol_2_8_L_0									
25 D	17.13	-6.1040E-02	108.8	85.64	108.8	94.56	ACTIVE	0.000	-4.700	0.000	1.000	1.000
85.64	0.000	0.000	Stratol_2_8_L_0									
26 D	17.72	-5.9730E-02	112.6	88.58	112.6	96.74	ACTIVE	0.000	-4.900	0.000	1.000	1.000
88.58	0.000	0.000	Stratol_2_8_L_0									
27 D	18.33	-5.8407E-02	116.5	91.67	116.5	99.10	ACTIVE	0.000	-5.100	0.000	1.000	1.000
91.67	0.000	0.000	Stratol_2_8_L_0									
28 D	18.88	-5.7070E-02	119.9	94.39	119.9	101.1	ACTIVE	0.000	-5.300	0.000	1.000	1.000
94.39	0.000	0.000	Stratol_2_8_L_0									
29 D	19.49	-5.5719E-02	123.9	97.47	123.9	103.5	ACTIVE	0.000	-5.500	0.000	1.000	1.000
97.47	0.000	0.000	Stratol_2_8_L_0									
30 D	20.08	-5.4354E-02	127.6	100.4	127.6	105.9	ACTIVE	0.000	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



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100.4	0.000	0.000	Strato1_2_8_L_0		
31 D	20.70	-5.2975E-02	131.5 103.5	131.5	108.3
103.5	0.000	0.000	Strato1_2_8_L_0		
32 D	21.29	-5.1582E-02	135.3 106.5	135.3	110.7
106.5	0.000	0.000	Strato1_2_8_L_0		
33 D	21.90	-5.0175E-02	139.2 109.5	139.2	113.3
109.5	0.000	0.000	Strato1_2_8_L_0		
34 D	22.49	-4.8756E-02	142.9 112.5	142.9	115.7
112.5	0.000	0.000	Strato1_2_8_L_0		
35 D	23.11	-4.7325E-02	146.8 115.5	146.8	118.3
115.5	0.000	0.000	Strato1_2_8_L_0		
36 D	23.69	-4.5883E-02	150.5 118.4	150.5	120.8
118.4	0.000	0.000	Strato1_2_8_L_0		
37 D	24.28	-4.4432E-02	154.2 121.4	154.2	123.3
121.4	0.000	0.000	Strato1_2_8_L_0		
38 D	24.89	-4.2972E-02	158.1 124.4	158.1	126.0
124.4	0.000	0.000	Strato1_2_8_L_0		
39 D	25.48	-4.1506E-02	161.9 127.4	161.9	128.7
127.4	0.000	0.000	Strato1_2_8_L_0		
40 D	26.09	-4.0035E-02	165.8 130.5	165.8	131.5
130.5	0.000	0.000	Strato1_2_8_L_0		
41 D	26.68	-3.8562E-02	169.5 133.4	169.5	134.3
133.4	0.000	0.000	Strato1_2_8_L_0		
42 D	27.29	-3.7088E-02	173.4 136.5	173.4	137.2
136.5	0.000	0.000	Strato1_2_8_L_0		
43 D	27.86	-3.5616E-02	177.0 139.3	177.0	139.9
139.3	0.000	0.000	Strato1_2_8_L_0		
44 D	28.47	-3.4148E-02	180.9 142.3	180.9	142.8
142.3	0.000	0.000	Strato1_2_8_L_0		
45 D	29.06	-3.2687E-02	184.6 145.3	184.6	145.6
145.3	0.000	0.000	Strato1_2_8_L_0		
46 D	29.67	-3.1236E-02	188.5 148.4	188.5	148.5
148.4	0.000	0.000	Strato1_2_8_L_0		
47 D	30.26	-2.9796E-02	192.3 151.3	192.3	151.4
151.3	0.000	0.000	Strato1_2_8_L_0		
48 D	30.87	-2.8370E-02	196.1 154.4	196.1	154.4
154.4	0.000	0.000	Strato1_2_8_L_0		
49 D	31.48	-2.6962E-02	200.0 157.4	200.0	157.4
157.4	0.000	0.000	Strato1_2_8_L_0		
50 D	14.79	-2.5573E-02	204.0 73.93	204.0	102.0
73.93	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.15	-2.4207E-02	207.9 75.77	207.9	103.9
75.77	0.000	0.000	Strato2_3095_82743_L_0		
52 D	15.53	-2.2866E-02	211.9 77.63	211.9	105.9
77.63	0.000	0.000	Strato2_3095_82743_L_0		
53 D	15.91	-2.1552E-02	215.9 79.54	215.9	108.0
79.54	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.28	-2.0265E-02	219.9 81.41	219.9	109.9
81.41	0.000	0.000	Strato2_3095_82743_L_0		
55 D	16.66	-1.9008E-02	223.9 83.32	223.9	112.0
83.32	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.04	-1.7781E-02	227.9 85.18	227.9	114.0
85.18	0.000	0.000	Strato2_3095_82743_L_0		
57 D	17.42	-1.6584E-02	232.0 87.09	232.0	116.0
87.09	0.000	0.000	Strato2_3095_82743_L_0		
58 D	17.78	-1.5418E-02	235.8 88.89	235.8	117.9
88.89	0.000	0.000	Strato2_3095_82743_L_0		
59 D	18.16	-1.4283E-02	239.9 90.80	239.9	119.9
90.80	0.000	0.000	Strato2_3095_82743_L_0		
60 D	18.53	-1.3179E-02	243.8 92.67	243.8	121.9
92.67	0.000	0.000	Strato2_3095_82743_L_0		
61 D	18.92	-1.2104E-02	247.9 94.58	247.9	124.0
94.58	0.000	0.000	Strato2_3095_82743_L_0		
62 D	19.30	-1.1059E-02	252.0 96.48	252.0	126.0
96.48	0.000	0.000	Strato2_3095_82743_L_0		
63 D	19.67	-1.0042E-02	255.9 98.35	255.9	128.0
98.35	0.000	0.000	Strato2_3095_82743_L_0		
64 D	20.05	-9.0518E-03	260.0 100.3	260.0	130.0
100.3	0.000	0.000	Strato2_3095_82743_L_0		
65 D	20.45	-8.0881E-03	263.8 102.3	263.8	131.9
102.3	0.000	0.000	Strato2_3095_82743_L_0		
66 D	20.87	-7.1491E-03	267.9 104.4	267.9	133.9
104.4	0.000	0.000	Strato2_3095_82743_L_0		
67 D	21.28	-6.2333E-03	271.8 106.4	271.8	135.9
106.4	0.000	0.000	Strato2_3095_82743_L_0		
68 D	21.69	-5.3391E-03	275.7 108.4	275.7	139.8
108.4	0.000	0.000	Strato2_3095_82743_L_0		
69 D	22.10	-4.4649E-03	279.6 110.5	279.6	143.4
110.5	0.000	0.000	Strato2_3095_82743_L_0		
70 D	22.51	-3.6088E-03	283.5 112.6	283.5	146.7
112.6	0.000	0.000	Strato2_3095_82743_L_0		
71 D	22.93	-2.7690E-03	287.4 114.6	287.4	149.9
114.6	0.000	0.000	Strato2_3095_82743_L_0		
72 D	23.34	-1.9436E-03	291.3 116.7	291.3	152.8
116.7	0.000	0.000	Strato2_3095_82743_L_0		

GENERAL CONTRACTOR

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20	0.000	--	--	--	--
0.000	0.000	0.000	not available		
21	0.000	--	--	--	--
0.000	0.000	0.000	not available		
22	0.000	--	--	--	--
0.000	0.000	0.000	not available		
23	0.000	--	--	--	--
0.000	0.000	0.000	not available		
24	0.000	--	--	--	--
0.000	0.000	0.000	not available		
25	0.000	--	--	--	--
0.000	0.000	0.000	not available		
26	0.000	--	--	--	--
0.000	0.000	0.000	not available		
27	0.000	--	--	--	--
0.000	0.000	0.000	not available		
28	0.000	--	--	--	--
0.000	0.000	0.000	not available		
29	0.000	--	--	--	--
0.000	0.000	0.000	not available		
30	0.000	--	--	--	--
0.000	0.000	0.000	not available		
31	0.000	--	--	--	--
0.000	0.000	0.000	not available		
32	0.000	--	--	--	--
0.000	0.000	0.000	not available		
33	0.000	--	--	--	--
0.000	0.000	0.000	not available		
34	0.000	--	--	--	--
0.000	0.000	0.000	not available		
35	0.000	--	--	--	--
0.000	0.000	0.000	not available		
36 D	1.963	4.5883E-02	3.230 9.813	131.1	175.0
9.813	0.000	0.000	Strato1_2_8_L_0		
37 D	4.271	4.4432E-02	7.030 21.36	134.9	170.9
21.36	0.000	0.000	Strato1_2_8_L_0		
38 D	6.580	4.2972E-02	10.83 32.90	138.7	167.0
32.90	0.000	0.000	Strato1_2_8_L_0		
39 D	8.889	4.1506E-02	14.63 44.45	142.5	163.3
44.45	0.000	0.000	Strato1_2_8_L_0		
40 D	11.20	4.0035E-02	18.43 55.99	146.3	159.7
55.99	0.000	0.000	Strato1_2_8_L_0		
41 D	13.51	3.8562E-02	22.23 67.53	150.1	156.3
67.53	0.000	0.000	Strato1_2_8_L_0		
42 D	15.82	3.7088E-02	26.03 79.08	153.9	153.1
79.08	0.000	0.000	Strato1_2_8_L_0		
43 D	18.12	3.5616E-02	29.83 90.62	157.7	150.1
90.62	0.000	0.000	Strato1_2_8_L_0		
44 D	20.43	3.4148E-02	33.63 102.2	161.5	147.2
102.2	0.000	0.000	Strato1_2_8_L_0		
45 D	22.74	3.2687E-02	37.43 113.7	165.3	144.7
113.7	0.000	0.000	Strato1_2_8_L_0		
46 D	25.05	3.1236E-02	41.23 125.3	169.1	142.3
125.3	0.000	0.000	Strato1_2_8_L_0		
47 D	27.36	2.9796E-02	45.03 136.8	172.9	140.1
136.8	0.000	0.000	Strato1_2_8_L_0		
48 D	29.67	2.8370E-02	48.83 148.3	176.7	148.3
148.3	0.000	0.000	Strato1_2_8_L_0		
49 D	31.98	2.6962E-02	52.63 159.9	180.5	159.9
159.9	0.000	0.000	Strato1_2_8_L_0		
50 D	59.42	2.5573E-02	56.63 297.1	184.5	297.1
297.1	0.000	0.000	Strato2_3095_82743_L_0		
51 D	57.39	2.4207E-02	60.63 287.0	188.5	287.0
287.0	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
52 D	55.12	2.2866E-02	64.63 275.6	192.5	275.6
275.6	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
53 D	52.93	2.1552E-02	68.63 264.7	196.5	264.7
264.7	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
54 D	50.83	2.0265E-02	72.63 254.2	200.5	254.2
254.2	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
55 D	48.82	1.9008E-02	76.63 244.1	204.5	244.1
244.1	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
56 D	46.90	1.7781E-02	80.63 234.5	208.5	234.5
234.5	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
57 D	45.07	1.6584E-02	84.63 225.4	212.5	225.4
225.4	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
58 D	43.33	1.5418E-02	88.63 216.6	216.5	216.6
216.6	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
59 D	41.68	1.4283E-02	92.63 208.4	220.5	208.4
208.4	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
60 D	40.11	1.3179E-02	96.63 200.6	224.5	200.6
200.6	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
61 D	38.63	1.2104E-02	100.6 193.1	228.5	193.1
193.1	0.000	0.000	Strato2_3095_82743_L_0	V-C	6530.
62 D	37.23	1.1059E-02	104.6 186.2	232.5	186.2
				V-C	6530.



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186.2	0.000	0.000	Strato2_3095_82743_L_0		
63 D	35.91	1.0042E-02	108.6 179.6	236.5	179.6
179.6	0.000	0.000	Strato2_3095_82743_L_0		
64 D	34.66	9.0518E-03	112.6 173.3	240.5	173.3
173.3	0.000	0.000	Strato2_3095_82743_L_0		
65 D	33.47	8.0881E-03	116.6 167.4	244.5	167.5
167.4	0.000	0.000	Strato2_3095_82743_L_0		
66 D	32.35	7.1491E-03	120.6 161.7	248.5	162.0
161.7	0.000	0.000	Strato2_3095_82743_L_0		
67 D	31.28	6.2333E-03	124.6 156.4	252.5	156.8
156.4	0.000	0.000	Strato2_3095_82743_L_0		
68 D	30.27	5.3391E-03	128.6 151.4	256.5	151.9
151.4	0.000	0.000	Strato2_3095_82743_L_0		
69 D	29.31	4.4649E-03	132.6 146.6	260.5	147.3
146.6	0.000	0.000	Strato2_3095_82743_L_0		
70 D	28.40	3.6088E-03	136.6 142.0	264.5	142.8
142.0	0.000	0.000	Strato2_3095_82743_L_0		
71 D	27.52	2.7690E-03	140.6 137.6	268.5	138.6
137.6	0.000	0.000	Strato2_3095_82743_L_0		
72 D	25.97	1.9436E-03	144.6 129.8	272.5	136.4
129.8	0.000	0.000	Strato2_3095_82743_L_0		
73 D	22.85	1.1307E-03	148.6 114.3	276.5	138.2
114.3	0.000	0.000	Strato2_3095_82743_L_0		
74 D	19.76	3.2834E-04	152.6 98.82	280.5	140.2
98.82	0.000	0.000	Strato2_3095_82743_L_0		
75 D	16.73	-4.6546E-04	156.6 83.66	284.5	142.2
83.66	0.000	0.000	Strato2_3095_82743_L_0		
76 D	13.75	-1.2526E-03	160.6 68.74	288.5	144.2
68.74	0.000	0.000	Strato2_3095_82743_L_0		
77 D	10.80	-2.0347E-03	164.6 53.98	292.5	146.2
53.98	0.000	0.000	Strato2_3095_82743_L_0		
78 D	7.869	-2.8134E-03	168.6 39.34	296.5	148.2
39.34	0.000	0.000	Strato2_3095_82743_L_0		
79 D	6.918	-3.5900E-03	172.6 34.59	300.5	150.2
34.59	0.000	0.000	Strato2_3095_82743_L_0		
80 D	7.154	-4.3654E-03	176.6 35.77	304.5	152.2
35.77	0.000	0.000	Strato2_3095_82743_L_0		
81 D	5.542	-5.1403E-03	180.6 36.95	308.5	154.2
36.95	0.000	0.000	Strato2_3095_82743_L_0		
82 D	1.877	-5.5278E-03	182.6 37.54	310.5	155.2
37.54	0.000	0.000	Strato2_3095_82743_L_0		

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514                                                                                       |
|          Exe Time :24 July 2019  10:49:27                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.2078	-2.2078	6.67580E-10	0.44156
2	5.5068	-5.5068	-0.44156	1.5429
3	9.7722	-9.7722	-1.5429	3.4974
4	14.557	-14.557	-3.4974	6.4088
5	20.071	-20.071	-6.4088	10.423
6	26.122	-26.122	-10.423	15.648
7	32.849	-32.849	-15.648	22.217
8	40.127	-40.127	-22.217	30.243
9	47.920	-47.920	-30.243	39.827
10	56.287	-56.287	-39.827	51.084
11	65.307	-65.307	-51.084	64.146
12	74.902	-74.902	-64.146	79.126
13	82.579	-82.579	-79.126	87.384
14	-224.59	224.59	-87.384	42.466
15	-213.50	213.50	-42.466	-0.23425
16	-201.78	201.78	0.23425	-40.590
17	-189.48	189.48	40.590	-78.487
18	-176.55	176.55	78.487	-113.80
19	-163.03	163.03	113.80	-146.40
20	-148.88	148.88	146.40	-176.18
21	-134.20	134.20	176.18	-203.02

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22	-118.90	118.90	203.02	-226.80
23	-102.98	102.98	226.80	-247.39
24	-86.468	86.468	247.39	-264.69
25	-69.339	69.339	264.69	-278.55
26	-51.623	51.623	278.55	-288.88
27	-33.289	33.289	288.88	-295.54
28	-14.412	14.412	295.54	-298.42
29	5.0830	-5.0830	298.42	-297.40
30	25.167	-25.167	297.40	-292.37
31	45.868	-45.868	292.37	-283.19
32	67.158	-67.158	283.19	-269.76
33	89.062	-89.062	269.76	-251.95
34	111.56	-111.56	251.95	-229.64
35	134.66	-134.66	229.64	-202.71
36	156.39	-156.39	202.71	-171.43
37	176.39	-176.39	171.43	-136.15
38	194.70	-194.70	136.15	-97.209
39	211.30	-211.30	97.209	-54.950
40	226.19	-226.19	54.950	-9.7117
41	239.37	-239.37	9.7117	38.162
42	250.85	-250.85	-38.162	88.331
43	260.58	-260.58	-88.331	140.45
44	268.61	-268.61	-140.45	194.17
45	274.93	-274.93	-194.17	249.16
46	279.55	-279.55	-249.16	305.07
47	282.46	-282.46	-305.07	361.56
48	283.66	-283.66	-361.56	418.29
49	283.16	-283.16	-418.29	474.92
50	238.53	-238.53	-474.92	522.63
51	196.29	-196.29	-522.63	561.88
52	156.69	-156.69	-561.88	593.22
53	119.67	-119.67	-593.22	617.16
54	85.115	-85.115	-617.16	634.18
55	52.956	-52.956	-634.18	644.77
56	23.090	-23.090	-644.77	649.39
57	-4.5620	4.5620	-649.39	648.48
58	-30.112	30.112	-648.48	642.45
59	-53.627	53.627	-642.45	631.73
60	-75.204	75.204	-631.73	616.69
61	-94.918	94.918	-616.69	597.70
62	-112.85	112.85	-597.70	575.13
63	-129.09	129.09	-575.13	549.31
64	-143.70	143.70	-549.31	520.57
65	-156.72	156.72	-520.57	489.23
66	-168.20	168.20	-489.23	455.59
67	-178.20	178.20	-455.59	419.95
68	-186.79	186.79	-419.95	382.59
69	-194.00	194.00	-382.59	343.79
70	-199.89	199.89	-343.79	303.82
71	-204.48	204.48	-303.82	262.92
72	-207.11	207.11	-262.92	221.50
73	-206.21	206.21	-221.50	180.25
74	-198.57	198.57	-180.25	140.54
75	-182.96	182.96	-140.54	103.95
76	-162.31	162.31	-103.95	71.486
77	-136.69	136.69	-71.486	44.148
78	-106.12	106.12	-44.148	22.924
79	-72.586	72.586	-22.924	8.4070
80	-37.290	37.290	-8.4070	0.94903
81	-9.4894	9.4894	-0.94903	1.41848E-10

```

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|
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      10:49:27
|
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_768111 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	326.16	-2.30139E-03	3.44426E-02	0.0000	4424.2	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

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A

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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          10:49:27          |
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F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	6
3	CONVERGENCE :YES	5
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	7

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.26 [sec]

GENERAL CONTRACTOR



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2. SEZIONE 2 – PARATIA DI PALI

2.1. Design Assumption : Nominal - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal

* Time:mercoledì 24 luglio 2019 11:09:26

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -12 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -12 0 1 0

SOIL 0_R LeftWall_32 -12 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 0 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 40 0 10 30

* 7: Defining Steps

STEP Stage0_31

CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32

CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KA=0.304 LeftWall_32

CHANGE Strato1_2_8_L_0 U-KP=4.041 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32

CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KA=0.235 LeftWall_32

CHANGE Strato2_3095_82743_L_0 U-KP=5.879 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32

CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32

CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32

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CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ADD WallElement_33
ENDSTEP

STEP Stage1_759103
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage3_775251
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage4_775610
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ADD Tieback_778405
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -4.96
WATER -26 0 -12 0 0
ENDSTEP

```

2.2. Design Assumption : Nominal - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  11:09:26                               |
|-----

*****
*
*  PARATIE PLUS Non-Linear Spring Engine
*
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES
*
*          Written by Ce.A.S. s.r.l. (ITALY)
*          with the scientific supervision of
*          Roberto Nova - full professor SOIL MECHANICS
*          at Politecnico di Milano (ITALY)
*
*****
*
*  RELEASE  2017.1  *Build date:Jul 11, 2017*
*
*
*  Ce.A.S.  S.R.L  CENTRO DI ANALISI STRUTTURALE
*           VIALE GIUSTINIANO 10
*           20129  M I L A N O (ITALIA)
*  TEL.    +39 02 2020221  (+39 035 23 67 19)
*  FAX     +39 02 29512533  (+39 035 42285 49)
*

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GENERAL CONTRACTOR



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```
* email      bruno.becci@ceas.it      *
* Web Page   www.ceas.it              *
*****
```

```
JOB : NewProject.BaseDesignSection_28.Nominal_63
STARTING
ACCEPTED <FILE,GENW                      >
ACCEPTED <FILE,PLOTTER,BINARY             >
ACCEPTED <SOLVE TOTAL_STRESS              >
ACCEPTED <PARAM ITEMAX 100                >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001   >
```

```
*****
*
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
* BY THE PROGRAM.                                     *
*****
```

PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

```
-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 July 2019    11:09:26          |
|-----
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 62
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 124
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 88
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES          kPa
Y-DISPLACEMENTS  m
ROTATIONS         RADIANS
BEAM AND SLAB MOMENTS kN*m/m
BEAM SHEAR FORCES kN/m
ANCHOR FORCES     kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS kN/m
Y-REACTIONS       kN/m
X-MOMENT REACTIONS kN*m/m
ETC.
```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
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|          NewProject.BaseDesignSection_28.Nominal_63 |
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P R E P R O C E S S O R D A T A

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N O . O F C O M M A N D S 88

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Strato1_2_8_L_0 0 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback_778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0
29 : STRIP LeftWall_32 2 5 0 40 0 10 30
30 : STEP Stage0_31
31 : CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
32 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 U-KA=0.304 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KP=4.041 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
37 : CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 U-KA=0.235 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KP=5.879 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
43 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
45 : CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
47 : SETWALL LeftWall_32
48 : GEOM 0 0
49 : WATER -26 0 -12 0 0
50 : ADD WallElement_33
51 : ENDSTEP
52 : STEP Stage1_759103
53 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
54 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
55 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
56 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
57 : SETWALL LeftWall_32
58 : GEOM 0 0
59 : WATER -26 0 -12 0 0
60 : ENDSTEP
61 : STEP Stage3_775251
62 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
63 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
64 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
65 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
66 : SETWALL LeftWall_32
67 : GEOM 0 -3
68 : WATER -26 0 -12 0 0
69 : ENDSTEP
70 : STEP Stage4_775610
71 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
72 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
73 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
74 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
75 : SETWALL LeftWall_32
76 : GEOM 0 -3
77 : WATER -26 0 -12 0 0
78 : ADD Tieback_778405
79 : ENDSTEP
80 : STEP Stage5_714
81 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
82 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
83 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32

```



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84 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
 85 : SETWALL LeftWall_32
 86 : GEOM 0 -4.96
 87 : WATER -26 0 -12 0 0
 88 : ENDSTEP

```

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N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /				
1	0.0000	0.0000	/	2	0.0000	-0.20000	/	3	0.0000	-0.40000	/	4	0.0000	-0.60000	/
5	0.0000	-0.80000	/	6	0.0000	-1.0000	/	7	0.0000	-1.2000	/	8	0.0000	-1.4000	/
9	0.0000	-1.6000	/	10	0.0000	-1.8000	/	11	0.0000	-2.0000	/	12	0.0000	-2.2000	/
13	0.0000	-2.4000	/	14	0.0000	-2.5000	/	15	0.0000	-2.7000	/	16	0.0000	-2.9000	/
17	0.0000	-3.1000	/	18	0.0000	-3.3000	/	19	0.0000	-3.5000	/	20	0.0000	-3.7000	/
21	0.0000	-3.9000	/	22	0.0000	-4.1000	/	23	0.0000	-4.3000	/	24	0.0000	-4.5000	/
25	0.0000	-4.7000	/	26	0.0000	-4.9000	/	27	0.0000	-5.1000	/	28	0.0000	-5.3000	/
29	0.0000	-5.5000	/	30	0.0000	-5.7000	/	31	0.0000	-5.9000	/	32	0.0000	-6.1000	/
33	0.0000	-6.3000	/	34	0.0000	-6.5000	/	35	0.0000	-6.7000	/	36	0.0000	-6.9000	/
37	0.0000	-7.1000	/	38	0.0000	-7.3000	/	39	0.0000	-7.5000	/	40	0.0000	-7.7000	/
41	0.0000	-7.9000	/	42	0.0000	-8.1000	/	43	0.0000	-8.3000	/	44	0.0000	-8.5000	/
45	0.0000	-8.7000	/	46	0.0000	-8.9000	/	47	0.0000	-9.1000	/	48	0.0000	-9.3000	/
49	0.0000	-9.5000	/	50	0.0000	-9.7000	/	51	0.0000	-9.9000	/	52	0.0000	-10.100	/
53	0.0000	-10.300	/	54	0.0000	-10.500	/	55	0.0000	-10.700	/	56	0.0000	-10.900	/
57	0.0000	-11.100	/	58	0.0000	-11.300	/	59	0.0000	-11.500	/	60	0.0000	-11.700	/
61	0.0000	-11.900	/	62	0.0000	-12.000	/								

```

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```

ELEMENT GROUP NO. 1

0_L :
 5 62 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

material set no. 1
 prop(1) angle 0.00000
 prop(2) layer as foreseen 1.00000

material set no. 2
 prop(1) angle 0.00000
 prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000

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6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.1500	0.000	0.000	0.000	1.000
14	14	1	0.1500	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.2000	0.000	0.000	0.000	1.000
42	42	2	0.2000	0.000	0.000	0.000	1.000
43	43	2	0.2000	0.000	0.000	0.000	1.000
44	44	2	0.2000	0.000	0.000	0.000	1.000
45	45	2	0.2000	0.000	0.000	0.000	1.000
46	46	2	0.2000	0.000	0.000	0.000	1.000
47	47	2	0.2000	0.000	0.000	0.000	1.000
48	48	2	0.2000	0.000	0.000	0.000	1.000
49	49	2	0.2000	0.000	0.000	0.000	1.000
50	50	2	0.2000	0.000	0.000	0.000	1.000
51	51	2	0.2000	0.000	0.000	0.000	1.000
52	52	2	0.2000	0.000	0.000	0.000	1.000
53	53	2	0.2000	0.000	0.000	0.000	1.000
54	54	2	0.2000	0.000	0.000	0.000	1.000
55	55	2	0.2000	0.000	0.000	0.000	1.000
56	56	2	0.2000	0.000	0.000	0.000	1.000
57	57	2	0.2000	0.000	0.000	0.000	1.000
58	58	2	0.2000	0.000	0.000	0.000	1.000
59	59	2	0.2000	0.000	0.000	0.000	1.000
60	60	2	0.2000	0.000	0.000	0.000	1.000
61	61	2	0.1500	0.000	0.000	0.000	1.000
62	62	2	0.5000E-01	0.000	0.000	0.000	1.000

```

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```

```

ELEMENT GROUP NO. 2

0_R
5 62 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

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material set no. 1
 prop(1) angle 180.000
 prop(2) layer as foreseen 1.00000

material set no. 2
 prop(1) angle 180.000
 prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.1500	0.000	0.000	0.000	2.000
14	14	1	0.1500	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.2000	0.000	0.000	0.000	2.000
42	42	2	0.2000	0.000	0.000	0.000	2.000
43	43	2	0.2000	0.000	0.000	0.000	2.000
44	44	2	0.2000	0.000	0.000	0.000	2.000
45	45	2	0.2000	0.000	0.000	0.000	2.000
46	46	2	0.2000	0.000	0.000	0.000	2.000
47	47	2	0.2000	0.000	0.000	0.000	2.000
48	48	2	0.2000	0.000	0.000	0.000	2.000
49	49	2	0.2000	0.000	0.000	0.000	2.000
50	50	2	0.2000	0.000	0.000	0.000	2.000
51	51	2	0.2000	0.000	0.000	0.000	2.000
52	52	2	0.2000	0.000	0.000	0.000	2.000
53	53	2	0.2000	0.000	0.000	0.000	2.000
54	54	2	0.2000	0.000	0.000	0.000	2.000
55	55	2	0.2000	0.000	0.000	0.000	2.000
56	56	2	0.2000	0.000	0.000	0.000	2.000
57	57	2	0.2000	0.000	0.000	0.000	2.000
58	58	2	0.2000	0.000	0.000	0.000	2.000
59	59	2	0.2000	0.000	0.000	0.000	2.000
60	60	2	0.2000	0.000	0.000	0.000	2.000
61	61	2	0.1500	0.000	0.000	0.000	2.000
62	62	2	0.5000E-01	0.000	0.000	0.000	2.000

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|
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```

```

ELEMENT GROUP NO. 3

WallElement_33 :
  2 61 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active

```

```

material set no. 1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....0.252200E-43

```

```

no. of step variable items: 1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000
  4  1.000
  5  1.000

```

```

element data

el  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
  1  1  2  1  0.000  0.000  0.6848  0.000  0.000
  2  2  3  1  0.000  0.000  0.6848  0.000  0.000
  3  3  4  1  0.000  0.000  0.6848  0.000  0.000
  4  4  5  1  0.000  0.000  0.6848  0.000  0.000
  5  5  6  1  0.000  0.000  0.6848  0.000  0.000
  6  6  7  1  0.000  0.000  0.6848  0.000  0.000
  7  7  8  1  0.000  0.000  0.6848  0.000  0.000
  8  8  9  1  0.000  0.000  0.6848  0.000  0.000
  9  9 10  1  0.000  0.000  0.6848  0.000  0.000
 10 10 11  1  0.000  0.000  0.6848  0.000  0.000
 11 11 12  1  0.000  0.000  0.6848  0.000  0.000
 12 12 13  1  0.000  0.000  0.6848  0.000  0.000
 13 13 14  1  0.000  0.000  0.6848  0.000  0.000
 14 14 15  1  0.000  0.000  0.6848  0.000  0.000
 15 15 16  1  0.000  0.000  0.6848  0.000  0.000
 16 16 17  1  0.000  0.000  0.6848  0.000  0.000
 17 17 18  1  0.000  0.000  0.6848  0.000  0.000
 18 18 19  1  0.000  0.000  0.6848  0.000  0.000
 19 19 20  1  0.000  0.000  0.6848  0.000  0.000
 20 20 21  1  0.000  0.000  0.6848  0.000  0.000
 21 21 22  1  0.000  0.000  0.6848  0.000  0.000
 22 22 23  1  0.000  0.000  0.6848  0.000  0.000
 23 23 24  1  0.000  0.000  0.6848  0.000  0.000
 24 24 25  1  0.000  0.000  0.6848  0.000  0.000
 25 25 26  1  0.000  0.000  0.6848  0.000  0.000
 26 26 27  1  0.000  0.000  0.6848  0.000  0.000
 27 27 28  1  0.000  0.000  0.6848  0.000  0.000
 28 28 29  1  0.000  0.000  0.6848  0.000  0.000
 29 29 30  1  0.000  0.000  0.6848  0.000  0.000
 30 30 31  1  0.000  0.000  0.6848  0.000  0.000
 31 31 32  1  0.000  0.000  0.6848  0.000  0.000
 32 32 33  1  0.000  0.000  0.6848  0.000  0.000
 33 33 34  1  0.000  0.000  0.6848  0.000  0.000
 34 34 35  1  0.000  0.000  0.6848  0.000  0.000
 35 35 36  1  0.000  0.000  0.6848  0.000  0.000
 36 36 37  1  0.000  0.000  0.6848  0.000  0.000
 37 37 38  1  0.000  0.000  0.6848  0.000  0.000
 38 38 39  1  0.000  0.000  0.6848  0.000  0.000
 39 39 40  1  0.000  0.000  0.6848  0.000  0.000
 40 40 41  1  0.000  0.000  0.6848  0.000  0.000
 41 41 42  1  0.000  0.000  0.6848  0.000  0.000

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42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000

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|
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|
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ELEMENT GROUP NO.  4

Tieback_778405      :
6  1  0  1  0  0  0  0  0  0  0  0  0  0  0  1  0  0  2  0
.....
.....2D POST-TENSION ANCHOR....
.....

```

element group behaviour throughout stage analysis

stage	status
1	inactive
2	inactive
3	inactive
4	active
5	active

```

material set no.    1

prop( 1) angle      15.0000
prop( 2) young modulus 0.200100E+09
prop( 3) modification time 0.000000
prop( 4) new young modulus 0.000000

```

```

no. of step variable items:  2
step  -ve lim  +ve lim
-----
1  0.000  0.000
2  0.000  0.000
3  0.000  0.000
4  0.000  0.000
5  0.000  0.000

```

```

element data

el  n  mat      a/l    pinit    yieldc    yieldt
-----
1  14  1    0.2340E-04  136.4    0.000    0.000

```

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|
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NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 10
MAXIMUM POINTS/LCURVE (NPTM) ..... 5

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L O A D D A T A

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

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LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

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+-----+

```

L O A D B A L A N C E

```

STEP   1 TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP   1 TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP   2 TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP   2 TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP   3 TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP   3 TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP   4 TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP   4 TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP   5 TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP   5 TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

```

LOAD INPUT SECTION COMPLETED

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
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NO. OF LAYERS ..... 2
NO. OF DATA PER LAYER..... 100

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.Nominal_63
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```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO.  1<NAME    >= 14.000    (BOTH WALLS)
ITEM NO.  2<NATURE >= 1.0000   (BOTH WALLS)
ITEM NO.  3<LEVEL  >= 0.0000   (BOTH WALLS)
ITEM NO.  4<WALL   >= 1.0000   (BOTH WALLS)
ITEM NO.  5<GAMMAD >= 19.000   (BOTH WALLS)
ITEM NO.  6<GAMMAB >= 9.0000   (BOTH WALLS)
ITEM NO.  7<GAMMAW >= 10.000   (BOTH WALLS)
ITEM NO.  9<U-FRICT >= 29.000   (BOTH WALLS)
ITEM NO. 10<U-KA   >= 0.30400  WALL NO.    1
ITEM NO. 11<U-KP   >= 4.0410   WALL NO.    1
ITEM NO. 12<K0-NC >= 0.53000  (BOTH WALLS)
ITEM NO. 13<NEXP  >= 1.0000   (BOTH WALLS)
ITEM NO. 14<OCR   >= 1.0000   (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000   (BOTH WALLS)
ITEM NO. 17<EVC   >= 20000.   (BOTH WALLS)
ITEM NO. 18<EUR   >= 60000.   (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000   (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000   (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 29.000   (BOTH WALLS)
ITEM NO. 60<D-KA   >= 0.30400  WALL NO.    1
ITEM NO. 61<D-KP   >= 4.0410   WALL NO.    1
ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

```

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

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GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

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NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.30400	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.0410	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -7.8000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.23500	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.8790	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.23500	WALL NO.	1
ITEM NO.	61<D-KP	>= 5.8790	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.30400	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.0410	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

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NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -7.8000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.23500	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.8790	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.23500	WALL NO.	1
ITEM NO.	61<D-KP	>= 5.8790	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.30400	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.0410	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -7.8000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.23500	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.8790	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.23500	WALL NO.	1
ITEM NO.	61<D-KP	>= 5.8790	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	



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DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 10 VALUES

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|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      11:09:26
|
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PHASE DESCRIPTORS

STEP NO.	1	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 1

STEP NO.	2	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000

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Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 2

STEP NO. 3

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 3

STEP NO. 4

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 4



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STEP NO.      5
Y              LEFT WALL    RIGHT WALL
Z-PC          0.000          -0.9990E+30
Z-EXCAVATION -4.960          0.000
Z-WATER_TABLE -26.00          -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000          0.000
ZQ            0.000          0.000
DZW_OF_THE_WATER_TABLE 0.000          0.000
QS_ON_THE_EXCAVATION_SIDE 0.000          0.000
ZQS          -0.9990E+30  -0.9990E+30
ZCUT         0.000          0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00          -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000          0.000
PORE_UPDATE_FLAG 0.000          0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000          0.000
lateral thrusts reduction elevatio 0.000          0.000
Downhill reduction factor for effe 0.000          0.000
Downhill reduction factor for pore 0.000          0.000
Uphill reduction factor for effect 0.000          0.000
Uphill reduction factor for pore p 0.000          0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000          0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000          0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000          0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000          0.000
UPHILL DELTA/PHI RATIO 0.000          0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000          0.000
DOWNHILL DELTA/PHI RATIO 0.000          0.000
DYN.WATER BEHAVIOUR 0.000          0.000
Excess pore pressure RATIO Ru 0.000          0.000
SEISMIC PRESSURE LOWER VALUE 0.000          0.000
SEISMIC PRESSURE UPPER VALUE 0.000          0.000
SEISMIC PRESSURE LOWER LEVEL 0.000          0.000
SEISMIC PRESSURE UPPER LEVEL 0.000          0.000

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=====end of step 5

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LEFT-HAND WALL
LOWER LEVEL    -12.00000
UPPER LEVEL    0.00000

RIGHT-HAND WALL
LOWER LEVEL    -12.00000
UPPER LEVEL    0.00000

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| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
| NewProject.BaseDesignSection_28.Nominal_63                                         |
| Exe Time :24 July 2019 11:09:26                                                    |
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I N I T I A L   S T R E S S   T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES      1

INPUT DATA FOR INITIAL STRESS SET NO.  1
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                  2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)         0.0000000000000000E+000
FOUNDATION WIDTH (B)             40.0000000000000000
ZETA-F.....                     0.0000000000000000E+000
Q-F .....                         10.0000000000000000
BETA .....                       30.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION      3534

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GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

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A

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NO. OF D.P.W FOR THIS AREA 7376
 MAX NO. OF D.P.W. AVAILABLE 81920
 ** MAX NO OF ITERATIONS SET TO 100

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2144E+05 RIMNOR= 0.000
 RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 22.62 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT =0.2144E+05 RDR = 0.000
 RATIO= 0.000 RATIO= 0.000
 MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
 MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2144E+05 RIMNOR= 0.000
 RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 22.62 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT =0.2144E+05 RDR = 0.000
 RATIO= 0.000 RATIO= 0.000
 MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
 MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.2144E+05 RIMNOR= 0.000
 RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 22.62 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT =0.2144E+05 RDR = 0.000
 RATIO= 0.000 RATIO= 0.000
 MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
 MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0



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|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      11:09:26      |
+-----+
    
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New Project
 SOLUTION REACHED USING 2 ITERATIONS ON 100
 PRINT OUT FOR TIME STEP 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F X-ROT. F
 (02) (04) (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      11:09:26      |
+-----+
    
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New Project
 STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	2.1221E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	2.1221E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Strato1_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	2.1221E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Strato1_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	2.1221E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Strato1_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	2.1221E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Strato1_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	2.1221E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	2.1221E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Strato1_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	2.1221E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Strato1_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	2.1221E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Strato1_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	2.1221E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Strato1_2_8_L_0									
11 D	4.028	0.000	38.00	20.14	38.00	20.14	V-C	2.1221E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Strato1_2_8_L_0									
12 D	4.431	0.000	41.80	22.15	41.80	22.15	V-C	2.1221E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Strato1_2_8_L_0									
13 D	3.625	0.000	45.60	24.17	45.60	24.17	V-C	2.1221E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Strato1_2_8_L_0									
14 D	3.776	0.000	47.50	25.18	47.50	25.18	V-C	2.1221E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Strato1_2_8_L_0									
15 D	5.438	0.000	51.30	27.19	51.30	27.19	V-C	2.1221E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Strato1_2_8_L_0									
16 D	5.841	0.000	55.10	29.20	55.10	29.20	V-C	2.1221E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Strato1_2_8_L_0									
17 D	6.243	0.000	58.90	31.22	58.90	31.22	V-C	2.1221E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Strato1_2_8_L_0									
18 D	6.646	0.000	62.70	33.23	62.70	33.23	V-C	2.1221E+04	-3.300	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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33.23	0.000	0.000	Strato1_2_8_L_0				
19 D	7.049	0.000	66.50 35.25	66.50	35.25	V-C 2.1221E+04	-3.500 0.000 1.000 1.000
35.25	0.000	0.000	Strato1_2_8_L_0				
20 D	7.452	0.000	70.30 37.26	70.30	37.26	V-C 2.1221E+04	-3.700 0.000 1.000 1.000
37.26	0.000	0.000	Strato1_2_8_L_0				
21 D	7.855	0.000	74.10 39.27	74.10	39.27	V-C 2.1221E+04	-3.900 0.000 1.000 1.000
39.27	0.000	0.000	Strato1_2_8_L_0				
22 D	8.257	0.000	77.90 41.29	77.90	41.29	V-C 2.1221E+04	-4.100 0.000 1.000 1.000
41.29	0.000	0.000	Strato1_2_8_L_0				
23 D	8.660	0.000	81.70 43.30	81.70	43.30	V-C 2.1221E+04	-4.300 0.000 1.000 1.000
43.30	0.000	0.000	Strato1_2_8_L_0				
24 D	9.063	0.000	85.50 45.32	85.50	45.32	V-C 2.1221E+04	-4.500 0.000 1.000 1.000
45.31	0.000	0.000	Strato1_2_8_L_0				
25 D	9.466	0.000	89.30 47.33	89.30	47.33	V-C 2.1221E+04	-4.700 0.000 1.000 1.000
47.33	0.000	0.000	Strato1_2_8_L_0				
26 D	9.869	0.000	93.10 49.34	93.10	49.34	V-C 2.1221E+04	-4.900 0.000 1.000 1.000
49.34	0.000	0.000	Strato1_2_8_L_0				
27 D	10.27	0.000	96.90 51.36	96.90	51.36	V-C 2.1221E+04	-5.100 0.000 1.000 1.000
51.36	0.000	0.000	Strato1_2_8_L_0				
28 D	10.67	0.000	100.7 53.37	100.7	53.37	V-C 2.1221E+04	-5.300 0.000 1.000 1.000
53.37	0.000	0.000	Strato1_2_8_L_0				
29 D	11.08	0.000	104.5 55.38	104.5	55.38	V-C 2.1221E+04	-5.500 0.000 1.000 1.000
55.38	0.000	0.000	Strato1_2_8_L_0				
30 D	11.48	0.000	108.3 57.40	108.3	57.40	V-C 2.1221E+04	-5.700 0.000 1.000 1.000
57.40	0.000	0.000	Strato1_2_8_L_0				
31 D	11.88	0.000	112.1 59.41	112.1	59.41	V-C 2.1221E+04	-5.900 0.000 1.000 1.000
59.41	0.000	0.000	Strato1_2_8_L_0				
32 D	12.29	0.000	115.9 61.43	115.9	61.43	V-C 2.1221E+04	-6.100 0.000 1.000 1.000
61.43	0.000	0.000	Strato1_2_8_L_0				
33 D	12.69	0.000	119.7 63.44	119.7	63.44	V-C 2.1221E+04	-6.300 0.000 1.000 1.000
63.44	0.000	0.000	Strato1_2_8_L_0				
34 D	13.09	0.000	123.5 65.45	123.5	65.45	V-C 2.1221E+04	-6.500 0.000 1.000 1.000
65.45	0.000	0.000	Strato1_2_8_L_0				
35 D	13.49	0.000	127.3 67.47	127.3	67.47	V-C 2.1221E+04	-6.700 0.000 1.000 1.000
67.47	0.000	0.000	Strato1_2_8_L_0				
36 D	13.90	0.000	131.1 69.48	131.1	69.48	V-C 2.1221E+04	-6.900 0.000 1.000 1.000
69.48	0.000	0.000	Strato1_2_8_L_0				
37 D	14.30	0.000	134.9 71.50	134.9	71.50	V-C 2.1221E+04	-7.100 0.000 1.000 1.000
71.50	0.000	0.000	Strato1_2_8_L_0				
38 D	14.70	0.000	138.7 73.51	138.7	73.51	V-C 2.1221E+04	-7.300 0.000 1.000 1.000
73.51	0.000	0.000	Strato1_2_8_L_0				
39 D	15.10	0.000	142.5 75.52	142.5	75.52	V-C 2.1221E+04	-7.500 0.000 1.000 1.000
75.52	0.000	0.000	Strato1_2_8_L_0				
40 D	15.51	0.000	146.3 77.54	146.3	77.54	V-C 2.1221E+04	-7.700 0.000 1.000 1.000
77.54	0.000	0.000	Strato1_2_8_L_0				
41 D	15.02	0.000	150.2 75.10	150.2	75.10	V-C 6.0031E+04	-7.900 0.000 1.000 1.000
75.10	0.000	0.000	Strato2_3095_82743_L_0				
42 D	15.42	0.000	154.2 77.10	154.2	77.10	V-C 6.0031E+04	-8.100 0.000 1.000 1.000
77.10	0.000	0.000	Strato2_3095_82743_L_0				
43 D	15.82	0.000	158.2 79.10	158.2	79.10	V-C 6.0031E+04	-8.300 0.000 1.000 1.000
79.10	0.000	0.000	Strato2_3095_82743_L_0				
44 D	16.22	0.000	162.2 81.10	162.2	81.10	V-C 6.0031E+04	-8.500 0.000 1.000 1.000
81.10	0.000	0.000	Strato2_3095_82743_L_0				
45 D	16.62	0.000	166.2 83.10	166.2	83.10	V-C 6.0031E+04	-8.700 0.000 1.000 1.000
83.10	0.000	0.000	Strato2_3095_82743_L_0				
46 D	17.02	0.000	170.2 85.10	170.2	85.10	V-C 6.0031E+04	-8.900 0.000 1.000 1.000
85.10	0.000	0.000	Strato2_3095_82743_L_0				
47 D	17.42	0.000	174.2 87.10	174.2	87.10	V-C 6.0031E+04	-9.100 0.000 1.000 1.000
87.10	0.000	0.000	Strato2_3095_82743_L_0				
48 D	17.82	0.000	178.2 89.10	178.2	89.10	V-C 6.0031E+04	-9.300 0.000 1.000 1.000
89.10	0.000	0.000	Strato2_3095_82743_L_0				
49 D	18.22	0.000	182.2 91.10	182.2	91.10	V-C 6.0031E+04	-9.500 0.000 1.000 1.000
91.10	0.000	0.000	Strato2_3095_82743_L_0				
50 D	18.62	0.000	186.2 93.10	186.2	93.10	V-C 6.0031E+04	-9.700 0.000 1.000 1.000
93.10	0.000	0.000	Strato2_3095_82743_L_0				
51 D	19.02	0.000	190.2 95.10	190.2	95.10	V-C 6.0031E+04	-9.900 0.000 1.000 1.000
95.10	0.000	0.000	Strato2_3095_82743_L_0				
52 D	19.42	0.000	194.2 97.10	194.2	97.10	V-C 6.0031E+04	-10.10 0.000 1.000 1.000
97.10	0.000	0.000	Strato2_3095_82743_L_0				
53 D	19.82	0.000	198.2 99.10	198.2	99.10	V-C 6.0031E+04	-10.30 0.000 1.000 1.000
99.10	0.000	0.000	Strato2_3095_82743_L_0				
54 D	20.22	0.000	202.2 101.1	202.2	101.1	V-C 6.0031E+04	-10.50 0.000 1.000 1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0				
55 D	20.62	0.000	206.2 103.1	206.2	103.1	V-C 6.0031E+04	-10.70 0.000 1.000 1.000
103.1	0.000	0.000	Strato2_3095_82743_L_0				
56 D	21.02	0.000	210.2 105.1	210.2	105.1	V-C 6.0031E+04	-10.90 0.000 1.000 1.000
105.1	0.000	0.000	Strato2_3095_82743_L_0				
57 D	21.42	0.000	214.2 107.1	214.2	107.1	V-C 6.0031E+04	-11.10 0.000 1.000 1.000
107.1	0.000	0.000	Strato2_3095_82743_L_0				
58 D	21.82	0.000	218.2 109.1	218.2	109.1	V-C 6.0031E+04	-11.30 0.000 1.000 1.000
109.1	0.000	0.000	Strato2_3095_82743_L_0				
59 D	22.22	0.000	222.2 111.1	222.2	111.1	V-C 6.0031E+04	-11.50 0.000 1.000 1.000
111.1	0.000	0.000	Strato2_3095_82743_L_0				
60 D	22.62	0.000	226.2 113.1	226.2	113.1	V-C 6.0031E+04	-11.70 0.000 1.000 1.000
113.1	0.000	0.000	Strato2_3095_82743_L_0				

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61 D	17.26	0.000	230.2	115.1	230.2	115.1	V-C	6.0031E+04	-11.90	0.000	1.000	1.000
115.1	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.805	0.000	232.2	116.1	232.2	116.1	V-C	6.0031E+04	-12.00	0.000	1.000	1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0									



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 266 di 560
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019    11:09:26                             |
+-----+
    
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	1.4726E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	1.4726E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Strato1_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	1.4726E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Strato1_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	1.4726E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Strato1_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	1.4726E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Strato1_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	1.4726E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	1.4726E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Strato1_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	1.4726E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Strato1_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	1.4726E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Strato1_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	1.4726E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Strato1_2_8_L_0									
11 D	4.028	0.000	38.00	20.14	38.00	20.14	V-C	1.4726E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Strato1_2_8_L_0									
12 D	4.431	0.000	41.80	22.15	41.80	22.15	V-C	1.4726E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Strato1_2_8_L_0									
13 D	3.625	0.000	45.60	24.17	45.60	24.17	V-C	1.4726E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Strato1_2_8_L_0									
14 D	3.776	0.000	47.50	25.18	47.50	25.18	V-C	1.4726E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Strato1_2_8_L_0									
15 D	5.438	0.000	51.30	27.19	51.30	27.19	V-C	1.4726E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Strato1_2_8_L_0									
16 D	5.841	0.000	55.10	29.20	55.10	29.20	V-C	1.4726E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Strato1_2_8_L_0									
17 D	6.243	0.000	58.90	31.22	58.90	31.22	V-C	1.4726E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Strato1_2_8_L_0									
18 D	6.646	0.000	62.70	33.23	62.70	33.23	V-C	1.4726E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Strato1_2_8_L_0									
19 D	7.049	0.000	66.50	35.25	66.50	35.25	V-C	1.4726E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Strato1_2_8_L_0									
20 D	7.452	0.000	70.30	37.26	70.30	37.26	V-C	1.4726E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Strato1_2_8_L_0									
21 D	7.855	0.000	74.10	39.27	74.10	39.27	V-C	1.4726E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Strato1_2_8_L_0									
22 D	8.257	0.000	77.90	41.29	77.90	41.29	V-C	1.4726E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Strato1_2_8_L_0									
23 D	8.660	0.000	81.70	43.30	81.70	43.30	V-C	1.4726E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Strato1_2_8_L_0									
24 D	9.063	0.000	85.50	45.32	85.50	45.32	V-C	1.4726E+04	-4.500	0.000	1.000	1.000
45.31	0.000	0.000	Strato1_2_8_L_0									
25 D	9.466	0.000	89.30	47.33	89.30	47.33	V-C	1.4726E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Strato1_2_8_L_0									
26 D	9.869	0.000	93.10	49.34	93.10	49.34	V-C	1.4726E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Strato1_2_8_L_0									
27 D	10.27	0.000	96.90	51.36	96.90	51.36	V-C	1.4726E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Strato1_2_8_L_0									
28 D	10.67	0.000	100.7	53.37	100.7	53.37	V-C	1.4726E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Strato1_2_8_L_0									
29 D	11.08	0.000	104.5	55.38	104.5	55.38	V-C	1.4726E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Strato1_2_8_L_0									
30 D	11.48	0.000	108.3	57.40	108.3	57.40	V-C	1.4726E+04	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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57.40	0.000	0.000	Strato1_2_8_L_0		
31 D	11.88	0.000	112.1 59.41	112.1	59.41
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.02	0.000	150.2 75.10	150.2	75.10
75.10	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.42	0.000	154.2 77.10	154.2	77.10
77.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.82	0.000	158.2 79.10	158.2	79.10
79.10	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.22	0.000	162.2 81.10	162.2	81.10
81.10	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.62	0.000	166.2 83.10	166.2	83.10
83.10	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.02	0.000	170.2 85.10	170.2	85.10
85.10	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.42	0.000	174.2 87.10	174.2	87.10
87.10	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.82	0.000	178.2 89.10	178.2	89.10
89.10	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.22	0.000	182.2 91.10	182.2	91.10
91.10	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.62	0.000	186.2 93.10	186.2	93.10
93.10	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.02	0.000	190.2 95.10	190.2	95.10
95.10	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.42	0.000	194.2 97.10	194.2	97.10
97.10	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.82	0.000	198.2 99.10	198.2	99.10
99.10	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.22	0.000	202.2 101.1	202.2	101.1
101.1	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.62	0.000	206.2 103.1	206.2	103.1
103.1	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.02	0.000	210.2 105.1	210.2	105.1
105.1	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.42	0.000	214.2 107.1	214.2	107.1
107.1	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.82	0.000	218.2 109.1	218.2	109.1
109.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.22	0.000	222.2 111.1	222.2	111.1
111.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.62	0.000	226.2 113.1	226.2	113.1
113.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.26	0.000	230.2 115.1	230.2	115.1
115.1	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.805	0.000	232.2 116.1	232.2	116.1
116.1	0.000	0.000	Strato2_3095_82743_L_0		

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New Project

STRESS RESULTS FOR GROUP NO. 3

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WallElement_33      :
ELEMENT TYPE      2 NO.OF ELEMENTS. IN THIS GROUP    61
CURRENT TIME IS    1.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000

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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :

ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1

CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2246E+05 RIMNOR= 0.000
            RENORM= 30.48      REMNOR= 0.000      RATIO =0.3684E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 23.31      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2246E+05 RDR   = 0.000
            RATIOT=0.3684E-01 RATIOR= 0.000
            MAX UN=0.7687      IEQ=   15 NODE      8 DOF   1  Y-DISPL.F
            MIN UN= 0.000      IEQ=    2 NODE      1 DOF   2  X-ROT. F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2246E+05 RIMNOR= 0.000
            RENORM=0.5257E-01 REMNOR=0.3599E-22 RATIO =0.1530E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 23.31      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2246E+05 RDR   = 0.000
            RATIOT=0.1530E-02 RATIOR= 0.000
            MAX UN=0.2119      IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            MIN UN=-.8085E-10 IEQ=   27 NODE     14 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2246E+05 RIMNOR= 0.000
            RENORM=0.1056E-02 REMNOR=0.1301E-22 RATIO =0.2169E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 23.31      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2246E+05 RDR   = 0.000
            RATIOT=0.2169E-03 RATIOR= 0.000
            MAX UN=0.3210E-01 IEQ=    5 NODE      3 DOF   1  Y-DISPL.F
            MIN UN=-.5150E-10 IEQ=   25 NODE     13 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2246E+05 RIMNOR= 0.000
            RENORM=0.2270E-08 REMNOR=0.9387E-23 RATIO =0.3179E-06  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 23.31      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2246E+05 RDR   = 0.000
            RATIOT=0.3179E-06 RATIOR= 0.000
            MAX UN=0.2873E-04 IEQ=   45 NODE     23 DOF   1  Y-DISPL.F
            MIN UN=-.3272E-10 IEQ=   25 NODE     13 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.3061832E-05	-1.8612385E-06	
2	5.2690065E-05	-1.8540215E-06	
3	5.2321183E-05	-1.8323969E-06	
4	5.1957887E-05	-1.7990541E-06	
5	5.1602007E-05	-1.7590320E-06	
6	5.1254448E-05	-1.7164060E-06	
7	5.0915423E-05	-1.6741036E-06	
8	5.0584645E-05	-1.6342234E-06	
9	5.0261476E-05	-1.5982121E-06	
10	4.9944930E-05	-1.5686610E-06	
11	4.9633339E-05	-1.5491920E-06	
12	4.9324390E-05	-1.5426737E-06	
13	4.9015259E-05	-1.5513230E-06	
14	4.8859637E-05	-1.5618221E-06	
15	4.8544117E-05	-1.5965156E-06	
16	4.8219721E-05	-1.6508543E-06	
17	4.7882373E-05	-1.7262307E-06	
18	4.7527768E-05	-1.8235226E-06	
19	4.7151477E-05	-1.9431153E-06	
20	4.6749041E-05	-2.0849150E-06	
21	4.6316068E-05	-2.2483539E-06	
22	4.5848279E-05	-2.4331104E-06	
23	4.5341411E-05	-2.6390637E-06	
24	4.4791286E-05	-2.8655279E-06	
25	4.4193917E-05	-3.1112327E-06	
26	4.3545635E-05	-3.3743005E-06	
27	4.2843210E-05	-3.6522248E-06	
28	4.2083968E-05	-3.9418510E-06	
29	4.1265910E-05	-4.2398758E-06	
30	4.0387692E-05	-4.5428002E-06	
31	3.9448749E-05	-4.8463396E-06	
32	3.8449460E-05	-5.1453883E-06	
33	3.7391295E-05	-5.4339920E-06	
34	3.6277016E-05	-5.7053035E-06	
35	3.5110844E-05	-5.9515544E-06	
36	3.3898647E-05	-6.1640215E-06	
37	3.2648107E-05	-6.3334104E-06	
38	3.1368821E-05	-6.4498178E-06	
39	3.0072449E-05	-6.5022893E-06	
40	2.8772969E-05	-6.4788054E-06	
41	2.7486863E-05	-6.3662825E-06	
42	2.6232101E-05	-6.1690767E-06	
43	2.5023482E-05	-5.9082118E-06	
44	2.3871815E-05	-5.6024711E-06	
45	2.2784375E-05	-5.2685047E-06	
46	2.1765341E-05	-4.9206171E-06	
47	2.0816250E-05	-4.5709063E-06	
48	1.9936435E-05	-4.2294087E-06	
49	1.9123403E-05	-3.9042358E-06	
50	1.8373230E-05	-3.6017251E-06	
51	1.7680889E-05	-3.3265668E-06	
52	1.7040566E-05	-3.0822091E-06	
53	1.6445816E-05	-2.8709421E-06	
54	1.5889917E-05	-2.6937568E-06	
55	1.5366057E-05	-2.5504056E-06	
56	1.4867593E-05	-2.4394820E-06	
57	1.4388270E-05	-2.3584813E-06	
58	1.3922442E-05	-2.3038476E-06	
59	1.3465262E-05	-2.2712494E-06	
60	1.3012813E-05	-2.2555997E-06	
61	1.2562297E-05	-2.2508273E-06	
62	1.2337208E-05	-2.2505838E-06	



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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.3040	-5.3062E-05	10.00	3.040	10.00	5.300	ACTIVE	0.000	0.000	0.000	1.000	1.000
3.040	0.000	0.000	Stratol_2_8_L_0									
2 D	0.5569	-5.2690E-05	9.159	2.784	9.159	4.854	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
2.784	0.000	0.000	Stratol_2_8_L_0									
3 D	0.8475	-5.2321E-05	13.94	4.238	13.94	7.388	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
4.238	0.000	0.000	Stratol_2_8_L_0									
4 D	1.261	-5.1958E-05	18.14	6.307	18.14	9.614	UL-RL	6.3662E+04	-0.6000	0.000	1.000	1.000
6.307	0.000	0.000	Stratol_2_8_L_0									
5 D	1.692	-5.1602E-05	22.16	8.458	22.16	11.74	UL-RL	6.3662E+04	-0.8000	0.000	1.000	1.000
8.458	0.000	0.000	Stratol_2_8_L_0									
6 D	2.113	-5.1254E-05	26.09	10.57	26.09	13.83	UL-RL	6.3662E+04	-1.000	0.000	1.000	1.000
10.57	0.000	0.000	Stratol_2_8_L_0									
7 D	2.530	-5.0915E-05	29.98	12.65	29.98	15.89	UL-RL	6.3662E+04	-1.200	0.000	1.000	1.000
12.65	0.000	0.000	Stratol_2_8_L_0									
8 D	2.944	-5.0585E-05	33.85	14.72	33.85	17.94	UL-RL	6.3662E+04	-1.400	0.000	1.000	1.000
14.72	0.000	0.000	Stratol_2_8_L_0									
9 D	3.286	-5.0261E-05	37.03	16.43	37.03	19.63	UL-RL	6.3662E+04	-1.600	0.000	1.000	1.000
16.43	0.000	0.000	Stratol_2_8_L_0									
10 D	3.705	-4.9945E-05	40.95	18.52	40.95	21.70	UL-RL	6.3662E+04	-1.800	0.000	1.000	1.000
18.52	0.000	0.000	Stratol_2_8_L_0									
11 D	4.121	-4.9633E-05	44.84	20.61	44.84	23.77	UL-RL	6.3662E+04	-2.000	0.000	1.000	1.000
20.61	0.000	0.000	Stratol_2_8_L_0									
12 D	4.536	-4.9324E-05	48.72	22.68	48.72	25.82	UL-RL	6.3662E+04	-2.200	0.000	1.000	1.000
22.68	0.000	0.000	Stratol_2_8_L_0									
13 D	3.712	-4.9015E-05	52.58	24.75	52.58	27.87	UL-RL	6.3662E+04	-2.400	0.000	1.000	1.000
24.75	0.000	0.000	Stratol_2_8_L_0									
14 D	3.849	-4.8860E-05	54.28	25.66	54.28	28.77	UL-RL	6.3662E+04	-2.500	0.000	1.000	1.000
25.66	0.000	0.000	Stratol_2_8_L_0									
15 D	5.546	-4.8544E-05	58.15	27.73	58.15	30.82	UL-RL	6.3662E+04	-2.700	0.000	1.000	1.000
27.73	0.000	0.000	Stratol_2_8_L_0									
16 D	5.959	-4.8220E-05	62.01	29.79	62.01	32.86	UL-RL	6.3662E+04	-2.900	0.000	1.000	1.000
29.79	0.000	0.000	Stratol_2_8_L_0									
17 D	6.371	-4.7882E-05	65.86	31.86	65.86	34.90	UL-RL	6.3662E+04	-3.100	0.000	1.000	1.000
31.86	0.000	0.000	Stratol_2_8_L_0									
18 D	6.783	-4.7528E-05	69.70	33.92	69.70	36.94	UL-RL	6.3662E+04	-3.300	0.000	1.000	1.000
33.92	0.000	0.000	Stratol_2_8_L_0									
19 D	7.195	-4.7151E-05	73.54	35.97	73.54	38.98	UL-RL	6.3662E+04	-3.500	0.000	1.000	1.000
35.97	0.000	0.000	Stratol_2_8_L_0									
20 D	7.606	-4.6749E-05	77.37	38.03	77.37	41.01	UL-RL	6.3662E+04	-3.700	0.000	1.000	1.000
38.03	0.000	0.000	Stratol_2_8_L_0									
21 D	7.988	-4.6316E-05	80.92	39.94	80.92	42.89	UL-RL	6.3662E+04	-3.900	0.000	1.000	1.000
39.94	0.000	0.000	Stratol_2_8_L_0									
22 D	8.401	-4.5848E-05	84.76	42.00	84.76	44.92	UL-RL	6.3662E+04	-4.100	0.000	1.000	1.000
42.00	0.000	0.000	Stratol_2_8_L_0									
23 D	8.814	-4.5341E-05	88.60	44.07	88.60	46.96	UL-RL	6.3662E+04	-4.300	0.000	1.000	1.000
44.07	0.000	0.000	Stratol_2_8_L_0									
24 D	9.228	-4.4791E-05	92.43	46.14	92.43	48.99	UL-RL	6.3662E+04	-4.500	0.000	1.000	1.000
46.14	0.000	0.000	Stratol_2_8_L_0									
25 D	9.642	-4.4194E-05	96.27	48.21	96.27	51.02	UL-RL	6.3662E+04	-4.700	0.000	1.000	1.000
48.21	0.000	0.000	Stratol_2_8_L_0									
26 D	10.06	-4.3546E-05	100.1	50.28	100.1	53.05	UL-RL	6.3662E+04	-4.900	0.000	1.000	1.000
50.28	0.000	0.000	Stratol_2_8_L_0									
27 D	10.47	-4.2843E-05	103.9	52.35	103.9	55.08	UL-RL	6.3662E+04	-5.100	0.000	1.000	1.000
52.35	0.000	0.000	Stratol_2_8_L_0									
28 D	10.86	-4.2084E-05	107.5	54.31	107.5	56.99	UL-RL	6.3662E+04	-5.300	0.000	1.000	1.000
54.31	0.000	0.000	Stratol_2_8_L_0									
29 D	11.28	-4.1266E-05	111.4	56.40	111.4	59.02	UL-RL	6.3662E+04	-5.500	0.000	1.000	1.000
56.40	0.000	0.000	Stratol_2_8_L_0									
30 D	11.70	-4.0388E-05	115.2	58.48	115.2	61.05	UL-RL	6.3662E+04	-5.700	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 272 di 560
58.48	0.000	0.000	Strato1_2_8_L_0		
31 D	12.11	-3.9449E-05	119.0 60.57	119.0	63.08
60.57	0.000	0.000	Strato1_2_8_L_0		
32 D	12.53	-3.8449E-05	122.8 62.66	122.8	65.11
62.66	0.000	0.000	Strato1_2_8_L_0		
33 D	12.95	-3.7391E-05	126.7 64.75	126.7	67.14
64.75	0.000	0.000	Strato1_2_8_L_0		
34 D	13.37	-3.6277E-05	130.5 66.85	130.5	69.16
66.85	0.000	0.000	Strato1_2_8_L_0		
35 D	13.79	-3.5111E-05	134.3 68.95	134.3	71.19
68.95	0.000	0.000	Strato1_2_8_L_0		
36 D	14.19	-3.3899E-05	138.0 70.97	138.0	73.12
70.97	0.000	0.000	Strato1_2_8_L_0		
37 D	14.61	-3.2648E-05	141.8 73.07	141.8	75.15
73.07	0.000	0.000	Strato1_2_8_L_0		
38 D	15.04	-3.1369E-05	145.6 75.18	145.6	77.18
75.18	0.000	0.000	Strato1_2_8_L_0		
39 D	15.46	-3.0072E-05	149.4 77.29	149.4	79.20
77.29	0.000	0.000	Strato1_2_8_L_0		
40 D	15.88	-2.8773E-05	153.3 79.39	153.3	81.22
79.39	0.000	0.000	Strato1_2_8_L_0		
41 D	14.73	-2.7487E-05	157.2 73.64	157.2	78.59
73.64	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.17	-2.6232E-05	161.2 75.87	161.2	80.60
75.87	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.61	-2.5023E-05	165.1 78.03	165.1	82.54
78.03	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.05	-2.3872E-05	169.1 80.25	169.1	84.55
80.25	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.49	-2.2784E-05	173.1 82.45	173.1	86.55
82.45	0.000	0.000	Strato2_3095_82743_L_0		
46 D	16.93	-2.1765E-05	177.1 84.64	177.1	88.56
84.64	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.36	-2.0816E-05	181.1 86.82	181.1	90.57
86.82	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.80	-1.9936E-05	185.2 88.99	185.2	92.58
88.99	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.23	-1.9123E-05	189.2 91.14	189.2	94.59
91.14	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.66	-1.8373E-05	193.2 93.29	193.2	96.59
93.29	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.07	-1.7681E-05	197.1 95.36	197.1	98.54
95.36	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.50	-1.7041E-05	201.1 97.48	201.1	100.6
97.48	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.92	-1.6446E-05	205.1 99.60	205.1	102.6
99.60	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.34	-1.5890E-05	209.1 101.7	209.1	104.6
101.7	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.76	-1.5366E-05	213.1 103.8	213.1	106.6
103.8	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.18	-1.4868E-05	217.2 105.9	217.2	108.6
105.9	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.60	-1.4388E-05	221.2 108.0	221.2	110.6
108.0	0.000	0.000	Strato2_3095_82743_L_0		
58 D	22.01	-1.3922E-05	225.1 110.0	225.1	112.5
110.0	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.43	-1.3465E-05	229.1 112.1	229.1	114.6
112.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.84	-1.3013E-05	233.1 114.2	233.1	116.6
114.2	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.45	-1.2562E-05	237.1 116.3	237.1	118.6
116.3	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.866	-1.2337E-05	239.1 117.3	239.1	119.5
117.3	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 274 di 560							
40 D	15.59	2.8773E-05	146.3	77.96	146.3	77.96	UL-RL	4.4178E+04	-7.700	0.000	1.000	1.000
77.96	0.000	0.000	Strato1_2_8_L_0									
41 D	15.20	2.7487E-05	150.2	75.99	150.2	76.00	UL-RL	9.7606E+04	-7.900	0.000	1.000	1.000
75.99	0.000	0.000	Strato2_3095_82743_L_0									
42 D	15.59	2.6232E-05	154.2	77.95	154.2	77.96	UL-RL	9.7606E+04	-8.100	0.000	1.000	1.000
77.95	0.000	0.000	Strato2_3095_82743_L_0									
43 D	15.98	2.5023E-05	158.2	79.91	158.2	79.92	UL-RL	9.7606E+04	-8.300	0.000	1.000	1.000
79.91	0.000	0.000	Strato2_3095_82743_L_0									
44 D	16.37	2.3872E-05	162.2	81.87	162.2	81.88	UL-RL	9.7606E+04	-8.500	0.000	1.000	1.000
81.87	0.000	0.000	Strato2_3095_82743_L_0									
45 D	16.77	2.2784E-05	166.2	83.84	166.2	83.84	UL-RL	9.7606E+04	-8.700	0.000	1.000	1.000
83.84	0.000	0.000	Strato2_3095_82743_L_0									
46 D	17.16	2.1765E-05	170.2	85.80	170.2	85.81	UL-RL	9.7606E+04	-8.900	0.000	1.000	1.000
85.80	0.000	0.000	Strato2_3095_82743_L_0									
47 D	17.55	2.0816E-05	174.2	87.77	174.2	87.78	UL-RL	9.7606E+04	-9.100	0.000	1.000	1.000
87.77	0.000	0.000	Strato2_3095_82743_L_0									
48 D	17.95	1.9936E-05	178.2	89.75	178.2	89.75	UL-RL	9.7606E+04	-9.300	0.000	1.000	1.000
89.75	0.000	0.000	Strato2_3095_82743_L_0									
49 D	18.34	1.9123E-05	182.2	91.72	182.2	91.72	UL-RL	9.7606E+04	-9.500	0.000	1.000	1.000
91.72	0.000	0.000	Strato2_3095_82743_L_0									
50 D	18.74	1.8373E-05	186.2	93.70	186.2	93.70	UL-RL	9.7606E+04	-9.700	0.000	1.000	1.000
93.70	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.13	1.7681E-05	190.2	95.67	190.2	95.68	UL-RL	9.7606E+04	-9.900	0.000	1.000	1.000
95.67	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.53	1.7041E-05	194.2	97.65	194.2	97.65	UL-RL	9.7606E+04	-10.10	0.000	1.000	1.000
97.65	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.93	1.6446E-05	198.2	99.63	198.2	99.63	V-C	3.2535E+04	-10.30	0.000	1.000	1.000
99.63	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.32	1.5890E-05	202.2	101.6	202.2	101.6	V-C	3.2535E+04	-10.50	0.000	1.000	1.000
101.6	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.72	1.5366E-05	206.2	103.6	206.2	103.6	V-C	3.2535E+04	-10.70	0.000	1.000	1.000
103.6	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.12	1.4868E-05	210.2	105.6	210.2	105.6	V-C	3.2535E+04	-10.90	0.000	1.000	1.000
105.6	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.51	1.4388E-05	214.2	107.6	214.2	107.6	V-C	3.2535E+04	-11.10	0.000	1.000	1.000
107.6	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.91	1.3922E-05	218.2	109.6	218.2	109.6	V-C	3.2535E+04	-11.30	0.000	1.000	1.000
109.6	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.31	1.3465E-05	222.2	111.5	222.2	111.5	UL-RL	9.7606E+04	-11.50	0.000	1.000	1.000
111.5	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.70	1.3013E-05	226.2	113.5	226.2	113.5	UL-RL	9.7606E+04	-11.70	0.000	1.000	1.000
113.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	17.33	1.2562E-05	230.2	115.5	230.2	115.5	UL-RL	9.7606E+04	-11.90	0.000	1.000	1.000
115.5	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.825	1.2337E-05	232.2	116.5	232.2	116.5	UL-RL	9.7606E+04	-12.00	0.000	1.000	1.000
116.5	0.000	0.000	Strato2_3095_82743_L_0									

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|
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.30400	-0.30400	-3.00981E-13	6.08000E-02
2	0.30288	-0.30288	-6.08000E-02	0.12138
3	0.19072	-0.19072	-0.12138	0.15952
4	9.06247E-02	-9.06247E-02	-0.15952	0.17765
5	1.90629E-02	-1.90629E-02	-0.17765	0.18146
6	-3.26980E-02	3.26980E-02	-0.18146	0.17492
7	-6.93291E-02	6.93291E-02	-0.17492	0.16105
8	-9.36414E-02	9.36414E-02	-0.16105	0.14232
9	-0.17848	0.17848	-0.14232	0.10663
10	-0.24621	0.24621	-0.10663	5.73879E-02
11	-0.29931	0.29931	-5.73879E-02	-2.47437E-03
12	-0.33959	0.33959	2.47437E-03	-7.03917E-02
13	-0.36116	0.36116	7.03917E-02	-0.10651
14	-0.39630	0.39630	0.10651	-0.18577
15	-0.43120	0.43120	0.18577	-0.27201
16	-0.45496	0.45496	0.27201	-0.36300

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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17-0.46817	0.46817	0.36300	-0.45664
18-0.47119	0.47119	0.45664	-0.55087
19-0.46422	0.46422	0.55087	-0.64372
20-0.44728	0.44728	0.64372	-0.73318
21-0.45066	0.45066	0.73318	-0.82331
22-0.44221	0.44221	0.82331	-0.91175
23-0.42176	0.42176	0.91175	-0.99610
24-0.38870	0.38870	0.99610	-1.0738
25-0.34267	0.34267	1.0738	-1.1424
26-0.28318	0.28318	1.1424	-1.1990
27-0.20968	0.20968	1.1990	-1.2409
28-0.14409	0.14409	1.2409	-1.2698
29-6.22949E-02	6.22949E-02	1.2698	-1.2822
30 3.63963E-02-3.63963E-02	1.2822	1.2822	-1.2749
31 0.15270	-0.15270	1.2749	-1.2444
32 0.28734	-0.28734	1.2444	-1.1869
33 0.44106	-0.44106	1.1869	-1.0987
34 0.61456	-0.61456	1.0987	-0.97582
35 0.80850	-0.80850	0.97582	-0.81412
36 1.0061	-1.0061	0.81412	-0.61290
37 1.2256	-1.2256	0.61290	-0.36778
38 1.4675	-1.4675	0.36778	-7.42698E-02
39 1.7319	-1.7319	7.42698E-02	0.27211
40 2.0187	-2.0187	-0.27211	0.67584
41 1.5484	-1.5484	-0.67584	0.98552
42 1.1331	-1.1331	-0.98552	1.2121
43 0.75710	-0.75710	-1.2121	1.3636
44 0.43184	-0.43184	-1.3636	1.4499
45 0.15455	-0.15455	-1.4499	1.4808
46-7.77566E-02	7.77566E-02	-1.4808	1.4653
47-0.26813	0.26813	-1.4653	1.4117
48-0.41958	0.41958	-1.4117	1.3278
49-0.53501	0.53501	-1.3278	1.2208
50-0.61715	0.61715	-1.2208	1.0973
51-0.68001	0.68001	-1.0973	0.96132
52-0.71413	0.71413	-0.96132	0.81850
53-0.72148	0.72148	-0.81850	0.67420
54-0.70370	0.70370	-0.67420	0.53346
55-0.66223	0.66223	-0.53346	0.40102
56-0.59819	0.59819	-0.40102	0.28138
57-0.51245	0.51245	-0.28138	0.17889
58-0.41574	0.41574	-0.17889	9.57378E-02
59-0.29817	0.29817	-9.57378E-02	3.61031E-02
60-0.16000	0.16000	-3.61031E-02	4.10245E-03
61-4.10204E-02	4.10204E-02-4.10245E-03	3.04395E-13	

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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.1933E+05  RIMNOR= 82.75
      RENORM= 414.0      REMNOR=0.9387E-23 RATIO =0.1464      TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 22.84      RMMAX = 1.481
      RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
      RDT =0.1933E+05  RDR = 82.75
      RATIO=0.1464      RATOR= 0.000
      MAX UN= 5.983      IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
      MIN UN=-.1083E-10 IEQ= 71 NODE 36 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.1933E+05 RIMNOR= 82.75

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RENORM= 42.95 REMNOR=0.4892E-20 RATIO =0.4714E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.4714E-01 RATOR= 0.000
 MAX UN= 3.168 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
 MIN UN=-.2432E-03 IEQ= 47 NODE 24 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1933E+05 RIMNOR= 82.75
 RENORM= 19.23 REMNOR=0.2399E-19 RATIO =0.3154E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.3154E-01 RATOR= 0.000
 MAX UN= 2.775 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
 MIN UN=-.1527E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1933E+05 RIMNOR= 82.75
 RENORM=0.9534 REMNOR=0.9341E-20 RATIO =0.7023E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.7023E-02 RATOR= 0.000
 MAX UN=0.9024 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
 MIN UN=-.6860E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1933E+05 RIMNOR= 82.75
 RENORM=0.4039E-17 REMNOR=0.1082E-19 RATIO =0.1446E-10 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.1446E-10 RATOR= 0.000
 MAX UN=0.1189E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 MIN UN=-.1365E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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New Project
 SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.7028241E-03	-4.6579270E-04	
2	2.6096660E-03	-4.6578548E-04	
3	2.5165117E-03	-4.6575061E-04	
4	2.4233698E-03	-4.6565475E-04	
5	2.3302570E-03	-4.6545158E-04	
6	2.2372002E-03	-4.6508295E-04	
7	2.1442395E-03	-4.6447921E-04	
8	2.0514296E-03	-4.6355942E-04	
9	1.9588429E-03	-4.6223143E-04	
10	1.8665711E-03	-4.6039293E-04	
11	1.7747273E-03	-4.5793137E-04	
12	1.6834483E-03	-4.5472290E-04	
13	1.5928969E-03	-4.5063250E-04	
14	1.5479523E-03	-4.4821598E-04	
15	1.4588585E-03	-4.4252460E-04	
16	1.3710269E-03	-4.3556566E-04	
17	1.2847283E-03	-4.2716573E-04	
18	1.2002666E-03	-4.1717670E-04	
19	1.1179669E-03	-4.0554873E-04	
20	1.0381507E-03	-3.9236670E-04	
21	9.6111231E-04	-3.7780296E-04	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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22	8.8710865E-04	-3.6205222E-04
23	8.1635729E-04	-3.4531342E-04
24	7.4903563E-04	-3.2778940E-04
25	6.8528011E-04	-3.0968669E-04
26	6.2518630E-04	-2.9120371E-04
27	5.6881228E-04	-2.7252012E-04
28	5.1618114E-04	-2.5379749E-04
29	4.6728617E-04	-2.3518156E-04
30	4.2209271E-04	-2.1680286E-04
31	3.8054147E-04	-1.9877743E-04
32	3.4255153E-04	-1.8120788E-04
33	3.0802212E-04	-1.6418421E-04
34	2.7683620E-04	-1.4778526E-04
35	2.4886181E-04	-1.3207942E-04
36	2.2395429E-04	-1.1712565E-04
37	2.0195802E-04	-1.0297482E-04
38	1.8270802E-04	-8.9670628E-05
39	1.6603098E-04	-7.7249771E-05
40	1.5174716E-04	-6.5743104E-05
41	1.3967109E-04	-5.5176127E-05
42	1.2961366E-04	-4.5554991E-05
43	1.2138717E-04	-3.6863329E-05
44	1.1480817E-04	-2.9074569E-05
45	1.0969946E-04	-2.2154050E-05
46	1.0589144E-04	-1.6060185E-05
47	1.0322341E-04	-1.0746008E-05
48	1.0154447E-04	-6.1605306E-06
49	1.0071422E-04	-2.2498234E-06
50	1.0060327E-04	1.0418272E-06
51	1.0109346E-04	3.7711421E-06
52	1.0207798E-04	5.9947612E-06
53	1.0346137E-04	7.7688424E-06
54	1.0515923E-04	9.1485014E-06
55	1.0709807E-04	1.0187641E-05
56	1.0921507E-04	1.0938575E-05
57	1.1145765E-04	1.1451789E-05
58	1.1378317E-04	1.1775763E-05
59	1.1615842E-04	1.1956621E-05
60	1.1855919E-04	1.2038056E-05
61	1.2096978E-04	1.2061539E-05
62	1.2217613E-04	1.2062689E-05



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|           PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                          |
|                               Exe Time :24 July 2019    11:09:26                             |
+-----+
    
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New Project

STRESS RESULTS FOR GROUP NO. 1

O_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.3040	-2.7028E-03	10.00	3.040	10.00	5.300	ACTIVE	0.000	0.000	0.000	1.000	1.000
3.040	0.000	0.000	Stratol_2_8_L_0									
2 D	0.5569	-2.6097E-03	9.159	2.784	9.159	4.854	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
2.784	0.000	0.000	Stratol_2_8_L_0									
3 D	0.8475	-2.5165E-03	13.94	4.238	13.94	7.388	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
4.238	0.000	0.000	Stratol_2_8_L_0									
4 D	1.103	-2.4234E-03	18.14	5.515	18.14	9.614	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
5.515	0.000	0.000	Stratol_2_8_L_0									
5 D	1.347	-2.3303E-03	22.16	6.736	22.16	11.74	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
6.736	0.000	0.000	Stratol_2_8_L_0									
6 D	1.586	-2.2372E-03	26.09	7.932	26.09	13.83	ACTIVE	0.000	-1.000	0.000	1.000	1.000
7.932	0.000	0.000	Stratol_2_8_L_0									
7 D	1.823	-2.1442E-03	29.98	9.115	29.98	15.89	ACTIVE	0.000	-1.200	0.000	1.000	1.000
9.115	0.000	0.000	Stratol_2_8_L_0									
8 D	2.058	-2.0514E-03	33.85	10.29	33.85	17.94	ACTIVE	0.000	-1.400	0.000	1.000	1.000
10.29	0.000	0.000	Stratol_2_8_L_0									
9 D	2.252	-1.9588E-03	37.03	11.26	37.03	19.63	ACTIVE	0.000	-1.600	0.000	1.000	1.000
11.26	0.000	0.000	Stratol_2_8_L_0									
10 D	2.490	-1.8666E-03	40.95	12.45	40.95	21.70	ACTIVE	0.000	-1.800	0.000	1.000	1.000
12.45	0.000	0.000	Stratol_2_8_L_0									
11 D	2.726	-1.7747E-03	44.84	13.63	44.84	23.77	ACTIVE	0.000	-2.000	0.000	1.000	1.000
13.63	0.000	0.000	Stratol_2_8_L_0									
12 D	2.962	-1.6834E-03	48.72	14.81	48.72	25.82	ACTIVE	0.000	-2.200	0.000	1.000	1.000
14.81	0.000	0.000	Stratol_2_8_L_0									
13 D	2.398	-1.5929E-03	52.58	15.98	52.58	27.87	ACTIVE	0.000	-2.400	0.000	1.000	1.000
15.98	0.000	0.000	Stratol_2_8_L_0									
14 D	2.475	-1.5480E-03	54.28	16.50	54.28	28.77	ACTIVE	0.000	-2.500	0.000	1.000	1.000
16.50	0.000	0.000	Stratol_2_8_L_0									
15 D	3.536	-1.4589E-03	58.15	17.68	58.15	30.82	ACTIVE	0.000	-2.700	0.000	1.000	1.000
17.68	0.000	0.000	Stratol_2_8_L_0									
16 D	3.770	-1.3710E-03	62.01	18.85	62.01	32.86	ACTIVE	0.000	-2.900	0.000	1.000	1.000
18.85	0.000	0.000	Stratol_2_8_L_0									
17 D	4.004	-1.2847E-03	65.86	20.02	65.86	34.90	ACTIVE	0.000	-3.100	0.000	1.000	1.000
20.02	0.000	0.000	Stratol_2_8_L_0									
18 D	4.238	-1.2003E-03	69.70	21.19	69.70	36.94	ACTIVE	0.000	-3.300	0.000	1.000	1.000
21.19	0.000	0.000	Stratol_2_8_L_0									
19 D	4.471	-1.1180E-03	73.54	22.36	73.54	38.98	ACTIVE	0.000	-3.500	0.000	1.000	1.000
22.36	0.000	0.000	Stratol_2_8_L_0									
20 D	4.704	-1.0382E-03	77.37	23.52	77.37	41.01	ACTIVE	0.000	-3.700	0.000	1.000	1.000
23.52	0.000	0.000	Stratol_2_8_L_0									
21 D	4.920	-9.6111E-04	80.92	24.60	80.92	42.89	ACTIVE	0.000	-3.900	0.000	1.000	1.000
24.60	0.000	0.000	Stratol_2_8_L_0									
22 D	5.153	-8.8711E-04	84.76	25.77	84.76	44.92	ACTIVE	0.000	-4.100	0.000	1.000	1.000
25.77	0.000	0.000	Stratol_2_8_L_0									
23 D	5.387	-8.1636E-04	88.60	26.93	88.60	46.96	ACTIVE	0.000	-4.300	0.000	1.000	1.000
26.93	0.000	0.000	Stratol_2_8_L_0									
24 D	5.641	-7.4904E-04	92.43	28.21	92.43	48.99	UL-RL	2.5465E+04	-4.500	0.000	1.000	1.000
28.21	0.000	0.000	Stratol_2_8_L_0									
25 D	6.376	-6.8528E-04	96.27	31.88	96.27	51.02	UL-RL	2.5465E+04	-4.700	0.000	1.000	1.000
31.88	0.000	0.000	Stratol_2_8_L_0									
26 D	7.093	-6.2519E-04	100.1	35.47	100.1	53.05	UL-RL	2.5465E+04	-4.900	0.000	1.000	1.000
35.47	0.000	0.000	Stratol_2_8_L_0									
27 D	7.792	-5.6881E-04	103.9	38.96	103.9	55.08	UL-RL	2.5465E+04	-5.100	0.000	1.000	1.000
38.96	0.000	0.000	Stratol_2_8_L_0									
28 D	8.448	-5.1618E-04	107.5	42.24	107.5	56.99	UL-RL	2.5465E+04	-5.300	0.000	1.000	1.000
42.24	0.000	0.000	Stratol_2_8_L_0									
29 D	9.110	-4.6729E-04	111.4	45.55	111.4	59.02	UL-RL	2.5465E+04	-5.500	0.000	1.000	1.000
45.55	0.000	0.000	Stratol_2_8_L_0									
30 D	9.752	-4.2209E-04	115.2	48.76	115.2	61.05	UL-RL	2.5465E+04	-5.700	0.000	1.000	1.000



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48.76	0.000	0.000	Strato1_2_8_L_0		
31 D	10.38	-3.8054E-04	119.0 51.88	119.0	63.08
51.88	0.000	0.000	Strato1_2_8_L_0		
32 D	10.98	-3.4255E-04	122.8 54.92	122.8	65.11
54.92	0.000	0.000	Strato1_2_8_L_0		
33 D	11.57	-3.0802E-04	126.7 57.86	126.7	67.14
57.86	0.000	0.000	Strato1_2_8_L_0		
34 D	12.15	-2.7684E-04	130.5 60.73	130.5	69.16
60.73	0.000	0.000	Strato1_2_8_L_0		
35 D	12.70	-2.4886E-04	134.3 63.51	134.3	71.19
63.51	0.000	0.000	Strato1_2_8_L_0		
36 D	13.23	-2.2395E-04	138.0 66.13	138.0	73.12
66.13	0.000	0.000	Strato1_2_8_L_0		
37 D	13.75	-2.0196E-04	141.8 68.76	141.8	75.15
68.76	0.000	0.000	Strato1_2_8_L_0		
38 D	14.26	-1.8271E-04	145.6 71.32	145.6	77.18
71.32	0.000	0.000	Strato1_2_8_L_0		
39 D	14.76	-1.6603E-04	149.4 73.82	149.4	79.20
73.82	0.000	0.000	Strato1_2_8_L_0		
40 D	15.25	-1.5175E-04	153.3 76.26	153.3	81.22
76.26	0.000	0.000	Strato1_2_8_L_0		
41 D	13.11	-1.3967E-04	157.2 65.56	157.2	78.59
65.56	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.68	-1.2961E-04	161.2 68.42	161.2	80.60
68.42	0.000	0.000	Strato2_3095_82743_L_0		
43 D	14.22	-1.2139E-04	165.1 71.09	165.1	82.54
71.09	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.74	-1.1481E-04	169.1 73.70	169.1	84.55
73.70	0.000	0.000	Strato2_3095_82743_L_0		
45 D	15.24	-1.0970E-04	173.1 76.19	173.1	86.55
76.19	0.000	0.000	Strato2_3095_82743_L_0		
46 D	15.72	-1.0589E-04	177.1 78.58	177.1	88.56
78.58	0.000	0.000	Strato2_3095_82743_L_0		
47 D	16.18	-1.0322E-04	181.1 80.89	181.1	90.57
80.89	0.000	0.000	Strato2_3095_82743_L_0		
48 D	16.62	-1.0154E-04	185.2 83.11	185.2	92.58
83.11	0.000	0.000	Strato2_3095_82743_L_0		
49 D	17.05	-1.0071E-04	189.2 85.27	189.2	94.59
85.27	0.000	0.000	Strato2_3095_82743_L_0		
50 D	17.47	-1.0060E-04	193.2 87.36	193.2	96.59
87.36	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.87	-1.0109E-04	197.1 89.35	197.1	98.54
89.35	0.000	0.000	Strato2_3095_82743_L_0		
52 D	18.27	-1.0208E-04	201.1 91.36	201.1	100.6
91.36	0.000	0.000	Strato2_3095_82743_L_0		
53 D	18.67	-1.0346E-04	205.1 93.33	205.1	102.6
93.33	0.000	0.000	Strato2_3095_82743_L_0		
54 D	19.06	-1.0516E-04	209.1 95.28	209.1	104.6
95.28	0.000	0.000	Strato2_3095_82743_L_0		
55 D	19.44	-1.0710E-04	213.1 97.20	213.1	106.6
97.20	0.000	0.000	Strato2_3095_82743_L_0		
56 D	19.82	-1.0922E-04	217.2 99.11	217.2	108.6
99.11	0.000	0.000	Strato2_3095_82743_L_0		
57 D	20.20	-1.1146E-04	221.2 101.0	221.2	110.6
101.0	0.000	0.000	Strato2_3095_82743_L_0		
58 D	20.57	-1.1378E-04	225.1 102.8	225.1	112.5
102.8	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.95	-1.1616E-04	229.1 104.7	229.1	114.6
104.7	0.000	0.000	Strato2_3095_82743_L_0		
60 D	21.32	-1.1856E-04	233.1 106.6	233.1	116.6
106.6	0.000	0.000	Strato2_3095_82743_L_0		
61 D	16.27	-1.2097E-04	237.1 108.5	237.1	118.6
108.5	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.470	-1.2218E-04	239.1 109.4	239.1	119.5
109.4	0.000	0.000	Strato2_3095_82743_L_0		

 | PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
 | |
 | NewProject.BaseDesignSection_28.Nominal_63 |
Exe Time :24 July 2019 11:09:26

New Project

STRESS RESULTS FOR GROUP NO. 2
 O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 3.0000
 HARDENING 2D SOIL ELEMENT

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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40 D	15.74	1.5175E-04	89.30	78.69	146.3
78.69	0.000	0.000	Strato1_2_8_L_0		
41 D	12.89	1.3967E-04	93.20	64.43	150.2
64.43	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.22	1.2961E-04	97.20	66.10	154.2
66.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	13.57	1.2139E-04	101.2	67.84	158.2
67.84	0.000	0.000	Strato2_3095_82743_L_0		
44 D	13.93	1.1481E-04	105.2	69.64	162.2
69.64	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.30	1.0970E-04	109.2	71.49	166.2
71.49	0.000	0.000	Strato2_3095_82743_L_0		
46 D	14.68	1.0589E-04	113.2	73.39	170.2
73.39	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.07	1.0322E-04	117.2	75.33	174.2
75.33	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.46	1.0154E-04	121.2	77.31	178.2
77.31	0.000	0.000	Strato2_3095_82743_L_0		
49 D	15.86	1.0071E-04	125.2	79.32	182.2
79.32	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.27	1.0060E-04	129.2	81.36	186.2
81.36	0.000	0.000	Strato2_3095_82743_L_0		
51 D	16.68	1.0109E-04	133.2	83.42	190.2
83.42	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.10	1.0208E-04	137.2	85.49	194.2
85.49	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.52	1.0346E-04	141.2	87.58	198.2
87.58	0.000	0.000	Strato2_3095_82743_L_0		
54 D	17.94	1.0516E-04	145.2	89.68	202.2
89.68	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.36	1.0710E-04	149.2	91.78	206.2
91.78	0.000	0.000	Strato2_3095_82743_L_0		
56 D	18.78	1.0922E-04	153.2	93.89	210.2
93.89	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.20	1.1146E-04	157.2	96.01	214.2
96.01	0.000	0.000	Strato2_3095_82743_L_0		
58 D	19.63	1.1378E-04	161.2	98.13	218.2
98.13	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.05	1.1616E-04	165.2	100.2	222.2
100.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.47	1.1856E-04	169.2	102.4	226.2
102.4	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.67	1.2097E-04	173.2	104.5	230.2
104.5	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.277	1.2218E-04	175.2	105.5	232.2
105.5	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  11:09:26                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.30400	-0.30400	4.67282E-12	6.08000E-02
2	0.86087	-0.86087	-6.08000E-02	0.23297
3	1.7084	-1.7084	-0.23297	0.57465
4	2.8113	-2.8113	-0.57465	1.1369
5	4.1585	-4.1585	-1.1369	1.9686
6	5.7449	-5.7449	-1.9686	3.1176
7	7.5680	-7.5680	-3.1176	4.6312
8	9.6262	-9.6262	-4.6312	6.5564
9	11.878	-11.878	-6.5564	8.9320
10	14.367	-14.367	-8.9320	11.805
11	17.094	-17.094	-11.805	15.224
12	20.056	-20.056	-15.224	19.235
13	22.453	-22.453	-19.235	21.481
14	24.929	-24.929	-21.481	26.466
15	28.464	-28.464	-26.466	32.159
16	32.234	-32.234	-32.159	38.606

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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17	34.703	-34.703	-38.606	45.547
18	34.334	-34.334	-45.547	52.413
19	31.127	-31.127	-52.413	58.639
20	27.074	-27.074	-58.639	64.054
21	22.925	-22.925	-64.054	68.639
22	18.695	-18.695	-68.639	72.378
23	14.380	-14.380	-72.378	75.254
24	9.9963	-9.9963	-75.254	77.253
25	6.0216	-6.0216	-77.253	78.457
26	2.4329	-2.4329	-78.457	78.944
27	0.79280	0.79280	-78.944	78.785
28	-3.7012	3.7012	-78.785	78.045
29	-6.2920	6.2920	-78.045	76.787
30	-8.5880	8.5880	-76.787	75.069
31	-10.612	10.612	-75.069	72.947
32	-12.385	12.385	-72.947	70.470
33	-13.930	13.930	-70.470	67.684
34	-15.266	15.266	-67.684	64.630
35	-16.413	16.413	-64.630	61.348
36	-17.409	17.409	-61.348	57.866
37	-18.252	18.252	-57.866	54.216
38	-18.960	18.960	-54.216	50.424
39	-19.549	19.549	-50.424	46.514
40	-20.034	20.034	-46.514	42.507
41	-19.808	19.808	-42.507	38.546
42	-19.342	19.342	-38.546	34.677
43	-18.692	18.692	-34.677	30.939
44	-17.880	17.880	-30.939	27.363
45	-16.940	16.940	-27.363	23.975
46	-15.902	15.902	-23.975	20.794
47	-14.792	14.792	-20.794	17.836
48	-13.632	13.632	-17.836	15.110
49	-12.444	12.444	-15.110	12.621
50	-11.243	11.243	-12.621	10.372
51	-10.056	10.056	-10.372	8.3611
52	-8.8823	8.8823	-8.3611	6.5847
53	-7.7318	7.7318	-6.5847	5.0383
54	-6.6118	6.6118	-5.0383	3.7159
55	-5.5282	5.5282	-3.7159	2.6103
56	-4.4852	4.4852	-2.6103	1.7133
57	-3.4860	3.4860	-1.7133	1.0161
58	-2.5425	2.5425	-1.0161	0.50757
59	-1.6455	1.6455	-0.50757	0.17848
60	0.79559	0.79559	-0.17848	1.93599E-02
61	0.19358	0.19358	-1.93599E-02	5.86795E-12

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|
|          NewProject.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      11:09:26
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.6623E+05  RIMNOR=0.2335E+06
      RENORM=0.1736E+05  REMNOR=0.1082E-19  RATIO =0.5119      TOLER =0.1000E-03  NOT CONVERGED
      RFMAX = 131.8      RMMAX = 78.94
      RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
      RDT =0.6623E+05  RDR =0.2335E+06
      RATIO=0.5119      RATOR= 0.000
      MAX UN=0.1189E-08  IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
      MIN UN=-131.8      IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.6623E+05  RIMNOR=0.2335E+06

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RENORM= 69.38 REMNOR=0.7345E-20 RATIO =0.3236E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.8 RMMAX = 78.94
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.6623E+05 RDR =0.2335E+06
RATIOT=0.3236E-01 RATIO= 0.000
MAX UN=0.4611E-09 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
MIN UN=-3.141 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6623E+05 RIMNOR=0.2335E+06
RENORM= 1.883 REMNOR=0.5101E-20 RATIO =0.5332E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.8 RMMAX = 78.94
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.6623E+05 RDR =0.2335E+06
RATIOT=0.5332E-02 RATIO= 0.000
MAX UN=0.3919E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
MIN UN=-1.087 IEQ= 37 NODE 19 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6623E+05 RIMNOR=0.2335E+06
RENORM=0.1049E-18 REMNOR=0.5042E-21 RATIO =0.1258E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 131.8 RMMAX = 78.94
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.6623E+05 RDR =0.2335E+06
RATIOT=0.1258E-11 RATIO= 0.000
MAX UN=0.1282E-09 IEQ= 121 NODE 61 DOF 1 Y-DISPL.F
MIN UN=-.1397E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|
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New Project
 SOLUTION REACHED USING 4 ITERATIONS ON 100
 PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	6.5186274E-04	-1.9554286E-04	
2	6.1275765E-04	-1.9549074E-04	
3	5.7368008E-04	-1.9523412E-04	
4	5.3469154E-04	-1.9456434E-04	
5	4.9589680E-04	-1.9325774E-04	
6	4.5744670E-04	-1.9107728E-04	
7	4.1954080E-04	-1.8777313E-04	
8	3.8242985E-04	-1.8308299E-04	
9	3.4641831E-04	-1.7673228E-04	
10	3.1186666E-04	-1.6843573E-04	
11	2.7919347E-04	-1.5789733E-04	
12	2.4887773E-04	-1.4480897E-04	
13	2.2146122E-04	-1.2885058E-04	
14	2.0902673E-04	-1.1970236E-04	
15	1.8690763E-04	-1.0194076E-04	
16	1.6808136E-04	-8.6715122E-05	
17	1.5207646E-04	-7.3666310E-05	
18	1.3849421E-04	-6.2426900E-05	
19	1.2700894E-04	-5.2638830E-05	
20	1.1736009E-04	-4.4029553E-05	
21	1.0933007E-04	-3.6426003E-05	
22	1.0273189E-04	-2.9689493E-05	
23	9.7404663E-05	-2.3697197E-05	
24	9.3210226E-05	-1.8346669E-05	
25	9.0028215E-05	-1.3562847E-05	
26	8.7751161E-05	-9.2879229E-06	
27	8.6282621E-05	-5.4694823E-06	
28	8.5536088E-05	-2.0603592E-06	
29	8.5433948E-05	9.8083175E-07	
30	8.5906282E-05	3.6899482E-06	
31	8.6889859E-05	6.0980398E-06	
32	8.8327185E-05	8.2315423E-06	
33	9.0165636E-05	1.0112542E-05	
34	9.2356562E-05	1.1758948E-05	
35	9.4854510E-05	1.3184779E-05	
36	9.7616460E-05	1.4400401E-05	
37	1.0060109E-04	1.5412365E-05	
38	1.0376801E-04	1.6223660E-05	
39	1.0707717E-04	1.6834402E-05	
40	1.1048823E-04	1.7242037E-05	
41	1.1396011E-04	1.7441593E-05	
42	1.1745205E-04	1.7448925E-05	
43	1.2092928E-04	1.7300422E-05	
44	1.2436403E-04	1.7029219E-05	
45	1.2773478E-04	1.6665227E-05	
46	1.3102573E-04	1.6235481E-05	
47	1.3422620E-04	1.5764178E-05	
48	1.3733005E-04	1.5272724E-05	
49	1.4033518E-04	1.4779771E-05	
50	1.4324292E-04	1.4301291E-05	
51	1.4605755E-04	1.3850620E-05	
52	1.4878565E-04	1.3438253E-05	
53	1.5143584E-04	1.3071867E-05	
54	1.5401781E-04	1.2756716E-05	
55	1.5654213E-04	1.2495631E-05	
56	1.5901970E-04	1.2289079E-05	
57	1.6146128E-04	1.2135201E-05	
58	1.6387702E-04	1.2029839E-05	
59	1.6627600E-04	1.1966322E-05	
60	1.6866573E-04	1.1935493E-05	
61	1.7105162E-04	1.1925962E-05	
62	1.7224430E-04	1.1925461E-05	



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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	2.196	-6.5186E-04	10.00	21.96	10.00	21.96	V-C	8488.	0.000	0.000	1.000	1.000
21.96	0.000	0.000	Stratol_2_8_L_0									
2 D	4.223	-6.1276E-04	9.159	21.11	9.159	21.11	V-C	8488.	-0.2000	0.000	1.000	1.000
21.11	0.000	0.000	Stratol_2_8_L_0									
3 D	4.566	-5.7368E-04	13.94	22.83	13.94	22.83	V-C	8488.	-0.4000	0.000	1.000	1.000
22.83	0.000	0.000	Stratol_2_8_L_0									
4 D	4.856	-5.3469E-04	18.14	24.28	18.14	24.28	V-C	8488.	-0.6000	0.000	1.000	1.000
24.28	0.000	0.000	Stratol_2_8_L_0									
5 D	5.129	-4.9590E-04	22.16	25.64	22.16	25.64	V-C	8488.	-0.8000	0.000	1.000	1.000
25.64	0.000	0.000	Stratol_2_8_L_0									
6 D	5.394	-4.5745E-04	26.09	26.97	26.09	26.97	V-C	8488.	-1.0000	0.000	1.000	1.000
26.97	0.000	0.000	Stratol_2_8_L_0									
7 D	5.655	-4.1954E-04	29.98	28.27	29.98	28.27	V-C	8488.	-1.2000	0.000	1.000	1.000
28.27	0.000	0.000	Stratol_2_8_L_0									
8 D	5.912	-3.8243E-04	33.85	29.56	33.85	29.56	V-C	8488.	-1.4000	0.000	1.000	1.000
29.56	0.000	0.000	Stratol_2_8_L_0									
9 D	6.105	-3.4642E-04	37.03	30.52	37.03	30.52	V-C	8488.	-1.6000	0.000	1.000	1.000
30.52	0.000	0.000	Stratol_2_8_L_0									
10 D	6.363	-3.1187E-04	40.95	31.81	40.95	31.81	V-C	8488.	-1.8000	0.000	1.000	1.000
31.81	0.000	0.000	Stratol_2_8_L_0									
11 D	6.616	-2.7919E-04	44.84	33.08	44.84	33.08	V-C	8488.	-2.0000	0.000	1.000	1.000
33.08	0.000	0.000	Stratol_2_8_L_0									
12 D	6.865	-2.4888E-04	48.72	34.33	48.72	34.33	V-C	8488.	-2.2000	0.000	1.000	1.000
34.33	0.000	0.000	Stratol_2_8_L_0									
13 D	5.332	-2.2146E-04	52.58	35.55	52.58	35.55	V-C	8488.	-2.4000	0.000	1.000	1.000
35.55	0.000	0.000	Stratol_2_8_L_0									
14 D	5.407	-2.0903E-04	54.28	36.05	54.28	36.05	V-C	8488.	-2.5000	0.000	1.000	1.000
36.05	0.000	0.000	Stratol_2_8_L_0									
15 D	7.447	-1.8691E-04	58.15	37.24	58.15	37.24	V-C	8488.	-2.7000	0.000	1.000	1.000
37.24	0.000	0.000	Stratol_2_8_L_0									
16 D	7.681	-1.6808E-04	62.01	38.40	62.01	38.40	V-C	8488.	-2.9000	0.000	1.000	1.000
38.40	0.000	0.000	Stratol_2_8_L_0									
17 D	7.911	-1.5208E-04	65.86	39.56	65.86	39.56	V-C	8488.	-3.1000	0.000	1.000	1.000
39.56	0.000	0.000	Stratol_2_8_L_0									
18 D	8.141	-1.3849E-04	69.70	40.70	69.70	40.70	V-C	8488.	-3.3000	0.000	1.000	1.000
40.70	0.000	0.000	Stratol_2_8_L_0									
19 D	8.370	-1.2701E-04	73.54	41.85	73.54	41.85	V-C	8488.	-3.5000	0.000	1.000	1.000
41.85	0.000	0.000	Stratol_2_8_L_0									
20 D	8.599	-1.1736E-04	77.37	43.00	77.37	43.00	V-C	8488.	-3.7000	0.000	1.000	1.000
43.00	0.000	0.000	Stratol_2_8_L_0									
21 D	8.804	-1.0933E-04	80.92	44.02	80.92	44.02	V-C	8488.	-3.9000	0.000	1.000	1.000
44.02	0.000	0.000	Stratol_2_8_L_0									
22 D	9.039	-1.0273E-04	84.76	45.20	84.76	45.20	V-C	8488.	-4.1000	0.000	1.000	1.000
45.20	0.000	0.000	Stratol_2_8_L_0									
23 D	9.048	-9.7405E-05	88.60	45.24	88.60	46.96	UL-RL	2.5465E+04	-4.3000	0.000	1.000	1.000
45.24	0.000	0.000	Stratol_2_8_L_0									
24 D	8.981	-9.3210E-05	92.43	44.91	92.43	48.99	UL-RL	2.5465E+04	-4.5000	0.000	1.000	1.000
44.91	0.000	0.000	Stratol_2_8_L_0									
25 D	9.408	-9.0028E-05	96.27	47.04	96.27	51.02	UL-RL	2.5465E+04	-4.7000	0.000	1.000	1.000
47.04	0.000	0.000	Stratol_2_8_L_0									
26 D	9.831	-8.7751E-05	100.1	49.15	100.1	53.05	UL-RL	2.5465E+04	-4.9000	0.000	1.000	1.000
49.15	0.000	0.000	Stratol_2_8_L_0									
27 D	10.25	-8.6283E-05	103.9	51.25	103.9	55.08	UL-RL	2.5465E+04	-5.1000	0.000	1.000	1.000
51.25	0.000	0.000	Stratol_2_8_L_0									
28 D	10.64	-8.5536E-05	107.5	53.21	107.5	56.99	UL-RL	2.5465E+04	-5.3000	0.000	1.000	1.000
53.21	0.000	0.000	Stratol_2_8_L_0									
29 D	11.05	-8.5434E-05	111.4	55.27	111.4	59.02	UL-RL	2.5465E+04	-5.5000	0.000	1.000	1.000
55.27	0.000	0.000	Stratol_2_8_L_0									
30 D	11.46	-8.5906E-05	115.2	57.32	115.2	61.05	UL-RL	2.5465E+04	-5.7000	0.000	1.000	1.000

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57.32	0.000	0.000	Strato1_2_8_L_0		
31 D	11.87	-8.6890E-05	119.0 59.36	119.0	63.08
59.36	0.000	0.000	Strato1_2_8_L_0		
32 D	12.28	-8.8327E-05	122.8 61.39	122.8	65.11
61.39	0.000	0.000	Strato1_2_8_L_0		
33 D	12.68	-9.0166E-05	126.7 63.41	126.7	67.14
63.41	0.000	0.000	Strato1_2_8_L_0		
34 D	13.08	-9.2357E-05	130.5 65.42	130.5	69.16
65.42	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	-9.4855E-05	134.3 67.43	134.3	71.19
67.43	0.000	0.000	Strato1_2_8_L_0		
36 D	13.87	-9.7616E-05	138.0 69.34	138.0	73.12
69.34	0.000	0.000	Strato1_2_8_L_0		
37 D	14.27	-1.0060E-04	141.8 71.34	141.8	75.15
71.34	0.000	0.000	Strato1_2_8_L_0		
38 D	14.67	-1.0377E-04	145.6 73.33	145.6	77.18
73.33	0.000	0.000	Strato1_2_8_L_0		
39 D	15.07	-1.0708E-04	149.4 75.33	149.4	79.20
75.33	0.000	0.000	Strato1_2_8_L_0		
40 D	15.46	-1.1049E-04	153.3 77.31	153.3	81.22
77.31	0.000	0.000	Strato1_2_8_L_0		
41 D	13.48	-1.1396E-04	157.2 67.41	157.2	78.59
67.41	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.86	-1.1745E-04	161.2 69.30	161.2	80.60
69.30	0.000	0.000	Strato2_3095_82743_L_0		
43 D	14.22	-1.2093E-04	165.1 71.12	165.1	82.54
71.12	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.60	-1.2436E-04	169.1 73.01	169.1	84.55
73.01	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.98	-1.2773E-04	173.1 74.89	173.1	86.55
74.89	0.000	0.000	Strato2_3095_82743_L_0		
46 D	15.35	-1.3103E-04	177.1 76.77	177.1	88.56
76.77	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.73	-1.3423E-04	181.1 78.65	181.1	90.57
78.65	0.000	0.000	Strato2_3095_82743_L_0		
48 D	16.11	-1.3733E-04	185.2 80.53	185.2	92.58
80.53	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.48	-1.4034E-04	189.2 82.41	189.2	94.59
82.41	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.86	-1.4324E-04	193.2 84.29	193.2	96.59
84.29	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.22	-1.4606E-04	197.1 86.11	197.1	98.54
86.11	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.60	-1.4879E-04	201.1 87.99	201.1	100.6
87.99	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.97	-1.5144E-04	205.1 89.87	205.1	102.6
89.87	0.000	0.000	Strato2_3095_82743_L_0		
54 D	18.35	-1.5402E-04	209.1 91.76	209.1	104.6
91.76	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.73	-1.5654E-04	213.1 93.64	213.1	106.6
93.64	0.000	0.000	Strato2_3095_82743_L_0		
56 D	19.10	-1.5902E-04	217.2 95.52	217.2	108.6
95.52	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.48	-1.6146E-04	221.2 97.40	221.2	110.6
97.40	0.000	0.000	Strato2_3095_82743_L_0		
58 D	19.85	-1.6388E-04	225.1 99.23	225.1	112.5
99.23	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.22	-1.6628E-04	229.1 101.1	229.1	114.6
101.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.60	-1.6867E-04	233.1 103.0	233.1	116.6
103.0	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.73	-1.7105E-04	237.1 104.9	237.1	118.6
104.9	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.290	-1.7224E-04	239.1 105.8	239.1	119.5
105.8	0.000	0.000	Strato2_3095_82743_L_0		

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT



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40 D	15.59	1.1049E-04	89.30	77.96	146.3
77.96	0.000	0.000	Strato1_2_8_L_0		
41 D	12.68	1.1396E-04	93.20	63.42	150.2
63.42	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.12	1.1745E-04	97.20	65.62	154.2
65.62	0.000	0.000	Strato2_3095_82743_L_0		
43 D	13.56	1.2093E-04	101.2	67.82	158.2
67.82	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.00	1.2436E-04	105.2	70.01	162.2
70.01	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.44	1.2773E-04	109.2	72.19	166.2
72.19	0.000	0.000	Strato2_3095_82743_L_0		
46 D	14.87	1.3103E-04	113.2	74.37	170.2
74.37	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.31	1.3423E-04	117.2	76.55	174.2
76.55	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.74	1.3733E-04	121.2	78.71	178.2
78.71	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.17	1.4034E-04	125.2	80.87	182.2
80.87	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.60	1.4324E-04	129.2	83.02	186.2
83.02	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.03	1.4606E-04	133.2	85.17	190.2
85.17	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.46	1.4879E-04	137.2	87.31	194.2
87.31	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.89	1.5144E-04	141.2	89.45	198.2
89.45	0.000	0.000	Strato2_3095_82743_L_0		
54 D	18.32	1.5402E-04	145.2	91.58	202.2
91.58	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.74	1.5654E-04	149.2	93.71	206.2
93.71	0.000	0.000	Strato2_3095_82743_L_0		
56 D	19.17	1.5902E-04	153.2	95.84	210.2
95.84	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.59	1.6146E-04	157.2	97.96	214.2
97.96	0.000	0.000	Strato2_3095_82743_L_0		
58 D	20.02	1.6388E-04	161.2	100.1	218.2
100.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.44	1.6628E-04	165.2	102.2	222.2
102.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.86	1.6867E-04	169.2	104.3	226.2
104.3	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.97	1.7105E-04	173.2	106.4	230.2
106.4	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.375	1.7224E-04	175.2	107.5	232.2
107.5	0.000	0.000	Strato2_3095_82743_L_0		

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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
 CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.1956	-2.1956	1.08634E-11	0.43912
2	6.4185	-6.4185	-0.43912	1.7228
3	10.984	-10.984	-1.7228	3.9197
4	15.840	-15.840	-3.9197	7.0878
5	20.969	-20.969	-7.0878	11.282
6	26.363	-26.363	-11.282	16.554
7	32.018	-32.018	-16.554	22.958
8	37.930	-37.930	-22.958	30.544
9	44.035	-44.035	-30.544	39.351
10	50.397	-50.397	-39.351	49.430
11	57.014	-57.014	-49.430	60.833
12	63.879	-63.879	-60.833	73.609
13	69.211	-69.211	-73.609	80.530
14	-57.134	57.134	-80.530	69.103
15	-49.687	49.687	-69.103	59.166
16	-42.006	42.006	-59.166	50.764

GENERAL CONTRACTOR



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GRUPPO FERROVIE DELLO STATO ITALIANE

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17	-34.210	34.210	-50.764	43.922
18	-26.924	26.924	-43.922	38.537
19	-22.730	22.730	-38.537	33.991
20	-19.634	19.634	-33.991	30.065
21	-16.888	16.888	-30.065	26.687
22	-14.460	14.460	-26.687	23.795
23	-12.573	12.573	-23.795	21.281
24	-11.298	11.298	-21.281	19.021
25	-10.138	10.138	-19.021	16.993
26	-9.0898	9.0898	-16.993	15.175
27	-8.1526	8.1526	-15.175	13.545
28	-7.3457	7.3457	-13.545	12.076
29	-6.6421	6.6421	-12.076	10.747
30	-6.0378	6.0378	-10.747	9.5397
31	-5.5282	5.5282	-9.5397	8.4341
32	-5.1084	5.1084	-8.4341	7.4124
33	-4.7733	4.7733	-7.4124	6.4577
34	-4.5179	4.5179	-6.4577	5.5542
35	-4.3367	4.3367	-5.5542	4.6868
36	-4.2419	4.2419	-4.6868	3.8385
37	-4.2106	4.2106	-3.8385	2.9963
38	-4.2375	4.2375	-2.9963	2.1489
39	-4.3179	4.3179	-2.1489	1.2853
40	-4.4470	4.4470	-1.2853	0.39588
41	-3.6499	3.6499	-0.39588	-0.33410
42	-2.9144	2.9144	0.33410	-0.91697
43	-2.2540	2.2540	0.91697	-1.3678
44	-1.6545	1.6545	1.3678	-1.6987
45	-1.1152	1.1152	1.6987	-1.9217
46	-0.63526	0.63526	1.9217	-2.0488
47	-0.21368	0.21368	2.0488	-2.0915
48	0.15067	-0.15067	2.0915	-2.0614
49	0.45896	-0.45896	2.0614	-1.9696
50	0.71240	-0.71240	1.9696	-1.8271
51	0.90067	-0.90067	1.8271	-1.6470
52	1.0367	-1.0367	1.6470	-1.4396
53	1.1214	-1.1214	1.4396	-1.2154
54	1.1560	-1.1560	1.2154	-0.98416
55	1.1411	-1.1411	0.98416	-0.75593
56	1.0776	-1.0776	0.75593	-0.54041
57	0.96600	-0.96600	0.54041	-0.34721
58	0.79665	-0.79665	0.34721	-0.18788
59	0.58022	-0.58022	0.18788	-7.18399E-02
60	0.31695	-0.31695	7.18399E-02	-8.45062E-03
61	8.44977E-02	-8.44977E-02	8.45062E-03	-6.32142E-12

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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	136.40	-1.29330E-03	-1.29330E-03	0.0000	0.0000	0.0000	0.0000	BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.9841E+05 RIMNOR=0.8258E+05
RENORM= 583.8 REMNOR=0.5042E-21 RATIO =0.7702E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.8 RRMAX = 80.53
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.9841E+05 RDR =0.8258E+05
RATIOT=0.7702E-01 RATIOR= 0.000
MAX UN= 8.783 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.1397E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.9841E+05 RIMNOR=0.8258E+05
RENORM=0.9027 REMNOR=0.6363E-20 RATIO =0.3029E-02 TOLER =0.1000E-03 NOT CONVERGED

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RFMAX = 131.8 RMMAX = 80.53
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.9841E+05 RDR =0.8258E+05
RATIOT=0.3029E-02 RATIO= 0.000
MAX UN=0.5307 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
MIN UN=-.6654E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.9841E+05 RIMNOR=0.8258E+05
RENORM=0.1488E-17 REMNOR=0.2666E-20 RATIO =0.3888E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 131.8 RMMAX = 80.53
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.9841E+05 RDR =0.8258E+05
RATIOT=0.3888E-11 RATIO= 0.000
MAX UN=0.7780E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
MIN UN=-.7139E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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New Project

SOLUTION REACHED USING 3 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	9.1653711E-04	-1.0865607E-04	
2	8.9480872E-04	-1.0861363E-04	
3	8.7310263E-04	-1.0840666E-04	
4	8.5146810E-04	-1.0786905E-04	
5	8.2998895E-04	-1.0682219E-04	
6	8.0878581E-04	-1.0507662E-04	
7	7.8801820E-04	-1.0243267E-04	
8	7.6788661E-04	-9.8680656E-05	
9	7.4863444E-04	-9.3601143E-05	
10	7.3054983E-04	-8.6966453E-05	
11	7.1396726E-04	-7.8540628E-05	
12	6.9926937E-04	-6.8077951E-05	
13	6.8688889E-04	-5.5323098E-05	
14	6.8171667E-04	-4.8012075E-05	
15	6.7352458E-04	-3.4496197E-05	
16	6.6769264E-04	-2.4363614E-05	
17	6.6357272E-04	-1.7327308E-05	
18	6.6057504E-04	-1.3091058E-05	
19	6.5816999E-04	-1.1349366E-05	
20	6.5588999E-04	-1.1787302E-05	
21	6.5333140E-04	-1.4080253E-05	
22	6.5015649E-04	-1.7894226E-05	
23	6.4609523E-04	-2.2885431E-05	
24	6.4094711E-04	-2.8704623E-05	
25	6.3458137E-04	-3.5003955E-05	
26	6.2693730E-04	-4.1426743E-05	
27	6.1802766E-04	-4.7595481E-05	
28	6.0793924E-04	-5.3162890E-05	
29	5.9681885E-04	-5.7885064E-05	
30	5.8484948E-04	-6.1643341E-05	
31	5.7222538E-04	-6.4443624E-05	
32	5.5913048E-04	-6.6368013E-05	
33	5.4573032E-04	-6.7511197E-05	
34	5.3217196E-04	-6.7965070E-05	
35	5.1858431E-04	-6.7818743E-05	
36	5.0507872E-04	-6.7158542E-05	
37	4.9174955E-04	-6.6068445E-05	
38	4.7867462E-04	-6.4630114E-05	
39	4.6591552E-04	-6.2922496E-05	
40	4.5351849E-04	-6.1021927E-05	
41	4.4151470E-04	-5.9002189E-05	
42	4.2992165E-04	-5.6921875E-05	
43	4.1874723E-04	-5.4823174E-05	
44	4.0799116E-04	-5.2743659E-05	
45	3.9764627E-04	-5.0716467E-05	
46	3.8769919E-04	-4.8770082E-05	
47	3.7813126E-04	-4.6928495E-05	
48	3.6891953E-04	-4.5211376E-05	
49	3.6003742E-04	-4.3634197E-05	
50	3.5145576E-04	-4.2208435E-05	
51	3.4314345E-04	-4.0941672E-05	
52	3.3506842E-04	-3.9838025E-05	
53	3.2719752E-04	-3.8898147E-05	
54	3.1949843E-04	-3.8119199E-05	
55	3.1193954E-04	-3.7494810E-05	
56	3.0449086E-04	-3.7015158E-05	
57	2.9712471E-04	-3.6667011E-05	
58	2.8981640E-04	-3.6433749E-05	
59	2.8254487E-04	-3.6295609E-05	
60	2.7529334E-04	-3.6229674E-05	
61	2.6804994E-04	-3.6209619E-05	
62	2.6442868E-04	-3.6208588E-05	



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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	1.788	-9.1654E-04	10.00	17.88	10.00	21.96	UL-RL	1.5402E+04	0.000	0.000	1.000	1.000
17.88	0.000	0.000	Stratol_2_8_L_0									
2 D	3.354	-8.9481E-04	9.159	16.77	9.159	21.11	UL-RL	1.5402E+04	-0.2000	0.000	1.000	1.000
16.77	0.000	0.000	Stratol_2_8_L_0									
3 D	3.644	-8.7310E-04	13.94	18.22	13.94	22.83	UL-RL	1.5402E+04	-0.4000	0.000	1.000	1.000
18.22	0.000	0.000	Stratol_2_8_L_0									
4 D	3.880	-8.5147E-04	18.14	19.40	18.14	24.28	UL-RL	1.5402E+04	-0.6000	0.000	1.000	1.000
19.40	0.000	0.000	Stratol_2_8_L_0									
5 D	4.100	-8.2999E-04	22.16	20.50	22.16	25.64	UL-RL	1.5402E+04	-0.8000	0.000	1.000	1.000
20.50	0.000	0.000	Stratol_2_8_L_0									
6 D	4.312	-8.0879E-04	26.09	21.56	26.09	26.97	UL-RL	1.5402E+04	-1.000	0.000	1.000	1.000
21.56	0.000	0.000	Stratol_2_8_L_0									
7 D	4.520	-7.8802E-04	29.98	22.60	29.98	28.27	UL-RL	1.5402E+04	-1.200	0.000	1.000	1.000
22.60	0.000	0.000	Stratol_2_8_L_0									
8 D	4.724	-7.6789E-04	33.85	23.62	33.85	29.56	UL-RL	1.5402E+04	-1.400	0.000	1.000	1.000
23.62	0.000	0.000	Stratol_2_8_L_0									
9 D	4.866	-7.4863E-04	37.03	24.33	37.03	30.52	UL-RL	1.5402E+04	-1.600	0.000	1.000	1.000
24.33	0.000	0.000	Stratol_2_8_L_0									
10 D	5.073	-7.3055E-04	40.95	25.37	40.95	31.81	UL-RL	1.5402E+04	-1.800	0.000	1.000	1.000
25.37	0.000	0.000	Stratol_2_8_L_0									
11 D	5.277	-7.1397E-04	44.84	26.39	44.84	33.08	UL-RL	1.5402E+04	-2.000	0.000	1.000	1.000
26.39	0.000	0.000	Stratol_2_8_L_0									
12 D	5.478	-6.9927E-04	48.72	27.39	48.72	34.33	UL-RL	1.5402E+04	-2.200	0.000	1.000	1.000
27.39	0.000	0.000	Stratol_2_8_L_0									
13 D	4.257	-6.8689E-04	52.58	28.38	52.58	35.55	UL-RL	1.5402E+04	-2.400	0.000	1.000	1.000
28.38	0.000	0.000	Stratol_2_8_L_0									
14 D	4.315	-6.8172E-04	54.28	28.77	54.28	36.05	UL-RL	1.5402E+04	-2.500	0.000	1.000	1.000
28.77	0.000	0.000	Stratol_2_8_L_0									
15 D	5.948	-6.7352E-04	58.15	29.74	58.15	37.24	UL-RL	1.5402E+04	-2.700	0.000	1.000	1.000
29.74	0.000	0.000	Stratol_2_8_L_0									
16 D	6.142	-6.6769E-04	62.01	30.71	62.01	38.40	UL-RL	1.5402E+04	-2.900	0.000	1.000	1.000
30.71	0.000	0.000	Stratol_2_8_L_0									
17 D	6.336	-6.6357E-04	65.86	31.68	65.86	39.56	UL-RL	1.5402E+04	-3.100	0.000	1.000	1.000
31.68	0.000	0.000	Stratol_2_8_L_0									
18 D	6.532	-6.6058E-04	69.70	32.66	69.70	40.70	UL-RL	1.5402E+04	-3.300	0.000	1.000	1.000
32.66	0.000	0.000	Stratol_2_8_L_0									
19 D	6.733	-6.5817E-04	73.54	33.67	73.54	41.85	UL-RL	1.5402E+04	-3.500	0.000	1.000	1.000
33.67	0.000	0.000	Stratol_2_8_L_0									
20 D	6.940	-6.5589E-04	77.37	34.70	77.37	43.00	UL-RL	1.5402E+04	-3.700	0.000	1.000	1.000
34.70	0.000	0.000	Stratol_2_8_L_0									
21 D	7.128	-6.5333E-04	80.92	35.64	80.92	44.02	UL-RL	1.5402E+04	-3.900	0.000	1.000	1.000
35.64	0.000	0.000	Stratol_2_8_L_0									
22 D	7.353	-6.5016E-04	84.76	36.76	84.76	45.20	UL-RL	1.5402E+04	-4.100	0.000	1.000	1.000
36.76	0.000	0.000	Stratol_2_8_L_0									
23 D	7.358	-6.4610E-04	88.60	36.79	88.60	46.96	UL-RL	1.5402E+04	-4.300	0.000	1.000	1.000
36.79	0.000	0.000	Stratol_2_8_L_0									
24 D	7.294	-6.4095E-04	92.43	36.47	92.43	48.99	UL-RL	1.5402E+04	-4.500	0.000	1.000	1.000
36.47	0.000	0.000	Stratol_2_8_L_0									
25 D	7.731	-6.3458E-04	96.27	38.65	96.27	51.02	UL-RL	1.5402E+04	-4.700	0.000	1.000	1.000
38.65	0.000	0.000	Stratol_2_8_L_0									
26 D	8.170	-6.2694E-04	100.1	40.85	100.1	53.05	UL-RL	1.5402E+04	-4.900	0.000	1.000	1.000
40.85	0.000	0.000	Stratol_2_8_L_0									
27 D	8.611	-6.1803E-04	103.9	43.06	103.9	55.08	UL-RL	1.5402E+04	-5.100	0.000	1.000	1.000
43.06	0.000	0.000	Stratol_2_8_L_0									
28 D	9.032	-6.0794E-04	107.5	45.16	107.5	56.99	UL-RL	1.5402E+04	-5.300	0.000	1.000	1.000
45.16	0.000	0.000	Stratol_2_8_L_0									
29 D	9.479	-5.9682E-04	111.4	47.40	111.4	59.02	UL-RL	1.5402E+04	-5.500	0.000	1.000	1.000
47.40	0.000	0.000	Stratol_2_8_L_0									
30 D	9.928	-5.8485E-04	115.2	49.64	115.2	61.05	UL-RL	1.5402E+04	-5.700	0.000	1.000	1.000



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49.64	0.000	0.000	Strato1_2_8_L_0		
31 D	10.38	-5.7223E-04	119.0 51.89	119.0	63.08
51.89	0.000	0.000	Strato1_2_8_L_0		
32 D	10.83	-5.5913E-04	122.8 54.14	122.8	65.11
54.14	0.000	0.000	Strato1_2_8_L_0		
33 D	11.28	-5.4573E-04	126.7 56.39	126.7	67.14
56.39	0.000	0.000	Strato1_2_8_L_0		
34 D	11.73	-5.3217E-04	130.5 58.65	130.5	69.16
58.65	0.000	0.000	Strato1_2_8_L_0		
35 D	12.18	-5.1858E-04	134.3 60.90	134.3	71.19
60.90	0.000	0.000	Strato1_2_8_L_0		
36 D	12.61	-5.0508E-04	138.0 63.07	138.0	73.12
63.07	0.000	0.000	Strato1_2_8_L_0		
37 D	13.06	-4.9175E-04	141.8 65.32	141.8	75.15
65.32	0.000	0.000	Strato1_2_8_L_0		
38 D	13.51	-4.7867E-04	145.6 67.56	145.6	77.18
67.56	0.000	0.000	Strato1_2_8_L_0		
39 D	13.96	-4.6592E-04	149.4 69.80	149.4	79.20
69.80	0.000	0.000	Strato1_2_8_L_0		
40 D	14.41	-4.5352E-04	153.3 72.03	153.3	81.22
72.03	0.000	0.000	Strato1_2_8_L_0		
41 D	10.63	-4.4151E-04	157.2 53.14	157.2	78.59
53.14	0.000	0.000	Strato2_3095_82743_L_0		
42 D	11.14	-4.2992E-04	161.2 55.69	161.2	80.60
55.69	0.000	0.000	Strato2_3095_82743_L_0		
43 D	11.63	-4.1875E-04	165.1 58.14	165.1	82.54
58.14	0.000	0.000	Strato2_3095_82743_L_0		
44 D	12.13	-4.0799E-04	169.1 60.65	169.1	84.55
60.65	0.000	0.000	Strato2_3095_82743_L_0		
45 D	12.63	-3.9765E-04	173.1 63.13	173.1	86.55
63.13	0.000	0.000	Strato2_3095_82743_L_0		
46 D	13.12	-3.8770E-04	177.1 65.59	177.1	88.56
65.59	0.000	0.000	Strato2_3095_82743_L_0		
47 D	13.61	-3.7813E-04	181.1 68.03	181.1	90.57
68.03	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.09	-3.6892E-04	185.2 70.44	185.2	92.58
70.44	0.000	0.000	Strato2_3095_82743_L_0		
49 D	14.57	-3.6004E-04	189.2 72.84	189.2	94.59
72.84	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.04	-3.5146E-04	193.2 75.22	193.2	96.59
75.22	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.51	-3.4314E-04	197.1 77.53	197.1	98.54
77.53	0.000	0.000	Strato2_3095_82743_L_0		
52 D	15.98	-3.3507E-04	201.1 79.88	201.1	100.6
79.88	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.44	-3.2720E-04	205.1 82.22	205.1	102.6
82.22	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.91	-3.1950E-04	209.1 84.55	209.1	104.6
84.55	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.37	-3.1194E-04	213.1 86.87	213.1	106.6
86.87	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.84	-3.0449E-04	217.2 89.18	217.2	108.6
89.18	0.000	0.000	Strato2_3095_82743_L_0		
57 D	18.30	-2.9712E-04	221.2 91.49	221.2	110.6
91.49	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.75	-2.8982E-04	225.1 93.75	225.1	112.5
93.75	0.000	0.000	Strato2_3095_82743_L_0		
59 D	19.21	-2.8254E-04	229.1 96.05	229.1	114.6
96.05	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.67	-2.7529E-04	233.1 98.36	233.1	116.6
98.36	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.10	-2.6805E-04	237.1 100.7	237.1	118.6
100.7	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.089	-2.6443E-04	239.1 101.8	239.1	119.5
101.8	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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|          Exe Time :24 July 2019  11:09:26                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

GENERAL CONTRACTOR



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40 D	15.93	4.5352E-04	52.06	79.67	146.3
79.67	0.000	0.000	Strato1_2_8_L_0		
41 D	11.57	4.4151E-04	55.96	57.84	150.2
57.84	0.000	0.000	Strato2_3095_82743_L_0		
42 D	11.97	4.2992E-04	59.96	59.87	154.2
59.87	0.000	0.000	Strato2_3095_82743_L_0		
43 D	12.38	4.1875E-04	63.96	61.88	158.2
61.88	0.000	0.000	Strato2_3095_82743_L_0		
44 D	12.78	4.0799E-04	67.96	63.89	162.2
63.89	0.000	0.000	Strato2_3095_82743_L_0		
45 D	13.18	3.9765E-04	71.96	65.89	166.2
65.89	0.000	0.000	Strato2_3095_82743_L_0		
46 D	13.58	3.8770E-04	75.96	67.88	170.2
67.88	0.000	0.000	Strato2_3095_82743_L_0		
47 D	13.97	3.7813E-04	79.96	69.87	174.2
69.87	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.37	3.6892E-04	83.96	71.86	178.2
71.86	0.000	0.000	Strato2_3095_82743_L_0		
49 D	14.77	3.6004E-04	87.96	73.84	182.2
73.84	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.16	3.5146E-04	91.96	75.82	186.2
75.82	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.56	3.4314E-04	95.96	77.79	190.2
77.79	0.000	0.000	Strato2_3095_82743_L_0		
52 D	15.95	3.3507E-04	99.96	79.76	194.2
79.76	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.35	3.2720E-04	104.0	81.73	198.2
81.73	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.74	3.1950E-04	108.0	83.69	202.2
83.69	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.13	3.1194E-04	112.0	85.65	206.2
85.65	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.52	3.0449E-04	116.0	87.61	210.2
87.61	0.000	0.000	Strato2_3095_82743_L_0		
57 D	17.91	2.9712E-04	120.0	89.56	214.2
89.56	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.30	2.8982E-04	124.0	91.51	218.2
91.51	0.000	0.000	Strato2_3095_82743_L_0		
59 D	18.69	2.8254E-04	128.0	93.46	222.2
93.46	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.08	2.7529E-04	132.0	95.40	226.2
95.40	0.000	0.000	Strato2_3095_82743_L_0		
61 D	14.60	2.6805E-04	136.0	97.34	230.2
97.34	0.000	0.000	Strato2_3095_82743_L_0		
62 D	4.916	2.6443E-04	138.0	98.31	232.2
98.31	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 July 2019  11:09:26                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.7879	-1.7879	-8.52374E-12	0.35759
2	5.1420	-5.1420	-0.35759	1.3860
3	8.7855	-8.7855	-1.3860	3.1431
4	12.666	-12.666	-3.1431	5.6762
5	16.765	-16.765	-5.6762	9.0293
6	21.077	-21.077	-9.0293	13.245
7	25.597	-25.597	-13.245	18.364
8	30.321	-30.321	-18.364	24.428
9	35.187	-35.187	-24.428	31.466
10	40.260	-40.260	-31.466	39.518
11	45.537	-45.537	-39.518	48.625
12	51.015	-51.015	-48.625	58.828
13	55.272	-55.272	-58.828	64.355
14	-74.231	74.231	-64.355	49.509
15	-68.282	68.282	-49.509	35.853
16	-62.141	62.141	-35.853	23.425

GENERAL CONTRACTOR



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17	-55.805	55.805	-23.425	12.264
18	-49.272	49.272	-12.264	2.4092
19	-42.539	42.539	-2.4092	-6.0986
20	-35.599	35.599	6.0986	-13.218
21	-28.470	28.470	13.218	-18.912
22	-21.118	21.118	18.912	-23.136
23	-13.759	13.759	23.136	-25.888
24	-6.4655	6.4655	25.888	-27.181
25	1.2652	-1.2652	27.181	-26.928
26	9.4348	-9.4348	26.928	-25.041
27	15.896	-15.896	25.041	-21.862
28	19.707	-19.707	21.862	-17.920
29	20.894	-20.894	17.920	-13.741
30	19.459	-19.459	13.741	-9.8496
31	17.436	-17.436	9.8496	-6.3625
32	15.471	-15.471	6.3625	-3.2683
33	13.565	-13.565	3.2683	-0.55536
34	11.717	-11.717	0.55536	1.7881
35	9.9284	-9.9284	-1.7881	3.7738
36	8.1799	-8.1799	-3.7738	5.4098
37	6.4889	-6.4889	-5.4098	6.7075
38	4.8539	-4.8539	-6.7075	7.6783
39	3.2736	-3.2736	-7.6783	8.3330
40	1.7461	-1.7461	-8.3330	8.6823
41	0.80546	-0.80546	-8.6823	8.8434
42	-3.05188E-02	3.05188E-02	-8.8434	8.8373
43	-0.77804	0.77804	-8.8373	8.6816
44	-1.4260	1.4260	-8.6816	8.3964
45	-1.9777	1.9777	-8.3964	8.0009
46	-2.4366	2.4366	-8.0009	7.5136
47	-2.8060	2.8060	-7.5136	6.9524
48	-3.0891	3.0891	-6.9524	6.3346
49	-3.2890	3.2890	-6.3346	5.6768
50	-3.4084	3.4084	-5.6768	4.9951
51	-3.4614	3.4614	-4.9951	4.3028
52	-3.4382	3.4382	-4.3028	3.6152
53	-3.3406	3.3406	-3.6152	2.9471
54	-3.1698	3.1698	-2.9471	2.3131
55	-2.9269	2.9269	-2.3131	1.7277
56	-2.6125	2.6125	-1.7277	1.2052
57	-2.2268	2.2268	-1.2052	0.75988
58	-1.7800	1.7800	-0.75988	0.40389
59	-1.2615	1.2615	-0.40389	0.15158
60	-0.67103	0.67103	-0.15158	1.73726E-02
61	-0.17371	0.17371	-1.73726E-02	3.56934E-12

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     NewProject.BaseDesignSection_28.Nominal_63
|                                     Exe Time :24 July 2019      11:09:26
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	138.54	-1.29330E-03	-8.36719E-04	0.0000	4682.3	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     NewProject.BaseDesignSection_28.Nominal_63
|                                     Exe Time :24 July 2019      11:09:26
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FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP NO. OF ITERATIONS

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1          CONVERGENCE :YES          2
2          CONVERGENCE :YES          4
3          CONVERGENCE :YES          5
4          CONVERGENCE :YES          4
5          CONVERGENCE :YES          3

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END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.05 [sec]

DATABASE CREATION CPU TIME..... 0.22 [sec]

2.3. Design Assumption : SLE (Rara) - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SLE (Rara)

* Time:mercoledì 24 luglio 2019 11:09:27

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -12 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -12 0 1 0

SOIL 0_R LeftWall_32 -12 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 0 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 40 0 10 30

* 7: Defining Steps

STEP Stage0_31

CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32

GENERAL CONTRACTOR



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CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KA=0.304 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KP=4.041 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KA=0.235 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KP=5.879 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ADD WallElement_33
ENDSTEP

STEP Stage1_759103
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage3_775251
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage4_775610
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ADD Tieback_778405
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -4.96
WATER -26 0 -12 0 0
ENDSTEP

```

2.4. Design Assumption : SLE (Rara) - File di Paratie - File di output (.out)

```

+-----+
|          PARATIEPLUS (TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SLERara_3454   |
|          Exe Time :24 July 2019   11:09:27   |
+-----+

```

```

*****
*          *
* PARATIE PLUS Non-Linear Spring Engine          *
*          *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM   *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES   *
*          *
*          Written by Ce.A.S. s.r.l. (ITALY)         *
*          with the scientific supervision of        *
*          Roberto Nova - full professor SOIL MECHANICS *

```

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

Foglio
299 di 560

```

*          at Politecnico di Milano (ITALY)          *
*          *                                          *
*****
*          *                                          *
*  RELEASE  2017.1      *Build date:Jul 11, 2017*  *
*          *                                          *
*          *                                          *
*  Ce.A.S.   S.R.L  CENTRO DI ANALISI STRUTTURALE  *
*          VIALE  GIUSTINIANO 10                  *
*          20129  M I L A N O (ITALIA)             *
*  TEL.     +39 02 2020221 (+39 035 23 67 19)      *
*  FAX      +39 02 29512533 (+39 035 42285 49)     *
*  email    bruno.becci@ceas.it                   *
*  Web Page www.ceas.it                           *
*****

```

JOB : NewProject.BaseDesignSection_28.SLERara_3454

STARTING

```

ACCEPTED <FILE,GENW                                     >
ACCEPTED <FILE,PLOTTER,BINARY                          >
ACCEPTED <SOLVE TOTAL STRESS                          >
ACCEPTED <PARAM ITEMAX 100                             >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001               >

```

```

*****
*          *                                          *
*  WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
*          BY THE PROGRAM.                            *
*****

```

PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 300 di 560
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```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:09:27
|
-----

```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```

NO. OF NODAL POINTS (NUMNP) ..... 62
NO. OF COORDINATES (NCOORD) ..... 2
NO. OF NODE DOFS (NDOF) ..... 2
NO. OF EQUATIONS (NEQ) ..... 124
NO. OF CONSTRAINTS CARDS (NVINC) ..... 0
NO. OF ELEMENT GROUPS (NEG) ..... 4
NO. OF SOLUTION STEPS (NSTE) ..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 88
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH ..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

```

```

IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F

```

RELEVANT ITEMS UNITS

```

STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.

```

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:09:27
|
-----

```

P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 88

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Strato1_2_8_L_0 0 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL

```



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 301 di 560
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```

23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback_778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0
29 : STRIP LeftWall_32 2 5 0 40 0 10 30
30 : STEP Stage0_31
31 : CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
32 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 U-KA=0.304 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KP=4.041 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
37 : CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 U-KA=0.235 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KP=5.879 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
43 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
45 : CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
47 : SETWALL LeftWall_32
48 : GEOM 0 0
49 : WATER -26 0 -12 0 0
50 : ADD WallElement_33
51 : ENDSTEP
52 : STEP Stage1_759103
53 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
54 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
55 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
56 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
57 : SETWALL LeftWall_32
58 : GEOM 0 0
59 : WATER -26 0 -12 0 0
60 : ENDSTEP
61 : STEP Stage3_775251
62 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
63 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
64 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
65 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
66 : SETWALL LeftWall_32
67 : GEOM 0 -3
68 : WATER -26 0 -12 0 0
69 : ENDSTEP
70 : STEP Stage4_775610
71 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
72 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
73 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
74 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
75 : SETWALL LeftWall_32
76 : GEOM 0 -3
77 : WATER -26 0 -12 0 0
78 : ADD Tieback_778405
79 : ENDSTEP
80 : STEP Stage5_714
81 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
82 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
83 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
84 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
85 : SETWALL LeftWall_32
86 : GEOM 0 -4.96
87 : WATER -26 0 -12 0 0
88 : ENDSTEP
    
```

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:09:27  |
-----
    
```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE
1	0.0000	0.0000 /	2	0.0000 -0.20000 /	3	0.0000 -0.40000 /	4	0.0000 -0.60000 /
5	0.0000 -0.80000 /	6	0.0000 -1.0000 /	7	0.0000 -1.2000 /	8	0.0000 -1.4000 /	
9	0.0000 -1.6000 /	10	0.0000 -1.8000 /	11	0.0000 -2.0000 /	12	0.0000 -2.2000 /	
13	0.0000 -2.4000 /	14	0.0000 -2.5000 /	15	0.0000 -2.7000 /	16	0.0000 -2.9000 /	



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17	0.0000	-3.1000	/	18	0.0000	-3.3000	/	19	0.0000	-3.5000	/	20	0.0000	-3.7000	/
21	0.0000	-3.9000	/	22	0.0000	-4.1000	/	23	0.0000	-4.3000	/	24	0.0000	-4.5000	/
25	0.0000	-4.7000	/	26	0.0000	-4.9000	/	27	0.0000	-5.1000	/	28	0.0000	-5.3000	/
29	0.0000	-5.5000	/	30	0.0000	-5.7000	/	31	0.0000	-5.9000	/	32	0.0000	-6.1000	/
33	0.0000	-6.3000	/	34	0.0000	-6.5000	/	35	0.0000	-6.7000	/	36	0.0000	-6.9000	/
37	0.0000	-7.1000	/	38	0.0000	-7.3000	/	39	0.0000	-7.5000	/	40	0.0000	-7.7000	/
41	0.0000	-7.9000	/	42	0.0000	-8.1000	/	43	0.0000	-8.3000	/	44	0.0000	-8.5000	/
45	0.0000	-8.7000	/	46	0.0000	-8.9000	/	47	0.0000	-9.1000	/	48	0.0000	-9.3000	/
49	0.0000	-9.5000	/	50	0.0000	-9.7000	/	51	0.0000	-9.9000	/	52	0.0000	-10.100	/
53	0.0000	-10.300	/	54	0.0000	-10.500	/	55	0.0000	-10.700	/	56	0.0000	-10.900	/
57	0.0000	-11.100	/	58	0.0000	-11.300	/	59	0.0000	-11.500	/	60	0.0000	-11.700	/
61	0.0000	-11.900	/	62	0.0000	-12.000	/								

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:09:27  |
|-----+-----

```

```

ELEMENT GROUP NO. 1

0_L      :
_5 62 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

```

material set no. 1

prop( 1) angle 0.00000
prop( 2) layer as foreseen 1.00000

```

```

material set no. 2

prop( 1) angle 0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.1500	0.000	0.000	0.000	1.000
14	14	1	0.1500	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000

GENERAL CONTRACTOR



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29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.2000	0.000	0.000	0.000	1.000
42	42	2	0.2000	0.000	0.000	0.000	1.000
43	43	2	0.2000	0.000	0.000	0.000	1.000
44	44	2	0.2000	0.000	0.000	0.000	1.000
45	45	2	0.2000	0.000	0.000	0.000	1.000
46	46	2	0.2000	0.000	0.000	0.000	1.000
47	47	2	0.2000	0.000	0.000	0.000	1.000
48	48	2	0.2000	0.000	0.000	0.000	1.000
49	49	2	0.2000	0.000	0.000	0.000	1.000
50	50	2	0.2000	0.000	0.000	0.000	1.000
51	51	2	0.2000	0.000	0.000	0.000	1.000
52	52	2	0.2000	0.000	0.000	0.000	1.000
53	53	2	0.2000	0.000	0.000	0.000	1.000
54	54	2	0.2000	0.000	0.000	0.000	1.000
55	55	2	0.2000	0.000	0.000	0.000	1.000
56	56	2	0.2000	0.000	0.000	0.000	1.000
57	57	2	0.2000	0.000	0.000	0.000	1.000
58	58	2	0.2000	0.000	0.000	0.000	1.000
59	59	2	0.2000	0.000	0.000	0.000	1.000
60	60	2	0.2000	0.000	0.000	0.000	1.000
61	61	2	0.1500	0.000	0.000	0.000	1.000
62	62	2	0.5000E-01	0.000	0.000	0.000	1.000

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                       |
|                               Exe Time :24 July 2019  11:09:27                               |
-----

```

```

ELEMENT GROUP NO.  2

O_R
 5 62  0  1  0  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active

```

```

material set no.  1

prop( 1) angle          180.000
prop( 2) layer as foreseen  1.00000

```

```

material set no.  2

prop( 1) angle          180.000
prop( 2) layer as foreseen  2.00000

```

```

element data
-----
el  n  mat  area  ....  ....  ....  flag
-----
 1  1  1  0.1000  0.000  0.000  0.000  2.000
 2  2  1  0.2000  0.000  0.000  0.000  2.000
 3  3  1  0.2000  0.000  0.000  0.000  2.000
 4  4  1  0.2000  0.000  0.000  0.000  2.000
 5  5  1  0.2000  0.000  0.000  0.000  2.000
 6  6  1  0.2000  0.000  0.000  0.000  2.000

```

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ALTA SORVEGLIANZA



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7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.1500	0.000	0.000	0.000	2.000
14	14	1	0.1500	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.2000	0.000	0.000	0.000	2.000
42	42	2	0.2000	0.000	0.000	0.000	2.000
43	43	2	0.2000	0.000	0.000	0.000	2.000
44	44	2	0.2000	0.000	0.000	0.000	2.000
45	45	2	0.2000	0.000	0.000	0.000	2.000
46	46	2	0.2000	0.000	0.000	0.000	2.000
47	47	2	0.2000	0.000	0.000	0.000	2.000
48	48	2	0.2000	0.000	0.000	0.000	2.000
49	49	2	0.2000	0.000	0.000	0.000	2.000
50	50	2	0.2000	0.000	0.000	0.000	2.000
51	51	2	0.2000	0.000	0.000	0.000	2.000
52	52	2	0.2000	0.000	0.000	0.000	2.000
53	53	2	0.2000	0.000	0.000	0.000	2.000
54	54	2	0.2000	0.000	0.000	0.000	2.000
55	55	2	0.2000	0.000	0.000	0.000	2.000
56	56	2	0.2000	0.000	0.000	0.000	2.000
57	57	2	0.2000	0.000	0.000	0.000	2.000
58	58	2	0.2000	0.000	0.000	0.000	2.000
59	59	2	0.2000	0.000	0.000	0.000	2.000
60	60	2	0.2000	0.000	0.000	0.000	2.000
61	61	2	0.1500	0.000	0.000	0.000	2.000
62	62	2	0.5000E-01	0.000	0.000	0.000	2.000

```

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|                                                                                               |
-----

```

```

ELEMENT GROUP NO. 3

WallElement_33
  2 61 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0
.....
.....2D WALL ELEMENT.....
.....

```

```

element group behaviour throughout stage analysis

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active

material set no.  1

```



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```
prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus   0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....0.252200E-43
```

```
no. of step variable items: 1
step inertia multiplier
```

```
-----
1  1.000
2  1.000
3  1.000
4  1.000
5  1.000
```

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000
29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000
37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000
39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000

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|                                                                    |
-----

```

```

ELEMENT GROUP NO.  4

Tieback_778405      :
 6  1  0  1  0  0  0  0  0  0  0  0  0  0  1  0  0  2  0
.....
.....2D POST-TENSION ANCHOR.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  inactive
 2  inactive
 3  inactive
 4  active
 5  active

```

```

material set no.  1

prop( 1) angle      15.0000
prop( 2) young modulus 0.200100E+09
prop( 3) modification time  0.00000
prop( 4) new young modulus  0.00000

```

```

no. of step variable items:  2
step  -ve lim  +ve lim
-----
 1  0.000  0.000
 2  0.000  0.000
 3  0.000  0.000
 4  0.000  0.000
 5  0.000  0.000

```

```

element data

el  n  mat      a/l  pinit  yieldc  yieldt
-----
 1  14  1  0.2340E-04  136.4  0.000  0.000

```

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```

```

NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 10
MAXIMUM POINTS/LCURVE (NPTM)..... 5

```

```

+-----+
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```

L O A D D A T A

```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
0.80000        0.0000E+00
1.00000        0.1000E+01
1.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
1.80000        0.0000E+00
2.00000        0.1000E+01
2.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
2.80000        0.0000E+00
3.00000        0.1000E+01
3.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
3.80000        0.0000E+00
4.00000        0.1000E+01
4.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION

```


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0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

```

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|                                                                                               |
-----

```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000



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STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

```

+-----+
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NO. OF LAYERS 2
 NO. OF DATA PER LAYER..... 100

```

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+-----+
    
```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.30400	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.0410	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.53000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 1.0000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-05	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.30400	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.0410	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-05	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 15.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -7.8000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 20.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.23500	WALL NO.	1
ITEM NO.	11<U-KP	>= 5.8790	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	

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GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1

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ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)

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ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.00000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.00000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.00000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.00000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.00000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.00000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.00000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.00000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.00000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.00000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.00000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.00000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.00000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.00000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.00000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.00000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 10 VALUES

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INORLotto
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PHASE DESCRIPTORS

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STEP NO.      1

                LEFT WALL   RIGHT WALL
Y              0.000       -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   0.000         0.000
Z-WATER_TABLE -26.00        -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE 0.000         0.000
QS_ON_THE_EXCAVATION_SIDE 0.000         0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00        -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000         0.000
PORE_UPDATE_FLAG 0.000         0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000         0.000
lateral thrusts reduction elevatio 0.000         0.000
Downhill reduction factor for effe 0.000         0.000
Downhill reduction factor for pore 0.000         0.000
Uphill reduction factor for effect 0.000         0.000
Uphill reduction factor for pore p 0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000         0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000         0.000
UPHILL DELTA/PHI RATIO 0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000         0.000
DOWNHILL DELTA/PHI RATIO 0.000         0.000
DYN.WATER BEHAVIOUR 0.000         0.000
Excess pore pressure RATIO Ru 0.000         0.000
SEISMIC PRESSURE LOWER VALUE 0.000         0.000
SEISMIC PRESSURE UPPER VALUE 0.000         0.000
SEISMIC PRESSURE LOWER LEVEL 0.000         0.000
SEISMIC PRESSURE UPPER LEVEL 0.000         0.000

```

=====end of step 1

```

STEP NO.      2

                LEFT WALL   RIGHT WALL
Y              0.000       -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   0.000         0.000
Z-WATER_TABLE -26.00        -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE 0.000         0.000
QS_ON_THE_EXCAVATION_SIDE 0.000         0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00        -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000         0.000
PORE_UPDATE_FLAG 0.000         0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000         0.000
lateral thrusts reduction elevatio 0.000         0.000
Downhill reduction factor for effe 0.000         0.000
Downhill reduction factor for pore 0.000         0.000
Uphill reduction factor for effect 0.000         0.000
Uphill reduction factor for pore p 0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000         0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000         0.000
UPHILL DELTA/PHI RATIO 0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000         0.000
DOWNHILL DELTA/PHI RATIO 0.000         0.000
DYN.WATER BEHAVIOUR 0.000         0.000
Excess pore pressure RATIO Ru 0.000         0.000
SEISMIC PRESSURE LOWER VALUE 0.000         0.000
SEISMIC PRESSURE UPPER VALUE 0.000         0.000
SEISMIC PRESSURE LOWER LEVEL 0.000         0.000
SEISMIC PRESSURE UPPER LEVEL 0.000         0.000

```

=====end of step 2

```

STEP NO.      3

                LEFT WALL   RIGHT WALL
Y              0.000       -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   -3.000         0.000

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Z-WATER_TABLE          -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ                      0.000    0.000
DZW_OF_THE_WATER_TABLE  0.000    0.000
QS_ON_THE_EXCAVATION_SIDE 0.000    0.000
ZQS                    -0.9990E+30 -0.9990E+30
ZCUT                   0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000    0.000
PORE_UPDATE_FLAG       0.000    0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000    0.000
lateral thrusts reduction elevatio 0.000    0.000
Downhill reduction factor for effe 0.000    0.000
Downhill reduction factor for pore 0.000    0.000
Uphill reduction factor for effect  0.000    0.000
Uphill reduction factor for pore p  0.000    0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]   0.000    0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]   0.000    0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000    0.000
UPHILL BETA ANGLE (SLOPE) [deg]    0.000    0.000
UPHILL DELTA/PHI RATIO              0.000    0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000    0.000
DOWNHILL DELTA/PHI RATIO            0.000    0.000
DYN.WATER BEHAVIOUR                0.000    0.000
Excess pore pressure RATIO Ru      0.000    0.000
SEISMIC PRESSURE LOWER VALUE       0.000    0.000
SEISMIC PRESSURE UPPER VALUE       0.000    0.000
SEISMIC PRESSURE LOWER LEVEL       0.000    0.000
SEISMIC PRESSURE UPPER LEVEL       0.000    0.000
    
```

=====end of step 3

```

STEP NO.      4

LEFT WALL     RIGHT WALL
Y             0.000    -0.9990E+30
Z-PC         0.000    0.000
Z-EXCAVATION -3.000    0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ           0.000    0.000
DZW_OF_THE_WATER_TABLE  0.000    0.000
QS_ON_THE_EXCAVATION_SIDE 0.000    0.000
ZQS         -0.9990E+30 -0.9990E+30
ZCUT        0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000    0.000
PORE_UPDATE_FLAG       0.000    0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000    0.000
lateral thrusts reduction elevatio 0.000    0.000
Downhill reduction factor for effe 0.000    0.000
Downhill reduction factor for pore 0.000    0.000
Uphill reduction factor for effect  0.000    0.000
Uphill reduction factor for pore p  0.000    0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]   0.000    0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]   0.000    0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000    0.000
UPHILL BETA ANGLE (SLOPE) [deg]    0.000    0.000
UPHILL DELTA/PHI RATIO              0.000    0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000    0.000
DOWNHILL DELTA/PHI RATIO            0.000    0.000
DYN.WATER BEHAVIOUR                0.000    0.000
Excess pore pressure RATIO Ru      0.000    0.000
SEISMIC PRESSURE LOWER VALUE       0.000    0.000
SEISMIC PRESSURE UPPER VALUE       0.000    0.000
SEISMIC PRESSURE LOWER LEVEL       0.000    0.000
SEISMIC PRESSURE UPPER LEVEL       0.000    0.000
    
```

=====end of step 4

```

STEP NO.      5

LEFT WALL     RIGHT WALL
Y             0.000    -0.9990E+30
Z-PC         0.000    0.000
Z-EXCAVATION -4.960    0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000    0.000
ZQ           0.000    0.000
DZW_OF_THE_WATER_TABLE  0.000    0.000
QS_ON_THE_EXCAVATION_SIDE 0.000    0.000
ZQS         -0.9990E+30 -0.9990E+30
ZCUT        0.000    0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000    0.000
    
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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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PORE_UPDATE_FLAG          0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO      0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO    0.000      0.000
DYN.WATER BEHAVIOUR        0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000

```

=====end of step 5

LEFT-HAND WALL

```

LOWER LEVEL      -12.00000
UPPER LEVEL      0.00000

```

RIGHT-HAND WALL

```

LOWER LEVEL      -12.00000
UPPER LEVEL      0.00000

```

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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:09:27  |
+-----+

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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 1

```

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

```

```

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

```

TYPE BOUSSINESQ

```

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 40.0000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 10.0000000000000
BETA ..... 30.0000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

```

```

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 3534

```

```

NO. OF D.P.W FOR THIS AREA 7376
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100

```

```

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2144E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 22.62 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2144E+05 RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

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NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 1 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2144E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 22.62 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2144E+05 RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2144E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 22.62 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2144E+05 RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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+-----+
| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
|                               NewProject.BaseDesignSection_28.SLERara_3454             |
|                               Exe Time :24 July 2019 11:09:27                         |
+-----+

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New Project

SOLUTION REACHED USING 2 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

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Y-DISPL.F X-ROT. F
(02) (04) (

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ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS



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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:09:27          |
+-----+
    
```

New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	2.1221E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Stratol_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	2.1221E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Stratol_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	2.1221E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Stratol_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	2.1221E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Stratol_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	2.1221E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Stratol_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	2.1221E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Stratol_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	2.1221E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Stratol_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	2.1221E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Stratol_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	2.1221E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Stratol_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	2.1221E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Stratol_2_8_L_0									
11 D	4.028	0.000	38.00	20.14	38.00	20.14	V-C	2.1221E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Stratol_2_8_L_0									
12 D	4.431	0.000	41.80	22.15	41.80	22.15	V-C	2.1221E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Stratol_2_8_L_0									
13 D	3.625	0.000	45.60	24.17	45.60	24.17	V-C	2.1221E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Stratol_2_8_L_0									
14 D	3.776	0.000	47.50	25.18	47.50	25.18	V-C	2.1221E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Stratol_2_8_L_0									
15 D	5.438	0.000	51.30	27.19	51.30	27.19	V-C	2.1221E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Stratol_2_8_L_0									
16 D	5.841	0.000	55.10	29.20	55.10	29.20	V-C	2.1221E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Stratol_2_8_L_0									
17 D	6.243	0.000	58.90	31.22	58.90	31.22	V-C	2.1221E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Stratol_2_8_L_0									
18 D	6.646	0.000	62.70	33.23	62.70	33.23	V-C	2.1221E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Stratol_2_8_L_0									
19 D	7.049	0.000	66.50	35.25	66.50	35.25	V-C	2.1221E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Stratol_2_8_L_0									
20 D	7.452	0.000	70.30	37.26	70.30	37.26	V-C	2.1221E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Stratol_2_8_L_0									
21 D	7.855	0.000	74.10	39.27	74.10	39.27	V-C	2.1221E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Stratol_2_8_L_0									
22 D	8.257	0.000	77.90	41.29	77.90	41.29	V-C	2.1221E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Stratol_2_8_L_0									
23 D	8.660	0.000	81.70	43.30	81.70	43.30	V-C	2.1221E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Stratol_2_8_L_0									
24 D	9.063	0.000	85.50	45.32	85.50	45.32	V-C	2.1221E+04	-4.500	0.000	1.000	1.000
45.31	0.000	0.000	Stratol_2_8_L_0									
25 D	9.466	0.000	89.30	47.33	89.30	47.33	V-C	2.1221E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Stratol_2_8_L_0									
26 D	9.869	0.000	93.10	49.34	93.10	49.34	V-C	2.1221E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Stratol_2_8_L_0									
27 D	10.27	0.000	96.90	51.36	96.90	51.36	V-C	2.1221E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Stratol_2_8_L_0									
28 D	10.67	0.000	100.7	53.37	100.7	53.37	V-C	2.1221E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Stratol_2_8_L_0									
29 D	11.08	0.000	104.5	55.38	104.5	55.38	V-C	2.1221E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Stratol_2_8_L_0									
30 D	11.48	0.000	108.3	57.40	108.3	57.40	V-C	2.1221E+04	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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57.40	0.000	0.000	Strato1_2_8_L_0		
31 D	11.88	0.000	112.1 59.41	112.1	59.41
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.02	0.000	150.2 75.10	150.2	75.10
75.10	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.42	0.000	154.2 77.10	154.2	77.10
77.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.82	0.000	158.2 79.10	158.2	79.10
79.10	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.22	0.000	162.2 81.10	162.2	81.10
81.10	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.62	0.000	166.2 83.10	166.2	83.10
83.10	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.02	0.000	170.2 85.10	170.2	85.10
85.10	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.42	0.000	174.2 87.10	174.2	87.10
87.10	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.82	0.000	178.2 89.10	178.2	89.10
89.10	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.22	0.000	182.2 91.10	182.2	91.10
91.10	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.62	0.000	186.2 93.10	186.2	93.10
93.10	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.02	0.000	190.2 95.10	190.2	95.10
95.10	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.42	0.000	194.2 97.10	194.2	97.10
97.10	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.82	0.000	198.2 99.10	198.2	99.10
99.10	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.22	0.000	202.2 101.1	202.2	101.1
101.1	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.62	0.000	206.2 103.1	206.2	103.1
103.1	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.02	0.000	210.2 105.1	210.2	105.1
105.1	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.42	0.000	214.2 107.1	214.2	107.1
107.1	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.82	0.000	218.2 109.1	218.2	109.1
109.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.22	0.000	222.2 111.1	222.2	111.1
111.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.62	0.000	226.2 113.1	226.2	113.1
113.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.26	0.000	230.2 115.1	230.2	115.1
115.1	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.805	0.000	232.2 116.1	232.2	116.1
116.1	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                          |
|          Exe Time :24 July 2019  11:09:27                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 320 di 560
40 D	15.51	0.000	146.3 77.54 146.3	77.54	V-C 1.4726E+04 -7.700 0.000 1.000 1.000
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.02	0.000	150.2 75.10 150.2	75.10	V-C 3.2535E+04 -7.900 0.000 1.000 1.000
75.10	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.42	0.000	154.2 77.10 154.2	77.10	V-C 3.2535E+04 -8.100 0.000 1.000 1.000
77.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.82	0.000	158.2 79.10 158.2	79.10	V-C 3.2535E+04 -8.300 0.000 1.000 1.000
79.10	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.22	0.000	162.2 81.10 162.2	81.10	V-C 3.2535E+04 -8.500 0.000 1.000 1.000
81.10	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.62	0.000	166.2 83.10 166.2	83.10	V-C 3.2535E+04 -8.700 0.000 1.000 1.000
83.10	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.02	0.000	170.2 85.10 170.2	85.10	V-C 3.2535E+04 -8.900 0.000 1.000 1.000
85.10	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.42	0.000	174.2 87.10 174.2	87.10	V-C 3.2535E+04 -9.100 0.000 1.000 1.000
87.10	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.82	0.000	178.2 89.10 178.2	89.10	V-C 3.2535E+04 -9.300 0.000 1.000 1.000
89.10	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.22	0.000	182.2 91.10 182.2	91.10	V-C 3.2535E+04 -9.500 0.000 1.000 1.000
91.10	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.62	0.000	186.2 93.10 186.2	93.10	V-C 3.2535E+04 -9.700 0.000 1.000 1.000
93.10	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.02	0.000	190.2 95.10 190.2	95.10	V-C 3.2535E+04 -9.900 0.000 1.000 1.000
95.10	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.42	0.000	194.2 97.10 194.2	97.10	V-C 3.2535E+04 -10.10 0.000 1.000 1.000
97.10	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.82	0.000	198.2 99.10 198.2	99.10	V-C 3.2535E+04 -10.30 0.000 1.000 1.000
99.10	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.22	0.000	202.2 101.1 202.2	101.1	V-C 3.2535E+04 -10.50 0.000 1.000 1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.62	0.000	206.2 103.1 206.2	103.1	V-C 3.2535E+04 -10.70 0.000 1.000 1.000
103.1	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.02	0.000	210.2 105.1 210.2	105.1	V-C 3.2535E+04 -10.90 0.000 1.000 1.000
105.1	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.42	0.000	214.2 107.1 214.2	107.1	V-C 3.2535E+04 -11.10 0.000 1.000 1.000
107.1	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.82	0.000	218.2 109.1 218.2	109.1	V-C 3.2535E+04 -11.30 0.000 1.000 1.000
109.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.22	0.000	222.2 111.1 222.2	111.1	V-C 3.2535E+04 -11.50 0.000 1.000 1.000
111.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.62	0.000	226.2 113.1 226.2	113.1	V-C 3.2535E+04 -11.70 0.000 1.000 1.000
113.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.26	0.000	230.2 115.1 230.2	115.1	V-C 3.2535E+04 -11.90 0.000 1.000 1.000
115.1	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.805	0.000	232.2 116.1 232.2	116.1	V-C 3.2535E+04 -12.00 0.000 1.000 1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                                                                       |
|          Exe Time :24 July 2019  11:09:27                                                                                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:09:27
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New Project

STRESS RESULTS FOR GROUP NO. 4

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Tieback_778405      :
ELEMENT TYPE      6 NO.OF ELEMENTS. IN THIS GROUP      1
CURRENT TIME IS    1.0000

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POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
----	-------	----	--------	---------	---	-----------	-----------

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

ITER      0 RNORM = 0.000      RMNORM= 0.000
RINORM=0.2246E+05 RIMNOR= 0.000
RENORM= 30.48      REMNOR= 0.000      RATIO =0.3684E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 23.31      RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2246E+05 RDR = 0.000
RATIOT=0.3684E-01 RATIOR= 0.000
MAX UN=0.7687      IEQ= 15 NODE      8 DOF 1 Y-DISPL.F
MIN UN= 0.000      IEQ= 2 NODE      1 DOF 2 X-ROT. F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      2 RNORM = 0.000      RMNORM= 0.000
RINORM=0.2246E+05 RIMNOR= 0.000

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RENORM=0.5257E-01 REMNOR=0.3599E-22 RATIO =0.1530E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 23.31 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2246E+05 RDR = 0.000
RATIOT=0.1530E-02 RATIO= 0.000
MAX UN=0.2119 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.8085E-10 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2246E+05 RIMNOR= 0.000
RENORM=0.1056E-02 REMNOR=0.1301E-22 RATIO =0.2169E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 23.31 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2246E+05 RDR = 0.000
RATIOT=0.2169E-03 RATIO= 0.000
MAX UN=0.3210E-01 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
MIN UN=-.5150E-10 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2246E+05 RIMNOR= 0.000
RENORM=0.2270E-08 REMNOR=0.9387E-23 RATIO =0.3179E-06 TOLER =0.1000E-03 CONVERGED !
RFMAX = 23.31 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2246E+05 RDR = 0.000
RATIOT=0.3179E-06 RATIO= 0.000
MAX UN=0.2873E-04 IEQ= 45 NODE 23 DOF 1 Y-DISPL.F
MIN UN=-.3272E-10 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

GENERAL CONTRACTOR



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:09:27          |
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New Project

SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.3061832E-05	-1.8612385E-06	
2	5.2690065E-05	-1.8540215E-06	
3	5.2321183E-05	-1.8323969E-06	
4	5.1957887E-05	-1.7990541E-06	
5	5.1602007E-05	-1.7590320E-06	
6	5.1254448E-05	-1.7164060E-06	
7	5.0915423E-05	-1.6741036E-06	
8	5.0584645E-05	-1.6342234E-06	
9	5.0261476E-05	-1.5982121E-06	
10	4.9944930E-05	-1.5686610E-06	
11	4.9633339E-05	-1.5491920E-06	
12	4.9324390E-05	-1.5426737E-06	
13	4.9015259E-05	-1.5513230E-06	
14	4.8859637E-05	-1.5618221E-06	
15	4.8544117E-05	-1.5965156E-06	
16	4.8219721E-05	-1.6508543E-06	
17	4.7882373E-05	-1.7262307E-06	
18	4.7527768E-05	-1.8235226E-06	
19	4.7151477E-05	-1.9431153E-06	
20	4.6749041E-05	-2.0849150E-06	
21	4.6316068E-05	-2.2483539E-06	
22	4.5848279E-05	-2.4331104E-06	
23	4.5341411E-05	-2.6390637E-06	
24	4.4791286E-05	-2.8655279E-06	
25	4.4193917E-05	-3.1112327E-06	
26	4.3545635E-05	-3.3743005E-06	
27	4.2843210E-05	-3.6522248E-06	
28	4.2083968E-05	-3.9418510E-06	
29	4.1265910E-05	-4.2398758E-06	
30	4.0387692E-05	-4.5428002E-06	
31	3.9448749E-05	-4.8463396E-06	
32	3.8449460E-05	-5.1453883E-06	
33	3.7391295E-05	-5.4339920E-06	
34	3.6277016E-05	-5.7053035E-06	
35	3.5110844E-05	-5.9515544E-06	
36	3.3898647E-05	-6.1640215E-06	
37	3.2648107E-05	-6.3334104E-06	
38	3.1368821E-05	-6.4498178E-06	
39	3.0072449E-05	-6.5022893E-06	
40	2.8772969E-05	-6.4788054E-06	
41	2.7486863E-05	-6.3662825E-06	
42	2.6232101E-05	-6.1690767E-06	
43	2.5023482E-05	-5.9082118E-06	
44	2.3871815E-05	-5.6024711E-06	
45	2.2784375E-05	-5.2685047E-06	
46	2.1765341E-05	-4.9206171E-06	
47	2.0816250E-05	-4.5709063E-06	
48	1.9936435E-05	-4.2294087E-06	
49	1.9123403E-05	-3.9042358E-06	
50	1.8373230E-05	-3.6017251E-06	
51	1.7680889E-05	-3.3265668E-06	
52	1.7040566E-05	-3.0822091E-06	
53	1.6445816E-05	-2.8709421E-06	
54	1.5889917E-05	-2.6937568E-06	
55	1.5366057E-05	-2.5504056E-06	
56	1.4867593E-05	-2.4394820E-06	
57	1.4388270E-05	-2.3584813E-06	
58	1.3922442E-05	-2.3038476E-06	
59	1.3465262E-05	-2.2712494E-06	
60	1.3012813E-05	-2.2555997E-06	
61	1.2562297E-05	-2.2508273E-06	
62	1.2337208E-05	-2.2505838E-06	



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|
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|
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|
|          Exe Time :24 July 2019      11:09:27
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
C U R R E N T T I M E I S 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.3040	-5.3062E-05	10.00	3.040	10.00	5.300	ACTIVE	0.000	0.000	0.000	1.000	1.000
3.040	0.000	0.000	Stratol_2_8_L_0									
2 D	0.5569	-5.2690E-05	9.159	2.784	9.159	4.854	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
2.784	0.000	0.000	Stratol_2_8_L_0									
3 D	0.8475	-5.2321E-05	13.94	4.238	13.94	7.388	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
4.238	0.000	0.000	Stratol_2_8_L_0									
4 D	1.261	-5.1958E-05	18.14	6.307	18.14	9.614	UL-RL	6.3662E+04	-0.6000	0.000	1.000	1.000
6.307	0.000	0.000	Stratol_2_8_L_0									
5 D	1.692	-5.1602E-05	22.16	8.458	22.16	11.74	UL-RL	6.3662E+04	-0.8000	0.000	1.000	1.000
8.458	0.000	0.000	Stratol_2_8_L_0									
6 D	2.113	-5.1254E-05	26.09	10.57	26.09	13.83	UL-RL	6.3662E+04	-1.000	0.000	1.000	1.000
10.57	0.000	0.000	Stratol_2_8_L_0									
7 D	2.530	-5.0915E-05	29.98	12.65	29.98	15.89	UL-RL	6.3662E+04	-1.200	0.000	1.000	1.000
12.65	0.000	0.000	Stratol_2_8_L_0									
8 D	2.944	-5.0585E-05	33.85	14.72	33.85	17.94	UL-RL	6.3662E+04	-1.400	0.000	1.000	1.000
14.72	0.000	0.000	Stratol_2_8_L_0									
9 D	3.286	-5.0261E-05	37.03	16.43	37.03	19.63	UL-RL	6.3662E+04	-1.600	0.000	1.000	1.000
16.43	0.000	0.000	Stratol_2_8_L_0									
10 D	3.705	-4.9945E-05	40.95	18.52	40.95	21.70	UL-RL	6.3662E+04	-1.800	0.000	1.000	1.000
18.52	0.000	0.000	Stratol_2_8_L_0									
11 D	4.121	-4.9633E-05	44.84	20.61	44.84	23.77	UL-RL	6.3662E+04	-2.000	0.000	1.000	1.000
20.61	0.000	0.000	Stratol_2_8_L_0									
12 D	4.536	-4.9324E-05	48.72	22.68	48.72	25.82	UL-RL	6.3662E+04	-2.200	0.000	1.000	1.000
22.68	0.000	0.000	Stratol_2_8_L_0									
13 D	3.712	-4.9015E-05	52.58	24.75	52.58	27.87	UL-RL	6.3662E+04	-2.400	0.000	1.000	1.000
24.75	0.000	0.000	Stratol_2_8_L_0									
14 D	3.849	-4.8860E-05	54.28	25.66	54.28	28.77	UL-RL	6.3662E+04	-2.500	0.000	1.000	1.000
25.66	0.000	0.000	Stratol_2_8_L_0									
15 D	5.546	-4.8544E-05	58.15	27.73	58.15	30.82	UL-RL	6.3662E+04	-2.700	0.000	1.000	1.000
27.73	0.000	0.000	Stratol_2_8_L_0									
16 D	5.959	-4.8220E-05	62.01	29.79	62.01	32.86	UL-RL	6.3662E+04	-2.900	0.000	1.000	1.000
29.79	0.000	0.000	Stratol_2_8_L_0									
17 D	6.371	-4.7882E-05	65.86	31.86	65.86	34.90	UL-RL	6.3662E+04	-3.100	0.000	1.000	1.000
31.86	0.000	0.000	Stratol_2_8_L_0									
18 D	6.783	-4.7528E-05	69.70	33.92	69.70	36.94	UL-RL	6.3662E+04	-3.300	0.000	1.000	1.000
33.92	0.000	0.000	Stratol_2_8_L_0									
19 D	7.195	-4.7151E-05	73.54	35.97	73.54	38.98	UL-RL	6.3662E+04	-3.500	0.000	1.000	1.000
35.97	0.000	0.000	Stratol_2_8_L_0									
20 D	7.606	-4.6749E-05	77.37	38.03	77.37	41.01	UL-RL	6.3662E+04	-3.700	0.000	1.000	1.000
38.03	0.000	0.000	Stratol_2_8_L_0									
21 D	7.988	-4.6316E-05	80.92	39.94	80.92	42.89	UL-RL	6.3662E+04	-3.900	0.000	1.000	1.000
39.94	0.000	0.000	Stratol_2_8_L_0									
22 D	8.401	-4.5848E-05	84.76	42.00	84.76	44.92	UL-RL	6.3662E+04	-4.100	0.000	1.000	1.000
42.00	0.000	0.000	Stratol_2_8_L_0									
23 D	8.814	-4.5341E-05	88.60	44.07	88.60	46.96	UL-RL	6.3662E+04	-4.300	0.000	1.000	1.000
44.07	0.000	0.000	Stratol_2_8_L_0									
24 D	9.228	-4.4791E-05	92.43	46.14	92.43	48.99	UL-RL	6.3662E+04	-4.500	0.000	1.000	1.000
46.14	0.000	0.000	Stratol_2_8_L_0									
25 D	9.642	-4.4194E-05	96.27	48.21	96.27	51.02	UL-RL	6.3662E+04	-4.700	0.000	1.000	1.000
48.21	0.000	0.000	Stratol_2_8_L_0									
26 D	10.06	-4.3546E-05	100.1	50.28	100.1	53.05	UL-RL	6.3662E+04	-4.900	0.000	1.000	1.000
50.28	0.000	0.000	Stratol_2_8_L_0									
27 D	10.47	-4.2843E-05	103.9	52.35	103.9	55.08	UL-RL	6.3662E+04	-5.100	0.000	1.000	1.000
52.35	0.000	0.000	Stratol_2_8_L_0									
28 D	10.86	-4.2084E-05	107.5	54.31	107.5	56.99	UL-RL	6.3662E+04	-5.300	0.000	1.000	1.000
54.31	0.000	0.000	Stratol_2_8_L_0									
29 D	11.28	-4.1266E-05	111.4	56.40	111.4	59.02	UL-RL	6.3662E+04	-5.500	0.000	1.000	1.000
56.40	0.000	0.000	Stratol_2_8_L_0									
30 D	11.70	-4.0388E-05	115.2	58.48	115.2	61.05	UL-RL	6.3662E+04	-5.700	0.000	1.000	1.000



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58.48	0.000	0.000	Strato1_2_8_L_0		
31 D	12.11	-3.9449E-05	119.0 60.57	119.0	63.08
60.57	0.000	0.000	Strato1_2_8_L_0		
32 D	12.53	-3.8449E-05	122.8 62.66	122.8	65.11
62.66	0.000	0.000	Strato1_2_8_L_0		
33 D	12.95	-3.7391E-05	126.7 64.75	126.7	67.14
64.75	0.000	0.000	Strato1_2_8_L_0		
34 D	13.37	-3.6277E-05	130.5 66.85	130.5	69.16
66.85	0.000	0.000	Strato1_2_8_L_0		
35 D	13.79	-3.5111E-05	134.3 68.95	134.3	71.19
68.95	0.000	0.000	Strato1_2_8_L_0		
36 D	14.19	-3.3899E-05	138.0 70.97	138.0	73.12
70.97	0.000	0.000	Strato1_2_8_L_0		
37 D	14.61	-3.2648E-05	141.8 73.07	141.8	75.15
73.07	0.000	0.000	Strato1_2_8_L_0		
38 D	15.04	-3.1369E-05	145.6 75.18	145.6	77.18
75.18	0.000	0.000	Strato1_2_8_L_0		
39 D	15.46	-3.0072E-05	149.4 77.29	149.4	79.20
77.29	0.000	0.000	Strato1_2_8_L_0		
40 D	15.88	-2.8773E-05	153.3 79.39	153.3	81.22
79.39	0.000	0.000	Strato1_2_8_L_0		
41 D	14.73	-2.7487E-05	157.2 73.64	157.2	78.59
73.64	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.17	-2.6232E-05	161.2 75.87	161.2	80.60
75.87	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.61	-2.5023E-05	165.1 78.03	165.1	82.54
78.03	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.05	-2.3872E-05	169.1 80.25	169.1	84.55
80.25	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.49	-2.2784E-05	173.1 82.45	173.1	86.55
82.45	0.000	0.000	Strato2_3095_82743_L_0		
46 D	16.93	-2.1765E-05	177.1 84.64	177.1	88.56
84.64	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.36	-2.0816E-05	181.1 86.82	181.1	90.57
86.82	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.80	-1.9936E-05	185.2 88.99	185.2	92.58
88.99	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.23	-1.9123E-05	189.2 91.14	189.2	94.59
91.14	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.66	-1.8373E-05	193.2 93.29	193.2	96.59
93.29	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.07	-1.7681E-05	197.1 95.36	197.1	98.54
95.36	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.50	-1.7041E-05	201.1 97.48	201.1	100.6
97.48	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.92	-1.6446E-05	205.1 99.60	205.1	102.6
99.60	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.34	-1.5890E-05	209.1 101.7	209.1	104.6
101.7	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.76	-1.5366E-05	213.1 103.8	213.1	106.6
103.8	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.18	-1.4868E-05	217.2 105.9	217.2	108.6
105.9	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.60	-1.4388E-05	221.2 108.0	221.2	110.6
108.0	0.000	0.000	Strato2_3095_82743_L_0		
58 D	22.01	-1.3922E-05	225.1 110.0	225.1	112.5
110.0	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.43	-1.3465E-05	229.1 112.1	229.1	114.6
112.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.84	-1.3013E-05	233.1 114.2	233.1	116.6
114.2	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.45	-1.2562E-05	237.1 116.3	237.1	118.6
116.3	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.866	-1.2337E-05	239.1 117.3	239.1	119.5
117.3	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 327 di 560							
40 D	15.59	2.8773E-05	146.3	77.96	146.3	77.96	UL-RL	4.4178E+04	-7.700	0.000	1.000	1.000
77.96	0.000	0.000	Strato1_2_8_L_0									
41 D	15.20	2.7487E-05	150.2	75.99	150.2	76.00	UL-RL	9.7606E+04	-7.900	0.000	1.000	1.000
75.99	0.000	0.000	Strato2_3095_82743_L_0									
42 D	15.59	2.6232E-05	154.2	77.95	154.2	77.96	UL-RL	9.7606E+04	-8.100	0.000	1.000	1.000
77.95	0.000	0.000	Strato2_3095_82743_L_0									
43 D	15.98	2.5023E-05	158.2	79.91	158.2	79.92	UL-RL	9.7606E+04	-8.300	0.000	1.000	1.000
79.91	0.000	0.000	Strato2_3095_82743_L_0									
44 D	16.37	2.3872E-05	162.2	81.87	162.2	81.88	UL-RL	9.7606E+04	-8.500	0.000	1.000	1.000
81.87	0.000	0.000	Strato2_3095_82743_L_0									
45 D	16.77	2.2784E-05	166.2	83.84	166.2	83.84	UL-RL	9.7606E+04	-8.700	0.000	1.000	1.000
83.84	0.000	0.000	Strato2_3095_82743_L_0									
46 D	17.16	2.1765E-05	170.2	85.80	170.2	85.81	UL-RL	9.7606E+04	-8.900	0.000	1.000	1.000
85.80	0.000	0.000	Strato2_3095_82743_L_0									
47 D	17.55	2.0816E-05	174.2	87.77	174.2	87.78	UL-RL	9.7606E+04	-9.100	0.000	1.000	1.000
87.77	0.000	0.000	Strato2_3095_82743_L_0									
48 D	17.95	1.9936E-05	178.2	89.75	178.2	89.75	UL-RL	9.7606E+04	-9.300	0.000	1.000	1.000
89.75	0.000	0.000	Strato2_3095_82743_L_0									
49 D	18.34	1.9123E-05	182.2	91.72	182.2	91.72	UL-RL	9.7606E+04	-9.500	0.000	1.000	1.000
91.72	0.000	0.000	Strato2_3095_82743_L_0									
50 D	18.74	1.8373E-05	186.2	93.70	186.2	93.70	UL-RL	9.7606E+04	-9.700	0.000	1.000	1.000
93.70	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.13	1.7681E-05	190.2	95.67	190.2	95.68	UL-RL	9.7606E+04	-9.900	0.000	1.000	1.000
95.67	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.53	1.7041E-05	194.2	97.65	194.2	97.65	UL-RL	9.7606E+04	-10.10	0.000	1.000	1.000
97.65	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.93	1.6446E-05	198.2	99.63	198.2	99.63	V-C	3.2535E+04	-10.30	0.000	1.000	1.000
99.63	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.32	1.5890E-05	202.2	101.6	202.2	101.6	V-C	3.2535E+04	-10.50	0.000	1.000	1.000
101.6	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.72	1.5366E-05	206.2	103.6	206.2	103.6	V-C	3.2535E+04	-10.70	0.000	1.000	1.000
103.6	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.12	1.4868E-05	210.2	105.6	210.2	105.6	V-C	3.2535E+04	-10.90	0.000	1.000	1.000
105.6	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.51	1.4388E-05	214.2	107.6	214.2	107.6	V-C	3.2535E+04	-11.10	0.000	1.000	1.000
107.6	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.91	1.3922E-05	218.2	109.6	218.2	109.6	V-C	3.2535E+04	-11.30	0.000	1.000	1.000
109.6	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.31	1.3465E-05	222.2	111.5	222.2	111.5	UL-RL	9.7606E+04	-11.50	0.000	1.000	1.000
111.5	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.70	1.3013E-05	226.2	113.5	226.2	113.5	UL-RL	9.7606E+04	-11.70	0.000	1.000	1.000
113.5	0.000	0.000	Strato2_3095_82743_L_0									
61 D	17.33	1.2562E-05	230.2	115.5	230.2	115.5	UL-RL	9.7606E+04	-11.90	0.000	1.000	1.000
115.5	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.825	1.2337E-05	232.2	116.5	232.2	116.5	UL-RL	9.7606E+04	-12.00	0.000	1.000	1.000
116.5	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                                                                   |
|          Exe Time :24 July 2019          11:09:27                                                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.30400	-0.30400	-3.00981E-13	6.08000E-02
2	0.30288	-0.30288	-6.08000E-02	0.12138
3	0.19072	-0.19072	-0.12138	0.15952
4	9.06247E-02	-9.06247E-02	-0.15952	0.17765
5	1.90629E-02	-1.90629E-02	-0.17765	0.18146
6	-3.26980E-02	3.26980E-02	-0.18146	0.17492
7	-6.93291E-02	6.93291E-02	-0.17492	0.16105
8	-9.36414E-02	9.36414E-02	-0.16105	0.14232
9	-0.17848	0.17848	-0.14232	0.10663
10	-0.24621	0.24621	-0.10663	5.73879E-02
11	-0.29931	0.29931	-5.73879E-02	-2.47437E-03
12	-0.33959	0.33959	2.47437E-03	-7.03917E-02
13	-0.36116	0.36116	7.03917E-02	-0.10651
14	-0.39630	0.39630	0.10651	-0.18577
15	-0.43120	0.43120	0.18577	-0.27201
16	-0.45496	0.45496	0.27201	-0.36300

GENERAL CONTRACTOR



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17-0.46817	0.46817	0.36300	-0.45664
18-0.47119	0.47119	0.45664	-0.55087
19-0.46422	0.46422	0.55087	-0.64372
20-0.44728	0.44728	0.64372	-0.73318
21-0.45066	0.45066	0.73318	-0.82331
22-0.44221	0.44221	0.82331	-0.91175
23-0.42176	0.42176	0.91175	-0.99610
24-0.38870	0.38870	0.99610	-1.0738
25-0.34267	0.34267	1.0738	-1.1424
26-0.28318	0.28318	1.1424	-1.1990
27-0.20968	0.20968	1.1990	-1.2409
28-0.14409	0.14409	1.2409	-1.2698
29-6.22949E-02	6.22949E-02	1.2698	-1.2822
30 3.63963E-02-3.63963E-02	1.2822	1.2822	-1.2749
31 0.15270	-0.15270	1.2749	-1.2444
32 0.28734	-0.28734	1.2444	-1.1869
33 0.44106	-0.44106	1.1869	-1.0987
34 0.61456	-0.61456	1.0987	-0.97582
35 0.80850	-0.80850	0.97582	-0.81412
36 1.0061	-1.0061	0.81412	-0.61290
37 1.2256	-1.2256	0.61290	-0.36778
38 1.4675	-1.4675	0.36778	-7.42698E-02
39 1.7319	-1.7319	7.42698E-02	0.27211
40 2.0187	-2.0187	-0.27211	0.67584
41 1.5484	-1.5484	-0.67584	0.98552
42 1.1331	-1.1331	-0.98552	1.2121
43 0.75710	-0.75710	-1.2121	1.3636
44 0.43184	-0.43184	-1.3636	1.4499
45 0.15455	-0.15455	-1.4499	1.4808
46-7.77566E-02	7.77566E-02	-1.4808	1.4653
47-0.26813	0.26813	-1.4653	1.4117
48-0.41958	0.41958	-1.4117	1.3278
49-0.53501	0.53501	-1.3278	1.2208
50-0.61715	0.61715	-1.2208	1.0973
51-0.68001	0.68001	-1.0973	0.96132
52-0.71413	0.71413	-0.96132	0.81850
53-0.72148	0.72148	-0.81850	0.67420
54-0.70370	0.70370	-0.67420	0.53346
55-0.66223	0.66223	-0.53346	0.40102
56-0.59819	0.59819	-0.40102	0.28138
57-0.51245	0.51245	-0.28138	0.17889
58-0.41574	0.41574	-0.17889	9.57378E-02
59-0.29817	0.29817	-9.57378E-02	3.61031E-02
60-0.16000	0.16000	-3.61031E-02	4.10245E-03
61-4.10204E-02	4.10204E-02-4.10245E-03	3.04395E-13	

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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.1933E+05  RIMNOR= 82.75
      RENORM= 414.0      REMNOR=0.9387E-23 RATIO =0.1464      TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 22.84      RMMAX = 1.481
      RTSMAL=0.1000E-03  RMSMAL=0.1000E-04
      RDT =0.1933E+05   RDR = 82.75
      RATIO=0.1464     RATOR= 0.000
      MAX UN= 5.983     IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
      MIN UN=-.1083E-10 IEQ= 71 NODE 36 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.1933E+05  RIMNOR= 82.75

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RENORM= 42.95 REMNOR=0.4892E-20 RATIO =0.4714E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.4714E-01 RATOR= 0.000
 MAX UN= 3.168 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
 MIN UN=-.2432E-03 IEQ= 47 NODE 24 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1933E+05 RIMNOR= 82.75
 RENORM= 19.23 REMNOR=0.2399E-19 RATIO =0.3154E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.3154E-01 RATOR= 0.000
 MAX UN= 2.775 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
 MIN UN=-.1527E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1933E+05 RIMNOR= 82.75
 RENORM=0.9534 REMNOR=0.9341E-20 RATIO =0.7023E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.7023E-02 RATOR= 0.000
 MAX UN=0.9024 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
 MIN UN=-.6860E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1933E+05 RIMNOR= 82.75
 RENORM=0.4039E-17 REMNOR=0.1082E-19 RATIO =0.1446E-10 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 22.84 RMMAX = 1.481
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1933E+05 RDR = 82.75
 RATIOT=0.1446E-10 RATOR= 0.000
 MAX UN=0.1189E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 MIN UN=-.1365E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
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New Project
 SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.7028241E-03	-4.6579270E-04	
2	2.6096660E-03	-4.6578548E-04	
3	2.5165117E-03	-4.6575061E-04	
4	2.4233698E-03	-4.6565475E-04	
5	2.3302570E-03	-4.6545158E-04	
6	2.2372002E-03	-4.6508295E-04	
7	2.1442395E-03	-4.6447921E-04	
8	2.0514296E-03	-4.6355942E-04	
9	1.9588429E-03	-4.6223143E-04	
10	1.8665711E-03	-4.6039293E-04	
11	1.7747273E-03	-4.5793137E-04	
12	1.6834483E-03	-4.5472290E-04	
13	1.5928969E-03	-4.5063250E-04	
14	1.5479523E-03	-4.4821598E-04	
15	1.4588585E-03	-4.4252460E-04	
16	1.3710269E-03	-4.3556566E-04	
17	1.2847283E-03	-4.2716573E-04	
18	1.2002666E-03	-4.1717670E-04	
19	1.1179669E-03	-4.0554873E-04	
20	1.0381507E-03	-3.9236670E-04	
21	9.6111231E-04	-3.7780296E-04	

GENERAL CONTRACTOR



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22	8.8710865E-04	-3.6205222E-04
23	8.1635729E-04	-3.4531342E-04
24	7.4903563E-04	-3.2778940E-04
25	6.8528011E-04	-3.0968669E-04
26	6.2518630E-04	-2.9120371E-04
27	5.6881228E-04	-2.7252012E-04
28	5.1618114E-04	-2.5379749E-04
29	4.6728617E-04	-2.3518156E-04
30	4.2209271E-04	-2.1680286E-04
31	3.8054147E-04	-1.9877743E-04
32	3.4255153E-04	-1.8120788E-04
33	3.0802212E-04	-1.6418421E-04
34	2.7683620E-04	-1.4778526E-04
35	2.4886181E-04	-1.3207942E-04
36	2.2395429E-04	-1.1712565E-04
37	2.0195802E-04	-1.0297482E-04
38	1.8270802E-04	-8.9670628E-05
39	1.6603098E-04	-7.7249771E-05
40	1.5174716E-04	-6.5743104E-05
41	1.3967109E-04	-5.5176127E-05
42	1.2961366E-04	-4.5554991E-05
43	1.2138717E-04	-3.6863329E-05
44	1.1480817E-04	-2.9074569E-05
45	1.0969946E-04	-2.2154050E-05
46	1.0589144E-04	-1.6060185E-05
47	1.0322341E-04	-1.0746008E-05
48	1.0154447E-04	-6.1605306E-06
49	1.0071422E-04	-2.2498234E-06
50	1.0060327E-04	1.0418272E-06
51	1.0109346E-04	3.7711421E-06
52	1.0207798E-04	5.9947612E-06
53	1.0346137E-04	7.7688424E-06
54	1.0515923E-04	9.1485014E-06
55	1.0709807E-04	1.0187641E-05
56	1.0921507E-04	1.0938575E-05
57	1.1145765E-04	1.1451789E-05
58	1.1378317E-04	1.1775763E-05
59	1.1615842E-04	1.1956621E-05
60	1.1855919E-04	1.2038056E-05
61	1.2096978E-04	1.2061539E-05
62	1.2217613E-04	1.2062689E-05



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|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:09:27  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.3040	-2.7028E-03	10.00	3.040	10.00	5.300	ACTIVE	0.000	0.000	0.000	1.000	1.000
3.040	0.000	0.000	Stratol_2_8_L_0									
2 D	0.5569	-2.6097E-03	9.159	2.784	9.159	4.854	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
2.784	0.000	0.000	Stratol_2_8_L_0									
3 D	0.8475	-2.5165E-03	13.94	4.238	13.94	7.388	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
4.238	0.000	0.000	Stratol_2_8_L_0									
4 D	1.103	-2.4234E-03	18.14	5.515	18.14	9.614	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
5.515	0.000	0.000	Stratol_2_8_L_0									
5 D	1.347	-2.3303E-03	22.16	6.736	22.16	11.74	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
6.736	0.000	0.000	Stratol_2_8_L_0									
6 D	1.586	-2.2372E-03	26.09	7.932	26.09	13.83	ACTIVE	0.000	-1.000	0.000	1.000	1.000
7.932	0.000	0.000	Stratol_2_8_L_0									
7 D	1.823	-2.1442E-03	29.98	9.115	29.98	15.89	ACTIVE	0.000	-1.200	0.000	1.000	1.000
9.115	0.000	0.000	Stratol_2_8_L_0									
8 D	2.058	-2.0514E-03	33.85	10.29	33.85	17.94	ACTIVE	0.000	-1.400	0.000	1.000	1.000
10.29	0.000	0.000	Stratol_2_8_L_0									
9 D	2.252	-1.9588E-03	37.03	11.26	37.03	19.63	ACTIVE	0.000	-1.600	0.000	1.000	1.000
11.26	0.000	0.000	Stratol_2_8_L_0									
10 D	2.490	-1.8666E-03	40.95	12.45	40.95	21.70	ACTIVE	0.000	-1.800	0.000	1.000	1.000
12.45	0.000	0.000	Stratol_2_8_L_0									
11 D	2.726	-1.7747E-03	44.84	13.63	44.84	23.77	ACTIVE	0.000	-2.000	0.000	1.000	1.000
13.63	0.000	0.000	Stratol_2_8_L_0									
12 D	2.962	-1.6834E-03	48.72	14.81	48.72	25.82	ACTIVE	0.000	-2.200	0.000	1.000	1.000
14.81	0.000	0.000	Stratol_2_8_L_0									
13 D	2.398	-1.5929E-03	52.58	15.98	52.58	27.87	ACTIVE	0.000	-2.400	0.000	1.000	1.000
15.98	0.000	0.000	Stratol_2_8_L_0									
14 D	2.475	-1.5480E-03	54.28	16.50	54.28	28.77	ACTIVE	0.000	-2.500	0.000	1.000	1.000
16.50	0.000	0.000	Stratol_2_8_L_0									
15 D	3.536	-1.4589E-03	58.15	17.68	58.15	30.82	ACTIVE	0.000	-2.700	0.000	1.000	1.000
17.68	0.000	0.000	Stratol_2_8_L_0									
16 D	3.770	-1.3710E-03	62.01	18.85	62.01	32.86	ACTIVE	0.000	-2.900	0.000	1.000	1.000
18.85	0.000	0.000	Stratol_2_8_L_0									
17 D	4.004	-1.2847E-03	65.86	20.02	65.86	34.90	ACTIVE	0.000	-3.100	0.000	1.000	1.000
20.02	0.000	0.000	Stratol_2_8_L_0									
18 D	4.238	-1.2003E-03	69.70	21.19	69.70	36.94	ACTIVE	0.000	-3.300	0.000	1.000	1.000
21.19	0.000	0.000	Stratol_2_8_L_0									
19 D	4.471	-1.1180E-03	73.54	22.36	73.54	38.98	ACTIVE	0.000	-3.500	0.000	1.000	1.000
22.36	0.000	0.000	Stratol_2_8_L_0									
20 D	4.704	-1.0382E-03	77.37	23.52	77.37	41.01	ACTIVE	0.000	-3.700	0.000	1.000	1.000
23.52	0.000	0.000	Stratol_2_8_L_0									
21 D	4.920	-9.6111E-04	80.92	24.60	80.92	42.89	ACTIVE	0.000	-3.900	0.000	1.000	1.000
24.60	0.000	0.000	Stratol_2_8_L_0									
22 D	5.153	-8.8711E-04	84.76	25.77	84.76	44.92	ACTIVE	0.000	-4.100	0.000	1.000	1.000
25.77	0.000	0.000	Stratol_2_8_L_0									
23 D	5.387	-8.1636E-04	88.60	26.93	88.60	46.96	ACTIVE	0.000	-4.300	0.000	1.000	1.000
26.93	0.000	0.000	Stratol_2_8_L_0									
24 D	5.641	-7.4904E-04	92.43	28.21	92.43	48.99	UL-RL	2.5465E+04	-4.500	0.000	1.000	1.000
28.21	0.000	0.000	Stratol_2_8_L_0									
25 D	6.376	-6.8528E-04	96.27	31.88	96.27	51.02	UL-RL	2.5465E+04	-4.700	0.000	1.000	1.000
31.88	0.000	0.000	Stratol_2_8_L_0									
26 D	7.093	-6.2519E-04	100.1	35.47	100.1	53.05	UL-RL	2.5465E+04	-4.900	0.000	1.000	1.000
35.47	0.000	0.000	Stratol_2_8_L_0									
27 D	7.792	-5.6881E-04	103.9	38.96	103.9	55.08	UL-RL	2.5465E+04	-5.100	0.000	1.000	1.000
38.96	0.000	0.000	Stratol_2_8_L_0									
28 D	8.448	-5.1618E-04	107.5	42.24	107.5	56.99	UL-RL	2.5465E+04	-5.300	0.000	1.000	1.000
42.24	0.000	0.000	Stratol_2_8_L_0									
29 D	9.110	-4.6729E-04	111.4	45.55	111.4	59.02	UL-RL	2.5465E+04	-5.500	0.000	1.000	1.000
45.55	0.000	0.000	Stratol_2_8_L_0									
30 D	9.752	-4.2209E-04	115.2	48.76	115.2	61.05	UL-RL	2.5465E+04	-5.700	0.000	1.000	1.000



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48.76	0.000	0.000	Strato1_2_8_L_0									
31 D	10.38	-3.8054E-04	119.0	51.88	119.0	63.08	UL-RL	2.5465E+04	-5.900	0.000	1.000	1.000
51.88	0.000	0.000	Strato1_2_8_L_0									
32 D	10.98	-3.4255E-04	122.8	54.92	122.8	65.11	UL-RL	2.5465E+04	-6.100	0.000	1.000	1.000
54.92	0.000	0.000	Strato1_2_8_L_0									
33 D	11.57	-3.0802E-04	126.7	57.86	126.7	67.14	UL-RL	2.5465E+04	-6.300	0.000	1.000	1.000
57.86	0.000	0.000	Strato1_2_8_L_0									
34 D	12.15	-2.7684E-04	130.5	60.73	130.5	69.16	UL-RL	2.5465E+04	-6.500	0.000	1.000	1.000
60.73	0.000	0.000	Strato1_2_8_L_0									
35 D	12.70	-2.4886E-04	134.3	63.51	134.3	71.19	UL-RL	2.5465E+04	-6.700	0.000	1.000	1.000
63.51	0.000	0.000	Strato1_2_8_L_0									
36 D	13.23	-2.2395E-04	138.0	66.13	138.0	73.12	UL-RL	2.5465E+04	-6.900	0.000	1.000	1.000
66.13	0.000	0.000	Strato1_2_8_L_0									
37 D	13.75	-2.0196E-04	141.8	68.76	141.8	75.15	UL-RL	2.5465E+04	-7.100	0.000	1.000	1.000
68.76	0.000	0.000	Strato1_2_8_L_0									
38 D	14.26	-1.8271E-04	145.6	71.32	145.6	77.18	UL-RL	2.5465E+04	-7.300	0.000	1.000	1.000
71.32	0.000	0.000	Strato1_2_8_L_0									
39 D	14.76	-1.6603E-04	149.4	73.82	149.4	79.20	UL-RL	2.5465E+04	-7.500	0.000	1.000	1.000
73.82	0.000	0.000	Strato1_2_8_L_0									
40 D	15.25	-1.5175E-04	153.3	76.26	153.3	81.22	UL-RL	2.5465E+04	-7.700	0.000	1.000	1.000
76.26	0.000	0.000	Strato1_2_8_L_0									
41 D	13.11	-1.3967E-04	157.2	65.56	157.2	78.59	UL-RL	7.2037E+04	-7.900	0.000	1.000	1.000
65.56	0.000	0.000	Strato2_3095_82743_L_0									
42 D	13.68	-1.2961E-04	161.2	68.42	161.2	80.60	UL-RL	7.2037E+04	-8.100	0.000	1.000	1.000
68.42	0.000	0.000	Strato2_3095_82743_L_0									
43 D	14.22	-1.2139E-04	165.1	71.09	165.1	82.54	UL-RL	7.2037E+04	-8.300	0.000	1.000	1.000
71.09	0.000	0.000	Strato2_3095_82743_L_0									
44 D	14.74	-1.1481E-04	169.1	73.70	169.1	84.55	UL-RL	7.2037E+04	-8.500	0.000	1.000	1.000
73.70	0.000	0.000	Strato2_3095_82743_L_0									
45 D	15.24	-1.0970E-04	173.1	76.19	173.1	86.55	UL-RL	7.2037E+04	-8.700	0.000	1.000	1.000
76.19	0.000	0.000	Strato2_3095_82743_L_0									
46 D	15.72	-1.0589E-04	177.1	78.58	177.1	88.56	UL-RL	7.2037E+04	-8.900	0.000	1.000	1.000
78.58	0.000	0.000	Strato2_3095_82743_L_0									
47 D	16.18	-1.0322E-04	181.1	80.89	181.1	90.57	UL-RL	7.2037E+04	-9.100	0.000	1.000	1.000
80.89	0.000	0.000	Strato2_3095_82743_L_0									
48 D	16.62	-1.0154E-04	185.2	83.11	185.2	92.58	UL-RL	7.2037E+04	-9.300	0.000	1.000	1.000
83.11	0.000	0.000	Strato2_3095_82743_L_0									
49 D	17.05	-1.0071E-04	189.2	85.27	189.2	94.59	UL-RL	7.2037E+04	-9.500	0.000	1.000	1.000
85.27	0.000	0.000	Strato2_3095_82743_L_0									
50 D	17.47	-1.0060E-04	193.2	87.36	193.2	96.59	UL-RL	7.2037E+04	-9.700	0.000	1.000	1.000
87.36	0.000	0.000	Strato2_3095_82743_L_0									
51 D	17.87	-1.0109E-04	197.1	89.35	197.1	98.54	UL-RL	7.2037E+04	-9.900	0.000	1.000	1.000
89.35	0.000	0.000	Strato2_3095_82743_L_0									
52 D	18.27	-1.0208E-04	201.1	91.36	201.1	100.6	UL-RL	7.2037E+04	-10.10	0.000	1.000	1.000
91.36	0.000	0.000	Strato2_3095_82743_L_0									
53 D	18.67	-1.0346E-04	205.1	93.33	205.1	102.6	UL-RL	7.2037E+04	-10.30	0.000	1.000	1.000
93.33	0.000	0.000	Strato2_3095_82743_L_0									
54 D	19.06	-1.0516E-04	209.1	95.28	209.1	104.6	UL-RL	7.2037E+04	-10.50	0.000	1.000	1.000
95.28	0.000	0.000	Strato2_3095_82743_L_0									
55 D	19.44	-1.0710E-04	213.1	97.20	213.1	106.6	UL-RL	7.2037E+04	-10.70	0.000	1.000	1.000
97.20	0.000	0.000	Strato2_3095_82743_L_0									
56 D	19.82	-1.0922E-04	217.2	99.11	217.2	108.6	UL-RL	7.2037E+04	-10.90	0.000	1.000	1.000
99.11	0.000	0.000	Strato2_3095_82743_L_0									
57 D	20.20	-1.1146E-04	221.2	101.0	221.2	110.6	UL-RL	7.2037E+04	-11.10	0.000	1.000	1.000
101.0	0.000	0.000	Strato2_3095_82743_L_0									
58 D	20.57	-1.1378E-04	225.1	102.8	225.1	112.5	UL-RL	7.2037E+04	-11.30	0.000	1.000	1.000
102.8	0.000	0.000	Strato2_3095_82743_L_0									
59 D	20.95	-1.1616E-04	229.1	104.7	229.1	114.6	UL-RL	7.2037E+04	-11.50	0.000	1.000	1.000
104.7	0.000	0.000	Strato2_3095_82743_L_0									
60 D	21.32	-1.1856E-04	233.1	106.6	233.1	116.6	UL-RL	7.2037E+04	-11.70	0.000	1.000	1.000
106.6	0.000	0.000	Strato2_3095_82743_L_0									
61 D	16.27	-1.2097E-04	237.1	108.5	237.1	118.6	UL-RL	7.2037E+04	-11.90	0.000	1.000	1.000
108.5	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.470	-1.2218E-04	239.1	109.4	239.1	119.5	UL-RL	7.2037E+04	-12.00	0.000	1.000	1.000
109.4	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                          |
|          Exe Time :24 July 2019    11:09:27                                                    |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 334 di 560
40 D	15.74	1.5175E-04	89.30	78.69	146.3
78.69	0.000	0.000	Strato1_2_8_L_0		
41 D	12.89	1.3967E-04	93.20	64.43	150.2
64.43	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.22	1.2961E-04	97.20	66.10	154.2
66.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	13.57	1.2139E-04	101.2	67.84	158.2
67.84	0.000	0.000	Strato2_3095_82743_L_0		
44 D	13.93	1.1481E-04	105.2	69.64	162.2
69.64	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.30	1.0970E-04	109.2	71.49	166.2
71.49	0.000	0.000	Strato2_3095_82743_L_0		
46 D	14.68	1.0589E-04	113.2	73.39	170.2
73.39	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.07	1.0322E-04	117.2	75.33	174.2
75.33	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.46	1.0154E-04	121.2	77.31	178.2
77.31	0.000	0.000	Strato2_3095_82743_L_0		
49 D	15.86	1.0071E-04	125.2	79.32	182.2
79.32	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.27	1.0060E-04	129.2	81.36	186.2
81.36	0.000	0.000	Strato2_3095_82743_L_0		
51 D	16.68	1.0109E-04	133.2	83.42	190.2
83.42	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.10	1.0208E-04	137.2	85.49	194.2
85.49	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.52	1.0346E-04	141.2	87.58	198.2
87.58	0.000	0.000	Strato2_3095_82743_L_0		
54 D	17.94	1.0516E-04	145.2	89.68	202.2
89.68	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.36	1.0710E-04	149.2	91.78	206.2
91.78	0.000	0.000	Strato2_3095_82743_L_0		
56 D	18.78	1.0922E-04	153.2	93.89	210.2
93.89	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.20	1.1146E-04	157.2	96.01	214.2
96.01	0.000	0.000	Strato2_3095_82743_L_0		
58 D	19.63	1.1378E-04	161.2	98.13	218.2
98.13	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.05	1.1616E-04	165.2	100.2	222.2
100.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.47	1.1856E-04	169.2	102.4	226.2
102.4	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.67	1.2097E-04	173.2	104.5	230.2
104.5	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.277	1.2218E-04	175.2	105.5	232.2
105.5	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                    |
|                               Exe Time :24 July 2019  11:09:27                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.30400	-0.30400	4.67282E-12	6.08000E-02
2	0.86087	-0.86087	-6.08000E-02	0.23297
3	1.7084	-1.7084	-0.23297	0.57465
4	2.8113	-2.8113	-0.57465	1.1369
5	4.1585	-4.1585	-1.1369	1.9686
6	5.7449	-5.7449	-1.9686	3.1176
7	7.5680	-7.5680	-3.1176	4.6312
8	9.6262	-9.6262	-4.6312	6.5564
9	11.878	-11.878	-6.5564	8.9320
10	14.367	-14.367	-8.9320	11.805
11	17.094	-17.094	-11.805	15.224
12	20.056	-20.056	-15.224	19.235
13	22.453	-22.453	-19.235	21.481
14	24.929	-24.929	-21.481	26.466
15	28.464	-28.464	-26.466	32.159
16	32.234	-32.234	-32.159	38.606

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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17	34.703	-34.703	-38.606	45.547
18	34.334	-34.334	-45.547	52.413
19	31.127	-31.127	-52.413	58.639
20	27.074	-27.074	-58.639	64.054
21	22.925	-22.925	-64.054	68.639
22	18.695	-18.695	-68.639	72.378
23	14.380	-14.380	-72.378	75.254
24	9.9963	-9.9963	-75.254	77.253
25	6.0216	-6.0216	-77.253	78.457
26	2.4329	-2.4329	-78.457	78.944
27	0.79280	0.79280	-78.944	78.785
28	-3.7012	3.7012	-78.785	78.045
29	-6.2920	6.2920	-78.045	76.787
30	-8.5880	8.5880	-76.787	75.069
31	-10.612	10.612	-75.069	72.947
32	-12.385	12.385	-72.947	70.470
33	-13.930	13.930	-70.470	67.684
34	-15.266	15.266	-67.684	64.630
35	-16.413	16.413	-64.630	61.348
36	-17.409	17.409	-61.348	57.866
37	-18.252	18.252	-57.866	54.216
38	-18.960	18.960	-54.216	50.424
39	-19.549	19.549	-50.424	46.514
40	-20.034	20.034	-46.514	42.507
41	-19.808	19.808	-42.507	38.546
42	-19.342	19.342	-38.546	34.677
43	-18.692	18.692	-34.677	30.939
44	-17.880	17.880	-30.939	27.363
45	-16.940	16.940	-27.363	23.975
46	-15.902	15.902	-23.975	20.794
47	-14.792	14.792	-20.794	17.836
48	-13.632	13.632	-17.836	15.110
49	-12.444	12.444	-15.110	12.621
50	-11.243	11.243	-12.621	10.372
51	-10.056	10.056	-10.372	8.3611
52	-8.8823	8.8823	-8.3611	6.5847
53	-7.7318	7.7318	-6.5847	5.0383
54	-6.6118	6.6118	-5.0383	3.7159
55	-5.5282	5.5282	-3.7159	2.6103
56	-4.4852	4.4852	-2.6103	1.7133
57	-3.4860	3.4860	-1.7133	1.0161
58	-2.5425	2.5425	-1.0161	0.50757
59	-1.6455	1.6455	-0.50757	0.17848
60	-0.79559	0.79559	-0.17848	1.93599E-02
61	-0.19358	0.19358	-1.93599E-02	5.86795E-12

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:09:27
|
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :

ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1

CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.6623E+05  RIMNOR=0.2335E+06
      RENORM=0.1736E+05  REMNOR=0.1082E-19  RATIO =0.5119      TOLER =0.1000E-03  NOT CONVERGED
      RFMAX = 131.8      RMMAX = 78.94
      RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
      RDT =0.6623E+05  RDR =0.2335E+06
      RATIO=0.5119      RATOR= 0.000
      MAX UN=0.1189E-08  IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
      MIN UN=-131.8      IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.6623E+05  RIMNOR=0.2335E+06

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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RENORM= 69.38 REMNOR=0.7345E-20 RATIO =0.3236E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.8 RMMAX = 78.94
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.6623E+05 RDR =0.2335E+06
RATIOT=0.3236E-01 RATIO= 0.000
MAX UN=0.4611E-09 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
MIN UN=-3.141 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6623E+05 RIMNOR=0.2335E+06
RENORM= 1.883 REMNOR=0.5101E-20 RATIO =0.5332E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.8 RMMAX = 78.94
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.6623E+05 RDR =0.2335E+06
RATIOT=0.5332E-02 RATIO= 0.000
MAX UN=0.3919E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
MIN UN=-1.087 IEQ= 37 NODE 19 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6623E+05 RIMNOR=0.2335E+06
RENORM=0.1049E-18 REMNOR=0.5042E-21 RATIO =0.1258E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 131.8 RMMAX = 78.94
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.6623E+05 RDR =0.2335E+06
RATIOT=0.1258E-11 RATIO= 0.000
MAX UN=0.1282E-09 IEQ= 121 NODE 61 DOF 1 Y-DISPL.F
MIN UN=-.1397E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                       |
|                               Exe Time :24 July 2019      11:09:27                             |
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New Project

SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	6.5186274E-04	-1.9554286E-04	
2	6.1275765E-04	-1.9549074E-04	
3	5.7368008E-04	-1.9523412E-04	
4	5.3469154E-04	-1.9456434E-04	
5	4.9589680E-04	-1.9325774E-04	
6	4.5744670E-04	-1.9107728E-04	
7	4.1954080E-04	-1.8777313E-04	
8	3.8242985E-04	-1.8308299E-04	
9	3.4641831E-04	-1.7673228E-04	
10	3.1186666E-04	-1.6843573E-04	
11	2.7919347E-04	-1.5789733E-04	
12	2.4887773E-04	-1.4480897E-04	
13	2.2146122E-04	-1.2885058E-04	
14	2.0902673E-04	-1.1970236E-04	
15	1.8690763E-04	-1.0194076E-04	
16	1.6808136E-04	-8.6715122E-05	
17	1.5207646E-04	-7.3666310E-05	
18	1.3849421E-04	-6.2426900E-05	
19	1.2700894E-04	-5.2638830E-05	
20	1.1736009E-04	-4.4029553E-05	
21	1.0933007E-04	-3.6426003E-05	
22	1.0273189E-04	-2.9689493E-05	
23	9.7404663E-05	-2.3697197E-05	
24	9.3210226E-05	-1.8346669E-05	
25	9.0028215E-05	-1.3562847E-05	
26	8.7751161E-05	-9.2879229E-06	
27	8.6282621E-05	-5.4694823E-06	
28	8.5536088E-05	-2.0603592E-06	
29	8.5433948E-05	9.8083175E-07	
30	8.5906282E-05	3.6899482E-06	
31	8.6889859E-05	6.0980398E-06	
32	8.8327185E-05	8.2315423E-06	
33	9.0165636E-05	1.0112542E-05	
34	9.2356562E-05	1.1758948E-05	
35	9.4854510E-05	1.3184779E-05	
36	9.7616460E-05	1.4400401E-05	
37	1.0060109E-04	1.5412365E-05	
38	1.0376801E-04	1.6223660E-05	
39	1.0707717E-04	1.6834402E-05	
40	1.1048823E-04	1.7242037E-05	
41	1.1396011E-04	1.7441593E-05	
42	1.1745205E-04	1.7448925E-05	
43	1.2092928E-04	1.7300422E-05	
44	1.2436403E-04	1.7029219E-05	
45	1.2773478E-04	1.6665227E-05	
46	1.3102573E-04	1.6235481E-05	
47	1.3422620E-04	1.5764178E-05	
48	1.3733005E-04	1.5272724E-05	
49	1.4033518E-04	1.4779771E-05	
50	1.4324292E-04	1.4301291E-05	
51	1.4605755E-04	1.3850620E-05	
52	1.4878565E-04	1.3438253E-05	
53	1.5143584E-04	1.3071867E-05	
54	1.5401781E-04	1.2756716E-05	
55	1.5654213E-04	1.2495631E-05	
56	1.5901970E-04	1.2289079E-05	
57	1.6146128E-04	1.2135201E-05	
58	1.6387702E-04	1.2029839E-05	
59	1.6627600E-04	1.1966322E-05	
60	1.6866573E-04	1.1935493E-05	
61	1.7105162E-04	1.1925962E-05	
62	1.7224430E-04	1.1925461E-05	



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:09:27  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	2.196	-6.5186E-04	10.00	21.96	10.00	21.96	V-C	8488.	0.000	0.000	1.000	1.000
21.96	0.000	0.000	Stratol_2_8_L_0									
2 D	4.223	-6.1276E-04	9.159	21.11	9.159	21.11	V-C	8488.	-0.2000	0.000	1.000	1.000
21.11	0.000	0.000	Stratol_2_8_L_0									
3 D	4.566	-5.7368E-04	13.94	22.83	13.94	22.83	V-C	8488.	-0.4000	0.000	1.000	1.000
22.83	0.000	0.000	Stratol_2_8_L_0									
4 D	4.856	-5.3469E-04	18.14	24.28	18.14	24.28	V-C	8488.	-0.6000	0.000	1.000	1.000
24.28	0.000	0.000	Stratol_2_8_L_0									
5 D	5.129	-4.9590E-04	22.16	25.64	22.16	25.64	V-C	8488.	-0.8000	0.000	1.000	1.000
25.64	0.000	0.000	Stratol_2_8_L_0									
6 D	5.394	-4.5745E-04	26.09	26.97	26.09	26.97	V-C	8488.	-1.0000	0.000	1.000	1.000
26.97	0.000	0.000	Stratol_2_8_L_0									
7 D	5.655	-4.1954E-04	29.98	28.27	29.98	28.27	V-C	8488.	-1.2000	0.000	1.000	1.000
28.27	0.000	0.000	Stratol_2_8_L_0									
8 D	5.912	-3.8243E-04	33.85	29.56	33.85	29.56	V-C	8488.	-1.4000	0.000	1.000	1.000
29.56	0.000	0.000	Stratol_2_8_L_0									
9 D	6.105	-3.4642E-04	37.03	30.52	37.03	30.52	V-C	8488.	-1.6000	0.000	1.000	1.000
30.52	0.000	0.000	Stratol_2_8_L_0									
10 D	6.363	-3.1187E-04	40.95	31.81	40.95	31.81	V-C	8488.	-1.8000	0.000	1.000	1.000
31.81	0.000	0.000	Stratol_2_8_L_0									
11 D	6.616	-2.7919E-04	44.84	33.08	44.84	33.08	V-C	8488.	-2.0000	0.000	1.000	1.000
33.08	0.000	0.000	Stratol_2_8_L_0									
12 D	6.865	-2.4888E-04	48.72	34.33	48.72	34.33	V-C	8488.	-2.2000	0.000	1.000	1.000
34.33	0.000	0.000	Stratol_2_8_L_0									
13 D	5.332	-2.2146E-04	52.58	35.55	52.58	35.55	V-C	8488.	-2.4000	0.000	1.000	1.000
35.55	0.000	0.000	Stratol_2_8_L_0									
14 D	5.407	-2.0903E-04	54.28	36.05	54.28	36.05	V-C	8488.	-2.5000	0.000	1.000	1.000
36.05	0.000	0.000	Stratol_2_8_L_0									
15 D	7.447	-1.8691E-04	58.15	37.24	58.15	37.24	V-C	8488.	-2.7000	0.000	1.000	1.000
37.24	0.000	0.000	Stratol_2_8_L_0									
16 D	7.681	-1.6808E-04	62.01	38.40	62.01	38.40	V-C	8488.	-2.9000	0.000	1.000	1.000
38.40	0.000	0.000	Stratol_2_8_L_0									
17 D	7.911	-1.5208E-04	65.86	39.56	65.86	39.56	V-C	8488.	-3.1000	0.000	1.000	1.000
39.56	0.000	0.000	Stratol_2_8_L_0									
18 D	8.141	-1.3849E-04	69.70	40.70	69.70	40.70	V-C	8488.	-3.3000	0.000	1.000	1.000
40.70	0.000	0.000	Stratol_2_8_L_0									
19 D	8.370	-1.2701E-04	73.54	41.85	73.54	41.85	V-C	8488.	-3.5000	0.000	1.000	1.000
41.85	0.000	0.000	Stratol_2_8_L_0									
20 D	8.599	-1.1736E-04	77.37	43.00	77.37	43.00	V-C	8488.	-3.7000	0.000	1.000	1.000
43.00	0.000	0.000	Stratol_2_8_L_0									
21 D	8.804	-1.0933E-04	80.92	44.02	80.92	44.02	V-C	8488.	-3.9000	0.000	1.000	1.000
44.02	0.000	0.000	Stratol_2_8_L_0									
22 D	9.039	-1.0273E-04	84.76	45.20	84.76	45.20	V-C	8488.	-4.1000	0.000	1.000	1.000
45.20	0.000	0.000	Stratol_2_8_L_0									
23 D	9.048	-9.7405E-05	88.60	45.24	88.60	46.96	UL-RL	2.5465E+04	-4.3000	0.000	1.000	1.000
45.24	0.000	0.000	Stratol_2_8_L_0									
24 D	8.981	-9.3210E-05	92.43	44.91	92.43	48.99	UL-RL	2.5465E+04	-4.5000	0.000	1.000	1.000
44.91	0.000	0.000	Stratol_2_8_L_0									
25 D	9.408	-9.0028E-05	96.27	47.04	96.27	51.02	UL-RL	2.5465E+04	-4.7000	0.000	1.000	1.000
47.04	0.000	0.000	Stratol_2_8_L_0									
26 D	9.831	-8.7751E-05	100.1	49.15	100.1	53.05	UL-RL	2.5465E+04	-4.9000	0.000	1.000	1.000
49.15	0.000	0.000	Stratol_2_8_L_0									
27 D	10.25	-8.6283E-05	103.9	51.25	103.9	55.08	UL-RL	2.5465E+04	-5.1000	0.000	1.000	1.000
51.25	0.000	0.000	Stratol_2_8_L_0									
28 D	10.64	-8.5536E-05	107.5	53.21	107.5	56.99	UL-RL	2.5465E+04	-5.3000	0.000	1.000	1.000
53.21	0.000	0.000	Stratol_2_8_L_0									
29 D	11.05	-8.5434E-05	111.4	55.27	111.4	59.02	UL-RL	2.5465E+04	-5.5000	0.000	1.000	1.000
55.27	0.000	0.000	Stratol_2_8_L_0									
30 D	11.46	-8.5906E-05	115.2	57.32	115.2	61.05	UL-RL	2.5465E+04	-5.7000	0.000	1.000	1.000



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57.32	0.000	0.000	Strato1_2_8_L_0		
31 D	11.87	-8.6890E-05	119.0 59.36	119.0	63.08
59.36	0.000	0.000	Strato1_2_8_L_0		
32 D	12.28	-8.8327E-05	122.8 61.39	122.8	65.11
61.39	0.000	0.000	Strato1_2_8_L_0		
33 D	12.68	-9.0166E-05	126.7 63.41	126.7	67.14
63.41	0.000	0.000	Strato1_2_8_L_0		
34 D	13.08	-9.2357E-05	130.5 65.42	130.5	69.16
65.42	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	-9.4855E-05	134.3 67.43	134.3	71.19
67.43	0.000	0.000	Strato1_2_8_L_0		
36 D	13.87	-9.7616E-05	138.0 69.34	138.0	73.12
69.34	0.000	0.000	Strato1_2_8_L_0		
37 D	14.27	-1.0060E-04	141.8 71.34	141.8	75.15
71.34	0.000	0.000	Strato1_2_8_L_0		
38 D	14.67	-1.0377E-04	145.6 73.33	145.6	77.18
73.33	0.000	0.000	Strato1_2_8_L_0		
39 D	15.07	-1.0708E-04	149.4 75.33	149.4	79.20
75.33	0.000	0.000	Strato1_2_8_L_0		
40 D	15.46	-1.1049E-04	153.3 77.31	153.3	81.22
77.31	0.000	0.000	Strato1_2_8_L_0		
41 D	13.48	-1.1396E-04	157.2 67.41	157.2	78.59
67.41	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.86	-1.1745E-04	161.2 69.30	161.2	80.60
69.30	0.000	0.000	Strato2_3095_82743_L_0		
43 D	14.22	-1.2093E-04	165.1 71.12	165.1	82.54
71.12	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.60	-1.2436E-04	169.1 73.01	169.1	84.55
73.01	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.98	-1.2773E-04	173.1 74.89	173.1	86.55
74.89	0.000	0.000	Strato2_3095_82743_L_0		
46 D	15.35	-1.3103E-04	177.1 76.77	177.1	88.56
76.77	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.73	-1.3423E-04	181.1 78.65	181.1	90.57
78.65	0.000	0.000	Strato2_3095_82743_L_0		
48 D	16.11	-1.3733E-04	185.2 80.53	185.2	92.58
80.53	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.48	-1.4034E-04	189.2 82.41	189.2	94.59
82.41	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.86	-1.4324E-04	193.2 84.29	193.2	96.59
84.29	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.22	-1.4606E-04	197.1 86.11	197.1	98.54
86.11	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.60	-1.4879E-04	201.1 87.99	201.1	100.6
87.99	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.97	-1.5144E-04	205.1 89.87	205.1	102.6
89.87	0.000	0.000	Strato2_3095_82743_L_0		
54 D	18.35	-1.5402E-04	209.1 91.76	209.1	104.6
91.76	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.73	-1.5654E-04	213.1 93.64	213.1	106.6
93.64	0.000	0.000	Strato2_3095_82743_L_0		
56 D	19.10	-1.5902E-04	217.2 95.52	217.2	108.6
95.52	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.48	-1.6146E-04	221.2 97.40	221.2	110.6
97.40	0.000	0.000	Strato2_3095_82743_L_0		
58 D	19.85	-1.6388E-04	225.1 99.23	225.1	112.5
99.23	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.22	-1.6628E-04	229.1 101.1	229.1	114.6
101.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.60	-1.6867E-04	233.1 103.0	233.1	116.6
103.0	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.73	-1.7105E-04	237.1 104.9	237.1	118.6
104.9	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.290	-1.7224E-04	239.1 105.8	239.1	119.5
105.8	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                          |
|          Exe Time :24 July 2019  11:09:27                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT



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40 D	15.59	1.1049E-04	89.30	77.96	146.3
77.96	0.000	0.000	Strato1_2_8_L_0		
41 D	12.68	1.1396E-04	93.20	63.42	150.2
63.42	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.12	1.1745E-04	97.20	65.62	154.2
65.62	0.000	0.000	Strato2_3095_82743_L_0		
43 D	13.56	1.2093E-04	101.2	67.82	158.2
67.82	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.00	1.2436E-04	105.2	70.01	162.2
70.01	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.44	1.2773E-04	109.2	72.19	166.2
72.19	0.000	0.000	Strato2_3095_82743_L_0		
46 D	14.87	1.3103E-04	113.2	74.37	170.2
74.37	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.31	1.3423E-04	117.2	76.55	174.2
76.55	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.74	1.3733E-04	121.2	78.71	178.2
78.71	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.17	1.4034E-04	125.2	80.87	182.2
80.87	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.60	1.4324E-04	129.2	83.02	186.2
83.02	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.03	1.4606E-04	133.2	85.17	190.2
85.17	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.46	1.4879E-04	137.2	87.31	194.2
87.31	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.89	1.5144E-04	141.2	89.45	198.2
89.45	0.000	0.000	Strato2_3095_82743_L_0		
54 D	18.32	1.5402E-04	145.2	91.58	202.2
91.58	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.74	1.5654E-04	149.2	93.71	206.2
93.71	0.000	0.000	Strato2_3095_82743_L_0		
56 D	19.17	1.5902E-04	153.2	95.84	210.2
95.84	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.59	1.6146E-04	157.2	97.96	214.2
97.96	0.000	0.000	Strato2_3095_82743_L_0		
58 D	20.02	1.6388E-04	161.2	100.1	218.2
100.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.44	1.6628E-04	165.2	102.2	222.2
102.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.86	1.6867E-04	169.2	104.3	226.2
104.3	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.97	1.7105E-04	173.2	106.4	230.2
106.4	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.375	1.7224E-04	175.2	107.5	232.2
107.5	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
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|          NewProject.BaseDesignSection_28.SLERara_3454                                                                                   |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.1956	-2.1956	1.08634E-11	0.43912
2	6.4185	-6.4185	-0.43912	1.7228
3	10.984	-10.984	-1.7228	3.9197
4	15.840	-15.840	-3.9197	7.0878
5	20.969	-20.969	-7.0878	11.282
6	26.363	-26.363	-11.282	16.554
7	32.018	-32.018	-16.554	22.958
8	37.930	-37.930	-22.958	30.544
9	44.035	-44.035	-30.544	39.351
10	50.397	-50.397	-39.351	49.430
11	57.014	-57.014	-49.430	60.833
12	63.879	-63.879	-60.833	73.609
13	69.211	-69.211	-73.609	80.530
14	-57.134	57.134	-80.530	69.103
15	-49.687	49.687	-69.103	59.166
16	-42.006	42.006	-59.166	50.764

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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17	-34.210	34.210	-50.764	43.922
18	-26.924	26.924	-43.922	38.537
19	-22.730	22.730	-38.537	33.991
20	-19.634	19.634	-33.991	30.065
21	-16.888	16.888	-30.065	26.687
22	-14.460	14.460	-26.687	23.795
23	-12.573	12.573	-23.795	21.281
24	-11.298	11.298	-21.281	19.021
25	-10.138	10.138	-19.021	16.993
26	-9.0898	9.0898	-16.993	15.175
27	-8.1526	8.1526	-15.175	13.545
28	-7.3457	7.3457	-13.545	12.076
29	-6.6421	6.6421	-12.076	10.747
30	-6.0378	6.0378	-10.747	9.5397
31	-5.5282	5.5282	-9.5397	8.4341
32	-5.1084	5.1084	-8.4341	7.4124
33	-4.7733	4.7733	-7.4124	6.4577
34	-4.5179	4.5179	-6.4577	5.5542
35	-4.3367	4.3367	-5.5542	4.6868
36	-4.2419	4.2419	-4.6868	3.8385
37	-4.2106	4.2106	-3.8385	2.9963
38	-4.2375	4.2375	-2.9963	2.1489
39	-4.3179	4.3179	-2.1489	1.2853
40	-4.4470	4.4470	-1.2853	0.39588
41	-3.6499	3.6499	-0.39588	-0.33410
42	-2.9144	2.9144	0.33410	-0.91697
43	-2.2540	2.2540	0.91697	-1.3678
44	-1.6545	1.6545	1.3678	-1.6987
45	-1.1152	1.1152	1.6987	-1.9217
46	-0.63526	0.63526	1.9217	-2.0488
47	-0.21368	0.21368	2.0488	-2.0915
48	0.15067	-0.15067	2.0915	-2.0614
49	0.45896	-0.45896	2.0614	-1.9696
50	0.71240	-0.71240	1.9696	-1.8271
51	0.90067	-0.90067	1.8271	-1.6470
52	1.0367	-1.0367	1.6470	-1.4396
53	1.1214	-1.1214	1.4396	-1.2154
54	1.1560	-1.1560	1.2154	-0.98416
55	1.1411	-1.1411	0.98416	-0.75593
56	1.0776	-1.0776	0.75593	-0.54041
57	0.96600	-0.96600	0.54041	-0.34721
58	0.79665	-0.79665	0.34721	-0.18788
59	0.58022	-0.58022	0.18788	-7.18399E-02
60	0.31695	-0.31695	7.18399E-02	-8.45062E-03
61	8.44977E-02	-8.44977E-02	8.45062E-03	-6.32142E-12

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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	136.40	-1.29330E-03	-1.29330E-03	0.0000	0.0000	0.0000	0.0000	BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.9841E+05 RIMNOR=0.8258E+05
RENORM= 583.8 REMNOR=0.5042E-21 RATIO =0.7702E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.8 RRMAX = 80.53
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.9841E+05 RDR =0.8258E+05
RATIOT=0.7702E-01 RATIO= 0.000
MAX UN= 8.783 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.1397E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.9841E+05 RIMNOR=0.8258E+05
RENORM=0.9027 REMNOR=0.6363E-20 RATIO =0.3029E-02 TOLER =0.1000E-03 NOT CONVERGED

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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RFMAX = 131.8 RMMAX = 80.53
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.9841E+05 RDR =0.8258E+05
RATIOT=0.3029E-02 RATIO= 0.000
MAX UN=0.5307 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
MIN UN=-.6654E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.9841E+05 RIMNOR=0.8258E+05
RENORM=0.1488E-17 REMNOR=0.2666E-20 RATIO =0.3888E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 131.8 RMMAX = 80.53
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.9841E+05 RDR =0.8258E+05
RATIOT=0.3888E-11 RATIO= 0.000
MAX UN=0.7780E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
MIN UN=-.7139E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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New Project

SOLUTION REACHED USING 3 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	9.1653711E-04	-1.0865607E-04	
2	8.9480872E-04	-1.0861363E-04	
3	8.7310263E-04	-1.0840666E-04	
4	8.5146810E-04	-1.0786905E-04	
5	8.2998895E-04	-1.0682219E-04	
6	8.0878581E-04	-1.0507662E-04	
7	7.8801820E-04	-1.0243267E-04	
8	7.6788661E-04	-9.8680656E-05	
9	7.4863444E-04	-9.3601143E-05	
10	7.3054983E-04	-8.6966453E-05	
11	7.1396726E-04	-7.8540628E-05	
12	6.9926937E-04	-6.8077951E-05	
13	6.8688889E-04	-5.5323098E-05	
14	6.8171667E-04	-4.8012075E-05	
15	6.7352458E-04	-3.4496197E-05	
16	6.6769264E-04	-2.4363614E-05	
17	6.6357272E-04	-1.7327308E-05	
18	6.6057504E-04	-1.3091058E-05	
19	6.5816999E-04	-1.1349366E-05	
20	6.5588999E-04	-1.1787302E-05	
21	6.5333140E-04	-1.4080253E-05	
22	6.5015649E-04	-1.7894226E-05	
23	6.4609523E-04	-2.2885431E-05	
24	6.4094711E-04	-2.8704623E-05	
25	6.3458137E-04	-3.5003955E-05	
26	6.2693730E-04	-4.1426743E-05	
27	6.1802766E-04	-4.7595481E-05	
28	6.0793924E-04	-5.3162890E-05	
29	5.9681885E-04	-5.7885064E-05	
30	5.8484948E-04	-6.1643341E-05	
31	5.7222538E-04	-6.4443624E-05	
32	5.5913048E-04	-6.6368013E-05	
33	5.4573032E-04	-6.7511197E-05	
34	5.3217196E-04	-6.7965070E-05	
35	5.1858431E-04	-6.7818743E-05	
36	5.0507872E-04	-6.7158542E-05	
37	4.9174955E-04	-6.6068445E-05	
38	4.7867462E-04	-6.4630114E-05	
39	4.6591552E-04	-6.2922496E-05	
40	4.5351849E-04	-6.1021927E-05	
41	4.4151470E-04	-5.9002189E-05	
42	4.2992165E-04	-5.6921875E-05	
43	4.1874723E-04	-5.4823174E-05	
44	4.0799116E-04	-5.2743659E-05	
45	3.9764627E-04	-5.0716467E-05	
46	3.8769919E-04	-4.8770082E-05	
47	3.7813126E-04	-4.6928495E-05	
48	3.6891953E-04	-4.5211376E-05	
49	3.6003742E-04	-4.3634197E-05	
50	3.5145576E-04	-4.2208435E-05	
51	3.4314345E-04	-4.0941672E-05	
52	3.3506842E-04	-3.9838025E-05	
53	3.2719752E-04	-3.8898147E-05	
54	3.1949843E-04	-3.8119199E-05	
55	3.1193954E-04	-3.7494810E-05	
56	3.0449086E-04	-3.7015158E-05	
57	2.9712471E-04	-3.6667011E-05	
58	2.8981640E-04	-3.6433749E-05	
59	2.8254487E-04	-3.6295609E-05	
60	2.7529334E-04	-3.6229674E-05	
61	2.6804994E-04	-3.6209619E-05	
62	2.6442868E-04	-3.6208588E-05	



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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 1

O _ L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 C U R R E N T T I M E I S 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	1.788	-9.1654E-04	10.00	17.88	10.00	21.96	UL-RL	1.5402E+04	0.000	0.000	1.000	1.000
17.88	0.000	0.000	Stratol_2_8_L_0									
2 D	3.354	-8.9481E-04	9.159	16.77	9.159	21.11	UL-RL	1.5402E+04	-0.2000	0.000	1.000	1.000
16.77	0.000	0.000	Stratol_2_8_L_0									
3 D	3.644	-8.7310E-04	13.94	18.22	13.94	22.83	UL-RL	1.5402E+04	-0.4000	0.000	1.000	1.000
18.22	0.000	0.000	Stratol_2_8_L_0									
4 D	3.880	-8.5147E-04	18.14	19.40	18.14	24.28	UL-RL	1.5402E+04	-0.6000	0.000	1.000	1.000
19.40	0.000	0.000	Stratol_2_8_L_0									
5 D	4.100	-8.2999E-04	22.16	20.50	22.16	25.64	UL-RL	1.5402E+04	-0.8000	0.000	1.000	1.000
20.50	0.000	0.000	Stratol_2_8_L_0									
6 D	4.312	-8.0879E-04	26.09	21.56	26.09	26.97	UL-RL	1.5402E+04	-1.000	0.000	1.000	1.000
21.56	0.000	0.000	Stratol_2_8_L_0									
7 D	4.520	-7.8802E-04	29.98	22.60	29.98	28.27	UL-RL	1.5402E+04	-1.200	0.000	1.000	1.000
22.60	0.000	0.000	Stratol_2_8_L_0									
8 D	4.724	-7.6789E-04	33.85	23.62	33.85	29.56	UL-RL	1.5402E+04	-1.400	0.000	1.000	1.000
23.62	0.000	0.000	Stratol_2_8_L_0									
9 D	4.866	-7.4863E-04	37.03	24.33	37.03	30.52	UL-RL	1.5402E+04	-1.600	0.000	1.000	1.000
24.33	0.000	0.000	Stratol_2_8_L_0									
10 D	5.073	-7.3055E-04	40.95	25.37	40.95	31.81	UL-RL	1.5402E+04	-1.800	0.000	1.000	1.000
25.37	0.000	0.000	Stratol_2_8_L_0									
11 D	5.277	-7.1397E-04	44.84	26.39	44.84	33.08	UL-RL	1.5402E+04	-2.000	0.000	1.000	1.000
26.39	0.000	0.000	Stratol_2_8_L_0									
12 D	5.478	-6.9927E-04	48.72	27.39	48.72	34.33	UL-RL	1.5402E+04	-2.200	0.000	1.000	1.000
27.39	0.000	0.000	Stratol_2_8_L_0									
13 D	4.257	-6.8689E-04	52.58	28.38	52.58	35.55	UL-RL	1.5402E+04	-2.400	0.000	1.000	1.000
28.38	0.000	0.000	Stratol_2_8_L_0									
14 D	4.315	-6.8172E-04	54.28	28.77	54.28	36.05	UL-RL	1.5402E+04	-2.500	0.000	1.000	1.000
28.77	0.000	0.000	Stratol_2_8_L_0									
15 D	5.948	-6.7352E-04	58.15	29.74	58.15	37.24	UL-RL	1.5402E+04	-2.700	0.000	1.000	1.000
29.74	0.000	0.000	Stratol_2_8_L_0									
16 D	6.142	-6.6769E-04	62.01	30.71	62.01	38.40	UL-RL	1.5402E+04	-2.900	0.000	1.000	1.000
30.71	0.000	0.000	Stratol_2_8_L_0									
17 D	6.336	-6.6357E-04	65.86	31.68	65.86	39.56	UL-RL	1.5402E+04	-3.100	0.000	1.000	1.000
31.68	0.000	0.000	Stratol_2_8_L_0									
18 D	6.532	-6.6058E-04	69.70	32.66	69.70	40.70	UL-RL	1.5402E+04	-3.300	0.000	1.000	1.000
32.66	0.000	0.000	Stratol_2_8_L_0									
19 D	6.733	-6.5817E-04	73.54	33.67	73.54	41.85	UL-RL	1.5402E+04	-3.500	0.000	1.000	1.000
33.67	0.000	0.000	Stratol_2_8_L_0									
20 D	6.940	-6.5589E-04	77.37	34.70	77.37	43.00	UL-RL	1.5402E+04	-3.700	0.000	1.000	1.000
34.70	0.000	0.000	Stratol_2_8_L_0									
21 D	7.128	-6.5333E-04	80.92	35.64	80.92	44.02	UL-RL	1.5402E+04	-3.900	0.000	1.000	1.000
35.64	0.000	0.000	Stratol_2_8_L_0									
22 D	7.353	-6.5016E-04	84.76	36.76	84.76	45.20	UL-RL	1.5402E+04	-4.100	0.000	1.000	1.000
36.76	0.000	0.000	Stratol_2_8_L_0									
23 D	7.358	-6.4610E-04	88.60	36.79	88.60	46.96	UL-RL	1.5402E+04	-4.300	0.000	1.000	1.000
36.79	0.000	0.000	Stratol_2_8_L_0									
24 D	7.294	-6.4095E-04	92.43	36.47	92.43	48.99	UL-RL	1.5402E+04	-4.500	0.000	1.000	1.000
36.47	0.000	0.000	Stratol_2_8_L_0									
25 D	7.731	-6.3458E-04	96.27	38.65	96.27	51.02	UL-RL	1.5402E+04	-4.700	0.000	1.000	1.000
38.65	0.000	0.000	Stratol_2_8_L_0									
26 D	8.170	-6.2694E-04	100.1	40.85	100.1	53.05	UL-RL	1.5402E+04	-4.900	0.000	1.000	1.000
40.85	0.000	0.000	Stratol_2_8_L_0									
27 D	8.611	-6.1803E-04	103.9	43.06	103.9	55.08	UL-RL	1.5402E+04	-5.100	0.000	1.000	1.000
43.06	0.000	0.000	Stratol_2_8_L_0									
28 D	9.032	-6.0794E-04	107.5	45.16	107.5	56.99	UL-RL	1.5402E+04	-5.300	0.000	1.000	1.000
45.16	0.000	0.000	Stratol_2_8_L_0									
29 D	9.479	-5.9682E-04	111.4	47.40	111.4	59.02	UL-RL	1.5402E+04	-5.500	0.000	1.000	1.000
47.40	0.000	0.000	Stratol_2_8_L_0									
30 D	9.928	-5.8485E-04	115.2	49.64	115.2	61.05	UL-RL	1.5402E+04	-5.700	0.000	1.000	1.000

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49.64	0.000	0.000	Strato1_2_8_L_0		
31 D	10.38	-5.7223E-04	119.0 51.89	119.0	63.08
51.89	0.000	0.000	Strato1_2_8_L_0		
32 D	10.83	-5.5913E-04	122.8 54.14	122.8	65.11
54.14	0.000	0.000	Strato1_2_8_L_0		
33 D	11.28	-5.4573E-04	126.7 56.39	126.7	67.14
56.39	0.000	0.000	Strato1_2_8_L_0		
34 D	11.73	-5.3217E-04	130.5 58.65	130.5	69.16
58.65	0.000	0.000	Strato1_2_8_L_0		
35 D	12.18	-5.1858E-04	134.3 60.90	134.3	71.19
60.90	0.000	0.000	Strato1_2_8_L_0		
36 D	12.61	-5.0508E-04	138.0 63.07	138.0	73.12
63.07	0.000	0.000	Strato1_2_8_L_0		
37 D	13.06	-4.9175E-04	141.8 65.32	141.8	75.15
65.32	0.000	0.000	Strato1_2_8_L_0		
38 D	13.51	-4.7867E-04	145.6 67.56	145.6	77.18
67.56	0.000	0.000	Strato1_2_8_L_0		
39 D	13.96	-4.6592E-04	149.4 69.80	149.4	79.20
69.80	0.000	0.000	Strato1_2_8_L_0		
40 D	14.41	-4.5352E-04	153.3 72.03	153.3	81.22
72.03	0.000	0.000	Strato1_2_8_L_0		
41 D	10.63	-4.4151E-04	157.2 53.14	157.2	78.59
53.14	0.000	0.000	Strato2_3095_82743_L_0		
42 D	11.14	-4.2992E-04	161.2 55.69	161.2	80.60
55.69	0.000	0.000	Strato2_3095_82743_L_0		
43 D	11.63	-4.1875E-04	165.1 58.14	165.1	82.54
58.14	0.000	0.000	Strato2_3095_82743_L_0		
44 D	12.13	-4.0799E-04	169.1 60.65	169.1	84.55
60.65	0.000	0.000	Strato2_3095_82743_L_0		
45 D	12.63	-3.9765E-04	173.1 63.13	173.1	86.55
63.13	0.000	0.000	Strato2_3095_82743_L_0		
46 D	13.12	-3.8770E-04	177.1 65.59	177.1	88.56
65.59	0.000	0.000	Strato2_3095_82743_L_0		
47 D	13.61	-3.7813E-04	181.1 68.03	181.1	90.57
68.03	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.09	-3.6892E-04	185.2 70.44	185.2	92.58
70.44	0.000	0.000	Strato2_3095_82743_L_0		
49 D	14.57	-3.6004E-04	189.2 72.84	189.2	94.59
72.84	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.04	-3.5146E-04	193.2 75.22	193.2	96.59
75.22	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.51	-3.4314E-04	197.1 77.53	197.1	98.54
77.53	0.000	0.000	Strato2_3095_82743_L_0		
52 D	15.98	-3.3507E-04	201.1 79.88	201.1	100.6
79.88	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.44	-3.2720E-04	205.1 82.22	205.1	102.6
82.22	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.91	-3.1950E-04	209.1 84.55	209.1	104.6
84.55	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.37	-3.1194E-04	213.1 86.87	213.1	106.6
86.87	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.84	-3.0449E-04	217.2 89.18	217.2	108.6
89.18	0.000	0.000	Strato2_3095_82743_L_0		
57 D	18.30	-2.9712E-04	221.2 91.49	221.2	110.6
91.49	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.75	-2.8982E-04	225.1 93.75	225.1	112.5
93.75	0.000	0.000	Strato2_3095_82743_L_0		
59 D	19.21	-2.8254E-04	229.1 96.05	229.1	114.6
96.05	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.67	-2.7529E-04	233.1 98.36	233.1	116.6
98.36	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.10	-2.6805E-04	237.1 100.7	237.1	118.6
100.7	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.089	-2.6443E-04	239.1 101.8	239.1	119.5
101.8	0.000	0.000	Strato2_3095_82743_L_0		

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|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SLERara_3454                                                                                   |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT



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40 D	15.93	4.5352E-04	52.06	79.67	146.3
79.67	0.000	0.000	Strato1_2_8_L_0		
41 D	11.57	4.4151E-04	55.96	57.84	150.2
57.84	0.000	0.000	Strato2_3095_82743_L_0		
42 D	11.97	4.2992E-04	59.96	59.87	154.2
59.87	0.000	0.000	Strato2_3095_82743_L_0		
43 D	12.38	4.1875E-04	63.96	61.88	158.2
61.88	0.000	0.000	Strato2_3095_82743_L_0		
44 D	12.78	4.0799E-04	67.96	63.89	162.2
63.89	0.000	0.000	Strato2_3095_82743_L_0		
45 D	13.18	3.9765E-04	71.96	65.89	166.2
65.89	0.000	0.000	Strato2_3095_82743_L_0		
46 D	13.58	3.8770E-04	75.96	67.88	170.2
67.88	0.000	0.000	Strato2_3095_82743_L_0		
47 D	13.97	3.7813E-04	79.96	69.87	174.2
69.87	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.37	3.6892E-04	83.96	71.86	178.2
71.86	0.000	0.000	Strato2_3095_82743_L_0		
49 D	14.77	3.6004E-04	87.96	73.84	182.2
73.84	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.16	3.5146E-04	91.96	75.82	186.2
75.82	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.56	3.4314E-04	95.96	77.79	190.2
77.79	0.000	0.000	Strato2_3095_82743_L_0		
52 D	15.95	3.3507E-04	99.96	79.76	194.2
79.76	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.35	3.2720E-04	104.0	81.73	198.2
81.73	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.74	3.1950E-04	108.0	83.69	202.2
83.69	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.13	3.1194E-04	112.0	85.65	206.2
85.65	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.52	3.0449E-04	116.0	87.61	210.2
87.61	0.000	0.000	Strato2_3095_82743_L_0		
57 D	17.91	2.9712E-04	120.0	89.56	214.2
89.56	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.30	2.8982E-04	124.0	91.51	218.2
91.51	0.000	0.000	Strato2_3095_82743_L_0		
59 D	18.69	2.8254E-04	128.0	93.46	222.2
93.46	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.08	2.7529E-04	132.0	95.40	226.2
95.40	0.000	0.000	Strato2_3095_82743_L_0		
61 D	14.60	2.6805E-04	136.0	97.34	230.2
97.34	0.000	0.000	Strato2_3095_82743_L_0		
62 D	4.916	2.6443E-04	138.0	98.31	232.2
98.31	0.000	0.000	Strato2_3095_82743_L_0		

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|                                                                                               |
|                               NewProject.BaseDesignSection_28.SLERara_3454                       |
|                               Exe Time :24 July 2019    11:09:27                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
 CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.7879	-1.7879	-8.52374E-12	0.35759
2	5.1420	-5.1420	-0.35759	1.3860
3	8.7855	-8.7855	-1.3860	3.1431
4	12.666	-12.666	-3.1431	5.6762
5	16.765	-16.765	-5.6762	9.0293
6	21.077	-21.077	-9.0293	13.245
7	25.597	-25.597	-13.245	18.364
8	30.321	-30.321	-18.364	24.428
9	35.187	-35.187	-24.428	31.466
10	40.260	-40.260	-31.466	39.518
11	45.537	-45.537	-39.518	48.625
12	51.015	-51.015	-48.625	58.828
13	55.272	-55.272	-58.828	64.355
14	-74.231	74.231	-64.355	49.509
15	-68.282	68.282	-49.509	35.853
16	-62.141	62.141	-35.853	23.425

GENERAL CONTRACTOR



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17	-55.805	55.805	-23.425	12.264
18	-49.272	49.272	-12.264	2.4092
19	-42.539	42.539	-2.4092	-6.0986
20	-35.599	35.599	6.0986	-13.218
21	-28.470	28.470	13.218	-18.912
22	-21.118	21.118	18.912	-23.136
23	-13.759	13.759	23.136	-25.888
24	-6.4655	6.4655	25.888	-27.181
25	1.2652	-1.2652	27.181	-26.928
26	9.4348	-9.4348	26.928	-25.041
27	15.896	-15.896	25.041	-21.862
28	19.707	-19.707	21.862	-17.920
29	20.894	-20.894	17.920	-13.741
30	19.459	-19.459	13.741	-9.8496
31	17.436	-17.436	9.8496	-6.3625
32	15.471	-15.471	6.3625	-3.2683
33	13.565	-13.565	3.2683	-0.55536
34	11.717	-11.717	0.55536	1.7881
35	9.9284	-9.9284	-1.7881	3.7738
36	8.1799	-8.1799	-3.7738	5.4098
37	6.4889	-6.4889	-5.4098	6.7075
38	4.8539	-4.8539	-6.7075	7.6783
39	3.2736	-3.2736	-7.6783	8.3330
40	1.7461	-1.7461	-8.3330	8.6823
41	0.80546	-0.80546	-8.6823	8.8434
42	-3.05188E-02	3.05188E-02	-8.8434	8.8373
43	-0.77804	0.77804	-8.8373	8.6816
44	-1.4260	1.4260	-8.6816	8.3964
45	-1.9777	1.9777	-8.3964	8.0009
46	-2.4366	2.4366	-8.0009	7.5136
47	-2.8060	2.8060	-7.5136	6.9524
48	-3.0891	3.0891	-6.9524	6.3346
49	-3.2890	3.2890	-6.3346	5.6768
50	-3.4084	3.4084	-5.6768	4.9951
51	-3.4614	3.4614	-4.9951	4.3028
52	-3.4382	3.4382	-4.3028	3.6152
53	-3.3406	3.3406	-3.6152	2.9471
54	-3.1698	3.1698	-2.9471	2.3131
55	-2.9269	2.9269	-2.3131	1.7277
56	-2.6125	2.6125	-1.7277	1.2052
57	-2.2268	2.2268	-1.2052	0.75988
58	-1.7800	1.7800	-0.75988	0.40389
59	-1.2615	1.2615	-0.40389	0.15158
60	-0.67103	0.67103	-0.15158	1.73726E-02
61	-0.17371	0.17371	-1.73726E-02	3.56934E-12

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:09:27
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	138.54	-1.29330E-03	-8.36719E-04	0.0000	4682.3	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:09:27
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FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP NO. OF ITERATIONS

GENERAL CONTRACTOR



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1          CONVERGENCE :YES          2
2          CONVERGENCE :YES          4
3          CONVERGENCE :YES          5
4          CONVERGENCE :YES          4
5          CONVERGENCE :YES          3
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```
END OF PROCESS FOR PROBLEM
New Project
NONLINEAR SOLUTION CPU TIME .... 0.05 [sec]
DATABASE CREATION CPU TIME..... 0.21 [sec]
```

2.5. Design Assumption : A1+M1+R1 - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A1+M1+R1

* Time:mercoledì 24 luglio 2019 11:09:27

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -12 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -12 0 1 0

SOIL 0_R LeftWall_32 -12 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 0 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 40 0 11.54 30

* 7: Defining Steps

STEP Stage0_31

CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KA=0.304 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KP=4.041 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KA=0.235 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KP=5.879 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ADD WallElement_33
ENDSTEP

STEP Stage1_759103
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage3_775251
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage4_775610
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ADD Tieback_778405
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -4.96
WATER -26 0 -12 0 0
ENDSTEP

```

2.6. Design Assumption : A1+M1+R1 - File di Paratie - File di output (.out)

```

+-----+
|          PARATIEPLUS (TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484   |
|          Exe Time :24 July 2019   11:09:27   |
+-----+

*****
*          *
* PARATIE PLUS Non-Linear Spring Engine          *
*          *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM   *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES   *
*          *
*          Written by Ce.A.S. s.r.l. (ITALY)         *
*          with the scientific supervision of        *
*          Roberto Nova - full professor SOIL MECHANICS *

```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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```

*          at Politecnico di Milano (ITALY)          *
*          *                                         *
*****
*          *                                         *
* RELEASE 2017.1      *Build date:Jul 11, 2017*      *
*          *                                         *
*          *                                         *
* Ce.A.S.   S.R.L  CENTRO DI ANALISI STRUTTURALE    *
*          VIALE  GIUSTINIANO 10                    *
*          20129  M I L A N O (ITALIA)              *
* TEL.      +39 02 2020221  (+39 035 23 67 19)      *
* FAX       +39 02 29512533 (+39 035 42285 49)      *
* email    bruno.becci@ceas.it                      *
* Web Page www.ceas.it                             *
*****

```

```

JOB : NewProject.BaseDesignSection_28.A1M1R1_3484
STARTING
ACCEPTED <FILE,GENW                                     >
ACCEPTED <FILE,PLOTTER,BINARY                          >
ACCEPTED <SOLVE TOTAL STRESS                          >
ACCEPTED <PARAM ITEMAX 100                             >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001                >

```

```

*****
*          *                                         *
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
*          BY THE PROGRAM.                          *
*****

```

PRELIMINARY OPERATIONS CPU TIME 0.01 [sec]

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          *                                         * |
|          NewProject.BaseDesignSection_28.A1M1R1_3484 |
|          Exe Time :24 July 2019      11:09:27      |
+-----+

```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```

NO. OF NODAL POINTS (NUMNP) ..... 62
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 124
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 88
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

```

```

IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F

```

RELEVANT ITEMS UNITS

```

STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES      kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS   kN/m
Y-REACTIONS            kN/m
X-MOMENT REACTIONS     kN*m/m

```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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ETC.

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1MIRI_3484                       |
|                               Exe Time :24 July 2019    11:09:27                               |
|-----+-----

```

P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 88

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Strato1_2_8_L_0 0 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback 778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0
29 : STRIP LeftWall_32 2 5 0 40 0 11.54 30
30 : STEP Stage0_31
31 : CHANGE Strato1_2_8_L_0 U-FRICT=29 LeftWall_32
32 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 U-KA=0.304 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KP=4.041 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 D-KA=0.304 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KP=4.041 LeftWall_32
37 : CHANGE Strato2_3095_82743_L_0 U-FRICT=35 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 U-KA=0.235 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KP=5.879 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 D-KA=0.235 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KP=5.879 LeftWall_32
43 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
45 : CHANGE Strato2_3095_82743_L_0 U-COHE=20 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
47 : SETWALL LeftWall_32
48 : GEOM 0 0
49 : WATER -26 0 -12 0 0
50 : ADD WallElement_33
51 : ENDSTEP
52 : STEP Stage1_759103
53 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
54 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
55 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
56 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
57 : SETWALL LeftWall_32
58 : GEOM 0 0
59 : WATER -26 0 -12 0 0
60 : ENDSTEP
61 : STEP Stage3_775251
62 : CHANGE Strato1_2_8_L_0 D-FRICT=29 LeftWall_32
63 : CHANGE Strato2_3095_82743_L_0 D-FRICT=35 LeftWall_32
64 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
65 : CHANGE Strato2_3095_82743_L_0 D-COHE=20 LeftWall_32
66 : SETWALL LeftWall_32
67 : GEOM 0 -3
68 : WATER -26 0 -12 0 0
69 : ENDSTEP
70 : STEP Stage4_775610

```


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```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:09:27
|
-----

```

```

ELEMENT GROUP NO. 1

0_L      :
 5 62  0  1  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0  0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active

```

```

material set no. 1

prop( 1) angle      0.00000
prop( 2) layer as foreseen 1.00000

```

```

material set no. 2

prop( 1) angle      0.00000
prop( 2) layer as foreseen 2.00000

```

```

element data

el  n  mat  area  ....  ....  ....  flag
-----
 1  1  1  0.1000  0.000  0.000  0.000  1.000
 2  2  1  0.2000  0.000  0.000  0.000  1.000
 3  3  1  0.2000  0.000  0.000  0.000  1.000
 4  4  1  0.2000  0.000  0.000  0.000  1.000
 5  5  1  0.2000  0.000  0.000  0.000  1.000
 6  6  1  0.2000  0.000  0.000  0.000  1.000
 7  7  1  0.2000  0.000  0.000  0.000  1.000
 8  8  1  0.2000  0.000  0.000  0.000  1.000
 9  9  1  0.2000  0.000  0.000  0.000  1.000
10 10  1  0.2000  0.000  0.000  0.000  1.000
11 11  1  0.2000  0.000  0.000  0.000  1.000
12 12  1  0.2000  0.000  0.000  0.000  1.000
13 13  1  0.1500  0.000  0.000  0.000  1.000
14 14  1  0.1500  0.000  0.000  0.000  1.000
15 15  1  0.2000  0.000  0.000  0.000  1.000
16 16  1  0.2000  0.000  0.000  0.000  1.000
17 17  1  0.2000  0.000  0.000  0.000  1.000
18 18  1  0.2000  0.000  0.000  0.000  1.000
19 19  1  0.2000  0.000  0.000  0.000  1.000
20 20  1  0.2000  0.000  0.000  0.000  1.000
21 21  1  0.2000  0.000  0.000  0.000  1.000
22 22  1  0.2000  0.000  0.000  0.000  1.000
23 23  1  0.2000  0.000  0.000  0.000  1.000
24 24  1  0.2000  0.000  0.000  0.000  1.000
25 25  1  0.2000  0.000  0.000  0.000  1.000
26 26  1  0.2000  0.000  0.000  0.000  1.000
27 27  1  0.2000  0.000  0.000  0.000  1.000
28 28  1  0.2000  0.000  0.000  0.000  1.000
29 29  1  0.2000  0.000  0.000  0.000  1.000
30 30  1  0.2000  0.000  0.000  0.000  1.000
31 31  1  0.2000  0.000  0.000  0.000  1.000
32 32  1  0.2000  0.000  0.000  0.000  1.000
33 33  1  0.2000  0.000  0.000  0.000  1.000
34 34  1  0.2000  0.000  0.000  0.000  1.000
35 35  1  0.2000  0.000  0.000  0.000  1.000
36 36  1  0.2000  0.000  0.000  0.000  1.000
37 37  1  0.2000  0.000  0.000  0.000  1.000
38 38  1  0.2000  0.000  0.000  0.000  1.000
39 39  1  0.2000  0.000  0.000  0.000  1.000
40 40  1  0.2000  0.000  0.000  0.000  1.000
41 41  2  0.2000  0.000  0.000  0.000  1.000

```




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42	42	2	0.2000	0.000	0.000	0.000	1.000
43	43	2	0.2000	0.000	0.000	0.000	1.000
44	44	2	0.2000	0.000	0.000	0.000	1.000
45	45	2	0.2000	0.000	0.000	0.000	1.000
46	46	2	0.2000	0.000	0.000	0.000	1.000
47	47	2	0.2000	0.000	0.000	0.000	1.000
48	48	2	0.2000	0.000	0.000	0.000	1.000
49	49	2	0.2000	0.000	0.000	0.000	1.000
50	50	2	0.2000	0.000	0.000	0.000	1.000
51	51	2	0.2000	0.000	0.000	0.000	1.000
52	52	2	0.2000	0.000	0.000	0.000	1.000
53	53	2	0.2000	0.000	0.000	0.000	1.000
54	54	2	0.2000	0.000	0.000	0.000	1.000
55	55	2	0.2000	0.000	0.000	0.000	1.000
56	56	2	0.2000	0.000	0.000	0.000	1.000
57	57	2	0.2000	0.000	0.000	0.000	1.000
58	58	2	0.2000	0.000	0.000	0.000	1.000
59	59	2	0.2000	0.000	0.000	0.000	1.000
60	60	2	0.2000	0.000	0.000	0.000	1.000
61	61	2	0.1500	0.000	0.000	0.000	1.000
62	62	2	0.5000E-01	0.000	0.000	0.000	1.000

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:09:27
|
-----

```

```

ELEMENT GROUP NO.  2

O_R      :
  5 62  0  1  0  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0  0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active

```

```

material set no.  1

prop( 1) angle      180.000
prop( 2) layer as foreseen  1.00000

```

```

material set no.  2

prop( 1) angle      180.000
prop( 2) layer as foreseen  2.00000

```

```

element data

el  n  mat  area  ....  ....  ....  flag
-----
  1  1  1  0.1000  0.000  0.000  0.000  2.000
  2  2  1  0.2000  0.000  0.000  0.000  2.000
  3  3  1  0.2000  0.000  0.000  0.000  2.000
  4  4  1  0.2000  0.000  0.000  0.000  2.000
  5  5  1  0.2000  0.000  0.000  0.000  2.000
  6  6  1  0.2000  0.000  0.000  0.000  2.000
  7  7  1  0.2000  0.000  0.000  0.000  2.000
  8  8  1  0.2000  0.000  0.000  0.000  2.000
  9  9  1  0.2000  0.000  0.000  0.000  2.000
 10 10  1  0.2000  0.000  0.000  0.000  2.000
 11 11  1  0.2000  0.000  0.000  0.000  2.000
 12 12  1  0.2000  0.000  0.000  0.000  2.000
 13 13  1  0.1500  0.000  0.000  0.000  2.000
 14 14  1  0.1500  0.000  0.000  0.000  2.000
 15 15  1  0.2000  0.000  0.000  0.000  2.000
 16 16  1  0.2000  0.000  0.000  0.000  2.000
 17 17  1  0.2000  0.000  0.000  0.000  2.000
 18 18  1  0.2000  0.000  0.000  0.000  2.000
 19 19  1  0.2000  0.000  0.000  0.000  2.000

```

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20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.2000	0.000	0.000	0.000	2.000
42	42	2	0.2000	0.000	0.000	0.000	2.000
43	43	2	0.2000	0.000	0.000	0.000	2.000
44	44	2	0.2000	0.000	0.000	0.000	2.000
45	45	2	0.2000	0.000	0.000	0.000	2.000
46	46	2	0.2000	0.000	0.000	0.000	2.000
47	47	2	0.2000	0.000	0.000	0.000	2.000
48	48	2	0.2000	0.000	0.000	0.000	2.000
49	49	2	0.2000	0.000	0.000	0.000	2.000
50	50	2	0.2000	0.000	0.000	0.000	2.000
51	51	2	0.2000	0.000	0.000	0.000	2.000
52	52	2	0.2000	0.000	0.000	0.000	2.000
53	53	2	0.2000	0.000	0.000	0.000	2.000
54	54	2	0.2000	0.000	0.000	0.000	2.000
55	55	2	0.2000	0.000	0.000	0.000	2.000
56	56	2	0.2000	0.000	0.000	0.000	2.000
57	57	2	0.2000	0.000	0.000	0.000	2.000
58	58	2	0.2000	0.000	0.000	0.000	2.000
59	59	2	0.2000	0.000	0.000	0.000	2.000
60	60	2	0.2000	0.000	0.000	0.000	2.000
61	61	2	0.1500	0.000	0.000	0.000	2.000
62	62	2	0.5000E-01	0.000	0.000	0.000	2.000

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                               |
|                               Exe Time :24 July 2019           11:09:27                               |
+-----+

```

```

ELEMENT GROUP NO.  3

WallElement_33
  2  61  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  1  0
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

```

material set no.  1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....0.252200E-43

```

```

no. of step variable items:  1
step inertia multiplier
-----
1  1.000
2  1.000
3  1.000

```

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ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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4 1.000
5 1.000

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000
29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000
37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000
39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                     |
|          NewProject.BaseDesignSection_28.A1M1R1_3484          |
|          Exe Time :24 July 2019          11:09:27          |
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ELEMENT GROUP NO. 4

Tieback_778405 :

6 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 2 0

.....

.....2D POST-TENSION ANCHOR.....



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.....
 element group behaviour throughout stage analysis

stage	status
1	inactive
2	inactive
3	inactive
4	active
5	active

material set no. 1
 prop(1) angle 15.0000
 prop(2) young modulus 0.200100E+09
 prop(3) modification time 0.00000
 prop(4) new young modulus 0.00000

step	-ve lim	+ve lim
1	0.000	0.000
2	0.000	0.000
3	0.000	0.000
4	0.000	0.000
5	0.000	0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	14	1	0.2340E-04	136.4	0.000	0.000

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|                                                                                               |
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NO. OF NODAL LOADS (NLOAD) 0
 NO. OF LOAD CURVES (NLCUR) 10
 MAXIMUM POINTS/LCURVE (NPTM) 5

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                       |
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L O A D D A T A

LOAD FUNCTION NUMBER = 1
 NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
 NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
6.00000	0.0000E+00



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LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
6.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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4.00000 0.1000E+01
6.00000 0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

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L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
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NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
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LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 14.000	(BOTH WALLS)
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 9<U-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.235000 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.500000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.500000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.235000 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.0000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.0000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.0000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.0000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.23500 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.8790 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.23500 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.8790 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO. 1<NAME >= 14.0000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.0000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.30400 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.0410 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.0000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.30400 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.0410 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO. 1<NAME >= 15.0000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.0000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)



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ITEM NO.	8<U-COHE >=	20.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT >=	35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA >=	0.23500	WALL NO.	1
ITEM NO.	11<U-KP >=	5.8790	WALL NO.	1
ITEM NO.	12<K0-NC >=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP >=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR >=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL >=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC >=	50000.	(BOTH WALLS)	
ITEM NO.	18<EUR >=	0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM >=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL >=	0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE >=	20.000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT >=	35.000	(BOTH WALLS)	
ITEM NO.	60<D-KA >=	0.23500	WALL NO.	1
ITEM NO.	61<D-KP >=	5.8790	WALL NO.	1
ITEM NO.	77<D-PERM >=	0.10000E-03	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 10 VALUES

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
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|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:09:27  |
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PHASE DESCRIPTORS

STEP NO.	1		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 1

STEP NO.	2		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000

GENERAL CONTRACTOR



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ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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Uphill reduction factor for effect      0.000      0.000
Uphill reduction factor for pore p      0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]        0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]        0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]       0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]         0.000      0.000
UPHILL DELTA/PHI RATIO                   0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]       0.000      0.000
DOWNHILL DELTA/PHI RATIO                 0.000      0.000
DYN.WATER BEHAVIOUR                     0.000      0.000
Excess pore pressure RATIO Ru           0.000      0.000
SEISMIC PRESSURE LOWER VALUE            0.000      0.000
SEISMIC PRESSURE UPPER VALUE            0.000      0.000
SEISMIC PRESSURE LOWER LEVEL            0.000      0.000
SEISMIC PRESSURE UPPER LEVEL            0.000      0.000

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=====end of step 4

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STEP NO.      5
                LEFT WALL      RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000      0.000
Z-EXCAVATION  -4.960      0.000
Z-WATER_TABLE -26.00      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE  0.000      0.000
QS_ON_THE_EXCAVATION_SIDE  0.000      0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES        -12.00      -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)        0.000      0.000
PORE_UPDATE_FLAG                          0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs)           0.000      0.000
lateral thrusts reduction elevatio        0.000      0.000
Downhill reduction factor for effe        0.000      0.000
Downhill reduction factor for pore        0.000      0.000
Uphill reduction factor for effect        0.000      0.000
Uphill reduction factor for pore p        0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]          0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]          0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]         0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]           0.000      0.000
UPHILL DELTA/PHI RATIO                    0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]         0.000      0.000
DOWNHILL DELTA/PHI RATIO                  0.000      0.000
DYN.WATER BEHAVIOUR                      0.000      0.000
Excess pore pressure RATIO Ru             0.000      0.000
SEISMIC PRESSURE LOWER VALUE              0.000      0.000
SEISMIC PRESSURE UPPER VALUE              0.000      0.000
SEISMIC PRESSURE LOWER LEVEL              0.000      0.000
SEISMIC PRESSURE UPPER LEVEL              0.000      0.000

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=====end of step 5

LEFT-HAND WALL

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LOWER LEVEL      -12.00000
UPPER LEVEL      0.00000

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RIGHT-HAND WALL

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LOWER LEVEL      -12.00000
UPPER LEVEL      0.00000

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:09:27  |
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 1

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 40.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F 11.540000000000000
BETA 30.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 3534

NO. OF D.P.W FOR THIS AREA 7376
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2144E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 22.62 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2144E+05 RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2144E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 22.62 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2144E+05 RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2144E+05 RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 22.62 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2144E+05 RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 124 NODE 62 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| |
| NewProject.BaseDesignSection_28.A1M1r1_3484 |
Exe Time :24 July 2019 11:09:27

New Project
SOLUTION REACHED USING 2 ITERATIONS ON 100
PRINT OUT FOR TIME STEP 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)
Y-DISPL.F X-ROT. F
(02) (04) (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS



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|                |
|                NewProject.BaseDesignSection_28.A1M1R1_3484  |
|                Exe Time :24 July 2019  11:09:27  |
|                |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	2.1221E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	2.1221E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Strato1_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	2.1221E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Strato1_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	2.1221E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Strato1_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	2.1221E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Strato1_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	2.1221E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	2.1221E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Strato1_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	2.1221E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Strato1_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	2.1221E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Strato1_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	2.1221E+04	-1.800	0.000	1.000	1.000
18.13	0.000	0.000	Strato1_2_8_L_0									
11 D	4.028	0.000	38.00	20.14	38.00	20.14	V-C	2.1221E+04	-2.000	0.000	1.000	1.000
20.14	0.000	0.000	Strato1_2_8_L_0									
12 D	4.431	0.000	41.80	22.15	41.80	22.15	V-C	2.1221E+04	-2.200	0.000	1.000	1.000
22.15	0.000	0.000	Strato1_2_8_L_0									
13 D	3.625	0.000	45.60	24.17	45.60	24.17	V-C	2.1221E+04	-2.400	0.000	1.000	1.000
24.17	0.000	0.000	Strato1_2_8_L_0									
14 D	3.776	0.000	47.50	25.18	47.50	25.18	V-C	2.1221E+04	-2.500	0.000	1.000	1.000
25.18	0.000	0.000	Strato1_2_8_L_0									
15 D	5.438	0.000	51.30	27.19	51.30	27.19	V-C	2.1221E+04	-2.700	0.000	1.000	1.000
27.19	0.000	0.000	Strato1_2_8_L_0									
16 D	5.841	0.000	55.10	29.20	55.10	29.20	V-C	2.1221E+04	-2.900	0.000	1.000	1.000
29.20	0.000	0.000	Strato1_2_8_L_0									
17 D	6.243	0.000	58.90	31.22	58.90	31.22	V-C	2.1221E+04	-3.100	0.000	1.000	1.000
31.22	0.000	0.000	Strato1_2_8_L_0									
18 D	6.646	0.000	62.70	33.23	62.70	33.23	V-C	2.1221E+04	-3.300	0.000	1.000	1.000
33.23	0.000	0.000	Strato1_2_8_L_0									
19 D	7.049	0.000	66.50	35.25	66.50	35.25	V-C	2.1221E+04	-3.500	0.000	1.000	1.000
35.25	0.000	0.000	Strato1_2_8_L_0									
20 D	7.452	0.000	70.30	37.26	70.30	37.26	V-C	2.1221E+04	-3.700	0.000	1.000	1.000
37.26	0.000	0.000	Strato1_2_8_L_0									
21 D	7.855	0.000	74.10	39.27	74.10	39.27	V-C	2.1221E+04	-3.900	0.000	1.000	1.000
39.27	0.000	0.000	Strato1_2_8_L_0									
22 D	8.257	0.000	77.90	41.29	77.90	41.29	V-C	2.1221E+04	-4.100	0.000	1.000	1.000
41.29	0.000	0.000	Strato1_2_8_L_0									
23 D	8.660	0.000	81.70	43.30	81.70	43.30	V-C	2.1221E+04	-4.300	0.000	1.000	1.000
43.30	0.000	0.000	Strato1_2_8_L_0									
24 D	9.063	0.000	85.50	45.32	85.50	45.32	V-C	2.1221E+04	-4.500	0.000	1.000	1.000
45.32	0.000	0.000	Strato1_2_8_L_0									
25 D	9.466	0.000	89.30	47.33	89.30	47.33	V-C	2.1221E+04	-4.700	0.000	1.000	1.000
47.33	0.000	0.000	Strato1_2_8_L_0									
26 D	9.869	0.000	93.10	49.34	93.10	49.34	V-C	2.1221E+04	-4.900	0.000	1.000	1.000
49.34	0.000	0.000	Strato1_2_8_L_0									
27 D	10.27	0.000	96.90	51.36	96.90	51.36	V-C	2.1221E+04	-5.100	0.000	1.000	1.000
51.36	0.000	0.000	Strato1_2_8_L_0									
28 D	10.67	0.000	100.7	53.37	100.7	53.37	V-C	2.1221E+04	-5.300	0.000	1.000	1.000
53.37	0.000	0.000	Strato1_2_8_L_0									
29 D	11.08	0.000	104.5	55.38	104.5	55.38	V-C	2.1221E+04	-5.500	0.000	1.000	1.000
55.38	0.000	0.000	Strato1_2_8_L_0									
30 D	11.48	0.000	108.3	57.40	108.3	57.40	V-C	2.1221E+04	-5.700	0.000	1.000	1.000
57.40	0.000	0.000	Strato1_2_8_L_0									
31 D	11.88	0.000	112.1	59.41	112.1	59.41	V-C	2.1221E+04	-5.900	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 370 di 560
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.02	0.000	150.2 75.10	150.2	75.10
75.10	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.42	0.000	154.2 77.10	154.2	77.10
77.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.82	0.000	158.2 79.10	158.2	79.10
79.10	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.22	0.000	162.2 81.10	162.2	81.10
81.10	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.62	0.000	166.2 83.10	166.2	83.10
83.10	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.02	0.000	170.2 85.10	170.2	85.10
85.10	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.42	0.000	174.2 87.10	174.2	87.10
87.10	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.82	0.000	178.2 89.10	178.2	89.10
89.10	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.22	0.000	182.2 91.10	182.2	91.10
91.10	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.62	0.000	186.2 93.10	186.2	93.10
93.10	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.02	0.000	190.2 95.10	190.2	95.10
95.10	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.42	0.000	194.2 97.10	194.2	97.10
97.10	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.82	0.000	198.2 99.10	198.2	99.10
99.10	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.22	0.000	202.2 101.1	202.2	101.1
101.1	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.62	0.000	206.2 103.1	206.2	103.1
103.1	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.02	0.000	210.2 105.1	210.2	105.1
105.1	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.42	0.000	214.2 107.1	214.2	107.1
107.1	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.82	0.000	218.2 109.1	218.2	109.1
109.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.22	0.000	222.2 111.1	222.2	111.1
111.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.62	0.000	226.2 113.1	226.2	113.1
113.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.26	0.000	230.2 115.1	230.2	115.1
115.1	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.805	0.000	232.2 116.1	232.2	116.1
116.1	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_3484                                                                                       |
|          Exe Time :24 July 2019          11:09:27                                                                                       |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 372 di 560							
41 D	15.02	0.000	150.2	75.10	150.2	75.10	V-C	3.2535E+04	-7.900	0.000	1.000	1.000
75.10	0.000	0.000	Strato2_3095_82743_L_0									
42 D	15.42	0.000	154.2	77.10	154.2	77.10	V-C	3.2535E+04	-8.100	0.000	1.000	1.000
77.10	0.000	0.000	Strato2_3095_82743_L_0									
43 D	15.82	0.000	158.2	79.10	158.2	79.10	V-C	3.2535E+04	-8.300	0.000	1.000	1.000
79.10	0.000	0.000	Strato2_3095_82743_L_0									
44 D	16.22	0.000	162.2	81.10	162.2	81.10	V-C	3.2535E+04	-8.500	0.000	1.000	1.000
81.10	0.000	0.000	Strato2_3095_82743_L_0									
45 D	16.62	0.000	166.2	83.10	166.2	83.10	V-C	3.2535E+04	-8.700	0.000	1.000	1.000
83.10	0.000	0.000	Strato2_3095_82743_L_0									
46 D	17.02	0.000	170.2	85.10	170.2	85.10	V-C	3.2535E+04	-8.900	0.000	1.000	1.000
85.10	0.000	0.000	Strato2_3095_82743_L_0									
47 D	17.42	0.000	174.2	87.10	174.2	87.10	V-C	3.2535E+04	-9.100	0.000	1.000	1.000
87.10	0.000	0.000	Strato2_3095_82743_L_0									
48 D	17.82	0.000	178.2	89.10	178.2	89.10	V-C	3.2535E+04	-9.300	0.000	1.000	1.000
89.10	0.000	0.000	Strato2_3095_82743_L_0									
49 D	18.22	0.000	182.2	91.10	182.2	91.10	V-C	3.2535E+04	-9.500	0.000	1.000	1.000
91.10	0.000	0.000	Strato2_3095_82743_L_0									
50 D	18.62	0.000	186.2	93.10	186.2	93.10	V-C	3.2535E+04	-9.700	0.000	1.000	1.000
93.10	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.02	0.000	190.2	95.10	190.2	95.10	V-C	3.2535E+04	-9.900	0.000	1.000	1.000
95.10	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.42	0.000	194.2	97.10	194.2	97.10	V-C	3.2535E+04	-10.10	0.000	1.000	1.000
97.10	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.82	0.000	198.2	99.10	198.2	99.10	V-C	3.2535E+04	-10.30	0.000	1.000	1.000
99.10	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.22	0.000	202.2	101.1	202.2	101.1	V-C	3.2535E+04	-10.50	0.000	1.000	1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.62	0.000	206.2	103.1	206.2	103.1	V-C	3.2535E+04	-10.70	0.000	1.000	1.000
103.1	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.02	0.000	210.2	105.1	210.2	105.1	V-C	3.2535E+04	-10.90	0.000	1.000	1.000
105.1	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.42	0.000	214.2	107.1	214.2	107.1	V-C	3.2535E+04	-11.10	0.000	1.000	1.000
107.1	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.82	0.000	218.2	109.1	218.2	109.1	V-C	3.2535E+04	-11.30	0.000	1.000	1.000
109.1	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.22	0.000	222.2	111.1	222.2	111.1	V-C	3.2535E+04	-11.50	0.000	1.000	1.000
111.1	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.62	0.000	226.2	113.1	226.2	113.1	V-C	3.2535E+04	-11.70	0.000	1.000	1.000
113.1	0.000	0.000	Strato2_3095_82743_L_0									
61 D	17.26	0.000	230.2	115.1	230.2	115.1	V-C	3.2535E+04	-11.90	0.000	1.000	1.000
115.1	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.805	0.000	232.2	116.1	232.2	116.1	V-C	3.2535E+04	-12.00	0.000	1.000	1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:09:27  |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
C U R R E N T T I M E I S 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 373 di 560
19	0.0000	0.0000	0.0000	0.0000	
20	0.0000	0.0000	0.0000	0.0000	
21	0.0000	0.0000	0.0000	0.0000	
22	0.0000	0.0000	0.0000	0.0000	
23	0.0000	0.0000	0.0000	0.0000	
24	0.0000	0.0000	0.0000	0.0000	
25	0.0000	0.0000	0.0000	0.0000	
26	0.0000	0.0000	0.0000	0.0000	
27	0.0000	0.0000	0.0000	0.0000	
28	0.0000	0.0000	0.0000	0.0000	
29	0.0000	0.0000	0.0000	0.0000	
30	0.0000	0.0000	0.0000	0.0000	
31	0.0000	0.0000	0.0000	0.0000	
32	0.0000	0.0000	0.0000	0.0000	
33	0.0000	0.0000	0.0000	0.0000	
34	0.0000	0.0000	0.0000	0.0000	
35	0.0000	0.0000	0.0000	0.0000	
36	0.0000	0.0000	0.0000	0.0000	
37	0.0000	0.0000	0.0000	0.0000	
38	0.0000	0.0000	0.0000	0.0000	
39	0.0000	0.0000	0.0000	0.0000	
40	0.0000	0.0000	0.0000	0.0000	
41	0.0000	0.0000	0.0000	0.0000	
42	0.0000	0.0000	0.0000	0.0000	
43	0.0000	0.0000	0.0000	0.0000	
44	0.0000	0.0000	0.0000	0.0000	
45	0.0000	0.0000	0.0000	0.0000	
46	0.0000	0.0000	0.0000	0.0000	
47	0.0000	0.0000	0.0000	0.0000	
48	0.0000	0.0000	0.0000	0.0000	
49	0.0000	0.0000	0.0000	0.0000	
50	0.0000	0.0000	0.0000	0.0000	
51	0.0000	0.0000	0.0000	0.0000	
52	0.0000	0.0000	0.0000	0.0000	
53	0.0000	0.0000	0.0000	0.0000	
54	0.0000	0.0000	0.0000	0.0000	
55	0.0000	0.0000	0.0000	0.0000	
56	0.0000	0.0000	0.0000	0.0000	
57	0.0000	0.0000	0.0000	0.0000	
58	0.0000	0.0000	0.0000	0.0000	
59	0.0000	0.0000	0.0000	0.0000	
60	0.0000	0.0000	0.0000	0.0000	
61	0.0000	0.0000	0.0000	0.0000	



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 374 di 560
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:09:27        |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2262E+05 RIMNOR= 0.000
            RENORM= 40.59      REMNOR= 0.000      RATIO =0.4236E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 23.42      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2262E+05 RDR   = 0.000
            RATIOT=0.4236E-01 RATIOR= 0.000
            MAX UN=0.8871      IEQ=   15 NODE      8 DOF   1  Y-DISPL.F
            MIN UN= 0.000      IEQ=    2 NODE      1 DOF   2  X-ROT. F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2262E+05 RIMNOR= 0.000
            RENORM=0.8583E-01 REMNOR=0.5709E-22 RATIO =0.1948E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 23.42      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2262E+05 RDR   = 0.000
            RATIOT=0.1948E-02 RATIOR= 0.000
            MAX UN=0.2710      IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            MIN UN=-.6492E-10 IEQ=   25 NODE     13 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2262E+05 RIMNOR= 0.000
            RENORM=0.6012E-04 REMNOR=0.8523E-23 RATIO =0.5155E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 23.42      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT   =0.2262E+05 RDR   = 0.000
            RATIOT=0.5155E-04 RATIOR= 0.000
            MAX UN=0.2397E-02 IEQ=   81 NODE     41 DOF   1  Y-DISPL.F
            MIN UN=-.1892E-10 IEQ=   25 NODE     13 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:09:27        |
+-----+
    
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New Project

SOLUTION REACHED USING 3 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	6.2198452E-05	-2.4852646E-06	
2	6.1701954E-05	-2.4769362E-06	
3	6.1208823E-05	-2.4514162E-06	
4	6.0722444E-05	-2.4100452E-06	
5	6.0245535E-05	-2.3577242E-06	
6	5.9779735E-05	-2.2996994E-06	



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 377 di 560
80.12	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.47	-2.6247E-05	174.2 82.36 174.2	87.09	UL-RL 1.8009E+05 -8.700 0.000 1.000 1.000
82.36	0.000	0.000	Strato2_3095_82743_L_0		
46 D	16.92	-2.5076E-05	178.2 84.58 178.2	89.10	UL-RL 1.8009E+05 -8.900 0.000 1.000 1.000
84.58	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.36	-2.3986E-05	182.2 86.79 182.2	91.11	UL-RL 1.8009E+05 -9.100 0.000 1.000 1.000
86.79	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.80	-2.2975E-05	186.2 88.98 186.2	93.12	UL-RL 1.8009E+05 -9.300 0.000 1.000 1.000
88.98	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.23	-2.2041E-05	190.2 91.15 190.2	95.12	UL-RL 1.8009E+05 -9.500 0.000 1.000 1.000
91.15	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.66	-2.1180E-05	194.3 93.32 194.3	97.13	UL-RL 1.8009E+05 -9.700 0.000 1.000 1.000
93.32	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.08	-2.0385E-05	198.1 95.40 198.1	99.07	UL-RL 1.8009E+05 -9.900 0.000 1.000 1.000
95.40	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.51	-1.9651E-05	202.2 97.55 202.2	101.1	UL-RL 1.8009E+05 -10.10 0.000 1.000 1.000
97.55	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.94	-1.8968E-05	206.2 99.68 206.2	103.1	UL-RL 1.8009E+05 -10.30 0.000 1.000 1.000
99.68	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.36	-1.8331E-05	210.2 101.8 210.2	105.1	UL-RL 1.8009E+05 -10.50 0.000 1.000 1.000
101.8	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.78	-1.7730E-05	214.2 103.9 214.2	107.1	UL-RL 1.8009E+05 -10.70 0.000 1.000 1.000
103.9	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.21	-1.7158E-05	218.2 106.0 218.2	109.1	UL-RL 1.8009E+05 -10.90 0.000 1.000 1.000
106.0	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.63	-1.6608E-05	222.3 108.1 222.3	111.1	UL-RL 1.8009E+05 -11.10 0.000 1.000 1.000
108.1	0.000	0.000	Strato2_3095_82743_L_0		
58 D	22.04	-1.6074E-05	226.1 110.2 226.1	113.1	UL-RL 1.8009E+05 -11.30 0.000 1.000 1.000
110.2	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.46	-1.5550E-05	230.2 112.3 230.2	115.1	UL-RL 1.8009E+05 -11.50 0.000 1.000 1.000
112.3	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.88	-1.5031E-05	234.2 114.4 234.2	117.1	UL-RL 1.8009E+05 -11.70 0.000 1.000 1.000
114.4	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.47	-1.4515E-05	238.2 116.5 238.2	119.1	UL-RL 1.8009E+05 -11.90 0.000 1.000 1.000
116.5	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.875	-1.4257E-05	240.1 117.5 240.1	120.1	UL-RL 1.8009E+05 -12.00 0.000 1.000 1.000
117.5	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|          NewProject.BaseDesignSection_28.AIM1R1_3484          |
|          Exe Time :24 July 2019          11:09:27          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	6.2198E-05	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.5845	6.1702E-05	3.800	2.923	3.800	2.923	V-C	1.4726E+04	-0.2000	0.000	1.000	1.000
2.923	0.000	0.000	Strato1_2_8_L_0									
3 D	0.9859	6.1209E-05	7.600	4.929	7.600	4.929	V-C	1.4726E+04	-0.4000	0.000	1.000	1.000
4.929	0.000	0.000	Strato1_2_8_L_0									
4 D	1.387	6.0722E-05	11.40	6.936	11.40	6.936	V-C	1.4726E+04	-0.6000	0.000	1.000	1.000
6.936	0.000	0.000	Strato1_2_8_L_0									
5 D	1.789	6.0246E-05	15.20	8.943	15.20	8.943	V-C	1.4726E+04	-0.8000	0.000	1.000	1.000
8.943	0.000	0.000	Strato1_2_8_L_0									
6 D	2.190	5.9780E-05	19.00	10.95	19.00	10.95	V-C	1.4726E+04	-1.000	0.000	1.000	1.000
10.95	0.000	0.000	Strato1_2_8_L_0									
7 D	2.592	5.9326E-05	22.80	12.96	22.80	12.96	V-C	1.4726E+04	-1.200	0.000	1.000	1.000
12.96	0.000	0.000	Strato1_2_8_L_0									
8 D	2.993	5.8884E-05	26.60	14.97	26.60	14.97	V-C	1.4726E+04	-1.400	0.000	1.000	1.000
14.97	0.000	0.000	Strato1_2_8_L_0									
9 D	3.395	5.8453E-05	30.40	16.97	30.40	16.97	V-C	1.4726E+04	-1.600	0.000	1.000	1.000
16.97	0.000	0.000	Strato1_2_8_L_0									
10 D	3.796	5.8033E-05	34.20	18.98	34.20	18.98	V-C	1.4726E+04	-1.800	0.000	1.000	1.000
18.98	0.000	0.000	Strato1_2_8_L_0									
11 D	4.198	5.7622E-05	38.00	20.99	38.00	20.99	V-C	1.4726E+04	-2.000	0.000	1.000	1.000

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20.99	0.000	0.000	Strato1_2_8_L_0		
12 D	4.599	5.7217E-05	41.80 23.00	41.80	23.00
23.00	0.000	0.000	Strato1_2_8_L_0		
13 D	3.751	5.6815E-05	45.60 25.00	45.60	25.00
25.00	0.000	0.000	Strato1_2_8_L_0		
14 D	3.901	5.6614E-05	47.50 26.01	47.50	26.01
26.01	0.000	0.000	Strato1_2_8_L_0		
15 D	5.603	5.6210E-05	51.30 28.02	51.30	28.02
28.02	0.000	0.000	Strato1_2_8_L_0		
16 D	6.005	5.5799E-05	55.10 30.02	55.10	30.02
30.02	0.000	0.000	Strato1_2_8_L_0		
17 D	6.406	5.5376E-05	58.90 32.03	58.90	32.03
32.03	0.000	0.000	Strato1_2_8_L_0		
18 D	6.808	5.4936E-05	62.70 34.04	62.70	34.04
34.04	0.000	0.000	Strato1_2_8_L_0		
19 D	7.209	5.4474E-05	66.50 36.05	66.50	36.05
36.05	0.000	0.000	Strato1_2_8_L_0		
20 D	7.611	5.3984E-05	70.30 38.05	70.30	38.05
38.05	0.000	0.000	Strato1_2_8_L_0		
21 D	8.012	5.3462E-05	74.10 40.06	74.10	40.06
40.06	0.000	0.000	Strato1_2_8_L_0		
22 D	8.413	5.2903E-05	77.90 42.07	77.90	42.07
42.07	0.000	0.000	Strato1_2_8_L_0		
23 D	8.814	5.2301E-05	81.70 44.07	81.70	44.07
44.07	0.000	0.000	Strato1_2_8_L_0		
24 D	9.215	5.1651E-05	85.50 46.07	85.50	46.07
46.07	0.000	0.000	Strato1_2_8_L_0		
25 D	9.615	5.0949E-05	89.30 48.08	89.30	48.08
48.08	0.000	0.000	Strato1_2_8_L_0		
26 D	10.02	5.0190E-05	93.10 50.08	93.10	50.08
50.08	0.000	0.000	Strato1_2_8_L_0		
27 D	10.42	4.9370E-05	96.90 52.08	96.90	52.08
52.08	0.000	0.000	Strato1_2_8_L_0		
28 D	10.82	4.8487E-05	100.7 54.08	100.7	54.08
54.08	0.000	0.000	Strato1_2_8_L_0		
29 D	11.22	4.7537E-05	104.5 56.08	104.5	56.08
56.08	0.000	0.000	Strato1_2_8_L_0		
30 D	11.62	4.6520E-05	108.3 58.08	108.3	58.08
58.08	0.000	0.000	Strato1_2_8_L_0		
31 D	12.01	4.5434E-05	112.1 60.07	112.1	60.07
60.07	0.000	0.000	Strato1_2_8_L_0		
32 D	12.41	4.4279E-05	115.9 62.07	115.9	62.07
62.07	0.000	0.000	Strato1_2_8_L_0		
33 D	12.81	4.3058E-05	119.7 64.07	119.7	64.07
64.07	0.000	0.000	Strato1_2_8_L_0		
34 D	13.21	4.1772E-05	123.5 66.06	123.5	66.07
66.06	0.000	0.000	Strato1_2_8_L_0		
35 D	13.61	4.0428E-05	127.3 68.06	127.3	68.07
68.06	0.000	0.000	Strato1_2_8_L_0		
36 D	14.01	3.9032E-05	131.1 70.05	131.1	70.06
70.05	0.000	0.000	Strato1_2_8_L_0		
37 D	14.41	3.7592E-05	134.9 72.04	134.9	72.05
72.04	0.000	0.000	Strato1_2_8_L_0		
38 D	14.81	3.6119E-05	138.7 74.04	138.7	74.05
74.04	0.000	0.000	Strato1_2_8_L_0		
39 D	15.21	3.4628E-05	142.5 76.03	142.5	76.04
76.03	0.000	0.000	Strato1_2_8_L_0		
40 D	15.60	3.3132E-05	146.3 78.02	146.3	78.03
78.02	0.000	0.000	Strato1_2_8_L_0		
41 D	15.22	3.1653E-05	150.2 76.12	150.2	76.14
76.12	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.61	3.0210E-05	154.2 78.07	154.2	78.09
78.07	0.000	0.000	Strato2_3095_82743_L_0		
43 D	16.01	2.8821E-05	158.2 80.03	158.2	80.04
80.03	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.40	2.7497E-05	162.2 81.99	162.2	82.00
81.99	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.79	2.6247E-05	166.2 83.95	166.2	83.96
83.95	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.18	2.5076E-05	170.2 85.91	170.2	85.92
85.91	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.57	2.3986E-05	174.2 87.87	174.2	87.88
87.87	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.97	2.2975E-05	178.2 89.84	178.2	89.85
89.84	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.36	2.2041E-05	182.2 91.81	182.2	91.82
91.81	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.76	2.1180E-05	186.2 93.79	186.2	93.79
93.79	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.15	2.0385E-05	190.2 95.76	190.2	95.76
95.76	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.55	1.9651E-05	194.2 97.74	194.2	97.74
97.74	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.94	1.8968E-05	198.2 99.72	198.2	99.72
99.72	0.000	0.000	Strato2_3095_82743_L_0		

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54 D	20.34	1.8331E-05	202.2	101.7	202.2	101.7	UL-RL	9.7606E+04	-10.50	0.000	1.000	1.000
101.7	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.74	1.7730E-05	206.2	103.7	206.2	103.7	V-C	3.2535E+04	-10.70	0.000	1.000	1.000
103.7	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.13	1.7158E-05	210.2	105.7	210.2	105.7	V-C	3.2535E+04	-10.90	0.000	1.000	1.000
105.7	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.53	1.6608E-05	214.2	107.6	214.2	107.6	V-C	3.2535E+04	-11.10	0.000	1.000	1.000
107.6	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.92	1.6074E-05	218.2	109.6	218.2	109.6	V-C	3.2535E+04	-11.30	0.000	1.000	1.000
109.6	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.32	1.5550E-05	222.2	111.6	222.2	111.6	V-C	3.2535E+04	-11.50	0.000	1.000	1.000
111.6	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.72	1.5031E-05	226.2	113.6	226.2	113.6	V-C	3.2535E+04	-11.70	0.000	1.000	1.000
113.6	0.000	0.000	Strato2_3095_82743_L_0									
61 D	17.34	1.4515E-05	230.2	115.6	230.2	115.6	V-C	3.2535E+04	-11.90	0.000	1.000	1.000
115.6	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.828	1.4257E-05	232.2	116.6	232.2	116.6	V-C	3.2535E+04	-12.00	0.000	1.000	1.000
116.6	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.AlMIR1_3484                       |
|                               Exe Time :24 July 2019    11:09:27                               |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.35082	-0.35082	4.92939E-13	7.01632E-02
2	0.37333	-0.37333	-7.01632E-02	0.14483
3	0.29436	-0.29436	-0.14483	0.20370
4	0.16688	-0.16688	-0.20370	0.23708
5	7.33757E-02	-7.33757E-02	0.23708	0.25175
6	3.73373E-03	-3.73373E-03	0.25175	0.25250
7	4.74651E-02	4.74651E-02	-0.25250	0.24301
8	8.35022E-02	8.35022E-02	-0.24301	0.22631
9	0.18848	0.18848	-0.22631	0.18861
10	-0.27286	0.27286	-0.18861	0.13404
11	-0.33955	0.33955	-0.13404	6.61279E-02
12	-0.39068	0.39068	-6.61279E-02	-1.20087E-02
13	-0.41854	0.41854	1.20087E-02	-5.38623E-02
14	-0.46180	0.46180	5.38623E-02	-0.14622
15	-0.50505	0.50505	0.14622	-0.24723
16	-0.53488	0.53488	0.24723	-0.35421
17	-0.55199	0.55199	0.35421	-0.46461
18	-0.55687	0.55687	0.46461	-0.57598
19	-0.54977	0.54977	0.57598	-0.68593
20	-0.53079	0.53079	0.68593	-0.79209
21	-0.53490	0.53490	0.79209	-0.89907
22	-0.52505	0.52505	0.89907	-1.0041
23	-0.50105	0.50105	1.0041	-1.1043
24	-0.46259	0.46259	1.1043	-1.1968
25	-0.40921	0.40921	1.1968	-1.2787
26	-0.34034	0.34034	1.2787	-1.3467
27	-0.25531	0.25531	1.3467	-1.3978
28	-0.17944	0.17944	1.3978	-1.4337
29	-8.48649E-02	8.48649E-02	1.4337	-1.4506
30	2.92155E-02	-2.92155E-02	1.4506	-1.4448
31	0.16363	-0.16363	1.4448	-1.4121
32	0.31923	-0.31923	1.4121	-1.3482
33	0.49686	-0.49686	1.3482	-1.2489
34	0.69734	-0.69734	1.2489	-1.1094
35	0.92143	-0.92143	1.1094	-0.92510
36	1.1497	-1.1497	0.92510	-0.69516
37	1.4034	-1.4034	0.69516	-0.41448
38	1.6829	-1.6829	0.41448	-7.78986E-02
39	1.9883	-1.9883	7.78986E-02	0.31977
40	2.3196	-2.3196	-0.31977	0.78368
41	1.7782	-1.7782	-0.78368	1.1393
42	1.3003	-1.3003	-1.1393	1.3994
43	0.86754	-0.86754	-1.3994	1.5729
44	0.49335	-0.49335	-1.5729	1.6716

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45 0.17446 -0.17446 -1.6716 1.7065
46-9.26038E-02 9.26038E-02 -1.7065 1.6879
47-0.31135 0.31135 -1.6879 1.6257
48-0.48525 0.48525 -1.6257 1.5286
49-0.61767 0.61767 -1.5286 1.4051
50-0.71176 0.71176 -1.4051 1.2627
51-0.78370 0.78370 -1.2627 1.1060
52-0.82254 0.82254 -1.1060 0.94148
53-0.83058 0.83058 -0.94148 0.77536
54-0.80980 0.80980 -0.77536 0.61340
55-0.76182 0.76182 -0.61340 0.46104
56-0.68795 0.68795 -0.46104 0.32345
57-0.58919 0.58919 -0.32345 0.20561
58-0.47791 0.47791 -0.20561 0.11003
59-0.34271 0.34271 -0.11003 4.14877E-02
60-0.18387 0.18387 -4.14877E-02 4.71356E-03
61-4.71309E-02 4.71309E-02-4.71356E-03-3.67928E-13
    
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019  11:09:27
|
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```

New Project

STRESS RESULTS FOR GROUP NO. 4

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Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000
    
```

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
----	-------	----	--------	---------	---	-----------	-----------

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

ITER 0 RNORM = 0.000  RMNORM= 0.000
RINORM=0.1939E+05 RIMNOR= 107.0
RENORM= 416.6  REMNOR=0.8523E-23 RATIO =0.1466  TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 22.88  RMMAX = 1.706
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.1939E+05 RDR = 107.0
RATIOT=0.1466  RATIOR= 0.000
MAX UN= 6.005  IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.9237E-11 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 2 RNORM = 0.000  RMNORM= 0.000
RINORM=0.1939E+05 RIMNOR= 107.0
RENORM= 46.08  REMNOR=0.7729E-20 RATIO =0.4875E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 22.88  RMMAX = 1.706
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.1939E+05 RDR = 107.0
RATIOT=0.4875E-01 RATIOR= 0.000
MAX UN= 3.255  IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
MIN UN=-.1041E-03 IEQ= 45 NODE 23 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 3 RNORM = 0.000  RMNORM= 0.000
RINORM=0.1939E+05 RIMNOR= 107.0
RENORM= 22.86  REMNOR=0.1620E-19 RATIO =0.3433E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 22.88  RMMAX = 1.706
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.1939E+05 RDR = 107.0
RATIOT=0.3433E-01 RATIOR= 0.000
MAX UN= 2.968  IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.8472E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

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ITER 4 RNORM = 0.000  RMNORM= 0.000
RINORM=0.1939E+05 RIMNOR= 107.0
RENORM= 1.659  REMNOR=0.1162E-19 RATIO =0.9249E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 22.88  RMMAX = 1.706
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.1939E+05 RDR = 107.0
    
```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
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RATIOT=0.9249E-02 RATOR= 0.000
 MAX UN= 1.141 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
 MIN UN=-.5412E-09 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1939E+05 RIMNOR= 107.0
 RENORM=0.3717E-17 REMNOR=0.1258E-19 RATIO =0.1384E-10 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 22.88 RMMAX = 1.706
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
 RDT =0.1939E+05 RDR = 107.0
 RATIOT=0.1384E-10 RATOR= 0.000
 MAX UN=0.1299E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 MIN UN=-.1011E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                       |
|                               Exe Time :24 July 2019  11:09:27                               |
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New Project
 SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.8634897E-03	-4.9152771E-04	
2	2.7651847E-03	-4.9151938E-04	
3	2.6668840E-03	-4.9147998E-04	
4	2.5685972E-03	-4.9137358E-04	
5	2.4703423E-03	-4.9115095E-04	
6	2.3721486E-03	-4.9075089E-04	
7	2.2740586E-03	-4.9010063E-04	
8	2.1761306E-03	-4.8911605E-04	
9	2.0784409E-03	-4.8770181E-04	
10	1.9810856E-03	-4.8575250E-04	
11	1.8841832E-03	-4.8315259E-04	
12	1.7878764E-03	-4.7977522E-04	
13	1.6923342E-03	-4.7548231E-04	
14	1.6449102E-03	-4.7295106E-04	
15	1.5508946E-03	-4.6700099E-04	
16	1.4581971E-03	-4.5974210E-04	
17	1.3670968E-03	-4.5099789E-04	
18	1.2779070E-03	-4.4061719E-04	
19	1.1909625E-03	-4.2854704E-04	
20	1.1065954E-03	-4.1486921E-04	
21	1.0251106E-03	-3.9975513E-04	
22	9.4677600E-04	-3.8340072E-04	
23	8.7181968E-04	-3.6600594E-04	
24	8.0042941E-04	-3.4777438E-04	
25	7.3275188E-04	-3.2891356E-04	
26	6.6889227E-04	-3.0962846E-04	
27	6.0891635E-04	-2.9010990E-04	
28	5.5285274E-04	-2.7052943E-04	
29	5.0069840E-04	-2.5104174E-04	
30	4.5242063E-04	-2.3178531E-04	
31	4.0796066E-04	-2.1288311E-04	
32	3.6723674E-04	-1.9444371E-04	
33	3.3014619E-04	-1.7656211E-04	
34	2.9656917E-04	-1.5932130E-04	
35	2.6637017E-04	-1.4279299E-04	
36	2.3940038E-04	-1.2703867E-04	
37	2.1549959E-04	-1.1211106E-04	
38	1.9449795E-04	-9.8055105E-05	
39	1.7621706E-04	-8.4908076E-05	
40	1.6047206E-04	-7.2700816E-05	
41	1.4707242E-04	-6.1458247E-05	
42	1.3582385E-04	-5.1189437E-05	
43	1.2653247E-04	-4.1883972E-05	
44	1.1900755E-04	-3.3519900E-05	
45	1.1306383E-04	-2.6065999E-05	
46	1.0852309E-04	-1.9483007E-05	
47	1.0521561E-04	-1.3725296E-05	
48	1.0298133E-04	-8.7423421E-06	
49	1.0167065E-04	-4.4799083E-06	



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50	1.0114511E-04	-8.8130140E-07
51	1.0127776E-04	2.1117717E-06
52	1.0195334E-04	4.5579933E-06
53	1.0306839E-04	6.5159924E-06
54	1.0453106E-04	8.0437389E-06
55	1.0626101E-04	9.1983503E-06
56	1.0818924E-04	1.0035673E-05
57	1.1025775E-04	1.0610015E-05
58	1.1241922E-04	1.0973956E-05
59	1.1463667E-04	1.1177929E-05
60	1.1688294E-04	1.1270150E-05
61	1.1914036E-04	1.1296849E-05
62	1.2027024E-04	1.1298160E-05

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:09:27  |
+-----+
    
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.3508	-2.8635E-03	11.54	3.508	11.54	6.116	ACTIVE	0.000	0.000	0.000	1.000	1.000
3.508	0.000	0.000	Strato1_2_8_L_0									
2 D	0.6070	-2.7652E-03	9.984	3.035	9.984	5.292	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
3.035	0.000	0.000	Strato1_2_8_L_0									
3 D	0.9069	-2.6669E-03	14.92	4.534	14.92	7.906	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
4.534	0.000	0.000	Strato1_2_8_L_0									
4 D	1.166	-2.5686E-03	19.18	5.830	19.18	10.16	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
5.830	0.000	0.000	Strato1_2_8_L_0									
5 D	1.412	-2.4703E-03	23.23	7.061	23.23	12.31	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
7.061	0.000	0.000	Strato1_2_8_L_0									
6 D	1.653	-2.3721E-03	27.18	8.264	27.18	14.41	ACTIVE	0.000	-1.000	0.000	1.000	1.000
8.264	0.000	0.000	Strato1_2_8_L_0									
7 D	1.890	-2.2741E-03	31.09	9.452	31.09	16.48	ACTIVE	0.000	-1.200	0.000	1.000	1.000
9.452	0.000	0.000	Strato1_2_8_L_0									
8 D	2.126	-2.1761E-03	34.97	10.63	34.97	18.53	ACTIVE	0.000	-1.400	0.000	1.000	1.000
10.63	0.000	0.000	Strato1_2_8_L_0									
9 D	2.314	-2.0784E-03	38.06	11.57	38.06	20.17	ACTIVE	0.000	-1.600	0.000	1.000	1.000
11.57	0.000	0.000	Strato1_2_8_L_0									
10 D	2.553	-1.9811E-03	41.99	12.76	41.99	22.25	ACTIVE	0.000	-1.800	0.000	1.000	1.000
12.76	0.000	0.000	Strato1_2_8_L_0									
11 D	2.790	-1.8842E-03	45.89	13.95	45.89	24.32	ACTIVE	0.000	-2.000	0.000	1.000	1.000
13.95	0.000	0.000	Strato1_2_8_L_0									
12 D	3.027	-1.7879E-03	49.78	15.13	49.78	26.38	ACTIVE	0.000	-2.200	0.000	1.000	1.000
15.13	0.000	0.000	Strato1_2_8_L_0									
13 D	2.447	-1.6923E-03	53.65	16.31	53.65	28.44	ACTIVE	0.000	-2.400	0.000	1.000	1.000
16.31	0.000	0.000	Strato1_2_8_L_0									
14 D	2.523	-1.6449E-03	55.33	16.82	55.33	29.32	ACTIVE	0.000	-2.500	0.000	1.000	1.000
16.82	0.000	0.000	Strato1_2_8_L_0									
15 D	3.600	-1.5509E-03	59.21	18.00	59.21	31.38	ACTIVE	0.000	-2.700	0.000	1.000	1.000
18.00	0.000	0.000	Strato1_2_8_L_0									
16 D	3.835	-1.4582E-03	63.07	19.17	63.07	33.43	ACTIVE	0.000	-2.900	0.000	1.000	1.000
19.17	0.000	0.000	Strato1_2_8_L_0									
17 D	4.069	-1.3671E-03	66.93	20.35	66.93	35.47	ACTIVE	0.000	-3.100	0.000	1.000	1.000
20.35	0.000	0.000	Strato1_2_8_L_0									
18 D	4.303	-1.2779E-03	70.78	21.52	70.78	37.51	ACTIVE	0.000	-3.300	0.000	1.000	1.000
21.52	0.000	0.000	Strato1_2_8_L_0									
19 D	4.537	-1.1910E-03	74.62	22.69	74.62	39.55	ACTIVE	0.000	-3.500	0.000	1.000	1.000
22.69	0.000	0.000	Strato1_2_8_L_0									
20 D	4.771	-1.1066E-03	78.46	23.85	78.46	41.59	ACTIVE	0.000	-3.700	0.000	1.000	1.000
23.85	0.000	0.000	Strato1_2_8_L_0									
21 D	4.984	-1.0251E-03	81.97	24.92	81.97	43.44	ACTIVE	0.000	-3.900	0.000	1.000	1.000
24.92	0.000	0.000	Strato1_2_8_L_0									
22 D	5.218	-9.4678E-04	85.82	26.09	85.82	45.48	ACTIVE	0.000	-4.100	0.000	1.000	1.000
26.09	0.000	0.000	Strato1_2_8_L_0									
23 D	5.451	-8.7182E-04	89.66	27.26	89.66	47.52	ACTIVE	0.000	-4.300	0.000	1.000	1.000

GENERAL CONTRACTOR



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27.26	0.000	0.000	Strato1_2_8_L_0				
24 D	5.685	-8.0043E-04	93.50	28.42	93.50	49.56	ACTIVE 0.000 -4.500 0.000 1.000 1.000
28.42	0.000	0.000	Strato1_2_8_L_0				
25 D	6.197	-7.3275E-04	97.34	30.98	97.34	51.59	UL-RL 2.5465E+04 -4.700 0.000 1.000 1.000
30.98	0.000	0.000	Strato1_2_8_L_0				
26 D	6.934	-6.6889E-04	101.2	34.67	101.2	53.62	UL-RL 2.5465E+04 -4.900 0.000 1.000 1.000
34.67	0.000	0.000	Strato1_2_8_L_0				
27 D	7.652	-6.0892E-04	105.0	38.26	105.0	55.65	UL-RL 2.5465E+04 -5.100 0.000 1.000 1.000
38.26	0.000	0.000	Strato1_2_8_L_0				
28 D	8.324	-5.5285E-04	108.6	41.62	108.6	57.55	UL-RL 2.5465E+04 -5.300 0.000 1.000 1.000
41.62	0.000	0.000	Strato1_2_8_L_0				
29 D	9.004	-5.0070E-04	112.4	45.02	112.4	59.58	UL-RL 2.5465E+04 -5.500 0.000 1.000 1.000
45.02	0.000	0.000	Strato1_2_8_L_0				
30 D	9.664	-4.5242E-04	116.3	48.32	116.3	61.62	UL-RL 2.5465E+04 -5.700 0.000 1.000 1.000
48.32	0.000	0.000	Strato1_2_8_L_0				
31 D	10.30	-4.0796E-04	120.1	51.52	120.1	63.65	UL-RL 2.5465E+04 -5.900 0.000 1.000 1.000
51.52	0.000	0.000	Strato1_2_8_L_0				
32 D	10.93	-3.6724E-04	123.9	54.63	123.9	65.68	UL-RL 2.5465E+04 -6.100 0.000 1.000 1.000
54.63	0.000	0.000	Strato1_2_8_L_0				
33 D	11.53	-3.3015E-04	127.7	57.65	127.7	67.70	UL-RL 2.5465E+04 -6.300 0.000 1.000 1.000
57.65	0.000	0.000	Strato1_2_8_L_0				
34 D	12.12	-2.9657E-04	131.6	60.58	131.6	69.73	UL-RL 2.5465E+04 -6.500 0.000 1.000 1.000
60.58	0.000	0.000	Strato1_2_8_L_0				
35 D	12.69	-2.6637E-04	135.4	63.43	135.4	71.76	UL-RL 2.5465E+04 -6.700 0.000 1.000 1.000
63.43	0.000	0.000	Strato1_2_8_L_0				
36 D	13.22	-2.3940E-04	139.0	66.10	139.0	73.68	UL-RL 2.5465E+04 -6.900 0.000 1.000 1.000
66.10	0.000	0.000	Strato1_2_8_L_0				
37 D	13.76	-2.1550E-04	142.9	68.79	142.9	75.71	UL-RL 2.5465E+04 -7.100 0.000 1.000 1.000
68.79	0.000	0.000	Strato1_2_8_L_0				
38 D	14.28	-1.9450E-04	146.7	71.41	146.7	77.74	UL-RL 2.5465E+04 -7.300 0.000 1.000 1.000
71.41	0.000	0.000	Strato1_2_8_L_0				
39 D	14.79	-1.7622E-04	150.5	73.96	150.5	79.77	UL-RL 2.5465E+04 -7.500 0.000 1.000 1.000
73.96	0.000	0.000	Strato1_2_8_L_0				
40 D	15.29	-1.6047E-04	154.3	76.44	154.3	81.79	UL-RL 2.5465E+04 -7.700 0.000 1.000 1.000
76.44	0.000	0.000	Strato1_2_8_L_0				
41 D	13.02	-1.4707E-04	158.2	65.11	158.2	79.12	UL-RL 7.2037E+04 -7.900 0.000 1.000 1.000
65.11	0.000	0.000	Strato2_3095_82743_L_0				
42 D	13.62	-1.3582E-04	162.3	68.09	162.3	81.13	UL-RL 7.2037E+04 -8.100 0.000 1.000 1.000
68.09	0.000	0.000	Strato2_3095_82743_L_0				
43 D	14.17	-1.2653E-04	166.1	70.84	166.1	83.06	UL-RL 7.2037E+04 -8.300 0.000 1.000 1.000
70.84	0.000	0.000	Strato2_3095_82743_L_0				
44 D	14.71	-1.1901E-04	170.2	73.53	170.2	85.08	UL-RL 7.2037E+04 -8.500 0.000 1.000 1.000
73.53	0.000	0.000	Strato2_3095_82743_L_0				
45 D	15.22	-1.1306E-04	174.2	76.11	174.2	87.09	UL-RL 7.2037E+04 -8.700 0.000 1.000 1.000
76.11	0.000	0.000	Strato2_3095_82743_L_0				
46 D	15.71	-1.0852E-04	178.2	78.57	178.2	89.10	UL-RL 7.2037E+04 -8.900 0.000 1.000 1.000
78.57	0.000	0.000	Strato2_3095_82743_L_0				
47 D	16.19	-1.0522E-04	182.2	80.94	182.2	91.11	UL-RL 7.2037E+04 -9.100 0.000 1.000 1.000
80.94	0.000	0.000	Strato2_3095_82743_L_0				
48 D	16.64	-1.0298E-04	186.2	83.21	186.2	93.12	UL-RL 7.2037E+04 -9.300 0.000 1.000 1.000
83.21	0.000	0.000	Strato2_3095_82743_L_0				
49 D	17.08	-1.0167E-04	190.2	85.42	190.2	95.12	UL-RL 7.2037E+04 -9.500 0.000 1.000 1.000
85.42	0.000	0.000	Strato2_3095_82743_L_0				
50 D	17.51	-1.0115E-04	194.3	87.56	194.3	97.13	UL-RL 7.2037E+04 -9.700 0.000 1.000 1.000
87.56	0.000	0.000	Strato2_3095_82743_L_0				
51 D	17.92	-1.0128E-04	198.1	89.58	198.1	99.07	UL-RL 7.2037E+04 -9.900 0.000 1.000 1.000
89.58	0.000	0.000	Strato2_3095_82743_L_0				
52 D	18.32	-1.0195E-04	202.2	91.62	202.2	101.1	UL-RL 7.2037E+04 -10.10 0.000 1.000 1.000
91.62	0.000	0.000	Strato2_3095_82743_L_0				
53 D	18.72	-1.0307E-04	206.2	93.62	206.2	103.1	UL-RL 7.2037E+04 -10.30 0.000 1.000 1.000
93.62	0.000	0.000	Strato2_3095_82743_L_0				
54 D	19.12	-1.0453E-04	210.2	95.59	210.2	105.1	UL-RL 7.2037E+04 -10.50 0.000 1.000 1.000
95.59	0.000	0.000	Strato2_3095_82743_L_0				
55 D	19.51	-1.0626E-04	214.2	97.54	214.2	107.1	UL-RL 7.2037E+04 -10.70 0.000 1.000 1.000
97.54	0.000	0.000	Strato2_3095_82743_L_0				
56 D	19.89	-1.0819E-04	218.2	99.47	218.2	109.1	UL-RL 7.2037E+04 -10.90 0.000 1.000 1.000
99.47	0.000	0.000	Strato2_3095_82743_L_0				
57 D	20.28	-1.1026E-04	222.3	101.4	222.3	111.1	UL-RL 7.2037E+04 -11.10 0.000 1.000 1.000
101.4	0.000	0.000	Strato2_3095_82743_L_0				
58 D	20.65	-1.1242E-04	226.1	103.2	226.1	113.1	UL-RL 7.2037E+04 -11.30 0.000 1.000 1.000
103.2	0.000	0.000	Strato2_3095_82743_L_0				
59 D	21.03	-1.1464E-04	230.2	105.1	230.2	115.1	UL-RL 7.2037E+04 -11.50 0.000 1.000 1.000
105.1	0.000	0.000	Strato2_3095_82743_L_0				
60 D	21.41	-1.1688E-04	234.2	107.0	234.2	117.1	UL-RL 7.2037E+04 -11.70 0.000 1.000 1.000
107.0	0.000	0.000	Strato2_3095_82743_L_0				
61 D	16.34	-1.1914E-04	238.2	108.9	238.2	119.1	UL-RL 7.2037E+04 -11.90 0.000 1.000 1.000
108.9	0.000	0.000	Strato2_3095_82743_L_0				
62 D	5.493	-1.2027E-04	240.1	109.9	240.1	120.1	UL-RL 7.2037E+04 -12.00 0.000 1.000 1.000
109.9	0.000	0.000	Strato2_3095_82743_L_0				

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33 D	13.15	3.3015E-04	62.70	65.77	119.7	65.77	V-C	5890.	-6.300	0.000	1.000	1.000
65.77	0.000	0.000	Strato1_2_8_L_0									
34 D	13.51	2.9657E-04	66.50	67.57	123.5	67.57	V-C	5890.	-6.500	0.000	1.000	1.000
67.57	0.000	0.000	Strato1_2_8_L_0									
35 D	13.88	2.6637E-04	70.30	69.40	127.3	69.40	V-C	5890.	-6.700	0.000	1.000	1.000
69.40	0.000	0.000	Strato1_2_8_L_0									
36 D	14.25	2.3940E-04	74.10	71.24	131.1	71.24	V-C	5890.	-6.900	0.000	1.000	1.000
71.24	0.000	0.000	Strato1_2_8_L_0									
37 D	14.62	2.1550E-04	77.90	73.10	134.9	73.10	V-C	5890.	-7.100	0.000	1.000	1.000
73.10	0.000	0.000	Strato1_2_8_L_0									
38 D	15.00	1.9450E-04	81.70	74.98	138.7	74.98	V-C	5890.	-7.300	0.000	1.000	1.000
74.98	0.000	0.000	Strato1_2_8_L_0									
39 D	15.37	1.7622E-04	85.50	76.87	142.5	76.87	V-C	5890.	-7.500	0.000	1.000	1.000
76.87	0.000	0.000	Strato1_2_8_L_0									
40 D	15.76	1.6047E-04	89.30	78.78	146.3	78.78	V-C	5890.	-7.700	0.000	1.000	1.000
78.78	0.000	0.000	Strato1_2_8_L_0									
41 D	12.94	1.4707E-04	93.20	64.68	150.2	76.14	UL-RL	3.9043E+04	-7.900	0.000	1.000	1.000
64.68	0.000	0.000	Strato2_3095_82743_L_0									
42 D	13.26	1.3582E-04	97.20	66.31	154.2	78.09	UL-RL	3.9043E+04	-8.100	0.000	1.000	1.000
66.31	0.000	0.000	Strato2_3095_82743_L_0									
43 D	13.60	1.2653E-04	101.2	68.01	158.2	80.04	UL-RL	3.9043E+04	-8.300	0.000	1.000	1.000
68.01	0.000	0.000	Strato2_3095_82743_L_0									
44 D	13.95	1.1901E-04	105.2	69.77	162.2	82.00	UL-RL	3.9043E+04	-8.500	0.000	1.000	1.000
69.77	0.000	0.000	Strato2_3095_82743_L_0									
45 D	14.32	1.1306E-04	109.2	71.60	166.2	83.96	UL-RL	3.9043E+04	-8.700	0.000	1.000	1.000
71.60	0.000	0.000	Strato2_3095_82743_L_0									
46 D	14.69	1.0852E-04	113.2	73.47	170.2	85.92	UL-RL	3.9043E+04	-8.900	0.000	1.000	1.000
73.47	0.000	0.000	Strato2_3095_82743_L_0									
47 D	15.08	1.0522E-04	117.2	75.39	174.2	87.88	UL-RL	3.9043E+04	-9.100	0.000	1.000	1.000
75.39	0.000	0.000	Strato2_3095_82743_L_0									
48 D	15.47	1.0298E-04	121.2	77.35	178.2	89.85	UL-RL	3.9043E+04	-9.300	0.000	1.000	1.000
77.35	0.000	0.000	Strato2_3095_82743_L_0									
49 D	15.87	1.0167E-04	125.2	79.34	182.2	91.82	UL-RL	3.9043E+04	-9.500	0.000	1.000	1.000
79.34	0.000	0.000	Strato2_3095_82743_L_0									
50 D	16.27	1.0115E-04	129.2	81.36	186.2	93.79	UL-RL	3.9043E+04	-9.700	0.000	1.000	1.000
81.36	0.000	0.000	Strato2_3095_82743_L_0									
51 D	16.68	1.0128E-04	133.2	83.40	190.2	95.76	UL-RL	3.9043E+04	-9.900	0.000	1.000	1.000
83.40	0.000	0.000	Strato2_3095_82743_L_0									
52 D	17.09	1.0195E-04	137.2	85.47	194.2	97.74	UL-RL	3.9043E+04	-10.10	0.000	1.000	1.000
85.47	0.000	0.000	Strato2_3095_82743_L_0									
53 D	17.51	1.0307E-04	141.2	87.54	198.2	99.72	UL-RL	3.9043E+04	-10.30	0.000	1.000	1.000
87.54	0.000	0.000	Strato2_3095_82743_L_0									
54 D	17.93	1.0453E-04	145.2	89.63	202.2	101.7	UL-RL	3.9043E+04	-10.50	0.000	1.000	1.000
89.63	0.000	0.000	Strato2_3095_82743_L_0									
55 D	18.35	1.0626E-04	149.2	91.73	206.2	103.7	UL-RL	3.9043E+04	-10.70	0.000	1.000	1.000
91.73	0.000	0.000	Strato2_3095_82743_L_0									
56 D	18.77	1.0819E-04	153.2	93.84	210.2	105.7	UL-RL	3.9043E+04	-10.90	0.000	1.000	1.000
93.84	0.000	0.000	Strato2_3095_82743_L_0									
57 D	19.19	1.1026E-04	157.2	95.95	214.2	107.6	UL-RL	3.9043E+04	-11.10	0.000	1.000	1.000
95.95	0.000	0.000	Strato2_3095_82743_L_0									
58 D	19.61	1.1242E-04	161.2	98.06	218.2	109.6	UL-RL	3.9043E+04	-11.30	0.000	1.000	1.000
98.06	0.000	0.000	Strato2_3095_82743_L_0									
59 D	20.03	1.1464E-04	165.2	100.2	222.2	111.6	UL-RL	3.9043E+04	-11.50	0.000	1.000	1.000
100.2	0.000	0.000	Strato2_3095_82743_L_0									
60 D	20.46	1.1688E-04	169.2	102.3	226.2	113.6	UL-RL	3.9043E+04	-11.70	0.000	1.000	1.000
102.3	0.000	0.000	Strato2_3095_82743_L_0									
61 D	15.66	1.1914E-04	173.2	104.4	230.2	115.6	UL-RL	3.9043E+04	-11.90	0.000	1.000	1.000
104.4	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.273	1.2027E-04	175.2	105.5	232.2	116.6	UL-RL	3.9043E+04	-12.00	0.000	1.000	1.000
105.5	0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.AlM1r1_3484                                                                                          |
|          Exe Time :24 July 2019  11:09:27                                                                                                  |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.35082	-0.35082	2.63425E-11	7.01632E-02
2	0.95786	-0.95786	-7.01632E-02	0.26174

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3	1.8648	-1.8648	-0.26174	0.63469
4	3.0308	-3.0308	-0.63469	1.2408
5	4.4431	-4.4431	-1.2408	2.1295
6	6.0959	-6.0959	-2.1295	3.3486
7	7.9863	-7.9863	-3.3486	4.9459
8	10.112	-10.112	-4.9459	6.9684
9	12.426	-12.426	-6.9684	9.4536
10	14.979	-14.979	-9.4536	12.449
11	17.769	-17.769	-12.449	16.003
12	20.796	-20.796	-16.003	20.162
13	23.242	-23.242	-20.162	22.487
14	25.765	-25.765	-22.487	27.640
15	29.365	-29.365	-27.640	33.513
16	33.200	-33.200	-33.513	40.153
17	35.734	-35.734	-40.153	47.300
18	35.430	-35.430	-47.300	54.386
19	32.289	-32.289	-54.386	60.843
20	28.209	-28.209	-60.843	66.485
21	24.036	-24.036	-66.485	71.293
22	19.788	-19.788	-71.293	75.250
23	15.459	-15.459	-75.250	78.342
24	11.047	-11.047	-78.342	80.551
25	6.8247	-6.8247	-80.551	81.916
26	3.0136	-3.0136	-81.916	82.519
27	-0.41029	0.41029	-82.519	82.437
28	-3.4973	3.4973	-82.437	81.737
29	-6.2446	6.2446	-81.737	80.489
30	-8.6759	8.6759	-80.489	78.753
31	-10.815	10.815	-78.753	76.590
32	-12.685	12.685	-76.590	74.053
33	-14.307	14.307	-74.053	71.192
34	-15.705	15.705	-71.192	68.051
35	-16.898	16.898	-68.051	64.671
36	-17.926	17.926	-64.671	61.086
37	-18.788	18.788	-61.086	57.329
38	-19.501	19.501	-57.329	53.429
39	-20.084	20.084	-53.429	49.412
40	-20.551	20.551	-49.412	45.301
41	-20.466	20.466	-45.301	41.208
42	-20.111	20.111	-41.208	37.186
43	-19.545	19.545	-37.186	33.277
44	-18.793	18.793	-33.277	29.518
45	-17.891	17.891	-29.518	25.940
46	-16.872	16.872	-25.940	22.566
47	-15.762	15.762	-22.566	19.413
48	-14.589	14.589	-19.413	16.496
49	-13.373	13.373	-16.496	13.821
50	-12.133	12.133	-13.821	11.394
51	-10.899	10.899	-11.394	9.2145
52	-9.6690	9.6690	-9.2145	7.2807
53	-8.4543	8.4543	-7.2807	5.5898
54	-7.2631	7.2631	-5.5898	4.1372
55	-6.1019	6.1019	-4.1372	2.9168
56	-4.9755	4.9755	-2.9168	1.9217
57	-3.8872	3.8872	-1.9217	1.1443
58	-2.8510	2.8510	-1.1443	0.57409
59	-1.8563	1.8563	-0.57409	0.20283
60	-0.90368	0.90368	-0.20283	2.20946E-02
61	-0.22092	0.22092	-2.20946E-02	3.17768E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                       |
|                               Exe Time :24 July 2019    11:09:27                             |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
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Codifica Documento
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A

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6880E+05 RIMNOR=0.2568E+06
            RENORM=0.1736E+05 REMNOR=0.1258E-19 RATIO =0.5023      TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 131.8      RMMAX = 82.52
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
            RDT =0.6880E+05 RDR =0.2568E+06
            RATIO=0.5023      RATIO= 0.000
            MAX UN=0.4803E-09 IEQ=      3 NODE      2 DOF      1 Y-DISPL.F
            MIN UN=-131.8      IEQ=      27 NODE     14 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6880E+05 RIMNOR=0.2568E+06
            RENORM= 67.44      REMNOR=0.1259E-19 RATIO =0.3131E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 131.8      RMMAX = 82.52
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
            RDT =0.6880E+05 RDR =0.2568E+06
            RATIO=0.3131E-01 RATIO= 0.000
            MAX UN=0.2325E-09 IEQ=      37 NODE     19 DOF      1 Y-DISPL.F
            MIN UN=-3.116      IEQ=      3 NODE      2 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6880E+05 RIMNOR=0.2568E+06
            RENORM= 1.669      REMNOR=0.4542E-20 RATIO =0.4925E-02 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 131.8      RMMAX = 82.52
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
            RDT =0.6880E+05 RDR =0.2568E+06
            RATIO=0.4925E-02 RATIO= 0.000
            MAX UN=0.3458E-09 IEQ=      15 NODE      8 DOF      1 Y-DISPL.F
            MIN UN=-1.037      IEQ=      37 NODE     19 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6880E+05 RIMNOR=0.2568E+06
            RENORM=0.1366E-18 REMNOR=0.5267E-21 RATIO =0.1409E-11 TOLER =0.1000E-03      CONVERGED !
            RFMAX = 131.8      RMMAX = 82.52
            RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
            RDT =0.6880E+05 RDR =0.2568E+06
            RATIO=0.1409E-11 RATIO= 0.000
            MAX UN=0.2425E-09 IEQ=      9 NODE      5 DOF      1 Y-DISPL.F
            MIN UN=-.1265E-09 IEQ=      7 NODE      4 DOF      1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:09:27  |
|                                                                    |
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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	8.2926877E-04	-2.2422549E-04	
2	7.8442724E-04	-2.2417204E-04	
3	7.3961384E-04	-2.2391031E-04	
4	6.9489109E-04	-2.2322904E-04	
5	6.5036532E-04	-2.2190143E-04	
6	6.0618963E-04	-2.1968708E-04	
7	5.6256649E-04	-2.1633262E-04	
8	5.1975032E-04	-2.1157211E-04	
9	4.7804994E-04	-2.0512720E-04	
10	4.3783099E-04	-1.9670898E-04	
11	3.9951787E-04	-1.8601796E-04	
12	3.6359611E-04	-1.7274240E-04	
13	3.3061480E-04	-1.5655852E-04	
14	3.1541583E-04	-1.4728213E-04	
15	2.8780902E-04	-1.2923047E-04	
16	2.6355777E-04	-1.1366696E-04	
17	2.4220056E-04	-1.0022860E-04	
18	2.2334941E-04	-8.8543987E-05	
19	2.0669015E-04	-7.8251634E-05	

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20	1.9197431E-04	-6.9076050E-05
21	1.7899687E-04	-6.0843294E-05
22	1.6758330E-04	-5.3415837E-05
23	1.5758498E-04	-4.6671708E-05
24	1.4887579E-04	-4.0510064E-05
25	1.4134694E-04	-3.4858677E-05
26	1.3490160E-04	-2.9667961E-05
27	1.2945172E-04	-2.4898155E-05
28	1.2491670E-04	-2.0513402E-05
29	1.2122277E-04	-1.6482454E-05
30	1.1830192E-04	-1.2778447E-05
31	1.1609114E-04	-9.3781696E-06
32	1.1453173E-04	-6.2619278E-06
33	1.1356854E-04	-3.4133222E-06
34	1.1314943E-04	-8.1916472E-07
35	1.1322459E-04	1.5307716E-06
36	1.1374596E-04	3.6439285E-06
37	1.1466667E-04	5.5246796E-06
38	1.1594043E-04	7.1745306E-06
39	1.1752104E-04	8.5928326E-06
40	1.1936195E-04	9.7769154E-06
41	1.2141589E-04	1.0722298E-05
42	1.2363581E-04	1.1441864E-05
43	1.2597960E-04	1.1966029E-05
44	1.2841109E-04	1.2323377E-05
45	1.3089960E-04	1.2540508E-05
46	1.3341961E-04	1.2642318E-05
47	1.3595038E-04	1.2651898E-05
48	1.3847562E-04	1.2590452E-05
49	1.4098310E-04	1.2477240E-05
50	1.4346421E-04	1.2329527E-05
51	1.4591362E-04	1.2162552E-05
52	1.4832875E-04	1.1989197E-05
53	1.5070952E-04	1.1819958E-05
54	1.5305757E-04	1.1663293E-05
55	1.5537610E-04	1.1525599E-05
56	1.5766936E-04	1.1411225E-05
57	1.5994230E-04	1.1322480E-05
58	1.6220008E-04	1.1259642E-05
59	1.6444775E-04	1.1220686E-05
60	1.6668966E-04	1.1201301E-05
61	1.6892915E-04	1.1195178E-05
62	1.7004876E-04	1.1194848E-05

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.AlMIR1_3484                       |
|                               Exe Time :24 July 2019  11:09:27                               |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	2.251	-8.2927E-04	11.54	22.51	11.54	22.51	V-C	8488.	0.000	0.000	1.000	1.000
22.51	0.000	0.000	Strato1_2_8_L_0									
2 D	4.271	-7.8443E-04	9.984	21.35	9.984	21.35	V-C	8488.	-0.2000	0.000	1.000	1.000
21.35	0.000	0.000	Strato1_2_8_L_0									
3 D	4.628	-7.3961E-04	14.92	23.14	14.92	23.14	V-C	8488.	-0.4000	0.000	1.000	1.000
23.14	0.000	0.000	Strato1_2_8_L_0									
4 D	4.925	-6.9489E-04	19.18	24.62	19.18	24.62	V-C	8488.	-0.6000	0.000	1.000	1.000
24.62	0.000	0.000	Strato1_2_8_L_0									
5 D	5.202	-6.5037E-04	23.23	26.01	23.23	26.01	V-C	8488.	-0.8000	0.000	1.000	1.000
26.01	0.000	0.000	Strato1_2_8_L_0									
6 D	5.470	-6.0619E-04	27.18	27.35	27.18	27.35	V-C	8488.	-1.000	0.000	1.000	1.000
27.35	0.000	0.000	Strato1_2_8_L_0									
7 D	5.733	-5.6257E-04	31.09	28.66	31.09	28.66	V-C	8488.	-1.200	0.000	1.000	1.000
28.66	0.000	0.000	Strato1_2_8_L_0									
8 D	5.992	-5.1975E-04	34.97	29.96	34.97	29.96	V-C	8488.	-1.400	0.000	1.000	1.000

GENERAL CONTRACTOR



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29.96	0.000	0.000	Strato1_2_8_L_0				
9 D	6.177	-4.7805E-04	38.06	30.89	38.06	30.89	V-C 8488.
30.89	0.000	0.000	Strato1_2_8_L_0				
10 D	6.438	-4.3783E-04	41.99	32.19	41.99	32.19	V-C 8488.
32.19	0.000	0.000	Strato1_2_8_L_0				
11 D	6.694	-3.9952E-04	45.89	33.47	45.89	33.47	V-C 8488.
33.47	0.000	0.000	Strato1_2_8_L_0				
12 D	6.945	-3.6360E-04	49.78	34.72	49.78	34.72	V-C 8488.
34.72	0.000	0.000	Strato1_2_8_L_0				
13 D	5.393	-3.3061E-04	53.65	35.95	53.65	35.95	V-C 8488.
35.95	0.000	0.000	Strato1_2_8_L_0				
14 D	5.466	-3.1542E-04	55.33	36.44	55.33	36.44	V-C 8488.
36.44	0.000	0.000	Strato1_2_8_L_0				
15 D	7.528	-2.8781E-04	59.21	37.64	59.21	37.64	V-C 8488.
37.64	0.000	0.000	Strato1_2_8_L_0				
16 D	7.763	-2.6356E-04	63.07	38.82	63.07	38.82	V-C 8488.
38.82	0.000	0.000	Strato1_2_8_L_0				
17 D	7.996	-2.4220E-04	66.93	39.98	66.93	39.98	V-C 8488.
39.98	0.000	0.000	Strato1_2_8_L_0				
18 D	8.226	-2.2335E-04	70.78	41.13	70.78	41.13	V-C 8488.
41.13	0.000	0.000	Strato1_2_8_L_0				
19 D	8.457	-2.0669E-04	74.62	42.28	74.62	42.28	V-C 8488.
42.28	0.000	0.000	Strato1_2_8_L_0				
20 D	8.688	-1.9197E-04	78.46	43.44	78.46	43.44	V-C 8488.
43.44	0.000	0.000	Strato1_2_8_L_0				
21 D	8.890	-1.7900E-04	81.97	44.45	81.97	44.45	V-C 8488.
44.45	0.000	0.000	Strato1_2_8_L_0				
22 D	9.126	-1.6758E-04	85.82	45.63	85.82	45.63	V-C 8488.
45.63	0.000	0.000	Strato1_2_8_L_0				
23 D	9.089	-1.5758E-04	89.66	45.45	89.66	47.52	UL-RL 2.5465E+04
45.45	0.000	0.000	Strato1_2_8_L_0				
24 D	9.003	-1.4888E-04	93.50	45.02	93.50	49.56	UL-RL 2.5465E+04
45.02	0.000	0.000	Strato1_2_8_L_0				
25 D	9.209	-1.4135E-04	97.34	46.04	97.34	51.59	UL-RL 2.5465E+04
46.04	0.000	0.000	Strato1_2_8_L_0				
26 D	9.654	-1.3490E-04	101.2	48.27	101.2	53.62	UL-RL 2.5465E+04
48.27	0.000	0.000	Strato1_2_8_L_0				
27 D	10.09	-1.2945E-04	105.0	50.47	105.0	55.65	UL-RL 2.5465E+04
50.47	0.000	0.000	Strato1_2_8_L_0				
28 D	10.50	-1.2492E-04	108.6	52.52	108.6	57.55	UL-RL 2.5465E+04
52.52	0.000	0.000	Strato1_2_8_L_0				
29 D	10.94	-1.2122E-04	112.4	54.68	112.4	59.58	UL-RL 2.5465E+04
54.68	0.000	0.000	Strato1_2_8_L_0				
30 D	11.37	-1.1830E-04	116.3	56.83	116.3	61.62	UL-RL 2.5465E+04
56.83	0.000	0.000	Strato1_2_8_L_0				
31 D	11.79	-1.1609E-04	120.1	58.95	120.1	63.65	UL-RL 2.5465E+04
58.95	0.000	0.000	Strato1_2_8_L_0				
32 D	12.21	-1.1453E-04	123.9	61.07	123.9	65.68	UL-RL 2.5465E+04
61.07	0.000	0.000	Strato1_2_8_L_0				
33 D	12.63	-1.1357E-04	127.7	63.17	127.7	67.70	UL-RL 2.5465E+04
63.17	0.000	0.000	Strato1_2_8_L_0				
34 D	13.05	-1.1315E-04	131.6	65.25	131.6	69.73	UL-RL 2.5465E+04
65.25	0.000	0.000	Strato1_2_8_L_0				
35 D	13.47	-1.1322E-04	135.4	67.33	135.4	71.76	UL-RL 2.5465E+04
67.33	0.000	0.000	Strato1_2_8_L_0				
36 D	13.86	-1.1375E-04	139.0	69.30	139.0	73.68	UL-RL 2.5465E+04
69.30	0.000	0.000	Strato1_2_8_L_0				
37 D	14.27	-1.1467E-04	142.9	71.36	142.9	75.71	UL-RL 2.5465E+04
71.36	0.000	0.000	Strato1_2_8_L_0				
38 D	14.68	-1.1594E-04	146.7	73.41	146.7	77.74	UL-RL 2.5465E+04
73.41	0.000	0.000	Strato1_2_8_L_0				
39 D	15.09	-1.1752E-04	150.5	75.45	150.5	79.77	UL-RL 2.5465E+04
75.45	0.000	0.000	Strato1_2_8_L_0				
40 D	15.50	-1.1936E-04	154.3	77.49	154.3	81.79	UL-RL 2.5465E+04
77.49	0.000	0.000	Strato1_2_8_L_0				
41 D	13.39	-1.2142E-04	158.2	66.96	158.2	79.12	UL-RL 7.2037E+04
66.96	0.000	0.000	Strato2_3095_82743_L_0				
42 D	13.79	-1.2364E-04	162.3	68.96	162.3	81.13	UL-RL 7.2037E+04
68.96	0.000	0.000	Strato2_3095_82743_L_0				
43 D	14.17	-1.2598E-04	166.1	70.87	166.1	83.06	UL-RL 7.2037E+04
70.87	0.000	0.000	Strato2_3095_82743_L_0				
44 D	14.57	-1.2841E-04	170.2	72.85	170.2	85.08	UL-RL 7.2037E+04
72.85	0.000	0.000	Strato2_3095_82743_L_0				
45 D	14.96	-1.3090E-04	174.2	74.82	174.2	87.09	UL-RL 7.2037E+04
74.82	0.000	0.000	Strato2_3095_82743_L_0				
46 D	15.36	-1.3342E-04	178.2	76.78	178.2	89.10	UL-RL 7.2037E+04
76.78	0.000	0.000	Strato2_3095_82743_L_0				
47 D	15.74	-1.3595E-04	182.2	78.72	182.2	91.11	UL-RL 7.2037E+04
78.72	0.000	0.000	Strato2_3095_82743_L_0				
48 D	16.13	-1.3848E-04	186.2	80.66	186.2	93.12	UL-RL 7.2037E+04
80.66	0.000	0.000	Strato2_3095_82743_L_0				
49 D	16.52	-1.4098E-04	190.2	82.59	190.2	95.12	UL-RL 7.2037E+04
82.59	0.000	0.000	Strato2_3095_82743_L_0				
50 D	16.90	-1.4346E-04	194.3	84.51	194.3	97.13	UL-RL 7.2037E+04
84.51	0.000	0.000	Strato2_3095_82743_L_0				



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:09:27        |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
0.000	0.000	0.000	not available									
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
14	0.000	--	--	--	--	--	REMOVED	--	-2.500	0.000	1.000	1.000
0.000	0.000	0.000	not available									
15	0.000	--	--	--	--	--	REMOVED	--	-2.700	0.000	1.000	1.000
0.000	0.000	0.000	not available									
16	0.000	--	--	--	--	--	REMOVED	--	-2.900	0.000	1.000	1.000
0.000	0.000	0.000	not available									
17 D	0.1155	2.4220E-04	1.900	0.5776	58.90	32.03	ACTIVE	0.000	-3.100	0.000	1.000	1.000
0.5776	0.000	0.000	Stratol_2_8_L_0									
18 D	0.8796	2.2335E-04	5.700	4.398	62.70	34.04	UL-RL	1.7671E+04	-3.300	0.000	1.000	1.000
4.398	0.000	0.000	Stratol_2_8_L_0									
19 D	4.199	2.0669E-04	9.500	21.00	66.50	38.39	UL-RL	1.7671E+04	-3.500	0.000	1.000	1.000
21.00	0.000	0.000	Stratol_2_8_L_0									
20 D	5.618	1.9197E-04	13.30	28.09	70.30	44.25	UL-RL	1.7671E+04	-3.700	0.000	1.000	1.000
28.09	0.000	0.000	Stratol_2_8_L_0									
21 D	6.166	1.7900E-04	17.10	30.83	74.10	45.78	UL-RL	1.7671E+04	-3.900	0.000	1.000	1.000
30.83	0.000	0.000	Stratol_2_8_L_0									
22 D	6.712	1.6758E-04	20.90	33.56	77.90	47.33	UL-RL	1.7671E+04	-4.100	0.000	1.000	1.000
33.56	0.000	0.000	Stratol_2_8_L_0									
23 D	7.255	1.5758E-04	24.70	36.28	81.70	48.90	UL-RL	1.7671E+04	-4.300	0.000	1.000	1.000
36.28	0.000	0.000	Stratol_2_8_L_0									
24 D	7.794	1.4888E-04	28.50	38.97	85.50	50.49	UL-RL	1.7671E+04	-4.500	0.000	1.000	1.000
38.97	0.000	0.000	Stratol_2_8_L_0									
25 D	8.329	1.4135E-04	32.30	41.64	89.30	52.10	UL-RL	1.7671E+04	-4.700	0.000	1.000	1.000
41.64	0.000	0.000	Stratol_2_8_L_0									
26 D	8.858	1.3490E-04	36.10	44.29	93.10	53.73	UL-RL	1.7671E+04	-4.900	0.000	1.000	1.000
44.29	0.000	0.000	Stratol_2_8_L_0									
27 D	9.381	1.2945E-04	39.90	46.91	96.90	55.38	UL-RL	1.7671E+04	-5.100	0.000	1.000	1.000
46.91	0.000	0.000	Stratol_2_8_L_0									
28 D	9.899	1.2492E-04	43.70	49.49	100.7	57.06	UL-RL	1.7671E+04	-5.300	0.000	1.000	1.000
49.49	0.000	0.000	Stratol_2_8_L_0									
29 D	10.41	1.2122E-04	47.50	52.05	104.5	58.75	UL-RL	1.7671E+04	-5.500	0.000	1.000	1.000
52.05	0.000	0.000	Stratol_2_8_L_0									
30 D	10.91	1.1830E-04	51.30	54.57	108.3	60.47	UL-RL	1.7671E+04	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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54.57	0.000	0.000	Strato1_2_8_L_0		
31 D	11.41	1.1609E-04	55.10 57.06	112.1	62.22
57.06	0.000	0.000	Strato1_2_8_L_0		
32 D	11.90	1.1453E-04	58.90 59.52	115.9	63.98
59.52	0.000	0.000	Strato1_2_8_L_0		
33 D	12.39	1.1357E-04	62.70 61.94	119.7	65.77
61.94	0.000	0.000	Strato1_2_8_L_0		
34 D	12.87	1.1315E-04	66.50 64.33	123.5	67.57
64.33	0.000	0.000	Strato1_2_8_L_0		
35 D	13.34	1.1322E-04	70.30 66.69	127.3	69.40
66.69	0.000	0.000	Strato1_2_8_L_0		
36 D	13.80	1.1375E-04	74.10 69.02	131.1	71.24
69.02	0.000	0.000	Strato1_2_8_L_0		
37 D	14.26	1.1467E-04	77.90 71.32	134.9	73.10
71.32	0.000	0.000	Strato1_2_8_L_0		
38 D	14.72	1.1594E-04	81.70 73.59	138.7	74.98
73.59	0.000	0.000	Strato1_2_8_L_0		
39 D	15.17	1.1752E-04	85.50 75.83	142.5	76.87
75.83	0.000	0.000	Strato1_2_8_L_0		
40 D	15.61	1.1936E-04	89.30 78.05	146.3	78.78
78.05	0.000	0.000	Strato1_2_8_L_0		
41 D	12.74	1.2142E-04	93.20 63.68	150.2	76.14
63.68	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.17	1.2364E-04	97.20 65.83	154.2	78.09
65.83	0.000	0.000	Strato2_3095_82743_L_0		
43 D	13.60	1.2598E-04	101.2 67.99	158.2	80.04
67.99	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.03	1.2841E-04	105.2 70.14	162.2	82.00
70.14	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.46	1.3090E-04	109.2 72.29	166.2	83.96
72.29	0.000	0.000	Strato2_3095_82743_L_0		
46 D	14.89	1.3342E-04	113.2 74.44	170.2	85.92
74.44	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.32	1.3595E-04	117.2 76.59	174.2	87.88
76.59	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.75	1.3848E-04	121.2 78.73	178.2	89.85
78.73	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.17	1.4098E-04	125.2 80.87	182.2	91.82
80.87	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.60	1.4346E-04	129.2 83.01	186.2	93.79
83.01	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.03	1.4591E-04	133.2 85.15	190.2	95.76
85.15	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.46	1.4833E-04	137.2 87.28	194.2	97.74
87.28	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.88	1.5071E-04	141.2 89.40	198.2	99.72
89.40	0.000	0.000	Strato2_3095_82743_L_0		
54 D	18.31	1.5306E-04	145.2 91.53	202.2	101.7
91.53	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.73	1.5538E-04	149.2 93.65	206.2	103.7
93.65	0.000	0.000	Strato2_3095_82743_L_0		
56 D	19.15	1.5767E-04	153.2 95.77	210.2	105.7
95.77	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.58	1.5994E-04	157.2 97.89	214.2	107.6
97.89	0.000	0.000	Strato2_3095_82743_L_0		
58 D	20.00	1.6220E-04	161.2 100.0	218.2	109.6
100.0	0.000	0.000	Strato2_3095_82743_L_0		
59 D	20.42	1.6445E-04	165.2 102.1	222.2	111.6
102.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	20.85	1.6669E-04	169.2 104.2	226.2	113.6
104.2	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.95	1.6893E-04	173.2 106.3	230.2	115.6
106.3	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.370	1.7005E-04	175.2 107.4	232.2	116.6
107.4	0.000	0.000	Strato2_3095_82743_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 3

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WallElement_33      :
ELEMENT TYPE      2 NO.OF ELEMENTS. IN THIS GROUP      61
C U R R E N T   T I M E   I S      4.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.2514	-2.2514	-2.69562E-12	0.45028
2	6.5220	-6.5220	-0.45028	1.7547
3	11.150	-11.150	-1.7547	3.9847
4	16.075	-16.075	-3.9847	7.1997
5	21.277	-21.277	-7.1997	11.455
6	26.747	-26.747	-11.455	16.805
7	32.480	-32.480	-16.805	23.300
8	38.472	-38.472	-23.300	30.995
9	44.649	-44.649	-30.995	39.925
10	51.087	-51.087	-39.925	50.142
11	57.781	-57.781	-50.142	61.698
12	64.725	-64.725	-61.698	74.643
13	70.118	-70.118	-74.643	81.655
14	-56.168	56.168	-81.655	70.421
15	-48.640	48.640	-70.421	60.693
16	-40.876	40.876	-60.693	52.518
17	-32.996	32.996	-52.518	45.919
18	-25.649	25.649	-45.919	40.789
19	-21.392	21.392	-40.789	36.511
20	-18.323	18.323	-36.511	32.846
21	-15.599	15.599	-32.846	29.726
22	-13.185	13.185	-29.726	27.090
23	-11.351	11.351	-27.090	24.819
24	-10.142	10.142	-24.819	22.791
25	-9.2623	9.2623	-22.791	20.938
26	-8.4665	8.4665	-20.938	19.245
27	-7.7540	7.7540	-19.245	17.694
28	-7.1491	7.1491	-17.694	16.264
29	-6.6225	6.6225	-16.264	14.940
30	-6.1713	6.1713	-14.940	13.706
31	-5.7923	5.7923	-13.706	12.547
32	-5.4819	5.4819	-12.547	11.451
33	-5.2361	5.2361	-11.451	10.404
34	-5.0511	5.0511	-10.404	9.3934
35	-4.9227	4.9227	-9.3934	8.4089
36	-4.8669	4.8669	-8.4089	7.4355
37	-4.8589	4.8589	-7.4355	6.4637
38	-4.8949	4.8949	-6.4637	5.4848
39	-4.9710	4.9710	-5.4848	4.4906
40	-5.0836	5.0836	-4.4906	3.4738
41	-4.4283	4.4283	-3.4738	2.5882
42	-3.8023	3.8023	-2.5882	1.8277
43	-3.2246	3.2246	-1.8277	1.1828
44	-2.6817	2.6817	-1.1828	0.64644
45	-2.1759	2.1759	-0.64644	0.21126
46	-1.7091	1.7091	-0.21126	-0.13056
47	-1.2827	1.2827	0.13056	-0.38709
48	-0.89786	0.89786	0.38709	-0.56667
49	-0.55541	0.55541	0.56667	-0.67775
50	-0.25592	0.25592	0.67775	-0.72893
51	-1.30351E-02	1.30351E-02	0.72893	-0.73154
52	0.18663	-0.18663	0.73154	-0.69421
53	0.34300	-0.34300	0.69421	-0.62561
54	0.45611	-0.45611	0.62561	-0.53439
55	0.52619	-0.52619	0.53439	-0.42915
56	0.55338	-0.55338	0.42915	-0.31848
57	0.53786	-0.53786	0.31848	-0.21091
58	0.46813	-0.46813	0.21091	-0.11728
59	0.35625	-0.35625	0.11728	-4.60287E-02
60	0.20237	-0.20237	4.60287E-02	-5.55496E-03
61	5.55440E-02	-5.55440E-02	5.55496E-03	3.17768E-12



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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	136.40	-1.28419E-03	-1.28419E-03	0.0000	0.0000	0.0000	0.0000	BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.9827E+05 RIMNOR=0.9002E+05
 RENORM= 595.2 REMNOR=0.5267E-21 RATIO =0.7783E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 81.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.9827E+05 RDR =0.9002E+05
 RATIOT=0.7783E-01 RATIO= 0.000
 MAX UN= 8.858 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
 MIN UN=-.1265E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.9827E+05 RIMNOR=0.9002E+05
 RENORM= 1.005 REMNOR=0.1391E-19 RATIO =0.3199E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 81.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.9827E+05 RDR =0.9002E+05
 RATIOT=0.3199E-02 RATIO= 0.000
 MAX UN=0.5965 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
 MIN UN=-.3178E-09 IEQ= 121 NODE 61 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.9827E+05 RIMNOR=0.9002E+05
 RENORM=0.1626E-03 REMNOR=0.5219E-20 RATIO =0.4067E-04 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 131.8 RMMAX = 81.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.9827E+05 RDR =0.9002E+05
 RATIOT=0.4067E-04 RATIO= 0.000
 MAX UN=0.1275E-01 IEQ= 61 NODE 31 DOF 1 Y-DISPL.F
 MIN UN=-.7846E-09 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

GENERAL CONTRACTOR

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ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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New Project

SOLUTION REACHED USING 3 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.0981603E-03	-1.3626727E-04	
2	1.0709098E-03	-1.3622365E-04	
3	1.0436820E-03	-1.3601237E-04	
4	1.0165272E-03	-1.3546534E-04	
5	9.8953035E-04	-1.3440155E-04	
6	9.6281385E-04	-1.3262889E-04	
7	9.3653955E-04	-1.2994490E-04	
8	9.1091081E-04	-1.2613704E-04	
9	8.8617448E-04	-1.2098293E-04	
10	8.6262275E-04	-1.1425213E-04	
11	8.4059465E-04	-1.0570604E-04	
12	8.2047792E-04	-9.5096238E-05	
13	8.0271095E-04	-8.2164622E-05	
14	7.9485951E-04	-7.4753302E-05	
15	7.8134120E-04	-6.1011589E-05	
16	7.7023168E-04	-5.0617871E-05	
17	7.6089018E-04	-4.3282273E-05	
18	7.5273484E-04	-3.8705654E-05	
19	7.4524455E-04	-3.6579539E-05	
20	7.3796085E-04	-3.6585965E-05	
21	7.3048984E-04	-3.8397231E-05	
22	7.2250411E-04	-4.1676297E-05	
23	7.1374459E-04	-4.6076357E-05	
24	7.0402224E-04	-5.1246225E-05	
25	6.9321800E-04	-5.6837654E-05	
26	6.8128250E-04	-6.2499242E-05	
27	6.6823819E-04	-6.7863473E-05	
28	6.5417956E-04	-7.2591977E-05	
29	6.3925951E-04	-7.6448824E-05	
30	6.2366558E-04	-7.9322420E-05	
31	6.0759529E-04	-8.1224784E-05	
32	5.9123458E-04	-8.2244710E-05	
33	5.7474954E-04	-8.2483790E-05	
34	5.5828662E-04	-8.2039515E-05	
35	5.4197304E-04	-8.1005642E-05	
36	5.2591766E-04	-7.9472248E-05	
37	5.1021165E-04	-7.7526274E-05	
38	4.9492914E-04	-7.5251622E-05	
39	4.8012763E-04	-7.2728712E-05	
40	4.6584907E-04	-7.0034671E-05	
41	4.5212024E-04	-6.7243416E-05	
42	4.3895399E-04	-6.4417821E-05	
43	4.2635213E-04	-6.1607959E-05	
44	4.1430690E-04	-5.8857679E-05	
45	4.0280255E-04	-5.6204969E-05	
46	3.9181627E-04	-5.3681808E-05	
47	3.8131944E-04	-5.1314481E-05	
48	3.7127875E-04	-4.9123874E-05	
49	3.6165711E-04	-4.7125708E-05	
50	3.5241491E-04	-4.5330862E-05	
51	3.4351080E-04	-4.3745559E-05	
52	3.3490279E-04	-4.2371933E-05	
53	3.2654825E-04	-4.1208069E-05	
54	3.1840597E-04	-4.0248042E-05	
55	3.1043611E-04	-3.9481898E-05	
56	3.0260121E-04	-3.8895785E-05	
57	2.9486697E-04	-3.8472021E-05	
58	2.8720301E-04	-3.8189144E-05	
59	2.7958359E-04	-3.8022210E-05	
60	2.7198829E-04	-3.7942795E-05	
61	2.6440278E-04	-3.7918709E-05	
62	2.6061061E-04	-3.7917474E-05	



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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	1.837	-1.0982E-03	11.54	18.37	11.54	22.51	UL-RL	1.5402E+04	0.000	0.000	1.000	1.000
18.37	0.000	0.000	Stratol_2_8_L_0									
2 D	3.388	-1.0709E-03	9.984	16.94	9.984	21.35	UL-RL	1.5402E+04	-0.2000	0.000	1.000	1.000
16.94	0.000	0.000	Stratol_2_8_L_0									
3 D	3.692	-1.0437E-03	14.92	18.46	14.92	23.14	UL-RL	1.5402E+04	-0.4000	0.000	1.000	1.000
18.46	0.000	0.000	Stratol_2_8_L_0									
4 D	3.934	-1.0165E-03	19.18	19.67	19.18	24.62	UL-RL	1.5402E+04	-0.6000	0.000	1.000	1.000
19.67	0.000	0.000	Stratol_2_8_L_0									
5 D	4.157	-9.8953E-04	23.23	20.79	23.23	26.01	UL-RL	1.5402E+04	-0.8000	0.000	1.000	1.000
20.79	0.000	0.000	Stratol_2_8_L_0									
6 D	4.371	-9.6281E-04	27.18	21.86	27.18	27.35	UL-RL	1.5402E+04	-1.000	0.000	1.000	1.000
21.86	0.000	0.000	Stratol_2_8_L_0									
7 D	4.581	-9.3654E-04	31.09	22.90	31.09	28.66	UL-RL	1.5402E+04	-1.200	0.000	1.000	1.000
22.90	0.000	0.000	Stratol_2_8_L_0									
8 D	4.787	-9.1091E-04	34.97	23.93	34.97	29.96	UL-RL	1.5402E+04	-1.400	0.000	1.000	1.000
23.93	0.000	0.000	Stratol_2_8_L_0									
9 D	4.920	-8.8617E-04	38.06	24.60	38.06	30.89	UL-RL	1.5402E+04	-1.600	0.000	1.000	1.000
24.60	0.000	0.000	Stratol_2_8_L_0									
10 D	5.129	-8.6262E-04	41.99	25.65	41.99	32.19	UL-RL	1.5402E+04	-1.800	0.000	1.000	1.000
25.65	0.000	0.000	Stratol_2_8_L_0									
11 D	5.335	-8.4059E-04	45.89	26.67	45.89	33.47	UL-RL	1.5402E+04	-2.000	0.000	1.000	1.000
26.67	0.000	0.000	Stratol_2_8_L_0									
12 D	5.537	-8.2048E-04	49.78	27.69	49.78	34.72	UL-RL	1.5402E+04	-2.200	0.000	1.000	1.000
27.69	0.000	0.000	Stratol_2_8_L_0									
13 D	4.302	-8.0271E-04	53.65	28.68	53.65	35.95	UL-RL	1.5402E+04	-2.400	0.000	1.000	1.000
28.68	0.000	0.000	Stratol_2_8_L_0									
14 D	4.359	-7.9486E-04	55.33	29.06	55.33	36.44	UL-RL	1.5402E+04	-2.500	0.000	1.000	1.000
29.06	0.000	0.000	Stratol_2_8_L_0									
15 D	6.008	-7.8134E-04	59.21	30.04	59.21	37.64	UL-RL	1.5402E+04	-2.700	0.000	1.000	1.000
30.04	0.000	0.000	Stratol_2_8_L_0									
16 D	6.203	-7.7023E-04	63.07	31.01	63.07	38.82	UL-RL	1.5402E+04	-2.900	0.000	1.000	1.000
31.01	0.000	0.000	Stratol_2_8_L_0									
17 D	6.398	-7.6089E-04	66.93	31.99	66.93	39.98	UL-RL	1.5402E+04	-3.100	0.000	1.000	1.000
31.99	0.000	0.000	Stratol_2_8_L_0									
18 D	6.596	-7.5273E-04	70.78	32.98	70.78	41.13	UL-RL	1.5402E+04	-3.300	0.000	1.000	1.000
32.98	0.000	0.000	Stratol_2_8_L_0									
19 D	6.798	-7.4524E-04	74.62	33.99	74.62	42.28	UL-RL	1.5402E+04	-3.500	0.000	1.000	1.000
33.99	0.000	0.000	Stratol_2_8_L_0									
20 D	7.006	-7.3796E-04	78.46	35.03	78.46	43.44	UL-RL	1.5402E+04	-3.700	0.000	1.000	1.000
35.03	0.000	0.000	Stratol_2_8_L_0									
21 D	7.191	-7.3049E-04	81.97	35.96	81.97	44.45	UL-RL	1.5402E+04	-3.900	0.000	1.000	1.000
35.96	0.000	0.000	Stratol_2_8_L_0									
22 D	7.417	-7.2250E-04	85.82	37.09	85.82	45.63	UL-RL	1.5402E+04	-4.100	0.000	1.000	1.000
37.09	0.000	0.000	Stratol_2_8_L_0									
23 D	7.376	-7.1374E-04	89.66	36.88	89.66	47.52	UL-RL	1.5402E+04	-4.300	0.000	1.000	1.000
36.88	0.000	0.000	Stratol_2_8_L_0									
24 D	7.293	-7.0402E-04	93.50	36.47	93.50	49.56	UL-RL	1.5402E+04	-4.500	0.000	1.000	1.000
36.47	0.000	0.000	Stratol_2_8_L_0									
25 D	7.509	-6.9322E-04	97.34	37.54	97.34	51.59	UL-RL	1.5402E+04	-4.700	0.000	1.000	1.000
37.54	0.000	0.000	Stratol_2_8_L_0									
26 D	7.971	-6.8128E-04	101.2	39.85	101.2	53.62	UL-RL	1.5402E+04	-4.900	0.000	1.000	1.000
39.85	0.000	0.000	Stratol_2_8_L_0									
27 D	8.434	-6.6824E-04	105.0	42.17	105.0	55.65	UL-RL	1.5402E+04	-5.100	0.000	1.000	1.000
42.17	0.000	0.000	Stratol_2_8_L_0									
28 D	8.873	-6.5418E-04	108.6	44.37	108.6	57.55	UL-RL	1.5402E+04	-5.300	0.000	1.000	1.000
44.37	0.000	0.000	Stratol_2_8_L_0									
29 D	9.341	-6.3926E-04	112.4	46.70	112.4	59.58	UL-RL	1.5402E+04	-5.500	0.000	1.000	1.000
46.70	0.000	0.000	Stratol_2_8_L_0									
30 D	9.809	-6.2367E-04	116.3	49.04	116.3	61.62	UL-RL	1.5402E+04	-5.700	0.000	1.000	1.000



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49.04	0.000	0.000	Strato1_2_8_L_0		
31 D	10.28	-6.0760E-04	120.1 51.38	120.1	63.65
51.38	0.000	0.000	Strato1_2_8_L_0		
32 D	10.75	-5.9123E-04	123.9 53.73	123.9	65.68
53.73	0.000	0.000	Strato1_2_8_L_0		
33 D	11.21	-5.7475E-04	127.7 56.06	127.7	67.70
56.06	0.000	0.000	Strato1_2_8_L_0		
34 D	11.68	-5.5829E-04	131.6 58.40	131.6	69.73
58.40	0.000	0.000	Strato1_2_8_L_0		
35 D	12.15	-5.4197E-04	135.4 60.73	135.4	71.76
60.73	0.000	0.000	Strato1_2_8_L_0		
36 D	12.59	-5.2592E-04	139.0 62.95	139.0	73.68
62.95	0.000	0.000	Strato1_2_8_L_0		
37 D	13.05	-5.1021E-04	142.9 65.26	142.9	75.71
65.26	0.000	0.000	Strato1_2_8_L_0		
38 D	13.51	-4.9493E-04	146.7 67.57	146.7	77.74
67.57	0.000	0.000	Strato1_2_8_L_0		
39 D	13.97	-4.8013E-04	150.5 69.87	150.5	79.77
69.87	0.000	0.000	Strato1_2_8_L_0		
40 D	14.43	-4.6585E-04	154.3 72.15	154.3	81.79
72.15	0.000	0.000	Strato1_2_8_L_0		
41 D	10.51	-4.5212E-04	158.2 52.55	158.2	79.12
52.55	0.000	0.000	Strato2_3095_82743_L_0		
42 D	11.04	-4.3895E-04	162.3 55.22	162.3	81.13
55.22	0.000	0.000	Strato2_3095_82743_L_0		
43 D	11.56	-4.2635E-04	166.1 57.79	166.1	83.06
57.79	0.000	0.000	Strato2_3095_82743_L_0		
44 D	12.08	-4.1431E-04	170.2 60.40	170.2	85.08
60.40	0.000	0.000	Strato2_3095_82743_L_0		
45 D	12.59	-4.0280E-04	174.2 62.97	174.2	87.09
62.97	0.000	0.000	Strato2_3095_82743_L_0		
46 D	13.10	-3.9182E-04	178.2 65.52	178.2	89.10
65.52	0.000	0.000	Strato2_3095_82743_L_0		
47 D	13.61	-3.8132E-04	182.2 68.03	182.2	91.11
68.03	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.10	-3.7128E-04	186.2 70.51	186.2	93.12
70.51	0.000	0.000	Strato2_3095_82743_L_0		
49 D	14.59	-3.6166E-04	190.2 72.97	190.2	95.12
72.97	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.08	-3.5241E-04	194.3 75.41	194.3	97.13
75.41	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.55	-3.4351E-04	198.1 77.75	198.1	99.07
77.75	0.000	0.000	Strato2_3095_82743_L_0		
52 D	16.03	-3.3490E-04	202.2 80.15	202.2	101.1
80.15	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.51	-3.2655E-04	206.2 82.53	206.2	103.1
82.53	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.98	-3.1841E-04	210.2 84.89	210.2	105.1
84.89	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.45	-3.1044E-04	214.2 87.24	214.2	107.1
87.24	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.92	-3.0260E-04	218.2 89.59	218.2	109.1
89.59	0.000	0.000	Strato2_3095_82743_L_0		
57 D	18.39	-2.9487E-04	222.3 91.93	222.3	111.1
91.93	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.84	-2.8720E-04	226.1 94.21	226.1	113.1
94.21	0.000	0.000	Strato2_3095_82743_L_0		
59 D	19.31	-2.7958E-04	230.2 96.54	230.2	115.1
96.54	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.77	-2.7199E-04	234.2 98.87	234.2	117.1
98.87	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.18	-2.6440E-04	238.2 101.2	238.2	119.1
101.2	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.117	-2.6061E-04	240.1 102.3	240.1	120.1
102.3	0.000	0.000	Strato2_3095_82743_L_0		

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
|                                                                                                                                           |
|          NewProject.BaseDesignSection_28.A1MIRI_3484          |
|          Exe Time :24 July 2019          11:09:27          |
+-----+

```

New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 399 di 560
40 D	15.95	4.6585E-04	52.06	79.77	146.3
79.77	0.000	0.000	Strato1_2_8_L_0		
41 D	11.63	4.5212E-04	55.96	58.17	150.2
58.17	0.000	0.000	Strato2_3095_82743_L_0		
42 D	12.03	4.3895E-04	59.96	60.14	154.2
60.14	0.000	0.000	Strato2_3095_82743_L_0		
43 D	12.42	4.2635E-04	63.96	62.11	158.2
62.11	0.000	0.000	Strato2_3095_82743_L_0		
44 D	12.81	4.1431E-04	67.96	64.07	162.2
64.07	0.000	0.000	Strato2_3095_82743_L_0		
45 D	13.21	4.0280E-04	71.96	66.03	166.2
66.03	0.000	0.000	Strato2_3095_82743_L_0		
46 D	13.60	3.9182E-04	75.96	67.99	170.2
67.99	0.000	0.000	Strato2_3095_82743_L_0		
47 D	13.99	3.8132E-04	79.96	69.95	174.2
69.95	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.38	3.7128E-04	83.96	71.91	178.2
71.91	0.000	0.000	Strato2_3095_82743_L_0		
49 D	14.77	3.6166E-04	87.96	73.87	182.2
73.87	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.16	3.5241E-04	91.96	75.82	186.2
75.82	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.56	3.4351E-04	95.96	77.78	190.2
77.78	0.000	0.000	Strato2_3095_82743_L_0		
52 D	15.95	3.3490E-04	99.96	79.73	194.2
79.73	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.34	3.2655E-04	104.0	81.68	198.2
81.68	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.73	3.1841E-04	108.0	83.64	202.2
83.64	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.12	3.1044E-04	112.0	85.58	206.2
85.58	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.51	3.0260E-04	116.0	87.53	210.2
87.53	0.000	0.000	Strato2_3095_82743_L_0		
57 D	17.89	2.9487E-04	120.0	89.47	214.2
89.47	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.28	2.8720E-04	124.0	91.41	218.2
91.41	0.000	0.000	Strato2_3095_82743_L_0		
59 D	18.67	2.7958E-04	128.0	93.35	222.2
93.35	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.06	2.7199E-04	132.0	95.28	226.2
95.28	0.000	0.000	Strato2_3095_82743_L_0		
61 D	14.58	2.6440E-04	136.0	97.21	230.2
97.21	0.000	0.000	Strato2_3095_82743_L_0		
62 D	4.909	2.6061E-04	138.0	98.18	232.2
98.18	0.000	0.000	Strato2_3095_82743_L_0		

```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_3484                       |
|                               Exe Time :24 July 2019  11:09:27                               |
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```

New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
 CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.8372	-1.8372	-2.13580E-11	0.36745
2	5.2253	-5.2253	-0.36745	1.4125
3	8.9169	-8.9169	-1.4125	3.1959
4	12.851	-12.851	-3.1959	5.7661
5	17.008	-17.008	-5.7661	9.1677
6	21.380	-21.380	-9.1677	13.444
7	25.960	-25.960	-13.444	18.636
8	30.747	-30.747	-18.636	24.785
9	35.667	-35.667	-24.785	31.919
10	40.797	-40.797	-31.919	40.078
11	46.132	-46.132	-40.078	49.304
12	51.669	-51.669	-49.304	59.638
13	55.971	-55.971	-59.638	65.235
14	-73.517	73.517	-65.235	50.532
15	-67.509	67.509	-50.532	37.030
16	-61.307	61.307	-37.030	24.769

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Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 400 di 560
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17	-54.909	54.909	-24.769	13.787
18	-48.313	48.313	-13.787	4.1244
19	-41.515	41.515	-4.1244	-4.1786
20	-34.509	34.509	4.1786	-11.080
21	-27.318	27.318	11.080	-16.544
22	-19.901	19.901	16.544	-20.524
23	-12.525	12.525	20.524	-23.029
24	-5.2320	5.2320	23.029	-24.076
25	2.2768	-2.2768	24.076	-23.620
26	10.248	-10.248	23.620	-21.571
27	16.532	-16.532	21.571	-18.264
28	20.184	-20.184	18.264	-14.228
29	21.233	-21.233	14.228	-9.9810
30	19.678	-19.678	9.9810	-6.0454
31	17.492	-17.492	6.0454	-2.5470
32	15.399	-15.399	2.5470	0.53286
33	13.385	-13.385	-0.53286	3.2099
34	11.450	-11.450	-3.2099	5.4999
35	9.5912	-9.5912	-5.4999	7.4182
36	7.7876	-7.7876	-7.4182	8.9757
37	6.0577	-6.0577	-8.9757	10.187
38	4.3991	-4.3991	-10.187	11.067
39	2.8093	-2.8093	-11.067	11.629
40	1.2856	-1.2856	-11.629	11.886
41	0.16084	-0.16084	-11.886	11.918
42	-0.82295	0.82295	-11.918	11.754
43	-1.6874	1.6874	-11.754	11.416
44	-2.4225	2.4225	-11.416	10.932
45	-3.0345	3.0345	-10.932	10.325
46	-3.5296	3.5296	-10.325	9.6188
47	-3.9138	3.9138	-9.6188	8.8361
48	-4.1928	4.1928	-8.8361	7.9975
49	-4.3716	4.3716	-7.9975	7.1232
50	-4.4549	4.4549	-7.1232	6.2322
51	-4.4601	4.4601	-6.2322	5.3402
52	-4.3772	4.3772	-5.3402	4.4648
53	-4.2090	4.2090	-4.4648	3.6230
54	-3.9579	3.9579	-3.6230	2.8314
55	-3.6255	3.6255	-2.8314	2.1063
56	-3.2131	3.2131	-2.1063	1.4637
57	-2.7214	2.7214	-1.4637	0.91941
58	-2.1624	2.1624	-0.91941	0.48693
59	-1.5242	1.5242	-0.48693	0.18210
60	-0.80642	0.80642	-0.18210	2.08134E-02
61	-0.20811	0.20811	-2.08134E-02	1.23295E-11

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:09:27
|
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```

New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	138.57	-1.28419E-03	-8.21086E-04	0.0000	4682.3	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:09:27
|
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```

FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP NO. OF ITERATIONS

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 401 di 560
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```

1          CONVERGENCE :YES          2
2          CONVERGENCE :YES          3
3          CONVERGENCE :YES          5
4          CONVERGENCE :YES          4
5          CONVERGENCE :YES          3

```

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.05 [sec]

DATABASE CREATION CPU TIME..... 0.21 [sec]

2.7. Design Assumption : A2+M2+R1 - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A2+M2+R1

* Time:mercoledì 24 luglio 2019 11:09:28

* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -12 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -12 0 1 0

SOIL 0_R LeftWall_32 -12 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_2_8_L_0)

*

LDATA Strato1_2_8_L_0 0 LeftWall_32

ATREST 0.53 1 1

WEIGHT 19 9 10

PERMEABILITY 1E-06

RESISTANCE 0 29

YOUNG 2E+04 6E+04

ENDL

*

* Soil Profile (Strato2_3095_82743_L_0)

*

LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 108 Name=Fe360 E=206000200 kPa

MATERIAL Fe360_108 2.06E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 124 Name=acciaio armonico E=200100000 kPa

MATERIAL acciaioarmonico_124 2.001E+08

* Concrete material: 103 Name=C20/25 E=29962000 kPa

MATERIAL C2025_103 2.996E+07

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0

* 6.2: Supports

WIRE Tieback_778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0

* 6.3: Strips

STRIP LeftWall_32 2 5 0 40 0 13 30

* 7: Defining Steps

STEP Stage0_31

CHANGE Strato1_2_8_L_0 U-FRICT=23.91 LeftWall_32



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 402 di 560
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CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KA=0.375 LeftWall_32
CHANGE Strato1_2_8_L_0 U-KP=3.038 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KA=0.375 LeftWall_32
CHANGE Strato1_2_8_L_0 D-KP=3.038 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-FRICT=29.26 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KA=0.3 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-KP=4.102 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KA=0.3 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-KP=4.102 LeftWall_32
CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 U-COHE=16 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ADD WallElement_33
ENDSTEP

STEP Stage1_759103
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage3_775251
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ENDSTEP

STEP Stage4_775610
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -3
WATER -26 0 -12 0 0
ADD Tieback_778405
ENDSTEP

STEP Stage5_714
CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -4.96
WATER -26 0 -12 0 0
ENDSTEP
    
```

2.8. Design Assumption : A2+M2+R1 - File di Paratie - File di output (.out)

```

+-----+
|          PARATIEPLUS (TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_3514   |
|          Exe Time :24 July 2019   11:09:28   |
+-----+

*****
*          *
* PARATIE PLUS Non-Linear Spring Engine   *
*          *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM   *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES   *
*          *
*          Written by Ce.A.S. s.r.l. (ITALY)   *
*          with the scientific supervision of   *
*          Roberto Nova - full professor SOIL MECHANICS   *
    
```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 403 di 560
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```

*          at Politecnico di Milano (ITALY)          *
*          *                                          *
*****
*          *                                          *
* RELEASE  2017.1      *Build date:Jul 11, 2017*    *
*          *                                          *
*          *                                          *
* Ce.A.S.   S.R.L  CENTRO DI ANALISI STRUTTURALE   *
*          VIALE  GIUSTINIANO 10                   *
*          20129  M I L A N O (ITALIA)              *
* TEL.     +39 02 2020221 (+39 035 23 67 19)       *
* FAX      +39 02 29512533 (+39 035 42285 49)      *
* email    bruno.becci@ceas.it                    *
* Web Page www.ceas.it                            *
*****

```

```

JOB : NewProject.BaseDesignSection_28.A2M2R1_3514
STARTING
ACCEPTED <FILE,GENW                                     >
ACCEPTED <FILE,PLOTTER,BINARY                          >
ACCEPTED <SOLVE TOTAL STRESS                          >
ACCEPTED <PARAM ITEMAX 100                             >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001               >

```

```

*****
*          *                                          *
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *
*          BY THE PROGRAM.                            *
*****

```

PRELIMINARY OPERATIONS CPU TIME 0.01 [sec]

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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_3514 |
|          Exe Time :24 July 2019      11:09:28      |
+-----+

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INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

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NO. OF NODAL POINTS (NUMNP) ..... 62
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 124
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 5
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 88
NO. OF LONG NAMES (LASTNAME) ..... 21
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

```

```

IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F

```

RELEVANT ITEMS UNITS

```

STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES      kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS   kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS     kN*m/m

```


GENERAL CONTRACTOR



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ETC.

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|
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P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 88

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Strato1_2_8_L_0 0 LeftWall_32
10 : ATREST 0.53 1 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-06
13 : RESISTANCE 0 29
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Strato2_3095_82743_L_0 -7.8 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 20 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL Fe360_108 2.06E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL acciaioarmonico_124 2.001E+08
26 : MATERIAL C2025_103 2.996E+07
27 : BEAM WallElement_33 LeftWall_32 -12 0 C2530_104 0.6848 00 00 0
28 : WIRE Tieback 778405 LeftWall_32 -2.5 acciaioarmonico_124 2.34E-05 136.4 15 0 0
29 : STRIP LeftWall_32 2 5 0 40 0 13 30
30 : STEP Stage0_31
31 : CHANGE Strato1_2_8_L_0 U-FRICT=23.91 LeftWall_32
32 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
33 : CHANGE Strato1_2_8_L_0 U-KA=0.375 LeftWall_32
34 : CHANGE Strato1_2_8_L_0 U-KP=3.038 LeftWall_32
35 : CHANGE Strato1_2_8_L_0 D-KA=0.375 LeftWall_32
36 : CHANGE Strato1_2_8_L_0 D-KP=3.038 LeftWall_32
37 : CHANGE Strato2_3095_82743_L_0 U-FRICT=29.26 LeftWall_32
38 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
39 : CHANGE Strato2_3095_82743_L_0 U-KA=0.3 LeftWall_32
40 : CHANGE Strato2_3095_82743_L_0 U-KP=4.102 LeftWall_32
41 : CHANGE Strato2_3095_82743_L_0 D-KA=0.3 LeftWall_32
42 : CHANGE Strato2_3095_82743_L_0 D-KP=4.102 LeftWall_32
43 : CHANGE Strato1_2_8_L_0 U-COHE=0 LeftWall_32
44 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
45 : CHANGE Strato2_3095_82743_L_0 U-COHE=16 LeftWall_32
46 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
47 : SETWALL LeftWall_32
48 : GEOM 0 0
49 : WATER -26 0 -12 0 0
50 : ADD WallElement_33
51 : ENDSTEP
52 : STEP Stage1_759103
53 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
54 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
55 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
56 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
57 : SETWALL LeftWall_32
58 : GEOM 0 0
59 : WATER -26 0 -12 0 0
60 : ENDSTEP
61 : STEP Stage3_775251
62 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
63 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
64 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
65 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
66 : SETWALL LeftWall_32
67 : GEOM 0 -3
68 : WATER -26 0 -12 0 0
69 : ENDSTEP
70 : STEP Stage4_775610

```

GENERAL CONTRACTOR



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71 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
72 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
73 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
74 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
75 : SETWALL LeftWall_32
76 : GEOM 0 -3
77 : WATER -26 0 -12 0 0
78 : ADD Tieback_778405
79 : ENDSTEP
80 : STEP Stage5_714
81 : CHANGE Strato1_2_8_L_0 D-FRICT=23.91 LeftWall_32
82 : CHANGE Strato2_3095_82743_L_0 D-FRICT=29.26 LeftWall_32
83 : CHANGE Strato1_2_8_L_0 D-COHE=0 LeftWall_32
84 : CHANGE Strato2_3095_82743_L_0 D-COHE=16 LeftWall_32
85 : SETWALL LeftWall_32
86 : GEOM 0 -4.96
87 : WATER -26 0 -12 0 0
88 : ENDSTEP
    
```

```

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|                                                                                               |
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```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD /
1	0.0000	0.0000 /	2	0.0000	-0.20000 /	3	0.0000	-0.40000 /
5	0.0000	-0.80000 /	6	0.0000	-1.0000 /	7	0.0000	-1.2000 /
9	0.0000	-1.6000 /	10	0.0000	-1.8000 /	11	0.0000	-2.0000 /
13	0.0000	-2.4000 /	14	0.0000	-2.5000 /	15	0.0000	-2.7000 /
17	0.0000	-3.1000 /	18	0.0000	-3.3000 /	19	0.0000	-3.5000 /
21	0.0000	-3.9000 /	22	0.0000	-4.1000 /	23	0.0000	-4.3000 /
25	0.0000	-4.7000 /	26	0.0000	-4.9000 /	27	0.0000	-5.1000 /
29	0.0000	-5.5000 /	30	0.0000	-5.7000 /	31	0.0000	-5.9000 /
33	0.0000	-6.3000 /	34	0.0000	-6.5000 /	35	0.0000	-6.7000 /
37	0.0000	-7.1000 /	38	0.0000	-7.3000 /	39	0.0000	-7.5000 /
41	0.0000	-7.9000 /	42	0.0000	-8.1000 /	43	0.0000	-8.3000 /
45	0.0000	-8.7000 /	46	0.0000	-8.9000 /	47	0.0000	-9.1000 /
49	0.0000	-9.5000 /	50	0.0000	-9.7000 /	51	0.0000	-9.9000 /
53	0.0000	-10.300 /	54	0.0000	-10.500 /	55	0.0000	-10.700 /
57	0.0000	-11.100 /	58	0.0000	-11.300 /	59	0.0000	-11.500 /
61	0.0000	-11.900 /	62	0.0000	-12.000 /			

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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-----+-----
    
```

ELEMENT GROUP NO. 1

```

0_L :
5 62 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0
.....2D PLASTIC SOIL .....
    
```

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active
4	active
5	active

material set no. 1

prop(1) angle 0.00000
prop(2) layer as foreseen 1.00000

material set no. 2

prop(1) angle 0.00000

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prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.1500	0.000	0.000	0.000	1.000
14	14	1	0.1500	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.2000	0.000	0.000	0.000	1.000
42	42	2	0.2000	0.000	0.000	0.000	1.000
43	43	2	0.2000	0.000	0.000	0.000	1.000
44	44	2	0.2000	0.000	0.000	0.000	1.000
45	45	2	0.2000	0.000	0.000	0.000	1.000
46	46	2	0.2000	0.000	0.000	0.000	1.000
47	47	2	0.2000	0.000	0.000	0.000	1.000
48	48	2	0.2000	0.000	0.000	0.000	1.000
49	49	2	0.2000	0.000	0.000	0.000	1.000
50	50	2	0.2000	0.000	0.000	0.000	1.000
51	51	2	0.2000	0.000	0.000	0.000	1.000
52	52	2	0.2000	0.000	0.000	0.000	1.000
53	53	2	0.2000	0.000	0.000	0.000	1.000
54	54	2	0.2000	0.000	0.000	0.000	1.000
55	55	2	0.2000	0.000	0.000	0.000	1.000
56	56	2	0.2000	0.000	0.000	0.000	1.000
57	57	2	0.2000	0.000	0.000	0.000	1.000
58	58	2	0.2000	0.000	0.000	0.000	1.000
59	59	2	0.2000	0.000	0.000	0.000	1.000
60	60	2	0.2000	0.000	0.000	0.000	1.000
61	61	2	0.1500	0.000	0.000	0.000	1.000
62	62	2	0.5000E-01	0.000	0.000	0.000	1.000

```

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```

ELEMENT GROUP NO. 2

```

O_R :
5 62 0 1 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0
.....

```

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GRUPPO FERROVIE DELLO STATO ITALIANE

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.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage status

1 active
2 active
3 active
4 active
5 active

material set no. 1

prop(1) angle 180.000
prop(2) layer as foreseen 1.00000

material set no. 2

prop(1) angle 180.000
prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.1500	0.000	0.000	0.000	2.000
14	14	1	0.1500	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.2000	0.000	0.000	0.000	2.000
42	42	2	0.2000	0.000	0.000	0.000	2.000
43	43	2	0.2000	0.000	0.000	0.000	2.000
44	44	2	0.2000	0.000	0.000	0.000	2.000
45	45	2	0.2000	0.000	0.000	0.000	2.000
46	46	2	0.2000	0.000	0.000	0.000	2.000
47	47	2	0.2000	0.000	0.000	0.000	2.000
48	48	2	0.2000	0.000	0.000	0.000	2.000
49	49	2	0.2000	0.000	0.000	0.000	2.000
50	50	2	0.2000	0.000	0.000	0.000	2.000
51	51	2	0.2000	0.000	0.000	0.000	2.000
52	52	2	0.2000	0.000	0.000	0.000	2.000
53	53	2	0.2000	0.000	0.000	0.000	2.000
54	54	2	0.2000	0.000	0.000	0.000	2.000
55	55	2	0.2000	0.000	0.000	0.000	2.000

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56	56	2	0.2000	0.000	0.000	0.000	2.000
57	57	2	0.2000	0.000	0.000	0.000	2.000
58	58	2	0.2000	0.000	0.000	0.000	2.000
59	59	2	0.2000	0.000	0.000	0.000	2.000
60	60	2	0.2000	0.000	0.000	0.000	2.000
61	61	2	0.1500	0.000	0.000	0.000	2.000
62	62	2	0.5000E-01	0.000	0.000	0.000	2.000

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
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|                                                                                               |
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```

```

ELEMENT GROUP NO.  3

WallElement_33      :
  2  61  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  1  0
.....
.....2D WALL ELEMENT.....
.....

```

```

element group behaviour throughout stage analysis

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active

```

```

material set no.  1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....0.252200E-43

```

```

no. of step variable items:  1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000
  4  1.000
  5  1.000

```

```

element data

```

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.6848	0.000	0.000
2	2	3	1	0.000	0.000	0.6848	0.000	0.000
3	3	4	1	0.000	0.000	0.6848	0.000	0.000
4	4	5	1	0.000	0.000	0.6848	0.000	0.000
5	5	6	1	0.000	0.000	0.6848	0.000	0.000
6	6	7	1	0.000	0.000	0.6848	0.000	0.000
7	7	8	1	0.000	0.000	0.6848	0.000	0.000
8	8	9	1	0.000	0.000	0.6848	0.000	0.000
9	9	10	1	0.000	0.000	0.6848	0.000	0.000
10	10	11	1	0.000	0.000	0.6848	0.000	0.000
11	11	12	1	0.000	0.000	0.6848	0.000	0.000
12	12	13	1	0.000	0.000	0.6848	0.000	0.000
13	13	14	1	0.000	0.000	0.6848	0.000	0.000
14	14	15	1	0.000	0.000	0.6848	0.000	0.000
15	15	16	1	0.000	0.000	0.6848	0.000	0.000
16	16	17	1	0.000	0.000	0.6848	0.000	0.000
17	17	18	1	0.000	0.000	0.6848	0.000	0.000
18	18	19	1	0.000	0.000	0.6848	0.000	0.000
19	19	20	1	0.000	0.000	0.6848	0.000	0.000
20	20	21	1	0.000	0.000	0.6848	0.000	0.000
21	21	22	1	0.000	0.000	0.6848	0.000	0.000
22	22	23	1	0.000	0.000	0.6848	0.000	0.000
23	23	24	1	0.000	0.000	0.6848	0.000	0.000
24	24	25	1	0.000	0.000	0.6848	0.000	0.000
25	25	26	1	0.000	0.000	0.6848	0.000	0.000
26	26	27	1	0.000	0.000	0.6848	0.000	0.000
27	27	28	1	0.000	0.000	0.6848	0.000	0.000
28	28	29	1	0.000	0.000	0.6848	0.000	0.000

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29	29	30	1	0.000	0.000	0.6848	0.000	0.000
30	30	31	1	0.000	0.000	0.6848	0.000	0.000
31	31	32	1	0.000	0.000	0.6848	0.000	0.000
32	32	33	1	0.000	0.000	0.6848	0.000	0.000
33	33	34	1	0.000	0.000	0.6848	0.000	0.000
34	34	35	1	0.000	0.000	0.6848	0.000	0.000
35	35	36	1	0.000	0.000	0.6848	0.000	0.000
36	36	37	1	0.000	0.000	0.6848	0.000	0.000
37	37	38	1	0.000	0.000	0.6848	0.000	0.000
38	38	39	1	0.000	0.000	0.6848	0.000	0.000
39	39	40	1	0.000	0.000	0.6848	0.000	0.000
40	40	41	1	0.000	0.000	0.6848	0.000	0.000
41	41	42	1	0.000	0.000	0.6848	0.000	0.000
42	42	43	1	0.000	0.000	0.6848	0.000	0.000
43	43	44	1	0.000	0.000	0.6848	0.000	0.000
44	44	45	1	0.000	0.000	0.6848	0.000	0.000
45	45	46	1	0.000	0.000	0.6848	0.000	0.000
46	46	47	1	0.000	0.000	0.6848	0.000	0.000
47	47	48	1	0.000	0.000	0.6848	0.000	0.000
48	48	49	1	0.000	0.000	0.6848	0.000	0.000
49	49	50	1	0.000	0.000	0.6848	0.000	0.000
50	50	51	1	0.000	0.000	0.6848	0.000	0.000
51	51	52	1	0.000	0.000	0.6848	0.000	0.000
52	52	53	1	0.000	0.000	0.6848	0.000	0.000
53	53	54	1	0.000	0.000	0.6848	0.000	0.000
54	54	55	1	0.000	0.000	0.6848	0.000	0.000
55	55	56	1	0.000	0.000	0.6848	0.000	0.000
56	56	57	1	0.000	0.000	0.6848	0.000	0.000
57	57	58	1	0.000	0.000	0.6848	0.000	0.000
58	58	59	1	0.000	0.000	0.6848	0.000	0.000
59	59	60	1	0.000	0.000	0.6848	0.000	0.000
60	60	61	1	0.000	0.000	0.6848	0.000	0.000
61	61	62	1	0.000	0.000	0.6848	0.000	0.000

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_3514                       |
|                               Exe Time :24 July 2019      11:09:28                             |
-----

```

```

ELEMENT GROUP NO.  4

Tieback_778405      :
 6  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  2  0
.....
.....2D POST-TENSION ANCHOR.....
.....

```

```

element group behaviour throughout stage analysis

stage  status
-----
 1  inactive
 2  inactive
 3  inactive
 4  active
 5  active

```

```

material set no.  1

prop( 1) angle      15.0000
prop( 2) young modulus 0.200100E+09
prop( 3) modification time 0.00000
prop( 4) new young modulus 0.00000

no. of step variable items:  2
step  -ve lim  +ve lim
-----
 1  0.000  0.000
 2  0.000  0.000
 3  0.000  0.000
 4  0.000  0.000
 5  0.000  0.000

```

```

element data

el  n  mat      a/l    pinit  yieldc  yieldt
-----
 1  14  1  0.2340E-04  136.4  0.000  0.000

```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
+-----+

```

```

NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 10
MAXIMUM POINTS/LCURVE (NPTM) ..... 5

```

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
+-----+

```

L O A D D A T A

```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
0.80000        0.0000E+00
1.00000        0.1000E+01
1.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
1.80000        0.0000E+00
2.00000        0.1000E+01
2.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
2.80000        0.0000E+00
3.00000        0.1000E+01
3.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
3.80000        0.0000E+00
4.00000        0.1000E+01
4.20000        0.0000E+00
6.00000        0.0000E+00

```

```

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

```

```

TIME VALUE        FUNCTION
0.00000        0.0000E+00
4.80000        0.0000E+00

```

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5.00000 0.1000E+01
5.20000 0.0000E+00
6.00000 0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
6.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
6.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
+-----+
    
```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

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```
STEP 3 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 3 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000

STEP 4 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 4 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000

STEP 5 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 5 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
```

LOAD INPUT SECTION COMPLETED

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
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|          NewProject.BaseDesignSection_28.A2M2R1_3514
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+-----+
```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:09:28
+-----+
```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```
ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.37500 WALL NO. 1
ITEM NO. 11<U-KP >= 3.0380 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)
```

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

```
ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.30000 WALL NO. 1
ITEM NO. 11<U-KP >= 4.1020 WALL NO. 1
```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.37500 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.0380 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.30000 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1020 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.37500 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.0380 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.30000 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1020 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.37500 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.0380 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2

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ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.30000 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1020 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
 ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO. 1<NAME >= 14.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.37500 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.0380 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.53000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 1.0000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 20000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 60000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-05 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.37500 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.0380 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-05 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO. 1<NAME >= 15.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -7.8000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 20.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.30000 WALL NO. 1
 ITEM NO. 11<U-KP >= 4.1020 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)

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ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.30000 WALL NO. 1
ITEM NO. 61<D-KP >= 4.1020 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 10 VALUES



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:09:28  |
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PHASE DESCRIPTORS

STEP NO.	1	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30	
Z-PC	0.000	0.000	
Z-EXCAVATION	0.000	0.000	
Z-WATER_TABLE	-26.00	-0.9990E+30	
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000	
ZQ	0.000	0.000	
DZW_OF_THE_WATER_TABLE	0.000	0.000	
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000	
ZQS	-0.9990E+30	-0.9990E+30	
ZCUT	0.000	0.000	
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00	
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000	
PORE_UPDATE_FLAG	0.000	0.000	
PORE_TAB_FLAG (gt.0= use tabs)	0.000	0.000	
lateral thrusts reduction elevatio	0.000	0.000	
Downhill reduction factor for effe	0.000	0.000	
Downhill reduction factor for pore	0.000	0.000	
Uphill reduction factor for effect	0.000	0.000	
Uphill reduction factor for pore p	0.000	0.000	
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000	
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000	
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000	
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	
UPHILL DELTA/PHI RATIO	0.000	0.000	
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	
DOWNHILL DELTA/PHI RATIO	0.000	0.000	
DYN.WATER BEHAVIOUR	0.000	0.000	
Excess pore pressure RATIO Ru	0.000	0.000	
SEISMIC PRESSURE LOWER VALUE	0.000	0.000	
SEISMIC PRESSURE UPPER VALUE	0.000	0.000	
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000	
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000	

=====end of step 1

STEP NO.	2	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30	
Z-PC	0.000	0.000	
Z-EXCAVATION	0.000	0.000	
Z-WATER_TABLE	-26.00	-0.9990E+30	
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000	
ZQ	0.000	0.000	
DZW_OF_THE_WATER_TABLE	0.000	0.000	
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000	
ZQS	-0.9990E+30	-0.9990E+30	
ZCUT	0.000	0.000	
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00	
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000	
PORE_UPDATE_FLAG	0.000	0.000	
PORE_TAB_FLAG (gt.0= use tabs)	0.000	0.000	
lateral thrusts reduction elevatio	0.000	0.000	
Downhill reduction factor for effe	0.000	0.000	
Downhill reduction factor for pore	0.000	0.000	
Uphill reduction factor for effect	0.000	0.000	
Uphill reduction factor for pore p	0.000	0.000	
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000	
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000	
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000	
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	
UPHILL DELTA/PHI RATIO	0.000	0.000	
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	
DOWNHILL DELTA/PHI RATIO	0.000	0.000	
DYN.WATER BEHAVIOUR	0.000	0.000	
Excess pore pressure RATIO Ru	0.000	0.000	
SEISMIC PRESSURE LOWER VALUE	0.000	0.000	
SEISMIC PRESSURE UPPER VALUE	0.000	0.000	
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000	
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000	

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=====end of step 2

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STEP NO.      3
              LEFT WALL  RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000      0.000
Z-EXCAVATION  -3.000      0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE 0.000      0.000
QS_ON_THE_EXCAVATION_SIDE 0.000      0.000
ZQS           -0.9990E+30 -0.9990E+30
ZCUT           0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000      0.000
PORE_UPDATE_FLAG 0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO 0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO 0.000      0.000
DYN.WATER BEHAVIOUR 0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000

```

=====end of step 3

```

STEP NO.      4
              LEFT WALL  RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000      0.000
Z-EXCAVATION  -3.000      0.000
Z-WATER_TABLE -26.00    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE 0.000      0.000
QS_ON_THE_EXCAVATION_SIDE 0.000      0.000
ZQS           -0.9990E+30 -0.9990E+30
ZCUT           0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000      0.000
PORE_UPDATE_FLAG 0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO 0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO 0.000      0.000
DYN.WATER BEHAVIOUR 0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000

```

=====end of step 4

```

STEP NO.      5
              LEFT WALL  RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000      0.000
Z-EXCAVATION  -4.960      0.000

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Z-WATER_TABLE	-26.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 5

LEFT-HAND WALL

LOWER LEVEL -12.00000
UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -12.00000
UPPER LEVEL 0.00000

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_3514                       |
|                               Exe Time :24 July 2019    11:09:28                             |
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 2.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 5.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.000000000000000E+000
FOUNDATION WIDTH (B) 40.0000000000000
ZETA-F..... 0.000000000000000E+000
Q-F 13.0000000000000
BETA 30.0000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 3534

NO. OF D.P.W FOR THIS AREA 7376
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100



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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2144E+05 RIMNOR= 0.000
            RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
            RFMAX = 22.62      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT  =0.2144E+05 RDR  = 0.000
            RATIO= 0.000      RATOR= 0.000
            MAX UN= 0.000      IEQ= 124 NODE      62 DOF  2  X-ROT. F
            MIN UN= 0.000      IEQ= 1 NODE      1 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER      1  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2144E+05 RIMNOR= 0.000
            RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
            RFMAX = 22.62      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT  =0.2144E+05 RDR  = 0.000
            RATIO= 0.000      RATOR= 0.000
            MAX UN= 0.000      IEQ= 124 NODE      62 DOF  2  X-ROT. F
            MIN UN= 0.000      IEQ= 1 NODE      1 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2144E+05 RIMNOR= 0.000
            RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
            RFMAX = 22.62      RMMAX = 0.000
            RTSMAL=0.1000E-03 RMSMAL= 0.000
            RDT  =0.2144E+05 RDR  = 0.000
            RATIO= 0.000      RATOR= 0.000
            MAX UN= 0.000      IEQ= 124 NODE      62 DOF  2  X-ROT. F
            MIN UN= 0.000      IEQ= 1 NODE      1 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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New Project
SOLUTION REACHED USING      2 ITERATIONS ON 100

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME 1.000 )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

            Y-DISPL.F      X-ROT. F
            (02)          (04)          (

    
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ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      11:09:28  |
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New Project

S T R E S S   R E S U L T S   F O R   G R O U P   N O .   1

O_L      :
ELEMENT TYPE      5 NO.OF ELEMENTS. IN THIS GROUP      62
C U R R E N T   T I M E   I S      1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *  FORCE      DISPL-Y  VERTICAL-P  HORIZON.-P  MAX-V-P  MAX-H-P  STATE  STIFFNESS Z-LEVEL  PORE  E FACTOR  UFACTOR
Peq      Su_a      Su_p      LAYER
    
```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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1 D	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
2 D	0.4028	0.000	3.800	2.014	3.800
2.014	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
3 D	0.8056	0.000	7.600	4.028	7.600
4.028	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
4 D	1.208	0.000	11.40	6.042	11.40
6.042	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
5 D	1.611	0.000	15.20	8.056	15.20
8.056	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
6 D	2.014	0.000	19.00	10.07	19.00
10.07	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
7 D	2.417	0.000	22.80	12.08	22.80
12.08	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
8 D	2.820	0.000	26.60	14.10	26.60
14.10	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
9 D	3.222	0.000	30.40	16.11	30.40
16.11	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
10 D	3.625	0.000	34.20	18.13	34.20
18.13	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
11 D	4.028	0.000	38.00	20.14	38.00
20.14	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
12 D	4.431	0.000	41.80	22.15	41.80
22.15	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
13 D	3.625	0.000	45.60	24.17	45.60
24.17	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
14 D	3.776	0.000	47.50	25.18	47.50
25.18	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
15 D	5.438	0.000	51.30	27.19	51.30
27.19	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
16 D	5.841	0.000	55.10	29.20	55.10
29.20	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
17 D	6.243	0.000	58.90	31.22	58.90
31.22	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
18 D	6.646	0.000	62.70	33.23	62.70
33.23	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
19 D	7.049	0.000	66.50	35.25	66.50
35.25	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
20 D	7.452	0.000	70.30	37.26	70.30
37.26	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
21 D	7.855	0.000	74.10	39.27	74.10
39.27	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
22 D	8.257	0.000	77.90	41.29	77.90
41.29	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
23 D	8.660	0.000	81.70	43.30	81.70
43.30	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
24 D	9.063	0.000	85.50	45.32	85.50
45.32	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
25 D	9.466	0.000	89.30	47.33	89.30
47.33	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
26 D	9.869	0.000	93.10	49.34	93.10
49.34	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
27 D	10.27	0.000	96.90	51.36	96.90
51.36	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
28 D	10.67	0.000	100.7	53.37	100.7
53.37	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
29 D	11.08	0.000	104.5	55.38	104.5
55.38	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
30 D	11.48	0.000	108.3	57.40	108.3
57.40	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
31 D	11.88	0.000	112.1	59.41	112.1
59.41	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
32 D	12.29	0.000	115.9	61.43	115.9
61.43	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
33 D	12.69	0.000	119.7	63.44	119.7
63.44	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
34 D	13.09	0.000	123.5	65.45	123.5
65.45	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
35 D	13.49	0.000	127.3	67.47	127.3
67.47	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
36 D	13.90	0.000	131.1	69.48	131.1
69.48	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
37 D	14.30	0.000	134.9	71.50	134.9
71.50	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
38 D	14.70	0.000	138.7	73.51	138.7
73.51	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
39 D	15.10	0.000	142.5	75.52	142.5
75.52	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
40 D	15.51	0.000	146.3	77.54	146.3
77.54	0.000	0.000	Strato1_2_8_L_0	0.000	0.000
41 D	15.02	0.000	150.2	75.10	150.2
75.10	0.000	0.000	Strato2_3095_82743_L_0	0.000	0.000
42 D	15.42	0.000	154.2	77.10	154.2
77.10	0.000	0.000	Strato2_3095_82743_L_0	0.000	0.000
43 D	15.82	0.000	158.2	79.10	158.2

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 422 di 560
79.10	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.22	0.000	162.2 81.10 162.2	81.10	V-C 5.3328E+04 -8.500 0.000 1.000 1.000
81.10	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.62	0.000	166.2 83.10 166.2	83.10	V-C 5.3328E+04 -8.700 0.000 1.000 1.000
83.10	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.02	0.000	170.2 85.10 170.2	85.10	V-C 5.3328E+04 -8.900 0.000 1.000 1.000
85.10	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.42	0.000	174.2 87.10 174.2	87.10	V-C 5.3328E+04 -9.100 0.000 1.000 1.000
87.10	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.82	0.000	178.2 89.10 178.2	89.10	V-C 5.3328E+04 -9.300 0.000 1.000 1.000
89.10	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.22	0.000	182.2 91.10 182.2	91.10	V-C 5.3328E+04 -9.500 0.000 1.000 1.000
91.10	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.62	0.000	186.2 93.10 186.2	93.10	V-C 5.3328E+04 -9.700 0.000 1.000 1.000
93.10	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.02	0.000	190.2 95.10 190.2	95.10	V-C 5.3328E+04 -9.900 0.000 1.000 1.000
95.10	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.42	0.000	194.2 97.10 194.2	97.10	V-C 5.3328E+04 -10.10 0.000 1.000 1.000
97.10	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.82	0.000	198.2 99.10 198.2	99.10	V-C 5.3328E+04 -10.30 0.000 1.000 1.000
99.10	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.22	0.000	202.2 101.1 202.2	101.1	V-C 5.3328E+04 -10.50 0.000 1.000 1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.62	0.000	206.2 103.1 206.2	103.1	V-C 5.3328E+04 -10.70 0.000 1.000 1.000
103.1	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.02	0.000	210.2 105.1 210.2	105.1	V-C 5.3328E+04 -10.90 0.000 1.000 1.000
105.1	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.42	0.000	214.2 107.1 214.2	107.1	V-C 5.3328E+04 -11.10 0.000 1.000 1.000
107.1	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.82	0.000	218.2 109.1 218.2	109.1	V-C 5.3328E+04 -11.30 0.000 1.000 1.000
109.1	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.22	0.000	222.2 111.1 222.2	111.1	V-C 5.3328E+04 -11.50 0.000 1.000 1.000
111.1	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.62	0.000	226.2 113.1 226.2	113.1	V-C 5.3328E+04 -11.70 0.000 1.000 1.000
113.1	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.26	0.000	230.2 115.1 230.2	115.1	V-C 5.3328E+04 -11.90 0.000 1.000 1.000
115.1	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.805	0.000	232.2 116.1 232.2	116.1	V-C 5.3328E+04 -12.00 0.000 1.000 1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|                                     NewProject.BaseDesignSection_28.A2M2R1_3514  |
|                                     Exe Time :24 July 2019  11:09:28  |
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New Project

STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	1.6263E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_2_8_L_0									
2 D	0.4028	0.000	3.800	2.014	3.800	2.014	V-C	1.6263E+04	-0.2000	0.000	1.000	1.000
2.014	0.000	0.000	Strato1_2_8_L_0									
3 D	0.8056	0.000	7.600	4.028	7.600	4.028	V-C	1.6263E+04	-0.4000	0.000	1.000	1.000
4.028	0.000	0.000	Strato1_2_8_L_0									
4 D	1.208	0.000	11.40	6.042	11.40	6.042	V-C	1.6263E+04	-0.6000	0.000	1.000	1.000
6.042	0.000	0.000	Strato1_2_8_L_0									
5 D	1.611	0.000	15.20	8.056	15.20	8.056	V-C	1.6263E+04	-0.8000	0.000	1.000	1.000
8.056	0.000	0.000	Strato1_2_8_L_0									
6 D	2.014	0.000	19.00	10.07	19.00	10.07	V-C	1.6263E+04	-1.000	0.000	1.000	1.000
10.07	0.000	0.000	Strato1_2_8_L_0									
7 D	2.417	0.000	22.80	12.08	22.80	12.08	V-C	1.6263E+04	-1.200	0.000	1.000	1.000
12.08	0.000	0.000	Strato1_2_8_L_0									
8 D	2.820	0.000	26.60	14.10	26.60	14.10	V-C	1.6263E+04	-1.400	0.000	1.000	1.000
14.10	0.000	0.000	Strato1_2_8_L_0									
9 D	3.222	0.000	30.40	16.11	30.40	16.11	V-C	1.6263E+04	-1.600	0.000	1.000	1.000
16.11	0.000	0.000	Strato1_2_8_L_0									
10 D	3.625	0.000	34.20	18.13	34.20	18.13	V-C	1.6263E+04	-1.800	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 423 di 560
18.13	0.000	0.000	Strato1_2_8_L_0		
11 D	4.028	0.000	38.00 20.14	38.00	20.14
20.14	0.000	0.000	Strato1_2_8_L_0		
12 D	4.431	0.000	41.80 22.15	41.80	22.15
22.15	0.000	0.000	Strato1_2_8_L_0		
13 D	3.625	0.000	45.60 24.17	45.60	24.17
24.17	0.000	0.000	Strato1_2_8_L_0		
14 D	3.776	0.000	47.50 25.18	47.50	25.18
25.18	0.000	0.000	Strato1_2_8_L_0		
15 D	5.438	0.000	51.30 27.19	51.30	27.19
27.19	0.000	0.000	Strato1_2_8_L_0		
16 D	5.841	0.000	55.10 29.20	55.10	29.20
29.20	0.000	0.000	Strato1_2_8_L_0		
17 D	6.243	0.000	58.90 31.22	58.90	31.22
31.22	0.000	0.000	Strato1_2_8_L_0		
18 D	6.646	0.000	62.70 33.23	62.70	33.23
33.23	0.000	0.000	Strato1_2_8_L_0		
19 D	7.049	0.000	66.50 35.25	66.50	35.25
35.25	0.000	0.000	Strato1_2_8_L_0		
20 D	7.452	0.000	70.30 37.26	70.30	37.26
37.26	0.000	0.000	Strato1_2_8_L_0		
21 D	7.855	0.000	74.10 39.27	74.10	39.27
39.27	0.000	0.000	Strato1_2_8_L_0		
22 D	8.257	0.000	77.90 41.29	77.90	41.29
41.29	0.000	0.000	Strato1_2_8_L_0		
23 D	8.660	0.000	81.70 43.30	81.70	43.30
43.30	0.000	0.000	Strato1_2_8_L_0		
24 D	9.063	0.000	85.50 45.32	85.50	45.32
45.32	0.000	0.000	Strato1_2_8_L_0		
25 D	9.466	0.000	89.30 47.33	89.30	47.33
47.33	0.000	0.000	Strato1_2_8_L_0		
26 D	9.869	0.000	93.10 49.34	93.10	49.34
49.34	0.000	0.000	Strato1_2_8_L_0		
27 D	10.27	0.000	96.90 51.36	96.90	51.36
51.36	0.000	0.000	Strato1_2_8_L_0		
28 D	10.67	0.000	100.7 53.37	100.7	53.37
53.37	0.000	0.000	Strato1_2_8_L_0		
29 D	11.08	0.000	104.5 55.38	104.5	55.38
55.38	0.000	0.000	Strato1_2_8_L_0		
30 D	11.48	0.000	108.3 57.40	108.3	57.40
57.40	0.000	0.000	Strato1_2_8_L_0		
31 D	11.88	0.000	112.1 59.41	112.1	59.41
59.41	0.000	0.000	Strato1_2_8_L_0		
32 D	12.29	0.000	115.9 61.43	115.9	61.43
61.43	0.000	0.000	Strato1_2_8_L_0		
33 D	12.69	0.000	119.7 63.44	119.7	63.44
63.44	0.000	0.000	Strato1_2_8_L_0		
34 D	13.09	0.000	123.5 65.45	123.5	65.45
65.45	0.000	0.000	Strato1_2_8_L_0		
35 D	13.49	0.000	127.3 67.47	127.3	67.47
67.47	0.000	0.000	Strato1_2_8_L_0		
36 D	13.90	0.000	131.1 69.48	131.1	69.48
69.48	0.000	0.000	Strato1_2_8_L_0		
37 D	14.30	0.000	134.9 71.50	134.9	71.50
71.50	0.000	0.000	Strato1_2_8_L_0		
38 D	14.70	0.000	138.7 73.51	138.7	73.51
73.51	0.000	0.000	Strato1_2_8_L_0		
39 D	15.10	0.000	142.5 75.52	142.5	75.52
75.52	0.000	0.000	Strato1_2_8_L_0		
40 D	15.51	0.000	146.3 77.54	146.3	77.54
77.54	0.000	0.000	Strato1_2_8_L_0		
41 D	15.02	0.000	150.2 75.10	150.2	75.10
75.10	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.42	0.000	154.2 77.10	154.2	77.10
77.10	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.82	0.000	158.2 79.10	158.2	79.10
79.10	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.22	0.000	162.2 81.10	162.2	81.10
81.10	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.62	0.000	166.2 83.10	166.2	83.10
83.10	0.000	0.000	Strato2_3095_82743_L_0		
46 D	17.02	0.000	170.2 85.10	170.2	85.10
85.10	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.42	0.000	174.2 87.10	174.2	87.10
87.10	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.82	0.000	178.2 89.10	178.2	89.10
89.10	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.22	0.000	182.2 91.10	182.2	91.10
91.10	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.62	0.000	186.2 93.10	186.2	93.10
93.10	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.02	0.000	190.2 95.10	190.2	95.10
95.10	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.42	0.000	194.2 97.10	194.2	97.10
97.10	0.000	0.000	Strato2_3095_82743_L_0		



Doc. N.	Progetto INOR						Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 424 di 560		
53 D	19.82	0.000	198.2	99.10	198.2	99.10	V-C	3.6625E+04	-10.30	0.000	1.000	1.000
99.10	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.22	0.000	202.2	101.1	202.2	101.1	V-C	3.6625E+04	-10.50	0.000	1.000	1.000
101.1	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.62	0.000	206.2	103.1	206.2	103.1	V-C	3.6625E+04	-10.70	0.000	1.000	1.000
103.1	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.02	0.000	210.2	105.1	210.2	105.1	V-C	3.6625E+04	-10.90	0.000	1.000	1.000
105.1	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.42	0.000	214.2	107.1	214.2	107.1	V-C	3.6625E+04	-11.10	0.000	1.000	1.000
107.1	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.82	0.000	218.2	109.1	218.2	109.1	V-C	3.6625E+04	-11.30	0.000	1.000	1.000
109.1	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.22	0.000	222.2	111.1	222.2	111.1	V-C	3.6625E+04	-11.50	0.000	1.000	1.000
111.1	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.62	0.000	226.2	113.1	226.2	113.1	V-C	3.6625E+04	-11.70	0.000	1.000	1.000
113.1	0.000	0.000	Strato2_3095_82743_L_0									
61 D	17.26	0.000	230.2	115.1	230.2	115.1	V-C	3.6625E+04	-11.90	0.000	1.000	1.000
115.1	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.805	0.000	232.2	116.1	232.2	116.1	V-C	3.6625E+04	-12.00	0.000	1.000	1.000
116.1	0.000	0.000	Strato2_3095_82743_L_0									

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|
|              PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*
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|              NewProject.BaseDesignSection_28.A2M2R1_3514
|              Exe Time :24 July 2019      11:09:28
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
 CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_3514                       |
|                               Exe Time :24 July 2019    11:09:28                             |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :

ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1

CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

ITER 0 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.2278E+05 RIMNOR= 0.000
      RENORM= 51.52    REMNOR= 0.000    RATIO =0.4756E-01 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 23.52    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =-0.2278E+05 RDR = 0.000
      RATIOT=0.4756E-01 RATIO= 0.000
      MAX UN=0.9994    IEQ= 15 NODE    8 DOF 1 Y-DISPL.F
      MIN UN= 0.000    IEQ= 2 NODE    1 DOF 2 X-ROT. F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

```

```

ITER 2 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.2278E+05 RIMNOR= 0.000
      RENORM=0.3506    REMNOR=0.1060E-21 RATIO =0.3923E-02 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 23.52    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =-0.2278E+05 RDR = 0.000
      RATIOT=0.3923E-02 RATIO= 0.000
      MAX UN=0.4510    IEQ= 3 NODE    2 DOF 1 Y-DISPL.F
      MIN UN=-.1960E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

```

```

ITER 3 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.2278E+05 RIMNOR= 0.000
      RENORM=0.2025E-02 REMNOR=0.1134E-22 RATIO =0.2982E-03 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 23.52    RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT =-0.2278E+05 RDR = 0.000
      RATIOT=0.2982E-03 RATIO= 0.000
      MAX UN=0.3614E-01 IEQ= 11 NODE    6 DOF 1 Y-DISPL.F
      MIN UN=-.1893E-10 IEQ= 9 NODE    5 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

```

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ITER 4 RNORM = 0.000    RMNORM= 0.000
      RINORM=0.2278E+05 RIMNOR= 0.000
      RENORM=0.2058E-06 REMNOR=0.1763E-22 RATIO =0.3006E-05 TOLER =0.1000E-03 CONVERGED !
      RFMAX = 23.52    RMMAX = 0.000

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.2278E+05 RDR = 0.000
RATIOT=0.3006E-05 RATIO= 0.000
MAX UN=0.2839E-03 IEQ= 121 NODE 61 DOF 1 Y-DISPL.F
MIN UN=-.2354E-10 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:09:28  |
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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 100

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P R I N T   O U T   F O R   T I M E   S T E P   2   (   A T   T I M E   2.000   )

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PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

```

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	8.5892459E-05	-6.6991053E-06	
2	8.4553409E-05	-6.6875319E-06	
3	8.3219195E-05	-6.6497332E-06	
4	8.1895647E-05	-6.5799751E-06	
5	8.0589571E-05	-6.4747144E-06	
6	7.9308100E-05	-6.3343690E-06	
7	7.8057830E-05	-6.1639358E-06	
8	7.6844026E-05	-5.9709924E-06	
9	7.5670458E-05	-5.7626678E-06	
10	7.4539445E-05	-5.5470567E-06	
11	7.3451525E-05	-5.3330951E-06	
12	7.2405598E-05	-5.1282644E-06	
13	7.1399198E-05	-4.9387508E-06	
14	7.0909746E-05	-4.8512002E-06	
15	6.9955630E-05	-4.6941990E-06	
16	6.9030225E-05	-4.5648139E-06	
17	6.8127613E-05	-4.4668092E-06	
18	6.7241224E-05	-4.4029588E-06	
19	6.6364030E-05	-4.3751035E-06	
20	6.5488720E-05	-4.3841959E-06	
21	6.4607881E-05	-4.4303345E-06	
22	6.3714102E-05	-4.5137250E-06	
23	6.2799889E-05	-4.6346485E-06	
24	6.1857782E-05	-4.7924863E-06	
25	6.0880534E-05	-4.9857285E-06	
26	5.9861291E-05	-5.2119627E-06	
27	5.8793779E-05	-5.4678375E-06	
28	5.7672473E-05	-5.7490400E-06	
29	5.6492781E-05	-6.0509726E-06	
30	5.5251030E-05	-6.3687135E-06	
31	5.3944641E-05	-6.6962706E-06	
32	5.2572347E-05	-7.0265559E-06	
33	5.1134390E-05	-7.3513651E-06	
34	4.9632790E-05	-7.6613377E-06	
35	4.8071547E-05	-7.9459331E-06	
36	4.6456892E-05	-8.1933983E-06	
37	4.4797493E-05	-8.3912779E-06	
38	4.3104575E-05	-8.5263730E-06	
39	4.1392106E-05	-8.5841729E-06	
40	3.9677115E-05	-8.5488419E-06	
41	3.7979921E-05	-8.4032240E-06	
42	3.6322853E-05	-8.1521809E-06	
43	3.4724355E-05	-7.8216688E-06	
44	3.3197941E-05	-7.4349487E-06	
45	3.1752743E-05	-7.0127131E-06	
46	3.0394035E-05	-6.5727930E-06	
47	2.9123796E-05	-6.1303204E-06	
48	2.7941243E-05	-5.6978970E-06	
49	2.6843291E-05	-5.2857533E-06	
50	2.5825054E-05	-4.9019251E-06	
51	2.4880234E-05	-4.5524006E-06	
52	2.4001531E-05	-4.2416304E-06	
53	2.3180820E-05	-3.9726225E-06	
54	2.2409607E-05	-3.7467443E-06	
55	2.1679261E-05	-3.5637935E-06	
56	2.0981340E-05	-3.4220816E-06	
57	2.0307886E-05	-3.3184965E-06	
58	1.9651698E-05	-3.2485634E-06	
59	1.9006583E-05	-3.2067980E-06	



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60 1.8367533E-05 -3.1867304E-06
 61 1.7730961E-05 -3.1806066E-06
 62 1.7412890E-05 -3.1802940E-06

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|          PARATIEPLUS (TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:09:28
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 1

O L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 C U R R E N T T I M E I S 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.4875	-8.5892E-05	13.00	4.875	13.00	6.890	ACTIVE	0.000	0.000	0.000	1.000	1.000
4.875	0.000	0.000	Strato1_2_8_L_0									
2 D	0.8075	-8.4553E-05	10.77	4.038	10.77	5.706	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
4.038	0.000	0.000	Strato1_2_8_L_0									
3 D	1.188	-8.3219E-05	15.84	5.941	15.84	8.396	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
5.941	0.000	0.000	Strato1_2_8_L_0									
4 D	1.512	-8.1896E-05	20.16	7.561	20.16	10.69	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
7.561	0.000	0.000	Strato1_2_8_L_0									
5 D	1.818	-8.0590E-05	24.24	9.092	24.24	12.85	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
9.092	0.000	0.000	Strato1_2_8_L_0									
6 D	2.117	-7.9308E-05	28.22	10.58	28.22	14.96	ACTIVE	0.000	-1.000	0.000	1.000	1.000
10.58	0.000	0.000	Strato1_2_8_L_0									
7 D	2.507	-7.8058E-05	32.14	12.53	32.14	17.03	UL-RL	5.7646E+04	-1.200	0.000	1.000	1.000
12.53	0.000	0.000	Strato1_2_8_L_0									
8 D	2.933	-7.6844E-05	36.03	14.67	36.03	19.09	UL-RL	5.7646E+04	-1.400	0.000	1.000	1.000
14.67	0.000	0.000	Strato1_2_8_L_0									
9 D	3.264	-7.5670E-05	39.02	16.32	39.02	20.68	UL-RL	5.7646E+04	-1.600	0.000	1.000	1.000
16.32	0.000	0.000	Strato1_2_8_L_0									
10 D	3.696	-7.4539E-05	42.97	18.48	42.97	22.78	UL-RL	5.7646E+04	-1.800	0.000	1.000	1.000
18.48	0.000	0.000	Strato1_2_8_L_0									
11 D	4.124	-7.3452E-05	46.89	20.62	46.89	24.85	UL-RL	5.7646E+04	-2.000	0.000	1.000	1.000
20.62	0.000	0.000	Strato1_2_8_L_0									
12 D	4.549	-7.2406E-05	50.79	22.74	50.79	26.92	UL-RL	5.7646E+04	-2.200	0.000	1.000	1.000
22.74	0.000	0.000	Strato1_2_8_L_0									
13 D	3.729	-7.1399E-05	54.67	24.86	54.67	28.98	UL-RL	5.7646E+04	-2.400	0.000	1.000	1.000
24.86	0.000	0.000	Strato1_2_8_L_0									
14 D	3.864	-7.0910E-05	56.32	25.76	56.32	29.85	UL-RL	5.7646E+04	-2.500	0.000	1.000	1.000
25.76	0.000	0.000	Strato1_2_8_L_0									
15 D	5.575	-6.9956E-05	60.21	27.88	60.21	31.91	UL-RL	5.7646E+04	-2.700	0.000	1.000	1.000
27.88	0.000	0.000	Strato1_2_8_L_0									
16 D	5.997	-6.9030E-05	64.08	29.98	64.08	33.96	UL-RL	5.7646E+04	-2.900	0.000	1.000	1.000
29.98	0.000	0.000	Strato1_2_8_L_0									
17 D	6.417	-6.8128E-05	67.94	32.08	67.94	36.01	UL-RL	5.7646E+04	-3.100	0.000	1.000	1.000
32.08	0.000	0.000	Strato1_2_8_L_0									
18 D	6.836	-6.7241E-05	71.80	34.18	71.80	38.05	UL-RL	5.7646E+04	-3.300	0.000	1.000	1.000
34.18	0.000	0.000	Strato1_2_8_L_0									
19 D	7.254	-6.6364E-05	75.65	36.27	75.65	40.10	UL-RL	5.7646E+04	-3.500	0.000	1.000	1.000
36.27	0.000	0.000	Strato1_2_8_L_0									
20 D	7.672	-6.5489E-05	79.50	38.36	79.50	42.13	UL-RL	5.7646E+04	-3.700	0.000	1.000	1.000
38.36	0.000	0.000	Strato1_2_8_L_0									
21 D	8.049	-6.4608E-05	82.96	40.25	82.96	43.97	UL-RL	5.7646E+04	-3.900	0.000	1.000	1.000
40.25	0.000	0.000	Strato1_2_8_L_0									
22 D	8.468	-6.3714E-05	86.82	42.34	86.82	46.01	UL-RL	5.7646E+04	-4.100	0.000	1.000	1.000
42.34	0.000	0.000	Strato1_2_8_L_0									
23 D	8.887	-6.2800E-05	90.67	44.43	90.67	48.05	UL-RL	5.7646E+04	-4.300	0.000	1.000	1.000
44.43	0.000	0.000	Strato1_2_8_L_0									
24 D	9.305	-6.1858E-05	94.51	46.53	94.51	50.09	UL-RL	5.7646E+04	-4.500	0.000	1.000	1.000
46.53	0.000	0.000	Strato1_2_8_L_0									
25 D	9.724	-6.0881E-05	98.36	48.62	98.36	52.13	UL-RL	5.7646E+04	-4.700	0.000	1.000	1.000
48.62	0.000	0.000	Strato1_2_8_L_0									
26 D	10.14	-5.9861E-05	102.2	50.71	102.2	54.16	UL-RL	5.7646E+04	-4.900	0.000	1.000	1.000
50.71	0.000	0.000	Strato1_2_8_L_0									
27 D	10.56	-5.8794E-05	106.0	52.81	106.0	56.20	UL-RL	5.7646E+04	-5.100	0.000	1.000	1.000
52.81	0.000	0.000	Strato1_2_8_L_0									
28 D	10.95	-5.7672E-05	109.6	54.76	109.6	58.08	UL-RL	5.7646E+04	-5.300	0.000	1.000	1.000



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54.76	0.000	0.000	Strato1_2_8_L_0		
29 D	11.37	-5.6493E-05	113.4 56.86	113.4	60.12
56.86	0.000	0.000	Strato1_2_8_L_0		
30 D	11.79	-5.5251E-05	117.3 58.96	117.3	62.15
58.96	0.000	0.000	Strato1_2_8_L_0		
31 D	12.21	-5.3945E-05	121.1 61.07	121.1	64.18
61.07	0.000	0.000	Strato1_2_8_L_0		
32 D	12.64	-5.2572E-05	124.9 63.18	124.9	66.21
63.18	0.000	0.000	Strato1_2_8_L_0		
33 D	13.06	-5.1134E-05	128.8 65.30	128.8	68.24
65.30	0.000	0.000	Strato1_2_8_L_0		
34 D	13.48	-4.9633E-05	132.6 67.41	132.6	70.27
67.41	0.000	0.000	Strato1_2_8_L_0		
35 D	13.91	-4.8072E-05	136.4 69.53	136.4	72.30
69.53	0.000	0.000	Strato1_2_8_L_0		
36 D	14.31	-4.6457E-05	140.0 71.54	140.0	74.22
71.54	0.000	0.000	Strato1_2_8_L_0		
37 D	14.73	-4.4797E-05	143.9 73.66	143.9	76.25
73.66	0.000	0.000	Strato1_2_8_L_0		
38 D	15.16	-4.3105E-05	147.7 75.79	147.7	78.27
75.79	0.000	0.000	Strato1_2_8_L_0		
39 D	15.58	-4.1392E-05	151.5 77.92	151.5	80.30
77.92	0.000	0.000	Strato1_2_8_L_0		
40 D	16.01	-3.9677E-05	155.3 80.04	155.3	82.33
80.04	0.000	0.000	Strato1_2_8_L_0		
41 D	14.71	-3.7980E-05	159.3 73.56	159.3	79.63
73.56	0.000	0.000	Strato2_3095_82743_L_0		
42 D	15.17	-3.6323E-05	163.3 75.83	163.3	81.64
75.83	0.000	0.000	Strato2_3095_82743_L_0		
43 D	15.60	-3.4724E-05	167.1 78.01	167.1	83.57
78.01	0.000	0.000	Strato2_3095_82743_L_0		
44 D	16.05	-3.3198E-05	171.2 80.27	171.2	85.58
80.27	0.000	0.000	Strato2_3095_82743_L_0		
45 D	16.50	-3.1753E-05	175.2 82.51	175.2	87.59
82.51	0.000	0.000	Strato2_3095_82743_L_0		
46 D	16.95	-3.0394E-05	179.2 84.74	179.2	89.60
84.74	0.000	0.000	Strato2_3095_82743_L_0		
47 D	17.39	-2.9124E-05	183.2 86.95	183.2	91.61
86.95	0.000	0.000	Strato2_3095_82743_L_0		
48 D	17.83	-2.7941E-05	187.2 89.15	187.2	93.62
89.15	0.000	0.000	Strato2_3095_82743_L_0		
49 D	18.27	-2.6843E-05	191.3 91.34	191.3	95.63
91.34	0.000	0.000	Strato2_3095_82743_L_0		
50 D	18.70	-2.5825E-05	195.3 93.51	195.3	97.64
93.51	0.000	0.000	Strato2_3095_82743_L_0		
51 D	19.12	-2.4880E-05	199.2 95.60	199.2	99.58
95.60	0.000	0.000	Strato2_3095_82743_L_0		
52 D	19.55	-2.4002E-05	203.2 97.75	203.2	101.6
97.75	0.000	0.000	Strato2_3095_82743_L_0		
53 D	19.98	-2.3181E-05	207.2 99.89	207.2	103.6
99.89	0.000	0.000	Strato2_3095_82743_L_0		
54 D	20.40	-2.2410E-05	211.2 102.0	211.2	105.6
102.0	0.000	0.000	Strato2_3095_82743_L_0		
55 D	20.83	-2.1679E-05	215.2 104.1	215.2	107.6
104.1	0.000	0.000	Strato2_3095_82743_L_0		
56 D	21.25	-2.0981E-05	219.3 106.3	219.3	109.6
106.3	0.000	0.000	Strato2_3095_82743_L_0		
57 D	21.68	-2.0308E-05	223.3 108.4	223.3	111.6
108.4	0.000	0.000	Strato2_3095_82743_L_0		
58 D	22.09	-1.9652E-05	227.2 110.4	227.2	113.6
110.4	0.000	0.000	Strato2_3095_82743_L_0		
59 D	22.51	-1.9007E-05	231.2 112.5	231.2	115.6
112.5	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.93	-1.8368E-05	235.2 114.7	235.2	117.6
114.7	0.000	0.000	Strato2_3095_82743_L_0		
61 D	17.52	-1.7731E-05	239.2 116.8	239.2	119.6
116.8	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.890	-1.7413E-05	241.2 117.8	241.2	120.6
117.8	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

0_R :



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38 D	14.84	4.3105E-05	138.7	74.19	138.7	74.22	UL-RL	4.8789E+04	-7.300	0.000	1.000	1.000
74.19	0.000	0.000	Strato1_2_8_L_0									
39 D	15.24	4.1392E-05	142.5	76.18	142.5	76.21	UL-RL	4.8789E+04	-7.500	0.000	1.000	1.000
76.18	0.000	0.000	Strato1_2_8_L_0									
40 D	15.63	3.9677E-05	146.3	78.17	146.3	78.19	UL-RL	4.8789E+04	-7.700	0.000	1.000	1.000
78.17	0.000	0.000	Strato1_2_8_L_0									
41 D	15.29	3.7980E-05	150.2	76.46	150.2	76.51	UL-RL	1.0987E+05	-7.900	0.000	1.000	1.000
76.46	0.000	0.000	Strato2_3095_82743_L_0									
42 D	15.68	3.6323E-05	154.2	78.40	154.2	78.45	UL-RL	1.0987E+05	-8.100	0.000	1.000	1.000
78.40	0.000	0.000	Strato2_3095_82743_L_0									
43 D	16.07	3.4724E-05	158.2	80.34	158.2	80.39	UL-RL	1.0987E+05	-8.300	0.000	1.000	1.000
80.34	0.000	0.000	Strato2_3095_82743_L_0									
44 D	16.46	3.3198E-05	162.2	82.29	162.2	82.33	UL-RL	1.0987E+05	-8.500	0.000	1.000	1.000
82.29	0.000	0.000	Strato2_3095_82743_L_0									
45 D	16.85	3.1753E-05	166.2	84.24	166.2	84.27	UL-RL	1.0987E+05	-8.700	0.000	1.000	1.000
84.24	0.000	0.000	Strato2_3095_82743_L_0									
46 D	17.24	3.0394E-05	170.2	86.20	170.2	86.22	UL-RL	1.0987E+05	-8.900	0.000	1.000	1.000
86.20	0.000	0.000	Strato2_3095_82743_L_0									
47 D	17.63	2.9124E-05	174.2	88.15	174.2	88.17	UL-RL	1.0987E+05	-9.100	0.000	1.000	1.000
88.15	0.000	0.000	Strato2_3095_82743_L_0									
48 D	18.02	2.7941E-05	178.2	90.11	178.2	90.13	UL-RL	1.0987E+05	-9.300	0.000	1.000	1.000
90.11	0.000	0.000	Strato2_3095_82743_L_0									
49 D	18.41	2.6843E-05	182.2	92.07	182.2	92.09	UL-RL	1.0987E+05	-9.500	0.000	1.000	1.000
92.07	0.000	0.000	Strato2_3095_82743_L_0									
50 D	18.81	2.5825E-05	186.2	94.04	186.2	94.05	UL-RL	1.0987E+05	-9.700	0.000	1.000	1.000
94.04	0.000	0.000	Strato2_3095_82743_L_0									
51 D	19.20	2.4880E-05	190.2	96.01	190.2	96.01	UL-RL	1.0987E+05	-9.900	0.000	1.000	1.000
96.01	0.000	0.000	Strato2_3095_82743_L_0									
52 D	19.60	2.4002E-05	194.2	97.98	194.2	97.98	UL-RL	1.0987E+05	-10.10	0.000	1.000	1.000
97.98	0.000	0.000	Strato2_3095_82743_L_0									
53 D	19.99	2.3181E-05	198.2	99.95	198.2	99.95	UL-RL	1.0987E+05	-10.30	0.000	1.000	1.000
99.95	0.000	0.000	Strato2_3095_82743_L_0									
54 D	20.38	2.2410E-05	202.2	101.9	202.2	101.9	V-C	3.6625E+04	-10.50	0.000	1.000	1.000
101.9	0.000	0.000	Strato2_3095_82743_L_0									
55 D	20.78	2.1679E-05	206.2	103.9	206.2	103.9	V-C	3.6625E+04	-10.70	0.000	1.000	1.000
103.9	0.000	0.000	Strato2_3095_82743_L_0									
56 D	21.17	2.0981E-05	210.2	105.9	210.2	105.9	V-C	3.6625E+04	-10.90	0.000	1.000	1.000
105.9	0.000	0.000	Strato2_3095_82743_L_0									
57 D	21.57	2.0308E-05	214.2	107.8	214.2	107.8	V-C	3.6625E+04	-11.10	0.000	1.000	1.000
107.8	0.000	0.000	Strato2_3095_82743_L_0									
58 D	21.96	1.9652E-05	218.2	109.8	218.2	109.8	UL-RL	1.0987E+05	-11.30	0.000	1.000	1.000
109.8	0.000	0.000	Strato2_3095_82743_L_0									
59 D	22.36	1.9007E-05	222.2	111.8	222.2	111.8	UL-RL	1.0987E+05	-11.50	0.000	1.000	1.000
111.8	0.000	0.000	Strato2_3095_82743_L_0									
60 D	22.75	1.8368E-05	226.2	113.8	226.2	113.8	UL-RL	1.0987E+05	-11.70	0.000	1.000	1.000
113.8	0.000	0.000	Strato2_3095_82743_L_0									
61 D	17.36	1.7731E-05	230.2	115.7	230.2	115.8	UL-RL	1.0987E+05	-11.90	0.000	1.000	1.000
115.7	0.000	0.000	Strato2_3095_82743_L_0									
62 D	5.837	1.7413E-05	232.2	116.7	232.2	116.7	UL-RL	1.0987E+05	-12.00	0.000	1.000	1.000
116.7	0.000	0.000	Strato2_3095_82743_L_0									

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|                                     PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                     |
|                                     NewProject.BaseDesignSection_28.A2M2R1_3514  |
|                                     Exe Time :24 July 2019  11:09:28  |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.48750	-0.48750	-4.03899E-13	9.75000E-02
2	0.61718	-0.61718	-9.75000E-02	0.22094
3	0.72902	-0.72902	-0.22094	0.36674
4	0.76644	-0.76644	-0.36674	0.52003
5	0.71142	-0.71142	-0.52003	0.66231
6	0.55596	-0.55596	-0.66231	0.77350
7	0.39222	-0.39222	-0.77350	0.85195
8	0.25569	-0.25569	-0.85195	0.90309
9	5.12352E-02	-5.12352E-02	-0.90309	0.91333
10	-0.12071	0.12071	-0.91333	0.88919
11	-0.26391	0.26391	-0.88919	0.83641
12	-0.38127	0.38127	-0.83641	0.76015

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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13-0.45164	0.45164	-0.76015	0.71499
14-0.53660	0.53660	-0.71499	0.60767
15-0.62666	0.62666	-0.60767	0.48234
16-0.69517	0.69517	-0.48234	0.34330
17-0.74350	0.74350	-0.34330	0.19460
18-0.77271	0.77271	-0.19460	4.00629E-02
19-0.78362	0.78362	-4.00629E-02	-0.11666
20-0.77685	0.77685	0.11666	-0.27203
21-0.79230	0.79230	0.27203	-0.43049
22-0.78868	0.78868	0.43049	-0.58823
23-0.76625	0.76625	0.58823	-0.74148
24-0.72507	0.72507	0.74148	-0.88649
25-0.66464	0.66464	0.88649	-1.0194
26-0.58396	0.58396	1.0194	-1.1362
27-0.48286	0.48286	1.1362	-1.2328
28-0.39035	0.39035	1.2328	-1.3109
29-0.27553	0.27553	1.3109	-1.3660
30-0.13795	0.13795	1.3660	-1.3935
31 2.29557E-02	-2.29557E-02	1.3935	-1.3890
32 0.20778	-0.20778	1.3890	-1.3474
33 0.41717	-0.41717	1.3474	-1.2640
34 0.65178	-0.65178	1.2640	-1.1336
35 0.91223	-0.91223	1.1336	-0.95116
36 1.1764	-1.1764	0.95116	-0.71588
37 1.4682	-1.4682	0.71588	-0.42224
38 1.7877	-1.7877	0.42224	-6.46946E-02
39 2.1352	-2.1352	6.46946E-02	0.36234
40 2.5104	-2.5104	-0.36234	0.86442
41 1.9304	-1.9304	-0.86442	1.2505
42 1.4171	-1.4171	-1.2505	1.5339
43 0.95042	-0.95042	-1.5339	1.7240
44 0.54558	-0.54558	-1.7240	1.8331
45 0.19933	-0.19933	-1.8331	1.8730
46-9.18121E-02	9.18121E-02	-1.8730	1.8546
47-0.33140	0.33140	-1.8546	1.7883
48-0.52293	0.52293	-1.7883	1.6838
49-0.66979	0.66979	-1.6838	1.5498
50-0.77517	0.77517	-1.5498	1.3948
51-0.85696	0.85696	-1.3948	1.2234
52-0.90253	0.90253	-1.2234	1.0429
53-0.91421	0.91421	-1.0429	0.86004
54-0.89401	0.89401	-0.86004	0.68123
55-0.84308	0.84308	-0.68123	0.51262
56-0.76293	0.76293	-0.51262	0.36003
57-0.65458	0.65458	-0.36003	0.22912
58-0.53192	0.53192	-0.22912	0.12273
59-0.38205	0.38205	-0.12273	4.63242E-02
60-0.20529	0.20529	-4.63242E-02	5.26648E-03
61-5.26595E-02	5.26595E-02	-5.26648E-03	2.33369E-13

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
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***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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ITER 0 RNORM = 0.000  RMNORM= 0.000
RINORM=0.1950E+05 RIMNOR= 119.0
RENORM= 436.5  REMNOR=0.1763E-22 RATIO =0.1496  TOLER =0.1000E-03  NOT CONVERGED
RFMAX = 22.93  RMMAX = 1.873
RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
RDT =0.1950E+05 RDR = 119.0
RATIOT=0.1496  RATIOR= 0.000
MAX UN= 6.065  IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.2139E-10 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1950E+05 RIMNOR= 119.0
            RENORM= 91.64      REMNOR=0.1323E-19 RATIO =0.6855E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 22.93      RMMAX = 1.873
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.1950E+05 RDR  = 119.0
            RATIO=0.6855E-01 RATIO= 0.000
            MAX UN= 4.272      IEQ=   13 NODE      7 DOF   1 Y-DISPL.F
            MIN UN=-.4051E-03 IEQ=   49 NODE     25 DOF   1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1950E+05 RIMNOR= 119.0
            RENORM= 57.76      REMNOR=0.5090E-19 RATIO =0.5442E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 22.93      RMMAX = 1.873
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.1950E+05 RDR  = 119.0
            RATIO=0.5442E-01 RATIO= 0.000
            MAX UN= 4.442      IEQ=   43 NODE     22 DOF   1 Y-DISPL.F
            MIN UN=-.1640E-08 IEQ=    5 NODE      3 DOF   1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1950E+05 RIMNOR= 119.0
            RENORM= 3.224      REMNOR=0.5457E-19 RATIO =0.1286E-01 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 22.93      RMMAX = 1.873
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.1950E+05 RDR  = 119.0
            RATIO=0.1286E-01 RATIO= 0.000
            MAX UN= 1.466      IEQ=   59 NODE     30 DOF   1 Y-DISPL.F
            MIN UN=-.1351E-08 IEQ=   25 NODE     13 DOF   1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1950E+05 RIMNOR= 119.0
            RENORM=0.3534E-03 REMNOR=0.3428E-19 RATIO =0.1346E-03 TOLER =0.1000E-03 NOT CONVERGED
            RFMAX = 22.93      RMMAX = 1.873
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.1950E+05 RDR  = 119.0
            RATIO=0.1346E-03 RATIO= 0.000
            MAX UN=0.1880E-01 IEQ=   65 NODE     33 DOF   1 Y-DISPL.F
            MIN UN=-.1140E-08 IEQ=   15 NODE      8 DOF   1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1950E+05 RIMNOR= 119.0
            RENORM=0.7094E-17 REMNOR=0.2806E-19 RATIO =0.1907E-10 TOLER =0.1000E-03 CONVERGED !
            RFMAX = 22.93      RMMAX = 1.873
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.1950E+05 RDR  = 119.0
            RATIO=0.1907E-10 RATIO= 0.000
            MAX UN=0.1261E-08 IEQ=   27 NODE     14 DOF   1 Y-DISPL.F
            MIN UN=-.8732E-09 IEQ=   25 NODE     13 DOF   1 Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  11:09:28
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.6020953E-03	-8.8605250E-04	
2	5.4248856E-03	-8.8604093E-04	
3	5.2476818E-03	-8.8598704E-04	
4	5.0704967E-03	-8.8584345E-04	
5	4.8933546E-03	-8.8554607E-04	

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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- 6 4.7162938E-03 -8.8501582E-04
- 7 4.5393701E-03 -8.8415929E-04
- 8 4.3626590E-03 -8.8286900E-04
- 9 4.1862595E-03 -8.8102359E-04
- 10 4.0102955E-03 -8.7848942E-04
- 11 3.8349193E-03 -8.7512050E-04
- 12 3.6603136E-03 -8.7075681E-04
- 13 3.4866945E-03 -8.6522445E-04
- 14 3.4003320E-03 -8.6196784E-04
- 15 3.2286767E-03 -8.5432558E-04
- 16 3.0587126E-03 -8.4502057E-04
- 17 2.8907941E-03 -8.3383152E-04
- 18 2.7253194E-03 -8.2055077E-04
- 19 2.5627225E-03 -8.0503911E-04
- 20 2.4034554E-03 -7.8725328E-04
- 21 2.2479693E-03 -7.6724589E-04
- 22 2.0966952E-03 -7.4516619E-04
- 23 1.9500271E-03 -7.2122229E-04
- 24 1.8083161E-03 -6.9563066E-04
- 25 1.6718705E-03 -6.6860417E-04
- 26 1.5409562E-03 -6.4035247E-04
- 27 1.4157980E-03 -6.1108247E-04
- 28 1.2965781E-03 -5.8099808E-04
- 29 1.1834396E-03 -5.5030197E-04
- 30 1.0764847E-03 -5.1919532E-04
- 31 9.7577549E-04 -4.8787788E-04
- 32 8.8133478E-04 -4.5654847E-04
- 33 7.9314420E-04 -4.2540478E-04
- 34 7.1114730E-04 -3.9464465E-04
- 35 6.3524836E-04 -3.6445430E-04
- 36 5.6531668E-04 -3.3499750E-04
- 37 5.0119092E-04 -3.0641723E-04
- 38 4.4268336E-04 -2.7883755E-04
- 39 3.8958246E-04 -2.5236401E-04
- 40 3.4165806E-04 -2.2708606E-04
- 41 2.9866338E-04 -2.0307797E-04
- 42 2.6033519E-04 -1.8044499E-04
- 43 2.2638565E-04 -1.5931047E-04
- 44 1.9650558E-04 -1.3975989E-04
- 45 1.7037259E-04 -1.2184583E-04
- 46 1.4765662E-04 -1.0559117E-04
- 47 1.2802570E-04 -9.0992922E-05
- 48 1.1115080E-04 -7.8025659E-05
- 49 9.6709790E-05 -6.6644320E-05
- 50 8.4391454E-05 -5.6787314E-05
- 51 7.3898309E-05 -4.8378642E-05
- 52 6.4949509E-05 -4.1330553E-05
- 53 5.7282172E-05 -3.5544637E-05
- 54 5.0654635E-05 -3.0914005E-05
- 55 4.4847210E-05 -2.7323775E-05
- 56 3.9663879E-05 -2.4652236E-05
- 57 3.4933588E-05 -2.2771605E-05
- 58 3.0511396E-05 -2.1548597E-05
- 59 2.6279513E-05 -2.0845136E-05
- 60 2.2148213E-05 -2.0518604E-05
- 61 1.8056764E-05 -2.0421677E-05
- 62 1.6014718E-05 -2.0416792E-05

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|
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:09:28
|
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New Project

STRESS RESULTS FOR GROUP NO. 1

O_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.4875	-5.6021E-03	13.00	4.875	13.00	6.890	ACTIVE	0.000	0.000	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.			Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 434 di 560
4.875	0.000	0.000	Strato1_2_8_L_0				
2 D	0.8075	-5.4249E-03	10.77	4.038	10.77	5.706	ACTIVE 0.000 -0.2000 0.000 1.000 1.000
4.038	0.000	0.000	Strato1_2_8_L_0				
3 D	1.188	-5.2477E-03	15.84	5.941	15.84	8.396	ACTIVE 0.000 -0.4000 0.000 1.000 1.000
5.941	0.000	0.000	Strato1_2_8_L_0				
4 D	1.512	-5.0705E-03	20.16	7.561	20.16	10.69	ACTIVE 0.000 -0.6000 0.000 1.000 1.000
7.561	0.000	0.000	Strato1_2_8_L_0				
5 D	1.818	-4.8934E-03	24.24	9.092	24.24	12.85	ACTIVE 0.000 -0.8000 0.000 1.000 1.000
9.092	0.000	0.000	Strato1_2_8_L_0				
6 D	2.117	-4.7163E-03	28.22	10.58	28.22	14.96	ACTIVE 0.000 -1.000 0.000 1.000 1.000
10.58	0.000	0.000	Strato1_2_8_L_0				
7 D	2.411	-4.5394E-03	32.14	12.05	32.14	17.03	ACTIVE 0.000 -1.200 0.000 1.000 1.000
12.05	0.000	0.000	Strato1_2_8_L_0				
8 D	2.702	-4.3627E-03	36.03	13.51	36.03	19.09	ACTIVE 0.000 -1.400 0.000 1.000 1.000
13.51	0.000	0.000	Strato1_2_8_L_0				
9 D	2.927	-4.1863E-03	39.02	14.63	39.02	20.68	ACTIVE 0.000 -1.600 0.000 1.000 1.000
14.63	0.000	0.000	Strato1_2_8_L_0				
10 D	3.223	-4.0103E-03	42.97	16.11	42.97	22.78	ACTIVE 0.000 -1.800 0.000 1.000 1.000
16.11	0.000	0.000	Strato1_2_8_L_0				
11 D	3.517	-3.8349E-03	46.89	17.58	46.89	24.85	ACTIVE 0.000 -2.000 0.000 1.000 1.000
17.58	0.000	0.000	Strato1_2_8_L_0				
12 D	3.809	-3.6603E-03	50.79	19.05	50.79	26.92	ACTIVE 0.000 -2.200 0.000 1.000 1.000
19.05	0.000	0.000	Strato1_2_8_L_0				
13 D	3.075	-3.4867E-03	54.67	20.50	54.67	28.98	ACTIVE 0.000 -2.400 0.000 1.000 1.000
20.50	0.000	0.000	Strato1_2_8_L_0				
14 D	3.168	-3.4003E-03	56.32	21.12	56.32	29.85	ACTIVE 0.000 -2.500 0.000 1.000 1.000
21.12	0.000	0.000	Strato1_2_8_L_0				
15 D	4.515	-3.2287E-03	60.21	22.58	60.21	31.91	ACTIVE 0.000 -2.700 0.000 1.000 1.000
22.58	0.000	0.000	Strato1_2_8_L_0				
16 D	4.806	-3.0587E-03	64.08	24.03	64.08	33.96	ACTIVE 0.000 -2.900 0.000 1.000 1.000
24.03	0.000	0.000	Strato1_2_8_L_0				
17 D	5.096	-2.8908E-03	67.94	25.48	67.94	36.01	ACTIVE 0.000 -3.100 0.000 1.000 1.000
25.48	0.000	0.000	Strato1_2_8_L_0				
18 D	5.385	-2.7253E-03	71.80	26.93	71.80	38.05	ACTIVE 0.000 -3.300 0.000 1.000 1.000
26.93	0.000	0.000	Strato1_2_8_L_0				
19 D	5.674	-2.5627E-03	75.65	28.37	75.65	40.10	ACTIVE 0.000 -3.500 0.000 1.000 1.000
28.37	0.000	0.000	Strato1_2_8_L_0				
20 D	5.962	-2.4035E-03	79.50	29.81	79.50	42.13	ACTIVE 0.000 -3.700 0.000 1.000 1.000
29.81	0.000	0.000	Strato1_2_8_L_0				
21 D	6.222	-2.2480E-03	82.96	31.11	82.96	43.97	ACTIVE 0.000 -3.900 0.000 1.000 1.000
31.11	0.000	0.000	Strato1_2_8_L_0				
22 D	6.511	-2.0967E-03	86.82	32.56	86.82	46.01	ACTIVE 0.000 -4.100 0.000 1.000 1.000
32.56	0.000	0.000	Strato1_2_8_L_0				
23 D	6.800	-1.9500E-03	90.67	34.00	90.67	48.05	ACTIVE 0.000 -4.300 0.000 1.000 1.000
34.00	0.000	0.000	Strato1_2_8_L_0				
24 D	7.089	-1.8083E-03	94.51	35.44	94.51	50.09	ACTIVE 0.000 -4.500 0.000 1.000 1.000
35.44	0.000	0.000	Strato1_2_8_L_0				
25 D	7.377	-1.6719E-03	98.36	36.88	98.36	52.13	ACTIVE 0.000 -4.700 0.000 1.000 1.000
36.88	0.000	0.000	Strato1_2_8_L_0				
26 D	7.665	-1.5410E-03	102.2	38.32	102.2	54.16	ACTIVE 0.000 -4.900 0.000 1.000 1.000
38.32	0.000	0.000	Strato1_2_8_L_0				
27 D	7.952	-1.4158E-03	106.0	39.76	106.0	56.20	ACTIVE 0.000 -5.100 0.000 1.000 1.000
39.76	0.000	0.000	Strato1_2_8_L_0				
28 D	8.219	-1.2966E-03	109.6	41.09	109.6	58.08	ACTIVE 0.000 -5.300 0.000 1.000 1.000
41.09	0.000	0.000	Strato1_2_8_L_0				
29 D	8.507	-1.1834E-03	113.4	42.53	113.4	60.12	ACTIVE 0.000 -5.500 0.000 1.000 1.000
42.53	0.000	0.000	Strato1_2_8_L_0				
30 D	8.795	-1.0765E-03	117.3	43.97	117.3	62.15	ACTIVE 0.000 -5.700 0.000 1.000 1.000
43.97	0.000	0.000	Strato1_2_8_L_0				
31 D	9.082	-9.7578E-04	121.1	45.41	121.1	64.18	ACTIVE 0.000 -5.900 0.000 1.000 1.000
45.41	0.000	0.000	Strato1_2_8_L_0				
32 D	9.370	-8.8133E-04	124.9	46.85	124.9	66.21	ACTIVE 0.000 -6.100 0.000 1.000 1.000
46.85	0.000	0.000	Strato1_2_8_L_0				
33 D	9.657	-7.9314E-04	128.8	48.29	128.8	68.24	ACTIVE 0.000 -6.300 0.000 1.000 1.000
48.29	0.000	0.000	Strato1_2_8_L_0				
34 D	10.43	-7.1115E-04	132.6	52.16	132.6	70.27	UL-RL 2.3058E+04 -6.500 0.000 1.000 1.000
52.16	0.000	0.000	Strato1_2_8_L_0				
35 D	11.20	-6.3525E-04	136.4	55.99	136.4	72.30	UL-RL 2.3058E+04 -6.700 0.000 1.000 1.000
55.99	0.000	0.000	Strato1_2_8_L_0				
36 D	11.91	-5.6532E-04	140.0	59.57	140.0	74.22	UL-RL 2.3058E+04 -6.900 0.000 1.000 1.000
59.57	0.000	0.000	Strato1_2_8_L_0				
37 D	12.63	-5.0119E-04	143.9	63.14	143.9	76.25	UL-RL 2.3058E+04 -7.100 0.000 1.000 1.000
63.14	0.000	0.000	Strato1_2_8_L_0				
38 D	13.32	-4.4268E-04	147.7	66.58	147.7	78.27	UL-RL 2.3058E+04 -7.300 0.000 1.000 1.000
66.58	0.000	0.000	Strato1_2_8_L_0				
39 D	13.98	-3.8958E-04	151.5	69.89	151.5	80.30	UL-RL 2.3058E+04 -7.500 0.000 1.000 1.000
69.89	0.000	0.000	Strato1_2_8_L_0				
40 D	14.62	-3.4166E-04	155.3	73.08	155.3	82.33	UL-RL 2.3058E+04 -7.700 0.000 1.000 1.000
73.08	0.000	0.000	Strato1_2_8_L_0				
41 D	11.37	-2.9866E-04	159.3	56.87	159.3	79.63	UL-RL 6.3994E+04 -7.900 0.000 1.000 1.000
56.87	0.000	0.000	Strato2_3095_82743_L_0				
42 D	12.30	-2.6034E-04	163.3	61.50	163.3	81.64	UL-RL 6.3994E+04 -8.100 0.000 1.000 1.000
61.50	0.000	0.000	Strato2_3095_82743_L_0				
43 D	13.15	-2.2639E-04	167.1	65.75	167.1	83.57	UL-RL 6.3994E+04 -8.300 0.000 1.000 1.000
65.75	0.000	0.000	Strato2_3095_82743_L_0				



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                       |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
0.000	0.000	0.000	not available									
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
14	0.000	--	--	--	--	--	REMOVED	--	-2.500	0.000	1.000	1.000
0.000	0.000	0.000	not available									
15	0.000	--	--	--	--	--	REMOVED	--	-2.700	0.000	1.000	1.000
0.000	0.000	0.000	not available									
16	0.000	--	--	--	--	--	REMOVED	--	-2.900	0.000	1.000	1.000
0.000	0.000	0.000	not available									
17 D	1.154	2.8908E-03	1.900	5.772	58.90	32.32	PASSIVE	0.000	-3.100	0.000	1.000	1.000
5.772	0.000	0.000	Stratol_2_8_L_0									
18 D	3.463	2.7253E-03	5.700	17.32	62.70	34.32	PASSIVE	0.000	-3.300	0.000	1.000	1.000
17.32	0.000	0.000	Stratol_2_8_L_0									
19 D	5.772	2.5627E-03	9.500	28.86	66.50	36.32	PASSIVE	0.000	-3.500	0.000	1.000	1.000
28.86	0.000	0.000	Stratol_2_8_L_0									
20 D	8.081	2.4035E-03	13.30	40.41	70.30	40.41	PASSIVE	0.000	-3.700	0.000	1.000	1.000
40.41	0.000	0.000	Stratol_2_8_L_0									
21 D	10.39	2.2480E-03	17.10	51.95	74.10	51.95	PASSIVE	0.000	-3.900	0.000	1.000	1.000
51.95	0.000	0.000	Stratol_2_8_L_0									
22 D	11.11	2.0967E-03	20.90	55.55	77.90	55.55	V-C	6505.	-4.100	0.000	1.000	1.000
55.55	0.000	0.000	Stratol_2_8_L_0									
23 D	11.32	1.9500E-03	24.70	56.60	81.70	56.60	V-C	6505.	-4.300	0.000	1.000	1.000
56.60	0.000	0.000	Stratol_2_8_L_0									
24 D	11.54	1.8083E-03	28.50	57.68	85.50	57.68	V-C	6505.	-4.500	0.000	1.000	1.000
57.68	0.000	0.000	Stratol_2_8_L_0									
25 D	11.76	1.6719E-03	32.30	58.80	89.30	58.80	V-C	6505.	-4.700	0.000	1.000	1.000
58.80	0.000	0.000	Stratol_2_8_L_0									
26 D	11.99	1.5410E-03	36.10	59.95	93.10	59.95	V-C	6505.	-4.900	0.000	1.000	1.000
59.95	0.000	0.000	Stratol_2_8_L_0									
27 D	12.23	1.4158E-03	39.90	61.14	96.90	61.14	V-C	6505.	-5.100	0.000	1.000	1.000
61.14	0.000	0.000	Stratol_2_8_L_0									
28 D	12.47	1.2966E-03	43.70	62.37	100.7	62.37	V-C	6505.	-5.300	0.000	1.000	1.000
62.37	0.000	0.000	Stratol_2_8_L_0									
29 D	12.73	1.1834E-03	47.50	63.63	104.5	63.63	V-C	6505.	-5.500	0.000	1.000	1.000
63.63	0.000	0.000	Stratol_2_8_L_0									
30 D	12.99	1.0765E-03	51.30	64.94	108.3	64.94	V-C	6505.	-5.700	0.000	1.000	1.000



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64.94	0.000	0.000	Strato1_2_8_L_0		
31 D	13.26	9.7578E-04	55.10 66.29	112.1	66.29
66.29	0.000	0.000	Strato1_2_8_L_0		
32 D	13.53	8.8133E-04	58.90 67.67	115.9	67.67
67.67	0.000	0.000	Strato1_2_8_L_0		
33 D	13.82	7.9314E-04	62.70 69.10	119.7	69.10
69.10	0.000	0.000	Strato1_2_8_L_0		
34 D	14.11	7.1115E-04	66.50 70.57	123.5	70.57
70.57	0.000	0.000	Strato1_2_8_L_0		
35 D	14.41	6.3525E-04	70.30 72.07	127.3	72.07
72.07	0.000	0.000	Strato1_2_8_L_0		
36 D	14.72	5.6532E-04	74.10 73.61	131.1	73.61
73.61	0.000	0.000	Strato1_2_8_L_0		
37 D	15.04	5.0119E-04	77.90 75.19	134.9	75.19
75.19	0.000	0.000	Strato1_2_8_L_0		
38 D	15.36	4.4268E-04	81.70 76.81	138.7	76.81
76.81	0.000	0.000	Strato1_2_8_L_0		
39 D	15.69	3.8958E-04	85.50 78.46	142.5	78.46
78.46	0.000	0.000	Strato1_2_8_L_0		
40 D	16.03	3.4166E-04	89.30 80.15	146.3	80.15
80.15	0.000	0.000	Strato1_2_8_L_0		
41 D	14.39	2.9866E-04	93.20 71.97	150.2	76.51
71.97	0.000	0.000	Strato2_3095_82743_L_0		
42 D	14.47	2.6034E-04	97.20 72.36	154.2	78.45
72.36	0.000	0.000	Strato2_3095_82743_L_0		
43 D	14.59	2.2639E-04	101.2 72.93	158.2	80.39
72.93	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.74	1.9651E-04	105.2 73.68	162.2	82.33
73.68	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.92	1.7037E-04	109.2 74.59	166.2	84.27
74.59	0.000	0.000	Strato2_3095_82743_L_0		
46 D	15.13	1.4766E-04	113.2 75.65	170.2	86.22
75.65	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.37	1.2803E-04	117.2 76.84	174.2	88.17
76.84	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.63	1.1115E-04	121.2 78.15	178.2	90.13
78.15	0.000	0.000	Strato2_3095_82743_L_0		
49 D	15.91	9.6710E-05	125.2 79.56	182.2	92.09
79.56	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.21	8.4391E-05	129.2 81.06	186.2	94.05
81.06	0.000	0.000	Strato2_3095_82743_L_0		
51 D	16.53	7.3898E-05	133.2 82.64	190.2	96.01
82.64	0.000	0.000	Strato2_3095_82743_L_0		
52 D	16.86	6.4950E-05	137.2 84.29	194.2	97.98
84.29	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.20	5.7282E-05	141.2 85.99	198.2	99.95
85.99	0.000	0.000	Strato2_3095_82743_L_0		
54 D	17.55	5.0655E-05	145.2 87.73	202.2	101.9
87.73	0.000	0.000	Strato2_3095_82743_L_0		
55 D	17.90	4.4847E-05	149.2 89.51	206.2	103.9
89.51	0.000	0.000	Strato2_3095_82743_L_0		
56 D	18.26	3.9664E-05	153.2 91.31	210.2	105.9
91.31	0.000	0.000	Strato2_3095_82743_L_0		
57 D	18.63	3.4934E-05	157.2 93.14	214.2	107.8
93.14	0.000	0.000	Strato2_3095_82743_L_0		
58 D	18.99	3.0511E-05	161.2 94.97	218.2	109.8
94.97	0.000	0.000	Strato2_3095_82743_L_0		
59 D	19.36	2.6280E-05	165.2 96.81	222.2	111.8
96.81	0.000	0.000	Strato2_3095_82743_L_0		
60 D	19.73	2.2148E-05	169.2 98.65	226.2	113.8
98.65	0.000	0.000	Strato2_3095_82743_L_0		
61 D	15.07	1.8057E-05	173.2 100.5	230.2	115.8
100.5	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.071	1.6015E-05	175.2 101.4	232.2	116.7
101.4	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_3514                       |
|                               Exe Time :24 July 2019    11:09:28                             |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

WALL2D ELEMENT

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 438 di 560
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EL	TA	TB	MA	MB
1	0.48750	-0.48750	1.79425E-11	9.75000E-02
2	1.2950	-1.2950	-9.75000E-02	0.35650
3	2.4831	-2.4831	-0.35650	0.85313
4	3.9953	-3.9953	-0.85313	1.6522
5	5.8136	-5.8136	-1.6522	2.8149
6	7.9301	-7.9301	-2.8149	4.4009
7	10.341	-10.341	-4.4009	6.4691
8	13.043	-13.043	-6.4691	9.0776
9	15.970	-15.970	-9.0776	12.272
10	19.192	-19.192	-12.272	16.110
11	22.709	-22.709	-16.110	20.652
12	26.519	-26.519	-20.652	25.956
13	29.594	-29.594	-25.956	28.915
14	32.762	-32.762	-28.915	35.467
15	37.277	-37.277	-35.467	42.923
16	42.083	-42.083	-42.923	51.339
17	46.025	-46.025	-51.339	60.544
18	47.946	-47.946	-60.544	70.134
19	47.848	-47.848	-70.134	79.703
20	45.729	-45.729	-79.703	88.849
21	41.562	-41.562	-88.849	97.161
22	36.963	-36.963	-97.161	104.55
23	32.444	-32.444	-104.55	111.04
24	27.996	-27.996	-111.04	116.64
25	23.613	-23.613	-116.64	121.36
26	19.287	-19.287	-121.36	125.22
27	15.011	-15.011	-125.22	128.22
28	10.756	-10.756	-128.22	130.38
29	6.5363	-6.5363	-130.38	131.68
30	2.3428	-2.3428	-131.68	132.15
31	-1.8322	1.8322	-132.15	131.78
32	-5.9970	5.9970	-131.78	130.59
33	-10.160	10.160	-130.59	128.55
34	-13.841	13.841	-128.55	125.79
35	-17.057	17.057	-125.79	122.37
36	-19.865	19.865	-122.37	118.40
37	-22.276	22.276	-118.40	113.95
38	-24.323	24.323	-113.95	109.08
39	-26.038	26.038	-109.08	103.87
40	-27.452	27.452	-103.87	98.383
41	-30.471	30.471	-98.383	92.289
42	-32.643	32.643	-92.289	85.760
43	-34.081	34.081	-85.760	78.944
44	-34.854	34.854	-78.944	71.973
45	-35.045	35.045	-71.973	64.964
46	-34.728	34.728	-64.964	58.019
47	-33.971	33.971	-58.019	51.225
48	-32.835	32.835	-51.225	44.658
49	-31.374	31.374	-44.658	38.383
50	-29.634	29.634	-38.383	32.456
51	-27.671	27.671	-32.456	26.922
52	-25.503	25.503	-26.922	21.821
53	-23.160	23.160	-21.821	17.189
54	-20.664	20.664	-17.189	13.057
55	-18.033	18.033	-13.057	9.4499
56	-15.282	15.282	-9.4499	6.3935
57	-12.419	12.419	-6.3935	3.9097
58	-9.4655	9.4655	-3.9097	2.0166
59	-6.4117	6.4117	-2.0166	0.73426
60	-3.2598	3.2598	-0.73426	8.22987E-02
61	-0.82291	0.82291	-8.22987E-02	2.35034E-13

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
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|                                                                                                                                           |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 4

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Tieback_778405          :
ELEMENT TYPE          6 NO.OF ELEMENTS. IN THIS GROUP          1
CURRENT TIME IS          3.0000

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POST-TENSION 2D-BOUNDARY ELEMENT



Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

Foglio
439 di 560

EL FORCE d0 EDISPL pl. eps K -ve limit +ve limit

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1161E+06 RIMNOR=0.7220E+06
 RENORM=0.1736E+05 REMNOR=0.2806E-19 RATIO =0.3866 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 132.2
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.1161E+06 RDR =0.7220E+06
 RATIO=0.3866 RATIO= 0.000
 MAX UN=0.6787E-09 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
 MIN UN=-131.8 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1161E+06 RIMNOR=0.7220E+06
 RENORM= 87.28 REMNOR=0.5319E-19 RATIO =0.2741E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 132.2
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.1161E+06 RDR =0.7220E+06
 RATIO=0.2741E-01 RATIO= 0.000
 MAX UN=0.4803E-09 IEQ= 47 NODE 24 DOF 1 Y-DISPL.F
 MIN UN=-3.165 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1161E+06 RIMNOR=0.7220E+06
 RENORM= 3.854 REMNOR=0.4160E-19 RATIO =0.5761E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 132.2
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.1161E+06 RDR =0.7220E+06
 RATIO=0.5761E-02 RATIO= 0.000
 MAX UN=0.1606E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 MIN UN=-1.610 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1161E+06 RIMNOR=0.7220E+06
 RENORM=0.2344E-17 REMNOR=0.1324E-19 RATIO =0.4493E-11 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 131.8 RMMAX = 132.2
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
 RDT =0.1161E+06 RDR =0.7220E+06
 RATIO=0.4493E-11 RATIO= 0.000
 MAX UN=0.5657E-09 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
 MIN UN=-.6147E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

 | PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
 | |
 | NewProject.BaseDesignSection_28.A2M2R1_3514 |
Exe Time :24 July 2019 11:09:28

New Project
 SOLUTION REACHED USING 4 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.2190421E-03	-5.6353557E-04	
2	3.1063388E-03	-5.6347732E-04	
3	2.9936662E-03	-5.6319352E-04	
4	2.8810916E-03	-5.6245686E-04	
5	2.7687299E-03	-5.6102340E-04	
6	2.6567459E-03	-5.5863487E-04	
7	2.5453577E-03	-5.5501940E-04	
8	2.4348390E-03	-5.4989199E-04	
9	2.3255216E-03	-5.4295468E-04	
10	2.2177983E-03	-5.3389877E-04	
11	2.1121246E-03	-5.2240470E-04	
12	2.0090212E-03	-5.0814010E-04	
13	1.9090763E-03	-4.9075998E-04	
14	1.8604908E-03	-4.8080167E-04	

GENERAL CONTRACTOR

Cepav due



ALTA SORVEGLIANZA

**ITALFERR**

GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR		Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 441 di 560						
6 D	5.866	-2.6567E-03	28.22	29.33	28.22	29.33	V-C	7686.	-1.000	0.000	1.000	1.000
29.33	0.000	0.000	Strato1_2_8_L_0									
7 D	6.140	-2.5454E-03	32.14	30.70	32.14	30.70	V-C	7686.	-1.200	0.000	1.000	1.000
30.70	0.000	0.000	Strato1_2_8_L_0									
8 D	6.410	-2.4348E-03	36.03	32.05	36.03	32.05	V-C	7686.	-1.400	0.000	1.000	1.000
32.05	0.000	0.000	Strato1_2_8_L_0									
9 D	6.594	-2.3255E-03	39.02	32.97	39.02	32.97	V-C	7686.	-1.600	0.000	1.000	1.000
32.97	0.000	0.000	Strato1_2_8_L_0									
10 D	6.866	-2.2178E-03	42.97	34.33	42.97	34.33	V-C	7686.	-1.800	0.000	1.000	1.000
34.33	0.000	0.000	Strato1_2_8_L_0									
11 D	7.134	-2.1121E-03	46.89	35.67	46.89	35.67	V-C	7686.	-2.000	0.000	1.000	1.000
35.67	0.000	0.000	Strato1_2_8_L_0									
12 D	7.397	-2.0090E-03	50.79	36.99	50.79	36.99	V-C	7686.	-2.200	0.000	1.000	1.000
36.99	0.000	0.000	Strato1_2_8_L_0									
13 D	5.742	-1.9091E-03	54.67	38.28	54.67	38.28	V-C	7686.	-2.400	0.000	1.000	1.000
38.28	0.000	0.000	Strato1_2_8_L_0									
14 D	5.816	-1.8605E-03	56.32	38.77	56.32	38.77	V-C	7686.	-2.500	0.000	1.000	1.000
38.77	0.000	0.000	Strato1_2_8_L_0									
15 D	8.008	-1.7663E-03	60.21	40.04	60.21	40.04	V-C	7686.	-2.700	0.000	1.000	1.000
40.04	0.000	0.000	Strato1_2_8_L_0									
16 D	8.256	-1.6759E-03	64.08	41.28	64.08	41.28	V-C	7686.	-2.900	0.000	1.000	1.000
41.28	0.000	0.000	Strato1_2_8_L_0									
17 D	8.502	-1.5887E-03	67.94	42.51	67.94	42.51	V-C	7686.	-3.100	0.000	1.000	1.000
42.51	0.000	0.000	Strato1_2_8_L_0									
18 D	8.746	-1.5044E-03	71.80	43.73	71.80	43.73	V-C	7686.	-3.300	0.000	1.000	1.000
43.73	0.000	0.000	Strato1_2_8_L_0									
19 D	8.989	-1.4229E-03	75.65	44.95	75.65	44.95	V-C	7686.	-3.500	0.000	1.000	1.000
44.95	0.000	0.000	Strato1_2_8_L_0									
20 D	9.234	-1.3439E-03	79.50	46.17	79.50	46.17	V-C	7686.	-3.700	0.000	1.000	1.000
46.17	0.000	0.000	Strato1_2_8_L_0									
21 D	9.444	-1.2674E-03	82.96	47.22	82.96	47.22	V-C	7686.	-3.900	0.000	1.000	1.000
47.22	0.000	0.000	Strato1_2_8_L_0									
22 D	9.695	-1.1932E-03	86.82	48.47	86.82	48.47	V-C	7686.	-4.100	0.000	1.000	1.000
48.47	0.000	0.000	Strato1_2_8_L_0									
23 D	9.948	-1.1214E-03	90.67	49.74	90.67	49.74	V-C	7686.	-4.300	0.000	1.000	1.000
49.74	0.000	0.000	Strato1_2_8_L_0									
24 D	10.20	-1.0520E-03	94.51	51.02	94.51	51.02	V-C	7686.	-4.500	0.000	1.000	1.000
51.02	0.000	0.000	Strato1_2_8_L_0									
25 D	10.47	-9.8488E-04	98.36	52.33	98.36	52.33	V-C	7686.	-4.700	0.000	1.000	1.000
52.33	0.000	0.000	Strato1_2_8_L_0									
26 D	10.53	-9.2022E-04	102.2	52.64	102.2	54.16	UL-RL	2.3058E+04	-4.900	0.000	1.000	1.000
52.64	0.000	0.000	Strato1_2_8_L_0									
27 D	10.52	-8.5802E-04	106.0	52.62	106.0	56.20	UL-RL	2.3058E+04	-5.100	0.000	1.000	1.000
52.62	0.000	0.000	Strato1_2_8_L_0									
28 D	10.52	-7.9833E-04	109.6	52.58	109.6	58.08	UL-RL	2.3058E+04	-5.300	0.000	1.000	1.000
52.58	0.000	0.000	Strato1_2_8_L_0									
29 D	10.55	-7.4121E-04	113.4	52.73	113.4	60.12	UL-RL	2.3058E+04	-5.500	0.000	1.000	1.000
52.73	0.000	0.000	Strato1_2_8_L_0									
30 D	10.59	-6.8672E-04	117.3	52.96	117.3	62.15	UL-RL	2.3058E+04	-5.700	0.000	1.000	1.000
52.96	0.000	0.000	Strato1_2_8_L_0									
31 D	10.65	-6.3492E-04	121.1	53.27	121.1	64.18	UL-RL	2.3058E+04	-5.900	0.000	1.000	1.000
53.27	0.000	0.000	Strato1_2_8_L_0									
32 D	10.73	-5.8584E-04	124.9	53.66	124.9	66.21	UL-RL	2.3058E+04	-6.100	0.000	1.000	1.000
53.66	0.000	0.000	Strato1_2_8_L_0									
33 D	10.83	-5.3953E-04	128.8	54.13	128.8	68.24	UL-RL	2.3058E+04	-6.300	0.000	1.000	1.000
54.13	0.000	0.000	Strato1_2_8_L_0									
34 D	11.42	-4.9601E-04	132.6	57.12	132.6	70.27	UL-RL	2.3058E+04	-6.500	0.000	1.000	1.000
57.12	0.000	0.000	Strato1_2_8_L_0									
35 D	12.03	-4.5527E-04	136.4	60.14	136.4	72.30	UL-RL	2.3058E+04	-6.700	0.000	1.000	1.000
60.14	0.000	0.000	Strato1_2_8_L_0									
36 D	12.60	-4.1730E-04	140.0	62.99	140.0	74.22	UL-RL	2.3058E+04	-6.900	0.000	1.000	1.000
62.99	0.000	0.000	Strato1_2_8_L_0									
37 D	13.18	-3.8207E-04	143.9	65.89	143.9	76.25	UL-RL	2.3058E+04	-7.100	0.000	1.000	1.000
65.89	0.000	0.000	Strato1_2_8_L_0									
38 D	13.74	-3.4952E-04	147.7	68.72	147.7	78.27	UL-RL	2.3058E+04	-7.300	0.000	1.000	1.000
68.72	0.000	0.000	Strato1_2_8_L_0									
39 D	14.30	-3.1960E-04	151.5	71.50	151.5	80.30	UL-RL	2.3058E+04	-7.500	0.000	1.000	1.000
71.50	0.000	0.000	Strato1_2_8_L_0									
40 D	14.84	-2.9224E-04	155.3	74.22	155.3	82.33	UL-RL	2.3058E+04	-7.700	0.000	1.000	1.000
74.22	0.000	0.000	Strato1_2_8_L_0									
41 D	11.78	-2.6735E-04	159.3	58.88	159.3	79.63	UL-RL	6.3994E+04	-7.900	0.000	1.000	1.000
58.88	0.000	0.000	Strato2_3095_82743_L_0									
42 D	12.50	-2.4483E-04	163.3	62.49	163.3	81.64	UL-RL	6.3994E+04	-8.100	0.000	1.000	1.000
62.49	0.000	0.000	Strato2_3095_82743_L_0									
43 D	13.17	-2.2457E-04	167.1	65.86	167.1	83.57	UL-RL	6.3994E+04	-8.300	0.000	1.000	1.000
65.86	0.000	0.000	Strato2_3095_82743_L_0									
44 D	13.84	-2.0645E-04	171.2	69.18	171.2	85.58	UL-RL	6.3994E+04	-8.500	0.000	1.000	1.000
69.18	0.000	0.000	Strato2_3095_82743_L_0									
45 D	14.47	-1.9030E-04	175.2	72.36	175.2	87.59	UL-RL	6.3994E+04	-8.700	0.000	1.000	1.000
72.36	0.000	0.000	Strato2_3095_82743_L_0									
46 D	15.08	-1.7599E-04	179.2	75.42	179.2	89.60	UL-RL	6.3994E+04	-8.900	0.000	1.000	1.000
75.42	0.000	0.000	Strato2_3095_82743_L_0									
47 D	15.67	-1.6334E-04	183.2	78.36	183.2	91.61	UL-RL	6.3994E+04	-9.100	0.000	1.000	1.000
78.36	0.000	0.000	Strato2_3095_82743_L_0									
48 D	16.24	-1.5220E-04	187.2	81.20	187.2	93.62	UL-RL	6.3994E+04	-9.300	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 442 di 560
81.20	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.79	-1.4240E-04	191.3 83.94	191.3	95.63
83.94	0.000	0.000	Strato2_3095_82743_L_0		
50 D	17.32	-1.3378E-04	195.3 86.60	195.3	97.64
86.60	0.000	0.000	Strato2_3095_82743_L_0		
51 D	17.82	-1.2619E-04	199.2 89.11	199.2	99.58
89.11	0.000	0.000	Strato2_3095_82743_L_0		
52 D	18.33	-1.1946E-04	203.2 91.64	203.2	101.6
91.64	0.000	0.000	Strato2_3095_82743_L_0		
53 D	18.82	-1.1346E-04	207.2 94.11	207.2	103.6
94.11	0.000	0.000	Strato2_3095_82743_L_0		
54 D	19.31	-1.0806E-04	211.2 96.54	211.2	105.6
96.54	0.000	0.000	Strato2_3095_82743_L_0		
55 D	19.79	-1.0314E-04	215.2 98.94	215.2	107.6
98.94	0.000	0.000	Strato2_3095_82743_L_0		
56 D	20.26	-9.8572E-05	219.3 101.3	219.3	109.6
101.3	0.000	0.000	Strato2_3095_82743_L_0		
57 D	20.73	-9.4273E-05	223.3 103.7	223.3	111.6
103.7	0.000	0.000	Strato2_3095_82743_L_0		
58 D	21.18	-9.0155E-05	227.2 105.9	227.2	113.6
105.9	0.000	0.000	Strato2_3095_82743_L_0		
59 D	21.65	-8.6151E-05	231.2 108.2	231.2	115.6
108.2	0.000	0.000	Strato2_3095_82743_L_0		
60 D	22.11	-8.2206E-05	235.2 110.6	235.2	117.6
110.6	0.000	0.000	Strato2_3095_82743_L_0		
61 D	16.93	-7.8285E-05	239.2 112.9	239.2	119.6
112.9	0.000	0.000	Strato2_3095_82743_L_0		
62 D	5.701	-7.6326E-05	241.2 114.0	241.2	120.6
114.0	0.000	0.000	Strato2_3095_82743_L_0		

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
 CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
0.000	0.000	0.000	not available									
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
14	0.000	--	--	--	--	--	REMOVED	--	-2.500	0.000	1.000	1.000
0.000	0.000	0.000	not available									
15	0.000	--	--	--	--	--	REMOVED	--	-2.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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0.000	0.000	0.000	not available		
16	0.000	--	--		
0.000	0.000	0.000	not available		
17 D	0.1425	1.5887E-03	1.900 0.7125	58.90	32.32
0.7125	0.000	0.000	Strato1_2_8_L_0		
18 D	0.4275	1.5044E-03	5.700 2.137	62.70	34.32
2.137	0.000	0.000	Strato1_2_8_L_0		
19 D	1.323	1.4229E-03	9.500 6.617	66.50	36.32
6.617	0.000	0.000	Strato1_2_8_L_0		
20 D	3.946	1.3439E-03	13.30 19.73	70.30	40.41
19.73	0.000	0.000	Strato1_2_8_L_0		
21 D	6.563	1.2674E-03	17.10 32.81	74.10	51.95
32.81	0.000	0.000	Strato1_2_8_L_0		
22 D	7.583	1.1932E-03	20.90 37.92	77.90	55.55
37.92	0.000	0.000	Strato1_2_8_L_0		
23 D	8.086	1.1214E-03	24.70 40.43	81.70	56.60
40.43	0.000	0.000	Strato1_2_8_L_0		
24 D	8.584	1.0520E-03	28.50 42.92	85.50	57.68
42.92	0.000	0.000	Strato1_2_8_L_0		
25 D	9.078	9.8488E-04	32.30 45.39	89.30	58.80
45.39	0.000	0.000	Strato1_2_8_L_0		
26 D	9.567	9.2022E-04	36.10 47.84	93.10	59.95
47.84	0.000	0.000	Strato1_2_8_L_0		
27 D	10.05	8.5802E-04	39.90 50.26	96.90	61.14
50.26	0.000	0.000	Strato1_2_8_L_0		
28 D	10.53	7.9833E-04	43.70 52.64	100.7	62.37
52.64	0.000	0.000	Strato1_2_8_L_0		
29 D	11.00	7.4121E-04	47.50 55.00	104.5	63.63
55.00	0.000	0.000	Strato1_2_8_L_0		
30 D	11.47	6.8672E-04	51.30 57.33	108.3	64.94
57.33	0.000	0.000	Strato1_2_8_L_0		
31 D	11.93	6.3492E-04	55.10 59.63	112.1	66.29
59.63	0.000	0.000	Strato1_2_8_L_0		
32 D	12.38	5.8584E-04	58.90 61.91	115.9	67.67
61.91	0.000	0.000	Strato1_2_8_L_0		
33 D	12.83	5.3953E-04	62.70 64.15	119.7	69.10
64.15	0.000	0.000	Strato1_2_8_L_0		
34 D	13.27	4.9601E-04	66.50 66.37	123.5	70.57
66.37	0.000	0.000	Strato1_2_8_L_0		
35 D	13.71	4.5527E-04	70.30 68.56	127.3	72.07
68.56	0.000	0.000	Strato1_2_8_L_0		
36 D	14.15	4.1730E-04	74.10 70.73	131.1	73.61
70.73	0.000	0.000	Strato1_2_8_L_0		
37 D	14.57	3.8207E-04	77.90 72.87	134.9	75.19
72.87	0.000	0.000	Strato1_2_8_L_0		
38 D	15.00	3.4952E-04	81.70 74.99	138.7	76.81
74.99	0.000	0.000	Strato1_2_8_L_0		
39 D	15.42	3.1960E-04	85.50 77.10	142.5	78.46
77.10	0.000	0.000	Strato1_2_8_L_0		
40 D	15.84	2.9224E-04	89.30 79.18	146.3	80.15
79.18	0.000	0.000	Strato1_2_8_L_0		
41 D	14.12	2.6735E-04	93.20 70.59	150.2	76.51
70.59	0.000	0.000	Strato2_3095_82743_L_0		
42 D	14.34	2.4483E-04	97.20 71.68	154.2	78.45
71.68	0.000	0.000	Strato2_3095_82743_L_0		
43 D	14.57	2.2457E-04	101.2 72.85	158.2	80.39
72.85	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.82	2.0645E-04	105.2 74.12	162.2	82.33
74.12	0.000	0.000	Strato2_3095_82743_L_0		
45 D	15.09	1.9030E-04	109.2 75.47	166.2	84.27
75.47	0.000	0.000	Strato2_3095_82743_L_0		
46 D	15.38	1.7599E-04	113.2 76.90	170.2	86.22
76.90	0.000	0.000	Strato2_3095_82743_L_0		
47 D	15.68	1.6334E-04	117.2 78.39	174.2	88.17
78.39	0.000	0.000	Strato2_3095_82743_L_0		
48 D	15.99	1.5220E-04	121.2 79.95	178.2	90.13
79.95	0.000	0.000	Strato2_3095_82743_L_0		
49 D	16.31	1.4240E-04	125.2 81.57	182.2	92.09
81.57	0.000	0.000	Strato2_3095_82743_L_0		
50 D	16.65	1.3378E-04	129.2 83.23	186.2	94.05
83.23	0.000	0.000	Strato2_3095_82743_L_0		
51 D	16.99	1.2619E-04	133.2 84.94	190.2	96.01
84.94	0.000	0.000	Strato2_3095_82743_L_0		
52 D	17.34	1.1946E-04	137.2 86.69	194.2	97.98
86.69	0.000	0.000	Strato2_3095_82743_L_0		
53 D	17.69	1.1346E-04	141.2 88.46	198.2	99.95
88.46	0.000	0.000	Strato2_3095_82743_L_0		
54 D	18.05	1.0806E-04	145.2 90.26	202.2	101.9
90.26	0.000	0.000	Strato2_3095_82743_L_0		
55 D	18.41	1.0314E-04	149.2 92.07	206.2	103.9
92.07	0.000	0.000	Strato2_3095_82743_L_0		
56 D	18.78	9.8572E-05	153.2 93.90	210.2	105.9
93.90	0.000	0.000	Strato2_3095_82743_L_0		
57 D	19.15	9.4273E-05	157.2 95.74	214.2	107.8
95.74	0.000	0.000	Strato2_3095_82743_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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58 D 19.52	9.0155E-05	161.2	97.59	218.2	109.8	UL-RL	4.3949E+04	-11.30	0.000	1.000	1.000
97.59 0.000	0.000	Strato2_3095_82743_L_0									
59 D 19.89	8.6151E-05	165.2	99.44	222.2	111.8	UL-RL	4.3949E+04	-11.50	0.000	1.000	1.000
99.44 0.000	0.000	Strato2_3095_82743_L_0									
60 D 20.26	8.2206E-05	169.2	101.3	226.2	113.8	UL-RL	4.3949E+04	-11.70	0.000	1.000	1.000
101.3 0.000	0.000	Strato2_3095_82743_L_0									
61 D 15.47	7.8285E-05	173.2	103.1	230.2	115.8	UL-RL	4.3949E+04	-11.90	0.000	1.000	1.000
103.1 0.000	0.000	Strato2_3095_82743_L_0									
62 D 5.204	7.6326E-05	175.2	104.1	232.2	116.7	UL-RL	4.3949E+04	-12.00	0.000	1.000	1.000
104.1 0.000	0.000	Strato2_3095_82743_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:09:28  |
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New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
 CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.4535	-2.4535	1.15405E-11	0.49069
2	7.0476	-7.0476	-0.49069	1.9002
3	12.028	-12.028	-1.9002	4.3058
4	17.323	-17.323	-4.3058	7.7703
5	22.908	-22.908	-7.7703	12.352
6	28.774	-28.774	-12.352	18.107
7	34.914	-34.914	-18.107	25.089
8	41.324	-41.324	-25.089	33.354
9	47.917	-47.917	-33.354	42.938
10	54.784	-54.784	-42.938	53.894
11	61.918	-61.918	-53.894	66.278
12	69.315	-69.315	-66.278	80.141
13	75.057	-75.057	-80.141	87.647
14	-50.879	50.879	-87.647	77.471
15	-42.871	42.871	-77.471	68.897
16	-34.615	34.615	-68.897	61.974
17	-26.256	26.256	-61.974	56.722
18	-17.938	17.938	-56.722	53.135
19	-10.272	10.272	-53.135	51.080
20	-4.9836	4.9836	-51.080	50.084
21	-2.1020	2.1020	-50.084	49.663
22	9.34991E-03	-9.34991E-03	-49.663	49.665
23	1.8715	-1.8715	-49.665	50.039
24	3.4919	-3.4919	-50.039	50.738
25	4.8790	-4.8790	-50.738	51.714
26	5.8387	-5.8387	-51.714	52.881
27	6.3121	-6.3121	-52.881	54.144
28	6.2998	-6.2998	-54.144	55.404
29	5.8452	-5.8452	-55.404	56.573
30	4.9705	-4.9705	-56.573	57.567
31	3.6979	-3.6979	-57.567	58.306
32	2.0491	-2.0491	-58.306	58.716
33	4.57765E-02	-4.57765E-02	-58.716	58.725
34	-1.8038	1.8038	-58.725	58.365
35	-3.4872	3.4872	-58.365	57.667
36	-5.0350	5.0350	-57.667	56.660
37	-6.4317	6.4317	-56.660	55.374
38	-7.6854	7.6854	-55.374	53.837
39	-8.8046	8.8046	-53.837	52.076
40	-9.7974	9.7974	-52.076	50.116
41	-12.141	12.141	-50.116	47.688
42	-13.978	13.978	-47.688	44.893
43	-15.376	15.376	-44.893	41.817
44	-16.364	16.364	-41.817	38.545
45	-16.985	16.985	-38.545	35.148
46	-17.280	17.280	-35.148	31.692
47	-17.285	17.285	-31.692	28.235
48	-17.036	17.036	-28.235	24.827
49	-16.561	16.561	-24.827	21.515
50	-15.887	15.887	-21.515	18.338
51	-15.053	15.053	-18.338	15.327
52	-14.062	14.062	-15.327	12.515



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53	-12.932	12.932	-12.515	9.9283
54	-11.676	11.676	-9.9283	7.5932
55	-10.303	10.303	-7.5932	5.5326
56	-8.8232	8.8232	-5.5326	3.7679
57	-7.2417	7.2417	-3.7679	2.3196
58	-5.5757	5.5757	-2.3196	1.2045
59	-3.8145	3.8145	-1.2045	0.44157
60	-1.9591	1.9591	-0.44157	4.97443E-02
61	-0.49739	0.49739	-4.97443E-02	-3.78308E-12

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:09:28  |
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New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 4.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	136.40	-1.48737E-03	-1.48737E-03	0.0000	0.0000	0.0000	0.0000	BORN NOW JUST ACTIVATED

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.2466E+06
 RENORM= 700.6 REMNOR=0.1324E-19 RATIO =0.8189E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 87.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.2466E+06
 RATIOT=0.8189E-01 RATIO= 0.000
 MAX UN= 9.567 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
 MIN UN=-.6147E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.2466E+06
 RENORM= 2.032 REMNOR=0.1939E-19 RATIO =0.4411E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 87.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.2466E+06
 RATIOT=0.4411E-02 RATIO= 0.000
 MAX UN=0.7512 IEQ= 63 NODE 32 DOF 1 Y-DISPL.F
 MIN UN=-.1016E-08 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.2466E+06
 RENORM=0.3106E-02 REMNOR=0.2411E-19 RATIO =0.1724E-03 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 131.8 RMMAX = 87.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.2466E+06
 RATIOT=0.1724E-03 RATIO= 0.000
 MAX UN=0.5573E-01 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
 MIN UN=-.1818E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.2466E+06
 RENORM=0.7112E-17 REMNOR=0.1712E-19 RATIO =0.8251E-11 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 131.8 RMMAX = 87.65
 RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.2466E+06
 RATIOT=0.8251E-11 RATIO= 0.000
 MAX UN=0.1380E-08 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 MIN UN=-.1624E-08 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
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|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  11:09:28
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New Project
SOLUTION REACHED USING  4 ITERATIONS ON 100

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PRINT OUT FOR TIME STEP  5  ( AT TIME  5.000  )

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PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

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	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.5361836E-03	-4.5766537E-04	
2	3.4446537E-03	-4.5761763E-04	
3	3.3531487E-03	-4.5738773E-04	
4	3.2617228E-03	-4.5679458E-04	
5	3.1704681E-03	-4.5564326E-04	
6	3.0795165E-03	-4.5372729E-04	
7	2.9890426E-03	-4.5082942E-04	
8	2.8992654E-03	-4.4672199E-04	
9	2.8104503E-03	-4.4116721E-04	
10	2.7229114E-03	-4.3391923E-04	
11	2.6370124E-03	-4.2472406E-04	
12	2.5531692E-03	-4.1331751E-04	
13	2.4718511E-03	-3.9942541E-04	
14	2.4323005E-03	-3.9146784E-04	
15	2.3555591E-03	-3.7649876E-04	
16	2.2814902E-03	-3.6469166E-04	
17	2.2094921E-03	-3.5573954E-04	
18	2.1390252E-03	-3.4932580E-04	
19	2.0696143E-03	-3.4512410E-04	
20	2.0008505E-03	-3.4279826E-04	
21	1.9323930E-03	-3.4200196E-04	
22	1.8639715E-03	-3.4237932E-04	
23	1.7953875E-03	-3.4356443E-04	
24	1.7265170E-03	-3.4518003E-04	
25	1.6573127E-03	-3.4683700E-04	
26	1.5878062E-03	-3.4813382E-04	
27	1.5181108E-03	-3.4866085E-04	
28	1.4484184E-03	-3.4804461E-04	
29	1.3789880E-03	-3.4600389E-04	
30	1.3101234E-03	-3.4236510E-04	
31	1.2421530E-03	-3.3706074E-04	
32	1.1754082E-03	-3.3012547E-04	
33	1.1102030E-03	-3.2169122E-04	
34	1.0468189E-03	-3.1194967E-04	
35	9.8549671E-04	-3.0110509E-04	
36	9.2643711E-04	-2.8935619E-04	
37	8.6980217E-04	-2.7688819E-04	
38	8.1571863E-04	-2.6387218E-04	
39	7.6427964E-04	-2.5046507E-04	
40	7.1554909E-04	-2.3681067E-04	
41	6.6956312E-04	-2.2304017E-04	
42	6.2632879E-04	-2.0933323E-04	
43	5.8581134E-04	-1.9590650E-04	
44	5.4793551E-04	-1.8294296E-04	
45	5.1259314E-04	-1.7059471E-04	
46	4.7964842E-04	-1.5898465E-04	
47	4.4894367E-04	-1.4820878E-04	
48	4.2030469E-04	-1.3833832E-04	
49	3.9354491E-04	-1.2942149E-04	
50	3.6847070E-04	-1.2148558E-04	
51	3.4488477E-04	-1.1453834E-04	
52	3.2259066E-04	-1.0856994E-04	
53	3.0139388E-04	-1.0355364E-04	
54	2.8110853E-04	-9.9447363E-05	
55	2.6155808E-04	-9.6193942E-05	
56	2.4257886E-04	-9.3722004E-05	
57	2.2402285E-04	-9.1946516E-05	
58	2.0576037E-04	-9.0769198E-05	
59	1.8768269E-04	-9.0079129E-05	
60	1.6970446E-04	-8.9752921E-05	
61	1.5176633E-04	-8.9654493E-05	
62	1.4280032E-04	-8.9649457E-05	



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 447 di 560
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      11:09:28        |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
C U R R E N T T I M E I S 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	2.011	-3.5362E-03	13.00	20.11	13.00	24.53	UL-RL	1.3947E+04	0.000	0.000	1.000	1.000
20.11	0.000	0.000	Strato1_2_8_L_0									
2 D	3.650	-3.4447E-03	10.77	18.25	10.77	22.97	UL-RL	1.3947E+04	-0.2000	0.000	1.000	1.000
18.25	0.000	0.000	Strato1_2_8_L_0									
3 D	3.978	-3.3531E-03	15.84	19.89	15.84	24.90	UL-RL	1.3947E+04	-0.4000	0.000	1.000	1.000
19.89	0.000	0.000	Strato1_2_8_L_0									
4 D	4.233	-3.2617E-03	20.16	21.16	20.16	26.47	UL-RL	1.3947E+04	-0.6000	0.000	1.000	1.000
21.16	0.000	0.000	Strato1_2_8_L_0									
5 D	4.465	-3.1705E-03	24.24	22.32	24.24	27.93	UL-RL	1.3947E+04	-0.8000	0.000	1.000	1.000
22.32	0.000	0.000	Strato1_2_8_L_0									
6 D	4.686	-3.0795E-03	28.22	23.43	28.22	29.33	UL-RL	1.3947E+04	-1.000	0.000	1.000	1.000
23.43	0.000	0.000	Strato1_2_8_L_0									
7 D	4.902	-2.9890E-03	32.14	24.51	32.14	30.70	UL-RL	1.3947E+04	-1.200	0.000	1.000	1.000
24.51	0.000	0.000	Strato1_2_8_L_0									
8 D	5.115	-2.8993E-03	36.03	25.57	36.03	32.05	UL-RL	1.3947E+04	-1.400	0.000	1.000	1.000
25.57	0.000	0.000	Strato1_2_8_L_0									
9 D	5.241	-2.8105E-03	39.02	26.20	39.02	32.97	UL-RL	1.3947E+04	-1.600	0.000	1.000	1.000
26.20	0.000	0.000	Strato1_2_8_L_0									
10 D	5.458	-2.7229E-03	42.97	27.29	42.97	34.33	UL-RL	1.3947E+04	-1.800	0.000	1.000	1.000
27.29	0.000	0.000	Strato1_2_8_L_0									
11 D	5.670	-2.6370E-03	46.89	28.35	46.89	35.67	UL-RL	1.3947E+04	-2.000	0.000	1.000	1.000
28.35	0.000	0.000	Strato1_2_8_L_0									
12 D	5.879	-2.5532E-03	50.79	29.40	50.79	36.99	UL-RL	1.3947E+04	-2.200	0.000	1.000	1.000
29.40	0.000	0.000	Strato1_2_8_L_0									
13 D	4.564	-2.4719E-03	54.67	30.43	54.67	38.28	UL-RL	1.3947E+04	-2.400	0.000	1.000	1.000
30.43	0.000	0.000	Strato1_2_8_L_0									
14 D	4.620	-2.4323E-03	56.32	30.80	56.32	38.77	UL-RL	1.3947E+04	-2.500	0.000	1.000	1.000
30.80	0.000	0.000	Strato1_2_8_L_0									
15 D	6.364	-2.3556E-03	60.21	31.82	60.21	40.04	UL-RL	1.3947E+04	-2.700	0.000	1.000	1.000
31.82	0.000	0.000	Strato1_2_8_L_0									
16 D	6.567	-2.2815E-03	64.08	32.83	64.08	41.28	UL-RL	1.3947E+04	-2.900	0.000	1.000	1.000
32.83	0.000	0.000	Strato1_2_8_L_0									
17 D	6.770	-2.2095E-03	67.94	33.85	67.94	42.51	UL-RL	1.3947E+04	-3.100	0.000	1.000	1.000
33.85	0.000	0.000	Strato1_2_8_L_0									
18 D	6.976	-2.1390E-03	71.80	34.88	71.80	43.73	UL-RL	1.3947E+04	-3.300	0.000	1.000	1.000
34.88	0.000	0.000	Strato1_2_8_L_0									
19 D	7.186	-2.0696E-03	75.65	35.93	75.65	44.95	UL-RL	1.3947E+04	-3.500	0.000	1.000	1.000
35.93	0.000	0.000	Strato1_2_8_L_0									
20 D	7.402	-2.0009E-03	79.50	37.01	79.50	46.17	UL-RL	1.3947E+04	-3.700	0.000	1.000	1.000
37.01	0.000	0.000	Strato1_2_8_L_0									
21 D	7.589	-1.9324E-03	82.96	37.95	82.96	47.22	UL-RL	1.3947E+04	-3.900	0.000	1.000	1.000
37.95	0.000	0.000	Strato1_2_8_L_0									
22 D	7.824	-1.8640E-03	86.82	39.12	86.82	48.47	UL-RL	1.3947E+04	-4.100	0.000	1.000	1.000
39.12	0.000	0.000	Strato1_2_8_L_0									
23 D	8.068	-1.7954E-03	90.67	40.34	90.67	49.74	UL-RL	1.3947E+04	-4.300	0.000	1.000	1.000
40.34	0.000	0.000	Strato1_2_8_L_0									
24 D	8.323	-1.7265E-03	94.51	41.62	94.51	51.02	UL-RL	1.3947E+04	-4.500	0.000	1.000	1.000
41.62	0.000	0.000	Strato1_2_8_L_0									
25 D	8.590	-1.6573E-03	98.36	42.95	98.36	52.33	UL-RL	1.3947E+04	-4.700	0.000	1.000	1.000
42.95	0.000	0.000	Strato1_2_8_L_0									
26 D	8.665	-1.5878E-03	102.2	43.33	102.2	54.16	UL-RL	1.3947E+04	-4.900	0.000	1.000	1.000
43.33	0.000	0.000	Strato1_2_8_L_0									
27 D	8.683	-1.5181E-03	106.0	43.42	106.0	56.20	UL-RL	1.3947E+04	-5.100	0.000	1.000	1.000
43.42	0.000	0.000	Strato1_2_8_L_0									
28 D	8.703	-1.4484E-03	109.6	43.52	109.6	58.08	UL-RL	1.3947E+04	-5.300	0.000	1.000	1.000
43.52	0.000	0.000	Strato1_2_8_L_0									
29 D	8.767	-1.3790E-03	113.4	43.84	113.4	60.12	UL-RL	1.3947E+04	-5.500	0.000	1.000	1.000
43.84	0.000	0.000	Strato1_2_8_L_0									
30 D	8.853	-1.3101E-03	117.3	44.27	117.3	62.15	UL-RL	1.3947E+04	-5.700	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.			Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 448 di 560
44.27	0.000	0.000	Strato1_2_8_L_0				
31 D	9.082	-1.2422E-03	121.1 45.41	121.1	64.18	ACTIVE	0.000 -5.900 0.000 1.000 1.000
45.41	0.000	0.000	Strato1_2_8_L_0				
32 D	9.370	-1.1754E-03	124.9 46.85	124.9	66.21	ACTIVE	0.000 -6.100 0.000 1.000 1.000
46.85	0.000	0.000	Strato1_2_8_L_0				
33 D	9.657	-1.1102E-03	128.8 48.29	128.8	68.24	ACTIVE	0.000 -6.300 0.000 1.000 1.000
48.29	0.000	0.000	Strato1_2_8_L_0				
34 D	9.944	-1.0468E-03	132.6 49.72	132.6	70.27	ACTIVE	0.000 -6.500 0.000 1.000 1.000
49.72	0.000	0.000	Strato1_2_8_L_0				
35 D	10.55	-9.8550E-04	136.4 52.75	136.4	72.30	UL-RL	1.3947E+04 -6.700 0.000 1.000 1.000
52.75	0.000	0.000	Strato1_2_8_L_0				
36 D	11.18	-9.2644E-04	140.0 55.89	140.0	74.22	UL-RL	1.3947E+04 -6.900 0.000 1.000 1.000
55.89	0.000	0.000	Strato1_2_8_L_0				
37 D	11.82	-8.6980E-04	143.9 59.08	143.9	76.25	UL-RL	1.3947E+04 -7.100 0.000 1.000 1.000
59.08	0.000	0.000	Strato1_2_8_L_0				
38 D	12.44	-8.1572E-04	147.7 62.22	147.7	78.27	UL-RL	1.3947E+04 -7.300 0.000 1.000 1.000
62.22	0.000	0.000	Strato1_2_8_L_0				
39 D	13.06	-7.6428E-04	151.5 65.30	151.5	80.30	UL-RL	1.3947E+04 -7.500 0.000 1.000 1.000
65.30	0.000	0.000	Strato1_2_8_L_0				
40 D	13.66	-7.1555E-04	155.3 68.32	155.3	82.33	UL-RL	1.3947E+04 -7.700 0.000 1.000 1.000
68.32	0.000	0.000	Strato1_2_8_L_0				
41 D	8.662	-6.6956E-04	159.3 43.31	159.3	79.63	UL-RL	3.8706E+04 -7.900 0.000 1.000 1.000
43.31	0.000	0.000	Strato2_3095_82743_L_0				
42 D	9.545	-6.2633E-04	163.3 47.72	163.3	81.64	UL-RL	3.8706E+04 -8.100 0.000 1.000 1.000
47.72	0.000	0.000	Strato2_3095_82743_L_0				
43 D	10.38	-5.8581E-04	167.1 51.88	167.1	83.57	UL-RL	3.8706E+04 -8.300 0.000 1.000 1.000
51.88	0.000	0.000	Strato2_3095_82743_L_0				
44 D	11.19	-5.4794E-04	171.2 55.96	171.2	85.58	UL-RL	3.8706E+04 -8.500 0.000 1.000 1.000
55.96	0.000	0.000	Strato2_3095_82743_L_0				
45 D	11.98	-5.1259E-04	175.2 59.89	175.2	87.59	UL-RL	3.8706E+04 -8.700 0.000 1.000 1.000
59.89	0.000	0.000	Strato2_3095_82743_L_0				
46 D	12.73	-4.7965E-04	179.2 63.67	179.2	89.60	UL-RL	3.8706E+04 -8.900 0.000 1.000 1.000
63.67	0.000	0.000	Strato2_3095_82743_L_0				
47 D	13.46	-4.4894E-04	183.2 67.31	183.2	91.61	UL-RL	3.8706E+04 -9.100 0.000 1.000 1.000
67.31	0.000	0.000	Strato2_3095_82743_L_0				
48 D	14.16	-4.2030E-04	187.2 70.82	187.2	93.62	UL-RL	3.8706E+04 -9.300 0.000 1.000 1.000
70.82	0.000	0.000	Strato2_3095_82743_L_0				
49 D	14.84	-3.9354E-04	191.3 74.22	191.3	95.63	UL-RL	3.8706E+04 -9.500 0.000 1.000 1.000
74.22	0.000	0.000	Strato2_3095_82743_L_0				
50 D	15.50	-3.6847E-04	195.3 77.52	195.3	97.64	UL-RL	3.8706E+04 -9.700 0.000 1.000 1.000
77.52	0.000	0.000	Strato2_3095_82743_L_0				
51 D	16.13	-3.4488E-04	199.2 80.65	199.2	99.58	UL-RL	3.8706E+04 -9.900 0.000 1.000 1.000
80.65	0.000	0.000	Strato2_3095_82743_L_0				
52 D	16.76	-3.2259E-04	203.2 83.78	203.2	101.6	UL-RL	3.8706E+04 -10.10 0.000 1.000 1.000
83.78	0.000	0.000	Strato2_3095_82743_L_0				
53 D	17.37	-3.0139E-04	207.2 86.84	207.2	103.6	UL-RL	3.8706E+04 -10.30 0.000 1.000 1.000
86.84	0.000	0.000	Strato2_3095_82743_L_0				
54 D	17.97	-2.8111E-04	211.2 89.84	211.2	105.6	UL-RL	3.8706E+04 -10.50 0.000 1.000 1.000
89.84	0.000	0.000	Strato2_3095_82743_L_0				
55 D	18.56	-2.6156E-04	215.2 92.80	215.2	107.6	UL-RL	3.8706E+04 -10.70 0.000 1.000 1.000
92.80	0.000	0.000	Strato2_3095_82743_L_0				
56 D	19.15	-2.4258E-04	219.3 95.73	219.3	109.6	UL-RL	3.8706E+04 -10.90 0.000 1.000 1.000
95.73	0.000	0.000	Strato2_3095_82743_L_0				
57 D	19.73	-2.2402E-04	223.3 98.63	223.3	111.6	UL-RL	3.8706E+04 -11.10 0.000 1.000 1.000
98.63	0.000	0.000	Strato2_3095_82743_L_0				
58 D	20.29	-2.0576E-04	227.2 101.4	227.2	113.6	UL-RL	3.8706E+04 -11.30 0.000 1.000 1.000
101.4	0.000	0.000	Strato2_3095_82743_L_0				
59 D	20.86	-1.8768E-04	231.2 104.3	231.2	115.6	UL-RL	3.8706E+04 -11.50 0.000 1.000 1.000
104.3	0.000	0.000	Strato2_3095_82743_L_0				
60 D	21.44	-1.6970E-04	235.2 107.2	235.2	117.6	UL-RL	3.8706E+04 -11.70 0.000 1.000 1.000
107.2	0.000	0.000	Strato2_3095_82743_L_0				
61 D	16.51	-1.5177E-04	239.2 110.0	239.2	119.6	UL-RL	3.8706E+04 -11.90 0.000 1.000 1.000
110.0	0.000	0.000	Strato2_3095_82743_L_0				
62 D	5.572	-1.4280E-04	241.2 111.4	241.2	120.6	UL-RL	3.8706E+04 -12.00 0.000 1.000 1.000
111.4	0.000	0.000	Strato2_3095_82743_L_0				

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
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New Project

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 62
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 450 di 560
40 D	16.30	7.1555E-04	52.06	81.49	146.3
81.49	0.000	0.000	Strato1_2_8_L_0		
41 D	13.59	6.6956E-04	55.96	67.97	150.2
67.97	0.000	0.000	Strato2_3095_82743_L_0		
42 D	13.74	6.2633E-04	59.96	68.68	154.2
68.68	0.000	0.000	Strato2_3095_82743_L_0		
43 D	13.90	5.8581E-04	63.96	69.49	158.2
69.49	0.000	0.000	Strato2_3095_82743_L_0		
44 D	14.08	5.4794E-04	67.96	70.38	162.2
70.38	0.000	0.000	Strato2_3095_82743_L_0		
45 D	14.27	5.1259E-04	71.96	71.36	166.2
71.36	0.000	0.000	Strato2_3095_82743_L_0		
46 D	14.48	4.7965E-04	75.96	72.42	170.2
72.42	0.000	0.000	Strato2_3095_82743_L_0		
47 D	14.71	4.4894E-04	79.96	73.55	174.2
73.55	0.000	0.000	Strato2_3095_82743_L_0		
48 D	14.95	4.2030E-04	83.96	74.76	178.2
74.76	0.000	0.000	Strato2_3095_82743_L_0		
49 D	15.21	3.9354E-04	87.96	76.03	182.2
76.03	0.000	0.000	Strato2_3095_82743_L_0		
50 D	15.47	3.6847E-04	91.96	77.35	186.2
77.35	0.000	0.000	Strato2_3095_82743_L_0		
51 D	15.74	3.4488E-04	95.96	78.72	190.2
78.72	0.000	0.000	Strato2_3095_82743_L_0		
52 D	16.03	3.2259E-04	99.96	80.13	194.2
80.13	0.000	0.000	Strato2_3095_82743_L_0		
53 D	16.32	3.0139E-04	104.0	81.58	198.2
81.58	0.000	0.000	Strato2_3095_82743_L_0		
54 D	16.61	2.8111E-04	108.0	83.06	202.2
83.06	0.000	0.000	Strato2_3095_82743_L_0		
55 D	16.91	2.6156E-04	112.0	84.56	206.2
84.56	0.000	0.000	Strato2_3095_82743_L_0		
56 D	17.21	2.4258E-04	116.0	86.07	210.2
86.07	0.000	0.000	Strato2_3095_82743_L_0		
57 D	17.52	2.2402E-04	120.0	87.59	214.2
87.59	0.000	0.000	Strato2_3095_82743_L_0		
58 D	17.82	2.0576E-04	124.0	89.12	218.2
89.12	0.000	0.000	Strato2_3095_82743_L_0		
59 D	18.13	1.8768E-04	128.0	90.66	222.2
90.66	0.000	0.000	Strato2_3095_82743_L_0		
60 D	18.44	1.6970E-04	132.0	92.19	226.2
92.19	0.000	0.000	Strato2_3095_82743_L_0		
61 D	14.06	1.5177E-04	136.0	93.72	230.2
93.72	0.000	0.000	Strato2_3095_82743_L_0		
62 D	4.724	1.4280E-04	138.0	94.48	232.2
94.48	0.000	0.000	Strato2_3095_82743_L_0		

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
|          NewProject.BaseDesignSection_28.A2M2R1_3514          |
|          Exe Time :24 July 2019          11:09:28          |
+-----+

```

New Project

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.0112	-2.0112	-3.61378E-13	0.40223
2	5.6616	-5.6616	-0.40223	1.5346
3	9.6394	-9.6394	-1.5346	3.4624
4	13.872	-13.872	-3.4624	6.2369
5	18.337	-18.337	-6.2369	9.9042
6	23.023	-23.023	-9.9042	14.509
7	27.926	-27.926	-14.509	20.094
8	33.041	-33.041	-20.094	26.702
9	38.282	-38.282	-26.702	34.359
10	43.739	-43.739	-34.359	43.106
11	49.409	-49.409	-43.106	52.988
12	55.289	-55.289	-52.988	64.046
13	59.853	-59.853	-64.046	70.031
14	-69.777	69.777	-70.031	56.076
15	-63.413	63.413	-56.076	43.393
16	-56.846	56.846	-43.393	32.024

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17	-50.076	50.076	-32.024	22.009
18	-43.101	43.101	-22.009	13.389
19	-35.915	35.915	-13.389	6.2056
20	-28.513	28.513	-6.2056	0.50287
21	-20.924	20.924	-0.50287	-3.6820
22	-13.101	13.101	3.6820	-6.3021
23	-5.0327	5.0327	6.3021	-7.3086
24	3.2903	-3.2903	7.3086	-6.6505
25	11.880	-11.880	6.6505	-4.2745
26	20.545	-20.545	4.2745	-0.16548
27	27.612	-27.612	0.16548	5.3570
28	32.391	-32.391	-5.3570	11.835
29	34.924	-34.924	-11.835	18.820
30	35.234	-35.234	-18.820	25.867
31	33.465	-33.465	-25.867	32.560
32	29.674	-29.674	-32.560	38.495
33	25.392	-25.392	-38.495	43.573
34	21.070	-21.070	-43.573	47.787
35	17.022	-17.022	-47.787	51.192
36	13.268	-13.268	-51.192	53.845
37	9.8175	-9.8175	-53.845	55.809
38	6.6541	-6.6541	-55.809	57.140
39	3.7627	-3.7627	-57.140	57.892
40	1.1273	-1.1273	-57.892	58.118
41	-3.8044	3.8044	-58.118	57.357
42	-7.9960	7.9960	-57.357	55.757
43	-11.517	11.517	-55.757	53.454
44	-14.401	14.401	-53.454	50.574
45	-16.694	16.694	-50.574	47.235
46	-18.444	18.444	-47.235	43.546
47	-19.692	19.692	-43.546	39.608
48	-20.479	20.479	-39.608	35.512
49	-20.840	20.840	-35.512	31.344
50	-20.806	20.806	-31.344	27.183
51	-20.420	20.420	-27.183	23.099
52	-19.692	19.692	-23.099	19.161
53	-18.641	18.641	-19.161	15.433
54	-17.284	17.284	-15.433	11.976
55	-15.634	15.634	-11.976	8.8490
56	-13.702	13.702	-8.8490	6.1086
57	-11.494	11.494	-6.1086	3.8097
58	-9.0297	9.0297	-3.8097	2.0038
59	-6.2970	6.2970	-2.0038	0.74437
60	-3.2977	3.2977	-0.74437	8.48356E-02
61	-0.84827	0.84827	-8.48356E-02	-1.29441E-12

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:09:28
|
-----

```

New Project

STRESS RESULTS FOR GROUP NO. 4

Tieback_778405 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 5.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	138.99	-1.48737E-03	-9.35047E-04	0.0000	4682.3	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          NewProject.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:09:28
|
-----

```

FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP NO. OF ITERATIONS

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1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	4
3	CONVERGENCE :YES	6
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	4

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.05 [sec]

DATABASE CREATION CPU TIME..... 0.22 [sec]

GENERAL CONTRACTOR



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

3. SEZIONE 3 – BERLINESE

3.1. Design Assumption : Nominal - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal

* Time:mercoledì 24 luglio 2019 11:42:04

* 1: Defining general settings

UNIT m kN

TITLE 1468.1 - GA27 - Cepav2

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -8 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -8 0 1 0

SOIL 0_R LeftWall_32 -8 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_3095_78023_L_0)

*

LDATA Strato1_3095_78023_L_0 0 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 0 29

YOUNG 2.5E+04 4E+04

ENDL

*

* Soil Profile (Strato2_84780_84781_L_0)

*

LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 113 Name=S275 E=210000000 kPa

MATERIAL S275_113 2.1E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 78036 Name=S275 E=210000000 kPa

MATERIAL S275_78036 2.1E+08

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0

* 6.2: Supports

WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0

* 6.3: Strips

STRIP LeftWall_32 3 3 2.33 3 0 52.08 30

* 7: Defining Steps

STEP Stage0_86326

CHANGE Strato1_3095_78023_L_0 U-FRICT=29 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-KA=0.319 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-KP=3.606 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-KA=0.319 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-KP=3.606 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-FRICT=35 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-KA=0.248 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-KP=5.02 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-KA=0.248 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-KP=5.02 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-COHE=20 LeftWall_32

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CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -17 0 -8 0 0
ENDSTEP

STEP Stage1_31
CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -17 0 -8 0 0
ADD WallElement_33 Tieback_78031
ENDSTEP

STEP Stage2_158
CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -2.75
WATER -17 0 -8 0 0
ENDSTEP

3.2. Design Assumption : Nominal - File di Paratie - File di output (.out)

```
-----  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |  
|  
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63  |  
|          Exe Time :24 July 2019  11:42:04  |  
-----
```

```
*****  
*          *  
* PARATIE PLUS Non-Linear Spring Engine          *  
*          *  
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM  *  
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES  *  
*          *  
*          Written by Ce.A.S. s.r.l. (ITALY)          *  
*          with the scientific supervision of          *  
*          Roberto Nova - full professor SOIL MECHANICS *  
*          at Politecnico di Milano (ITALY)          *  
*          *  
*****  
*          *  
* RELEASE  2017.1  *Build date:Jul 11, 2017*  *          *  
*          *  
* Ce.A.S.  S.R.L  CENTRO DI ANALISI STRUTTURALE  *  
*          VIALE GIUSTINIANO 10  *  
*          20129  M I L A N O (ITALIA)  *  
* TEL.    +39 02 2020221  (+39 035 23 67 19)  *  
* FAX    +39 02 29512533  (+39 035 42285 49)  *  
* email  bruno.becci@ceas.it  *  
* Web Page  www.ceas.it  *  
*****
```

```
JOB : 1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63  
STARTING  
ACCEPTED <FILE,GENW          >  
ACCEPTED <FILE,PLOTTER,BINARY  >  
ACCEPTED <SOLVE TOTAL STRESS  >  
ACCEPTED <PARAM ITEMAX 100    >  
ACCEPTED <CONTROL HINGES 0 0.0001 0.001  >
```

```
*****  
*          *  
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *  
*          BY THE PROGRAM.          *  
*****
```

GENERAL CONTRACTOR



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PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      11:42:04  |
-----+-----

```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

1468.1 - GA27 - Cepav2

```

NO. OF NODAL POINTS (NUMNP) ..... 41
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 82
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 4
NO. OF SOLUTION STEPS (NSTE)..... 3
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 68
NO. OF LONG NAMES (LASTNAME) ..... 16
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

```

IDOFA (01) = 2 Y-DISPL.F
 IDOFA (02) = 4 X-ROT. F

RELEVANT ITEMS UNITS

```

STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.

```

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019      11:42:04  |
-----+-----

```

P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 6 8

```

1 : UNIT m kN
2 : TITLE 1468.1 - GA27 - Cepav2
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -8 0 1
7 : SOIL 0_L LeftWall_32 -8 0 1 0
8 : SOIL 0_R LeftWall_32 -8 0 2 180
9 : LDATA Strato1_3095_78023_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-05
13 : RESISTANCE 0 29
14 : YOUNG 2.5E+04 4E+04
15 : ENDL
16 : LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19 9 10
19 : PERMEABILITY 1E-05
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05

```



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```

22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL S275_78036 2.1E+08
26 : BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0
27 : WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0
28 : STRIP LeftWall_32 3 3 2.33 3 0 52.08 30
29 : STEP Stage0_86326
30 : CHANGE Strato1_3095_78023_L_0 U-FRICT=29 LeftWall_32
31 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
32 : CHANGE Strato1_3095_78023_L_0 U-KA=0.319 LeftWall_32
33 : CHANGE Strato1_3095_78023_L_0 U-KP=3.606 LeftWall_32
34 : CHANGE Strato1_3095_78023_L_0 D-KA=0.319 LeftWall_32
35 : CHANGE Strato1_3095_78023_L_0 D-KP=3.606 LeftWall_32
36 : CHANGE Strato2_84780_84781_L_0 U-FRICT=35 LeftWall_32
37 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
38 : CHANGE Strato2_84780_84781_L_0 U-KA=0.248 LeftWall_32
39 : CHANGE Strato2_84780_84781_L_0 U-KP=5.02 LeftWall_32
40 : CHANGE Strato2_84780_84781_L_0 D-KA=0.248 LeftWall_32
41 : CHANGE Strato2_84780_84781_L_0 D-KP=5.02 LeftWall_32
42 : CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32
43 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
44 : CHANGE Strato2_84780_84781_L_0 U-COHE=20 LeftWall_32
45 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
46 : SETWALL LeftWall_32
47 : GEOM 0 0
48 : WATER -17 0 -8 0 0
49 : ENDSTEP
50 : STEP Stage1_31
51 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
52 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
53 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
54 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
55 : SETWALL LeftWall_32
56 : GEOM 0 0
57 : WATER -17 0 -8 0 0
58 : ADD WallElement_33 Tieback_78031
59 : ENDSTEP
60 : STEP Stage2_158
61 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
62 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
63 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
64 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
65 : SETWALL LeftWall_32
66 : GEOM 0 -2.75
67 : WATER -17 0 -8 0 0
68 : ENDSTEP
    
```

```

-----
|                                     PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|                                     Exe Time :24 July 2019      11:42:04
|
-----
    
```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE
1	0.0000	0.0000 /	2	0.0000 -0.20000 /	3	0.0000 -0.40000 /	4	0.0000 -0.60000 /
5	0.0000	-0.80000 /	6	0.0000 -1.0000 /	7	0.0000 -1.2000 /	8	0.0000 -1.4000 /
9	0.0000	-1.6000 /	10	0.0000 -1.8000 /	11	0.0000 -2.0000 /	12	0.0000 -2.2000 /
13	0.0000	-2.4000 /	14	0.0000 -2.6000 /	15	0.0000 -2.8000 /	16	0.0000 -3.0000 /
17	0.0000	-3.2000 /	18	0.0000 -3.4000 /	19	0.0000 -3.6000 /	20	0.0000 -3.8000 /
21	0.0000	-4.0000 /	22	0.0000 -4.2000 /	23	0.0000 -4.4000 /	24	0.0000 -4.6000 /
25	0.0000	-4.8000 /	26	0.0000 -5.0000 /	27	0.0000 -5.2000 /	28	0.0000 -5.4000 /
29	0.0000	-5.6000 /	30	0.0000 -5.8000 /	31	0.0000 -6.0000 /	32	0.0000 -6.2000 /
33	0.0000	-6.4000 /	34	0.0000 -6.6000 /	35	0.0000 -6.8000 /	36	0.0000 -7.0000 /
37	0.0000	-7.2000 /	38	0.0000 -7.4000 /	39	0.0000 -7.6000 /	40	0.0000 -7.8000 /
41	0.0000	-8.0000 /						

```

-----
|                                     PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
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|
-----
    
```

ELEMENT GROUP NO. 1

O_L :

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5 41 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage status

 1 active
 2 active
 3 active

material set no. 1
 prop(1) angle 0.00000
 prop(2) layer as foreseen 1.00000

material set no. 2
 prop(1) angle 0.00000
 prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	2	0.2000	0.000	0.000	0.000	1.000
29	29	2	0.2000	0.000	0.000	0.000	1.000
30	30	2	0.2000	0.000	0.000	0.000	1.000
31	31	2	0.2000	0.000	0.000	0.000	1.000
32	32	2	0.2000	0.000	0.000	0.000	1.000
33	33	2	0.2000	0.000	0.000	0.000	1.000
34	34	2	0.2000	0.000	0.000	0.000	1.000
35	35	2	0.2000	0.000	0.000	0.000	1.000
36	36	2	0.2000	0.000	0.000	0.000	1.000
37	37	2	0.2000	0.000	0.000	0.000	1.000
38	38	2	0.2000	0.000	0.000	0.000	1.000
39	39	2	0.2000	0.000	0.000	0.000	1.000
40	40	2	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.1000	0.000	0.000	0.000	1.000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 July 2019  11:42:04  |
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ELEMENT GROUP NO. 2

O_R :
 5 41 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

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ALTA SORVEGLIANZA



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.....
2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage status

 1 active
 2 active
 3 active

material set no. 1

 prop(1) angle 180.000
 prop(2) layer as foreseen 1.00000

material set no. 2

 prop(1) angle 180.000
 prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	2	0.2000	0.000	0.000	0.000	2.000
29	29	2	0.2000	0.000	0.000	0.000	2.000
30	30	2	0.2000	0.000	0.000	0.000	2.000
31	31	2	0.2000	0.000	0.000	0.000	2.000
32	32	2	0.2000	0.000	0.000	0.000	2.000
33	33	2	0.2000	0.000	0.000	0.000	2.000
34	34	2	0.2000	0.000	0.000	0.000	2.000
35	35	2	0.2000	0.000	0.000	0.000	2.000
36	36	2	0.2000	0.000	0.000	0.000	2.000
37	37	2	0.2000	0.000	0.000	0.000	2.000
38	38	2	0.2000	0.000	0.000	0.000	2.000
39	39	2	0.2000	0.000	0.000	0.000	2.000
40	40	2	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.1000	0.000	0.000	0.000	2.000

 | PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
 |
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ELEMENT GROUP NO. 3

 WallElement_33 :
 2 40 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0

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INOR

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.....2D WALL ELEMENT.....
.....

element group behaviour throughout stage analysis

stage status

1 inactive
2 active
3 active

material set no. 1

prop(1) young modulus 0.210000E+09
prop(2) modification time 0.00000
prop(3) new young modulus 0.00000
prop(4) poisson ratio 0.00000
prop(5) future0.182200E-43

no. of step variable items: 1
step inertia multiplier

1 1.000
2 1.000
3 1.000

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.8153E-01	0.000	0.000
2	2	3	1	0.000	0.000	0.8153E-01	0.000	0.000
3	3	4	1	0.000	0.000	0.8153E-01	0.000	0.000
4	4	5	1	0.000	0.000	0.8153E-01	0.000	0.000
5	5	6	1	0.000	0.000	0.8153E-01	0.000	0.000
6	6	7	1	0.000	0.000	0.8153E-01	0.000	0.000
7	7	8	1	0.000	0.000	0.8153E-01	0.000	0.000
8	8	9	1	0.000	0.000	0.8153E-01	0.000	0.000
9	9	10	1	0.000	0.000	0.8153E-01	0.000	0.000
10	10	11	1	0.000	0.000	0.8153E-01	0.000	0.000
11	11	12	1	0.000	0.000	0.8153E-01	0.000	0.000
12	12	13	1	0.000	0.000	0.8153E-01	0.000	0.000
13	13	14	1	0.000	0.000	0.8153E-01	0.000	0.000
14	14	15	1	0.000	0.000	0.8153E-01	0.000	0.000
15	15	16	1	0.000	0.000	0.8153E-01	0.000	0.000
16	16	17	1	0.000	0.000	0.8153E-01	0.000	0.000
17	17	18	1	0.000	0.000	0.8153E-01	0.000	0.000
18	18	19	1	0.000	0.000	0.8153E-01	0.000	0.000
19	19	20	1	0.000	0.000	0.8153E-01	0.000	0.000
20	20	21	1	0.000	0.000	0.8153E-01	0.000	0.000
21	21	22	1	0.000	0.000	0.8153E-01	0.000	0.000
22	22	23	1	0.000	0.000	0.8153E-01	0.000	0.000
23	23	24	1	0.000	0.000	0.8153E-01	0.000	0.000
24	24	25	1	0.000	0.000	0.8153E-01	0.000	0.000
25	25	26	1	0.000	0.000	0.8153E-01	0.000	0.000
26	26	27	1	0.000	0.000	0.8153E-01	0.000	0.000
27	27	28	1	0.000	0.000	0.8153E-01	0.000	0.000
28	28	29	1	0.000	0.000	0.8153E-01	0.000	0.000
29	29	30	1	0.000	0.000	0.8153E-01	0.000	0.000
30	30	31	1	0.000	0.000	0.8153E-01	0.000	0.000
31	31	32	1	0.000	0.000	0.8153E-01	0.000	0.000
32	32	33	1	0.000	0.000	0.8153E-01	0.000	0.000
33	33	34	1	0.000	0.000	0.8153E-01	0.000	0.000
34	34	35	1	0.000	0.000	0.8153E-01	0.000	0.000
35	35	36	1	0.000	0.000	0.8153E-01	0.000	0.000
36	36	37	1	0.000	0.000	0.8153E-01	0.000	0.000
37	37	38	1	0.000	0.000	0.8153E-01	0.000	0.000
38	38	39	1	0.000	0.000	0.8153E-01	0.000	0.000
39	39	40	1	0.000	0.000	0.8153E-01	0.000	0.000
40	40	41	1	0.000	0.000	0.8153E-01	0.000	0.000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63                |
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ELEMENT GROUP NO. 4

Tieback_78031 :
6 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 2 0

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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.....
2D POST-TENSION ANCHOR.....

element group behaviour throughout stage analysis

stage	status
1	inactive
2	active
3	active

material set no. 1

prop(1) angle 70.0000
 prop(2) young modulus 0.210000E+09
 prop(3) modification time 0.00000
 prop(4) new young modulus 0.00000

step	-ve lim	+ve lim
1	0.000	0.000
2	0.000	0.000
3	0.000	0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	2	1	0.3824E-03	0.000	0.000	0.000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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|          Exe Time :24 July 2019      11:42:04  |
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NO. OF NODAL LOADS (NLOAD) 0
 NO. OF LOAD CURVES (NLCUR) 6
 MAXIMUM POINTS/LCURVE (NPTM)..... 5

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63  |
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L O A D D A T A

LOAD FUNCTION NUMBER = 1
 NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
4.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
 NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
4.00000	0.0000E+00

GENERAL CONTRACTOR



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NO. OF LAYERS 2
 NO. OF DATA PER LAYER..... 100

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LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 464 di 560
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ITEM NO.	9<U-FRICT >=	35.000	(BOTH WALLS)	
ITEM NO.	10<U-KA >=	0.24800	WALL NO.	1
ITEM NO.	11<U-KP >=	5.0200	WALL NO.	1
ITEM NO.	12<K0-NC >=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP >=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR >=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL >=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC >=	50000.	(BOTH WALLS)	
ITEM NO.	18<EUR >=	0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM >=	0.10000E-04	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL >=	0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE >=	20.000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT >=	35.000	(BOTH WALLS)	
ITEM NO.	60<D-KA >=	0.24800	WALL NO.	1
ITEM NO.	61<D-KP >=	5.0200	WALL NO.	1
ITEM NO.	77<D-PERM >=	0.10000E-04	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 6 VALUES

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 July 2019      11:42:04 |
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PHASE DESCRIPTORS

STEP NO.	1		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 1

STEP NO.	2		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30



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ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y	0.000	0.000	-0.9990E+30
Z-PC	0.000	0.000	0.000
Z-EXCAVATION	-2.750	0.000	0.000
Z-WATER_TABLE	-17.00	-0.9990E+30	0.000
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000	0.000
ZQ	0.000	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30	0.000
ZCUT	0.000	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000	0.000
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000	0.000
Downhill reduction factor for effe	0.000	0.000	0.000
Downhill reduction factor for pore	0.000	0.000	0.000
Uphill reduction factor for effect	0.000	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000	0.000

=====end of step 3

LEFT-HAND WALL	
LOWER LEVEL	-8.00000
UPPER LEVEL	0.00000
RIGHT-HAND WALL	
LOWER LEVEL	-8.00000
UPPER LEVEL	0.00000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 466 di 560
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| Exe Time :24 July 2019 11:42:04 |

I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 3.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 3.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 2.3300000000000000
FOUNDATION WIDTH (B) 3.0000000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 52.0800000000000000
BETA 30.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 2279

NO. OF D.P.W FOR THIS AREA 4898
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATOR= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| | |
| 1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63 |
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1468.1 - GA27 - Cepav2
SOLUTION REACHED USING 2 ITERATIONS ON 100

P R I N T O U T F O R T I M E S T E P 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F X-ROT. F



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 469 di 560						
15 D	5.320	0.000	53.20 26.60	53.20	26.60	V-C	2.7611E+04	-2.800	0.000	1.000	1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0								
16 D	5.700	0.000	57.00 28.50	57.00	28.50	V-C	2.7611E+04	-3.000	0.000	1.000	1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0								
17 D	6.080	0.000	60.80 30.40	60.80	30.40	V-C	2.7611E+04	-3.200	0.000	1.000	1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0								
18 D	6.460	0.000	64.60 32.30	64.60	32.30	V-C	2.7611E+04	-3.400	0.000	1.000	1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0								
19 D	6.840	0.000	68.40 34.20	68.40	34.20	V-C	2.7611E+04	-3.600	0.000	1.000	1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0								
20 D	7.220	0.000	72.20 36.10	72.20	36.10	V-C	2.7611E+04	-3.800	0.000	1.000	1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0								
21 D	7.600	0.000	76.00 38.00	76.00	38.00	V-C	2.7611E+04	-4.000	0.000	1.000	1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0								
22 D	7.980	0.000	79.80 39.90	79.80	39.90	V-C	2.7611E+04	-4.200	0.000	1.000	1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0								
23 D	8.360	0.000	83.60 41.80	83.60	41.80	V-C	2.7611E+04	-4.400	0.000	1.000	1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0								
24 D	8.740	0.000	87.40 43.70	87.40	43.70	V-C	2.7611E+04	-4.600	0.000	1.000	1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0								
25 D	9.120	0.000	91.20 45.60	91.20	45.60	V-C	2.7611E+04	-4.800	0.000	1.000	1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0								
26 D	9.500	0.000	95.00 47.50	95.00	47.50	V-C	2.7611E+04	-5.000	0.000	1.000	1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0								
27 D	9.880	0.000	98.80 49.40	98.80	49.40	V-C	2.7611E+04	-5.200	0.000	1.000	1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0								
28 D	10.26	0.000	102.6 51.30	102.6	51.30	V-C	4.8803E+04	-5.400	0.000	1.000	1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0								
29 D	10.64	0.000	106.4 53.20	106.4	53.20	V-C	4.8803E+04	-5.600	0.000	1.000	1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0								
30 D	11.02	0.000	110.2 55.10	110.2	55.10	V-C	4.8803E+04	-5.800	0.000	1.000	1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0								
31 D	11.40	0.000	114.0 57.00	114.0	57.00	V-C	4.8803E+04	-6.000	0.000	1.000	1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0								
32 D	11.78	0.000	117.8 58.90	117.8	58.90	V-C	4.8803E+04	-6.200	0.000	1.000	1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0								
33 D	12.16	0.000	121.6 60.80	121.6	60.80	V-C	4.8803E+04	-6.400	0.000	1.000	1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0								
34 D	12.54	0.000	125.4 62.70	125.4	62.70	V-C	4.8803E+04	-6.600	0.000	1.000	1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0								
35 D	12.92	0.000	129.2 64.60	129.2	64.60	V-C	4.8803E+04	-6.800	0.000	1.000	1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0								
36 D	13.30	0.000	133.0 66.50	133.0	66.50	V-C	4.8803E+04	-7.000	0.000	1.000	1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0								
37 D	13.68	0.000	136.8 68.40	136.8	68.40	V-C	4.8803E+04	-7.200	0.000	1.000	1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0								
38 D	14.06	0.000	140.6 70.30	140.6	70.30	V-C	4.8803E+04	-7.400	0.000	1.000	1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0								
39 D	14.44	0.000	144.4 72.20	144.4	72.20	V-C	4.8803E+04	-7.600	0.000	1.000	1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0								
40 D	14.82	0.000	148.2 74.10	148.2	74.10	V-C	4.8803E+04	-7.800	0.000	1.000	1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0								
41 D	7.600	0.000	152.0 76.00	152.0	76.00	V-C	4.8803E+04	-8.000	0.000	1.000	1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0								

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63          |
|          Exe Time :24 July 2019          11:42:04          |
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1468.1 - GA27 - Cepav2

S T R E S S R E S U L T S F O R G R O U P N O . 3

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Wallelement_33          :
ELEMENT TYPE      2 NO.OF ELEMENTS. IN THIS GROUP  40
CURRENT TIME IS      1.0000

```

WALL2D ELEMENT

```

-----
EL      TA      TB      MA      MB
-----

```

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      11:42:04
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
----	-------	----	--------	---------	---	-----------	-----------

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM= 6047.    RIMNOR= 0.000
          RENORM= 0.000    REMNOR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 14.82    RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT  = 6047.    RDR  = 0.000
          RATIOT= 0.000    RATIO= 0.000
          MAX UN= 0.000    IEQ=  82 NODE    41 DOF  2  X-ROT. F
          MIN UN= 0.000    IEQ=   1 NODE    1 DOF  1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0
    
```

```

ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM= 6047.    RIMNOR= 0.000
          RENORM= 0.000    REMNOR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 14.82    RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT  = 6047.    RDR  = 0.000
          RATIOT= 0.000    RATIO= 0.000
          MAX UN= 0.000    IEQ=  82 NODE    41 DOF  2  X-ROT. F
          MIN UN= 0.000    IEQ=   1 NODE    1 DOF  1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0
    
```

```

ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM= 6047.    RIMNOR= 0.000
          RENORM= 0.000    REMNOR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 14.82    RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT  = 6047.    RDR  = 0.000
          RATIOT= 0.000    RATIO= 0.000
          MAX UN= 0.000    IEQ=  82 NODE    41 DOF  2  X-ROT. F
          MIN UN= 0.000    IEQ=   1 NODE    1 DOF  1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0
    
```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      11:42:04
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1468.1 - GA27 - Cepav2

SOLUTION REACHED USING 2 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F	X-ROT. F	
(02)	(04)	(

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

Foglio
471 di 560

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+-----+
|              PARATIEPLUS (TM)   NLS ENGINE RELEASE   2017.1   FULL VERSION   *Build date:Jul 11, 2017*      |
+-----+
|              1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63    |
|              Exe Time :24 July 2019                               11:42:04    |
+-----+
1468.1 - GA27 - Cepav2

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STRESS RESULTS FOR GROUP NO. 1

```

O_L      :
ELEMENT TYPE      5 NO.OF ELEMENTS. IN THIS GROUP      41
CURRENT TIME IS   2.0000

```

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	UL-RL	6.3662E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	UL-RL	6.3662E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	UL-RL	6.3662E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	UL-RL	6.3662E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	UL-RL	6.3662E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	UL-RL	6.3662E+04	-1.000	0.000	1.000	1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0									
7 D	2.280	0.000	22.80	11.40	22.80	11.40	UL-RL	6.3662E+04	-1.200	0.000	1.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.660	0.000	26.60	13.30	26.60	13.30	UL-RL	6.3662E+04	-1.400	0.000	1.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0									
9 D	3.040	0.000	30.40	15.20	30.40	15.20	UL-RL	6.3662E+04	-1.600	0.000	1.000	1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0									
10 D	3.420	0.000	34.20	17.10	34.20	17.10	UL-RL	6.3662E+04	-1.800	0.000	1.000	1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.800	0.000	38.00	19.00	38.00	19.00	UL-RL	6.3662E+04	-2.000	0.000	1.000	1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0									
12 D	4.180	0.000	41.80	20.90	41.80	20.90	UL-RL	6.3662E+04	-2.200	0.000	1.000	1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0									
13 D	4.560	0.000	45.60	22.80	45.60	22.80	UL-RL	6.3662E+04	-2.400	0.000	1.000	1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0									
14 D	4.940	0.000	49.40	24.70	49.40	24.70	UL-RL	6.3662E+04	-2.600	0.000	1.000	1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0									
15 D	5.320	0.000	53.20	26.60	53.20	26.60	UL-RL	6.3662E+04	-2.800	0.000	1.000	1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0									
16 D	5.700	0.000	57.00	28.50	57.00	28.50	UL-RL	6.3662E+04	-3.000	0.000	1.000	1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.080	0.000	60.80	30.40	60.80	30.40	UL-RL	6.3662E+04	-3.200	0.000	1.000	1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0									
18 D	6.460	0.000	64.60	32.30	64.60	32.30	UL-RL	6.3662E+04	-3.400	0.000	1.000	1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0									
19 D	6.840	0.000	68.40	34.20	68.40	34.20	UL-RL	6.3662E+04	-3.600	0.000	1.000	1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0									
20 D	7.220	0.000	72.20	36.10	72.20	36.10	UL-RL	6.3662E+04	-3.800	0.000	1.000	1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0									
21 D	7.600	0.000	76.00	38.00	76.00	38.00	UL-RL	6.3662E+04	-4.000	0.000	1.000	1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0									
22 D	7.980	0.000	79.80	39.90	79.80	39.90	UL-RL	6.3662E+04	-4.200	0.000	1.000	1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0									
23 D	8.360	0.000	83.60	41.80	83.60	41.80	UL-RL	6.3662E+04	-4.400	0.000	1.000	1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0									
24 D	8.740	0.000	87.40	43.70	87.40	43.70	UL-RL	6.3662E+04	-4.600	0.000	1.000	1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0									
25 D	9.120	0.000	91.20	45.60	91.20	45.60	UL-RL	6.3662E+04	-4.800	0.000	1.000	1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0									
26 D	9.500	0.000	95.00	47.50	95.00	47.50	UL-RL	6.3662E+04	-5.000	0.000	1.000	1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0									
27 D	9.880	0.000	98.80	49.40	98.80	49.40	UL-RL	6.3662E+04	-5.200	0.000	1.000	1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0									
28 D	10.26	0.000	102.6	51.30	102.6	51.30	UL-RL	2.7014E+05	-5.400	0.000	1.000	1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0									
29 D	10.64	0.000	106.4	53.20	106.4	53.20	UL-RL	2.7014E+05	-5.600	0.000	1.000	1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0									
30 D	11.02	0.000	110.2	55.10	110.2	55.10	UL-RL	2.7014E+05	-5.800	0.000	1.000	1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0									
31 D	11.40	0.000	114.0	57.00	114.0	57.00	UL-RL	2.7014E+05	-6.000	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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57.00	0.000	0.000	Strato2_84780_84781_L_0									
32 D	11.78	0.000	117.8	58.90	117.8	58.90	UL-RL	2.7014E+05	-6.200	0.000	1.000	1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0									
33 D	12.16	0.000	121.6	60.80	121.6	60.80	UL-RL	2.7014E+05	-6.400	0.000	1.000	1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0									
34 D	12.54	0.000	125.4	62.70	125.4	62.70	UL-RL	2.7014E+05	-6.600	0.000	1.000	1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0									
35 D	12.92	0.000	129.2	64.60	129.2	64.60	UL-RL	2.7014E+05	-6.800	0.000	1.000	1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0									
36 D	13.30	0.000	133.0	66.50	133.0	66.50	UL-RL	2.7014E+05	-7.000	0.000	1.000	1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0									
37 D	13.68	0.000	136.8	68.40	136.8	68.40	UL-RL	2.7014E+05	-7.200	0.000	1.000	1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0									
38 D	14.06	0.000	140.6	70.30	140.6	70.30	UL-RL	2.7014E+05	-7.400	0.000	1.000	1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0									
39 D	14.44	0.000	144.4	72.20	144.4	72.20	UL-RL	2.7014E+05	-7.600	0.000	1.000	1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0									
40 D	14.82	0.000	148.2	74.10	148.2	74.10	UL-RL	2.7014E+05	-7.800	0.000	1.000	1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0									
41 D	7.600	0.000	152.0	76.00	152.0	76.00	UL-RL	2.7014E+05	-8.000	0.000	1.000	1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0									

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|                                     PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|                                     1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|                                     Exe Time :24 July 2019  11:42:04
|
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1468.1 - GA27 - Cepav2

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S T R E S S   R E S U L T S   F O R   G R O U P   N O .   2

O _ R   :
E L E M E N T   T Y P E   5   N O . O F   E L E M E N T S .   I N   T H I S   G R O U P   41
C U R R E N T   T I M E   I S   2 . 0 0 0 0

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HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	UL-RL	4.4178E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	UL-RL	4.4178E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	UL-RL	4.4178E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	UL-RL	4.4178E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	UL-RL	4.4178E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	UL-RL	4.4178E+04	-1.000	0.000	1.000	1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0									
7 D	2.280	0.000	22.80	11.40	22.80	11.40	UL-RL	4.4178E+04	-1.200	0.000	1.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.660	0.000	26.60	13.30	26.60	13.30	UL-RL	4.4178E+04	-1.400	0.000	1.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0									
9 D	3.040	0.000	30.40	15.20	30.40	15.20	UL-RL	4.4178E+04	-1.600	0.000	1.000	1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0									
10 D	3.420	0.000	34.20	17.10	34.20	17.10	UL-RL	4.4178E+04	-1.800	0.000	1.000	1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.800	0.000	38.00	19.00	38.00	19.00	UL-RL	4.4178E+04	-2.000	0.000	1.000	1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0									
12 D	4.180	0.000	41.80	20.90	41.80	20.90	UL-RL	4.4178E+04	-2.200	0.000	1.000	1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0									
13 D	4.560	0.000	45.60	22.80	45.60	22.80	UL-RL	4.4178E+04	-2.400	0.000	1.000	1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0									
14 D	4.940	0.000	49.40	24.70	49.40	24.70	UL-RL	4.4178E+04	-2.600	0.000	1.000	1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0									
15 D	5.320	0.000	53.20	26.60	53.20	26.60	UL-RL	4.4178E+04	-2.800	0.000	1.000	1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0									
16 D	5.700	0.000	57.00	28.50	57.00	28.50	UL-RL	4.4178E+04	-3.000	0.000	1.000	1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.080	0.000	60.80	30.40	60.80	30.40	UL-RL	4.4178E+04	-3.200	0.000	1.000	1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0									
18 D	6.460	0.000	64.60	32.30	64.60	32.30	UL-RL	4.4178E+04	-3.400	0.000	1.000	1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0									
19 D	6.840	0.000	68.40	34.20	68.40	34.20	UL-RL	4.4178E+04	-3.600	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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34.20	0.000	0.000	Strato1_3095_78023_L_0				
20 D	7.220	0.000	72.20 36.10	72.20	36.10	UL-RL 4.4178E+04	-3.800 0.000 1.000 1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0				
21 D	7.600	0.000	76.00 38.00	76.00	38.00	UL-RL 4.4178E+04	-4.000 0.000 1.000 1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0				
22 D	7.980	0.000	79.80 39.90	79.80	39.90	UL-RL 4.4178E+04	-4.200 0.000 1.000 1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0				
23 D	8.360	0.000	83.60 41.80	83.60	41.80	UL-RL 4.4178E+04	-4.400 0.000 1.000 1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0				
24 D	8.740	0.000	87.40 43.70	87.40	43.70	UL-RL 4.4178E+04	-4.600 0.000 1.000 1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0				
25 D	9.120	0.000	91.20 45.60	91.20	45.60	UL-RL 4.4178E+04	-4.800 0.000 1.000 1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0				
26 D	9.500	0.000	95.00 47.50	95.00	47.50	UL-RL 4.4178E+04	-5.000 0.000 1.000 1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0				
27 D	9.880	0.000	98.80 49.40	98.80	49.40	UL-RL 4.4178E+04	-5.200 0.000 1.000 1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0				
28 D	10.26	0.000	102.6 51.30	102.6	51.30	UL-RL 1.4641E+05	-5.400 0.000 1.000 1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0				
29 D	10.64	0.000	106.4 53.20	106.4	53.20	UL-RL 1.4641E+05	-5.600 0.000 1.000 1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0				
30 D	11.02	0.000	110.2 55.10	110.2	55.10	UL-RL 1.4641E+05	-5.800 0.000 1.000 1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0				
31 D	11.40	0.000	114.0 57.00	114.0	57.00	UL-RL 1.4641E+05	-6.000 0.000 1.000 1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0				
32 D	11.78	0.000	117.8 58.90	117.8	58.90	UL-RL 1.4641E+05	-6.200 0.000 1.000 1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0				
33 D	12.16	0.000	121.6 60.80	121.6	60.80	UL-RL 1.4641E+05	-6.400 0.000 1.000 1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0				
34 D	12.54	0.000	125.4 62.70	125.4	62.70	UL-RL 1.4641E+05	-6.600 0.000 1.000 1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0				
35 D	12.92	0.000	129.2 64.60	129.2	64.60	UL-RL 1.4641E+05	-6.800 0.000 1.000 1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0				
36 D	13.30	0.000	133.0 66.50	133.0	66.50	UL-RL 1.4641E+05	-7.000 0.000 1.000 1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0				
37 D	13.68	0.000	136.8 68.40	136.8	68.40	UL-RL 1.4641E+05	-7.200 0.000 1.000 1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0				
38 D	14.06	0.000	140.6 70.30	140.6	70.30	UL-RL 1.4641E+05	-7.400 0.000 1.000 1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0				
39 D	14.44	0.000	144.4 72.20	144.4	72.20	UL-RL 1.4641E+05	-7.600 0.000 1.000 1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0				
40 D	14.82	0.000	148.2 74.10	148.2	74.10	UL-RL 1.4641E+05	-7.800 0.000 1.000 1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0				
41 D	7.600	0.000	152.0 76.00	152.0	76.00	UL-RL 1.4641E+05	-8.000 0.000 1.000 1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0				

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63          |
|          Exe Time :24 July 2019          11:42:04          |
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
 CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000



Doc. N.

Progetto
INOR

Lotto
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Codifica Documento
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Rev.
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Foglio
474 di 560

18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000

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|               PARATIEPLUS (TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*
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|
|               1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|               Exe Time :24 July 2019      11:42:04
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit			
ANCHOR	1	0.0000	0.0000	0.0000	0.0000	80304.	0.0000	0.0000	ELASTIC	ORIGINAL YOUNG MODULUS	
ITER	0	RNORM = 0.000 RMNORM= 0.000		RINORM= 5265. RIMNOR= 0.000		RENORM= 712.9 REMNOR= 0.000 RATIO =0.3680 TOLER =0.1000E-03 NOT CONVERGED		RFMAX = 15.72 RMMAX = 0.000		RTSMAL=0.1000E-03 RMSMAL= 0.000	
		RDT = 5265. RDR = 0.000		RATIOT=0.3680 RATIOR= 0.000		MAX UN= 6.385 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F		MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F		NO. OF CONTACT CONSTRAINT VIOLATIONS 0	
ITER	2	RNORM = 0.000 RMNORM= 0.000		RINORM= 5265. RIMNOR= 0.000		RENORM= 50.97 REMNOR=0.1634E-23 RATIO =0.9839E-01 TOLER =0.1000E-03 NOT CONVERGED		RFMAX = 15.72 RMMAX = 0.000		RTSMAL=0.1000E-03 RMSMAL= 0.000	
		RDT = 5265. RDR = 0.000		RATIOT=0.9839E-01 RATIOR= 0.000		MAX UN= 2.395 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F		MIN UN=-.2535E-11 IEQ= 45 NODE 23 DOF 1 Y-DISPL.F		NO. OF CONTACT CONSTRAINT VIOLATIONS 0	
ITER	3	RNORM = 0.000 RMNORM= 0.000		RINORM= 5265. RIMNOR= 0.000		RENORM= 10.93 REMNOR=0.8174E-23 RATIO =0.4555E-01 TOLER =0.1000E-03 NOT CONVERGED		RFMAX = 15.72 RMMAX = 0.000		RTSMAL=0.1000E-03 RMSMAL= 0.000	
		RDT = 5265. RDR = 0.000		RATIOT=0.4555E-01 RATIOR= 0.000		MAX UN= 2.391 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F		MIN UN=-.2843E-10 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F		NO. OF CONTACT CONSTRAINT VIOLATIONS 0	
ITER	4	RNORM = 0.000 RMNORM= 0.000		RINORM= 5265. RIMNOR= 0.000		RENORM=0.1410E-01 REMNOR=0.9516E-24 RATIO =0.1636E-02 TOLER =0.1000E-03 NOT CONVERGED		RFMAX = 15.72 RMMAX = 0.000			



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| 1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63 |
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 1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
 CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	-1.0628E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.2428	-1.4660E-03	3.806	1.214	3.806	1.903	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
1.214	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.4880	-1.8674E-03	7.649	2.440	7.649	3.825	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
2.440	0.000	0.000	Strato1_3095_78023_L_0									
4 D	0.7375	-2.2574E-03	11.56	3.687	11.56	5.780	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
3.687	0.000	0.000	Strato1_3095_78023_L_0									
5 D	0.9924	-2.6251E-03	15.55	4.962	15.55	7.777	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
4.962	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.253	-2.9601E-03	19.64	6.266	19.64	9.821	ACTIVE	0.000	-1.000	0.000	1.000	1.000
6.266	0.000	0.000	Strato1_3095_78023_L_0									
7 D	1.520	-3.2530E-03	23.82	7.598	23.82	11.91	ACTIVE	0.000	-1.200	0.000	1.000	1.000
7.598	0.000	0.000	Strato1_3095_78023_L_0									
8 D	1.791	-3.4953E-03	28.07	8.953	28.07	14.03	ACTIVE	0.000	-1.400	0.000	1.000	1.000
8.953	0.000	0.000	Strato1_3095_78023_L_0									
9 D	2.220	-3.6798E-03	34.79	11.10	34.79	17.40	ACTIVE	0.000	-1.600	0.000	1.000	1.000
11.10	0.000	0.000	Strato1_3095_78023_L_0									
10 D	2.641	-3.8009E-03	41.40	13.21	41.40	20.70	ACTIVE	0.000	-1.800	0.000	1.000	1.000
13.21	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.020	-3.8548E-03	47.33	15.10	47.33	23.67	ACTIVE	0.000	-2.000	0.000	1.000	1.000
15.10	0.000	0.000	Strato1_3095_78023_L_0									
12 D	3.391	-3.8401E-03	53.16	16.96	53.16	26.58	ACTIVE	0.000	-2.200	0.000	1.000	1.000
16.96	0.000	0.000	Strato1_3095_78023_L_0									
13 D	3.733	-3.7577E-03	58.52	18.67	58.52	29.26	ACTIVE	0.000	-2.400	0.000	1.000	1.000
18.67	0.000	0.000	Strato1_3095_78023_L_0									
14 D	4.074	-3.6114E-03	63.85	20.37	63.85	31.93	ACTIVE	0.000	-2.600	0.000	1.000	1.000
20.37	0.000	0.000	Strato1_3095_78023_L_0									
15 D	4.392	-3.4084E-03	68.84	21.96	68.84	34.42	ACTIVE	0.000	-2.800	0.000	1.000	1.000
21.96	0.000	0.000	Strato1_3095_78023_L_0									
16 D	4.711	-3.1589E-03	73.85	23.56	73.85	36.92	ACTIVE	0.000	-3.000	0.000	1.000	1.000
23.56	0.000	0.000	Strato1_3095_78023_L_0									
17 D	4.950	-2.8761E-03	77.59	24.75	77.59	38.79	ACTIVE	0.000	-3.200	0.000	1.000	1.000
24.75	0.000	0.000	Strato1_3095_78023_L_0									
18 D	5.154	-2.5743E-03	80.78	25.77	80.78	40.39	ACTIVE	0.000	-3.400	0.000	1.000	1.000
25.77	0.000	0.000	Strato1_3095_78023_L_0									
19 D	5.360	-2.2668E-03	84.02	26.80	84.02	42.01	ACTIVE	0.000	-3.600	0.000	1.000	1.000
26.80	0.000	0.000	Strato1_3095_78023_L_0									
20 D	5.569	-1.9646E-03	87.29	27.85	87.29	43.64	ACTIVE	0.000	-3.800	0.000	1.000	1.000
27.85	0.000	0.000	Strato1_3095_78023_L_0									
21 D	5.780	-1.6761E-03	90.60	28.90	90.60	45.30	ACTIVE	0.000	-4.000	0.000	1.000	1.000
28.90	0.000	0.000	Strato1_3095_78023_L_0									
22 D	5.993	-1.4076E-03	93.94	29.97	93.94	46.97	ACTIVE	0.000	-4.200	0.000	1.000	1.000
29.97	0.000	0.000	Strato1_3095_78023_L_0									
23 D	6.208	-1.1632E-03	97.30	31.04	97.30	48.65	ACTIVE	0.000	-4.400	0.000	1.000	1.000
31.04	0.000	0.000	Strato1_3095_78023_L_0									
24 D	6.568	-9.4538E-04	100.7	32.84	100.7	50.35	UL-RL	1.8520E+04	-4.600	0.000	1.000	1.000
32.84	0.000	0.000	Strato1_3095_78023_L_0									
25 D	7.616	-7.5482E-04	104.1	38.08	104.1	52.06	UL-RL	1.8520E+04	-4.800	0.000	1.000	1.000
38.08	0.000	0.000	Strato1_3095_78023_L_0									
26 D	8.566	-5.9123E-04	107.6	42.83	107.6	53.78	UL-RL	1.8520E+04	-5.000	0.000	1.000	1.000
42.83	0.000	0.000	Strato1_3095_78023_L_0									
27 D	9.420	-4.5403E-04	111.0	47.10	111.0	55.51	UL-RL	1.8520E+04	-5.200	0.000	1.000	1.000
47.10	0.000	0.000	Strato1_3095_78023_L_0									
28 D	6.055	-3.4317E-04	114.5	30.28	114.5	57.24	UL-RL	7.8586E+04	-5.400	0.000	1.000	1.000
30.28	0.000	0.000	Strato2_84780_84781_L_0									
29 D	7.728	-2.5897E-04	118.0	38.64	118.0	58.99	UL-RL	7.8586E+04	-5.600	0.000	1.000	1.000
38.64	0.000	0.000	Strato2_84780_84781_L_0									
30 D	9.016	-1.9937E-04	121.5	45.08	121.5	60.75	UL-RL	7.8586E+04	-5.800	0.000	1.000	1.000
45.08	0.000	0.000	Strato2_84780_84781_L_0									
31 D	9.979	-1.6051E-04	125.0	49.89	125.0	62.51	UL-RL	7.8586E+04	-6.000	0.000	1.000	1.000
49.89	0.000	0.000	Strato2_84780_84781_L_0									
32 D	10.69	-1.3786E-04	128.6	53.44	128.6	64.28	UL-RL	7.8586E+04	-6.200	0.000	1.000	1.000
53.44	0.000	0.000	Strato2_84780_84781_L_0									
33 D	11.21	-1.2704E-04	132.1	56.07	132.1	66.05	UL-RL	7.8586E+04	-6.400	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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56.07	0.000	0.000	Strato2_84780_84781_L_0									
34 D	11.61	-1.2423E-04	135.7	58.07	135.7	67.83	UL-RL	7.8586E+04	-6.600	0.000	1.000	1.000
58.07	0.000	0.000	Strato2_84780_84781_L_0									
35 D	11.94	-1.2639E-04	139.2	59.68	139.2	69.62	UL-RL	7.8586E+04	-6.800	0.000	1.000	1.000
59.68	0.000	0.000	Strato2_84780_84781_L_0									
36 D	12.22	-1.3129E-04	142.8	61.09	142.8	71.41	UL-RL	7.8586E+04	-7.000	0.000	1.000	1.000
61.09	0.000	0.000	Strato2_84780_84781_L_0									
37 D	12.48	-1.3744E-04	146.4	62.40	146.4	73.20	UL-RL	7.8586E+04	-7.200	0.000	1.000	1.000
62.40	0.000	0.000	Strato2_84780_84781_L_0									
38 D	12.74	-1.4396E-04	150.0	63.69	150.0	75.00	UL-RL	7.8586E+04	-7.400	0.000	1.000	1.000
63.69	0.000	0.000	Strato2_84780_84781_L_0									
39 D	13.00	-1.5046E-04	153.6	64.98	153.6	76.80	UL-RL	7.8586E+04	-7.600	0.000	1.000	1.000
64.98	0.000	0.000	Strato2_84780_84781_L_0									
40 D	13.26	-1.5682E-04	157.2	66.29	157.2	78.61	UL-RL	7.8586E+04	-7.800	0.000	1.000	1.000
66.29	0.000	0.000	Strato2_84780_84781_L_0									
41 D	6.761	-1.6311E-04	160.8	67.61	160.8	80.42	UL-RL	7.8586E+04	-8.000	0.000	1.000	1.000
67.61	0.000	0.000	Strato2_84780_84781_L_0									

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|
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
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|          Exe Time :24 July 2019      11:42:04
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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
0.000	0.000	0.000	not available									
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
15 D	0.6851	3.4084E-03	0.9500	3.426	53.20	26.60	PASSIVE	0.000	-2.800	0.000	1.000	1.000
3.426	0.000	0.000	Strato1_3095_78023_L_0									
16 D	3.426	3.1589E-03	4.750	17.13	57.00	28.50	PASSIVE	0.000	-3.000	0.000	1.000	1.000
17.13	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.166	2.8761E-03	8.550	30.83	60.80	30.83	PASSIVE	0.000	-3.200	0.000	1.000	1.000
30.83	0.000	0.000	Strato1_3095_78023_L_0									
18 D	8.323	2.5743E-03	12.35	41.62	64.60	41.62	V-C	8032.	-3.400	0.000	1.000	1.000
41.62	0.000	0.000	Strato1_3095_78023_L_0									
19 D	8.284	2.2668E-03	16.15	41.42	68.40	41.42	V-C	8032.	-3.600	0.000	1.000	1.000
41.42	0.000	0.000	Strato1_3095_78023_L_0									
20 D	8.236	1.9646E-03	19.95	41.18	72.20	41.18	V-C	8032.	-3.800	0.000	1.000	1.000
41.18	0.000	0.000	Strato1_3095_78023_L_0									
21 D	8.198	1.6761E-03	23.75	40.99	76.00	40.99	V-C	8032.	-4.000	0.000	1.000	1.000

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40.99	0.000	0.000	Strato1_3095_78023_L_0							
22 D	8.184	1.4076E-03	27.55 40.92	79.80	40.92	V-C 8032.	-4.200	0.000	1.000	1.000
40.92	0.000	0.000	Strato1_3095_78023_L_0							
23 D	8.109	1.1632E-03	31.35 40.55	83.60	41.80	UL-RL 1.2852E+04	-4.400	0.000	1.000	1.000
40.55	0.000	0.000	Strato1_3095_78023_L_0							
24 D	7.973	9.4538E-04	35.15 39.86	87.40	43.70	UL-RL 1.2852E+04	-4.600	0.000	1.000	1.000
39.86	0.000	0.000	Strato1_3095_78023_L_0							
25 D	7.900	7.5482E-04	38.95 39.50	91.20	45.60	UL-RL 1.2852E+04	-4.800	0.000	1.000	1.000
39.50	0.000	0.000	Strato1_3095_78023_L_0							
26 D	7.892	5.9123E-04	42.75 39.46	95.00	47.50	UL-RL 1.2852E+04	-5.000	0.000	1.000	1.000
39.46	0.000	0.000	Strato1_3095_78023_L_0							
27 D	7.949	4.5403E-04	46.55 39.74	98.80	49.40	UL-RL 1.2852E+04	-5.200	0.000	1.000	1.000
39.74	0.000	0.000	Strato1_3095_78023_L_0							
28 D	10.11	3.4317E-04	50.35 50.55	102.6	51.30	UL-RL 4.2592E+04	-5.400	0.000	1.000	1.000
50.55	0.000	0.000	Strato2_84780_84781_L_0							
29 D	9.796	2.5897E-04	54.15 48.98	106.4	53.20	UL-RL 4.2592E+04	-5.600	0.000	1.000	1.000
48.98	0.000	0.000	Strato2_84780_84781_L_0							
30 D	9.690	1.9937E-04	57.95 48.45	110.2	55.10	UL-RL 4.2592E+04	-5.800	0.000	1.000	1.000
48.45	0.000	0.000	Strato2_84780_84781_L_0							
31 D	9.757	1.6051E-04	61.75 48.79	114.0	57.00	UL-RL 4.2592E+04	-6.000	0.000	1.000	1.000
48.79	0.000	0.000	Strato2_84780_84781_L_0							
32 D	9.962	1.3786E-04	65.55 49.81	117.8	58.90	UL-RL 4.2592E+04	-6.200	0.000	1.000	1.000
49.81	0.000	0.000	Strato2_84780_84781_L_0							
33 D	10.27	1.2704E-04	69.35 51.33	121.6	60.80	UL-RL 4.2592E+04	-6.400	0.000	1.000	1.000
51.33	0.000	0.000	Strato2_84780_84781_L_0							
34 D	10.64	1.2423E-04	73.15 53.18	125.4	62.70	UL-RL 4.2592E+04	-6.600	0.000	1.000	1.000
53.18	0.000	0.000	Strato2_84780_84781_L_0							
35 D	11.05	1.2639E-04	76.95 55.24	129.2	64.60	UL-RL 4.2592E+04	-6.800	0.000	1.000	1.000
55.24	0.000	0.000	Strato2_84780_84781_L_0							
36 D	11.48	1.3129E-04	80.75 57.41	133.0	66.50	UL-RL 4.2592E+04	-7.000	0.000	1.000	1.000
57.41	0.000	0.000	Strato2_84780_84781_L_0							
37 D	11.93	1.3744E-04	84.55 59.63	136.8	68.40	UL-RL 4.2592E+04	-7.200	0.000	1.000	1.000
59.63	0.000	0.000	Strato2_84780_84781_L_0							
38 D	12.37	1.4396E-04	88.35 61.86	140.6	70.30	UL-RL 4.2592E+04	-7.400	0.000	1.000	1.000
61.86	0.000	0.000	Strato2_84780_84781_L_0							
39 D	12.82	1.5046E-04	92.15 64.09	144.4	72.20	UL-RL 4.2592E+04	-7.600	0.000	1.000	1.000
64.09	0.000	0.000	Strato2_84780_84781_L_0							
40 D	13.26	1.5682E-04	95.95 66.30	148.2	74.10	UL-RL 4.2592E+04	-7.800	0.000	1.000	1.000
66.30	0.000	0.000	Strato2_84780_84781_L_0							
41 D	6.851	1.6311E-04	99.75 68.51	152.0	76.00	UL-RL 4.2592E+04	-8.000	0.000	1.000	1.000
68.51	0.000	0.000	Strato2_84780_84781_L_0							

```

-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63                                                                           |
|          Exe Time :24 July 2019          11:42:04                                                                           |
-----+
1468.1 - GA27 - Cepav2
  
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
 CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.29896E-12	1.29896E-12	-1.22791E-13	5.21749E-13
2	-13.529	13.529	-5.70932E-13	-2.7057
3	-13.041	13.041	2.7057	-5.3139
4	-12.303	12.303	5.3139	-7.7745
5	-11.311	11.311	7.7745	-10.037
6	-10.058	10.058	10.037	-12.048
7	-8.5381	8.5381	12.048	-13.756
8	-6.7475	6.7475	13.756	-15.105
9	-4.5279	4.5279	15.105	-16.011
10	-1.8865	1.8865	16.011	-16.388
11	1.1333	-1.1333	16.388	-16.162
12	4.5247	-4.5247	16.162	-15.257
13	8.2580	-8.2580	15.257	-13.605
14	12.332	-12.332	13.605	-11.139
15	16.038	-16.038	11.139	-7.9310
16	17.324	-17.324	7.9310	-4.4661
17	16.108	-16.108	4.4661	-1.2446
18	12.938	-12.938	1.2446	1.3431
19	10.015	-10.015	-1.3431	3.3460
20	7.3480	-7.3480	-3.3460	4.8156
21	4.9301	-4.9301	-4.8156	5.8016

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22	2.7390	-2.7390	-5.8016	6.3494
23	0.83769	-0.83769	-6.3494	6.5169
24	-0.56679	0.56679	-6.5169	6.4036
25	-0.85132	0.85132	-6.4036	6.2333
26	-0.17827	0.17827	-6.2333	6.1977
27	1.2926	-1.2926	-6.1977	6.4562
28	-2.7627	2.7627	-6.4562	5.9037
29	-4.8310	4.8310	-5.9037	4.9374
30	-5.5051	5.5051	-4.9374	3.8364
31	-5.2839	5.2839	-3.8364	2.7797
32	-4.5572	4.5572	-2.7797	1.8682
33	-3.6092	3.6092	-1.8682	1.1464
34	-2.6314	2.6314	-1.1464	0.62011
35	-1.7422	1.7422	-0.62011	0.27168
36	-1.0060	1.0060	-0.27168	7.04794E-02
37	-0.45133	0.45133	-7.04794E-02	-1.97859E-02
38	-8.55458E-02	8.55458E-02	1.97859E-02	-3.68951E-02
39	9.36463E-02	-9.36463E-02	3.68951E-02	-1.81658E-02
40	9.08277E-02	-9.08277E-02	1.81658E-02	1.48423E-14

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      11:42:04
|
-----

```

1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	40.265	0.0000	5.01413E-04	0.0000	80304.	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.Nominal_63
|          Exe Time :24 July 2019      11:42:04
|
-----

```

FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	2
3	CONVERGENCE :YES	5

END OF PROCESS FOR PROBLEM
1468.1 - GA27 - Cepav2
NONLINEAR SOLUTION CPU TIME 0.03 [sec]
DATABASE CREATION CPU TIME..... 0.10 [sec]

3.3. Design Assumption : SLE (Rara) - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SLE (Rara)
* Time:mercoledì 24 luglio 2019 11:42:05
* 1: Defining general settings
UNIT m kN
TITLE 1468.1 - GA27 - Cepav2
DELTA 0.2
option param itemax 100
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

```

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WALL LeftWall_32 0 -8 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -8 0 1 0

SOIL 0_R LeftWall_32 -8 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_3095_78023_L_0)

*

LDATA Strato1_3095_78023_L_0 0 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 0 29

YOUNG 2.5E+04 4E+04

ENDL

*

* Soil Profile (Strato2_84780_84781_L_0)

*

LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 113 Name=S275 E=210000000 kPa

MATERIAL S275_113 2.1E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 78036 Name=S275 E=210000000 kPa

MATERIAL S275_78036 2.1E+08

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0

* 6.2: Supports

WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0

* 6.3: Strips

STRIP LeftWall_32 3 3 2.33 3 0 52.08 30

* 7: Defining Steps

STEP Stage0_86326

CHANGE Strato1_3095_78023_L_0 U-FRICT=29 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-KA=0.319 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-KP=3.606 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-KA=0.319 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-KP=3.606 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-FRICT=35 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-KA=0.248 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-KP=5.02 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-KA=0.248 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-KP=5.02 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-COHE=20 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32

SETWALL LeftWall_32

GEOM 0 0

WATER -17 0 -8 0 0

ENDSTEP

STEP Stage1_31

CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32

SETWALL LeftWall_32

GEOM 0 0

WATER -17 0 -8 0 0

ADD WallElement_33 Tieback_78031

ENDSTEP

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```

STEP Stage2_158
CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -2.75
WATER -17 0 -8 0 0
ENDSTEP

```

3.4. Design Assumption : SLE (Rara) - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454                               |
|          Exe Time :24 July 2019      11:42:05                                             |
-----

```

```

*****
*                                                                                               *
* PARATIE PLUS Non-Linear Spring Engine                                                       *
*                                                                                               *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM                                           *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES                                           *
*                                                                                               *
*          Written by Ce.A.S. s.r.l. (ITALY)                                                  *
*          with the scientific supervision of                                                  *
*          Roberto Nova - full professor SOIL MECHANICS                                     *
*          at Politecnico di Milano (ITALY)                                                  *
*                                                                                               *
*****
* RELEASE  2017.1      *Build date:Jul 11, 2017*  *                                                                 *
*                                                                                               *
*                                                                                               *
* Ce.A.S.   S.R.L  CENTRO DI ANALISI STRUTTURALE                                             *
*          VIALE  GIUSTINIANO 10                                                            *
*          20129  M I L A N O (ITALIA)                                                       *
* TEL.     +39 02 2020221  (+39 035 23 67 19)                                               *
* FAX     +39 02 29512533 (+39 035 42285 49)                                               *
* email   bruno.becci@ceas.it                                                                *
* Web Page www.ceas.it                                                                      *
*****

```

```

JOB : 1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL STRESS >
ACCEPTED <PARAM ITEM MAX 100 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >

```

```

*****
*                                                                                               *
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED                                       *
*          BY THE PROGRAM.                                                                    *
*****

```

PRELIMINARY OPERATIONS CPU TIME 0.01 [sec]

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454                               |
|          Exe Time :24 July 2019      11:42:05                                             |
-----

```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM



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NO. OF NODAL POINTS (NUMNP) 41
 NO. OF COORDINATES (NCOORD)..... 2
 NO. OF NODE DOFS (NDOF)..... 2
 NO. OF EQUATIONS (NEQ)..... 82
 NO. OF CONSTRAINTS CARDS (NVINC)..... 0
 NO. OF ELEMENT GROUPS (NEG)..... 4
 NO. OF SOLUTION STEPS (NSTE)..... 3
 NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
 NO. OF RECORD FROM WALGEN 68
 NO. OF LONG NAMES (LASTNAME) 16
 LENGTH UNIT CHOICE 3 (M)
 FORCE UNIT CHOICE 3 (KN)
 MAX PORE PRESSURE TABLE LENGTH..... 1
 NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

IDOFA (01) = 2 Y-DISPL.F
 IDOFA (02) = 4 X-ROT. F

RELEVANT ITEMS UNITS

STRESSES kPa
 Y-DISPLACEMENTS m
 ROTATIONS RADIANS
 BEAM AND SLAB MOMENTS kN*m/m
 BEAM SHEAR FORCES kN/m
 ANCHOR FORCES kN/m
 AXIAL FORCES IN TRUSSES kN/m
 AXIAL FORCES SPRINGS kN/m
 Y-REACTIONS kN/m
 X-MOMENT REACTIONS kN*m/m
 ETC.

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
-----
    
```

P R E P R O C E S S O R D A T A
 N O . O F C O M M A N D S 6 8

```

1 : UNIT m kN
2 : TITLE 1468.1 - GA27 - Cepav2
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -8 0 1
7 : SOIL 0_L LeftWall_32 -8 0 1 0
8 : SOIL 0_R LeftWall_32 -8 0 2 180
9 : LDATA Strato1_3095_78023_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-05
13 : RESISTANCE 0 29
14 : YOUNG 2.5E+04 4E+04
15 : ENDL
16 : LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19 9 10
19 : PERMEABILITY 1E-05
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL S275_78036 2.1E+08
26 : BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0
27 : WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0
28 : STRIP LeftWall_32 3 3 2.33 3 0 52.08 30
29 : STEP Stage0_86326
30 : CHANGE Strato1_3095_78023_L_0 U-FRICT=29 LeftWall_32
31 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
32 : CHANGE Strato1_3095_78023_L_0 U-KA=0.319 LeftWall_32
33 : CHANGE Strato1_3095_78023_L_0 U-KP=3.606 LeftWall_32
34 : CHANGE Strato1_3095_78023_L_0 D-KA=0.319 LeftWall_32
35 : CHANGE Strato1_3095_78023_L_0 D-KP=3.606 LeftWall_32
36 : CHANGE Strato2_84780_84781_L_0 U-FRICT=35 LeftWall_32
37 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
    
```



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```

38 : CHANGE Strato2_84780_84781_L_0 U-KA=0.248 LeftWall_32
39 : CHANGE Strato2_84780_84781_L_0 U-KP=5.02 LeftWall_32
40 : CHANGE Strato2_84780_84781_L_0 D-KA=0.248 LeftWall_32
41 : CHANGE Strato2_84780_84781_L_0 D-KP=5.02 LeftWall_32
42 : CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32
43 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
44 : CHANGE Strato2_84780_84781_L_0 U-COHE=20 LeftWall_32
45 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
46 : SETWALL LeftWall_32
47 : GEOM 0 0
48 : WATER -17 0 -8 0 0
49 : ENDSTEP
50 : STEP Stage1_31
51 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
52 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
53 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
54 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
55 : SETWALL LeftWall_32
56 : GEOM 0 0
57 : WATER -17 0 -8 0 0
58 : ADD WallElement_33 Tieback_78031
59 : ENDSTEP
60 : STEP Stage2_158
61 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
62 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
63 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
64 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
65 : SETWALL LeftWall_32
66 : GEOM 0 -2.75
67 : WATER -17 0 -8 0 0
68 : ENDSTEP
    
```

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
-----
    
```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/
1	0.0000	0.0000	/	2	0.0000	-0.20000	/	3	0.0000	-0.40000	/	4	0.0000	-0.60000	/
5	0.0000	-0.80000	/	6	0.0000	-1.0000	/	7	0.0000	-1.2000	/	8	0.0000	-1.4000	/
9	0.0000	-1.6000	/	10	0.0000	-1.8000	/	11	0.0000	-2.0000	/	12	0.0000	-2.2000	/
13	0.0000	-2.4000	/	14	0.0000	-2.6000	/	15	0.0000	-2.8000	/	16	0.0000	-3.0000	/
17	0.0000	-3.2000	/	18	0.0000	-3.4000	/	19	0.0000	-3.6000	/	20	0.0000	-3.8000	/
21	0.0000	-4.0000	/	22	0.0000	-4.2000	/	23	0.0000	-4.4000	/	24	0.0000	-4.6000	/
25	0.0000	-4.8000	/	26	0.0000	-5.0000	/	27	0.0000	-5.2000	/	28	0.0000	-5.4000	/
29	0.0000	-5.6000	/	30	0.0000	-5.8000	/	31	0.0000	-6.0000	/	32	0.0000	-6.2000	/
33	0.0000	-6.4000	/	34	0.0000	-6.6000	/	35	0.0000	-6.8000	/	36	0.0000	-7.0000	/
37	0.0000	-7.2000	/	38	0.0000	-7.4000	/	39	0.0000	-7.6000	/	40	0.0000	-7.8000	/
41	0.0000	-8.0000	/												

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
-----
    
```

ELEMENT GROUP NO. 1

```

O_L :
5 41 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0 0
.....
.....2D PLASTIC SOIL.....
.....
    
```

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active

material set no. 1

prop(1) angle 0.00000

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prop(2) layer as foreseen 1.00000

material set no. 2

prop(1) angle 0.00000
prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	2	0.2000	0.000	0.000	0.000	1.000
29	29	2	0.2000	0.000	0.000	0.000	1.000
30	30	2	0.2000	0.000	0.000	0.000	1.000
31	31	2	0.2000	0.000	0.000	0.000	1.000
32	32	2	0.2000	0.000	0.000	0.000	1.000
33	33	2	0.2000	0.000	0.000	0.000	1.000
34	34	2	0.2000	0.000	0.000	0.000	1.000
35	35	2	0.2000	0.000	0.000	0.000	1.000
36	36	2	0.2000	0.000	0.000	0.000	1.000
37	37	2	0.2000	0.000	0.000	0.000	1.000
38	38	2	0.2000	0.000	0.000	0.000	1.000
39	39	2	0.2000	0.000	0.000	0.000	1.000
40	40	2	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.1000	0.000	0.000	0.000	1.000

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454 |
|          Exe Time :24 July 2019  11:42:05 |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R      :
 5 41  0  1  0  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active

```

material set no. 1

prop(1) angle 180.000
prop(2) layer as foreseen 1.00000

GENERAL CONTRACTOR



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material set no. 2

prop(1) angle 180.000
prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	2	0.2000	0.000	0.000	0.000	2.000
29	29	2	0.2000	0.000	0.000	0.000	2.000
30	30	2	0.2000	0.000	0.000	0.000	2.000
31	31	2	0.2000	0.000	0.000	0.000	2.000
32	32	2	0.2000	0.000	0.000	0.000	2.000
33	33	2	0.2000	0.000	0.000	0.000	2.000
34	34	2	0.2000	0.000	0.000	0.000	2.000
35	35	2	0.2000	0.000	0.000	0.000	2.000
36	36	2	0.2000	0.000	0.000	0.000	2.000
37	37	2	0.2000	0.000	0.000	0.000	2.000
38	38	2	0.2000	0.000	0.000	0.000	2.000
39	39	2	0.2000	0.000	0.000	0.000	2.000
40	40	2	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.1000	0.000	0.000	0.000	2.000

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                       |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019      11:42:05          |
+-----+

```

ELEMENT GROUP NO. 3

```

WallElement_33      :
  2  40  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  1  0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
  1  inactive
  2  active
  3  active

```

material set no. 1

prop(1) young modulus 0.210000E+09
prop(2) modification time 0.00000
prop(3) new young modulus 0.00000

GENERAL CONTRACTOR



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prop(4) poisson ratio 0.00000
prop(5) future0.182200E-43

no. of step variable items: 1
step inertia multiplier

1 1.000
2 1.000
3 1.000

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.8153E-01	0.000	0.000
2	2	3	1	0.000	0.000	0.8153E-01	0.000	0.000
3	3	4	1	0.000	0.000	0.8153E-01	0.000	0.000
4	4	5	1	0.000	0.000	0.8153E-01	0.000	0.000
5	5	6	1	0.000	0.000	0.8153E-01	0.000	0.000
6	6	7	1	0.000	0.000	0.8153E-01	0.000	0.000
7	7	8	1	0.000	0.000	0.8153E-01	0.000	0.000
8	8	9	1	0.000	0.000	0.8153E-01	0.000	0.000
9	9	10	1	0.000	0.000	0.8153E-01	0.000	0.000
10	10	11	1	0.000	0.000	0.8153E-01	0.000	0.000
11	11	12	1	0.000	0.000	0.8153E-01	0.000	0.000
12	12	13	1	0.000	0.000	0.8153E-01	0.000	0.000
13	13	14	1	0.000	0.000	0.8153E-01	0.000	0.000
14	14	15	1	0.000	0.000	0.8153E-01	0.000	0.000
15	15	16	1	0.000	0.000	0.8153E-01	0.000	0.000
16	16	17	1	0.000	0.000	0.8153E-01	0.000	0.000
17	17	18	1	0.000	0.000	0.8153E-01	0.000	0.000
18	18	19	1	0.000	0.000	0.8153E-01	0.000	0.000
19	19	20	1	0.000	0.000	0.8153E-01	0.000	0.000
20	20	21	1	0.000	0.000	0.8153E-01	0.000	0.000
21	21	22	1	0.000	0.000	0.8153E-01	0.000	0.000
22	22	23	1	0.000	0.000	0.8153E-01	0.000	0.000
23	23	24	1	0.000	0.000	0.8153E-01	0.000	0.000
24	24	25	1	0.000	0.000	0.8153E-01	0.000	0.000
25	25	26	1	0.000	0.000	0.8153E-01	0.000	0.000
26	26	27	1	0.000	0.000	0.8153E-01	0.000	0.000
27	27	28	1	0.000	0.000	0.8153E-01	0.000	0.000
28	28	29	1	0.000	0.000	0.8153E-01	0.000	0.000
29	29	30	1	0.000	0.000	0.8153E-01	0.000	0.000
30	30	31	1	0.000	0.000	0.8153E-01	0.000	0.000
31	31	32	1	0.000	0.000	0.8153E-01	0.000	0.000
32	32	33	1	0.000	0.000	0.8153E-01	0.000	0.000
33	33	34	1	0.000	0.000	0.8153E-01	0.000	0.000
34	34	35	1	0.000	0.000	0.8153E-01	0.000	0.000
35	35	36	1	0.000	0.000	0.8153E-01	0.000	0.000
36	36	37	1	0.000	0.000	0.8153E-01	0.000	0.000
37	37	38	1	0.000	0.000	0.8153E-01	0.000	0.000
38	38	39	1	0.000	0.000	0.8153E-01	0.000	0.000
39	39	40	1	0.000	0.000	0.8153E-01	0.000	0.000
40	40	41	1	0.000	0.000	0.8153E-01	0.000	0.000

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
|-----+-----

```

ELEMENT GROUP NO. 4

```

Tieback_78031      :
6 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 2 0
.....
.....2D POST-TENSION ANCHOR.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
1  inactive
2  active
3  active

```

material set no. 1

prop(1) angle 70.0000
prop(2) young modulus 0.210000E+09

GENERAL CONTRACTOR



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prop(3) modification time 0.00000
prop(4) new young modulus 0.00000

no. of step variable items: 2
step -ve lim +ve lim

1 0.000 0.000
2 0.000 0.000
3 0.000 0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	2	1	0.3824E-03	0.000	0.000	0.000

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:42:05  |
+-----+
    
```

NO. OF NODAL LOADS (NLOAD) 0
NO. OF LOAD CURVES (NLCUR) 6
MAXIMUM POINTS/LCURVE (NPTM)..... 5

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:42:05  |
+-----+
    
```

L O A D D A T A

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
4.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
4.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
4.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 4

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TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
4.00000	0.1000E+01

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
4.00000	0.1000E+01

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
4.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+

```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+

```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+

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GENERAL CONTRACTOR



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GRUPPO FERROVIE DELLO STATO ITALIANE

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LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

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NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 11.0000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.0000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.0000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 10.0000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.0000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.0000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 11.0000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.0000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.0000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.0000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)



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DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 6 VALUES

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
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PHASE DESCRIPTORS

STEP NO.	1		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			0.000	0.000
Z-WATER_TABLE			-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			0.000	0.000
QS_ON_THE_EXCAVATION_SIDE			0.000	0.000
ZQS			-0.9990E+30	-0.9990E+30
ZCUT			0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES			-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)			0.000	0.000
PORE_UPDATE_FLAG			0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)			0.000	0.000
lateral thrusts reduction elevatio			0.000	0.000
Downhill reduction factor for effe			0.000	0.000
Downhill reduction factor for pore			0.000	0.000
Uphill reduction factor for effect			0.000	0.000
Uphill reduction factor for pore p			0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]			0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]			0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]			0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
UPHILL DELTA/PHI RATIO			0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
DOWNHILL DELTA/PHI RATIO			0.000	0.000
DYN.WATER BEHAVIOUR			0.000	0.000
Excess pore pressure RATIO Ru			0.000	0.000
SEISMIC PRESSURE LOWER VALUE			0.000	0.000
SEISMIC PRESSURE UPPER VALUE			0.000	0.000
SEISMIC PRESSURE LOWER LEVEL			0.000	0.000
SEISMIC PRESSURE UPPER LEVEL			0.000	0.000

=====
 =====end of step 1

STEP NO.	2		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			0.000	0.000
Z-WATER_TABLE			-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			0.000	0.000
QS_ON_THE_EXCAVATION_SIDE			0.000	0.000
ZQS			-0.9990E+30	-0.9990E+30
ZCUT			0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES			-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)			0.000	0.000
PORE_UPDATE_FLAG			0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)			0.000	0.000
lateral thrusts reduction elevatio			0.000	0.000
Downhill reduction factor for effe			0.000	0.000
Downhill reduction factor for pore			0.000	0.000
Uphill reduction factor for effect			0.000	0.000
Uphill reduction factor for pore p			0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]			0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]			0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]			0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
UPHILL DELTA/PHI RATIO			0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
DOWNHILL DELTA/PHI RATIO			0.000	0.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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DYN.WATER BEHAVIOUR 0.000 0.000
 Excess pore pressure RATIO Ru 0.000 0.000
 SEISMIC PRESSURE LOWER VALUE 0.000 0.000
 SEISMIC PRESSURE UPPER VALUE 0.000 0.000
 SEISMIC PRESSURE LOWER LEVEL 0.000 0.000
 SEISMIC PRESSURE UPPER LEVEL 0.000 0.000

-----end of step 2

STEP NO. 3

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-2.750	0.000
Z-WATER_TABLE	-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

-----end of step 3

LEFT-HAND WALL

LOWER LEVEL -8.00000
 UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -8.00000
 UPPER LEVEL 0.00000

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
 PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 3.0000
 END TIME (TIME BEYOND WHICH IT IS REMOVED) 3.0000

TYPE BOUSSINESQ

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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HORIZONTAL DISTANCE (DY) 2.3300000000000000
 FOUNDATION WIDTH (B) 3.0000000000000000
 ZETA-F..... 0.0000000000000000E+000
 Q-F 52.0800000000000000
 BETA 30.0000000000000000
 BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
 POSITION 2279

NO. OF D.P.W FOR THIS AREA 4898
 MAX NO. OF D.P.W. AVAILABLE 81920
 ** MAX NO OF ITERATIONS SET TO 100

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM= 6047. RIMNOR= 0.000
 RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 14.82 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT = 6047. RDR = 0.000
 RATIOT= 0.000 RATIOR= 0.000
 MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
 MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
 RINORM= 6047. RIMNOR= 0.000
 RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 14.82 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT = 6047. RDR = 0.000
 RATIOT= 0.000 RATIOR= 0.000
 MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
 MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM= 6047. RIMNOR= 0.000
 RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 14.82 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT = 6047. RDR = 0.000
 RATIOT= 0.000 RATIOR= 0.000
 MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
 MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019  11:42:05          |
+-----+

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1468.1 - GA27 - Cepav2
 SOLUTION REACHED USING 2 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F X-ROT. F
 (02) (04) (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019  11:42:05          |
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1468.1 - GA27 - Cepav2

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 496 di 560
24 D 8.740 0.000 87.40 43.70 87.40 43.70		V-C 2.7611E+04	-4.600 0.000	1.000	1.000
43.70 0.000 0.000 Strato1_3095_78023_L_0					
25 D 9.120 0.000 91.20 45.60 91.20 45.60		V-C 2.7611E+04	-4.800 0.000	1.000	1.000
45.60 0.000 0.000 Strato1_3095_78023_L_0					
26 D 9.500 0.000 95.00 47.50 95.00 47.50		V-C 2.7611E+04	-5.000 0.000	1.000	1.000
47.50 0.000 0.000 Strato1_3095_78023_L_0					
27 D 9.880 0.000 98.80 49.40 98.80 49.40		V-C 2.7611E+04	-5.200 0.000	1.000	1.000
49.40 0.000 0.000 Strato1_3095_78023_L_0					
28 D 10.26 0.000 102.6 51.30 102.6 51.30		V-C 4.8803E+04	-5.400 0.000	1.000	1.000
51.30 0.000 0.000 Strato2_84780_84781_L_0					
29 D 10.64 0.000 106.4 53.20 106.4 53.20		V-C 4.8803E+04	-5.600 0.000	1.000	1.000
53.20 0.000 0.000 Strato2_84780_84781_L_0					
30 D 11.02 0.000 110.2 55.10 110.2 55.10		V-C 4.8803E+04	-5.800 0.000	1.000	1.000
55.10 0.000 0.000 Strato2_84780_84781_L_0					
31 D 11.40 0.000 114.0 57.00 114.0 57.00		V-C 4.8803E+04	-6.000 0.000	1.000	1.000
57.00 0.000 0.000 Strato2_84780_84781_L_0					
32 D 11.78 0.000 117.8 58.90 117.8 58.90		V-C 4.8803E+04	-6.200 0.000	1.000	1.000
58.90 0.000 0.000 Strato2_84780_84781_L_0					
33 D 12.16 0.000 121.6 60.80 121.6 60.80		V-C 4.8803E+04	-6.400 0.000	1.000	1.000
60.80 0.000 0.000 Strato2_84780_84781_L_0					
34 D 12.54 0.000 125.4 62.70 125.4 62.70		V-C 4.8803E+04	-6.600 0.000	1.000	1.000
62.70 0.000 0.000 Strato2_84780_84781_L_0					
35 D 12.92 0.000 129.2 64.60 129.2 64.60		V-C 4.8803E+04	-6.800 0.000	1.000	1.000
64.60 0.000 0.000 Strato2_84780_84781_L_0					
36 D 13.30 0.000 133.0 66.50 133.0 66.50		V-C 4.8803E+04	-7.000 0.000	1.000	1.000
66.50 0.000 0.000 Strato2_84780_84781_L_0					
37 D 13.68 0.000 136.8 68.40 136.8 68.40		V-C 4.8803E+04	-7.200 0.000	1.000	1.000
68.40 0.000 0.000 Strato2_84780_84781_L_0					
38 D 14.06 0.000 140.6 70.30 140.6 70.30		V-C 4.8803E+04	-7.400 0.000	1.000	1.000
70.30 0.000 0.000 Strato2_84780_84781_L_0					
39 D 14.44 0.000 144.4 72.20 144.4 72.20		V-C 4.8803E+04	-7.600 0.000	1.000	1.000
72.20 0.000 0.000 Strato2_84780_84781_L_0					
40 D 14.82 0.000 148.2 74.10 148.2 74.10		V-C 4.8803E+04	-7.800 0.000	1.000	1.000
74.10 0.000 0.000 Strato2_84780_84781_L_0					
41 D 7.600 0.000 152.0 76.00 152.0 76.00		V-C 4.8803E+04	-8.000 0.000	1.000	1.000
76.00 0.000 0.000 Strato2_84780_84781_L_0					

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+

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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 3

```

Wallelement_33 :
ELEMENT TYPE    2 NO.OF ELEMENTS. IN THIS GROUP  40
CURRENT TIME IS  1.0000

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WALL2D ELEMENT
-----
EL      TA      TB      MA      MB
-----

```

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+

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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

```

Tieback_78031 :
ELEMENT TYPE    6 NO.OF ELEMENTS. IN THIS GROUP  1
CURRENT TIME IS  1.0000

```

```

POST-TENSION 2D-BOUNDARY ELEMENT
-----
EL  FORCE      d0      EDISPL  pl. eps      K  -ve limit  +ve limit
-----

```

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****



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ITER      0  RNORM = 0.000      RMNORM= 0.000
             RINORM= 6047.      RIMNOR= 0.000
             RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
             RFMAX = 14.82      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT   = 6047.      RDR   = 0.000
             RATIOT= 0.000      RATIO= 0.000
             MAX UN= 0.000      IEQ=   82 NODE      41 DOF   2   X-ROT. F
             MIN UN= 0.000      IEQ=    1 NODE      1 DOF   1   Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER      1  RNORM = 0.000      RMNORM= 0.000
             RINORM= 6047.      RIMNOR= 0.000
             RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
             RFMAX = 14.82      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT   = 6047.      RDR   = 0.000
             RATIOT= 0.000      RATIO= 0.000
             MAX UN= 0.000      IEQ=   82 NODE      41 DOF   2   X-ROT. F
             MIN UN= 0.000      IEQ=    1 NODE      1 DOF   1   Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
             RINORM= 6047.      RIMNOR= 0.000
             RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
             RFMAX = 14.82      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT   = 6047.      RDR   = 0.000
             RATIOT= 0.000      RATIO= 0.000
             MAX UN= 0.000      IEQ=   82 NODE      41 DOF   2   X-ROT. F
             MIN UN= 0.000      IEQ=    1 NODE      1 DOF   1   Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:42:05  |
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1468.1 - GA27 - Cepav2
SOLUTION REACHED USING      2 ITERATIONS ON 100

P R I N T   O U T   F O R   T I M E   S T E P   2   ( AT TIME 2.000 )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)          (

    
```

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454  |
|          Exe Time :24 July 2019      11:42:05  |
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1468.1 - GA27 - Cepav2

S T R E S S   R E S U L T S   F O R   G R O U P   N O .   1

O L      :
ELEMENT TYPE      5 NO.OF ELEMENTS. IN THIS GROUP      41
C U R R E N T   T I M E   I S      2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *  FORCE      DISPL-Y  VERTICAL-P  HORIZON.-P      MAX-V-P      MAX-H-P      STATE  STIFFNESS Z-LEVEL      PORE      E FACTOR      UFACTOR
Peq      Su_a      Su_p      LAYER
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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 498 di 560
1 D	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
2 D	0.3800	0.000	3.800	1.900	3.800
1.900	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
3 D	0.7600	0.000	7.600	3.800	7.600
3.800	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
4 D	1.140	0.000	11.40	5.700	11.40
5.700	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
5 D	1.520	0.000	15.20	7.600	15.20
7.600	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
6 D	1.900	0.000	19.00	9.500	19.00
9.500	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
7 D	2.280	0.000	22.80	11.40	22.80
11.40	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
8 D	2.660	0.000	26.60	13.30	26.60
13.30	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
9 D	3.040	0.000	30.40	15.20	30.40
15.20	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
10 D	3.420	0.000	34.20	17.10	34.20
17.10	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
11 D	3.800	0.000	38.00	19.00	38.00
19.00	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
12 D	4.180	0.000	41.80	20.90	41.80
20.90	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
13 D	4.560	0.000	45.60	22.80	45.60
22.80	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
14 D	4.940	0.000	49.40	24.70	49.40
24.70	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
15 D	5.320	0.000	53.20	26.60	53.20
26.60	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
16 D	5.700	0.000	57.00	28.50	57.00
28.50	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
17 D	6.080	0.000	60.80	30.40	60.80
30.40	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
18 D	6.460	0.000	64.60	32.30	64.60
32.30	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
19 D	6.840	0.000	68.40	34.20	68.40
34.20	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
20 D	7.220	0.000	72.20	36.10	72.20
36.10	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
21 D	7.600	0.000	76.00	38.00	76.00
38.00	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
22 D	7.980	0.000	79.80	39.90	79.80
39.90	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
23 D	8.360	0.000	83.60	41.80	83.60
41.80	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
24 D	8.740	0.000	87.40	43.70	87.40
43.70	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
25 D	9.120	0.000	91.20	45.60	91.20
45.60	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
26 D	9.500	0.000	95.00	47.50	95.00
47.50	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
27 D	9.880	0.000	98.80	49.40	98.80
49.40	0.000	0.000	Strato1_3095_78023_L_0	0.000	0.000
28 D	10.26	0.000	102.6	51.30	102.6
51.30	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
29 D	10.64	0.000	106.4	53.20	106.4
53.20	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
30 D	11.02	0.000	110.2	55.10	110.2
55.10	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
31 D	11.40	0.000	114.0	57.00	114.0
57.00	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
32 D	11.78	0.000	117.8	58.90	117.8
58.90	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
33 D	12.16	0.000	121.6	60.80	121.6
60.80	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
34 D	12.54	0.000	125.4	62.70	125.4
62.70	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
35 D	12.92	0.000	129.2	64.60	129.2
64.60	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
36 D	13.30	0.000	133.0	66.50	133.0
66.50	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
37 D	13.68	0.000	136.8	68.40	136.8
68.40	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
38 D	14.06	0.000	140.6	70.30	140.6
70.30	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
39 D	14.44	0.000	144.4	72.20	144.4
72.20	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
40 D	14.82	0.000	148.2	74.10	148.2
74.10	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000
41 D	7.600	0.000	152.0	76.00	152.0
76.00	0.000	0.000	Strato2_84780_84781_L_0	0.000	0.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 499 di 560
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
|                                                                                                                                           |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454          |
|          Exe Time :24 July 2019          11:42:05          |
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 2

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O_R          :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 2.0000

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HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	UL-RL	4.4178E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	UL-RL	4.4178E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	UL-RL	4.4178E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	UL-RL	4.4178E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	UL-RL	4.4178E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	UL-RL	4.4178E+04	-1.000	0.000	1.000	1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0									
7 D	2.280	0.000	22.80	11.40	22.80	11.40	UL-RL	4.4178E+04	-1.200	0.000	1.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.660	0.000	26.60	13.30	26.60	13.30	UL-RL	4.4178E+04	-1.400	0.000	1.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0									
9 D	3.040	0.000	30.40	15.20	30.40	15.20	UL-RL	4.4178E+04	-1.600	0.000	1.000	1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0									
10 D	3.420	0.000	34.20	17.10	34.20	17.10	UL-RL	4.4178E+04	-1.800	0.000	1.000	1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.800	0.000	38.00	19.00	38.00	19.00	UL-RL	4.4178E+04	-2.000	0.000	1.000	1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0									
12 D	4.180	0.000	41.80	20.90	41.80	20.90	UL-RL	4.4178E+04	-2.200	0.000	1.000	1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0									
13 D	4.560	0.000	45.60	22.80	45.60	22.80	UL-RL	4.4178E+04	-2.400	0.000	1.000	1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0									
14 D	4.940	0.000	49.40	24.70	49.40	24.70	UL-RL	4.4178E+04	-2.600	0.000	1.000	1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0									
15 D	5.320	0.000	53.20	26.60	53.20	26.60	UL-RL	4.4178E+04	-2.800	0.000	1.000	1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0									
16 D	5.700	0.000	57.00	28.50	57.00	28.50	UL-RL	4.4178E+04	-3.000	0.000	1.000	1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.080	0.000	60.80	30.40	60.80	30.40	UL-RL	4.4178E+04	-3.200	0.000	1.000	1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0									
18 D	6.460	0.000	64.60	32.30	64.60	32.30	UL-RL	4.4178E+04	-3.400	0.000	1.000	1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0									
19 D	6.840	0.000	68.40	34.20	68.40	34.20	UL-RL	4.4178E+04	-3.600	0.000	1.000	1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0									
20 D	7.220	0.000	72.20	36.10	72.20	36.10	UL-RL	4.4178E+04	-3.800	0.000	1.000	1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0									
21 D	7.600	0.000	76.00	38.00	76.00	38.00	UL-RL	4.4178E+04	-4.000	0.000	1.000	1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0									
22 D	7.980	0.000	79.80	39.90	79.80	39.90	UL-RL	4.4178E+04	-4.200	0.000	1.000	1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0									
23 D	8.360	0.000	83.60	41.80	83.60	41.80	UL-RL	4.4178E+04	-4.400	0.000	1.000	1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0									
24 D	8.740	0.000	87.40	43.70	87.40	43.70	UL-RL	4.4178E+04	-4.600	0.000	1.000	1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0									
25 D	9.120	0.000	91.20	45.60	91.20	45.60	UL-RL	4.4178E+04	-4.800	0.000	1.000	1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0									
26 D	9.500	0.000	95.00	47.50	95.00	47.50	UL-RL	4.4178E+04	-5.000	0.000	1.000	1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0									
27 D	9.880	0.000	98.80	49.40	98.80	49.40	UL-RL	4.4178E+04	-5.200	0.000	1.000	1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0									
28 D	10.26	0.000	102.6	51.30	102.6	51.30	UL-RL	1.4641E+05	-5.400	0.000	1.000	1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0									
29 D	10.64	0.000	106.4	53.20	106.4	53.20	UL-RL	1.4641E+05	-5.600	0.000	1.000	1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0									
30 D	11.02	0.000	110.2	55.10	110.2	55.10	UL-RL	1.4641E+05	-5.800	0.000	1.000	1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0									
31 D	11.40	0.000	114.0	57.00	114.0	57.00	UL-RL	1.4641E+05	-6.000	0.000	1.000	1.000



Doc. N.				Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 500 di 560
57.00	0.000	0.000	Strato2_84780_84781_L_0					
32 D	11.78	0.000	117.8 58.90 117.8	58.90	UL-RL 1.4641E+05	-6.200	0.000	1.000 1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0					
33 D	12.16	0.000	121.6 60.80 121.6	60.80	UL-RL 1.4641E+05	-6.400	0.000	1.000 1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0					
34 D	12.54	0.000	125.4 62.70 125.4	62.70	UL-RL 1.4641E+05	-6.600	0.000	1.000 1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0					
35 D	12.92	0.000	129.2 64.60 129.2	64.60	UL-RL 1.4641E+05	-6.800	0.000	1.000 1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0					
36 D	13.30	0.000	133.0 66.50 133.0	66.50	UL-RL 1.4641E+05	-7.000	0.000	1.000 1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0					
37 D	13.68	0.000	136.8 68.40 136.8	68.40	UL-RL 1.4641E+05	-7.200	0.000	1.000 1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0					
38 D	14.06	0.000	140.6 70.30 140.6	70.30	UL-RL 1.4641E+05	-7.400	0.000	1.000 1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0					
39 D	14.44	0.000	144.4 72.20 144.4	72.20	UL-RL 1.4641E+05	-7.600	0.000	1.000 1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0					
40 D	14.82	0.000	148.2 74.10 148.2	74.10	UL-RL 1.4641E+05	-7.800	0.000	1.000 1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0					
41 D	7.600	0.000	152.0 76.00 152.0	76.00	UL-RL 1.4641E+05	-8.000	0.000	1.000 1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0					

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019  11:42:05
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1468.1 - GA27 - Cepav2

S T R E S S R E S U L T S F O R G R O U P N O . 3

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WallElement_33      :
ELEMENT TYPE      2 NO.OF ELEMENTS. IN THIS GROUP  40
CURRENT TIME IS      2.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000

Doc. N.

Progetto
INORLotto
12Codifica Documento
E E2 CL IV 40A1 002Rev.
AFoglio
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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

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Tieback_78031          :
ELEMENT TYPE      6 NO.OF ELEMENTS. IN THIS GROUP      1
CURRENT TIME IS      2.0000

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POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	0.0000	0.0000	0.0000	0.0000	80304.	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

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ITER      0  RNORM = 0.000      RMNORM= 0.000
             RINORM= 5265.      RIMNOR= 0.000
             RENORM= 712.9      REMNOR= 0.000      RATIO =0.3680      TOLER =0.1000E-03  NOT CONVERGED
             RFMAX = 15.72      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT = 5265.      RDR = 0.000
             RATIOT=0.3680      RATIOR= 0.000
             MAX UN= 6.385      IEQ= 27 NODE      14 DOF      1 Y-DISPL.F
             MIN UN= 0.000      IEQ= 1 NODE      1 DOF      1 Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      2  RNORM = 0.000      RMNORM= 0.000
             RINORM= 5265.      RIMNOR= 0.000
             RENORM= 50.97      REMNOR=0.1634E-23  RATIO =0.9839E-01  TOLER =0.1000E-03  NOT CONVERGED
             RFMAX = 15.72      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT = 5265.      RDR = 0.000
             RATIOT=0.9839E-01  RATIOR= 0.000
             MAX UN= 2.395      IEQ= 31 NODE      16 DOF      1 Y-DISPL.F
             MIN UN=-.2535E-11  IEQ= 45 NODE      23 DOF      1 Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      3  RNORM = 0.000      RMNORM= 0.000
             RINORM= 5265.      RIMNOR= 0.000
             RENORM= 10.93      REMNOR=0.8174E-23  RATIO =0.4555E-01  TOLER =0.1000E-03  NOT CONVERGED
             RFMAX = 15.72      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT = 5265.      RDR = 0.000
             RATIOT=0.4555E-01  RATIOR= 0.000
             MAX UN= 2.391      IEQ= 33 NODE      17 DOF      1 Y-DISPL.F
             MIN UN=-.2843E-10  IEQ= 21 NODE      11 DOF      1 Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      4  RNORM = 0.000      RMNORM= 0.000
             RINORM= 5265.      RIMNOR= 0.000
             RENORM=0.1410E-01  REMNOR=0.9516E-24  RATIO =0.1636E-02  TOLER =0.1000E-03  NOT CONVERGED
             RFMAX = 15.72      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT = 5265.      RDR = 0.000
             RATIOT=0.1636E-02  RATIOR= 0.000
             MAX UN=0.1187      IEQ= 43 NODE      22 DOF      1 Y-DISPL.F
             MIN UN=-.8715E-11  IEQ= 31 NODE      16 DOF      1 Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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ITER      5  RNORM = 0.000      RMNORM= 0.000
             RINORM= 5265.      RIMNOR= 0.000
             RENORM=0.3397E-21  REMNOR=0.1208E-23  RATIO =0.2540E-12  TOLER =0.1000E-03      CONVERGED !
             RFMAX = 15.72      RMMAX = 0.000
             RTSMAL=0.1000E-03  RMSMAL= 0.000
             RDT = 5265.      RDR = 0.000
             RATIOT=0.2540E-12  RATIOR= 0.000
             MAX UN=0.7439E-11  IEQ= 27 NODE      14 DOF      1 Y-DISPL.F
             MIN UN=-.8715E-11  IEQ= 29 NODE      15 DOF      1 Y-DISPL.F
             NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

Foglio
502 di 560

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
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1468.1 - GA27 - Cepav2
SOLUTION REACHED USING 5 ITERATIONS ON 100

P R I N T O U T F O R T I M E S T E P 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.0627918E-03	2.0162031E-03	
2	1.4660324E-03	2.0162031E-03	
3	1.8673711E-03	1.9876734E-03	
4	2.2573664E-03	1.9031135E-03	
5	2.6250534E-03	1.7651077E-03	
6	2.9600897E-03	1.5773041E-03	
7	3.2529709E-03	1.3444381E-03	
8	3.4952506E-03	1.0723570E-03	
9	3.6797647E-03	7.6804128E-04	
10	3.8008819E-03	4.3994786E-04	
11	3.8548421E-03	9.8327648E-05	
12	3.8401071E-03	-2.4488099E-04	
13	3.7576851E-03	-5.7615793E-04	
14	3.6114410E-03	-8.8047836E-04	
15	3.4083884E-03	-1.1413788E-03	
16	3.1588780E-03	-1.3424516E-03	
17	2.8760967E-03	-1.4731690E-03	
18	2.5743092E-03	-1.5333833E-03	
19	2.2668269E-03	-1.5323443E-03	
20	1.9645984E-03	-1.4829019E-03	
21	1.6761086E-03	-1.3968456E-03	
22	1.4075878E-03	-1.2848968E-03	
23	1.1632280E-03	-1.1567752E-03	
24	9.4538052E-04	-1.0211110E-03	
25	7.5482171E-04	-8.8487550E-04	
26	5.9123095E-04	-7.5163054E-04	
27	4.5402537E-04	-6.2055746E-04	
28	3.4316538E-04	-4.8713384E-04	
29	2.5896516E-04	-3.5681035E-04	
30	1.9937365E-04	-2.4250064E-04	
31	1.6051176E-04	-1.4998796E-04	
32	1.3786175E-04	-8.0227512E-05	
33	1.2703737E-04	-3.1219771E-05	
34	1.2422574E-04	5.6650877E-07	
35	1.2638663E-04	1.9192670E-05	
36	1.3128795E-04	2.8595845E-05	
37	1.3743858E-04	3.2203593E-05	
38	1.4396447E-04	3.2738111E-05	
39	1.5045834E-04	3.2140461E-05	
40	1.5682179E-04	3.1559893E-05	
41	1.6310833E-04	3.1368348E-05	

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
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1468.1 - GA27 - Cepav2

S T R E S S R E S U L T S F O R G R O U P N O. 1

O L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
C U R R E N T T I M E I S 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	-1.0628E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 503 di 560
0.000	0.000	0.000	Strato1_3095_78023_L_0		
2 D	0.2428	-1.4660E-03	3.806 1.214 3.806	1.903	ACTIVE 0.000 -0.2000 0.000 1.000 1.000
1.214	0.000	0.000	Strato1_3095_78023_L_0		
3 D	0.4880	-1.8674E-03	7.649 2.440 7.649	3.825	ACTIVE 0.000 -0.4000 0.000 1.000 1.000
2.440	0.000	0.000	Strato1_3095_78023_L_0		
4 D	0.7375	-2.2574E-03	11.56 3.687 11.56	5.780	ACTIVE 0.000 -0.6000 0.000 1.000 1.000
3.687	0.000	0.000	Strato1_3095_78023_L_0		
5 D	0.9924	-2.6251E-03	15.55 4.962 15.55	7.777	ACTIVE 0.000 -0.8000 0.000 1.000 1.000
4.962	0.000	0.000	Strato1_3095_78023_L_0		
6 D	1.253	-2.9601E-03	19.64 6.266 19.64	9.821	ACTIVE 0.000 -1.000 0.000 1.000 1.000
6.266	0.000	0.000	Strato1_3095_78023_L_0		
7 D	1.520	-3.2530E-03	23.82 7.598 23.82	11.91	ACTIVE 0.000 -1.200 0.000 1.000 1.000
7.598	0.000	0.000	Strato1_3095_78023_L_0		
8 D	1.791	-3.4953E-03	28.07 8.953 28.07	14.03	ACTIVE 0.000 -1.400 0.000 1.000 1.000
8.953	0.000	0.000	Strato1_3095_78023_L_0		
9 D	2.220	-3.6798E-03	34.79 11.10 34.79	17.40	ACTIVE 0.000 -1.600 0.000 1.000 1.000
11.10	0.000	0.000	Strato1_3095_78023_L_0		
10 D	2.641	-3.8009E-03	41.40 13.21 41.40	20.70	ACTIVE 0.000 -1.800 0.000 1.000 1.000
13.21	0.000	0.000	Strato1_3095_78023_L_0		
11 D	3.020	-3.8548E-03	47.33 15.10 47.33	23.67	ACTIVE 0.000 -2.000 0.000 1.000 1.000
15.10	0.000	0.000	Strato1_3095_78023_L_0		
12 D	3.391	-3.8401E-03	53.16 16.96 53.16	26.58	ACTIVE 0.000 -2.200 0.000 1.000 1.000
16.96	0.000	0.000	Strato1_3095_78023_L_0		
13 D	3.733	-3.7577E-03	58.52 18.67 58.52	29.26	ACTIVE 0.000 -2.400 0.000 1.000 1.000
18.67	0.000	0.000	Strato1_3095_78023_L_0		
14 D	4.074	-3.6114E-03	63.85 20.37 63.85	31.93	ACTIVE 0.000 -2.600 0.000 1.000 1.000
20.37	0.000	0.000	Strato1_3095_78023_L_0		
15 D	4.392	-3.4084E-03	68.84 21.96 68.84	34.42	ACTIVE 0.000 -2.800 0.000 1.000 1.000
21.96	0.000	0.000	Strato1_3095_78023_L_0		
16 D	4.711	-3.1589E-03	73.85 23.56 73.85	36.92	ACTIVE 0.000 -3.000 0.000 1.000 1.000
23.56	0.000	0.000	Strato1_3095_78023_L_0		
17 D	4.950	-2.8761E-03	77.59 24.75 77.59	38.79	ACTIVE 0.000 -3.200 0.000 1.000 1.000
24.75	0.000	0.000	Strato1_3095_78023_L_0		
18 D	5.154	-2.5743E-03	80.78 25.77 80.78	40.39	ACTIVE 0.000 -3.400 0.000 1.000 1.000
25.77	0.000	0.000	Strato1_3095_78023_L_0		
19 D	5.360	-2.2668E-03	84.02 26.80 84.02	42.01	ACTIVE 0.000 -3.600 0.000 1.000 1.000
26.80	0.000	0.000	Strato1_3095_78023_L_0		
20 D	5.569	-1.9646E-03	87.29 27.85 87.29	43.64	ACTIVE 0.000 -3.800 0.000 1.000 1.000
27.85	0.000	0.000	Strato1_3095_78023_L_0		
21 D	5.780	-1.6761E-03	90.60 28.90 90.60	45.30	ACTIVE 0.000 -4.000 0.000 1.000 1.000
28.90	0.000	0.000	Strato1_3095_78023_L_0		
22 D	5.993	-1.4076E-03	93.94 29.97 93.94	46.97	ACTIVE 0.000 -4.200 0.000 1.000 1.000
29.97	0.000	0.000	Strato1_3095_78023_L_0		
23 D	6.208	-1.1632E-03	97.30 31.04 97.30	48.65	ACTIVE 0.000 -4.400 0.000 1.000 1.000
31.04	0.000	0.000	Strato1_3095_78023_L_0		
24 D	6.568	-9.4538E-04	100.7 32.84 100.7	50.35	UL-RL 1.8520E+04 -4.600 0.000 1.000 1.000
32.84	0.000	0.000	Strato1_3095_78023_L_0		
25 D	7.616	-7.5482E-04	104.1 38.08 104.1	52.06	UL-RL 1.8520E+04 -4.800 0.000 1.000 1.000
38.08	0.000	0.000	Strato1_3095_78023_L_0		
26 D	8.566	-5.9123E-04	107.6 42.83 107.6	53.78	UL-RL 1.8520E+04 -5.000 0.000 1.000 1.000
42.83	0.000	0.000	Strato1_3095_78023_L_0		
27 D	9.420	-4.5403E-04	111.0 47.10 111.0	55.51	UL-RL 1.8520E+04 -5.200 0.000 1.000 1.000
47.10	0.000	0.000	Strato1_3095_78023_L_0		
28 D	6.055	-3.4317E-04	114.5 30.28 114.5	57.24	UL-RL 7.8586E+04 -5.400 0.000 1.000 1.000
30.28	0.000	0.000	Strato2_84780_84781_L_0		
29 D	7.728	-2.5897E-04	118.0 38.64 118.0	58.99	UL-RL 7.8586E+04 -5.600 0.000 1.000 1.000
38.64	0.000	0.000	Strato2_84780_84781_L_0		
30 D	9.016	-1.9937E-04	121.5 45.08 121.5	60.75	UL-RL 7.8586E+04 -5.800 0.000 1.000 1.000
45.08	0.000	0.000	Strato2_84780_84781_L_0		
31 D	9.979	-1.6051E-04	125.0 49.89 125.0	62.51	UL-RL 7.8586E+04 -6.000 0.000 1.000 1.000
49.89	0.000	0.000	Strato2_84780_84781_L_0		
32 D	10.69	-1.3786E-04	128.6 53.44 128.6	64.28	UL-RL 7.8586E+04 -6.200 0.000 1.000 1.000
53.44	0.000	0.000	Strato2_84780_84781_L_0		
33 D	11.21	-1.2704E-04	132.1 56.07 132.1	66.05	UL-RL 7.8586E+04 -6.400 0.000 1.000 1.000
56.07	0.000	0.000	Strato2_84780_84781_L_0		
34 D	11.61	-1.2423E-04	135.7 58.07 135.7	67.83	UL-RL 7.8586E+04 -6.600 0.000 1.000 1.000
58.07	0.000	0.000	Strato2_84780_84781_L_0		
35 D	11.94	-1.2639E-04	139.2 59.68 139.2	69.62	UL-RL 7.8586E+04 -6.800 0.000 1.000 1.000
59.68	0.000	0.000	Strato2_84780_84781_L_0		
36 D	12.22	-1.3129E-04	142.8 61.09 142.8	71.41	UL-RL 7.8586E+04 -7.000 0.000 1.000 1.000
61.09	0.000	0.000	Strato2_84780_84781_L_0		
37 D	12.48	-1.3744E-04	146.4 62.40 146.4	73.20	UL-RL 7.8586E+04 -7.200 0.000 1.000 1.000
62.40	0.000	0.000	Strato2_84780_84781_L_0		
38 D	12.74	-1.4396E-04	150.0 63.69 150.0	75.00	UL-RL 7.8586E+04 -7.400 0.000 1.000 1.000
63.69	0.000	0.000	Strato2_84780_84781_L_0		
39 D	13.00	-1.5046E-04	153.6 64.98 153.6	76.80	UL-RL 7.8586E+04 -7.600 0.000 1.000 1.000
64.98	0.000	0.000	Strato2_84780_84781_L_0		
40 D	13.26	-1.5682E-04	157.2 66.29 157.2	78.61	UL-RL 7.8586E+04 -7.800 0.000 1.000 1.000
66.29	0.000	0.000	Strato2_84780_84781_L_0		
41 D	6.761	-1.6311E-04	160.8 67.61 160.8	80.42	UL-RL 7.8586E+04 -8.000 0.000 1.000 1.000
67.61	0.000	0.000	Strato2_84780_84781_L_0		



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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peq	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
0.000	0.000	0.000	not available									
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
15 D	0.6851	3.4084E-03	0.9500	3.426	53.20	26.60	PASSIVE	0.000	-2.800	0.000	1.000	1.000
3.426	0.000	0.000	Strato1_3095_78023_L_0									
16 D	3.426	3.1589E-03	4.750	17.13	57.00	28.50	PASSIVE	0.000	-3.000	0.000	1.000	1.000
17.13	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.166	2.8761E-03	8.550	30.83	60.80	30.83	PASSIVE	0.000	-3.200	0.000	1.000	1.000
30.83	0.000	0.000	Strato1_3095_78023_L_0									
18 D	8.323	2.5743E-03	12.35	41.62	64.60	41.62	V-C	8032.	-3.400	0.000	1.000	1.000
41.62	0.000	0.000	Strato1_3095_78023_L_0									
19 D	8.284	2.2668E-03	16.15	41.42	68.40	41.42	V-C	8032.	-3.600	0.000	1.000	1.000
41.42	0.000	0.000	Strato1_3095_78023_L_0									
20 D	8.236	1.9646E-03	19.95	41.18	72.20	41.18	V-C	8032.	-3.800	0.000	1.000	1.000
41.18	0.000	0.000	Strato1_3095_78023_L_0									
21 D	8.198	1.6761E-03	23.75	40.99	76.00	40.99	V-C	8032.	-4.000	0.000	1.000	1.000
40.99	0.000	0.000	Strato1_3095_78023_L_0									
22 D	8.184	1.4076E-03	27.55	40.92	79.80	40.92	V-C	8032.	-4.200	0.000	1.000	1.000
40.92	0.000	0.000	Strato1_3095_78023_L_0									
23 D	8.109	1.1632E-03	31.35	40.55	83.60	41.80	UL-RL	1.2852E+04	-4.400	0.000	1.000	1.000
40.55	0.000	0.000	Strato1_3095_78023_L_0									
24 D	7.973	9.4538E-04	35.15	39.86	87.40	43.70	UL-RL	1.2852E+04	-4.600	0.000	1.000	1.000
39.86	0.000	0.000	Strato1_3095_78023_L_0									
25 D	7.900	7.5482E-04	38.95	39.50	91.20	45.60	UL-RL	1.2852E+04	-4.800	0.000	1.000	1.000
39.50	0.000	0.000	Strato1_3095_78023_L_0									
26 D	7.892	5.9123E-04	42.75	39.46	95.00	47.50	UL-RL	1.2852E+04	-5.000	0.000	1.000	1.000
39.46	0.000	0.000	Strato1_3095_78023_L_0									
27 D	7.949	4.5403E-04	46.55	39.74	98.80	49.40	UL-RL	1.2852E+04	-5.200	0.000	1.000	1.000
39.74	0.000	0.000	Strato1_3095_78023_L_0									
28 D	10.11	3.4317E-04	50.35	50.55	102.6	51.30	UL-RL	4.2592E+04	-5.400	0.000	1.000	1.000
50.55	0.000	0.000	Strato2_84780_84781_L_0									
29 D	9.796	2.5897E-04	54.15	48.98	106.4	53.20	UL-RL	4.2592E+04	-5.600	0.000	1.000	1.000
48.98	0.000	0.000	Strato2_84780_84781_L_0									
30 D	9.690	1.9937E-04	57.95	48.45	110.2	55.10	UL-RL	4.2592E+04	-5.800	0.000	1.000	1.000
48.45	0.000	0.000	Strato2_84780_84781_L_0									
31 D	9.757	1.6051E-04	61.75	48.79	114.0	57.00	UL-RL	4.2592E+04	-6.000	0.000	1.000	1.000

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48.79	0.000	0.000	Strato2_84780_84781_L_0		
32 D	9.962	1.3786E-04	65.55 49.81 117.8	58.90	UL-RL 4.2592E+04 -6.200 0.000 1.000 1.000
49.81	0.000	0.000	Strato2_84780_84781_L_0		
33 D	10.27	1.2704E-04	69.35 51.33 121.6	60.80	UL-RL 4.2592E+04 -6.400 0.000 1.000 1.000
51.33	0.000	0.000	Strato2_84780_84781_L_0		
34 D	10.64	1.2423E-04	73.15 53.18 125.4	62.70	UL-RL 4.2592E+04 -6.600 0.000 1.000 1.000
53.18	0.000	0.000	Strato2_84780_84781_L_0		
35 D	11.05	1.2639E-04	76.95 55.24 129.2	64.60	UL-RL 4.2592E+04 -6.800 0.000 1.000 1.000
55.24	0.000	0.000	Strato2_84780_84781_L_0		
36 D	11.48	1.3129E-04	80.75 57.41 133.0	66.50	UL-RL 4.2592E+04 -7.000 0.000 1.000 1.000
57.41	0.000	0.000	Strato2_84780_84781_L_0		
37 D	11.93	1.3744E-04	84.55 59.63 136.8	68.40	UL-RL 4.2592E+04 -7.200 0.000 1.000 1.000
59.63	0.000	0.000	Strato2_84780_84781_L_0		
38 D	12.37	1.4396E-04	88.35 61.86 140.6	70.30	UL-RL 4.2592E+04 -7.400 0.000 1.000 1.000
61.86	0.000	0.000	Strato2_84780_84781_L_0		
39 D	12.82	1.5046E-04	92.15 64.09 144.4	72.20	UL-RL 4.2592E+04 -7.600 0.000 1.000 1.000
64.09	0.000	0.000	Strato2_84780_84781_L_0		
40 D	13.26	1.5682E-04	95.95 66.30 148.2	74.10	UL-RL 4.2592E+04 -7.800 0.000 1.000 1.000
66.30	0.000	0.000	Strato2_84780_84781_L_0		
41 D	6.851	1.6311E-04	99.75 68.51 152.0	76.00	UL-RL 4.2592E+04 -8.000 0.000 1.000 1.000
68.51	0.000	0.000	Strato2_84780_84781_L_0		

PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017*

1468.1-GA27-Cepav2.BaseDesignSection.28.SLERara_3454

Exe Time :24 July 2019 11:42:05

1468.1 - GA27 - Cepav2

S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
 C U R R E N T T I M E I S 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.29896E-12	1.29896E-12	-1.22791E-13	5.21749E-13
2	-13.529	13.529	-5.70932E-13	-2.7057
3	-13.041	13.041	2.7057	-5.3139
4	-12.303	12.303	5.3139	-7.7745
5	-11.311	11.311	7.7745	-10.037
6	-10.058	10.058	10.037	-12.048
7	-8.5381	8.5381	12.048	-13.756
8	-6.7475	6.7475	13.756	-15.105
9	-4.5279	4.5279	15.105	-16.011
10	-1.8865	1.8865	16.011	-16.388
11	1.1333	-1.1333	16.388	-16.162
12	4.5247	-4.5247	16.162	-15.257
13	8.2580	-8.2580	15.257	-13.605
14	12.332	-12.332	13.605	-11.139
15	16.038	-16.038	11.139	-7.9310
16	17.324	-17.324	7.9310	-4.4661
17	16.108	-16.108	4.4661	-1.2446
18	12.938	-12.938	1.2446	1.3431
19	10.015	-10.015	-1.3431	3.3460
20	7.3480	-7.3480	-3.3460	4.8156
21	4.9301	-4.9301	-4.8156	5.8016
22	2.7390	-2.7390	-5.8016	6.3494
23	0.83769	-0.83769	-6.3494	6.5169
24	-0.56679	0.56679	-6.5169	6.4036
25	-0.85132	0.85132	-6.4036	6.2333
26	-0.17827	0.17827	-6.2333	6.1977
27	1.2926	-1.2926	-6.1977	6.4562
28	-2.7627	2.7627	-6.4562	5.9037
29	-4.8310	4.8310	-5.9037	4.9374
30	-5.5051	5.5051	-4.9374	3.8364
31	-5.2839	5.2839	-3.8364	2.7797
32	-4.5572	4.5572	-2.7797	1.8682
33	-3.6092	3.6092	-1.8682	1.1464
34	-2.6314	2.6314	-1.1464	0.62011
35	-1.7422	1.7422	-0.62011	0.27168
36	-1.0060	1.0060	-0.27168	7.04794E-02
37	-0.45133	0.45133	-7.04794E-02	-1.97859E-02
38	-8.55458E-02	8.55458E-02	1.97859E-02	-3.68951E-02
39	9.36463E-02	-9.36463E-02	3.68951E-02	-1.81658E-02
40	0.98277E-02	-9.08277E-02	1.81658E-02	1.48423E-14

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
-----
1468.1 - GA27 - Cepav2
    
```

STRESS RESULTS FOR GROUP NO. 4

```

Tieback_78031      :
ELEMENT TYPE      6 NO.OF ELEMENTS. IN THIS GROUP      1
CURRENT TIME IS   3.0000
    
```

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	40.265	0.0000	5.01413E-04	0.0000	80304.	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.SLERara_3454
|          Exe Time :24 July 2019      11:42:05
|
-----
    
```

FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	2
3	CONVERGENCE :YES	5

END OF PROCESS FOR PROBLEM

```

1468.1 - GA27 - Cepav2
NONLINEAR SOLUTION CPU TIME .... 0.03 [sec]
DATABASE CREATION CPU TIME..... 0.10 [sec]
    
```

3.5. Design Assumption : A1+M1+R1 - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A1+M1+R1

* Time:mercoledì 24 luglio 2019 11:42:05

* 1: Defining general settings

UNIT m kN

TITLE 1468.1 - GA27 - Cepav2

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -8 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -8 0 1 0

SOIL 0_R LeftWall_32 -8 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_3095_78023_L_0)

*

LDATA Strato1_3095_78023_L_0 0 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 0 29

YOUNG 2.5E+04 4E+04

ENDL

*

* Soil Profile (Strato2_84780_84781_L_0)

*

LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32

ATREST 0.5 0.5 1

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WEIGHT 19 9 10
 PERMEABILITY 1E-05
 RESISTANCE 20 35
 YOUNG 5E+04 1.5E+05
 ENDL

* 5: Defining structural materials
 * Steel material: 113 Name=S275 E=210000000 kPa
 MATERIAL S275_113 2.1E+08
 * Concrete material: 104 Name=C25/30 E=31475800 kPa
 MATERIAL C2530_104 3.148E+07
 * Rebar material: 78036 Name=S275 E=210000000 kPa
 MATERIAL S275_78036 2.1E+08

* 6: Defining structural elements
 * 6.1: Beams and combined Wall Elements
 BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0

* 6.2: Supports
 WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0

* 6.3: Strips
 STRIP LeftWall_32 3 3 2.33 3 0 60.09 30

* 7: Defining Steps
 STEP Stage0_86326
 CHANGE Strato1_3095_78023_L_0 U-FRICT=29 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 U-KA=0.319 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 U-KP=3.606 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 D-KA=0.319 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 D-KP=3.606 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 U-FRICT=35 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 U-KA=0.248 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 U-KP=5.02 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-KA=0.248 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-KP=5.02 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 U-COHE=20 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
 SETWALL LeftWall_32
 GEOM 0 0
 WATER -17 0 -8 0 0
 ENDSTEP

STEP Stage1_31
 CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
 SETWALL LeftWall_32
 GEOM 0 0
 WATER -17 0 -8 0 0
 ADD WallElement_33 Tieback_78031
 ENDSTEP

STEP Stage2_158
 CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
 CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
 CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
 SETWALL LeftWall_32
 GEOM 0 -2.75
 WATER -17 0 -8 0 0
 ENDSTEP

3.6. Design Assumption : A1+M1+R1 - File di Paratie - File di output (.out)

```

-----+-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:42:05  |
|-----+-----

```


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+-----+
*
* PARATIE PLUS Non-Linear Spring Engine
*
* AN ELASTOPLASTIC FINITE ELEMENT PROGRAM
* FOR FLEXIBLE EARTH-RETAINING STRUCTURES
*
* Written by Ce.A.S. s.r.l. (ITALY)
* with the scientific supervision of
* Roberto Nova - full professor SOIL MECHANICS
* at Politecnico di Milano (ITALY)
*
*****
* RELEASE 2017.1 *Build date:Jul 11, 2017*
*
* Ce.A.S. S.R.L CENTRO DI ANALISI STRUTTURALE
* VIALE GIUSTINIANO 10
* 20129 M I L A N O (ITALIA)
* TEL. +39 02 2020221 (+39 035 23 67 19)
* FAX +39 02 29512533 (+39 035 42285 49)
* email bruno.becci@ceas.it
* Web Page www.ceas.it
*****
    
```

```

JOB : 1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL STRESS >
ACCEPTED <PARAM ITEMEX 100 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
    
```

```

*****
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED
* BY THE PROGRAM.
*****
    
```

PRELIMINARY OPERATIONS CPU TIME 0.01 [sec]

```

+-----+
| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| |
| 1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484 |
| Exe Time :24 July 2019 11:42:05 |
+-----+
    
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

1468.1 - GA27 - Cepav2

```

NO. OF NODAL POINTS (NUMNP) ..... 41
NO. OF COORDINATES (NCOORD) ..... 2
NO. OF NODE DOFS (NDOF) ..... 2
NO. OF EQUATIONS (NEQ) ..... 82
NO. OF CONSTRAINTS CARDS (NVINC) ..... 0
NO. OF ELEMENT GROUPS (NEG) ..... 4
NO. OF SOLUTION STEPS (NSTE) ..... 3
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 68
NO. OF LONG NAMES (LASTNAME) ..... 16
LENGTH UNIT CHOICE ..... 3 ( M )
FORCE UNIT CHOICE ..... 3 ( KN )
MAX PORE PRESSURE TABLE LENGTH ..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT.F
    
```

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ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
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Rev.
A

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RELEVANT ITEMS UNITS

STRESSES kPa
 Y-DISPLACEMENTS m
 ROTATIONS RADIANS
 BEAM AND SLAB MOMENTS kN*m/m
 BEAM SHEAR FORCES kN/m
 ANCHOR FORCES kN/m
 AXIAL FORCES IN TRUSSES kN/m
 AXIAL FORCES SPRINGS kN/m
 Y-REACTIONS kN/m
 X-MOMENT REACTIONS kN*m/m
 ETC.

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
|
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P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 68

```

1 : UNIT m kN
2 : TITLE 1468.1 - GA27 - Cepav2
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -8 0 1
7 : SOIL 0_L LeftWall_32 -8 0 1 0
8 : SOIL 0_R LeftWall_32 -8 0 2 180
9 : LDATA Strato1_3095_78023_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-05
13 : RESISTANCE 0 29
14 : YOUNG 2.5E+04 4E+04
15 : ENDL
16 : LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19 9 10
19 : PERMEABILITY 1E-05
20 : RESISTANCE 20 35
21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL S275_78036 2.1E+08
26 : BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0
27 : WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0
28 : STRIP LeftWall_32 3 3 2.33 3 0 60.09 30
29 : STEP Stage0_86326
30 : CHANGE Strato1_3095_78023_L_0 U-FRICT=29 LeftWall_32
31 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
32 : CHANGE Strato1_3095_78023_L_0 U-KA=0.319 LeftWall_32
33 : CHANGE Strato1_3095_78023_L_0 U-KP=3.606 LeftWall_32
34 : CHANGE Strato1_3095_78023_L_0 D-KA=0.319 LeftWall_32
35 : CHANGE Strato1_3095_78023_L_0 D-KP=3.606 LeftWall_32
36 : CHANGE Strato2_84780_84781_L_0 U-FRICT=35 LeftWall_32
37 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
38 : CHANGE Strato2_84780_84781_L_0 U-KA=0.248 LeftWall_32
39 : CHANGE Strato2_84780_84781_L_0 U-KP=5.02 LeftWall_32
40 : CHANGE Strato2_84780_84781_L_0 D-KA=0.248 LeftWall_32
41 : CHANGE Strato2_84780_84781_L_0 D-KP=5.02 LeftWall_32
42 : CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32
43 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
44 : CHANGE Strato2_84780_84781_L_0 U-COHE=20 LeftWall_32
45 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
46 : SETWALL LeftWall_32
47 : GEOM 0 0
48 : WATER -17 0 -8 0 0
49 : ENDSTEP
50 : STEP Stage1_31
51 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
52 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
53 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
54 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
55 : SETWALL LeftWall_32
56 : GEOM 0 0
57 : WATER -17 0 -8 0 0
58 : ADD WallElement_33 Tieback_78031

```

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```

59 : ENDSTEP
60 : STEP Stage2_158
61 : CHANGE Strato1_3095_78023_L_0 D-FRICT=29 LeftWall_32
62 : CHANGE Strato2_84780_84781_L_0 D-FRICT=35 LeftWall_32
63 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
64 : CHANGE Strato2_84780_84781_L_0 D-COHE=20 LeftWall_32
65 : SETWALL LeftWall_32
66 : GEOM 0 -2.75
67 : WATER -17 0 -8 0 0
68 : ENDSTEP
    
```

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
|
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```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE	Y-COORD	Z-COORD / NODE
1	0.0000	0.0000 /	2	0.0000 -0.20000 /	3	0.0000 -0.40000 /	4	0.0000 -0.60000 /
5	0.0000	-0.80000 /	6	0.0000 -1.0000 /	7	0.0000 -1.2000 /	8	0.0000 -1.4000 /
9	0.0000	-1.6000 /	10	0.0000 -1.8000 /	11	0.0000 -2.0000 /	12	0.0000 -2.2000 /
13	0.0000	-2.4000 /	14	0.0000 -2.6000 /	15	0.0000 -2.8000 /	16	0.0000 -3.0000 /
17	0.0000	-3.2000 /	18	0.0000 -3.4000 /	19	0.0000 -3.6000 /	20	0.0000 -3.8000 /
21	0.0000	-4.0000 /	22	0.0000 -4.2000 /	23	0.0000 -4.4000 /	24	0.0000 -4.6000 /
25	0.0000	-4.8000 /	26	0.0000 -5.0000 /	27	0.0000 -5.2000 /	28	0.0000 -5.4000 /
29	0.0000	-5.6000 /	30	0.0000 -5.8000 /	31	0.0000 -6.0000 /	32	0.0000 -6.2000 /
33	0.0000	-6.4000 /	34	0.0000 -6.6000 /	35	0.0000 -6.8000 /	36	0.0000 -7.0000 /
37	0.0000	-7.2000 /	38	0.0000 -7.4000 /	39	0.0000 -7.6000 /	40	0.0000 -7.8000 /
41	0.0000	-8.0000 /						

```

-----
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
|
-----
    
```

ELEMENT GROUP NO. 1

```

O_L :
5 41 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0
    
```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage	status
1	active
2	active
3	active

material set no. 1

prop(1) angle 0.00000
prop(2) layer as foreseen 1.00000

material set no. 2

prop(1) angle 0.00000
prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	2	0.2000	0.000	0.000	0.000	1.000
29	29	2	0.2000	0.000	0.000	0.000	1.000
30	30	2	0.2000	0.000	0.000	0.000	1.000
31	31	2	0.2000	0.000	0.000	0.000	1.000
32	32	2	0.2000	0.000	0.000	0.000	1.000
33	33	2	0.2000	0.000	0.000	0.000	1.000
34	34	2	0.2000	0.000	0.000	0.000	1.000
35	35	2	0.2000	0.000	0.000	0.000	1.000
36	36	2	0.2000	0.000	0.000	0.000	1.000
37	37	2	0.2000	0.000	0.000	0.000	1.000
38	38	2	0.2000	0.000	0.000	0.000	1.000
39	39	2	0.2000	0.000	0.000	0.000	1.000
40	40	2	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.1000	0.000	0.000	0.000	1.000

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
|
-----

```

```

ELEMENT GROUP NO.  2

O_R
 5 41  0  1  0  0  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active

```

```

material set no.  1

prop( 1) angle      180.000
prop( 2) layer as foreseen  1.00000

```

```

material set no.  2

prop( 1) angle      180.000
prop( 2) layer as foreseen  2.00000

```

```

element data
-----
el  n  mat  area  ....  ....  ....  flag
-----
 1  1  1  0.1000  0.000  0.000  0.000  2.000
 2  2  1  0.2000  0.000  0.000  0.000  2.000
 3  3  1  0.2000  0.000  0.000  0.000  2.000
 4  4  1  0.2000  0.000  0.000  0.000  2.000
 5  5  1  0.2000  0.000  0.000  0.000  2.000
 6  6  1  0.2000  0.000  0.000  0.000  2.000
 7  7  1  0.2000  0.000  0.000  0.000  2.000
 8  8  1  0.2000  0.000  0.000  0.000  2.000

```

GENERAL CONTRACTOR



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9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	2	0.2000	0.000	0.000	0.000	2.000
29	29	2	0.2000	0.000	0.000	0.000	2.000
30	30	2	0.2000	0.000	0.000	0.000	2.000
31	31	2	0.2000	0.000	0.000	0.000	2.000
32	32	2	0.2000	0.000	0.000	0.000	2.000
33	33	2	0.2000	0.000	0.000	0.000	2.000
34	34	2	0.2000	0.000	0.000	0.000	2.000
35	35	2	0.2000	0.000	0.000	0.000	2.000
36	36	2	0.2000	0.000	0.000	0.000	2.000
37	37	2	0.2000	0.000	0.000	0.000	2.000
38	38	2	0.2000	0.000	0.000	0.000	2.000
39	39	2	0.2000	0.000	0.000	0.000	2.000
40	40	2	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.1000	0.000	0.000	0.000	2.000

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
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+-----+

```

```

ELEMENT GROUP NO.  3

Wallelement_33      :
  2  40  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  1  0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

stage	status
1	inactive
2	active
3	active

```

material set no.  1

prop( 1) young modulus  0.210000E+09
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio  0.00000
prop( 5) future .....0.182200E-43

```

```

no. of step variable items:  1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000

```

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.8153E-01	0.000	0.000
2	2	3	1	0.000	0.000	0.8153E-01	0.000	0.000
3	3	4	1	0.000	0.000	0.8153E-01	0.000	0.000
4	4	5	1	0.000	0.000	0.8153E-01	0.000	0.000
5	5	6	1	0.000	0.000	0.8153E-01	0.000	0.000
6	6	7	1	0.000	0.000	0.8153E-01	0.000	0.000
7	7	8	1	0.000	0.000	0.8153E-01	0.000	0.000
8	8	9	1	0.000	0.000	0.8153E-01	0.000	0.000
9	9	10	1	0.000	0.000	0.8153E-01	0.000	0.000



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```

+-----+
NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 6
MAXIMUM POINTS/LCURVE (NPTM)..... 5
    
```

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                              |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+
    
```

L O A D D A T A

```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5
    
```

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
4.00000	0.0000E+00

```

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5
    
```

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
4.00000	0.0000E+00

```

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5
    
```

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
4.00000	0.0000E+00

```

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 4
    
```

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
4.00000	0.1000E+01

```

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 4
    
```

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
4.00000	0.1000E+01

```

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4
    
```

GENERAL CONTRACTOR



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TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
4.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
+-----+

```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
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+-----+

```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
+-----+

```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

ITEM NO.	1<NAME	>= 10.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.6060	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 25000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 40000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-04	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 29.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1

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ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6060 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 29.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6060 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 10<U-KA >= 0.24800 WALL NO. 1
 ITEM NO. 11<U-KP >= 5.0200 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 20.000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 35.000 (BOTH WALLS)
 ITEM NO. 60<D-KA >= 0.24800 WALL NO. 1
 ITEM NO. 61<D-KP >= 5.0200 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 6 VALUES

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484          |
|          Exe Time :24 July 2019  11:42:05          |
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PHASE DESCRIPTORS

STEP NO.	1	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER_TABLE		-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000

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ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

====end of step 1

STEP NO.	2		
Y		LEFT WALL	RIGHT WALL
Z-PC	0.000	0.000	-0.9990E+30
Z-EXCAVATION	0.000	0.000	0.000
Z-WATER_TABLE	-17.00	-0.9990E+30	
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000	
ZQ	0.000	0.000	
DZW_OF_THE_WATER_TABLE	0.000	0.000	
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000	
ZQS	-0.9990E+30	-0.9990E+30	
ZCUT	0.000	0.000	
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000	
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000	
PORE_UPDATE_FLAG	0.000	0.000	
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000	
lateral thrusts reduction elevatio	0.000	0.000	
Downhill reduction factor for effe	0.000	0.000	
Downhill reduction factor for pore	0.000	0.000	
Uphill reduction factor for effect	0.000	0.000	
Uphill reduction factor for pore p	0.000	0.000	
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000	
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000	
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000	
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	
UPHILL DELTA/PHI RATIO	0.000	0.000	
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000	
DOWNHILL DELTA/PHI RATIO	0.000	0.000	
DYN.WATER BEHAVIOUR	0.000	0.000	
Excess pore pressure RATIO Ru	0.000	0.000	
SEISMIC PRESSURE LOWER VALUE	0.000	0.000	
SEISMIC PRESSURE UPPER VALUE	0.000	0.000	
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000	
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000	

====end of step 2

STEP NO.	3		
Y		LEFT WALL	RIGHT WALL
Z-PC	0.000	0.000	-0.9990E+30
Z-EXCAVATION	-2.750	0.000	
Z-WATER_TABLE	-17.00	-0.9990E+30	
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000	
ZQ	0.000	0.000	
DZW_OF_THE_WATER_TABLE	0.000	0.000	
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000	
ZQS	-0.9990E+30	-0.9990E+30	
ZCUT	0.000	0.000	
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000	
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000	
PORE_UPDATE_FLAG	0.000	0.000	
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000	

GENERAL CONTRACTOR



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lateral thrusts reduction elevatio      0.000      0.000
Downhill reduction factor for effe      0.000      0.000
Downhill reduction factor for pore      0.000      0.000
Uphill reduction factor for effect      0.000      0.000
Uphill reduction factor for pore p      0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]        0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]        0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]       0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]         0.000      0.000
UPHILL DELTA/PHI RATIO                   0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]       0.000      0.000
DOWNHILL DELTA/PHI RATIO                 0.000      0.000
DYN.WATER BEHAVIOUR                     0.000      0.000
Excess pore pressure RATIO Ru           0.000      0.000
SEISMIC PRESSURE LOWER VALUE            0.000      0.000
SEISMIC PRESSURE UPPER VALUE            0.000      0.000
SEISMIC PRESSURE LOWER LEVEL            0.000      0.000
SEISMIC PRESSURE UPPER LEVEL            0.000      0.000
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=====
=====end of step 3

LEFT-HAND WALL

LOWER LEVEL -8.00000
UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -8.00000
UPPER LEVEL 0.00000

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|          PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                             |
|                                                                                             |
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|          Exe Time :24 July 2019 11:42:05                                                 |
|-----
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INITIAL STRESS TABLES

SECTION

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 3.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 3.0000

TYPE BOUSSINESQ

```
HORIZONTAL DISTANCE (DY) 2.3300000000000000
FOUNDATION WIDTH (B) 3.0000000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F ..... 60.0900000000000000
BETA ..... 30.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000
```

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 2279

NO. OF D.P.W FOR THIS AREA 4898
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100

```
ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATIOR= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
```



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```

ITER 1 RNORM = 0.000      RMNORM= 0.000
      RINORM= 6047.      RIMNOR= 0.000
      RENORM= 0.000     REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
      RFMAX = 14.82     RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT = 6047.      RDR = 0.000
      RATIO= 0.000     RATIO= 0.000
      MAX UN= 0.000     IEQ= 82 NODE      41 DOF  2  X-ROT. F
      MIN UN= 0.000     IEQ= 1 NODE      1 DOF  1  Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM= 6047.      RIMNOR= 0.000
      RENORM= 0.000     REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
      RFMAX = 14.82     RMMAX = 0.000
      RTSMAL=0.1000E-03 RMSMAL= 0.000
      RDT = 6047.      RDR = 0.000
      RATIO= 0.000     RATIO= 0.000
      MAX UN= 0.000     IEQ= 82 NODE      41 DOF  2  X-ROT. F
      MIN UN= 0.000     IEQ= 1 NODE      1 DOF  1  Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
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|          Exe Time :24 July 2019      11:42:05 |
+-----+
    
```

1468.1 - GA27 - Cepav2
SOLUTION REACHED USING 2 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 1 (AT TIME 1.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F X-ROT. F
(02) (04) (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484 |
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+-----+
    
```

1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * Peg	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	V-C	3.9789E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	V-C	3.9789E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	V-C	3.9789E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	V-C	3.9789E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	V-C	3.9789E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	V-C	3.9789E+04	-1.000	0.000	1.000	1.000

GENERAL CONTRACTOR



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9.500	0.000	0.000	Strato1_3095_78023_L_0					
7 D	2.280	0.000	22.80 11.40	22.80	11.40	V-C 3.9789E+04 -1.200	0.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0					
8 D	2.660	0.000	26.60 13.30	26.60	13.30	V-C 3.9789E+04 -1.400	0.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0					
9 D	3.040	0.000	30.40 15.20	30.40	15.20	V-C 3.9789E+04 -1.600	0.000	1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0					
10 D	3.420	0.000	34.20 17.10	34.20	17.10	V-C 3.9789E+04 -1.800	0.000	1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0					
11 D	3.800	0.000	38.00 19.00	38.00	19.00	V-C 3.9789E+04 -2.000	0.000	1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0					
12 D	4.180	0.000	41.80 20.90	41.80	20.90	V-C 3.9789E+04 -2.200	0.000	1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0					
13 D	4.560	0.000	45.60 22.80	45.60	22.80	V-C 3.9789E+04 -2.400	0.000	1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0					
14 D	4.940	0.000	49.40 24.70	49.40	24.70	V-C 3.9789E+04 -2.600	0.000	1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0					
15 D	5.320	0.000	53.20 26.60	53.20	26.60	V-C 3.9789E+04 -2.800	0.000	1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0					
16 D	5.700	0.000	57.00 28.50	57.00	28.50	V-C 3.9789E+04 -3.000	0.000	1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0					
17 D	6.080	0.000	60.80 30.40	60.80	30.40	V-C 3.9789E+04 -3.200	0.000	1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0					
18 D	6.460	0.000	64.60 32.30	64.60	32.30	V-C 3.9789E+04 -3.400	0.000	1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0					
19 D	6.840	0.000	68.40 34.20	68.40	34.20	V-C 3.9789E+04 -3.600	0.000	1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0					
20 D	7.220	0.000	72.20 36.10	72.20	36.10	V-C 3.9789E+04 -3.800	0.000	1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0					
21 D	7.600	0.000	76.00 38.00	76.00	38.00	V-C 3.9789E+04 -4.000	0.000	1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0					
22 D	7.980	0.000	79.80 39.90	79.80	39.90	V-C 3.9789E+04 -4.200	0.000	1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0					
23 D	8.360	0.000	83.60 41.80	83.60	41.80	V-C 3.9789E+04 -4.400	0.000	1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0					
24 D	8.740	0.000	87.40 43.70	87.40	43.70	V-C 3.9789E+04 -4.600	0.000	1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0					
25 D	9.120	0.000	91.20 45.60	91.20	45.60	V-C 3.9789E+04 -4.800	0.000	1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0					
26 D	9.500	0.000	95.00 47.50	95.00	47.50	V-C 3.9789E+04 -5.000	0.000	1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0					
27 D	9.880	0.000	98.80 49.40	98.80	49.40	V-C 3.9789E+04 -5.200	0.000	1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0					
28 D	10.26	0.000	102.6 51.30	102.6	51.30	V-C 9.0046E+04 -5.400	0.000	1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0					
29 D	10.64	0.000	106.4 53.20	106.4	53.20	V-C 9.0046E+04 -5.600	0.000	1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0					
30 D	11.02	0.000	110.2 55.10	110.2	55.10	V-C 9.0046E+04 -5.800	0.000	1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0					
31 D	11.40	0.000	114.0 57.00	114.0	57.00	V-C 9.0046E+04 -6.000	0.000	1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0					
32 D	11.78	0.000	117.8 58.90	117.8	58.90	V-C 9.0046E+04 -6.200	0.000	1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0					
33 D	12.16	0.000	121.6 60.80	121.6	60.80	V-C 9.0046E+04 -6.400	0.000	1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0					
34 D	12.54	0.000	125.4 62.70	125.4	62.70	V-C 9.0046E+04 -6.600	0.000	1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0					
35 D	12.92	0.000	129.2 64.60	129.2	64.60	V-C 9.0046E+04 -6.800	0.000	1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0					
36 D	13.30	0.000	133.0 66.50	133.0	66.50	V-C 9.0046E+04 -7.000	0.000	1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0					
37 D	13.68	0.000	136.8 68.40	136.8	68.40	V-C 9.0046E+04 -7.200	0.000	1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0					
38 D	14.06	0.000	140.6 70.30	140.6	70.30	V-C 9.0046E+04 -7.400	0.000	1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0					
39 D	14.44	0.000	144.4 72.20	144.4	72.20	V-C 9.0046E+04 -7.600	0.000	1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0					
40 D	14.82	0.000	148.2 74.10	148.2	74.10	V-C 9.0046E+04 -7.800	0.000	1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0					
41 D	7.600	0.000	152.0 76.00	152.0	76.00	V-C 9.0046E+04 -8.000	0.000	1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0					

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|          Exe Time :24 July 2019  11:42:05                                                                                                                                            |
|          -----                                                                                                                                            |
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37 D 13.68 0.000 136.8 68.40 136.8	68.40	V-C	4.8803E+04 -7.200 0.000	1.000	1.000
68.40 0.000 0.000 Strato2_84780_84781_L_0					
38 D 14.06 0.000 140.6 70.30 140.6	70.30	V-C	4.8803E+04 -7.400 0.000	1.000	1.000
70.30 0.000 0.000 Strato2_84780_84781_L_0					
39 D 14.44 0.000 144.4 72.20 144.4	72.20	V-C	4.8803E+04 -7.600 0.000	1.000	1.000
72.20 0.000 0.000 Strato2_84780_84781_L_0					
40 D 14.82 0.000 148.2 74.10 148.2	74.10	V-C	4.8803E+04 -7.800 0.000	1.000	1.000
74.10 0.000 0.000 Strato2_84780_84781_L_0					
41 D 7.600 0.000 152.0 76.00 152.0	76.00	V-C	4.8803E+04 -8.000 0.000	1.000	1.000
76.00 0.000 0.000 Strato2_84780_84781_L_0					

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+
1468.1 - GA27 - Cepav2
    
```

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
 CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:42:05  |
+-----+
1468.1 - GA27 - Cepav2
    
```

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

```

ITER 0 RNORM = 0.000  RMNORM= 0.000
      RINORM= 6047.  RIMNOR= 0.000
      RENORM= 0.000  REMNOR= 0.000  RATIO = 0.000  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 14.82  RMMAX = 0.000
      RTSMAL=0.1000E-03  RMSMAL= 0.000
      RDT = 6047.  RDR = 0.000
      RATIOT= 0.000  RATIOR= 0.000
      MAX UN= 0.000  IEQ= 82 NODE 41 DOF 2 X-ROT. F
      MIN UN= 0.000  IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 1 RNORM = 0.000  RMNORM= 0.000
      RINORM= 6047.  RIMNOR= 0.000
      RENORM= 0.000  REMNOR= 0.000  RATIO = 0.000  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 14.82  RMMAX = 0.000
      RTSMAL=0.1000E-03  RMSMAL= 0.000
      RDT = 6047.  RDR = 0.000
      RATIOT= 0.000  RATIOR= 0.000
      MAX UN= 0.000  IEQ= 82 NODE 41 DOF 2 X-ROT. F
      MIN UN= 0.000  IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER 2 RNORM = 0.000  RMNORM= 0.000
    
```




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```

RINORM= 6047.      RIMNOR= 0.000
RENORM= 0.000      REMNOR= 0.000      RATIO = 0.000      TOLER =0.1000E-03      CONVERGED !
RFMAX = 14.82      RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047.      RDR = 0.000
RATIOT= 0.000      RATOR= 0.000
MAX UN= 0.000      IEQ= 82 NODE      41 DOF      2 X-ROT. F
MIN UN= 0.000      IEQ= 1 NODE      1 DOF      1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:42:05  |
|                                                                                               |
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```

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1468.1 - GA27 - Cepav2
SOLUTION REACHED USING      2 ITERATIONS ON 100

P R I N T   O U T   F O R   T I M E   S T E P   2   ( A T   T I M E   2.000   )
    
```

```

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)          (
    
```

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019      11:42:05  |
|                                                                                               |
-----
    
```

```

1468.1 - GA27 - Cepav2

S T R E S S   R E S U L T S   F O R   G R O U P   N O.   1

O_L      :
ELEMENT TYPE      5 NO.OF ELEMENTS. IN THIS GROUP      41
C U R R E N T   T I M E   I S      2.0000
    
```

HARDENING 2D SOIL ELEMENT
***** TOTAL STRESS FORMULATION *****

EL * Peg	FORCE Su_a	DISPL-Y Su_p	VERTICAL-P LAYER	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
1 D	0.000	0.000	0.000	0.000	0.000	0.000	UL-RL	6.3662E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	UL-RL	6.3662E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	UL-RL	6.3662E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	UL-RL	6.3662E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	UL-RL	6.3662E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	UL-RL	6.3662E+04	-1.000	0.000	1.000	1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0									
7 D	2.280	0.000	22.80	11.40	22.80	11.40	UL-RL	6.3662E+04	-1.200	0.000	1.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.660	0.000	26.60	13.30	26.60	13.30	UL-RL	6.3662E+04	-1.400	0.000	1.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0									
9 D	3.040	0.000	30.40	15.20	30.40	15.20	UL-RL	6.3662E+04	-1.600	0.000	1.000	1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0									
10 D	3.420	0.000	34.20	17.10	34.20	17.10	UL-RL	6.3662E+04	-1.800	0.000	1.000	1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.800	0.000	38.00	19.00	38.00	19.00	UL-RL	6.3662E+04	-2.000	0.000	1.000	1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0									
12 D	4.180	0.000	41.80	20.90	41.80	20.90	UL-RL	6.3662E+04	-2.200	0.000	1.000	1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0									
13 D	4.560	0.000	45.60	22.80	45.60	22.80	UL-RL	6.3662E+04	-2.400	0.000	1.000	1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0									
14 D	4.940	0.000	49.40	24.70	49.40	24.70	UL-RL	6.3662E+04	-2.600	0.000	1.000	1.000

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4 D	1.140	0.000	11.40 5.700 11.40	5.700	UL-RL 4.4178E+04 -0.6000 0.000 1.000 1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0		
5 D	1.520	0.000	15.20 7.600 15.20	7.600	UL-RL 4.4178E+04 -0.8000 0.000 1.000 1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0		
6 D	1.900	0.000	19.00 9.500 19.00	9.500	UL-RL 4.4178E+04 -1.000 0.000 1.000 1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0		
7 D	2.280	0.000	22.80 11.40 22.80	11.40	UL-RL 4.4178E+04 -1.200 0.000 1.000 1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0		
8 D	2.660	0.000	26.60 13.30 26.60	13.30	UL-RL 4.4178E+04 -1.400 0.000 1.000 1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0		
9 D	3.040	0.000	30.40 15.20 30.40	15.20	UL-RL 4.4178E+04 -1.600 0.000 1.000 1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0		
10 D	3.420	0.000	34.20 17.10 34.20	17.10	UL-RL 4.4178E+04 -1.800 0.000 1.000 1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0		
11 D	3.800	0.000	38.00 19.00 38.00	19.00	UL-RL 4.4178E+04 -2.000 0.000 1.000 1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0		
12 D	4.180	0.000	41.80 20.90 41.80	20.90	UL-RL 4.4178E+04 -2.200 0.000 1.000 1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0		
13 D	4.560	0.000	45.60 22.80 45.60	22.80	UL-RL 4.4178E+04 -2.400 0.000 1.000 1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0		
14 D	4.940	0.000	49.40 24.70 49.40	24.70	UL-RL 4.4178E+04 -2.600 0.000 1.000 1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0		
15 D	5.320	0.000	53.20 26.60 53.20	26.60	UL-RL 4.4178E+04 -2.800 0.000 1.000 1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0		
16 D	5.700	0.000	57.00 28.50 57.00	28.50	UL-RL 4.4178E+04 -3.000 0.000 1.000 1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0		
17 D	6.080	0.000	60.80 30.40 60.80	30.40	UL-RL 4.4178E+04 -3.200 0.000 1.000 1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0		
18 D	6.460	0.000	64.60 32.30 64.60	32.30	UL-RL 4.4178E+04 -3.400 0.000 1.000 1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0		
19 D	6.840	0.000	68.40 34.20 68.40	34.20	UL-RL 4.4178E+04 -3.600 0.000 1.000 1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0		
20 D	7.220	0.000	72.20 36.10 72.20	36.10	UL-RL 4.4178E+04 -3.800 0.000 1.000 1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0		
21 D	7.600	0.000	76.00 38.00 76.00	38.00	UL-RL 4.4178E+04 -4.000 0.000 1.000 1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0		
22 D	7.980	0.000	79.80 39.90 79.80	39.90	UL-RL 4.4178E+04 -4.200 0.000 1.000 1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0		
23 D	8.360	0.000	83.60 41.80 83.60	41.80	UL-RL 4.4178E+04 -4.400 0.000 1.000 1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0		
24 D	8.740	0.000	87.40 43.70 87.40	43.70	UL-RL 4.4178E+04 -4.600 0.000 1.000 1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0		
25 D	9.120	0.000	91.20 45.60 91.20	45.60	UL-RL 4.4178E+04 -4.800 0.000 1.000 1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0		
26 D	9.500	0.000	95.00 47.50 95.00	47.50	UL-RL 4.4178E+04 -5.000 0.000 1.000 1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0		
27 D	9.880	0.000	98.80 49.40 98.80	49.40	UL-RL 4.4178E+04 -5.200 0.000 1.000 1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0		
28 D	10.26	0.000	102.6 51.30 102.6	51.30	UL-RL 1.4641E+05 -5.400 0.000 1.000 1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0		
29 D	10.64	0.000	106.4 53.20 106.4	53.20	UL-RL 1.4641E+05 -5.600 0.000 1.000 1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0		
30 D	11.02	0.000	110.2 55.10 110.2	55.10	UL-RL 1.4641E+05 -5.800 0.000 1.000 1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0		
31 D	11.40	0.000	114.0 57.00 114.0	57.00	UL-RL 1.4641E+05 -6.000 0.000 1.000 1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0		
32 D	11.78	0.000	117.8 58.90 117.8	58.90	UL-RL 1.4641E+05 -6.200 0.000 1.000 1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0		
33 D	12.16	0.000	121.6 60.80 121.6	60.80	UL-RL 1.4641E+05 -6.400 0.000 1.000 1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0		
34 D	12.54	0.000	125.4 62.70 125.4	62.70	UL-RL 1.4641E+05 -6.600 0.000 1.000 1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0		
35 D	12.92	0.000	129.2 64.60 129.2	64.60	UL-RL 1.4641E+05 -6.800 0.000 1.000 1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0		
36 D	13.30	0.000	133.0 66.50 133.0	66.50	UL-RL 1.4641E+05 -7.000 0.000 1.000 1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0		
37 D	13.68	0.000	136.8 68.40 136.8	68.40	UL-RL 1.4641E+05 -7.200 0.000 1.000 1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0		
38 D	14.06	0.000	140.6 70.30 140.6	70.30	UL-RL 1.4641E+05 -7.400 0.000 1.000 1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0		
39 D	14.44	0.000	144.4 72.20 144.4	72.20	UL-RL 1.4641E+05 -7.600 0.000 1.000 1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0		
40 D	14.82	0.000	148.2 74.10 148.2	74.10	UL-RL 1.4641E+05 -7.800 0.000 1.000 1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0		
41 D	7.600	0.000	152.0 76.00 152.0	76.00	UL-RL 1.4641E+05 -8.000 0.000 1.000 1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0		

| PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| |
| 1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484 |
| Exe Time :24 July 2019 11:42:05 |

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
 CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484  |
|          Exe Time :24 July 2019  11:42:05  |
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
 ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
 CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	0.0000	0.0000	0.0000	80304.	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS
ITER	0	RNORM = 0.000	RMNORM= 0.000					
		RINORM= 5385.	RIMNOR= 0.000					
		RENORM= 770.2	REMNOR= 0.000	RATIO =0.3782	TOLER =0.1000E-03	NOT CONVERGED		
		RFMAX = 15.86	RMMAX = 0.000					
		RTSMAL=0.1000E-03	RMSMAL= 0.000					
		RDT = 5385.	RDR = 0.000					
		RATIOT=0.3782	RATIOR= 0.000					
		MAX UN= 6.607	IEQ= 27 NODE	14 DOF	1	Y-DISPL.F		
		MIN UN= 0.000	IEQ= 1 NODE	1 DOF	1	Y-DISPL.F		
		NO. OF CONTACT CONSTRAINT VIOLATIONS		0				

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21 D	5.923	-1.7790E-03	92.84	29.62	92.84	46.42	ACTIVE	0.000	-4.000	0.000	1.000	1.000
29.62	0.000	0.000	Strato1_3095_78023_L_0									
22 D	6.132	-1.4957E-03	96.11	30.66	96.11	48.06	ACTIVE	0.000	-4.200	0.000	1.000	1.000
30.66	0.000	0.000	Strato1_3095_78023_L_0									
23 D	6.343	-1.2370E-03	99.41	31.71	99.41	49.71	ACTIVE	0.000	-4.400	0.000	1.000	1.000
31.71	0.000	0.000	Strato1_3095_78023_L_0									
24 D	6.555	-1.0056E-03	102.7	32.78	102.7	51.37	ACTIVE	0.000	-4.600	0.000	1.000	1.000
32.78	0.000	0.000	Strato1_3095_78023_L_0									
25 D	7.637	-8.0267E-04	106.1	38.19	106.1	53.05	UL-RL	1.8520E+04	-4.800	0.000	1.000	1.000
38.19	0.000	0.000	Strato1_3095_78023_L_0									
26 D	8.622	-6.2814E-04	109.5	43.11	109.5	54.74	UL-RL	1.8520E+04	-5.000	0.000	1.000	1.000
43.11	0.000	0.000	Strato1_3095_78023_L_0									
27 D	9.505	-4.8155E-04	112.9	47.53	112.9	56.45	UL-RL	1.8520E+04	-5.200	0.000	1.000	1.000
47.53	0.000	0.000	Strato1_3095_78023_L_0									
28 D	5.927	-3.6300E-04	116.3	29.63	116.3	58.16	UL-RL	7.8586E+04	-5.400	0.000	1.000	1.000
29.63	0.000	0.000	Strato2_84780_84781_L_0									
29 D	7.688	-2.7286E-04	119.8	38.44	119.8	59.88	UL-RL	7.8586E+04	-5.600	0.000	1.000	1.000
38.44	0.000	0.000	Strato2_84780_84781_L_0									
30 D	9.038	-2.0900E-04	123.2	45.19	123.2	61.61	UL-RL	7.8586E+04	-5.800	0.000	1.000	1.000
45.19	0.000	0.000	Strato2_84780_84781_L_0									
31 D	10.04	-1.6728E-04	126.7	50.21	126.7	63.35	UL-RL	7.8586E+04	-6.000	0.000	1.000	1.000
50.21	0.000	0.000	Strato2_84780_84781_L_0									
32 D	10.77	-1.4291E-04	130.2	53.87	130.2	65.10	UL-RL	7.8586E+04	-6.200	0.000	1.000	1.000
53.87	0.000	0.000	Strato2_84780_84781_L_0									
33 D	11.31	-1.3119E-04	133.7	56.55	133.7	66.86	UL-RL	7.8586E+04	-6.400	0.000	1.000	1.000
56.55	0.000	0.000	Strato2_84780_84781_L_0									
34 D	11.71	-1.2806E-04	137.2	58.56	137.2	68.62	UL-RL	7.8586E+04	-6.600	0.000	1.000	1.000
58.56	0.000	0.000	Strato2_84780_84781_L_0									
35 D	12.03	-1.3027E-04	140.8	60.15	140.8	70.39	UL-RL	7.8586E+04	-6.800	0.000	1.000	1.000
60.15	0.000	0.000	Strato2_84780_84781_L_0									
36 D	12.30	-1.3543E-04	144.3	61.52	144.3	72.16	UL-RL	7.8586E+04	-7.000	0.000	1.000	1.000
61.52	0.000	0.000	Strato2_84780_84781_L_0									
37 D	12.56	-1.4193E-04	147.9	62.79	147.9	73.94	UL-RL	7.8586E+04	-7.200	0.000	1.000	1.000
62.79	0.000	0.000	Strato2_84780_84781_L_0									
38 D	12.81	-1.4885E-04	151.4	64.03	151.4	75.72	UL-RL	7.8586E+04	-7.400	0.000	1.000	1.000
64.03	0.000	0.000	Strato2_84780_84781_L_0									
39 D	13.05	-1.5574E-04	155.0	65.27	155.0	77.51	UL-RL	7.8586E+04	-7.600	0.000	1.000	1.000
65.27	0.000	0.000	Strato2_84780_84781_L_0									
40 D	13.31	-1.6249E-04	158.6	66.54	158.6	79.31	UL-RL	7.8586E+04	-7.800	0.000	1.000	1.000
66.54	0.000	0.000	Strato2_84780_84781_L_0									
41 D	6.781	-1.6916E-04	162.2	67.81	162.2	81.10	UL-RL	7.8586E+04	-8.000	0.000	1.000	1.000
67.81	0.000	0.000	Strato2_84780_84781_L_0									

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                          |
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|          Exe Time :24 July 2019          11:42:05          |
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000
0.000	0.000	0.000	not available									
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000



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0.000	0.000	0.000	not available								
11	0.000	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available								
12	0.000	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available								
13	0.000	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available								
14	0.000	--	--	--	--	REMOVED	--	-2.600	0.000	1.000	1.000
0.000	0.000	0.000	not available								
15 D	0.6851	3.5831E-03	0.9500	3.426	53.20	26.60	PASSIVE	0.000	-2.800	0.000	1.000
3.426	0.000	0.000	Strato1_3095_78023_L_0								
16 D	3.426	3.3261E-03	4.750	17.13	57.00	28.50	PASSIVE	0.000	-3.000	0.000	1.000
17.13	0.000	0.000	Strato1_3095_78023_L_0								
17 D	6.166	3.0334E-03	8.550	30.83	60.80	30.83	PASSIVE	0.000	-3.200	0.000	1.000
30.83	0.000	0.000	Strato1_3095_78023_L_0								
18 D	8.557	2.7197E-03	12.35	42.78	64.60	42.78	V-C	8032.	-3.400	0.000	1.000
42.78	0.000	0.000	Strato1_3095_78023_L_0								
19 D	8.496	2.3988E-03	16.15	42.48	68.40	42.48	V-C	8032.	-3.600	0.000	1.000
42.48	0.000	0.000	Strato1_3095_78023_L_0								
20 D	8.425	2.0823E-03	19.95	42.12	72.20	42.12	V-C	8032.	-3.800	0.000	1.000
42.12	0.000	0.000	Strato1_3095_78023_L_0								
21 D	8.363	1.7790E-03	23.75	41.82	76.00	41.82	V-C	8032.	-4.000	0.000	1.000
41.82	0.000	0.000	Strato1_3095_78023_L_0								
22 D	8.326	1.4957E-03	27.55	41.63	79.80	41.63	V-C	8032.	-4.200	0.000	1.000
41.63	0.000	0.000	Strato1_3095_78023_L_0								
23 D	8.299	1.2370E-03	31.35	41.49	83.60	41.80	UL-RL	1.2852E+04	-4.400	0.000	1.000
41.49	0.000	0.000	Strato1_3095_78023_L_0								
24 D	8.127	1.0056E-03	35.15	40.64	87.40	43.70	UL-RL	1.2852E+04	-4.600	0.000	1.000
40.64	0.000	0.000	Strato1_3095_78023_L_0								
25 D	8.023	8.0267E-04	38.95	40.12	91.20	45.60	UL-RL	1.2852E+04	-4.800	0.000	1.000
40.12	0.000	0.000	Strato1_3095_78023_L_0								
26 D	7.987	6.2814E-04	42.75	39.94	95.00	47.50	UL-RL	1.2852E+04	-5.000	0.000	1.000
39.94	0.000	0.000	Strato1_3095_78023_L_0								
27 D	8.019	4.8155E-04	46.55	40.10	98.80	49.40	UL-RL	1.2852E+04	-5.200	0.000	1.000
40.10	0.000	0.000	Strato1_3095_78023_L_0								
28 D	10.27	3.6300E-04	50.35	51.33	102.6	51.33	V-C	1.4197E+04	-5.400	0.000	1.000
51.33	0.000	0.000	Strato2_84780_84781_L_0								
29 D	9.915	2.7286E-04	54.15	49.57	106.4	53.20	UL-RL	4.2592E+04	-5.600	0.000	1.000
49.57	0.000	0.000	Strato2_84780_84781_L_0								
30 D	9.772	2.0900E-04	57.95	48.86	110.2	55.10	UL-RL	4.2592E+04	-5.800	0.000	1.000
48.86	0.000	0.000	Strato2_84780_84781_L_0								
31 D	9.815	1.6728E-04	61.75	49.08	114.0	57.00	UL-RL	4.2592E+04	-6.000	0.000	1.000
49.08	0.000	0.000	Strato2_84780_84781_L_0								
32 D	10.00	1.4291E-04	65.55	50.02	117.8	58.90	UL-RL	4.2592E+04	-6.200	0.000	1.000
50.02	0.000	0.000	Strato2_84780_84781_L_0								
33 D	10.30	1.3119E-04	69.35	51.50	121.6	60.80	UL-RL	4.2592E+04	-6.400	0.000	1.000
51.50	0.000	0.000	Strato2_84780_84781_L_0								
34 D	10.67	1.2806E-04	73.15	53.34	125.4	62.70	UL-RL	4.2592E+04	-6.600	0.000	1.000
53.34	0.000	0.000	Strato2_84780_84781_L_0								
35 D	11.08	1.3027E-04	76.95	55.40	129.2	64.60	UL-RL	4.2592E+04	-6.800	0.000	1.000
55.40	0.000	0.000	Strato2_84780_84781_L_0								
36 D	11.52	1.3543E-04	80.75	57.58	133.0	66.50	UL-RL	4.2592E+04	-7.000	0.000	1.000
57.58	0.000	0.000	Strato2_84780_84781_L_0								
37 D	11.96	1.4193E-04	84.55	59.82	136.8	68.40	UL-RL	4.2592E+04	-7.200	0.000	1.000
59.82	0.000	0.000	Strato2_84780_84781_L_0								
38 D	12.41	1.4885E-04	88.35	62.07	140.6	70.30	UL-RL	4.2592E+04	-7.400	0.000	1.000
62.07	0.000	0.000	Strato2_84780_84781_L_0								
39 D	12.86	1.5574E-04	92.15	64.31	144.4	72.20	UL-RL	4.2592E+04	-7.600	0.000	1.000
64.31	0.000	0.000	Strato2_84780_84781_L_0								
40 D	13.31	1.6249E-04	95.95	66.54	148.2	74.10	UL-RL	4.2592E+04	-7.800	0.000	1.000
66.54	0.000	0.000	Strato2_84780_84781_L_0								
41 D	6.877	1.6916E-04	99.75	68.77	152.0	76.00	UL-RL	4.2592E+04	-8.000	0.000	1.000
68.77	0.000	0.000	Strato2_84780_84781_L_0								

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|          Exe Time :24 July 2019   11:42:05          |
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.64517E-13	-4.64517E-13	5.12923E-14	4.86278E-13
2	-13.937	13.937	-5.36571E-13	-2.7875

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3	-13.449	13.449	2.7875	-5.4773
4	-12.710	12.710	5.4773	-8.0192
5	-11.714	11.714	8.0192	-10.362
6	-10.454	10.454	10.362	-12.453
7	-8.9250	8.9250	12.453	-14.238
8	-7.1200	7.1200	14.238	-15.662
9	-4.8573	4.8573	15.662	-16.633
10	-2.1452	2.1452	16.633	-17.062
11	0.96612	-0.96612	17.062	-16.869
12	4.4690	-4.4690	16.869	-15.975
13	8.3290	-8.3290	15.975	-14.310
14	12.545	-12.545	14.310	-11.801
15	16.405	-16.405	11.801	-8.5197
16	17.856	-17.856	8.5197	-4.9486
17	16.804	-16.804	4.9486	-1.5877
18	13.560	-13.560	1.5877	1.1243
19	10.577	-10.577	-1.1243	3.2397
20	7.8697	-7.8697	-3.2397	4.8136
21	5.4298	-5.4298	-4.8136	5.8996
22	3.2358	-3.2358	-5.8996	6.5468
23	1.2794	-1.2794	-6.5468	6.8027
24	-0.29832	0.29832	-6.8027	6.7430
25	-0.68443	0.68443	-6.7430	6.6061
26	-4.98455E-02	4.98455E-02	-6.6061	6.5961
27	1.4361	-1.4361	-6.5961	6.8834
28	-2.9038	2.9038	-6.8834	6.3026
29	-5.1308	5.1308	-6.3026	5.2764
30	-5.8644	5.8644	-5.2764	4.1036
31	-5.6378	5.6378	-4.1036	2.9760
32	-4.8681	4.8681	-2.9760	2.0024
33	-3.8592	3.8592	-2.0024	1.2306
34	-2.8166	2.8166	-1.2306	0.66725
35	-1.8673	1.8673	-0.66725	0.29379
36	-1.0805	1.0805	-0.29379	7.76895E-02
37	-0.48711	0.48711	-7.76895E-02	-1.97331E-02
38	-9.51676E-02	9.51676E-02	1.97331E-02	-3.87666E-02
39	9.76500E-02	-9.76500E-02	3.87666E-02	1.92366E-02
40	9.61817E-02	-9.61817E-02	1.92366E-02	-1.05888E-14

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
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|          Exe Time :24 July 2019      11:42:05
|
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	41.460	0.0000	5.16294E-04	0.0000	80304.	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A1M1R1_3484
|          Exe Time :24 July 2019      11:42:05
|
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FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP	NO. OF ITERATIONS
1	CONVERGENCE :YES 2
2	CONVERGENCE :YES 2
3	CONVERGENCE :YES 5

END OF PROCESS FOR PROBLEM
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NONLINEAR SOLUTION CPU TIME 0.02 [sec]
 DATABASE CREATION CPU TIME..... 0.11 [sec]

3.7. Design Assumption : A2+M2+R1 - File di Paratie - File di input (.d)

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A2+M2+R1

* Time:mercoledì 24 luglio 2019 11:42:05

* 1: Defining general settings

UNIT m kN

TITLE 1468.1 - GA27 - Cepav2

DELTA 0.2

option param itemax 100

option control hinges 0 0.0001 0.001

* 2: Defining wall(s)

WALL LeftWall_32 0 -8 0 1

* 3: Defining surfaces for wall(s)

SOIL 0_L LeftWall_32 -8 0 1 0

SOIL 0_R LeftWall_32 -8 0 2 180

* 4: Defining soil layers

*

* Soil Profile (Strato1_3095_78023_L_0)

*

LDATA Strato1_3095_78023_L_0 0 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 0 29

YOUNG 2.5E+04 4E+04

ENDL

*

* Soil Profile (Strato2_84780_84781_L_0)

*

LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32

ATREST 0.5 0.5 1

WEIGHT 19 9 10

PERMEABILITY 1E-05

RESISTANCE 20 35

YOUNG 5E+04 1.5E+05

ENDL

* 5: Defining structural materials

* Steel material: 113 Name=S275 E=210000000 kPa

MATERIAL S275_113 2.1E+08

* Concrete material: 104 Name=C25/30 E=31475800 kPa

MATERIAL C2530_104 3.148E+07

* Rebar material: 78036 Name=S275 E=210000000 kPa

MATERIAL S275_78036 2.1E+08

* 6: Defining structural elements

* 6.1: Beams and combined Wall Elements

BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0

* 6.2: Supports

WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0

* 6.3: Strips

STRIP LeftWall_32 3 3 2.33 3 0 67.7 30

* 7: Defining Steps

STEP Stage0_86326

CHANGE Strato1_3095_78023_L_0 U-FRICT=23.91 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-FRICT=23.91 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-KA=0.392 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-KP=2.792 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-KA=0.392 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-KP=2.792 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-FRICT=29.26 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-FRICT=29.26 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-KA=0.316 LeftWall_32

CHANGE Strato2_84780_84781_L_0 U-KP=3.655 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-KA=0.316 LeftWall_32

CHANGE Strato2_84780_84781_L_0 D-KP=3.655 LeftWall_32

CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32

CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32

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CHANGE Strato2_84780_84781_L_0 U-COHE=16 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -17 0 -8 0 0
ENDSTEP

STEP Stage1_31
CHANGE Strato1_3095_78023_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 0
WATER -17 0 -8 0 0
ADD WallElement_33 Tieback_78031
ENDSTEP

STEP Stage2_158
CHANGE Strato1_3095_78023_L_0 D-FRICT=23.91 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-FRICT=29.26 LeftWall_32
CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
CHANGE Strato2_84780_84781_L_0 D-COHE=16 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -2.75
WATER -17 0 -8 0 0
ENDSTEP

```

3.8. Design Assumption : A2+M2+R1 - File di Paratie - File di output (.out)

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514                               |
|          Exe Time :24 July 2019  11:42:06                                                 |
|                                                                                               |
-----

```

```

*****
*                                                                 *
*  PARATIE PLUS Non-Linear Spring Engine                               *
*                                                                 *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM                   *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES                   *
*                                                                 *
*          Written by Ce.A.S. s.r.l. (ITALY)                          *
*          with the scientific supervision of                          *
*          Roberto Nova - full professor SOIL MECHANICS             *
*          at Politecnico di Milano (ITALY)                          *
*                                                                 *
*****
*  RELEASE  2017.1  *Build date:Jul 11, 2017*  *                               *
*                                                                 *
*  Ce.A.S.  S.R.L  CENTRO DI ANALISI STRUTTURALE                     *
*          VIALE  GIUSTINIANO 10                                     *
*          20129  M I L A N O (ITALIA)                               *
*  TEL.    +39 02 2020221  (+39 035 23 67 19)                       *
*  FAX    +39 02 29512533  (+39 035 42285 49)                       *
*  email  bruno.becci@ceas.it                                       *
*  Web Page  www.ceas.it                                           *
*****

```

```

JOB : 1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL STRESS >
ACCEPTED <PARAM ITEMAX 100 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >

```

```

*****
*                                                                 *
*  WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED             *
*          BY THE PROGRAM.                                          *
*****

```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

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A

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PRELIMINARY OPERATIONS CPU TIME 0.01 [sec]

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:42:06
|
+-----+

```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

1468.1 - GA27 - Cepav2

```

NO. OF NODAL POINTS (NUMNP) ..... 41
NO. OF COORDINATES (NCOORD) ..... 2
NO. OF NODE DOFS (NDOF) ..... 2
NO. OF EQUATIONS (NEQ) ..... 82
NO. OF CONSTRAINTS CARDS (NVINC) ..... 0
NO. OF ELEMENT GROUPS (NEG) ..... 4
NO. OF SOLUTION STEPS (NSTE) ..... 3
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 68
NO. OF LONG NAMES (LASTNAME) ..... 16
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH ..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0

```

```

IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F

```

RELEVANT ITEMS UNITS

```

STRESSES kPa
Y-DISPLACEMENTS m
ROTATIONS RADIANS
BEAM AND SLAB MOMENTS kN*m/m
BEAM SHEAR FORCES kN/m
ANCHOR FORCES kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS kN/m
Y-REACTIONS kN/m
X-MOMENT REACTIONS kN*m/m
ETC.

```

```

+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:42:06
|
+-----+

```

PREPROCESSOR DATA

NO. OF COMMANDS 68

```

1 : UNIT m kN
2 : TITLE 1468.1 - GA27 - Cepav2
3 : DELTA 0.2
4 : option param itemax 100
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -8 0 1
7 : SOIL 0_L LeftWall_32 -8 0 1 0
8 : SOIL 0_R LeftWall_32 -8 0 2 180
9 : LDATA Strato1_3095_78023_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 9 10
12 : PERMEABILITY 1E-05
13 : RESISTANCE 0 29
14 : YOUNG 2.5E+04 4E+04
15 : ENDL
16 : LDATA Strato2_84780_84781_L_0 -5.35 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19 9 10
19 : PERMEABILITY 1E-05
20 : RESISTANCE 20 35

```



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```

21 : YOUNG 5E+04 1.5E+05
22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : MATERIAL S275_78036 2.1E+08
26 : BEAM WallElement_33 LeftWall_32 -8 0 S275_113 0.08153 00 00 0
27 : WIRE Tieback_78031 LeftWall_32 -0.2 S275_78036 0.0003824 0 70 0 0
28 : STRIP LeftWall_32 3 3 2.33 3 0 67.7 30
29 : STEP Stage0_86326
30 : CHANGE Strato1_3095_78023_L_0 U-FRICT=23.91 LeftWall_32
31 : CHANGE Strato1_3095_78023_L_0 D-FRICT=23.91 LeftWall_32
32 : CHANGE Strato1_3095_78023_L_0 U-KA=0.392 LeftWall_32
33 : CHANGE Strato1_3095_78023_L_0 U-KP=2.792 LeftWall_32
34 : CHANGE Strato1_3095_78023_L_0 D-KA=0.392 LeftWall_32
35 : CHANGE Strato1_3095_78023_L_0 D-KP=2.792 LeftWall_32
36 : CHANGE Strato2_84780_84781_L_0 U-FRICT=29.26 LeftWall_32
37 : CHANGE Strato2_84780_84781_L_0 D-FRICT=29.26 LeftWall_32
38 : CHANGE Strato2_84780_84781_L_0 U-KA=0.316 LeftWall_32
39 : CHANGE Strato2_84780_84781_L_0 U-KP=3.655 LeftWall_32
40 : CHANGE Strato2_84780_84781_L_0 D-KA=0.316 LeftWall_32
41 : CHANGE Strato2_84780_84781_L_0 D-KP=3.655 LeftWall_32
42 : CHANGE Strato1_3095_78023_L_0 U-COHE=0 LeftWall_32
43 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
44 : CHANGE Strato2_84780_84781_L_0 U-COHE=16 LeftWall_32
45 : CHANGE Strato2_84780_84781_L_0 D-COHE=16 LeftWall_32
46 : SETWALL LeftWall_32
47 : GEOM 0 0
48 : WATER -17 0 -8 0 0
49 : ENDSTEP
50 : STEP Stage1_31
51 : CHANGE Strato1_3095_78023_L_0 D-FRICT=23.91 LeftWall_32
52 : CHANGE Strato2_84780_84781_L_0 D-FRICT=29.26 LeftWall_32
53 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
54 : CHANGE Strato2_84780_84781_L_0 D-COHE=16 LeftWall_32
55 : SETWALL LeftWall_32
56 : GEOM 0 0
57 : WATER -17 0 -8 0 0
58 : ADD WallElement_33 Tieback_78031
59 : ENDSTEP
60 : STEP Stage2_158
61 : CHANGE Strato1_3095_78023_L_0 D-FRICT=23.91 LeftWall_32
62 : CHANGE Strato2_84780_84781_L_0 D-FRICT=29.26 LeftWall_32
63 : CHANGE Strato1_3095_78023_L_0 D-COHE=0 LeftWall_32
64 : CHANGE Strato2_84780_84781_L_0 D-COHE=16 LeftWall_32
65 : SETWALL LeftWall_32
66 : GEOM 0 -2.75
67 : WATER -17 0 -8 0 0
68 : ENDSTEP
    
```

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  11:42:06
|
-----
    
```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/
1	0.0000	0.0000	/	2	0.0000	-0.20000	/	3	0.0000	-0.40000	/	4	0.0000	-0.60000	/
5	0.0000	-0.80000	/	6	0.0000	-1.0000	/	7	0.0000	-1.2000	/	8	0.0000	-1.4000	/
9	0.0000	-1.6000	/	10	0.0000	-1.8000	/	11	0.0000	-2.0000	/	12	0.0000	-2.2000	/
13	0.0000	-2.4000	/	14	0.0000	-2.6000	/	15	0.0000	-2.8000	/	16	0.0000	-3.0000	/
17	0.0000	-3.2000	/	18	0.0000	-3.4000	/	19	0.0000	-3.6000	/	20	0.0000	-3.8000	/
21	0.0000	-4.0000	/	22	0.0000	-4.2000	/	23	0.0000	-4.4000	/	24	0.0000	-4.6000	/
25	0.0000	-4.8000	/	26	0.0000	-5.0000	/	27	0.0000	-5.2000	/	28	0.0000	-5.4000	/
29	0.0000	-5.6000	/	30	0.0000	-5.8000	/	31	0.0000	-6.0000	/	32	0.0000	-6.2000	/
33	0.0000	-6.4000	/	34	0.0000	-6.6000	/	35	0.0000	-6.8000	/	36	0.0000	-7.0000	/
37	0.0000	-7.2000	/	38	0.0000	-7.4000	/	39	0.0000	-7.6000	/	40	0.0000	-7.8000	/
41	0.0000	-8.0000	/												

```

-----
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019  11:42:06
|
-----
    
```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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```

0_L      :
 5 41 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0 0
.....
.....2D PLASTIC SOIL .....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active

```

```

material set no. 1

prop( 1) angle          0.00000
prop( 2) layer as foreseen 1.00000

```

```

material set no. 2

prop( 1) angle          0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	2	0.2000	0.000	0.000	0.000	1.000
29	29	2	0.2000	0.000	0.000	0.000	1.000
30	30	2	0.2000	0.000	0.000	0.000	1.000
31	31	2	0.2000	0.000	0.000	0.000	1.000
32	32	2	0.2000	0.000	0.000	0.000	1.000
33	33	2	0.2000	0.000	0.000	0.000	1.000
34	34	2	0.2000	0.000	0.000	0.000	1.000
35	35	2	0.2000	0.000	0.000	0.000	1.000
36	36	2	0.2000	0.000	0.000	0.000	1.000
37	37	2	0.2000	0.000	0.000	0.000	1.000
38	38	2	0.2000	0.000	0.000	0.000	1.000
39	39	2	0.2000	0.000	0.000	0.000	1.000
40	40	2	0.2000	0.000	0.000	0.000	1.000
41	41	2	0.1000	0.000	0.000	0.000	1.000

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:42:06  |
+-----+

```

ELEMENT GROUP NO. 2

0_R :

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5 41 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage status

 1 active
 2 active
 3 active

material set no. 1
 prop(1) angle 180.000
 prop(2) layer as foreseen 1.00000

material set no. 2
 prop(1) angle 180.000
 prop(2) layer as foreseen 2.00000

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	2	0.2000	0.000	0.000	0.000	2.000
29	29	2	0.2000	0.000	0.000	0.000	2.000
30	30	2	0.2000	0.000	0.000	0.000	2.000
31	31	2	0.2000	0.000	0.000	0.000	2.000
32	32	2	0.2000	0.000	0.000	0.000	2.000
33	33	2	0.2000	0.000	0.000	0.000	2.000
34	34	2	0.2000	0.000	0.000	0.000	2.000
35	35	2	0.2000	0.000	0.000	0.000	2.000
36	36	2	0.2000	0.000	0.000	0.000	2.000
37	37	2	0.2000	0.000	0.000	0.000	2.000
38	38	2	0.2000	0.000	0.000	0.000	2.000
39	39	2	0.2000	0.000	0.000	0.000	2.000
40	40	2	0.2000	0.000	0.000	0.000	2.000
41	41	2	0.1000	0.000	0.000	0.000	2.000

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
|                                                                                                                                           |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514                                                                           |
|          Exe Time :24 July 2019  11:42:06                                                                                                                                           |
+-----+

```

ELEMENT GROUP NO. 3
 WallElement_33 :
 2 40 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0

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.....
2D WALL ELEMENT.....

element group behaviour throughout stage analysis

stage status

 1 inactive
 2 active
 3 active

material set no. 1

prop(1) young modulus 0.210000E+09
 prop(2) modification time 0.00000
 prop(3) new young modulus 0.00000
 prop(4) poisson ratio 0.00000
 prop(5) future0.182200E-43

no. of step variable items: 1
 step inertia multiplier

 1 1.000
 2 1.000
 3 1.000

element data

el	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.8153E-01	0.000	0.000
2	2	3	1	0.000	0.000	0.8153E-01	0.000	0.000
3	3	4	1	0.000	0.000	0.8153E-01	0.000	0.000
4	4	5	1	0.000	0.000	0.8153E-01	0.000	0.000
5	5	6	1	0.000	0.000	0.8153E-01	0.000	0.000
6	6	7	1	0.000	0.000	0.8153E-01	0.000	0.000
7	7	8	1	0.000	0.000	0.8153E-01	0.000	0.000
8	8	9	1	0.000	0.000	0.8153E-01	0.000	0.000
9	9	10	1	0.000	0.000	0.8153E-01	0.000	0.000
10	10	11	1	0.000	0.000	0.8153E-01	0.000	0.000
11	11	12	1	0.000	0.000	0.8153E-01	0.000	0.000
12	12	13	1	0.000	0.000	0.8153E-01	0.000	0.000
13	13	14	1	0.000	0.000	0.8153E-01	0.000	0.000
14	14	15	1	0.000	0.000	0.8153E-01	0.000	0.000
15	15	16	1	0.000	0.000	0.8153E-01	0.000	0.000
16	16	17	1	0.000	0.000	0.8153E-01	0.000	0.000
17	17	18	1	0.000	0.000	0.8153E-01	0.000	0.000
18	18	19	1	0.000	0.000	0.8153E-01	0.000	0.000
19	19	20	1	0.000	0.000	0.8153E-01	0.000	0.000
20	20	21	1	0.000	0.000	0.8153E-01	0.000	0.000
21	21	22	1	0.000	0.000	0.8153E-01	0.000	0.000
22	22	23	1	0.000	0.000	0.8153E-01	0.000	0.000
23	23	24	1	0.000	0.000	0.8153E-01	0.000	0.000
24	24	25	1	0.000	0.000	0.8153E-01	0.000	0.000
25	25	26	1	0.000	0.000	0.8153E-01	0.000	0.000
26	26	27	1	0.000	0.000	0.8153E-01	0.000	0.000
27	27	28	1	0.000	0.000	0.8153E-01	0.000	0.000
28	28	29	1	0.000	0.000	0.8153E-01	0.000	0.000
29	29	30	1	0.000	0.000	0.8153E-01	0.000	0.000
30	30	31	1	0.000	0.000	0.8153E-01	0.000	0.000
31	31	32	1	0.000	0.000	0.8153E-01	0.000	0.000
32	32	33	1	0.000	0.000	0.8153E-01	0.000	0.000
33	33	34	1	0.000	0.000	0.8153E-01	0.000	0.000
34	34	35	1	0.000	0.000	0.8153E-01	0.000	0.000
35	35	36	1	0.000	0.000	0.8153E-01	0.000	0.000
36	36	37	1	0.000	0.000	0.8153E-01	0.000	0.000
37	37	38	1	0.000	0.000	0.8153E-01	0.000	0.000
38	38	39	1	0.000	0.000	0.8153E-01	0.000	0.000
39	39	40	1	0.000	0.000	0.8153E-01	0.000	0.000
40	40	41	1	0.000	0.000	0.8153E-01	0.000	0.000

 | PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
 | |
 | 1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514 |
Exe Time :24 July 2019 11:42:06

ELEMENT GROUP NO. 4

Tieback_78031 :



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6 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 2 0

.....2D POST-TENSION ANCHOR.....

element group behaviour throughout stage analysis

stage status

1	inactive
2	active
3	active

material set no. 1

prop(1) angle 70.0000
 prop(2) young modulus 0.210000E+09
 prop(3) modification time 0.00000
 prop(4) new young modulus 0.00000

no. of step variable items: 2

step	-ve lim	+ve lim
1	0.000	0.000
2	0.000	0.000
3	0.000	0.000

element data

el	n	mat	a/l	pinit	yieldc	yieldt
1	2	1	0.3824E-03	0.000	0.000	0.000

 | PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
 | |
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NO. OF NODAL LOADS (NLOAD) 0
 NO. OF LOAD CURVES (NLCUR) 6
 MAXIMUM POINTS/LCURVE (NPTM) 5

 | PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
 | |
 | 1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514 |
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L O A D D A T A

LOAD FUNCTION NUMBER = 1
 NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
4.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
 NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
4.00000	0.0000E+00

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

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LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
4.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
4.00000	0.1000E+01

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
4.00000	0.1000E+01

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
4.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:42:06  |
+-----+

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L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT. F	0.0000000

LOAD INPUT SECTION COMPLETED

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      11:42:06  |
+-----+

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NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

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+-----+
|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019      11:42:06  |
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LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO.  1<NAME    >= 10.000    (BOTH WALLS)
ITEM NO.  2<NATURE  >= 1.0000   (BOTH WALLS)
ITEM NO.  3<LEVEL   >= 0.0000   (BOTH WALLS)
ITEM NO.  4<WALL    >= 1.0000   (BOTH WALLS)
ITEM NO.  5<GAMMAD  >= 19.000   (BOTH WALLS)
ITEM NO.  6<GAMMAB  >= 9.0000   (BOTH WALLS)
ITEM NO.  7<GAMMAW  >= 10.000   (BOTH WALLS)
ITEM NO.  9<U-FRICT >= 23.910   WALL NO.    1
ITEM NO.  9<U-FRICT >= 29.000   WALL NO.    2
ITEM NO. 10<U-KA    >= 0.39200   WALL NO.    1
ITEM NO. 11<U-KP    >= 2.7920   WALL NO.    1
ITEM NO. 12<K0-NC   >= 0.50000   (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000   (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000   (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000   (BOTH WALLS)
ITEM NO. 17<EVC     >= 25000.   (BOTH WALLS)
ITEM NO. 18<EUR     >= 40000.   (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-04 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000   (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000   (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 23.910   WALL NO.    1
ITEM NO. 59<D-FRICT >= 29.000   WALL NO.    2
ITEM NO. 60<D-KA    >= 0.39200   WALL NO.    1
ITEM NO. 61<D-KP    >= 2.7920   WALL NO.    1
ITEM NO. 77<D-PERM  >= 0.10000E-04 (BOTH WALLS)

```

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

```

ITEM NO.  1<NAME    >= 11.000    (BOTH WALLS)
ITEM NO.  2<NATURE  >= 1.0000   (BOTH WALLS)
ITEM NO.  3<LEVEL   >= -5.3500   (BOTH WALLS)
ITEM NO.  4<WALL    >= 1.0000   (BOTH WALLS)
ITEM NO.  5<GAMMAD  >= 19.000   (BOTH WALLS)
ITEM NO.  6<GAMMAB  >= 9.0000   (BOTH WALLS)
ITEM NO.  7<GAMMAW  >= 10.000   (BOTH WALLS)
ITEM NO.  8<U-COHE  >= 16.000   WALL NO.    1
ITEM NO.  8<U-COHE  >= 20.000   WALL NO.    2
ITEM NO.  9<U-FRICT >= 29.260   WALL NO.    1
ITEM NO.  9<U-FRICT >= 35.000   WALL NO.    2
ITEM NO. 10<U-KA    >= 0.31600   WALL NO.    1
ITEM NO. 11<U-KP    >= 3.6550   WALL NO.    1
ITEM NO. 12<K0-NC   >= 0.50000   (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000   (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000   (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000   (BOTH WALLS)
ITEM NO. 17<EVC     >= 50000.   (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-04 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000   (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000   (BOTH WALLS)
ITEM NO. 58<D-COHE  >= 16.000   WALL NO.    1
ITEM NO. 58<D-COHE  >= 20.000   WALL NO.    2
ITEM NO. 59<D-FRICT >= 29.260   WALL NO.    1
ITEM NO. 59<D-FRICT >= 35.000   WALL NO.    2
ITEM NO. 60<D-KA    >= 0.31600   WALL NO.    1
ITEM NO. 61<D-KP    >= 3.6550   WALL NO.    1

```

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.39200 WALL NO. 1
 ITEM NO. 11<U-KP >= 2.7920 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.39200 WALL NO. 1
 ITEM NO. 61<D-KP >= 2.7920 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.31600 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6550 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.31600 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6550 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 10.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 9<U-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.39200 WALL NO. 1
 ITEM NO. 11<U-KP >= 2.7920 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)

GENERAL CONTRACTOR



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ITEM NO. 17<EVC >= 25000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 40000. (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 59<D-FRICT >= 23.910 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 29.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.39200 WALL NO. 1
 ITEM NO. 61<D-KP >= 2.7920 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 11.000 (BOTH WALLS)
 ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
 ITEM NO. 3<LEVEL >= -5.3500 (BOTH WALLS)
 ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
 ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
 ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
 ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
 ITEM NO. 8<U-COHE >= 16.000 WALL NO. 1
 ITEM NO. 8<U-COHE >= 20.000 WALL NO. 2
 ITEM NO. 9<U-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 9<U-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 10<U-KA >= 0.31600 WALL NO. 1
 ITEM NO. 11<U-KP >= 3.6550 WALL NO. 1
 ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
 ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
 ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
 ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
 ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
 ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
 ITEM NO. 27<U-PERM >= 0.10000E-04 (BOTH WALLS)
 ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
 ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
 ITEM NO. 58<D-COHE >= 16.000 WALL NO. 1
 ITEM NO. 58<D-COHE >= 20.000 WALL NO. 2
 ITEM NO. 59<D-FRICT >= 29.260 WALL NO. 1
 ITEM NO. 59<D-FRICT >= 35.000 WALL NO. 2
 ITEM NO. 60<D-KA >= 0.31600 WALL NO. 1
 ITEM NO. 61<D-KP >= 3.6550 WALL NO. 1
 ITEM NO. 77<D-PERM >= 0.10000E-04 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
 AVERAGED ON 6 VALUES

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
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|          Exe Time :24 July 2019  11:42:06                                                    |
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PHASE DESCRIPTORS

STEP NO.	1	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		0.000	0.000
Z-WATER TABLE		-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		0.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB_FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000

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UPHILL BETA ANGLE (SLOPE) [deg] 0.000 0.000
 UPHILL DELTA/PHI RATIO 0.000 0.000
 DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000 0.000
 DOWNHILL DELTA/PHI RATIO 0.000 0.000
 DYN.WATER BEHAVIOUR 0.000 0.000
 Excess pore pressure RATIO Ru 0.000 0.000
 SEISMIC PRESSURE LOWER VALUE 0.000 0.000
 SEISMIC PRESSURE UPPER VALUE 0.000 0.000
 SEISMIC PRESSURE LOWER LEVEL 0.000 0.000
 SEISMIC PRESSURE UPPER LEVEL 0.000 0.000

=====
 =====end of step 1

STEP NO. 2

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	0.000	0.000
Z-WATER_TABLE	-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
 =====end of step 2

STEP NO. 3

	LEFT WALL	RIGHT WALL
Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-2.750	0.000
Z-WATER_TABLE	-17.00	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	0.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-8.000	-8.000
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000



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SEISMIC PRESSURE UPPER LEVEL 0.000 0.000

=====end of step 3

LEFT-HAND WALL

LOWER LEVEL -8.00000
UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -8.00000
UPPER LEVEL 0.00000

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:42:06
+-----+
    
```

I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 3.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 3.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 2.3300000000000000
FOUNDATION WIDTH (B) 3.0000000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 67.7000000000000000
BETA 30.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 2279

NO. OF D.P.W FOR THIS AREA 4898
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 100

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM= 6047.    RIMNOR= 0.000
          RENORM= 0.000    REMNOR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 14.82    RMMAX = 0.000
          RTSMAL=0.1000E-03    RMSMAL= 0.000
          RDT    = 6047.    RDR    = 0.000
          RATIOT= 0.000    RATIOR= 0.000
          MAX UN= 0.000    IEQ=    82 NODE    41 DOF    2    X-ROT. F
          MIN UN= 0.000    IEQ=    1 NODE    1 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS                    0
    
```

```

ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM= 6047.    RIMNOR= 0.000
          RENORM= 0.000    REMNOR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 14.82    RMMAX = 0.000
          RTSMAL=0.1000E-03    RMSMAL= 0.000
          RDT    = 6047.    RDR    = 0.000
          RATIOT= 0.000    RATIOR= 0.000
          MAX UN= 0.000    IEQ=    82 NODE    41 DOF    2    X-ROT. F
          MIN UN= 0.000    IEQ=    1 NODE    1 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS                    0
    
```

```

ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM= 6047.    RIMNOR= 0.000
          RENORM= 0.000    REMNOR= 0.000    RATIO = 0.000    TOLER =0.1000E-03    CONVERGED !
          RFMAX = 14.82    RMMAX = 0.000
    
```


GENERAL CONTRACTOR



ALTA SORVEGLIANZA



GRUPPO FERROVIE DELLO STATO ITALIANE

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3 D	0.7600	0.000	7.600 3.800 7.600	3.800	V-C 3.0493E+04 -0.4000 0.000 1.000 1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0		
4 D	1.140	0.000	11.40 5.700 11.40	5.700	V-C 3.0493E+04 -0.6000 0.000 1.000 1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0		
5 D	1.520	0.000	15.20 7.600 15.20	7.600	V-C 3.0493E+04 -0.8000 0.000 1.000 1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0		
6 D	1.900	0.000	19.00 9.500 19.00	9.500	V-C 3.0493E+04 -1.000 0.000 1.000 1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0		
7 D	2.280	0.000	22.80 11.40 22.80	11.40	V-C 3.0493E+04 -1.200 0.000 1.000 1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0		
8 D	2.660	0.000	26.60 13.30 26.60	13.30	V-C 3.0493E+04 -1.400 0.000 1.000 1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0		
9 D	3.040	0.000	30.40 15.20 30.40	15.20	V-C 3.0493E+04 -1.600 0.000 1.000 1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0		
10 D	3.420	0.000	34.20 17.10 34.20	17.10	V-C 3.0493E+04 -1.800 0.000 1.000 1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0		
11 D	3.800	0.000	38.00 19.00 38.00	19.00	V-C 3.0493E+04 -2.000 0.000 1.000 1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0		
12 D	4.180	0.000	41.80 20.90 41.80	20.90	V-C 3.0493E+04 -2.200 0.000 1.000 1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0		
13 D	4.560	0.000	45.60 22.80 45.60	22.80	V-C 3.0493E+04 -2.400 0.000 1.000 1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0		
14 D	4.940	0.000	49.40 24.70 49.40	24.70	V-C 3.0493E+04 -2.600 0.000 1.000 1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0		
15 D	5.320	0.000	53.20 26.60 53.20	26.60	V-C 3.0493E+04 -2.800 0.000 1.000 1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0		
16 D	5.700	0.000	57.00 28.50 57.00	28.50	V-C 3.0493E+04 -3.000 0.000 1.000 1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0		
17 D	6.080	0.000	60.80 30.40 60.80	30.40	V-C 3.0493E+04 -3.200 0.000 1.000 1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0		
18 D	6.460	0.000	64.60 32.30 64.60	32.30	V-C 3.0493E+04 -3.400 0.000 1.000 1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0		
19 D	6.840	0.000	68.40 34.20 68.40	34.20	V-C 3.0493E+04 -3.600 0.000 1.000 1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0		
20 D	7.220	0.000	72.20 36.10 72.20	36.10	V-C 3.0493E+04 -3.800 0.000 1.000 1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0		
21 D	7.600	0.000	76.00 38.00 76.00	38.00	V-C 3.0493E+04 -4.000 0.000 1.000 1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0		
22 D	7.980	0.000	79.80 39.90 79.80	39.90	V-C 3.0493E+04 -4.200 0.000 1.000 1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0		
23 D	8.360	0.000	83.60 41.80 83.60	41.80	V-C 3.0493E+04 -4.400 0.000 1.000 1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0		
24 D	8.740	0.000	87.40 43.70 87.40	43.70	V-C 3.0493E+04 -4.600 0.000 1.000 1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0		
25 D	9.120	0.000	91.20 45.60 91.20	45.60	V-C 3.0493E+04 -4.800 0.000 1.000 1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0		
26 D	9.500	0.000	95.00 47.50 95.00	47.50	V-C 3.0493E+04 -5.000 0.000 1.000 1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0		
27 D	9.880	0.000	98.80 49.40 98.80	49.40	V-C 3.0493E+04 -5.200 0.000 1.000 1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0		
28 D	10.26	0.000	102.6 51.30 102.6	51.30	V-C 5.4937E+04 -5.400 0.000 1.000 1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0		
29 D	10.64	0.000	106.4 53.20 106.4	53.20	V-C 5.4937E+04 -5.600 0.000 1.000 1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0		
30 D	11.02	0.000	110.2 55.10 110.2	55.10	V-C 5.4937E+04 -5.800 0.000 1.000 1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0		
31 D	11.40	0.000	114.0 57.00 114.0	57.00	V-C 5.4937E+04 -6.000 0.000 1.000 1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0		
32 D	11.78	0.000	117.8 58.90 117.8	58.90	V-C 5.4937E+04 -6.200 0.000 1.000 1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0		
33 D	12.16	0.000	121.6 60.80 121.6	60.80	V-C 5.4937E+04 -6.400 0.000 1.000 1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0		
34 D	12.54	0.000	125.4 62.70 125.4	62.70	V-C 5.4937E+04 -6.600 0.000 1.000 1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0		
35 D	12.92	0.000	129.2 64.60 129.2	64.60	V-C 5.4937E+04 -6.800 0.000 1.000 1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0		
36 D	13.30	0.000	133.0 66.50 133.0	66.50	V-C 5.4937E+04 -7.000 0.000 1.000 1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0		
37 D	13.68	0.000	136.8 68.40 136.8	68.40	V-C 5.4937E+04 -7.200 0.000 1.000 1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0		
38 D	14.06	0.000	140.6 70.30 140.6	70.30	V-C 5.4937E+04 -7.400 0.000 1.000 1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0		
39 D	14.44	0.000	144.4 72.20 144.4	72.20	V-C 5.4937E+04 -7.600 0.000 1.000 1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0		
40 D	14.82	0.000	148.2 74.10 148.2	74.10	V-C 5.4937E+04 -7.800 0.000 1.000 1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0		
41 D	7.600	0.000	152.0 76.00 152.0	76.00	V-C 5.4937E+04 -8.000 0.000 1.000 1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0		

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
C U R R E N T T I M E I S 1.0000

WALL2D ELEMENT

EL TA TB MA MB

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

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S T R E S S R E S U L T S F O R G R O U P N O . 4

Tieback_78031 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
C U R R E N T T I M E I S 1.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL FORCE d0 EDISPL pl. eps K -ve limit +ve limit

***** NO ONE ELEMENT ACTIVE AT CURRENT STEP *****

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATIO= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATIO= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM= 6047. RIMNOR= 0.000
RENORM= 0.000 REMNOR= 0.000 RATIO = 0.000 TOLER =0.1000E-03 CONVERGED !
RFMAX = 14.82 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 6047. RDR = 0.000
RATIOT= 0.000 RATIO= 0.000
MAX UN= 0.000 IEQ= 82 NODE 41 DOF 2 X-ROT. F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| |



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1468.1 - GA27 - Cepav2
 SOLUTION REACHED USING 2 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

Y-DISPL.F X-ROT. F
 (02) (04) (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS

PARATIEPLUS (TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017*
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	UL-RL	5.7646E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	UL-RL	5.7646E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	UL-RL	5.7646E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	UL-RL	5.7646E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	UL-RL	5.7646E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	UL-RL	5.7646E+04	-1.000	0.000	1.000	1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0									
7 D	2.280	0.000	22.80	11.40	22.80	11.40	UL-RL	5.7646E+04	-1.200	0.000	1.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.660	0.000	26.60	13.30	26.60	13.30	UL-RL	5.7646E+04	-1.400	0.000	1.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0									
9 D	3.040	0.000	30.40	15.20	30.40	15.20	UL-RL	5.7646E+04	-1.600	0.000	1.000	1.000
15.20	0.000	0.000	Strato1_3095_78023_L_0									
10 D	3.420	0.000	34.20	17.10	34.20	17.10	UL-RL	5.7646E+04	-1.800	0.000	1.000	1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.800	0.000	38.00	19.00	38.00	19.00	UL-RL	5.7646E+04	-2.000	0.000	1.000	1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0									
12 D	4.180	0.000	41.80	20.90	41.80	20.90	UL-RL	5.7646E+04	-2.200	0.000	1.000	1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0									
13 D	4.560	0.000	45.60	22.80	45.60	22.80	UL-RL	5.7646E+04	-2.400	0.000	1.000	1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0									
14 D	4.940	0.000	49.40	24.70	49.40	24.70	UL-RL	5.7646E+04	-2.600	0.000	1.000	1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0									
15 D	5.320	0.000	53.20	26.60	53.20	26.60	UL-RL	5.7646E+04	-2.800	0.000	1.000	1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0									
16 D	5.700	0.000	57.00	28.50	57.00	28.50	UL-RL	5.7646E+04	-3.000	0.000	1.000	1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.080	0.000	60.80	30.40	60.80	30.40	UL-RL	5.7646E+04	-3.200	0.000	1.000	1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0									
18 D	6.460	0.000	64.60	32.30	64.60	32.30	UL-RL	5.7646E+04	-3.400	0.000	1.000	1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0									
19 D	6.840	0.000	68.40	34.20	68.40	34.20	UL-RL	5.7646E+04	-3.600	0.000	1.000	1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0									
20 D	7.220	0.000	72.20	36.10	72.20	36.10	UL-RL	5.7646E+04	-3.800	0.000	1.000	1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0									
21 D	7.600	0.000	76.00	38.00	76.00	38.00	UL-RL	5.7646E+04	-4.000	0.000	1.000	1.000

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38.00	0.000	0.000	Strato1_3095_78023_L_0							
22 D	7.980	0.000	79.80 39.90	79.80	39.90	UL-RL	5.7646E+04	-4.200	0.000	1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0							
23 D	8.360	0.000	83.60 41.80	83.60	41.80	UL-RL	5.7646E+04	-4.400	0.000	1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0							
24 D	8.740	0.000	87.40 43.70	87.40	43.70	UL-RL	5.7646E+04	-4.600	0.000	1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0							
25 D	9.120	0.000	91.20 45.60	91.20	45.60	UL-RL	5.7646E+04	-4.800	0.000	1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0							
26 D	9.500	0.000	95.00 47.50	95.00	47.50	UL-RL	5.7646E+04	-5.000	0.000	1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0							
27 D	9.880	0.000	98.80 49.40	98.80	49.40	UL-RL	5.7646E+04	-5.200	0.000	1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0							
28 D	10.26	0.000	102.6 51.30	102.6	51.30	UL-RL	2.3998E+05	-5.400	0.000	1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0							
29 D	10.64	0.000	106.4 53.20	106.4	53.20	UL-RL	2.3998E+05	-5.600	0.000	1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0							
30 D	11.02	0.000	110.2 55.10	110.2	55.10	UL-RL	2.3998E+05	-5.800	0.000	1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0							
31 D	11.40	0.000	114.0 57.00	114.0	57.00	UL-RL	2.3998E+05	-6.000	0.000	1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0							
32 D	11.78	0.000	117.8 58.90	117.8	58.90	UL-RL	2.3998E+05	-6.200	0.000	1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0							
33 D	12.16	0.000	121.6 60.80	121.6	60.80	UL-RL	2.3998E+05	-6.400	0.000	1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0							
34 D	12.54	0.000	125.4 62.70	125.4	62.70	UL-RL	2.3998E+05	-6.600	0.000	1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0							
35 D	12.92	0.000	129.2 64.60	129.2	64.60	UL-RL	2.3998E+05	-6.800	0.000	1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0							
36 D	13.30	0.000	133.0 66.50	133.0	66.50	UL-RL	2.3998E+05	-7.000	0.000	1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0							
37 D	13.68	0.000	136.8 68.40	136.8	68.40	UL-RL	2.3998E+05	-7.200	0.000	1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0							
38 D	14.06	0.000	140.6 70.30	140.6	70.30	UL-RL	2.3998E+05	-7.400	0.000	1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0							
39 D	14.44	0.000	144.4 72.20	144.4	72.20	UL-RL	2.3998E+05	-7.600	0.000	1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0							
40 D	14.82	0.000	148.2 74.10	148.2	74.10	UL-RL	2.3998E+05	-7.800	0.000	1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0							
41 D	7.600	0.000	152.0 76.00	152.0	76.00	UL-RL	2.3998E+05	-8.000	0.000	1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0							

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-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|           PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|           1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|           Exe Time :24 July 2019    11:42:06  |
|-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1468.1 - GA27 - Cepav2
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STRESS RESULTS FOR GROUP NO. 2
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0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 2.0000
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HARDENING 2D SOIL ELEMENT
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***** TOTAL STRESS FORMULATION *****
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EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	0.000	0.000	0.000	0.000	0.000	UL-RL	4.8789E+04	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.3800	0.000	3.800	1.900	3.800	1.900	UL-RL	4.8789E+04	-0.2000	0.000	1.000	1.000
1.900	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.7600	0.000	7.600	3.800	7.600	3.800	UL-RL	4.8789E+04	-0.4000	0.000	1.000	1.000
3.800	0.000	0.000	Strato1_3095_78023_L_0									
4 D	1.140	0.000	11.40	5.700	11.40	5.700	UL-RL	4.8789E+04	-0.6000	0.000	1.000	1.000
5.700	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.520	0.000	15.20	7.600	15.20	7.600	UL-RL	4.8789E+04	-0.8000	0.000	1.000	1.000
7.600	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.900	0.000	19.00	9.500	19.00	9.500	UL-RL	4.8789E+04	-1.000	0.000	1.000	1.000
9.500	0.000	0.000	Strato1_3095_78023_L_0									
7 D	2.280	0.000	22.80	11.40	22.80	11.40	UL-RL	4.8789E+04	-1.200	0.000	1.000	1.000
11.40	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.660	0.000	26.60	13.30	26.60	13.30	UL-RL	4.8789E+04	-1.400	0.000	1.000	1.000
13.30	0.000	0.000	Strato1_3095_78023_L_0									
9 D	3.040	0.000	30.40	15.20	30.40	15.20	UL-RL	4.8789E+04	-1.600	0.000	1.000	1.000

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



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15.20	0.000	0.000	Strato1_3095_78023_L_0		
10 D	3.420	0.000	34.20 17.10 34.20	17.10	UL-RL 4.8789E+04 -1.800 0.000 1.000 1.000
17.10	0.000	0.000	Strato1_3095_78023_L_0		
11 D	3.800	0.000	38.00 19.00 38.00	19.00	UL-RL 4.8789E+04 -2.000 0.000 1.000 1.000
19.00	0.000	0.000	Strato1_3095_78023_L_0		
12 D	4.180	0.000	41.80 20.90 41.80	20.90	UL-RL 4.8789E+04 -2.200 0.000 1.000 1.000
20.90	0.000	0.000	Strato1_3095_78023_L_0		
13 D	4.560	0.000	45.60 22.80 45.60	22.80	UL-RL 4.8789E+04 -2.400 0.000 1.000 1.000
22.80	0.000	0.000	Strato1_3095_78023_L_0		
14 D	4.940	0.000	49.40 24.70 49.40	24.70	UL-RL 4.8789E+04 -2.600 0.000 1.000 1.000
24.70	0.000	0.000	Strato1_3095_78023_L_0		
15 D	5.320	0.000	53.20 26.60 53.20	26.60	UL-RL 4.8789E+04 -2.800 0.000 1.000 1.000
26.60	0.000	0.000	Strato1_3095_78023_L_0		
16 D	5.700	0.000	57.00 28.50 57.00	28.50	UL-RL 4.8789E+04 -3.000 0.000 1.000 1.000
28.50	0.000	0.000	Strato1_3095_78023_L_0		
17 D	6.080	0.000	60.80 30.40 60.80	30.40	UL-RL 4.8789E+04 -3.200 0.000 1.000 1.000
30.40	0.000	0.000	Strato1_3095_78023_L_0		
18 D	6.460	0.000	64.60 32.30 64.60	32.30	UL-RL 4.8789E+04 -3.400 0.000 1.000 1.000
32.30	0.000	0.000	Strato1_3095_78023_L_0		
19 D	6.840	0.000	68.40 34.20 68.40	34.20	UL-RL 4.8789E+04 -3.600 0.000 1.000 1.000
34.20	0.000	0.000	Strato1_3095_78023_L_0		
20 D	7.220	0.000	72.20 36.10 72.20	36.10	UL-RL 4.8789E+04 -3.800 0.000 1.000 1.000
36.10	0.000	0.000	Strato1_3095_78023_L_0		
21 D	7.600	0.000	76.00 38.00 76.00	38.00	UL-RL 4.8789E+04 -4.000 0.000 1.000 1.000
38.00	0.000	0.000	Strato1_3095_78023_L_0		
22 D	7.980	0.000	79.80 39.90 79.80	39.90	UL-RL 4.8789E+04 -4.200 0.000 1.000 1.000
39.90	0.000	0.000	Strato1_3095_78023_L_0		
23 D	8.360	0.000	83.60 41.80 83.60	41.80	UL-RL 4.8789E+04 -4.400 0.000 1.000 1.000
41.80	0.000	0.000	Strato1_3095_78023_L_0		
24 D	8.740	0.000	87.40 43.70 87.40	43.70	UL-RL 4.8789E+04 -4.600 0.000 1.000 1.000
43.70	0.000	0.000	Strato1_3095_78023_L_0		
25 D	9.120	0.000	91.20 45.60 91.20	45.60	UL-RL 4.8789E+04 -4.800 0.000 1.000 1.000
45.60	0.000	0.000	Strato1_3095_78023_L_0		
26 D	9.500	0.000	95.00 47.50 95.00	47.50	UL-RL 4.8789E+04 -5.000 0.000 1.000 1.000
47.50	0.000	0.000	Strato1_3095_78023_L_0		
27 D	9.880	0.000	98.80 49.40 98.80	49.40	UL-RL 4.8789E+04 -5.200 0.000 1.000 1.000
49.40	0.000	0.000	Strato1_3095_78023_L_0		
28 D	10.26	0.000	102.6 51.30 102.6	51.30	UL-RL 1.6481E+05 -5.400 0.000 1.000 1.000
51.30	0.000	0.000	Strato2_84780_84781_L_0		
29 D	10.64	0.000	106.4 53.20 106.4	53.20	UL-RL 1.6481E+05 -5.600 0.000 1.000 1.000
53.20	0.000	0.000	Strato2_84780_84781_L_0		
30 D	11.02	0.000	110.2 55.10 110.2	55.10	UL-RL 1.6481E+05 -5.800 0.000 1.000 1.000
55.10	0.000	0.000	Strato2_84780_84781_L_0		
31 D	11.40	0.000	114.0 57.00 114.0	57.00	UL-RL 1.6481E+05 -6.000 0.000 1.000 1.000
57.00	0.000	0.000	Strato2_84780_84781_L_0		
32 D	11.78	0.000	117.8 58.90 117.8	58.90	UL-RL 1.6481E+05 -6.200 0.000 1.000 1.000
58.90	0.000	0.000	Strato2_84780_84781_L_0		
33 D	12.16	0.000	121.6 60.80 121.6	60.80	UL-RL 1.6481E+05 -6.400 0.000 1.000 1.000
60.80	0.000	0.000	Strato2_84780_84781_L_0		
34 D	12.54	0.000	125.4 62.70 125.4	62.70	UL-RL 1.6481E+05 -6.600 0.000 1.000 1.000
62.70	0.000	0.000	Strato2_84780_84781_L_0		
35 D	12.92	0.000	129.2 64.60 129.2	64.60	UL-RL 1.6481E+05 -6.800 0.000 1.000 1.000
64.60	0.000	0.000	Strato2_84780_84781_L_0		
36 D	13.30	0.000	133.0 66.50 133.0	66.50	UL-RL 1.6481E+05 -7.000 0.000 1.000 1.000
66.50	0.000	0.000	Strato2_84780_84781_L_0		
37 D	13.68	0.000	136.8 68.40 136.8	68.40	UL-RL 1.6481E+05 -7.200 0.000 1.000 1.000
68.40	0.000	0.000	Strato2_84780_84781_L_0		
38 D	14.06	0.000	140.6 70.30 140.6	70.30	UL-RL 1.6481E+05 -7.400 0.000 1.000 1.000
70.30	0.000	0.000	Strato2_84780_84781_L_0		
39 D	14.44	0.000	144.4 72.20 144.4	72.20	UL-RL 1.6481E+05 -7.600 0.000 1.000 1.000
72.20	0.000	0.000	Strato2_84780_84781_L_0		
40 D	14.82	0.000	148.2 74.10 148.2	74.10	UL-RL 1.6481E+05 -7.800 0.000 1.000 1.000
74.10	0.000	0.000	Strato2_84780_84781_L_0		
41 D	7.600	0.000	152.0 76.00 152.0	76.00	UL-RL 1.6481E+05 -8.000 0.000 1.000 1.000
76.00	0.000	0.000	Strato2_84780_84781_L_0		

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514                               |
|          Exe Time :24 July 2019  11:42:06                                                    |
|                                                                                               |
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1468.1 - GA27 - Cepav2

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STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
CURRENT TIME IS 2.0000

WALL2D ELEMENT



Doc. N.

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INOR

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EL	TA	TB	MA	MB
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000

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|               PARATIEPLUS (TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|               |
|               1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514 |
|               Exe Time :24 July 2019      11:42:06 |
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 2.0000

POST-TENSION 2D-BOUNDARY ELEMENT

EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit
ANCHOR 1	0.0000	0.0000	0.0000	0.0000	80304.	0.0000	0.0000

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM= 5501. RIMNOR= 0.000
RENORM= 828.8 REMNOR= 0.000 RATIO =0.3881 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 15.99 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT = 5501. RDR = 0.000
RATIOT=0.3881 RATIOR= 0.000
MAX UN= 6.823 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN= 0.000 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM= 5501. RIMNOR= 0.000
RENORM= 121.1 REMNOR=0.2246E-23 RATIO =0.1484 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 15.99 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000



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RDT = 5501. RDR = 0.000
 RATIO=0.1484 RATIO= 0.000
 MAX UN= 4.916 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
 MIN UN=-.1623E-11 IEQ= 57 NODE 29 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM= 5501. RIMNOR= 0.000
 RENORM= 54.13 REMNOR=0.1148E-22 RATIO =0.9919E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 15.99 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT = 5501. RDR = 0.000
 RATIO=0.9919E-01 RATIO= 0.000
 MAX UN= 6.101 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
 MIN UN=-.4199E-10 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM= 5501. RIMNOR= 0.000
 RENORM= 1.014 REMNOR=0.8950E-23 RATIO =0.1358E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 15.99 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT = 5501. RDR = 0.000
 RATIO=0.1358E-01 RATIO= 0.000
 MAX UN=0.6887 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
 MIN UN=-.1419E-10 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
 RINORM= 5501. RIMNOR= 0.000
 RENORM=0.2459E-20 REMNOR=0.2294E-23 RATIO =0.6686E-12 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 15.99 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT = 5501. RDR = 0.000
 RATIO=0.6686E-12 RATIO= 0.000
 MAX UN=0.1723E-10 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
 MIN UN=-.1988E-10 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514 |
|          Exe Time :24 July 2019  11:42:06 |
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1468.1 - GA27 - Cepav2
 SOLUTION REACHED USING 5 ITERATIONS ON 100

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	1.4566270E-03	3.5002350E-03
2	2.1566740E-03	3.5002350E-03
3	2.8539148E-03	3.4581413E-03
4	3.5344025E-03	3.3331275E-03
5	4.1818501E-03	3.1283795E-03
6	4.7807393E-03	2.8484057E-03
7	5.3165886E-03	2.4990749E-03
8	5.7762299E-03	2.0876545E-03
9	6.1480912E-03	1.6228457E-03
10	6.4225211E-03	1.1153309E-03
11	6.5922546E-03	5.7828178E-04
12	6.6528975E-03	2.7188410E-05
13	6.6033697E-03	-5.2030919E-04
14	6.4463247E-03	-1.0445443E-03
15	6.1885420E-03	-1.5239290E-03
16	5.8412305E-03	-1.9361520E-03
17	5.4197890E-03	-2.2627256E-03
18	4.9425846E-03	-2.4926039E-03
19	4.4294074E-03	-2.6225820E-03
20	3.8998960E-03	-2.6573981E-03
21	3.3719506E-03	-2.6097183E-03
22	2.8603887E-03	-2.4963776E-03
23	2.3767447E-03	-2.3328599E-03
24	1.9297603E-03	-2.1316094E-03



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 556 di 560
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25	1.5259756E-03	-1.9022389E-03
26	1.1702692E-03	-1.6518000E-03
27	8.6634092E-04	-1.3851028E-03
28	6.1715283E-04	-1.1045584E-03
29	4.2437279E-04	-8.2618541E-04
30	2.8483215E-04	-5.7551001E-04
31	1.9134222E-04	-3.6723304E-04
32	1.3479256E-04	-2.0615554E-04
33	1.0589561E-04	-8.9848637E-05
34	9.6299032E-05	-1.1852832E-05
35	9.9145333E-05	3.6005851E-05
36	1.0924704E-04	6.2049529E-05
37	1.2301088E-04	7.3780267E-05
38	1.3821483E-04	7.7347327E-05
39	1.5370898E-04	7.7301928E-05
40	1.6908647E-04	7.6519441E-05
41	1.8434771E-04	7.6197932E-05

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|          PARATIEPLUS (TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:42:06
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1 D	0.000	-1.4566E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	1.000	1.000
0.000	0.000	0.000	Strato1_3095_78023_L_0									
2 D	0.2986	-2.1567E-03	3.808	1.493	3.808	1.904	ACTIVE	0.000	-0.2000	0.000	1.000	1.000
1.493	0.000	0.000	Strato1_3095_78023_L_0									
3 D	0.6009	-2.8539E-03	7.664	3.004	7.664	3.832	ACTIVE	0.000	-0.4000	0.000	1.000	1.000
3.004	0.000	0.000	Strato1_3095_78023_L_0									
4 D	0.9100	-3.5344E-03	11.61	4.550	11.61	5.803	ACTIVE	0.000	-0.6000	0.000	1.000	1.000
4.550	0.000	0.000	Strato1_3095_78023_L_0									
5 D	1.228	-4.1819E-03	15.66	6.139	15.66	7.831	ACTIVE	0.000	-0.8000	0.000	1.000	1.000
6.139	0.000	0.000	Strato1_3095_78023_L_0									
6 D	1.555	-4.7807E-03	19.84	7.775	19.84	9.918	ACTIVE	0.000	-1.000	0.000	1.000	1.000
7.775	0.000	0.000	Strato1_3095_78023_L_0									
7 D	1.891	-5.3166E-03	24.12	9.456	24.12	12.06	ACTIVE	0.000	-1.200	0.000	1.000	1.000
9.456	0.000	0.000	Strato1_3095_78023_L_0									
8 D	2.235	-5.7762E-03	28.51	11.17	28.51	14.25	ACTIVE	0.000	-1.400	0.000	1.000	1.000
11.17	0.000	0.000	Strato1_3095_78023_L_0									
9 D	2.831	-6.1481E-03	36.11	14.15	36.11	18.05	ACTIVE	0.000	-1.600	0.000	1.000	1.000
14.15	0.000	0.000	Strato1_3095_78023_L_0									
10 D	3.415	-6.4225E-03	43.56	17.08	43.56	21.78	ACTIVE	0.000	-1.800	0.000	1.000	1.000
17.08	0.000	0.000	Strato1_3095_78023_L_0									
11 D	3.930	-6.5923E-03	50.13	19.65	50.13	25.07	ACTIVE	0.000	-2.000	0.000	1.000	1.000
19.65	0.000	0.000	Strato1_3095_78023_L_0									
12 D	4.435	-6.6529E-03	56.56	22.17	56.56	28.28	ACTIVE	0.000	-2.200	0.000	1.000	1.000
22.17	0.000	0.000	Strato1_3095_78023_L_0									
13 D	4.891	-6.6034E-03	62.39	24.46	62.39	31.19	ACTIVE	0.000	-2.400	0.000	1.000	1.000
24.46	0.000	0.000	Strato1_3095_78023_L_0									
14 D	5.346	-6.4463E-03	68.18	26.73	68.18	34.09	ACTIVE	0.000	-2.600	0.000	1.000	1.000
26.73	0.000	0.000	Strato1_3095_78023_L_0									
15 D	5.765	-6.1885E-03	73.53	28.82	73.53	36.76	ACTIVE	0.000	-2.800	0.000	1.000	1.000
28.82	0.000	0.000	Strato1_3095_78023_L_0									
16 D	6.186	-5.8412E-03	78.90	30.93	78.90	39.45	ACTIVE	0.000	-3.000	0.000	1.000	1.000
30.93	0.000	0.000	Strato1_3095_78023_L_0									
17 D	6.478	-5.4198E-03	82.62	32.39	82.62	41.31	ACTIVE	0.000	-3.200	0.000	1.000	1.000
32.39	0.000	0.000	Strato1_3095_78023_L_0									
18 D	6.714	-4.9426E-03	85.63	33.57	85.63	42.82	ACTIVE	0.000	-3.400	0.000	1.000	1.000
33.57	0.000	0.000	Strato1_3095_78023_L_0									
19 D	6.954	-4.4294E-03	88.70	34.77	88.70	44.35	ACTIVE	0.000	-3.600	0.000	1.000	1.000
34.77	0.000	0.000	Strato1_3095_78023_L_0									
20 D	7.198	-3.8999E-03	91.81	35.99	91.81	45.91	ACTIVE	0.000	-3.800	0.000	1.000	1.000
35.99	0.000	0.000	Strato1_3095_78023_L_0									
21 D	7.446	-3.3720E-03	94.98	37.23	94.98	47.49	ACTIVE	0.000	-4.000	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 557 di 560
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37.23	0.000	0.000	Strato1_3095_78023_L_0								
22 D	7.697	-2.8604E-03	98.18 38.49	98.18	49.09	ACTIVE	0.000	-4.200	0.000	1.000	1.000
38.49	0.000	0.000	Strato1_3095_78023_L_0								
23 D	7.951	-2.3767E-03	101.4 39.75	101.4	50.71	ACTIVE	0.000	-4.400	0.000	1.000	1.000
39.75	0.000	0.000	Strato1_3095_78023_L_0								
24 D	8.207	-1.9298E-03	104.7 41.04	104.7	52.34	ACTIVE	0.000	-4.600	0.000	1.000	1.000
41.04	0.000	0.000	Strato1_3095_78023_L_0								
25 D	8.466	-1.5260E-03	108.0 42.33	108.0	53.99	ACTIVE	0.000	-4.800	0.000	1.000	1.000
42.33	0.000	0.000	Strato1_3095_78023_L_0								
26 D	8.727	-1.1703E-03	111.3 43.64	111.3	55.66	ACTIVE	0.000	-5.000	0.000	1.000	1.000
43.64	0.000	0.000	Strato1_3095_78023_L_0								
27 D	8.991	-8.6634E-04	114.7 44.95	114.7	57.34	ACTIVE	0.000	-5.200	0.000	1.000	1.000
44.95	0.000	0.000	Strato1_3095_78023_L_0								
28 D	3.863	-6.1715E-04	118.1 19.32	118.1	59.03	ACTIVE	0.000	-5.400	0.000	1.000	1.000
19.32	0.000	0.000	Strato2_84780_84781_L_0								
29 D	6.220	-4.2437E-04	121.5 31.10	121.5	60.73	UL-RL	6.9812E+04	-5.600	0.000	1.000	1.000
31.10	0.000	0.000	Strato2_84780_84781_L_0								
30 D	8.511	-2.8483E-04	124.9 42.55	124.9	62.44	UL-RL	6.9812E+04	-5.800	0.000	1.000	1.000
42.55	0.000	0.000	Strato2_84780_84781_L_0								
31 D	10.16	-1.9134E-04	128.3 50.80	128.3	64.16	UL-RL	6.9812E+04	-6.000	0.000	1.000	1.000
50.80	0.000	0.000	Strato2_84780_84781_L_0								
32 D	11.30	-1.3479E-04	131.8 56.48	131.8	65.89	UL-RL	6.9812E+04	-6.200	0.000	1.000	1.000
56.48	0.000	0.000	Strato2_84780_84781_L_0								
33 D	12.05	-1.0590E-04	135.2 60.23	135.2	67.62	UL-RL	6.9812E+04	-6.400	0.000	1.000	1.000
60.23	0.000	0.000	Strato2_84780_84781_L_0								
34 D	12.53	-9.6299E-05	138.7 62.65	138.7	69.37	UL-RL	6.9812E+04	-6.600	0.000	1.000	1.000
62.65	0.000	0.000	Strato2_84780_84781_L_0								
35 D	12.84	-9.9145E-05	142.2 64.20	142.2	71.12	UL-RL	6.9812E+04	-6.800	0.000	1.000	1.000
64.20	0.000	0.000	Strato2_84780_84781_L_0								
36 D	13.05	-1.0925E-04	145.8 65.25	145.8	72.88	UL-RL	6.9812E+04	-7.000	0.000	1.000	1.000
65.25	0.000	0.000	Strato2_84780_84781_L_0								
37 D	13.21	-1.2301E-04	149.3 66.05	149.3	74.64	UL-RL	6.9812E+04	-7.200	0.000	1.000	1.000
66.05	0.000	0.000	Strato2_84780_84781_L_0								
38 D	13.35	-1.3821E-04	152.8 66.76	152.8	76.41	UL-RL	6.9812E+04	-7.400	0.000	1.000	1.000
66.76	0.000	0.000	Strato2_84780_84781_L_0								
39 D	13.49	-1.5371E-04	156.4 67.46	156.4	78.19	UL-RL	6.9812E+04	-7.600	0.000	1.000	1.000
67.46	0.000	0.000	Strato2_84780_84781_L_0								
40 D	13.63	-1.6909E-04	159.9 68.16	159.9	79.97	UL-RL	6.9812E+04	-7.800	0.000	1.000	1.000
68.16	0.000	0.000	Strato2_84780_84781_L_0								
41 D	6.888	-1.8435E-04	163.5 68.88	163.5	81.75	UL-RL	6.9812E+04	-8.000	0.000	1.000	1.000
68.88	0.000	0.000	Strato2_84780_84781_L_0								

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                           |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514                                                                           |
|          Exe Time :24 July 2019  11:42:06                                                                                               |
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1468.1 - GA27 - Cepav2

S T R E S S R E S U L T S F O R G R O U P N O . 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 41
C U R R E N T T I M E I S 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E FACTOR	UFACTOR
Peq	Su_a	Su_p	LAYER									
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	1.000	1.000
0.000	0.000	0.000	not available									
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	1.000	1.000
0.000	0.000	0.000	not available									
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	1.000	1.000
0.000	0.000	0.000	not available									
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	1.000	1.000



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 558 di 560
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0.000	0.000	0.000	not available								
10	0.000	--	--	--	--	REMOVED	--	-1.800	0.000	1.000	1.000
0.000	0.000	0.000	not available								
11	0.000	--	--	--	--	REMOVED	--	-2.000	0.000	1.000	1.000
0.000	0.000	0.000	not available								
12	0.000	--	--	--	--	REMOVED	--	-2.200	0.000	1.000	1.000
0.000	0.000	0.000	not available								
13	0.000	--	--	--	--	REMOVED	--	-2.400	0.000	1.000	1.000
0.000	0.000	0.000	not available								
14	0.000	--	--	--	--	REMOVED	--	-2.600	0.000	1.000	1.000
0.000	0.000	0.000	not available								
15 D	0.5305	6.1885E-03	0.9500	2.652	53.20	26.60	PASSIVE	0.000	-2.800	0.000	1.000
2.652	0.000	0.000	Strato1_3095_78023_L_0								
16 D	2.652	5.8412E-03	4.750	13.26	57.00	28.50	PASSIVE	0.000	-3.000	0.000	1.000
13.26	0.000	0.000	Strato1_3095_78023_L_0								
17 D	4.774	5.4198E-03	8.550	23.87	60.80	30.40	PASSIVE	0.000	-3.200	0.000	1.000
23.87	0.000	0.000	Strato1_3095_78023_L_0								
18 D	6.896	4.9426E-03	12.35	34.48	64.60	34.48	PASSIVE	0.000	-3.400	0.000	1.000
34.48	0.000	0.000	Strato1_3095_78023_L_0								
19 D	9.018	4.4294E-03	16.15	45.09	68.40	45.09	PASSIVE	0.000	-3.600	0.000	1.000
45.09	0.000	0.000	Strato1_3095_78023_L_0								
20 D	11.14	3.8999E-03	19.95	55.70	72.20	55.70	PASSIVE	0.000	-3.800	0.000	1.000
55.70	0.000	0.000	Strato1_3095_78023_L_0								
21 D	11.49	3.3720E-03	23.75	57.44	76.00	57.44	V-C	8871.	-4.000	0.000	1.000
57.44	0.000	0.000	Strato1_3095_78023_L_0								
22 D	11.00	2.8604E-03	27.55	54.99	79.80	54.99	V-C	8871.	-4.200	0.000	1.000
54.99	0.000	0.000	Strato1_3095_78023_L_0								
23 D	10.55	2.3767E-03	31.35	52.76	83.60	52.76	V-C	8871.	-4.400	0.000	1.000
52.76	0.000	0.000	Strato1_3095_78023_L_0								
24 D	10.17	1.9298E-03	35.15	50.83	87.40	50.83	V-C	8871.	-4.600	0.000	1.000
50.83	0.000	0.000	Strato1_3095_78023_L_0								
25 D	9.852	1.5260E-03	38.95	49.26	91.20	49.26	V-C	8871.	-4.800	0.000	1.000
49.26	0.000	0.000	Strato1_3095_78023_L_0								
26 D	9.622	1.1703E-03	42.75	48.11	95.00	48.11	V-C	8871.	-5.000	0.000	1.000
48.11	0.000	0.000	Strato1_3095_78023_L_0								
27 D	9.241	8.6634E-04	46.55	46.20	98.80	49.40	UL-RL	1.4193E+04	-5.200	0.000	1.000
46.20	0.000	0.000	Strato1_3095_78023_L_0								
28 D	11.21	6.1715E-04	50.35	56.04	102.6	56.04	V-C	1.5982E+04	-5.400	0.000	1.000
56.04	0.000	0.000	Strato2_84780_84781_L_0								
29 D	10.98	4.2437E-04	54.15	54.90	106.4	54.90	V-C	1.5982E+04	-5.600	0.000	1.000
54.90	0.000	0.000	Strato2_84780_84781_L_0								
30 D	10.72	2.8483E-04	57.95	53.61	110.2	55.10	UL-RL	4.7945E+04	-5.800	0.000	1.000
53.61	0.000	0.000	Strato2_84780_84781_L_0								
31 D	10.22	1.9134E-04	61.75	51.12	114.0	57.00	UL-RL	4.7945E+04	-6.000	0.000	1.000
51.12	0.000	0.000	Strato2_84780_84781_L_0								
32 D	10.08	1.3479E-04	65.55	50.40	117.8	58.90	UL-RL	4.7945E+04	-6.200	0.000	1.000
50.40	0.000	0.000	Strato2_84780_84781_L_0								
33 D	10.20	1.0590E-04	69.35	50.99	121.6	60.80	UL-RL	4.7945E+04	-6.400	0.000	1.000
50.99	0.000	0.000	Strato2_84780_84781_L_0								
34 D	10.50	9.6299E-05	73.15	52.50	125.4	62.70	UL-RL	4.7945E+04	-6.600	0.000	1.000
52.50	0.000	0.000	Strato2_84780_84781_L_0								
35 D	10.92	9.9145E-05	76.95	54.61	129.2	64.60	UL-RL	4.7945E+04	-6.800	0.000	1.000
54.61	0.000	0.000	Strato2_84780_84781_L_0								
36 D	11.41	1.0925E-04	80.75	57.05	133.0	66.50	UL-RL	4.7945E+04	-7.000	0.000	1.000
57.05	0.000	0.000	Strato2_84780_84781_L_0								
37 D	11.93	1.2301E-04	84.55	59.67	136.8	68.40	UL-RL	4.7945E+04	-7.200	0.000	1.000
59.67	0.000	0.000	Strato2_84780_84781_L_0								
38 D	12.47	1.3821E-04	88.35	62.35	140.6	70.30	UL-RL	4.7945E+04	-7.400	0.000	1.000
62.35	0.000	0.000	Strato2_84780_84781_L_0								
39 D	13.01	1.5371E-04	92.15	65.05	144.4	72.20	UL-RL	4.7945E+04	-7.600	0.000	1.000
65.05	0.000	0.000	Strato2_84780_84781_L_0								
40 D	13.55	1.6909E-04	95.95	67.73	148.2	74.10	UL-RL	4.7945E+04	-7.800	0.000	1.000
67.73	0.000	0.000	Strato2_84780_84781_L_0								
41 D	7.041	1.8435E-04	99.75	70.41	152.0	76.00	UL-RL	4.7945E+04	-8.000	0.000	1.000
70.41	0.000	0.000	Strato2_84780_84781_L_0								

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|
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*
|
|
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514
|          Exe Time :24 July 2019      11:42:06
|
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1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 3

Wallelement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 40
CURRENT TIME IS 3.0000

WALL2D ELEMENT

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.

Progetto
INOR

Lotto
12

Codifica Documento
E E2 CL IV 40A1 002

Rev.
A

Foglio
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EL	TA	TB	MA	MB
1	-6.82121E-13	6.82121E-13	-8.61533E-14	3.71259E-13
2	-19.961	19.961	-2.69118E-13	-3.9922
3	-19.360	19.360	3.9922	-7.8641
4	-18.450	18.450	7.8641	-11.554
5	-17.222	17.222	11.554	-14.999
6	-15.667	15.667	14.999	-18.132
7	-13.776	13.776	18.132	-20.887
8	-11.541	11.541	20.887	-23.195
9	-8.7102	8.7102	23.195	-24.937
10	-5.2950	5.2950	24.937	-25.996
11	-1.3647	1.3647	25.996	-26.269
12	3.0699	-3.0699	26.269	-25.655
13	7.9612	-7.9612	25.655	-24.063
14	13.307	-13.307	24.063	-21.402
15	18.541	-18.541	21.402	-17.693
16	22.074	-22.074	17.693	-13.279
17	23.778	-23.778	13.279	-8.5230
18	23.595	-23.595	8.5230	-3.8041
19	21.531	-21.531	3.8041	0.50210
20	17.589	-17.589	-0.50210	4.0199
21	13.547	-13.547	-4.0199	6.7293
22	10.247	-10.247	-6.7293	8.7787
23	7.6462	-7.6462	-8.7787	10.308
24	5.6883	-5.6883	-10.308	11.446
25	4.3023	-4.3023	-11.446	12.306
26	3.4080	-3.4080	-12.306	12.988
27	3.1577	-3.1577	-12.988	13.619
28	-4.1873	4.1873	-13.619	12.782
29	-8.9468	8.9468	-12.782	10.992
30	-11.158	11.158	-10.992	8.7606
31	-11.223	11.223	-8.7606	6.5160
32	-10.007	10.007	-6.5160	4.5145
33	-8.1596	8.1596	-4.5145	2.8826
34	-6.1314	6.1314	-2.8826	1.6563
35	-4.2133	4.2133	-1.6563	0.81366
36	-2.5739	2.5739	-0.81366	0.29889
37	-1.2974	1.2974	-0.29889	3.94137E-02
38	-0.41567	0.41567	-3.94137E-02	-4.37194E-02
39	6.61399E-02	-6.61399E-02	4.37194E-02	-3.04914E-02
40	0.15245	-0.15245	3.04914E-02	2.33147E-15

```

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:42:06  |
+-----+

```

1468.1 - GA27 - Cepav2

STRESS RESULTS FOR GROUP NO. 4

Tieback_78031 :
ELEMENT TYPE 6 NO.OF ELEMENTS. IN THIS GROUP 1
CURRENT TIME IS 3.0000

POST-TENSION 2D-BOUNDARY ELEMENT

	EL	FORCE	d0	EDISPL	pl. eps	K	-ve limit	+ve limit	
ANCHOR	1	59.234	0.0000	7.37626E-04	0.0000	80304.	0.0000	0.0000	ELASTIC ORIGINAL YOUNG MODULUS

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          1468.1-GA27-Cepav2.BaseDesignSection_28.A2M2R1_3514  |
|          Exe Time :24 July 2019  11:42:06  |
+-----+

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FINAL INCREMENTAL ANALYSIS

SUMMARY

STEP	NO. OF ITERATIONS
1	CONVERGENCE :YES 2

GENERAL CONTRACTOR



ALTA SORVEGLIANZA



Doc. N.	Progetto INOR	Lotto 12	Codifica Documento E E2 CL IV 40A1 002	Rev. A	Foglio 560 di 560
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2	CONVERGENCE :YES	2
3	CONVERGENCE :YES	5

END OF PROCESS FOR PROBLEM

1468.1 - GA27 - Cepav2

NONLINEAR SOLUTION CPU TIME 0.02 [sec]

DATABASE CREATION CPU TIME..... 0.10 [sec]