

Collegamento tra l'A4 (Torino–Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri–Gravellona) in località Ghemme. Lotto 1

PROGETTO DEFINITIVO

COD.

PROGETTAZIONE: ANAS - DIREZIONE PROGETTAZIONE E REALIZZAZIONE LAVORI

I PROGETTISTI:

ing. Vincenzo Marzi
Ordine Ing. di Bari n.3594
ing. Achille Devitofranceschi
Ordine Ing. di Roma n.19116

IL GEOLOGO:

geol. Serena Majetta
Ordine Geol. del Lazio n.928

RESPONSABILE DEL SIA

arch. Giovanni Magarò
Ordine Arch. di Roma n.16183

IL COORDINATORE PER LA SICUREZZA IN FASE DI PROGETTAZIONE

geom. Fabio Quondam

VISTO: IL RESPONSABILE DEL PROCEDIMENTO :

ing. Nicolò Canepa

PROTOCOLLO

DATA

GEOTECNICA

PONTE ROVASENDA E RELATIVE OPERE PROVVISORIALI - VI03

RELAZIONE GEOTECNICA E DI CALCOLO - TABELLE DI CALCOLO

CODICE PROGETTO

NOME FILE

REVISIONE

SCALA:

PROGETTO LIV. PROG. N. PROG.

DPT007_D_1701_T00_VI03_GET_RE02_A.PDF

DPT007 D 1701

CODICE ELAB. T00VI03GETRE02

A

-

C

B

A

Emissione

18/5/2018

Ing. A. Mangiola

Ing. E. Mittiga

Ing. A. Micheli

REV.

DESCRIZIONE

DATA

REDATTO

VERIFICATO

APPROVATO

Indice

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1. VERIFICHE DI STABILITÀ GLOBALE SBANCAMENTO CON PALANCOLE VI03

Project Settings

Length(L) Units: meters

Time(t) Units: Seconds

Force(F) Units: kN

Pressure(p) Units: kPa

Strength Units: kPa

Unit Weight of Water: 9.807 kN/m³

View: 2D

Analysis Settings

Slope Stability

Kind: SLOPE/W

Method: Morgenstern-Price

Settings

Apply Phreatic Correction: No

Side Function

Interslice force function option: Half-Sine

PWP Conditions Source: Piezometric Line

Use Staged Rapid Drawdown: No

Slip Surface

Direction of movement: Right to Left

Use Passive Mode: No

Slip Surface Option: Entry and Exit

Critical slip surfaces saved: 1

Optimize Critical Slip Surface Location: No

Tension Crack

Tension Crack Option: (none)

FOS Distribution

FOS Calculation Option: Constant

Advanced

Number of Slices: 30

Optimization Tolerance: 0.01

Minimum Slip Surface Depth: 0.1 m

Optimization Maximum Iterations: 2000

Optimization Convergence Tolerance: 1e-007

Starting Optimization Points: 8

Ending Optimization Points: 16

Complete Passes per Insertion: 1

Driving Side Maximum Convex Angle: 5 °

Resisting Side Maximum Convex Angle: 1 °

Materials

Ug1

Model: Mohr-Coulomb

Unit Weight: 19.5 kN/m³

Cohesion: 4 kPa

Phi: 21 °

Phi-B: 0 °

Pore Water Pressure

Piezometric Line: 1

palancola

Model: Undrained (Phi=0)

Unit Weight: 75 kN/m³

Cohesion: 2.5e+005 kPa

Pore Water Pressure

Piezometric Line: 1

Ug2

Model: Mohr-Coulomb

Unit Weight: 19.5 kN/m³

Cohesion: 0 kPa

Phi: 30 °

Phi-B: 0 °

Pore Water Pressure

Piezometric Line: 1

Ug3

Model: Mohr-Coulomb

Unit Weight: 19 kN/m³

Cohesion: 0 kPa

Phi: 24 °

Phi-B: 0 °

Pore Water Pressure

Piezometric Line: 1

Slip Surface Entry and Exit

Left Projection: Range

Left-Zone Left Coordinate: (-20.91, -8.8) m

Left-Zone Right Coordinate: (-16.69, -8.8) m

Left-Zone Increment: 4

Right Projection: Range

Right-Zone Left Coordinate: (-4.865794, 0) m

Right-Zone Right Coordinate: (9.68, 0) m

Right-Zone Increment: 4

Radius Increments: 4

Slip Surface Limits

Left Coordinate: (-21, -8.8) m

Right Coordinate: (19, 0) m

Piezometric Lines

Piezometric Line 1

Coordinates

	X (m)	Y (m)
	-5	0
	19	0

Piezometric Line 2

Coordinates

	X (m)	Y (m)
	-21	-8.8
	-11.92	-8.83

Regions

	Material	Points	Area (m ²)
Region 1	palancola	3,1,12,5,4,17,15	6
Region 2	Ug3	8,9,2,18,7	236
Region 3	Ug3	11,10,8,9	240
Region 4	Ug1	1,12,13,14	108
Region 5	Ug1	17,15,16,19	5.4875
Region 6	Ug2	12,5,4,18,2,13	182.45
Region 7	Ug2	7,6,20,19,17,4,18	71.5965

Points

	X (m)	Y (m)
Point 1	-5	0
Point 2	19	-12.1
Point 3	-5.5	0
Point 4	-5.5	-12
Point 5	-5	-12
Point 6	-21	-8.8
Point 7	-21	-12.1
Point 8	-21	-18
Point 9	19	-18
Point 10	-21	-24
Point 11	19	-24
Point 12	-5	-4.5
Point 13	19	-4.5
Point 14	19	0
Point 15	-5.5	-2
Point 16	-6.8	-2
Point 17	-5.5	-4.5
Point 18	-5.5	-12.1
Point 19	-8.59	-4.5
Point 20	-11.92	-8.8

Critical Slip Surfaces

	Slip Surface	FOS	Center (m)	Radius (m)	Entry (m)	Exit (m)
1	49	1.387	(-7.969, 5.271)	18.419	(9.68, 0)	(-19.855, -8.8)

Slices of Slip Surface: 49

	Slip Surface	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
1	49	-19.85275	-8.801899	0	0.05712612	0.032981776	0
2	49	-19.370835	-9.1822085	0	11.790461	6.8072258	0
3	49	-18.41151	-9.8909895	0	33.871998	19.556007	0
4	49	-17.452185	-10.50962	0	53.642986	30.970792	0
5	49	-16.492855	-11.048425	0	70.962902	40.97045	0
6	49	-15.533525	-11.515135	0	85.637851	49.443036	0
7	49	-14.574195	-11.91565	0	97.495286	56.288929	0
8	49	-13.5509	-12.272975	0	99.642675	44.363777	0
9	49	-12.463635	-12.58281	0	105.63738	47.032793	0
10	49	-11.365	-12.82384	0	125.81217	56.015187	0
11	49	-10.255	-12.997465	0	158.85105	70.725045	0
12	49	-9.145	-13.102445	0	186.99563	83.255817	0
13	49	-8.1425	-13.14219	0	209.40968	93.235197	0
14	49	-7.2475	-13.128865	0	227.2779	101.19064	0
15	49	-6.15	-13.046775	0	226.80005	100.97789	0
16	49	-5.25	-12.944915	0	924.95318	411.81569	0

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Lotto 1

Progetto Definitivo

17	49	-4.4738715	-12.805875	125.58958	237.19262	49.688875	0
18	49	-3.421614	-12.57005	123.27113	223.43699	44.596711	0
19	49	-2.3693565	-12.267975	120.30752	209.75279	39.823603	0
20	49	-1.3688103	-11.91783	116.87546	196.24531	45.8242	0
21	49	- 0.41997476	-11.5224	112.99679	183.67867	40.808199	0
22	49	0.52886104	-11.062305	108.49169	171.32973	36.279561	0
23	49	1.4776965	-10.53187	103.28872	159.11239	32.229813	0
24	49	2.426532	-9.9236905	97.325188	146.87936	28.610113	0
25	49	3.375368	-9.2279075	90.498977	134.39135	25.341276	0
26	49	4.3242035	-8.431059	82.682944	121.34153	22.319548	0
27	49	5.273039	-7.514028	73.693527	107.32302	19.415994	0
28	49	6.2218745	-6.44815	63.237274	91.744412	16.458604	0
29	49	7.17071	-5.186829	50.867356	73.710736	13.188632	0
30	49	8.153846	-3.572511	35.035478	49.912936	5.7109211	4
31	49	9.171282	-1.322511	12.969846	15.337207	0.90874452	4

2. VERIFICHE PALANCOLE VI03



Report di Calcolo

Nome Progetto: New Project

Autore: Ingegnere

Jobname: Z:\01 COM\2017-010-ANAS-Pedemontana Piemontese\02-Bozze e varie\04_Sottofondazioni\Paratie
provvisionali\Palanca VI03\palanca AZ52m- VI03.pplus

Data: 24/05/2018 18:16:42

Design Section: Base Design Section

Descrizione del Software

ParatiePlus è un codice agli elementi finiti che simula il problema di uno scavo sostenuto da diaframmi flessibili e permette di valutare il comportamento della parete di sostegno durante tutte le fasi intermedie e nella configurazione finale.

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL

Quota : 0 m

OCR : 1

Tipo : HORIZONTAL

Quota : -4.5 m

OCR : 1

Tipo : HORIZONTAL

Quota : -12 m

OCR : 1

Descrizione Pareti

X : 0 m

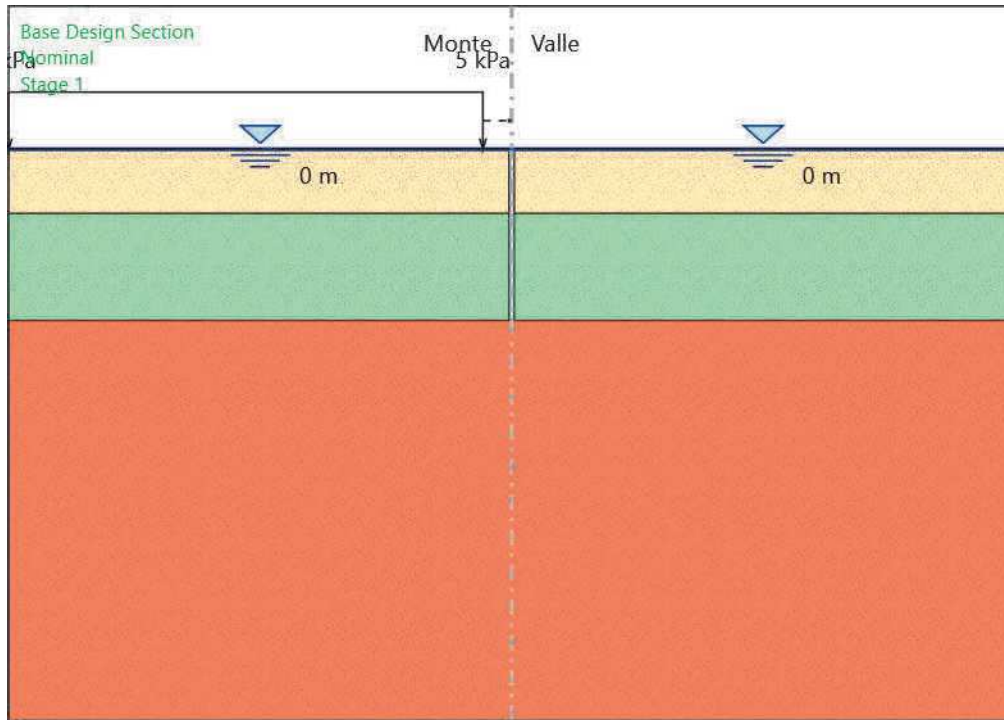
Quota in alto : 0 m

Quota di fondo : -12 m

Muro di sinistra

Fasi di Calcolo

Stage 1



Stage 1

Elementi strutturali

Paratia : WallElement

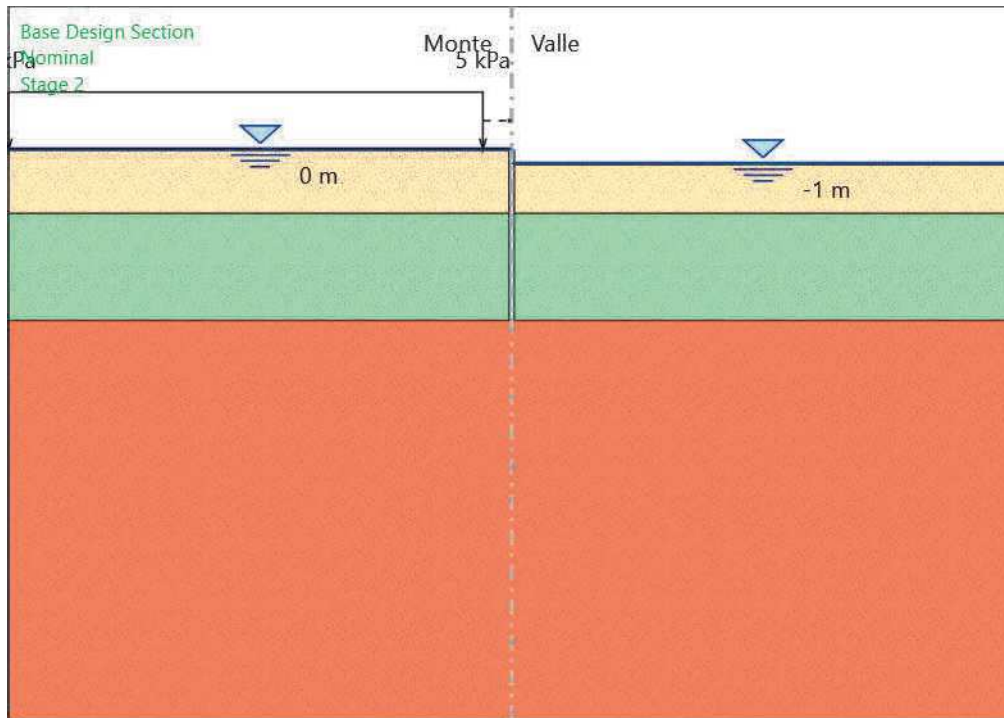
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 2



Stage 2

Elementi strutturali

Paratia : WallElement

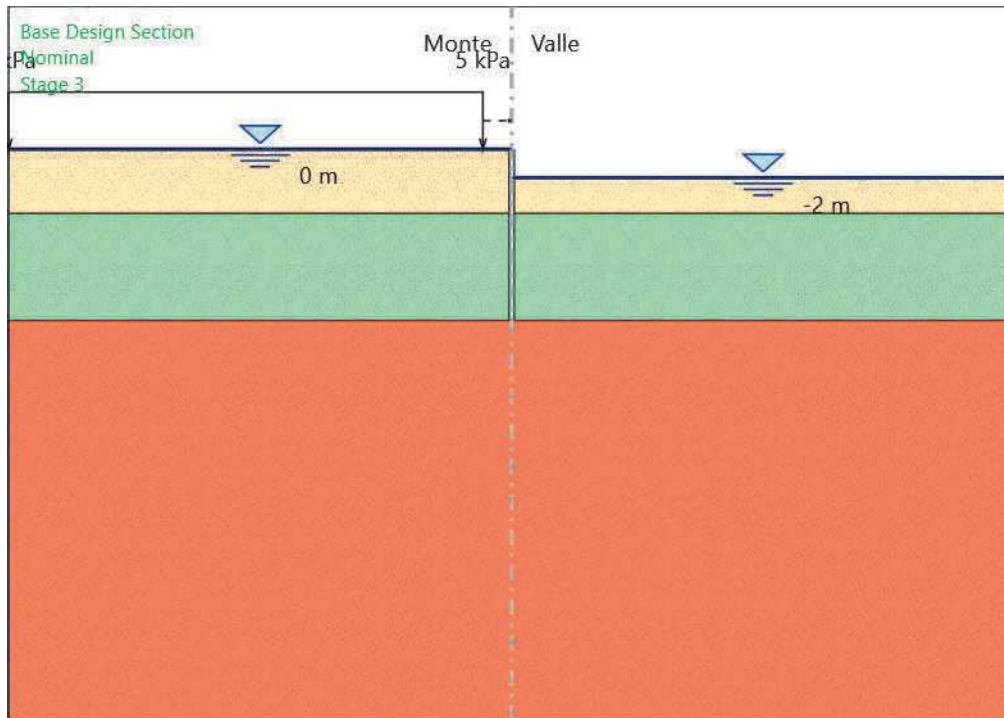
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 3



Stage 3

Elementi strutturali

Paratia : WallElement

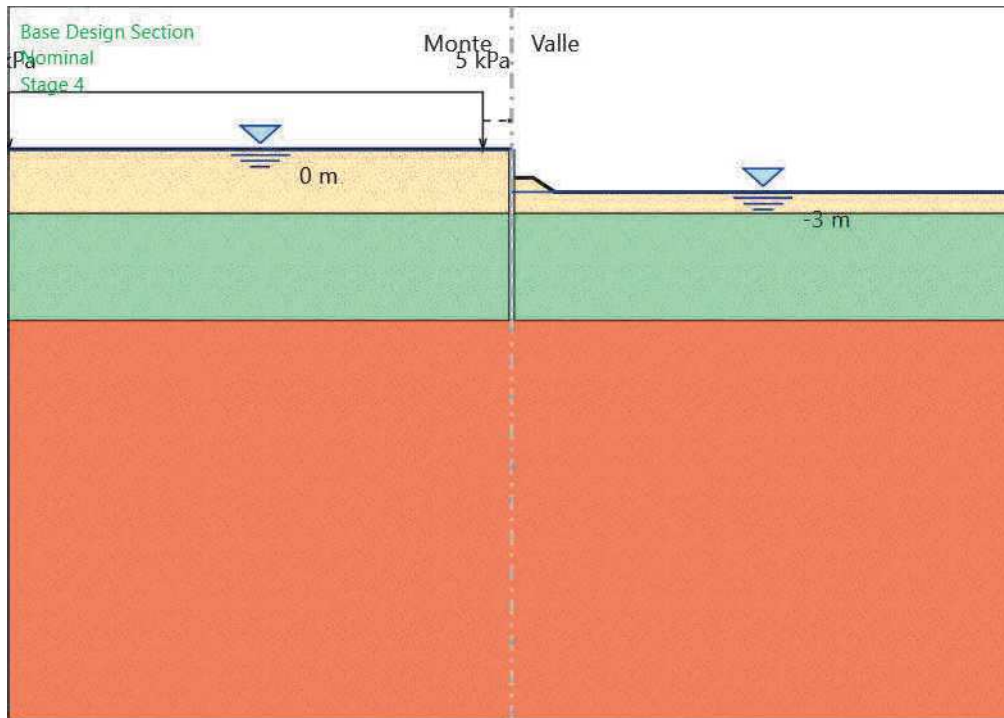
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 4



Stage 4

Elementi strutturali

Paratia : WallElement

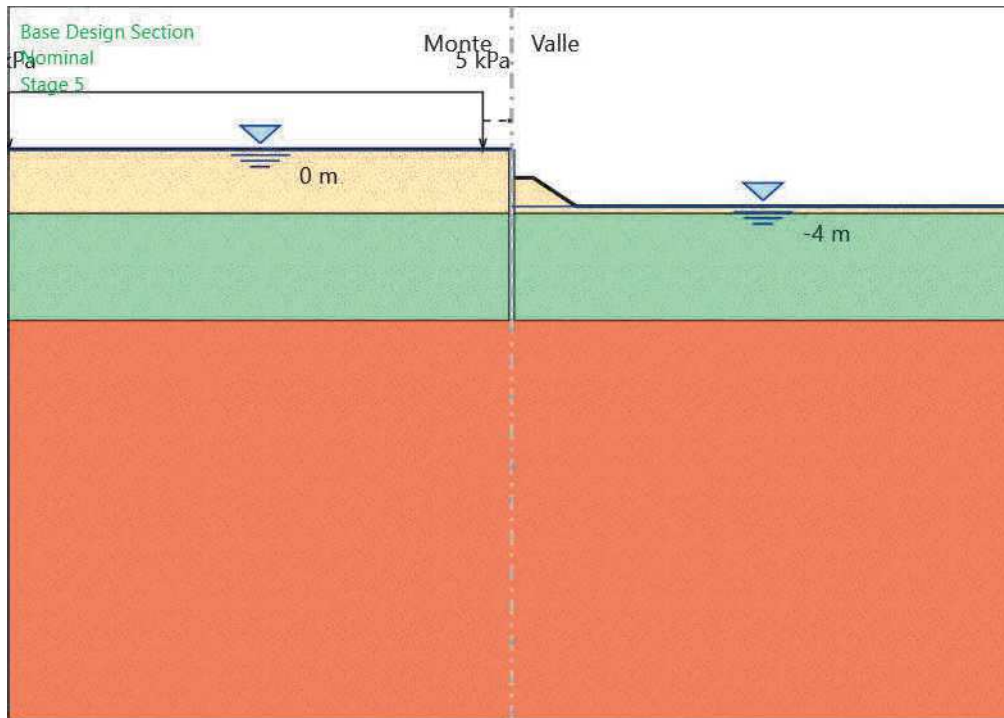
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 5



Stage 5

Elementi strutturali

Paratia : WallElement

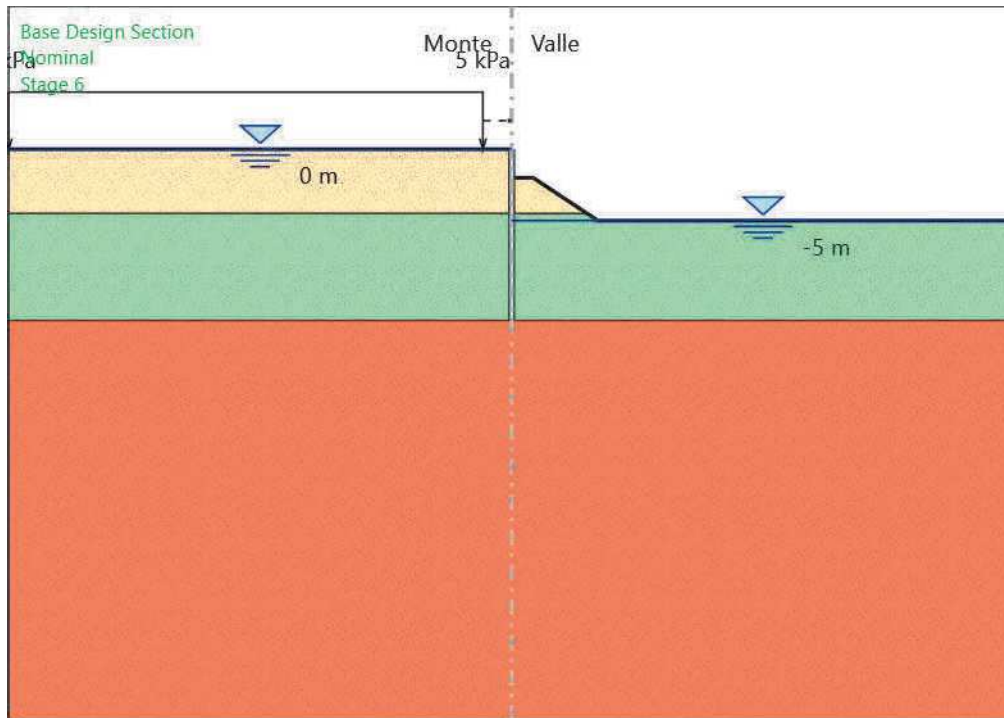
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 6



Stage 6

Elementi strutturali

Paratia : WallElement

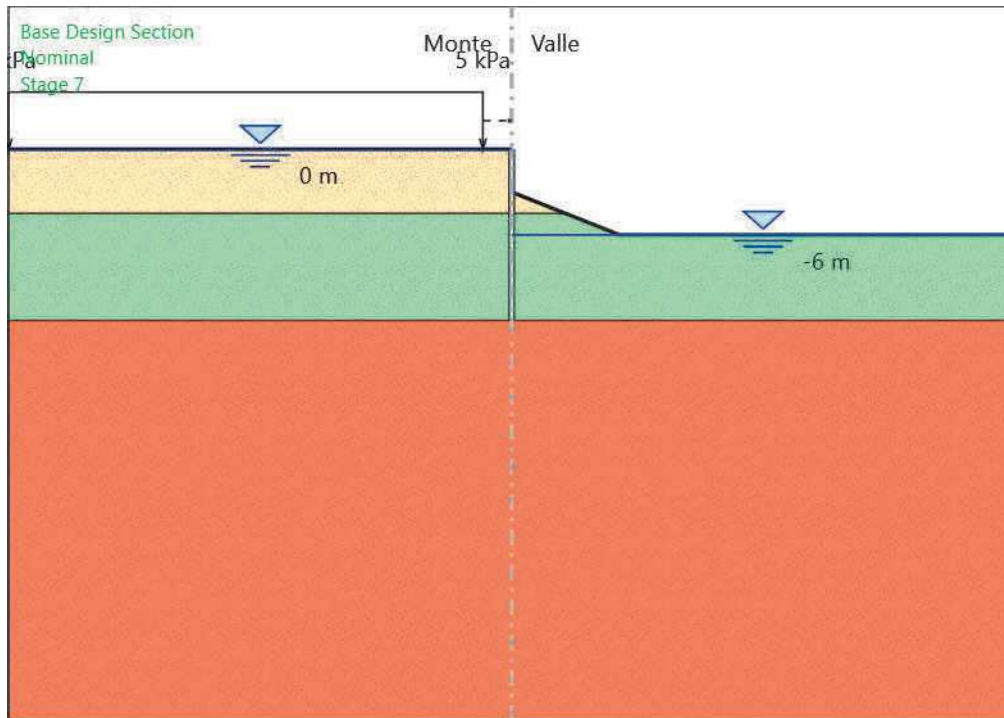
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 7



Stage 7

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Allegati

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 May 2018       18:15:59         |
|          |                                                         |
|          |-----+-----|

```

```

*****
*
* 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.Nominal_63
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL_STRESS >
ACCEPTED <PARAM ITEMAX 40 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >

```

```

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

```

```
PRELIMINARY OPERATIONS CPU TIME 0.01 [sec]
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:15:59   |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 61
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 122
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 111
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.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
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Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018           18:15:59 |
+-----+
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   111
1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
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 Ug1_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 8 26
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Ug2_741_743_L_0 -4.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19.5 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 0 36
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : BEAM WallElement_33 LeftWall_32 -12 0 S275_113 0.25 00 00 0
25 : STRIP LeftWall_32 1 7 2 33 0 5 45
26 : STEP Stage1_31
27 : CHANGE Ug1_2_8_L_0 U-FRICT=26 LeftWall_32
28 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
29 : CHANGE Ug1_2_8_L_0 U-KA=0.39 LeftWall_32
30 : CHANGE Ug1_2_8_L_0 U-KP=3.404 LeftWall_32
31 : CHANGE Ug1_2_8_L_0 D-KA=0.39 LeftWall_32
32 : CHANGE Ug1_2_8_L_0 D-KP=3.404 LeftWall_32
33 : CHANGE Ug2_741_743_L_0 U-FRICT=36 LeftWall_32
34 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
35 : CHANGE Ug2_741_743_L_0 U-KA=0.26 LeftWall_32
36 : CHANGE Ug2_741_743_L_0 U-KP=6.289 LeftWall_32
37 : CHANGE Ug2_741_743_L_0 D-KA=0.26 LeftWall_32
38 : CHANGE Ug2_741_743_L_0 D-KP=6.289 LeftWall_32
39 : CHANGE Ug1_2_8_L_0 U-COHE=8 LeftWall_32
40 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
41 : CHANGE Ug2_741_743_L_0 U-COHE=0 LeftWall_32
42 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
43 : SETWALL LeftWall_32
44 : GEOM 0 0
45 : WATER 0 0 -12 0 0
46 : ADD WallElement_33
47 : ENDSTEP
48 : STEP Stage2_158
49 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
50 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
51 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
52 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
53 : SETWALL LeftWall_32
54 : GEOM 0 -1
55 : WATER 0 1 -12 0 0
56 : ENDSTEP
57 : STEP Stage3_255
58 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
59 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
60 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
61 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
62 : SETWALL LeftWall_32
63 : GEOM 0 -2
64 : WATER 0 2 -12 0 0
65 : ENDSTEP
66 : STEP Stage4_352
67 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
68 : CHANGE Ug1_2_8_L_0 D-KP=2.535 LeftWall_32
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
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Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
70 : CHANGE Ug2_741_743_L_0 D-KA=0.234 LeftWall_32
71 : CHANGE Ug2_741_743_L_0 D-KP=5.075 LeftWall_32
72 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
73 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
74 : SETWALL LeftWall_32
75 : GEOM 0 -2
76 : WATER 0 3 -12 0 0
77 : ENDSTEP
78 : STEP Stage5_449
79 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
80 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
81 : CHANGE Ug2_741_743_L_0 D-KA=0.228 LeftWall_32
82 : CHANGE Ug2_741_743_L_0 D-KP=3.864 LeftWall_32
83 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
84 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
85 : SETWALL LeftWall_32
86 : GEOM 0 -2
87 : WATER 0 4 -12 0 0
88 : ENDSTEP
89 : STEP Stage6_546
90 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
91 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
92 : CHANGE Ug2_741_743_L_0 D-KP=2.844 LeftWall_32
93 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
94 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
95 : SETWALL LeftWall_32
96 : GEOM 0 -2
97 : WATER 0 5 -12 0 0
98 : ENDSTEP
99 : STEP Stage7_643
100 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
101 : CHANGE Ug1_2_8_L_0 D-KA=0.319 LeftWall_32
102 : CHANGE Ug1_2_8_L_0 D-KP=1.295 LeftWall_32
103 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
104 : CHANGE Ug2_741_743_L_0 D-KA=0.218 LeftWall_32
105 : CHANGE Ug2_741_743_L_0 D-KP=2.637 LeftWall_32
106 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
107 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
108 : SETWALL LeftWall_32
109 : GEOM 0 -3
110 : WATER 0 6 -12 0 0
111 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
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Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:15:59             |
+-----+

```

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 /	42	0.0000	-8.2000 /	43	0.0000	-8.4000 /	44	0.0000	-8.6000 /
45	0.0000	-8.8000 /	46	0.0000	-9.0000 /	47	0.0000	-9.2000 /	48	0.0000	-9.4000 /
49	0.0000	-9.6000 /	50	0.0000	-9.8000 /	51	0.0000	-10.000 /	52	0.0000	-10.200 /
53	0.0000	-10.400 /	54	0.0000	-10.600 /	55	0.0000	-10.800 /	56	0.0000	-11.000 /
57	0.0000	-11.200 /	58	0.0000	-11.400 /	59	0.0000	-11.600 /	60	0.0000	-11.800 /
61	0.0000	-12.000 /									

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018          18:15:59      |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 61 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
6 active
7 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	2	0.2000	0.000	0.000	0.000	1.000
25	25	2	0.2000	0.000	0.000	0.000	1.000
26	26	2	0.2000	0.000	0.000	0.000	1.000
27	27	2	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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	0.2000	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	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018  18:15:59                               |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R
 5 61  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
 6  active
 7  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	2	0.2000	0.000	0.000	0.000	2.000
25	25	2	0.2000	0.000	0.000	0.000	2.000
26	26	2	0.2000	0.000	0.000	0.000	2.000
27	27	2	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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	0.2000	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	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:15:59             |
+-----+
ELEMENT GROUP NO. 3

WallElement_33
2 60 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
6  active
7  active

material set no. 1

prop( 1) young modulus      0.210000E+09
prop( 2) modification time  0.000000
prop( 3) new young modulus  0.000000
prop( 4) poisson ratio      0.000000
prop( 5) future .....      0.000000

no. of step variable items: 1
step  inertia multiplier
-----
1  1.000
2  1.000
3  1.000
4  1.000
5  1.000
6  1.000
7  1.000

element data

el  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
1  1  2  1  0.000  0.000  0.2500  0.000  0.000
2  2  3  1  0.000  0.000  0.2500  0.000  0.000
3  3  4  1  0.000  0.000  0.2500  0.000  0.000
4  4  5  1  0.000  0.000  0.2500  0.000  0.000
5  5  6  1  0.000  0.000  0.2500  0.000  0.000
6  6  7  1  0.000  0.000  0.2500  0.000  0.000
7  7  8  1  0.000  0.000  0.2500  0.000  0.000
8  8  9  1  0.000  0.000  0.2500  0.000  0.000
9  9  10 1  0.000  0.000  0.2500  0.000  0.000
10 10 11 1  0.000  0.000  0.2500  0.000  0.000
11 11 12 1  0.000  0.000  0.2500  0.000  0.000
12 12 13 1  0.000  0.000  0.2500  0.000  0.000
13 13 14 1  0.000  0.000  0.2500  0.000  0.000
14 14 15 1  0.000  0.000  0.2500  0.000  0.000
15 15 16 1  0.000  0.000  0.2500  0.000  0.000
16 16 17 1  0.000  0.000  0.2500  0.000  0.000
17 17 18 1  0.000  0.000  0.2500  0.000  0.000
18 18 19 1  0.000  0.000  0.2500  0.000  0.000
19 19 20 1  0.000  0.000  0.2500  0.000  0.000
20 20 21 1  0.000  0.000  0.2500  0.000  0.000
21 21 22 1  0.000  0.000  0.2500  0.000  0.000
22 22 23 1  0.000  0.000  0.2500  0.000  0.000
23 23 24 1  0.000  0.000  0.2500  0.000  0.000
24 24 25 1  0.000  0.000  0.2500  0.000  0.000
25 25 26 1  0.000  0.000  0.2500  0.000  0.000
26 26 27 1  0.000  0.000  0.2500  0.000  0.000
27 27 28 1  0.000  0.000  0.2500  0.000  0.000
28 28 29 1  0.000  0.000  0.2500  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.2500	0.000	0.000
30	30	31	1	0.000	0.000	0.2500	0.000	0.000
31	31	32	1	0.000	0.000	0.2500	0.000	0.000
32	32	33	1	0.000	0.000	0.2500	0.000	0.000
33	33	34	1	0.000	0.000	0.2500	0.000	0.000
34	34	35	1	0.000	0.000	0.2500	0.000	0.000
35	35	36	1	0.000	0.000	0.2500	0.000	0.000
36	36	37	1	0.000	0.000	0.2500	0.000	0.000
37	37	38	1	0.000	0.000	0.2500	0.000	0.000
38	38	39	1	0.000	0.000	0.2500	0.000	0.000
39	39	40	1	0.000	0.000	0.2500	0.000	0.000
40	40	41	1	0.000	0.000	0.2500	0.000	0.000
41	41	42	1	0.000	0.000	0.2500	0.000	0.000
42	42	43	1	0.000	0.000	0.2500	0.000	0.000
43	43	44	1	0.000	0.000	0.2500	0.000	0.000
44	44	45	1	0.000	0.000	0.2500	0.000	0.000
45	45	46	1	0.000	0.000	0.2500	0.000	0.000
46	46	47	1	0.000	0.000	0.2500	0.000	0.000
47	47	48	1	0.000	0.000	0.2500	0.000	0.000
48	48	49	1	0.000	0.000	0.2500	0.000	0.000
49	49	50	1	0.000	0.000	0.2500	0.000	0.000
50	50	51	1	0.000	0.000	0.2500	0.000	0.000
51	51	52	1	0.000	0.000	0.2500	0.000	0.000
52	52	53	1	0.000	0.000	0.2500	0.000	0.000
53	53	54	1	0.000	0.000	0.2500	0.000	0.000
54	54	55	1	0.000	0.000	0.2500	0.000	0.000
55	55	56	1	0.000	0.000	0.2500	0.000	0.000
56	56	57	1	0.000	0.000	0.2500	0.000	0.000
57	57	58	1	0.000	0.000	0.2500	0.000	0.000
58	58	59	1	0.000	0.000	0.2500	0.000	0.000
59	59	60	1	0.000	0.000	0.2500	0.000	0.000
60	60	61	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                 NewProject.BaseDesignSection_28.Nominal_63                               |
|                                                                 Exe Time :24 May 2018      18:15:59                               |
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 14
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:15:59  |
+-----+
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
8.00000	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
8.00000	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
8.00000	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
8.00000	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
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59                                                |
+-----+
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
STEP 6 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F      0.0000000
STEP 6 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F      0.0000000
STEP 7 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F      0.0000000
STEP 7 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F      0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59                               |
+-----+
```

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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59 |
+-----+

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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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.26000	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.2890	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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.26000	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.2890	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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.26000	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.2890	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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.5350	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.23400	WALL NO.	1
ITEM NO.	61<D-KP	>= 5.0750	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	1<NAME	>=	18.000	(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	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>=	8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>=	3.4040	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	>=	20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	60000.	(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	>=	8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>=	2.5350	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>=	19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	-4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.2890	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	>=	30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	90000.	(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.	59<D-FRICT	>=	36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.22800	WALL NO.	1
ITEM NO.	61<D-KP	>=	3.8640	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>=	18.000	(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	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>=	8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>=	3.4040	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	>=	20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	60000.	(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	>=	8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>=	2.5350	WALL NO.	1

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 36.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.26000 WALL NO. 1
ITEM NO. 11<U-KP >= 6.2890 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 >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (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. 59<D-FRICT >= 36.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.22800 WALL NO. 1
ITEM NO. 61<D-KP >= 2.8440 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO. 1<NAME >= 18.000 (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 >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 8.0000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 26.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.39000 WALL NO. 1
ITEM NO. 11<U-KP >= 3.4040 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 >= 20000. (BOTH WALLS)
ITEM NO. 18<EUR >= 60000. (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 >= 8.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 26.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 1.2950 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 36.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.26000 WALL NO. 1
ITEM NO. 11<U-KP >= 6.2890 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 >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (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. 59<D-FRICT >= 36.000 (BOTH WALLS)

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 60<D-KA >= 0.21800 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6370 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59      |
+-----+

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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  0.000          -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 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   -1.000          0.000
Z-WATER_TABLE  0.000          -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000           0.000
ZQ             0.000           0.000
DZW_OF_THE_WATER_TABLE  1.000           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

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	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		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

=====
=====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		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.000	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

STEP NO.	6	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		5.000	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 6

STEP NO.	7	LEFT WALL	RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	6.000	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 7

LEFT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018  18:15:59  |
+-----+

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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 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 2.0000000000000000
FOUNDATION WIDTH (B) 33.0000000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.0000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4503

NO. OF D.P.W FOR THIS AREA 7204
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5271E+05 RIMNOR= 0.000
          RENORM=0.1168E-27 REMNOR= 0.000        RATIO =0.4706E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.5271E+05 RDR    = 0.000
          RATIOOT=0.4706E-16 RATIOOR= 0.000
          MAX UN=0.3553E-14 IEQ=    83 NODE        42 DOF    1  Y-DISPL.F
          MIN UN=-.3553E-14 IEQ=    85 NODE        43 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

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ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5271E+05 RIMNOR= 0.000
          RENORM=0.7565E-29 REMNOR=0.5405E-53 RATIO =0.1198E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.5271E+05 RDR    = 0.000
          RATIOOT=0.1198E-16 RATIOOR= 0.000
          MAX UN=0.5717E-15 IEQ=    61 NODE        31 DOF    1  Y-DISPL.F
          MIN UN=-.5700E-15 IEQ=    119 NODE       60 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

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ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5271E+05 RIMNOR= 0.000
          RENORM=0.6091E-29 REMNOR=0.9522E-53 RATIO =0.1075E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.5271E+05 RDR    = 0.000
          RATIOOT=0.1075E-16 RATIOOR= 0.000
          MAX UN=0.4705E-15 IEQ=    53 NODE        27 DOF    1  Y-DISPL.F
          MIN UN=-.6528E-15 IEQ=    119 NODE       60 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018      18:15:59                                                |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

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)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:15:59           |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	2.8800E-21	0.000	0.000	0.000	0.000	V-C	2.0004E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.6596	-1.0698E-21	2.001	1.298	2.001	1.298	V-C	2.0004E+04	-0.2000	2.000	
1.000	1.000	3.298	0.000	0.000	Ug1_2_8_L_0						
3 D	1.317	-5.0195E-21	4.008	2.584	4.008	2.584	V-C	2.0004E+04	-0.4000	4.000	
1.000	1.000	6.584	0.000	0.000	Ug1_2_8_L_0						
4 D	1.969	-8.9689E-21	6.026	3.847	6.026	3.847	V-C	2.0004E+04	-0.6000	6.000	
1.000	1.000	9.847	0.000	0.000	Ug1_2_8_L_0						
5 D	2.616	-1.2917E-20	8.057	5.082	8.057	5.082	V-C	2.0004E+04	-0.8000	8.000	
1.000	1.000	13.08	0.000	0.000	Ug1_2_8_L_0						
6 D	3.257	-1.6861E-20	10.10	6.284	10.10	6.284	V-C	2.0004E+04	-1.0000	10.00	
1.000	1.000	16.28	0.000	0.000	Ug1_2_8_L_0						
7 D	3.891	-2.0798E-20	12.16	7.453	12.16	7.453	V-C	2.0004E+04	-1.2000	12.00	
1.000	1.000	19.45	0.000	0.000	Ug1_2_8_L_0						
8 D	4.519	-2.4721E-20	14.22	8.593	14.22	8.593	V-C	2.0004E+04	-1.4000	14.00	
1.000	1.000	22.59	0.000	0.000	Ug1_2_8_L_0						
9 D	5.141	-2.8621E-20	16.30	9.705	16.30	9.705	V-C	2.0004E+04	-1.6000	16.00	
1.000	1.000	25.70	0.000	0.000	Ug1_2_8_L_0						
10 D	5.759	-3.2488E-20	18.37	10.79	18.37	10.79	V-C	2.0004E+04	-1.8000	18.00	
1.000	1.000	28.79	0.000	0.000	Ug1_2_8_L_0						
11 D	6.373	-3.6307E-20	20.45	11.86	20.45	11.86	V-C	2.0004E+04	-2.0000	20.00	
1.000	1.000	31.86	0.000	0.000	Ug1_2_8_L_0						
12 D	6.984	-4.0058E-20	22.53	12.92	22.53	12.92	V-C	2.0004E+04	-2.2000	22.00	
1.000	1.000	34.92	0.000	0.000	Ug1_2_8_L_0						
13 D	7.592	-4.3729E-20	24.67	13.96	24.67	13.96	V-C	2.0004E+04	-2.4000	24.00	
1.000	1.000	37.96	0.000	0.000	Ug1_2_8_L_0						
14 D	8.198	-4.7333E-20	26.69	14.99	26.69	14.99	V-C	2.0004E+04	-2.6000	26.00	
1.000	1.000	40.99	0.000	0.000	Ug1_2_8_L_0						
15 D	8.802	-5.0892E-20	28.91	16.01	28.91	16.01	V-C	2.0004E+04	-2.8000	28.00	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
16 D	9.405	-5.4418E-20	31.14	17.03	31.14	17.03	V-C	2.0004E+04	-3.0000	30.00	
1.000	1.000	47.03	0.000	0.000	Ug1_2_8_L_0						
17 D	10.01	-5.7920E-20	33.10	18.04	33.10	18.04	V-C	2.0004E+04	-3.2000	32.00	
1.000	1.000	50.04	0.000	0.000	Ug1_2_8_L_0						
18 D	10.61	-6.1401E-20	35.30	19.04	35.30	19.04	V-C	2.0004E+04	-3.4000	34.00	
1.000	1.000	53.04	0.000	0.000	Ug1_2_8_L_0						
19 D	11.21	-6.4854E-20	37.26	20.04	37.26	20.04	V-C	2.0004E+04	-3.6000	36.00	
1.000	1.000	56.04	0.000	0.000	Ug1_2_8_L_0						
20 D	11.81	-6.8269E-20	39.43	21.04	39.43	21.04	V-C	2.0004E+04	-3.8000	38.00	
1.000	1.000	59.04	0.000	0.000	Ug1_2_8_L_0						
21 D	12.41	-7.1626E-20	41.59	22.04	41.59	22.04	V-C	2.0004E+04	-4.0000	40.00	
1.000	1.000	62.04	0.000	0.000	Ug1_2_8_L_0						
22 D	13.01	-7.4900E-20	43.55	23.03	43.55	23.03	V-C	2.0004E+04	-4.2000	42.00	
1.000	1.000	65.03	0.000	0.000	Ug1_2_8_L_0						
23 D	13.60	-7.8056E-20	45.69	24.02	45.69	24.02	V-C	2.0004E+04	-4.4000	44.00	
1.000	1.000	68.02	0.000	0.000	Ug1_2_8_L_0						
24 D	14.20	-8.1051E-20	47.65	25.02	47.65	25.02	V-C	3.6799E+04	-4.6000	46.00	
1.000	1.000	71.02	0.000	0.000	Ug2_741_743_L_0						
25 D	14.80	-8.3834E-20	49.78	26.01	49.78	26.01	V-C	3.6799E+04	-4.8000	48.00	
1.000	1.000	74.01	0.000	0.000	Ug2_741_743_L_0						
26 D	15.40	-8.6341E-20	51.89	26.99	51.89	26.99	V-C	3.6799E+04	-5.0000	50.00	
1.000	1.000	76.99	0.000	0.000	Ug2_741_743_L_0						
27 D	16.00	-8.8494E-20	53.85	27.98	53.85	27.98	V-C	3.6799E+04	-5.2000	52.00	
1.000	1.000	79.98	0.000	0.000	Ug2_741_743_L_0						
28 D	16.59	-9.0203E-20	55.96	28.97	55.96	28.97	V-C	3.6799E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.97	0.000	0.000	Ug2_741_743_L_0					
29 D	17.19	-9.1362E-20	57.92	29.96	57.92	29.96	V-C	3.6799E+04	-5.600	56.00
1.000	1.000	85.96	0.000	0.000	Ug2_741_743_L_0					
30 D	17.79	-9.1852E-20	60.02	30.94	60.02	30.94	V-C	3.6799E+04	-5.800	58.00
1.000	1.000	88.94	0.000	0.000	Ug2_741_743_L_0					
31 D	18.39	-9.1541E-20	62.11	31.93	62.11	31.93	V-C	3.6799E+04	-6.000	60.00
1.000	1.000	91.93	0.000	0.000	Ug2_741_743_L_0					
32 D	18.98	-9.0301E-20	64.07	32.92	64.07	32.92	V-C	3.6799E+04	-6.200	62.00
1.000	1.000	94.92	0.000	0.000	Ug2_741_743_L_0					
33 D	19.58	-8.8059E-20	66.16	33.90	66.16	33.90	V-C	3.6799E+04	-6.400	64.00
1.000	1.000	97.90	0.000	0.000	Ug2_741_743_L_0					
34 D	20.18	-8.4764E-20	68.12	34.89	68.12	34.89	V-C	3.6799E+04	-6.600	66.00
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
35 D	20.77	-8.0423E-20	70.20	35.87	70.20	35.87	V-C	3.6799E+04	-6.800	68.00
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.37	-7.5064E-20	72.27	36.86	72.27	36.86	V-C	3.6799E+04	-7.000	70.00
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
37 D	21.97	-6.8776E-20	74.24	37.84	74.24	37.84	V-C	3.6799E+04	-7.200	72.00
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
38 D	22.57	-6.1652E-20	76.31	38.83	76.31	38.83	V-C	3.6799E+04	-7.400	74.00
1.000	1.000	112.8	0.000	0.000	Ug2_741_743_L_0					
39 D	23.16	-5.3777E-20	78.27	39.81	78.27	39.81	V-C	3.6799E+04	-7.600	76.00
1.000	1.000	115.8	0.000	0.000	Ug2_741_743_L_0					
40 D	23.76	-4.5227E-20	80.34	40.80	80.34	40.80	V-C	3.6799E+04	-7.800	78.00
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
41 D	24.36	-3.6087E-20	82.40	41.78	82.40	41.78	V-C	3.6799E+04	-8.000	80.00
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
42 D	24.95	-2.6506E-20	84.37	42.77	84.37	42.77	V-C	3.6799E+04	-8.200	82.00
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
43 D	25.55	-1.6661E-20	86.43	43.75	86.43	43.75	V-C	3.6799E+04	-8.400	84.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
44 D	26.15	-6.7773E-21	88.39	44.74	88.39	44.74	V-C	3.6799E+04	-8.600	86.00
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
45 D	26.74	2.9918E-21	90.45	45.72	90.45	45.72	V-C	3.6799E+04	-8.800	88.00
1.000	1.000	133.7	0.000	0.000	Ug2_741_743_L_0					
46 D	27.34	1.2582E-20	92.50	46.70	92.50	46.70	V-C	3.6799E+04	-9.000	90.00
1.000	1.000	136.7	0.000	0.000	Ug2_741_743_L_0					
47 D	27.94	2.1947E-20	94.47	47.69	94.47	47.69	V-C	3.6799E+04	-9.200	92.00
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
48 D	28.53	3.1039E-20	96.52	48.67	96.52	48.67	V-C	3.6799E+04	-9.400	94.00
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
49 D	29.13	3.9807E-20	98.57	49.66	98.57	49.66	V-C	3.6799E+04	-9.600	96.00
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
50 D	29.73	4.8200E-20	100.5	50.64	100.5	50.64	V-C	3.6799E+04	-9.800	98.00
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
51 D	30.33	5.6159E-20	102.6	51.63	102.6	51.63	V-C	3.6799E+04	-10.00	100.00
1.000	1.000	151.6	0.000	0.000	Ug2_741_743_L_0					
52 D	30.92	6.3619E-20	104.6	52.61	104.6	52.61	V-C	3.6799E+04	-10.20	102.0
1.000	1.000	154.6	0.000	0.000	Ug2_741_743_L_0					
53 D	31.52	7.0526E-20	106.6	53.60	106.6	53.60	V-C	3.6799E+04	-10.40	104.0
1.000	1.000	157.6	0.000	0.000	Ug2_741_743_L_0					
54 D	32.12	7.6904E-20	108.6	54.58	108.6	54.58	V-C	3.6799E+04	-10.60	106.0
1.000	1.000	160.6	0.000	0.000	Ug2_741_743_L_0					
55 D	32.71	8.2852E-20	110.6	55.57	110.6	55.57	V-C	3.6799E+04	-10.80	108.0
1.000	1.000	163.6	0.000	0.000	Ug2_741_743_L_0					
56 D	33.31	8.8475E-20	112.7	56.55	112.7	56.55	V-C	3.6799E+04	-11.00	110.0
1.000	1.000	166.6	0.000	0.000	Ug2_741_743_L_0					
57 D	33.91	9.3867E-20	114.6	57.54	114.6	57.54	V-C	3.6799E+04	-11.20	112.0
1.000	1.000	169.5	0.000	0.000	Ug2_741_743_L_0					
58 D	34.50	9.9105E-20	116.7	58.52	116.7	58.52	V-C	3.6799E+04	-11.40	114.0
1.000	1.000	172.5	0.000	0.000	Ug2_741_743_L_0					
59 D	35.10	1.0425E-19	118.7	59.51	118.7	59.51	V-C	3.6799E+04	-11.60	116.0
1.000	1.000	175.5	0.000	0.000	Ug2_741_743_L_0					
60 D	35.70	1.0936E-19	120.7	60.50	120.7	60.50	V-C	3.6799E+04	-11.80	118.0
1.000	1.000	178.5	0.000	0.000	Ug2_741_743_L_0					
61 D	18.15	1.1446E-19	122.7	61.48	122.7	61.48	V-C	3.6799E+04	-12.00	120.0
1.000	1.000	181.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59           |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-2.8800E-21	0.000	0.000	0.000	0.000	V-C	1.5622E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.6596	1.0698E-21	2.000	1.298	2.000	1.298	V-C	1.5622E+04	-0.2000	2.000	
1.000	1.000	3.298	0.000	0.000	Ug1_2_8_L_0						
3 D	1.317	5.0195E-21	4.000	2.584	4.000	2.584	V-C	1.5622E+04	-0.4000	4.000	
1.000	1.000	6.584	0.000	0.000	Ug1_2_8_L_0						
4 D	1.969	8.9689E-21	6.000	3.847	6.000	3.847	V-C	1.5622E+04	-0.6000	6.000	
1.000	1.000	9.847	0.000	0.000	Ug1_2_8_L_0						
5 D	2.616	1.2917E-20	8.000	5.082	8.000	5.082	V-C	1.5622E+04	-0.8000	8.000	
1.000	1.000	13.08	0.000	0.000	Ug1_2_8_L_0						
6 D	3.257	1.6861E-20	10.00	6.284	10.00	6.284	V-C	1.5622E+04	-1.0000	10.00	
1.000	1.000	16.28	0.000	0.000	Ug1_2_8_L_0						
7 D	3.891	2.0798E-20	12.00	7.453	12.00	7.453	V-C	1.5622E+04	-1.2000	12.00	
1.000	1.000	19.45	0.000	0.000	Ug1_2_8_L_0						
8 D	4.519	2.4721E-20	14.00	8.593	14.00	8.593	V-C	1.5622E+04	-1.4000	14.00	
1.000	1.000	22.59	0.000	0.000	Ug1_2_8_L_0						
9 D	5.141	2.8621E-20	16.00	9.705	16.00	9.705	V-C	1.5622E+04	-1.6000	16.00	
1.000	1.000	25.70	0.000	0.000	Ug1_2_8_L_0						
10 D	5.759	3.2488E-20	18.00	10.79	18.00	10.79	V-C	1.5622E+04	-1.8000	18.00	
1.000	1.000	28.79	0.000	0.000	Ug1_2_8_L_0						
11 D	6.373	3.6307E-20	20.00	11.86	20.00	11.86	V-C	1.5622E+04	-2.0000	20.00	
1.000	1.000	31.86	0.000	0.000	Ug1_2_8_L_0						
12 D	6.984	4.0058E-20	22.00	12.92	22.00	12.92	V-C	1.5622E+04	-2.2000	22.00	
1.000	1.000	34.92	0.000	0.000	Ug1_2_8_L_0						
13 D	7.592	4.3729E-20	24.00	13.96	24.00	13.96	V-C	1.5622E+04	-2.4000	24.00	
1.000	1.000	37.96	0.000	0.000	Ug1_2_8_L_0						
14 D	8.198	4.7333E-20	26.00	14.99	26.00	14.99	V-C	1.5622E+04	-2.6000	26.00	
1.000	1.000	40.99	0.000	0.000	Ug1_2_8_L_0						
15 D	8.802	5.0892E-20	28.00	16.01	28.00	16.01	V-C	1.5622E+04	-2.8000	28.00	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
16 D	9.405	5.4418E-20	30.00	17.03	30.00	17.03	V-C	1.5622E+04	-3.0000	30.00	
1.000	1.000	47.03	0.000	0.000	Ug1_2_8_L_0						
17 D	10.01	5.7920E-20	32.00	18.04	32.00	18.04	V-C	1.5622E+04	-3.2000	32.00	
1.000	1.000	50.04	0.000	0.000	Ug1_2_8_L_0						
18 D	10.61	6.1401E-20	34.00	19.04	34.00	19.04	V-C	1.5622E+04	-3.4000	34.00	
1.000	1.000	53.04	0.000	0.000	Ug1_2_8_L_0						
19 D	11.21	6.4854E-20	36.00	20.04	36.00	20.04	V-C	1.5622E+04	-3.6000	36.00	
1.000	1.000	56.04	0.000	0.000	Ug1_2_8_L_0						
20 D	11.81	6.8269E-20	38.00	21.04	38.00	21.04	V-C	1.5622E+04	-3.8000	38.00	
1.000	1.000	59.04	0.000	0.000	Ug1_2_8_L_0						
21 D	12.41	7.1626E-20	40.00	22.04	40.00	22.04	V-C	1.5622E+04	-4.0000	40.00	
1.000	1.000	62.04	0.000	0.000	Ug1_2_8_L_0						
22 D	13.01	7.4900E-20	42.00	23.03	42.00	23.03	V-C	1.5622E+04	-4.2000	42.00	
1.000	1.000	65.03	0.000	0.000	Ug1_2_8_L_0						
23 D	13.60	7.8056E-20	44.00	24.02	44.00	24.02	V-C	1.5622E+04	-4.4000	44.00	
1.000	1.000	68.02	0.000	0.000	Ug1_2_8_L_0						
24 D	14.20	8.1051E-20	46.00	25.02	46.00	25.02	V-C	1.9107E+04	-4.6000	46.00	
1.000	1.000	71.02	0.000	0.000	Ug2_741_743_L_0						
25 D	14.80	8.3834E-20	48.00	26.01	48.00	26.01	V-C	1.9107E+04	-4.8000	48.00	
1.000	1.000	74.01	0.000	0.000	Ug2_741_743_L_0						
26 D	15.40	8.6341E-20	50.00	26.99	50.00	26.99	V-C	1.9107E+04	-5.0000	50.00	
1.000	1.000	76.99	0.000	0.000	Ug2_741_743_L_0						
27 D	16.00	8.8494E-20	52.00	27.98	52.00	27.98	V-C	1.9107E+04	-5.2000	52.00	
1.000	1.000	79.98	0.000	0.000	Ug2_741_743_L_0						
28 D	16.59	9.0203E-20	54.00	28.97	54.00	28.97	V-C	1.9107E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.97	0.000	0.000	Ug2_741_743_L_0					
29 D	17.19	9.1362E-20	56.00	29.96	56.00	29.96	V-C	1.9107E+04	-5.600	56.00
1.000	1.000	85.96	0.000	0.000	Ug2_741_743_L_0					
30 D	17.79	9.1852E-20	58.00	30.94	58.00	30.94	V-C	1.9107E+04	-5.800	58.00
1.000	1.000	88.94	0.000	0.000	Ug2_741_743_L_0					
31 D	18.39	9.1541E-20	60.00	31.93	60.00	31.93	V-C	1.9107E+04	-6.000	60.00
1.000	1.000	91.93	0.000	0.000	Ug2_741_743_L_0					
32 D	18.98	9.0301E-20	62.00	32.92	62.00	32.92	V-C	1.9107E+04	-6.200	62.00
1.000	1.000	94.92	0.000	0.000	Ug2_741_743_L_0					
33 D	19.58	8.8059E-20	64.00	33.90	64.00	33.90	V-C	1.9107E+04	-6.400	64.00
1.000	1.000	97.90	0.000	0.000	Ug2_741_743_L_0					
34 D	20.18	8.4764E-20	66.00	34.89	66.00	34.89	V-C	1.9107E+04	-6.600	66.00
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
35 D	20.77	8.0423E-20	68.00	35.87	68.00	35.87	V-C	1.9107E+04	-6.800	68.00
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.37	7.5064E-20	70.00	36.86	70.00	36.86	V-C	1.9107E+04	-7.000	70.00
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
37 D	21.97	6.8776E-20	72.00	37.84	72.00	37.84	V-C	1.9107E+04	-7.200	72.00
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
38 D	22.57	6.1652E-20	74.00	38.83	74.00	38.83	V-C	1.9107E+04	-7.400	74.00
1.000	1.000	112.8	0.000	0.000	Ug2_741_743_L_0					
39 D	23.16	5.3777E-20	76.00	39.81	76.00	39.81	V-C	1.9107E+04	-7.600	76.00
1.000	1.000	115.8	0.000	0.000	Ug2_741_743_L_0					
40 D	23.76	4.5227E-20	78.00	40.80	78.00	40.80	V-C	1.9107E+04	-7.800	78.00
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
41 D	24.36	3.6087E-20	80.00	41.78	80.00	41.78	V-C	1.9107E+04	-8.000	80.00
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
42 D	24.95	2.6506E-20	82.00	42.77	82.00	42.77	V-C	1.9107E+04	-8.200	82.00
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
43 D	25.55	1.6661E-20	84.00	43.75	84.00	43.75	V-C	1.9107E+04	-8.400	84.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
44 D	26.15	6.7773E-21	86.00	44.74	86.00	44.74	V-C	1.9107E+04	-8.600	86.00
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
45 D	26.74	-2.9918E-21	88.00	45.72	88.00	45.72	V-C	1.9107E+04	-8.800	88.00
1.000	1.000	133.7	0.000	0.000	Ug2_741_743_L_0					
46 D	27.34	-1.2582E-20	90.00	46.70	90.00	46.70	V-C	1.9107E+04	-9.000	90.00
1.000	1.000	136.7	0.000	0.000	Ug2_741_743_L_0					
47 D	27.94	-2.1947E-20	92.00	47.69	92.00	47.69	V-C	1.9107E+04	-9.200	92.00
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
48 D	28.53	-3.1039E-20	94.00	48.67	94.00	48.67	V-C	1.9107E+04	-9.400	94.00
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
49 D	29.13	-3.9807E-20	96.00	49.66	96.00	49.66	V-C	1.9107E+04	-9.600	96.00
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
50 D	29.73	-4.8200E-20	98.00	50.64	98.00	50.64	V-C	1.9107E+04	-9.800	98.00
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
51 D	30.33	-5.6159E-20	100.00	51.63	100.00	51.63	V-C	1.9107E+04	-10.000	100.00
1.000	1.000	151.6	0.000	0.000	Ug2_741_743_L_0					
52 D	30.92	-6.3619E-20	102.0	52.61	102.0	52.61	V-C	1.9107E+04	-10.200	102.0
1.000	1.000	154.6	0.000	0.000	Ug2_741_743_L_0					
53 D	31.52	-7.0526E-20	104.0	53.60	104.0	53.60	V-C	1.9107E+04	-10.400	104.0
1.000	1.000	157.6	0.000	0.000	Ug2_741_743_L_0					
54 D	32.12	-7.6904E-20	106.0	54.58	106.0	54.58	V-C	1.9107E+04	-10.600	106.0
1.000	1.000	160.6	0.000	0.000	Ug2_741_743_L_0					
55 D	32.71	-8.2852E-20	108.0	55.57	108.0	55.57	V-C	1.9107E+04	-10.800	108.0
1.000	1.000	163.6	0.000	0.000	Ug2_741_743_L_0					
56 D	33.31	-8.8475E-20	110.0	56.55	110.0	56.55	V-C	1.9107E+04	-11.000	110.0
1.000	1.000	166.6	0.000	0.000	Ug2_741_743_L_0					
57 D	33.91	-9.3867E-20	112.0	57.54	112.0	57.54	V-C	1.9107E+04	-11.200	112.0
1.000	1.000	169.5	0.000	0.000	Ug2_741_743_L_0					
58 D	34.50	-9.9105E-20	114.0	58.52	114.0	58.52	V-C	1.9107E+04	-11.400	114.0
1.000	1.000	172.5	0.000	0.000	Ug2_741_743_L_0					
59 D	35.10	-1.0425E-19	116.0	59.51	116.0	59.51	V-C	1.9107E+04	-11.600	116.0
1.000	1.000	175.5	0.000	0.000	Ug2_741_743_L_0					
60 D	35.70	-1.0936E-19	118.0	60.50	118.0	60.50	V-C	1.9107E+04	-11.800	118.0
1.000	1.000	178.5	0.000	0.000	Ug2_741_743_L_0					
61 D	18.15	-1.1446E-19	120.0	61.48	120.0	61.48	V-C	1.9107E+04	-12.000	120.0
1.000	1.000	181.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59   |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 3

```

WallElement_33      :
ELEMENT TYPE        2 NO.OF ELEMENTS. IN THIS GROUP   60
CURRENT TIME IS    1.0000
  
```

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.97343E-18	-1.97343E-18	-1.89327E-29	3.94686E-19
2	-9.06016E-18	9.06016E-18	-3.94686E-19	-1.41735E-18
3	-3.50724E-17	3.50724E-17	1.41735E-18	-8.43183E-18
4	-7.60571E-17	7.60571E-17	8.43183E-18	-2.36432E-17
5	-1.32000E-16	1.32000E-16	2.36432E-17	-5.00433E-17
6	-2.02876E-16	2.02876E-16	5.00433E-17	-9.06185E-17
7	-2.88644E-16	2.88644E-16	9.06185E-17	-1.48347E-16
8	-3.89242E-16	3.89242E-16	1.48347E-16	-2.26196E-16
9	-5.04584E-16	5.04584E-16	2.26196E-16	-3.27112E-16
10	-6.34553E-16	6.34553E-16	3.27112E-16	-4.54023E-16
11	-7.78996E-16	7.78996E-16	4.54023E-16	-6.09822E-16
12	-8.38637E-16	8.38637E-16	6.09822E-16	-4.42095E-16
13	-6.65876E-16	6.65876E-16	4.42095E-16	-3.08920E-16
14	-4.79374E-16	4.79374E-16	3.08920E-16	-2.13045E-16
15	-2.79491E-16	2.79491E-16	2.13045E-16	-1.57147E-16
16	-6.66541E-17	6.66541E-17	1.57147E-16	-1.43816E-16
17	-1.58630E-16	1.58630E-16	1.43816E-16	-1.75542E-16
18	-3.95772E-16	3.95772E-16	1.75542E-16	-2.54696E-16
19	-6.44089E-16	6.44089E-16	2.54696E-16	-3.83514E-16
20	-9.02797E-16	9.02797E-16	3.83514E-16	-5.64073E-16
21	-1.17101E-15	1.17101E-15	5.64073E-16	-7.98274E-16
22	-1.44771E-15	1.44771E-15	7.98274E-16	-1.08782E-15
23	-1.73179E-15	1.73179E-15	1.08782E-15	-1.43417E-15
24	-2.18719E-15	2.18719E-15	1.43417E-15	-1.87161E-15
25	-2.65004E-15	2.65004E-15	1.87161E-15	-2.40162E-15
26	-3.11800E-15	3.11800E-15	2.40162E-15	-3.02522E-15
27	-3.58851E-15	3.58851E-15	3.02522E-15	-3.74292E-15
28	-4.05884E-15	4.05884E-15	3.74292E-15	-4.55468E-15
29	-4.52609E-15	4.52609E-15	4.55468E-15	-5.45990E-15
30	-4.98721E-15	4.98721E-15	5.45990E-15	-6.45734E-15
31	-1.88631E-15	1.88631E-15	6.45734E-15	-6.83460E-15
32	-2.32558E-15	2.32558E-15	6.83460E-15	-7.29972E-15
33	-8.03711E-16	8.03711E-16	7.29972E-15	-7.13898E-15
34	-3.99439E-16	3.99439E-16	7.13898E-15	-7.05909E-15
35	-3.57029E-15	3.57029E-15	7.05909E-15	-6.34503E-15
36	-3.21400E-15	3.21400E-15	6.34503E-15	-5.70224E-15
37	-2.88632E-15	2.88632E-15	5.70224E-15	-5.12497E-15
38	-2.59013E-15	2.59013E-15	5.12497E-15	-4.60695E-15
39	-2.32808E-15	2.32808E-15	4.60695E-15	-4.14133E-15
40	-5.65530E-15	5.65530E-15	4.14133E-15	-3.01027E-15
41	-5.46851E-15	5.46851E-15	3.01027E-15	-1.91657E-15
42	-8.87500E-15	8.87500E-15	1.91657E-15	-1.41568E-16
43	-5.21821E-15	5.21821E-15	1.41568E-16	-9.02074E-16
44	-1.60483E-15	1.60483E-15	9.02074E-16	-1.22304E-15
45	-1.58858E-15	1.58858E-15	1.22304E-15	-1.54076E-15
46	-1.61745E-15	1.61745E-15	1.54076E-15	-1.86425E-15
47	-1.69191E-15	1.69191E-15	1.86425E-15	-2.20263E-15
48	-1.81219E-15	1.81219E-15	2.20263E-15	-2.56506E-15
49	-1.97834E-15	1.97834E-15	2.56506E-15	-2.96073E-15
50	-2.19024E-15	2.19024E-15	2.96073E-15	-3.39878E-15
51	-2.44767E-15	2.44767E-15	3.39878E-15	-3.88832E-15
52	-8.02423E-16	8.02423E-16	3.88832E-15	-3.72785E-15
53	-4.00769E-15	4.00769E-15	3.72785E-15	-2.92631E-15
54	-3.61579E-15	3.61579E-15	2.92631E-15	-2.20315E-15
55	-3.17982E-15	3.17982E-15	2.20315E-15	-1.56719E-15
56	-2.70009E-15	2.70009E-15	1.56719E-15	-1.02717E-15
57	-2.17687E-15	2.17687E-15	1.02717E-15	-5.91798E-16
58	-1.61036E-15	1.61036E-15	5.91798E-16	-2.69726E-16
59	-1.00069E-15	1.00069E-15	2.69726E-16	-6.95878E-17

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-3.47921E-16 3.47921E-16-6.95878E-17 4.79627E-28

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4771E+05 RIMNOR=0.1135E-26
            RENORM= 225.0    REMNOR=0.9522E-53  RATIO =0.6867E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 35.19    RMMAX =0.7300E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.4771E+05 RDR  =0.1000E-19
            RATIO=0.6867E-01 RATIO= 0.000
            MAX UN= 2.957    IEQ= 11 NODE      6 DOF  1  Y-DISPL.F
            MIN UN=-.1973E-17 IEQ= 1 NODE      1 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4771E+05 RIMNOR=0.1135E-26
            RENORM= 5.291    REMNOR=0.4404E-22  RATIO =0.1053E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 35.19    RMMAX =0.7300E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.4771E+05 RDR  =0.1000E-19
            RATIO=0.1053E-01 RATIO= 0.000
            MAX UN= 1.368    IEQ= 3 NODE      2 DOF  1  Y-DISPL.F
            MIN UN=-.7014E-11 IEQ= 113 NODE    57 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4771E+05 RIMNOR=0.1135E-26
            RENORM= 1.579    REMNOR=0.1091E-22  RATIO =0.5754E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 35.19    RMMAX =0.7300E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.4771E+05 RDR  =0.1000E-19
            RATIO=0.5754E-02 RATIO= 0.000
            MAX UN= 1.032    IEQ= 13 NODE      7 DOF  1  Y-DISPL.F
            MIN UN=-.1444E-10 IEQ= 11 NODE      6 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4771E+05 RIMNOR=0.1135E-26
            RENORM=0.4855E-01 REMNOR=0.6837E-23  RATIO =0.1009E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 35.19    RMMAX =0.7300E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.4771E+05 RDR  =0.1000E-19
            RATIO=0.1009E-02 RATIO= 0.000
            MAX UN=0.2202    IEQ= 19 NODE     10 DOF  1  Y-DISPL.F
            MIN UN=-.3000E-10 IEQ= 7 NODE      4 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4771E+05 RIMNOR=0.1135E-26
            RENORM=0.1884E-20 REMNOR=0.3435E-23  RATIO =0.1987E-12  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 35.19    RMMAX =0.7300E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.4771E+05 RDR  =0.1000E-19
            RATIO=0.1987E-12 RATIO= 0.000
            MAX UN=0.1548E-10 IEQ= 7 NODE      4 DOF  1  Y-DISPL.F
            MIN UN=-.1658E-10 IEQ= 9 NODE      5 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018           18:15:59
+-----+
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.4417659E-04	-7.8541682E-05	
2	3.2846825E-04	-7.8541682E-05	
3	3.1276178E-04	-7.8513697E-05	
4	2.9707023E-04	-7.8373772E-05	
5	2.8142906E-04	-7.7981980E-05	
6	2.6590729E-04	-7.7142427E-05	
7	2.5061018E-04	-7.5731553E-05	
8	2.3565278E-04	-7.3749081E-05	
9	2.2114600E-04	-7.1234776E-05	
10	2.0718946E-04	-6.8261628E-05	
11	1.9386495E-04	-6.4934435E-05	
12	1.8123088E-04	-6.1379320E-05	
13	1.6932043E-04	-5.7716141E-05	
14	1.5814518E-04	-5.4041648E-05	
15	1.4769951E-04	-5.0431006E-05	
16	1.3796484E-04	-4.6939342E-05	
17	1.2891336E-04	-4.3603278E-05	
18	1.2051180E-04	-4.0442501E-05	
19	1.1272440E-04	-3.7461106E-05	
20	1.0551607E-04	-3.4649041E-05	
21	9.8855055E-05	-3.1983405E-05	
22	9.2715283E-05	-2.9429625E-05	
23	8.7078748E-05	-2.6942708E-05	
24	8.1937366E-05	-2.4468305E-05	
25	7.7290460E-05	-2.2008395E-05	
26	7.3129333E-05	-1.9618613E-05	
27	6.9435537E-05	-1.7341274E-05	
28	6.6183299E-05	-1.5207076E-05	
29	6.3341771E-05	-1.3236909E-05	
30	6.0876767E-05	-1.1443268E-05	
31	5.8752324E-05	-9.8317230E-06	
32	5.6931935E-05	-8.4024524E-06	
33	5.5379459E-05	-7.1515851E-06	
34	5.4059853E-05	-6.0724401E-06	
35	5.2939621E-05	-5.1562130E-06	
36	5.1987233E-05	-4.3920056E-06	
37	5.1173536E-05	-3.7671006E-06	
38	5.0472030E-05	-3.2676972E-06	
39	4.9859041E-05	-2.8795395E-06	
40	4.9313747E-05	-2.5883920E-06	
41	4.8818139E-05	-2.3804215E-06	
42	4.8356910E-05	-2.2424814E-06	
43	4.7917295E-05	-2.1623144E-06	
44	4.7488881E-05	-2.1286868E-06	
45	4.7063395E-05	-2.1314655E-06	
46	4.6634470E-05	-2.1616503E-06	
47	4.6197433E-05	-2.2113700E-06	
48	4.5749071E-05	-2.2738512E-06	
49	4.5287423E-05	-2.3433690E-06	
50	4.4811573E-05	-2.4151834E-06	
51	4.4321454E-05	-2.4854720E-06	
52	4.3817672E-05	-2.5512572E-06	
53	4.3301412E-05	-2.6103286E-06	
54	4.2774113E-05	-2.6611979E-06	
55	4.2237536E-05	-2.7030152E-06	
56	4.1693527E-05	-2.7355319E-06	
57	4.1143923E-05	-2.7590547E-06	
58	4.0590449E-05	-2.7744130E-06	
59	4.0034614E-05	-2.7829342E-06	
60	3.9477611E-05	-2.7864270E-06	
61	3.8920198E-05	-2.7871722E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59          |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-3.4418E-04	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	Ug1_2_8_L_0						
2 D	0.3826	-3.2847E-04	2.088	0.000	2.088	1.341	ACTIVE	0.000	-0.2000	1.913	
1.000	1.000	1.913	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7652	-3.1276E-04	4.182	0.000	4.182	2.671	ACTIVE	0.000	-0.4000	3.826	
1.000	1.000	3.826	0.000	0.000	Ug1_2_8_L_0						
4 D	1.148	-2.9707E-04	6.287	0.000	6.287	3.978	ACTIVE	0.000	-0.6000	5.739	
1.000	1.000	5.739	0.000	0.000	Ug1_2_8_L_0						
5 D	1.530	-2.8143E-04	8.405	0.000	8.405	5.256	ACTIVE	0.000	-0.8000	7.652	
1.000	1.000	7.652	0.000	0.000	Ug1_2_8_L_0						
6 D	1.913	-2.6591E-04	10.54	0.000	10.54	6.501	ACTIVE	0.000	-1.000	9.565	
1.000	1.000	9.565	0.000	0.000	Ug1_2_8_L_0						
7 D	2.296	-2.5061E-04	12.68	0.000	12.68	7.714	ACTIVE	0.000	-1.200	11.48	
1.000	1.000	11.48	0.000	0.000	Ug1_2_8_L_0						
8 D	2.678	-2.3565E-04	14.83	0.000	14.83	8.897	ACTIVE	0.000	-1.400	13.39	
1.000	1.000	13.39	0.000	0.000	Ug1_2_8_L_0						
9 D	3.061	-2.2115E-04	16.99	0.000	16.99	10.05	ACTIVE	0.000	-1.600	15.30	
1.000	1.000	15.30	0.000	0.000	Ug1_2_8_L_0						
10 D	3.443	-2.0719E-04	19.16	0.000	19.16	11.19	ACTIVE	0.000	-1.800	17.22	
1.000	1.000	17.22	0.000	0.000	Ug1_2_8_L_0						
11 D	3.959	-1.9386E-04	21.32	0.6647	21.32	12.30	UL-RL	6.0013E+04	-2.000	19.13	
1.000	1.000	19.80	0.000	0.000	Ug1_2_8_L_0						
12 D	4.713	-1.8123E-04	23.49	2.520	23.49	13.40	UL-RL	6.0013E+04	-2.200	21.04	
1.000	1.000	23.56	0.000	0.000	Ug1_2_8_L_0						
13 D	5.455	-1.6932E-04	25.72	4.320	25.72	14.48	UL-RL	6.0013E+04	-2.400	22.96	
1.000	1.000	27.28	0.000	0.000	Ug1_2_8_L_0						
14 D	6.187	-1.5815E-04	27.82	6.065	27.82	15.56	UL-RL	6.0013E+04	-2.600	24.87	
1.000	1.000	30.93	0.000	0.000	Ug1_2_8_L_0						
15 D	6.908	-1.4770E-04	30.13	7.757	30.13	16.62	UL-RL	6.0013E+04	-2.800	26.78	
1.000	1.000	34.54	0.000	0.000	Ug1_2_8_L_0						
16 D	7.619	-1.3796E-04	32.44	9.400	32.44	17.68	UL-RL	6.0013E+04	-3.000	28.70	
1.000	1.000	38.10	0.000	0.000	Ug1_2_8_L_0						
17 D	8.321	-1.2891E-04	34.49	11.00	34.49	18.73	UL-RL	6.0013E+04	-3.200	30.61	
1.000	1.000	41.60	0.000	0.000	Ug1_2_8_L_0						
18 D	9.014	-1.2051E-04	36.78	12.55	36.78	19.78	UL-RL	6.0013E+04	-3.400	32.52	
1.000	1.000	45.07	0.000	0.000	Ug1_2_8_L_0						
19 D	9.699	-1.1272E-04	38.82	14.06	38.82	20.83	UL-RL	6.0013E+04	-3.600	34.43	
1.000	1.000	48.50	0.000	0.000	Ug1_2_8_L_0						
20 D	10.38	-1.0552E-04	41.09	15.54	41.09	21.87	UL-RL	6.0013E+04	-3.800	36.35	
1.000	1.000	51.88	0.000	0.000	Ug1_2_8_L_0						
21 D	11.05	-9.8855E-05	43.33	16.98	43.33	22.91	UL-RL	6.0013E+04	-4.000	38.26	
1.000	1.000	55.24	0.000	0.000	Ug1_2_8_L_0						
22 D	11.71	-9.2715E-05	45.37	18.38	45.37	23.95	UL-RL	6.0013E+04	-4.200	40.17	
1.000	1.000	58.56	0.000	0.000	Ug1_2_8_L_0						
23 D	12.37	-8.7079E-05	47.60	19.76	47.60	24.98	UL-RL	6.0013E+04	-4.400	42.09	
1.000	1.000	61.84	0.000	0.000	Ug1_2_8_L_0						
24 D	12.19	-8.1937E-05	49.65	16.97	49.65	26.02	UL-RL	1.1040E+05	-4.600	44.00	
1.000	1.000	60.97	0.000	0.000	Ug2_741_743_L_0						
25 D	12.89	-7.7290E-05	51.86	18.52	51.86	27.05	UL-RL	1.1040E+05	-4.800	45.91	
1.000	1.000	64.43	0.000	0.000	Ug2_741_743_L_0						
26 D	13.57	-7.3129E-05	54.07	20.01	54.07	28.08	UL-RL	1.1040E+05	-5.000	47.83	
1.000	1.000	67.83	0.000	0.000	Ug2_741_743_L_0						
27 D	14.24	-6.9436E-05	56.11	21.45	56.11	29.11	UL-RL	1.1040E+05	-5.200	49.74	
1.000	1.000	71.19	0.000	0.000	Ug2_741_743_L_0						
28 D	14.90	-6.6183E-05	58.31	22.84	58.31	30.14	UL-RL	1.1040E+05	-5.400	51.65	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.49	0.000	0.000	Ug2_741_743_L_0					
29 D	15.55	-6.3342E-05	60.35	24.18	60.35	31.17	UL-RL	1.1040E+05	-5.600	53.57
1.000	1.000	77.75	0.000	0.000	Ug2_741_743_L_0					
30 D	16.19	-6.0877E-05	62.54	25.48	62.54	32.20	UL-RL	1.1040E+05	-5.800	55.48
1.000	1.000	80.96	0.000	0.000	Ug2_741_743_L_0					
31 D	16.83	-5.8752E-05	64.72	26.75	64.72	33.23	UL-RL	1.1040E+05	-6.000	57.39
1.000	1.000	84.14	0.000	0.000	Ug2_741_743_L_0					
32 D	17.46	-5.6932E-05	66.77	27.98	66.77	34.26	UL-RL	1.1040E+05	-6.200	59.30
1.000	1.000	87.28	0.000	0.000	Ug2_741_743_L_0					
33 D	18.08	-5.5379E-05	68.94	29.18	68.94	35.29	UL-RL	1.1040E+05	-6.400	61.22
1.000	1.000	90.40	0.000	0.000	Ug2_741_743_L_0					
34 D	18.70	-5.4060E-05	70.99	30.35	70.99	36.32	UL-RL	1.1040E+05	-6.600	63.13
1.000	1.000	93.48	0.000	0.000	Ug2_741_743_L_0					
35 D	19.31	-5.2940E-05	73.15	31.51	73.15	37.35	UL-RL	1.1040E+05	-6.800	65.04
1.000	1.000	96.55	0.000	0.000	Ug2_741_743_L_0					
36 D	19.92	-5.1987E-05	75.32	32.64	75.32	38.38	UL-RL	1.1040E+05	-7.000	66.96
1.000	1.000	99.60	0.000	0.000	Ug2_741_743_L_0					
37 D	20.53	-5.1174E-05	77.37	33.76	77.37	39.41	UL-RL	1.1040E+05	-7.200	68.87
1.000	1.000	102.6	0.000	0.000	Ug2_741_743_L_0					
38 D	21.13	-5.0472E-05	79.52	34.86	79.52	40.44	UL-RL	1.1040E+05	-7.400	70.78
1.000	1.000	105.6	0.000	0.000	Ug2_741_743_L_0					
39 D	21.73	-4.9859E-05	81.57	35.96	81.57	41.46	UL-RL	1.1040E+05	-7.600	72.70
1.000	1.000	108.7	0.000	0.000	Ug2_741_743_L_0					
40 D	22.33	-4.9314E-05	83.73	37.05	83.73	42.49	UL-RL	1.1040E+05	-7.800	74.61
1.000	1.000	111.7	0.000	0.000	Ug2_741_743_L_0					
41 D	22.93	-4.8818E-05	85.88	38.13	85.88	43.52	UL-RL	1.1040E+05	-8.000	76.52
1.000	1.000	114.7	0.000	0.000	Ug2_741_743_L_0					
42 D	23.53	-4.8357E-05	87.93	39.21	87.93	44.55	UL-RL	1.1040E+05	-8.200	78.43
1.000	1.000	117.6	0.000	0.000	Ug2_741_743_L_0					
43 D	24.13	-4.7917E-05	90.08	40.29	90.08	45.58	UL-RL	1.1040E+05	-8.400	80.35
1.000	1.000	120.6	0.000	0.000	Ug2_741_743_L_0					
44 D	24.72	-4.7489E-05	92.13	41.36	92.13	46.60	UL-RL	1.1040E+05	-8.600	82.26
1.000	1.000	123.6	0.000	0.000	Ug2_741_743_L_0					
45 D	25.32	-4.7063E-05	94.27	42.44	94.27	47.63	UL-RL	1.1040E+05	-8.800	84.17
1.000	1.000	126.6	0.000	0.000	Ug2_741_743_L_0					
46 D	25.92	-4.6634E-05	96.42	43.51	96.42	48.66	UL-RL	1.1040E+05	-9.000	86.09
1.000	1.000	129.6	0.000	0.000	Ug2_741_743_L_0					
47 D	26.52	-4.6197E-05	98.47	44.59	98.47	49.69	UL-RL	1.1040E+05	-9.200	88.00
1.000	1.000	132.6	0.000	0.000	Ug2_741_743_L_0					
48 D	27.12	-4.5749E-05	100.6	45.67	100.6	50.72	UL-RL	1.1040E+05	-9.400	89.91
1.000	1.000	135.6	0.000	0.000	Ug2_741_743_L_0					
49 D	27.71	-4.5287E-05	102.7	46.75	102.7	51.75	UL-RL	1.1040E+05	-9.600	91.83
1.000	1.000	138.6	0.000	0.000	Ug2_741_743_L_0					
50 D	28.31	-4.4812E-05	104.8	47.83	104.8	52.77	UL-RL	1.1040E+05	-9.800	93.74
1.000	1.000	141.6	0.000	0.000	Ug2_741_743_L_0					
51 D	28.91	-4.4321E-05	106.9	48.91	106.9	53.80	UL-RL	1.1040E+05	-10.000	95.65
1.000	1.000	144.6	0.000	0.000	Ug2_741_743_L_0					
52 D	29.51	-4.3818E-05	109.0	49.99	109.0	54.83	UL-RL	1.1040E+05	-10.200	97.57
1.000	1.000	147.6	0.000	0.000	Ug2_741_743_L_0					
53 D	30.11	-4.3301E-05	111.1	51.08	111.1	55.86	UL-RL	1.1040E+05	-10.400	99.48
1.000	1.000	150.6	0.000	0.000	Ug2_741_743_L_0					
54 D	30.71	-4.2774E-05	113.3	52.17	113.3	56.89	UL-RL	1.1040E+05	-10.600	101.4
1.000	1.000	153.6	0.000	0.000	Ug2_741_743_L_0					
55 D	31.31	-4.2238E-05	115.3	53.25	115.3	57.92	UL-RL	1.1040E+05	-10.800	103.3
1.000	1.000	156.6	0.000	0.000	Ug2_741_743_L_0					
56 D	31.91	-4.1694E-05	117.4	54.34	117.4	58.95	UL-RL	1.1040E+05	-11.000	105.2
1.000	1.000	159.6	0.000	0.000	Ug2_741_743_L_0					
57 D	32.51	-4.1144E-05	119.5	55.43	119.5	59.97	UL-RL	1.1040E+05	-11.200	107.1
1.000	1.000	162.6	0.000	0.000	Ug2_741_743_L_0					
58 D	33.11	-4.0590E-05	121.6	56.52	121.6	61.00	UL-RL	1.1040E+05	-11.400	109.0
1.000	1.000	165.6	0.000	0.000	Ug2_741_743_L_0					
59 D	33.71	-4.0035E-05	123.8	57.61	123.8	62.03	UL-RL	1.1040E+05	-11.600	111.0
1.000	1.000	168.6	0.000	0.000	Ug2_741_743_L_0					
60 D	34.31	-3.9478E-05	125.8	58.70	125.8	63.06	UL-RL	1.1040E+05	-11.800	112.9
1.000	1.000	171.6	0.000	0.000	Ug2_741_743_L_0					
61 D	17.46	-3.8920E-05	127.9	59.79	127.9	64.09	UL-RL	1.1040E+05	-12.000	114.8
1.000	1.000	174.6	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018          18:15:59          |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
 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	Peg	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 D	1.754	2.6591E-04	0.000	8.771	10.00	8.771	V-C	1.5622E+04	-1.000	0.000	
1.000	1.000	8.771	0.000	0.000	Ug1_2_8_L_0						
7 D	2.451	2.5061E-04	1.913	10.17	12.00	10.17	V-C	1.5622E+04	-1.200	2.087	
1.000	1.000	12.25	0.000	0.000	Ug1_2_8_L_0						
8 D	3.067	2.3565E-04	3.826	11.16	14.00	11.16	V-C	1.5622E+04	-1.400	4.174	
1.000	1.000	15.33	0.000	0.000	Ug1_2_8_L_0						
9 D	3.670	2.2115E-04	5.739	12.09	16.00	12.09	V-C	1.5622E+04	-1.600	6.261	
1.000	1.000	18.35	0.000	0.000	Ug1_2_8_L_0						
10 D	4.267	2.0719E-04	7.652	12.99	18.00	12.99	V-C	1.5622E+04	-1.800	8.348	
1.000	1.000	21.33	0.000	0.000	Ug1_2_8_L_0						
11 D	4.860	1.9386E-04	9.565	13.86	20.00	13.86	V-C	1.5622E+04	-2.000	10.43	
1.000	1.000	24.30	0.000	0.000	Ug1_2_8_L_0						
12 D	5.451	1.8123E-04	11.48	14.73	22.00	14.73	V-C	1.5622E+04	-2.200	12.52	
1.000	1.000	27.25	0.000	0.000	Ug1_2_8_L_0						
13 D	6.040	1.6932E-04	13.39	15.59	24.00	15.59	V-C	1.5622E+04	-2.400	14.61	
1.000	1.000	30.20	0.000	0.000	Ug1_2_8_L_0						
14 D	6.629	1.5815E-04	15.30	16.45	26.00	16.45	V-C	1.5622E+04	-2.600	16.70	
1.000	1.000	33.15	0.000	0.000	Ug1_2_8_L_0						
15 D	7.219	1.4770E-04	17.22	17.31	28.00	17.31	V-C	1.5622E+04	-2.800	18.78	
1.000	1.000	36.09	0.000	0.000	Ug1_2_8_L_0						
16 D	7.809	1.3796E-04	19.13	18.18	30.00	18.18	V-C	1.5622E+04	-3.000	20.87	
1.000	1.000	39.04	0.000	0.000	Ug1_2_8_L_0						
17 D	8.400	1.2891E-04	21.04	19.04	32.00	19.04	V-C	1.5622E+04	-3.200	22.96	
1.000	1.000	42.00	0.000	0.000	Ug1_2_8_L_0						
18 D	8.992	1.2051E-04	22.96	19.91	34.00	19.91	V-C	1.5622E+04	-3.400	25.04	
1.000	1.000	44.96	0.000	0.000	Ug1_2_8_L_0						
19 D	9.584	1.1272E-04	24.87	20.79	36.00	20.79	V-C	1.5622E+04	-3.600	27.13	
1.000	1.000	47.92	0.000	0.000	Ug1_2_8_L_0						
20 D	10.18	1.0552E-04	26.78	21.67	38.00	21.67	V-C	1.5622E+04	-3.800	29.22	
1.000	1.000	50.89	0.000	0.000	Ug1_2_8_L_0						
21 D	10.77	9.8855E-05	28.70	22.56	40.00	22.56	V-C	1.5622E+04	-4.000	31.30	
1.000	1.000	53.87	0.000	0.000	Ug1_2_8_L_0						
22 D	11.37	9.2715E-05	30.61	23.46	42.00	23.46	V-C	1.5622E+04	-4.200	33.39	
1.000	1.000	56.85	0.000	0.000	Ug1_2_8_L_0						
23 D	11.97	8.7079E-05	32.52	24.36	44.00	24.36	V-C	1.5622E+04	-4.400	35.48	
1.000	1.000	59.83	0.000	0.000	Ug1_2_8_L_0						
24 D	12.62	8.1937E-05	34.43	25.55	46.00	25.55	V-C	1.9107E+04	-4.600	37.57	
1.000	1.000	63.11	0.000	0.000	Ug2_741_743_L_0						
25 D	13.22	7.7290E-05	36.35	26.44	48.00	26.45	UL-RL	5.7322E+04	-4.800	39.65	
1.000	1.000	66.09	0.000	0.000	Ug2_741_743_L_0						
26 D	13.81	7.3129E-05	38.26	27.33	50.00	27.36	UL-RL	5.7322E+04	-5.000	41.74	
1.000	1.000	69.07	0.000	0.000	Ug2_741_743_L_0						
27 D	14.41	6.9436E-05	40.17	28.23	52.00	28.28	UL-RL	5.7322E+04	-5.200	43.83	
1.000	1.000	72.05	0.000	0.000	Ug2_741_743_L_0						
28 D	15.01	6.6183E-05	42.09	29.14	54.00	29.20	UL-RL	5.7322E+04	-5.400	45.91	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	75.05	0.000	0.000	Ug2_741_743_L_0					
29 D	15.61	6.3342E-05	44.00	30.04	56.00	30.14	UL-RL	5.7322E+04	-5.600	48.00
1.000	1.000	78.04	0.000	0.000	Ug2_741_743_L_0					
30 D	16.21	6.0877E-05	45.91	30.96	58.00	31.08	UL-RL	5.7322E+04	-5.800	50.09
1.000	1.000	81.05	0.000	0.000	Ug2_741_743_L_0					
31 D	16.81	5.8752E-05	47.83	31.89	60.00	32.03	UL-RL	5.7322E+04	-6.000	52.17
1.000	1.000	84.07	0.000	0.000	Ug2_741_743_L_0					
32 D	17.42	5.6932E-05	49.74	32.83	62.00	32.97	UL-RL	5.7322E+04	-6.200	54.26
1.000	1.000	87.09	0.000	0.000	Ug2_741_743_L_0					
33 D	18.03	5.5379E-05	51.65	33.78	64.00	33.92	UL-RL	5.7322E+04	-6.400	56.35
1.000	1.000	90.13	0.000	0.000	Ug2_741_743_L_0					
34 D	18.63	5.4060E-05	53.57	34.71	66.00	34.89	UL-RL	5.7322E+04	-6.600	58.43
1.000	1.000	93.15	0.000	0.000	Ug2_741_743_L_0					
35 D	19.23	5.2940E-05	55.48	35.62	68.00	35.87	UL-RL	5.7322E+04	-6.800	60.52
1.000	1.000	96.14	0.000	0.000	Ug2_741_743_L_0					
36 D	19.83	5.1987E-05	57.39	36.53	70.00	36.86	UL-RL	5.7322E+04	-7.000	62.61
1.000	1.000	99.14	0.000	0.000	Ug2_741_743_L_0					
37 D	20.43	5.1174E-05	59.30	37.45	72.00	37.84	UL-RL	5.7322E+04	-7.200	64.70
1.000	1.000	102.1	0.000	0.000	Ug2_741_743_L_0					
38 D	21.03	5.0472E-05	61.22	38.37	74.00	38.83	UL-RL	5.7322E+04	-7.400	66.78
1.000	1.000	105.2	0.000	0.000	Ug2_741_743_L_0					
39 D	21.63	4.9859E-05	63.13	39.30	76.00	39.81	UL-RL	5.7322E+04	-7.600	68.87
1.000	1.000	108.2	0.000	0.000	Ug2_741_743_L_0					
40 D	22.24	4.9314E-05	65.04	40.24	78.00	40.80	UL-RL	5.7322E+04	-7.800	70.96
1.000	1.000	111.2	0.000	0.000	Ug2_741_743_L_0					
41 D	22.84	4.8818E-05	66.96	41.17	80.00	41.78	UL-RL	5.7322E+04	-8.000	73.04
1.000	1.000	114.2	0.000	0.000	Ug2_741_743_L_0					
42 D	23.45	4.8357E-05	68.87	42.11	82.00	42.77	UL-RL	5.7322E+04	-8.200	75.13
1.000	1.000	117.2	0.000	0.000	Ug2_741_743_L_0					
43 D	24.05	4.7917E-05	70.78	43.05	84.00	43.75	UL-RL	5.7322E+04	-8.400	77.22
1.000	1.000	120.3	0.000	0.000	Ug2_741_743_L_0					
44 D	24.66	4.7489E-05	72.70	43.99	86.00	44.74	UL-RL	5.7322E+04	-8.600	79.30
1.000	1.000	123.3	0.000	0.000	Ug2_741_743_L_0					
45 D	25.26	4.7063E-05	74.61	44.93	88.00	45.72	UL-RL	5.7322E+04	-8.800	81.39
1.000	1.000	126.3	0.000	0.000	Ug2_741_743_L_0					
46 D	25.87	4.6634E-05	76.52	45.87	90.00	46.70	UL-RL	5.7322E+04	-9.000	83.48
1.000	1.000	129.3	0.000	0.000	Ug2_741_743_L_0					
47 D	26.48	4.6197E-05	78.43	46.81	92.00	47.69	UL-RL	5.7322E+04	-9.200	85.57
1.000	1.000	132.4	0.000	0.000	Ug2_741_743_L_0					
48 D	27.08	4.5749E-05	80.35	47.75	94.00	48.67	UL-RL	5.7322E+04	-9.400	87.65
1.000	1.000	135.4	0.000	0.000	Ug2_741_743_L_0					
49 D	27.69	4.5287E-05	82.26	48.69	96.00	49.66	UL-RL	5.7322E+04	-9.600	89.74
1.000	1.000	138.4	0.000	0.000	Ug2_741_743_L_0					
50 D	28.29	4.4812E-05	84.17	49.62	98.00	50.64	UL-RL	5.7322E+04	-9.800	91.83
1.000	1.000	141.5	0.000	0.000	Ug2_741_743_L_0					
51 D	28.89	4.4321E-05	86.09	50.56	100.00	51.63	UL-RL	5.7322E+04	-10.000	93.91
1.000	1.000	144.5	0.000	0.000	Ug2_741_743_L_0					
52 D	29.50	4.3818E-05	88.00	51.50	102.0	52.61	UL-RL	5.7322E+04	-10.200	96.00
1.000	1.000	147.5	0.000	0.000	Ug2_741_743_L_0					
53 D	30.10	4.3301E-05	89.91	52.43	104.0	53.60	UL-RL	5.7322E+04	-10.400	98.09
1.000	1.000	150.5	0.000	0.000	Ug2_741_743_L_0					
54 D	30.71	4.2774E-05	91.83	53.36	106.0	54.58	UL-RL	5.7322E+04	-10.600	100.2
1.000	1.000	153.5	0.000	0.000	Ug2_741_743_L_0					
55 D	31.31	4.2238E-05	93.74	54.30	108.0	55.57	UL-RL	5.7322E+04	-10.800	102.3
1.000	1.000	156.6	0.000	0.000	Ug2_741_743_L_0					
56 D	31.92	4.1694E-05	95.65	55.23	110.0	56.55	UL-RL	5.7322E+04	-11.000	104.3
1.000	1.000	159.6	0.000	0.000	Ug2_741_743_L_0					
57 D	32.52	4.1144E-05	97.57	56.16	112.0	57.54	UL-RL	5.7322E+04	-11.200	106.4
1.000	1.000	162.6	0.000	0.000	Ug2_741_743_L_0					
58 D	33.12	4.0590E-05	99.48	57.10	114.0	58.52	UL-RL	5.7322E+04	-11.400	108.5
1.000	1.000	165.6	0.000	0.000	Ug2_741_743_L_0					
59 D	33.73	4.0035E-05	101.4	58.03	116.0	59.51	UL-RL	5.7322E+04	-11.600	110.6
1.000	1.000	168.6	0.000	0.000	Ug2_741_743_L_0					
60 D	34.33	3.9478E-05	103.3	58.96	118.0	60.50	UL-RL	5.7322E+04	-11.800	112.7
1.000	1.000	171.7	0.000	0.000	Ug2_741_743_L_0					
61 D	17.47	3.8920E-05	105.2	59.90	120.0	61.48	UL-RL	5.7322E+04	-12.000	114.8
1.000	1.000	174.7	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59           |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.61853E-12	-4.61853E-12	4.74287E-13	-1.63780E-12
2	0.38261	-0.38261	1.46683E-12	7.65217E-02
3	1.1478	-1.1478	-7.65217E-02	0.30609
4	2.2957	-2.2957	-0.30609	0.76522
5	3.8261	-3.8261	-0.76522	1.5304
6	3.9849	-3.9849	-1.5304	2.3274
7	3.8299	-3.8299	-2.3274	3.0934
8	3.4413	-3.4413	-3.0934	3.7817
9	2.8320	-2.8320	-3.7817	4.3480
10	2.0085	-2.0085	-4.3480	4.7497
11	1.1076	-1.1076	-4.7497	4.9713
12	0.36981	-0.36981	-4.9713	5.0452
13	-0.21514	0.21514	-5.0452	5.0022
14	-0.65781	0.65781	-5.0022	4.8706
15	-0.96885	0.96885	-4.8706	4.6769
16	-1.1587	1.1587	-4.6769	4.4451
17	-1.2375	1.2375	-4.4451	4.1976
18	-1.2150	1.2150	-4.1976	3.9546
19	-1.1001	1.1001	-3.9546	3.7346
20	-0.90167	0.90167	-3.7346	3.5543
21	-0.62780	0.62780	-3.5543	3.4287
22	-0.28632	0.28632	-3.4287	3.3715
23	-0.11523	-0.11523	-3.3715	3.3945
24	-0.31338	0.31338	-3.3945	3.3318
25	-0.64539	0.64539	-3.3318	3.2027
26	-0.89178	0.89178	-3.2027	3.0244
27	-1.0654	1.0654	-3.0244	2.8113
28	-1.1772	1.1772	-2.8113	2.5759
29	-1.2362	1.2362	-2.5759	2.3286
30	-1.2534	1.2534	-2.3286	2.0779
31	-1.2386	1.2386	-2.0779	1.8302
32	-1.2006	1.2006	-1.8302	1.5901
33	-1.1471	1.1471	-1.5901	1.3607
34	-1.0803	1.0803	-1.3607	1.1446
35	-0.99813	0.99813	-1.1446	0.94500
36	-0.90635	0.90635	-0.94500	0.76373
37	-0.80953	0.80953	-0.76373	0.60182
38	-0.71140	0.71140	-0.60182	0.45954
39	-0.61491	0.61491	-0.45954	0.33656
40	-0.52228	0.52228	-0.33656	0.23211
41	-0.43517	0.43517	-0.23211	0.14507
42	-0.35470	0.35470	-0.14507	7.41333E-02
43	-0.28158	0.28158	-7.41333E-02	1.78173E-02
44	-0.21616	0.21616	-1.78173E-02	-2.54153E-02
45	-0.15853	0.15853	2.54153E-02	-5.71214E-02
46	-0.10855	0.10855	5.71214E-02	-7.88309E-02
47	-6.59273E-02	6.59273E-02	7.88309E-02	-9.20163E-02
48	-3.02746E-02	3.02746E-02	9.20163E-02	-9.80713E-02
49	-1.12999E-03	1.12999E-03	9.80713E-02	-9.82973E-02
50	-2.19962E-02	2.19962E-02	9.82973E-02	-9.38980E-02
51	-3.95946E-02	3.95946E-02	9.38980E-02	-8.59789E-02
52	-5.21344E-02	5.21344E-02	8.59789E-02	-7.55526E-02
53	-6.00467E-02	6.00467E-02	7.55526E-02	-6.35432E-02
54	-6.37108E-02	6.37108E-02	6.35432E-02	-5.08010E-02
55	-6.34474E-02	6.34474E-02	5.08010E-02	-3.81116E-02
56	-5.95147E-02	5.95147E-02	3.81116E-02	-2.62086E-02
57	-5.21090E-02	5.21090E-02	2.62086E-02	-1.57868E-02
58	-4.13680E-02	4.13680E-02	1.57868E-02	-7.51324E-03
59	-2.73786E-02	2.73786E-02	7.51324E-03	-2.03752E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60 1.01871E-02-1.01871E-02 2.03752E-03 1.35801E-13

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 265.8    REMNOR=0.3435E-23  RATIO =0.7979E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05  RDR   = 749.9
            RATIO=0.7979E-01  RATIO= 0.000
            MAX UN= 4.182    IEQ=   19 NODE      10 DOF   1  Y-DISPL.F
            MIN UN=-.3794E-01 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 27.38    REMNOR=0.1592E-21  RATIO =0.2561E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05  RDR   = 749.9
            RATIO=0.2561E-01  RATIO= 0.000
            MAX UN= 1.470    IEQ=   15 NODE      8 DOF   1  Y-DISPL.F
            MIN UN=-.3668E-10 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 25.67    REMNOR=0.6861E-21  RATIO =0.2480E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05  RDR   = 749.9
            RATIO=0.2480E-01  RATIO= 0.000
            MAX UN= 2.765    IEQ=   33 NODE     17 DOF   1  Y-DISPL.F
            MIN UN=-.1600E-09 IEQ=   15 NODE      8 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 1.088    REMNOR=0.9303E-21  RATIO =0.5105E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05  RDR   = 749.9
            RATIO=0.5105E-02  RATIO= 0.000
            MAX UN=0.9350    IEQ=   59 NODE     30 DOF   1  Y-DISPL.F
            MIN UN=-.1821E-09 IEQ=    7 NODE      4 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM=0.5505E-02 REMNOR=0.2643E-21  RATIO =0.3631E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05  RDR   = 749.9
            RATIO=0.3631E-03  RATIO= 0.000
            MAX UN=0.7419E-01 IEQ=   63 NODE     32 DOF   1  Y-DISPL.F
            MIN UN=-.2113E-09 IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM=0.9109E-19 REMNOR=0.4094E-21  RATIO =0.1477E-11  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05  RDR   = 749.9
            RATIO=0.1477E-11  RATIO= 0.000
            MAX UN=0.1533E-09 IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
            MIN UN=-.1193E-09 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59   |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

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	2.6989792E-03	-5.3680338E-04
2	2.5916186E-03	-5.3680338E-04
3	2.4842597E-03	-5.3677678E-04
4	2.3769149E-03	-5.3664380E-04
5	2.2696181E-03	-5.3627143E-04
6	2.1624347E-03	-5.3547351E-04
7	2.0554730E-03	-5.3401065E-04
8	1.9488943E-03	-5.3159029E-04
9	1.8429238E-03	-5.2786665E-04
10	1.7378611E-03	-5.2244078E-04
11	1.6340911E-03	-5.1486052E-04
12	1.5320698E-03	-5.0498710E-04
13	1.4322347E-03	-4.9303784E-04
14	1.3349774E-03	-4.7924744E-04
15	1.2406430E-03	-4.6384666E-04
16	1.1495315E-03	-4.4705475E-04
17	1.0618997E-03	-4.2907802E-04
18	9.7796577E-04	-4.1011212E-04
19	8.9790843E-04	-3.9034233E-04
20	8.2187070E-04	-3.6994470E-04
21	7.4996157E-04	-3.4908720E-04
22	6.8225622E-04	-3.2792914E-04
23	6.1879970E-04	-3.0662417E-04
24	5.5960643E-04	-2.8532103E-04
25	5.0466342E-04	-2.6413602E-04
26	4.5393830E-04	-2.4315686E-04
27	4.0738111E-04	-2.2247463E-04
28	3.6492248E-04	-2.0218541E-04
29	3.2647386E-04	-1.8239241E-04
30	2.9192502E-04	-1.6320696E-04
31	2.6114251E-04	-1.4475003E-04
32	2.3396781E-04	-1.2715311E-04
33	2.1021451E-04	-1.1055970E-04
34	1.8966822E-04	-9.5101820E-05
35	1.7209188E-04	-8.0872419E-05
36	1.5723366E-04	-6.7926940E-05
37	1.4483405E-04	-5.6288196E-05
38	1.3463191E-04	-4.5947578E-05
39	1.2637089E-04	-3.6868887E-05
40	1.1980407E-04	-2.8994359E-05
41	1.1469779E-04	-2.2250205E-05
42	1.1083430E-04	-1.6551360E-05
43	1.0801371E-04	-1.1805519E-05
44	1.0605497E-04	-7.9165468E-06
45	1.0479645E-04	-4.7873087E-06
46	1.0409580E-04	-2.3219143E-06
47	1.0382960E-04	-4.2764919E-07
48	1.0389254E-04	9.8365348E-07
49	1.0419637E-04	1.9945010E-06
50	1.0466871E-04	2.6809336E-06
51	1.0525171E-04	3.1119702E-06
52	1.0590060E-04	3.3492174E-06
53	1.0658206E-04	3.4466385E-06
54	1.0727298E-04	3.4504874E-06
55	1.0795858E-04	3.3992192E-06
56	1.0863104E-04	3.3235445E-06
57	1.0928791E-04	3.2464708E-06
58	1.0993056E-04	3.1833640E-06
59	1.1056270E-04	3.1420065E-06
60	1.1118883E-04	3.1226454E-06
61	1.1181277E-04	3.1180249E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-2.6990E-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	Ug1_2_8_L_0						
2 D	0.3636	-2.5916E-03	2.183	0.000	2.183	1.341	ACTIVE	0.000	-0.2000	1.818	
1.000	1.000	1.818	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7273	-2.4843E-03	4.372	0.000	4.372	2.671	ACTIVE	0.000	-0.4000	3.636	
1.000	1.000	3.636	0.000	0.000	Ug1_2_8_L_0						
4 D	1.091	-2.3769E-03	6.571	0.000	6.571	3.978	ACTIVE	0.000	-0.6000	5.455	
1.000	1.000	5.455	0.000	0.000	Ug1_2_8_L_0						
5 D	1.455	-2.2696E-03	8.784	0.000	8.784	5.256	ACTIVE	0.000	-0.8000	7.273	
1.000	1.000	7.273	0.000	0.000	Ug1_2_8_L_0						
6 D	1.818	-2.1624E-03	11.01	0.000	11.01	6.501	ACTIVE	0.000	-1.000	9.091	
1.000	1.000	9.091	0.000	0.000	Ug1_2_8_L_0						
7 D	2.182	-2.0555E-03	13.25	0.000	13.25	7.714	ACTIVE	0.000	-1.200	10.91	
1.000	1.000	10.91	0.000	0.000	Ug1_2_8_L_0						
8 D	2.545	-1.9489E-03	15.50	0.000	15.50	8.897	ACTIVE	0.000	-1.400	12.73	
1.000	1.000	12.73	0.000	0.000	Ug1_2_8_L_0						
9 D	2.909	-1.8429E-03	17.75	0.000	17.75	10.05	ACTIVE	0.000	-1.600	14.55	
1.000	1.000	14.55	0.000	0.000	Ug1_2_8_L_0						
10 D	3.273	-1.7379E-03	20.01	0.000	20.01	11.19	ACTIVE	0.000	-1.800	16.36	
1.000	1.000	16.36	0.000	0.000	Ug1_2_8_L_0						
11 D	3.636	-1.6341E-03	22.27	0.000	22.27	12.30	ACTIVE	0.000	-2.000	18.18	
1.000	1.000	18.18	0.000	0.000	Ug1_2_8_L_0						
12 D	4.000	-1.5321E-03	24.53	0.000	24.53	13.40	ACTIVE	0.000	-2.200	20.00	
1.000	1.000	20.00	0.000	0.000	Ug1_2_8_L_0						
13 D	4.460	-1.4322E-03	26.86	0.4821	26.86	14.48	ACTIVE	0.000	-2.400	21.82	
1.000	1.000	22.30	0.000	0.000	Ug1_2_8_L_0						
14 D	4.995	-1.3350E-03	29.05	1.338	29.05	15.56	ACTIVE	0.000	-2.600	23.64	
1.000	1.000	24.97	0.000	0.000	Ug1_2_8_L_0						
15 D	5.546	-1.2406E-03	31.45	2.275	31.45	16.62	ACTIVE	0.000	-2.800	25.45	
1.000	1.000	27.73	0.000	0.000	Ug1_2_8_L_0						
16 D	6.098	-1.1495E-03	33.86	3.215	33.86	17.68	ACTIVE	0.000	-3.000	27.27	
1.000	1.000	30.49	0.000	0.000	Ug1_2_8_L_0						
17 D	6.628	-1.0619E-03	36.01	4.051	36.01	18.73	ACTIVE	0.000	-3.200	29.09	
1.000	1.000	33.14	0.000	0.000	Ug1_2_8_L_0						
18 D	7.178	-9.7797E-04	38.39	4.980	38.39	19.78	ACTIVE	0.000	-3.400	30.91	
1.000	1.000	35.89	0.000	0.000	Ug1_2_8_L_0						
19 D	7.708	-8.9791E-04	40.53	5.815	40.53	20.83	ACTIVE	0.000	-3.600	32.73	
1.000	1.000	38.54	0.000	0.000	Ug1_2_8_L_0						
20 D	8.256	-8.2187E-04	42.89	6.734	42.89	21.87	ACTIVE	0.000	-3.800	34.55	
1.000	1.000	41.28	0.000	0.000	Ug1_2_8_L_0						
21 D	8.802	-7.4996E-04	45.23	7.647	45.23	22.91	ACTIVE	0.000	-4.000	36.36	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
22 D	9.333	-6.8226E-04	47.37	8.481	47.37	23.95	ACTIVE	0.000	-4.200	38.18	
1.000	1.000	46.66	0.000	0.000	Ug1_2_8_L_0						
23 D	9.877	-6.1880E-04	49.69	9.387	49.69	24.98	ACTIVE	0.000	-4.400	40.00	
1.000	1.000	49.39	0.000	0.000	Ug1_2_8_L_0						
24 D	11.06	-5.5961E-04	51.83	13.48	51.83	26.02	ACTIVE	0.000	-4.600	41.82	
1.000	1.000	55.29	0.000	0.000	Ug2_741_743_L_0						
25 D	11.54	-5.0466E-04	54.14	14.08	54.14	27.05	ACTIVE	0.000	-4.800	43.64	
1.000	1.000	57.71	0.000	0.000	Ug2_741_743_L_0						
26 D	12.03	-4.5394E-04	56.44	14.67	56.44	28.08	ACTIVE	0.000	-5.000	45.45	
1.000	1.000	60.13	0.000	0.000	Ug2_741_743_L_0						
27 D	12.50	-4.0738E-04	58.58	15.23	58.58	29.11	ACTIVE	0.000	-5.200	47.27	
1.000	1.000	62.50	0.000	0.000	Ug2_741_743_L_0						
28 D	12.98	-3.6492E-04	60.87	15.83	60.87	30.14	ACTIVE	0.000	-5.400	49.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	64.92	0.000	0.000	Ug2_741_743_L_0					
29 D	13.46	-3.2647E-04	63.01	16.38	63.01	31.17	ACTIVE	0.000	-5.600	50.91
1.000	1.000	67.29	0.000	0.000	Ug2_741_743_L_0					
30 D	13.94	-2.9193E-04	65.29	16.98	65.29	32.20	ACTIVE	0.000	-5.800	52.73
1.000	1.000	69.70	0.000	0.000	Ug2_741_743_L_0					
31 D	14.42	-2.6114E-04	67.57	17.57	67.57	33.23	ACTIVE	0.000	-6.000	54.55
1.000	1.000	72.11	0.000	0.000	Ug2_741_743_L_0					
32 D	14.90	-2.3397E-04	69.71	18.12	69.71	34.26	ACTIVE	0.000	-6.200	56.36
1.000	1.000	74.49	0.000	0.000	Ug2_741_743_L_0					
33 D	15.72	-2.1021E-04	71.97	20.44	71.97	35.29	UL-RL	6.6238E+04	-6.400	58.18
1.000	1.000	78.62	0.000	0.000	Ug2_741_743_L_0					
34 D	16.59	-1.8967E-04	74.12	22.94	74.12	36.32	UL-RL	6.6238E+04	-6.600	60.00
1.000	1.000	82.94	0.000	0.000	Ug2_741_743_L_0					
35 D	17.41	-1.7209E-04	76.38	25.23	76.38	37.35	UL-RL	6.6238E+04	-6.800	61.82
1.000	1.000	87.04	0.000	0.000	Ug2_741_743_L_0					
36 D	18.19	-1.5723E-04	78.64	27.33	78.64	38.38	UL-RL	6.6238E+04	-7.000	63.64
1.000	1.000	90.96	0.000	0.000	Ug2_741_743_L_0					
37 D	18.94	-1.4483E-04	80.78	29.26	80.78	39.41	UL-RL	6.6238E+04	-7.200	65.45
1.000	1.000	94.72	0.000	0.000	Ug2_741_743_L_0					
38 D	19.66	-1.3463E-04	83.03	31.04	83.03	40.44	UL-RL	6.6238E+04	-7.400	67.27
1.000	1.000	98.32	0.000	0.000	Ug2_741_743_L_0					
39 D	20.36	-1.2637E-04	85.18	32.69	85.18	41.46	UL-RL	6.6238E+04	-7.600	69.09
1.000	1.000	101.8	0.000	0.000	Ug2_741_743_L_0					
40 D	21.03	-1.1980E-04	87.43	34.23	87.43	42.49	UL-RL	6.6238E+04	-7.800	70.91
1.000	1.000	105.1	0.000	0.000	Ug2_741_743_L_0					
41 D	21.68	-1.1470E-04	89.67	35.66	89.67	43.52	UL-RL	6.6238E+04	-8.000	72.73
1.000	1.000	108.4	0.000	0.000	Ug2_741_743_L_0					
42 D	22.31	-1.1083E-04	91.82	37.02	91.82	44.55	UL-RL	6.6238E+04	-8.200	74.55
1.000	1.000	111.6	0.000	0.000	Ug2_741_743_L_0					
43 D	22.93	-1.0801E-04	94.06	38.30	94.06	45.58	UL-RL	6.6238E+04	-8.400	76.36
1.000	1.000	114.7	0.000	0.000	Ug2_741_743_L_0					
44 D	23.54	-1.0605E-04	96.21	39.52	96.21	46.60	UL-RL	6.6238E+04	-8.600	78.18
1.000	1.000	117.7	0.000	0.000	Ug2_741_743_L_0					
45 D	24.14	-1.0480E-04	98.45	40.70	98.45	47.63	UL-RL	6.6238E+04	-8.800	80.00
1.000	1.000	120.7	0.000	0.000	Ug2_741_743_L_0					
46 D	24.73	-1.0410E-04	100.7	41.84	100.7	48.66	UL-RL	6.6238E+04	-9.000	81.82
1.000	1.000	123.7	0.000	0.000	Ug2_741_743_L_0					
47 D	25.32	-1.0383E-04	102.8	42.95	102.8	49.69	UL-RL	6.6238E+04	-9.200	83.64
1.000	1.000	126.6	0.000	0.000	Ug2_741_743_L_0					
48 D	25.90	-1.0389E-04	105.1	44.04	105.1	50.72	UL-RL	6.6238E+04	-9.400	85.45
1.000	1.000	129.5	0.000	0.000	Ug2_741_743_L_0					
49 D	26.48	-1.0420E-04	107.3	45.12	107.3	51.75	UL-RL	6.6238E+04	-9.600	87.27
1.000	1.000	132.4	0.000	0.000	Ug2_741_743_L_0					
50 D	27.06	-1.0467E-04	109.4	46.19	109.4	52.77	UL-RL	6.6238E+04	-9.800	89.09
1.000	1.000	135.3	0.000	0.000	Ug2_741_743_L_0					
51 D	27.63	-1.0525E-04	111.7	47.25	111.7	53.80	UL-RL	6.6238E+04	-10.000	90.91
1.000	1.000	138.2	0.000	0.000	Ug2_741_743_L_0					
52 D	28.21	-1.0590E-04	113.8	48.30	113.8	54.83	UL-RL	6.6238E+04	-10.200	92.73
1.000	1.000	141.0	0.000	0.000	Ug2_741_743_L_0					
53 D	28.78	-1.0658E-04	116.1	49.35	116.1	55.86	UL-RL	6.6238E+04	-10.400	94.55
1.000	1.000	143.9	0.000	0.000	Ug2_741_743_L_0					
54 D	29.35	-1.0727E-04	118.3	50.41	118.3	56.89	UL-RL	6.6238E+04	-10.600	96.36
1.000	1.000	146.8	0.000	0.000	Ug2_741_743_L_0					
55 D	29.93	-1.0796E-04	120.4	51.46	120.4	57.92	UL-RL	6.6238E+04	-10.800	98.18
1.000	1.000	149.6	0.000	0.000	Ug2_741_743_L_0					
56 D	30.50	-1.0863E-04	122.7	52.52	122.7	58.95	UL-RL	6.6238E+04	-11.000	100.00
1.000	1.000	152.5	0.000	0.000	Ug2_741_743_L_0					
57 D	31.08	-1.0929E-04	124.8	53.57	124.8	59.97	UL-RL	6.6238E+04	-11.200	101.8
1.000	1.000	155.4	0.000	0.000	Ug2_741_743_L_0					
58 D	31.65	-1.0993E-04	127.0	54.63	127.0	61.00	UL-RL	6.6238E+04	-11.400	103.6
1.000	1.000	158.3	0.000	0.000	Ug2_741_743_L_0					
59 D	32.23	-1.1056E-04	129.3	55.69	129.3	62.03	UL-RL	6.6238E+04	-11.600	105.5
1.000	1.000	161.1	0.000	0.000	Ug2_741_743_L_0					
60 D	32.80	-1.1119E-04	131.4	56.75	131.4	63.06	UL-RL	6.6238E+04	-11.800	107.3
1.000	1.000	164.0	0.000	0.000	Ug2_741_743_L_0					
61 D	16.69	-1.1181E-04	133.6	57.81	133.6	64.09	UL-RL	6.6238E+04	-12.000	109.1
1.000	1.000	166.9	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018          18:15:59                                          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	5.012	1.6341E-03	0.000	25.06	20.00	25.06	V-C	9373.	-2.000	0.000	
1.000	1.000	25.06	0.000	0.000	Ug1_2_8_L_0						
12 D	5.596	1.5321E-03	1.818	25.80	22.00	25.80	V-C	9373.	-2.200	2.182	
1.000	1.000	27.98	0.000	0.000	Ug1_2_8_L_0						
13 D	6.072	1.4322E-03	3.636	26.00	24.00	26.00	V-C	9373.	-2.400	4.364	
1.000	1.000	30.36	0.000	0.000	Ug1_2_8_L_0						
14 D	6.538	1.3350E-03	5.455	26.14	26.00	26.14	V-C	9373.	-2.600	6.545	
1.000	1.000	32.69	0.000	0.000	Ug1_2_8_L_0						
15 D	7.001	1.2406E-03	7.273	26.28	28.00	26.28	V-C	9373.	-2.800	8.727	
1.000	1.000	35.00	0.000	0.000	Ug1_2_8_L_0						
16 D	7.465	1.1495E-03	9.091	26.42	30.00	26.42	V-C	9373.	-3.000	10.91	
1.000	1.000	37.33	0.000	0.000	Ug1_2_8_L_0						
17 D	7.933	1.0619E-03	10.91	26.58	32.00	26.58	V-C	9373.	-3.200	13.09	
1.000	1.000	39.67	0.000	0.000	Ug1_2_8_L_0						
18 D	8.407	9.7797E-04	12.73	26.76	34.00	26.76	V-C	9373.	-3.400	15.27	
1.000	1.000	42.03	0.000	0.000	Ug1_2_8_L_0						
19 D	8.886	8.9791E-04	14.55	26.98	36.00	26.98	V-C	9373.	-3.600	17.45	
1.000	1.000	44.43	0.000	0.000	Ug1_2_8_L_0						
20 D	9.373	8.2187E-04	16.36	27.23	38.00	27.23	V-C	9373.	-3.800	19.64	
1.000	1.000	46.86	0.000	0.000	Ug1_2_8_L_0						
21 D	9.866	7.4996E-04	18.18	27.51	40.00	27.51	V-C	9373.	-4.000	21.82	
1.000	1.000	49.33	0.000	0.000	Ug1_2_8_L_0						
22 D	10.37	6.8226E-04	20.00	27.84	42.00	27.84	V-C	9373.	-4.200	24.00	
1.000	1.000	51.84	0.000	0.000	Ug1_2_8_L_0						
23 D	10.88	6.1880E-04	21.82	28.20	44.00	28.20	V-C	9373.	-4.400	26.18	
1.000	1.000	54.38	0.000	0.000	Ug1_2_8_L_0						
24 D	11.65	5.5961E-04	23.64	29.89	46.00	29.89	V-C	1.1464E+04	-4.600	28.36	
1.000	1.000	58.25	0.000	0.000	Ug2_741_743_L_0						
25 D	12.15	5.0466E-04	25.45	30.21	48.00	30.21	V-C	1.1464E+04	-4.800	30.55	
1.000	1.000	60.75	0.000	0.000	Ug2_741_743_L_0						
26 D	12.66	4.5394E-04	27.27	30.58	50.00	30.58	V-C	1.1464E+04	-5.000	32.73	
1.000	1.000	63.31	0.000	0.000	Ug2_741_743_L_0						
27 D	13.18	4.0738E-04	29.09	31.00	52.00	31.00	V-C	1.1464E+04	-5.200	34.91	
1.000	1.000	65.91	0.000	0.000	Ug2_741_743_L_0						
28 D	13.71	3.6492E-04	30.91	31.47	54.00	31.47	V-C	1.1464E+04	-5.400	37.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	68.56	0.000	0.000	Ug2_741_743_L_0					
29 D	14.25	3.2647E-04	32.73	31.99	56.00	31.99	V-C	1.1464E+04	-5.600	39.27
1.000	1.000	71.26	0.000	0.000	Ug2_741_743_L_0					
30 D	14.80	2.9193E-04	34.55	32.55	58.00	32.55	V-C	1.1464E+04	-5.800	41.45
1.000	1.000	74.00	0.000	0.000	Ug2_741_743_L_0					
31 D	15.36	2.6114E-04	36.36	33.16	60.00	33.16	V-C	1.1464E+04	-6.000	43.64
1.000	1.000	76.79	0.000	0.000	Ug2_741_743_L_0					
32 D	15.93	2.3397E-04	38.18	33.81	62.00	33.81	V-C	1.1464E+04	-6.200	45.82
1.000	1.000	79.63	0.000	0.000	Ug2_741_743_L_0					
33 D	16.50	2.1021E-04	40.00	34.50	64.00	34.50	V-C	1.1464E+04	-6.400	48.00
1.000	1.000	82.50	0.000	0.000	Ug2_741_743_L_0					
34 D	17.08	1.8967E-04	41.82	35.23	66.00	35.23	V-C	1.1464E+04	-6.600	50.18
1.000	1.000	85.41	0.000	0.000	Ug2_741_743_L_0					
35 D	17.67	1.7209E-04	43.64	36.00	68.00	36.00	V-C	1.1464E+04	-6.800	52.36
1.000	1.000	88.36	0.000	0.000	Ug2_741_743_L_0					
36 D	18.24	1.5723E-04	45.45	36.66	70.00	36.66	UL-RL	3.4393E+04	-7.000	54.55
1.000	1.000	91.21	0.000	0.000	Ug2_741_743_L_0					
37 D	18.78	1.4483E-04	47.27	37.17	72.00	37.84	UL-RL	3.4393E+04	-7.200	56.73
1.000	1.000	93.89	0.000	0.000	Ug2_741_743_L_0					
38 D	19.33	1.3463E-04	49.09	37.75	74.00	38.83	UL-RL	3.4393E+04	-7.400	58.91
1.000	1.000	96.66	0.000	0.000	Ug2_741_743_L_0					
39 D	19.90	1.2637E-04	50.91	38.40	76.00	39.81	UL-RL	3.4393E+04	-7.600	61.09
1.000	1.000	99.49	0.000	0.000	Ug2_741_743_L_0					
40 D	20.48	1.1980E-04	52.73	39.11	78.00	40.80	UL-RL	3.4393E+04	-7.800	63.27
1.000	1.000	102.4	0.000	0.000	Ug2_741_743_L_0					
41 D	21.07	1.1470E-04	54.55	39.87	80.00	41.78	UL-RL	3.4393E+04	-8.000	65.45
1.000	1.000	105.3	0.000	0.000	Ug2_741_743_L_0					
42 D	21.66	1.1083E-04	56.36	40.68	82.00	42.77	UL-RL	3.4393E+04	-8.200	67.64
1.000	1.000	108.3	0.000	0.000	Ug2_741_743_L_0					
43 D	22.27	1.0801E-04	58.18	41.52	84.00	43.75	UL-RL	3.4393E+04	-8.400	69.82
1.000	1.000	111.3	0.000	0.000	Ug2_741_743_L_0					
44 D	22.88	1.0605E-04	60.00	42.39	86.00	44.74	UL-RL	3.4393E+04	-8.600	72.00
1.000	1.000	114.4	0.000	0.000	Ug2_741_743_L_0					
45 D	23.49	1.0480E-04	61.82	43.28	88.00	45.72	UL-RL	3.4393E+04	-8.800	74.18
1.000	1.000	117.5	0.000	0.000	Ug2_741_743_L_0					
46 D	24.11	1.0410E-04	63.64	44.19	90.00	46.70	UL-RL	3.4393E+04	-9.000	76.36
1.000	1.000	120.6	0.000	0.000	Ug2_741_743_L_0					
47 D	24.73	1.0383E-04	65.45	45.12	92.00	47.69	UL-RL	3.4393E+04	-9.200	78.55
1.000	1.000	123.7	0.000	0.000	Ug2_741_743_L_0					
48 D	25.36	1.0389E-04	67.27	46.06	94.00	48.67	UL-RL	3.4393E+04	-9.400	80.73
1.000	1.000	126.8	0.000	0.000	Ug2_741_743_L_0					
49 D	25.98	1.0420E-04	69.09	47.00	96.00	49.66	UL-RL	3.4393E+04	-9.600	82.91
1.000	1.000	129.9	0.000	0.000	Ug2_741_743_L_0					
50 D	26.61	1.0467E-04	70.91	47.95	98.00	50.64	UL-RL	3.4393E+04	-9.800	85.09
1.000	1.000	133.0	0.000	0.000	Ug2_741_743_L_0					
51 D	27.24	1.0525E-04	72.73	48.90	100.00	51.63	UL-RL	3.4393E+04	-10.000	87.27
1.000	1.000	136.2	0.000	0.000	Ug2_741_743_L_0					
52 D	27.86	1.0590E-04	74.55	49.86	102.0	52.61	UL-RL	3.4393E+04	-10.200	89.45
1.000	1.000	139.3	0.000	0.000	Ug2_741_743_L_0					
53 D	28.49	1.0658E-04	76.36	50.82	104.0	53.60	UL-RL	3.4393E+04	-10.400	91.64
1.000	1.000	142.5	0.000	0.000	Ug2_741_743_L_0					
54 D	29.12	1.0727E-04	78.18	51.77	106.0	54.58	UL-RL	3.4393E+04	-10.600	93.82
1.000	1.000	145.6	0.000	0.000	Ug2_741_743_L_0					
55 D	29.75	1.0796E-04	80.00	52.73	108.0	55.57	UL-RL	3.4393E+04	-10.800	96.00
1.000	1.000	148.7	0.000	0.000	Ug2_741_743_L_0					
56 D	30.37	1.0863E-04	81.82	53.68	110.0	56.55	UL-RL	3.4393E+04	-11.000	98.18
1.000	1.000	151.9	0.000	0.000	Ug2_741_743_L_0					
57 D	31.00	1.0929E-04	83.64	54.63	112.0	57.54	UL-RL	3.4393E+04	-11.200	100.4
1.000	1.000	155.0	0.000	0.000	Ug2_741_743_L_0					
58 D	31.63	1.0993E-04	85.45	55.59	114.0	58.52	UL-RL	3.4393E+04	-11.400	102.5
1.000	1.000	158.1	0.000	0.000	Ug2_741_743_L_0					
59 D	32.25	1.1056E-04	87.27	56.54	116.0	59.51	UL-RL	3.4393E+04	-11.600	104.7
1.000	1.000	161.3	0.000	0.000	Ug2_741_743_L_0					
60 D	32.88	1.1119E-04	89.09	57.49	118.0	60.50	UL-RL	3.4393E+04	-11.800	106.9
1.000	1.000	164.4	0.000	0.000	Ug2_741_743_L_0					
61 D	16.75	1.1181E-04	90.91	58.44	120.0	61.48	UL-RL	3.4393E+04	-12.000	109.1
1.000	1.000	167.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018  18:15:59  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.82983E-11	-4.82983E-11	4.73011E-12	-3.26402E-14
2	0.36364	-0.36364	1.06320E-12	7.27273E-02
3	1.0909	-1.0909	-7.27273E-02	0.29091
4	2.1818	-2.1818	-0.29091	0.72727
5	3.6364	-3.6364	-0.72727	1.4545
6	5.4545	-5.4545	-1.4545	2.5455
7	7.6364	-7.6364	-2.5455	4.0727
8	10.182	-10.182	-4.0727	6.1091
9	13.091	-13.091	-6.1091	8.7273
10	16.364	-16.364	-8.7273	12.000
11	14.988	-14.988	-12.000	14.998
12	13.392	-13.392	-14.998	17.676
13	11.780	-11.780	-17.676	20.032
14	10.237	-10.237	-20.032	22.079
15	8.7824	-8.7824	-22.079	23.836
16	7.4150	-7.4150	-23.836	25.319
17	6.1100	-6.1100	-25.319	26.541
18	4.8808	-4.8808	-26.541	27.517
19	3.7028	-3.7028	-27.517	28.258
20	2.5860	-2.5860	-28.258	28.775
21	1.5217	-1.5217	-28.775	29.079
22	0.48691	-0.48691	-29.079	29.177
23	-0.51193	0.51193	-29.177	29.074
24	-1.1032	1.1032	-29.074	28.854
25	-1.7113	1.7113	-28.854	28.511
26	-2.3468	2.3468	-28.511	28.042
27	-3.0278	3.0278	-28.042	27.436
28	-3.7565	3.7565	-27.436	26.685
29	-4.5499	4.5499	-26.685	25.775
30	-5.4102	5.4102	-25.775	24.693
31	-6.3466	6.3466	-24.693	23.424
32	-7.3746	7.3746	-23.424	21.949
33	-8.1502	8.1502	-21.949	20.319
34	-8.6454	8.6454	-20.319	18.590
35	-8.9082	8.9082	-18.590	16.808
36	-8.9565	8.9565	-16.808	15.017
37	-8.7922	8.7922	-15.017	13.258
38	-8.4608	8.4608	-13.258	11.566
39	-8.0024	8.0024	-11.566	9.9657
40	-7.4520	7.4520	-9.9657	8.4753
41	-6.8394	6.8394	-8.4753	7.1075
42	-6.1900	6.1900	-7.1075	5.8695
43	-5.5250	5.5250	-5.8695	4.7645
44	-4.8618	4.8618	-4.7645	3.7921
45	-4.2144	4.2144	-3.7921	2.9492
46	-3.5940	3.5940	-2.9492	2.2304
47	-3.0090	3.0090	-2.2304	1.6286
48	-2.4660	2.4660	-1.6286	1.1354
49	-1.9694	1.9694	-1.1354	0.74155
50	-1.5224	1.5224	-0.74155	0.43707
51	-1.1271	1.1271	-0.43707	0.21164
52	-0.78446	0.78446	-0.21164	5.47579E-02
53	-0.49496	0.49496	-5.47579E-02	-4.42338E-02
54	-0.25859	0.25859	4.42338E-02	-9.59526E-02
55	-7.50891E-02	7.50891E-02	9.59526E-02	-0.11097
56	5.59631E-02	-5.59631E-02	0.11097	-9.97778E-02
57	0.13499	-0.13499	9.97778E-02	-7.27799E-02
58	0.16237	-0.16237	7.27799E-02	-4.03069E-02
59	0.13837	-0.13837	4.03069E-02	-1.26335E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 6.31645E-02-6.31645E-02 1.26335E-02 1.61766E-13

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM= 25.28    REMNOR=0.4094E-21  RATIO =0.2425E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.2425E-01  RATIO= 0.000
            MAX UN= 1.035    IEQ=   31 NODE    16 DOF   1  Y-DISPL.F
            MIN UN=-.1039   IEQ=   21 NODE    11 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM= 5.657    REMNOR=0.6949E-21  RATIO =0.1147E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.1147E-01  RATIO= 0.000
            MAX UN=0.7250    IEQ=   47 NODE    24 DOF   1  Y-DISPL.F
            MIN UN=-.1517E-10 IEQ=   71 NODE    36 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM= 1.293    REMNOR=0.1123E-20  RATIO =0.5485E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.5485E-02  RATIO= 0.000
            MAX UN=0.6844    IEQ=    5 NODE     3 DOF   1  Y-DISPL.F
            MIN UN=-.1549E-09 IEQ=   11 NODE     6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM=0.6472E-03 REMNOR=0.8872E-21  RATIO =0.1227E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.1227E-03  RATIO= 0.000
            MAX UN=0.1015E-01 IEQ=   93 NODE    47 DOF   1  Y-DISPL.F
            MIN UN=-.1905E-09 IEQ=    5 NODE     3 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM=0.9741E-05 REMNOR=0.8312E-21  RATIO =0.1506E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.1506E-04  RATIO= 0.000
            MAX UN=0.1075E-02 IEQ=    3 NODE     2 DOF   1  Y-DISPL.F
            MIN UN=-.3635E-10 IEQ=   43 NODE    22 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 40
```

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PRINT OUT FOR TIME STEP 4 ( AT TIME 4.000 )
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PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)
```

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0749512E-03	-5.6296135E-04	
2	2.9623589E-03	-5.6296135E-04	
3	2.8497683E-03	-5.6293627E-04	
4	2.7371911E-03	-5.6281089E-04	
5	2.6246590E-03	-5.6245980E-04	
6	2.5122339E-03	-5.6170747E-04	
7	2.4000178E-03	-5.6032821E-04	
8	2.2881628E-03	-5.5804615E-04	
9	2.1768813E-03	-5.5453529E-04	
10	2.0664557E-03	-5.4941947E-04	
11	1.9572489E-03	-5.4227237E-04	
12	1.8496891E-03	-5.3299017E-04	
13	1.7441764E-03	-5.2185403E-04	
14	1.6410513E-03	-5.0916020E-04	
15	1.5405994E-03	-4.9516028E-04	
16	1.4430606E-03	-4.8005968E-04	
17	1.3486379E-03	-4.6401619E-04	
18	1.2575078E-03	-4.4716030E-04	
19	1.1698199E-03	-4.2961360E-04	
20	1.0857008E-03	-4.1148979E-04	
21	1.0052557E-03	-3.9289569E-04	
22	9.2856769E-04	-3.7393061E-04	
23	8.5570188E-04	-3.5468911E-04	
24	7.8670444E-04	-3.3526172E-04	
25	7.2160490E-04	-3.1571876E-04	
26	6.6042105E-04	-2.9611399E-04	
27	6.0315988E-04	-2.7650482E-04	
28	5.4981553E-04	-2.5695392E-04	
29	5.0036977E-04	-2.3753119E-04	
30	4.5478930E-04	-2.1831480E-04	
31	4.1302423E-04	-1.9939259E-04	
32	3.7500627E-04	-1.8086303E-04	
33	3.4064567E-04	-1.6283669E-04	
34	3.0982974E-04	-1.4543811E-04	
35	2.8241928E-04	-1.2880664E-04	
36	2.5824558E-04	-1.1309781E-04	
37	2.3710854E-04	-9.8464754E-05	
38	2.1878047E-04	-8.5021362E-05	
39	2.0301658E-04	-7.2829246E-05	
40	1.8956418E-04	-6.1906131E-05	
41	1.7817074E-04	-5.2233834E-05	
42	1.6859040E-04	-4.3765212E-05	
43	1.6058908E-04	-3.6430247E-05	
44	1.5394833E-04	-3.0144851E-05	
45	1.4846721E-04	-2.4818819E-05	
46	1.4396307E-04	-2.0359105E-05	
47	1.4027203E-04	-1.6672463E-05	
48	1.3724865E-04	-1.3667415E-05	
49	1.3476549E-04	-1.1255982E-05	
50	1.3271223E-04	-9.3550845E-06	
51	1.3099458E-04	-7.8874549E-06	
52	1.2953305E-04	-6.7821873E-06	
53	1.2826185E-04	-5.9750400E-06	
54	1.2712712E-04	-5.4076761E-06	
55	1.2608629E-04	-5.0277414E-06	
56	1.2510661E-04	-4.7889764E-06	
57	1.2416395E-04	-4.6514744E-06	
58	1.2324150E-04	-4.5818125E-06	
59	1.2232849E-04	-4.5531261E-06	
60	1.2141887E-04	-4.5451454E-06	
61	1.2050992E-04	-4.5442107E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59             |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	Su_a	Su_p	LAYER						
1 D	5.6657E-04	-3.0750E-03	0.000	5.6657E-03	0.000	0.1024	UL-RL	3.6008E+04	0.000	0.000	
1.000	1.000	5.6657E-03	0.000	0.000	Ug1_2_8_L_0						
2 D	0.3439	-2.9624E-03	2.287	5.3746E-03	2.287	1.341	UL-RL	3.6008E+04	-0.2000	1.714	
1.000	1.000	1.720	0.000	0.000	Ug1_2_8_L_0						
3 D	0.6867	-2.8498E-03	4.580	5.0836E-03	4.580	2.671	UL-RL	3.6008E+04	-0.4000	3.429	
1.000	1.000	3.434	0.000	0.000	Ug1_2_8_L_0						
4 D	1.030	-2.7372E-03	6.883	4.7925E-03	6.883	3.978	UL-RL	3.6008E+04	-0.6000	5.143	
1.000	1.000	5.148	0.000	0.000	Ug1_2_8_L_0						
5 D	1.372	-2.6247E-03	9.200	4.5015E-03	9.200	5.256	UL-RL	3.6008E+04	-0.8000	6.857	
1.000	1.000	6.862	0.000	0.000	Ug1_2_8_L_0						
6 D	1.715	-2.5122E-03	11.53	4.2104E-03	11.53	6.501	UL-RL	3.6008E+04	-1.0000	8.571	
1.000	1.000	8.576	0.000	0.000	Ug1_2_8_L_0						
7 D	2.058	-2.4000E-03	13.87	3.9194E-03	13.87	7.714	UL-RL	3.6008E+04	-1.2000	10.29	
1.000	1.000	10.29	0.000	0.000	Ug1_2_8_L_0						
8 D	2.401	-2.2882E-03	16.22	3.6283E-03	16.22	8.897	UL-RL	3.6008E+04	-1.4000	12.00	
1.000	1.000	12.00	0.000	0.000	Ug1_2_8_L_0						
9 D	2.744	-2.1769E-03	18.58	3.3373E-03	18.58	10.05	UL-RL	3.6008E+04	-1.6000	13.71	
1.000	1.000	13.72	0.000	0.000	Ug1_2_8_L_0						
10 D	3.086	-2.0665E-03	20.95	3.0462E-03	20.95	11.19	UL-RL	3.6008E+04	-1.8000	15.43	
1.000	1.000	15.43	0.000	0.000	Ug1_2_8_L_0						
11 D	3.429	-1.9572E-03	23.31	2.7552E-03	23.31	12.30	UL-RL	3.6008E+04	-2.0000	17.14	
1.000	1.000	17.15	0.000	0.000	Ug1_2_8_L_0						
12 D	3.776	-1.8497E-03	25.68	2.4167E-02	25.68	13.40	UL-RL	3.6008E+04	-2.2000	18.86	
1.000	1.000	18.88	0.000	0.000	Ug1_2_8_L_0						
13 D	4.308	-1.7442E-03	28.10	0.9705	28.10	14.48	UL-RL	3.6008E+04	-2.4000	20.57	
1.000	1.000	21.54	0.000	0.000	Ug1_2_8_L_0						
14 D	4.830	-1.6411E-03	30.40	1.866	30.40	15.56	UL-RL	3.6008E+04	-2.6000	22.29	
1.000	1.000	24.15	0.000	0.000	Ug1_2_8_L_0						
15 D	5.369	-1.5406E-03	32.91	2.844	32.91	16.62	UL-RL	3.6008E+04	-2.8000	24.00	
1.000	1.000	26.84	0.000	0.000	Ug1_2_8_L_0						
16 D	5.908	-1.4431E-03	35.42	3.824	35.42	17.68	UL-RL	3.6008E+04	-3.0000	25.71	
1.000	1.000	29.54	0.000	0.000	Ug1_2_8_L_0						
17 D	6.426	-1.3486E-03	37.67	4.701	37.67	18.73	UL-RL	3.6008E+04	-3.2000	27.43	
1.000	1.000	32.13	0.000	0.000	Ug1_2_8_L_0						
18 D	6.962	-1.2575E-03	40.16	5.669	40.16	19.78	UL-RL	3.6008E+04	-3.4000	29.14	
1.000	1.000	34.81	0.000	0.000	Ug1_2_8_L_0						
19 D	7.480	-1.1698E-03	42.40	6.545	42.40	20.83	UL-RL	3.6008E+04	-3.6000	30.86	
1.000	1.000	37.40	0.000	0.000	Ug1_2_8_L_0						
20 D	8.015	-1.0857E-03	44.86	7.504	44.86	21.87	UL-RL	3.6008E+04	-3.8000	32.57	
1.000	1.000	40.08	0.000	0.000	Ug1_2_8_L_0						
21 D	8.549	-1.0053E-03	47.31	8.457	47.31	22.91	ACTIVE	0.000	-4.0000	34.29	
1.000	1.000	42.74	0.000	0.000	Ug1_2_8_L_0						
22 D	9.066	-9.2857E-04	49.55	9.332	49.55	23.95	ACTIVE	0.000	-4.2000	36.00	
1.000	1.000	45.33	0.000	0.000	Ug1_2_8_L_0						
23 D	9.599	-8.5570E-04	51.98	10.28	51.98	24.98	ACTIVE	0.000	-4.4000	37.71	
1.000	1.000	47.99	0.000	0.000	Ug1_2_8_L_0						
24 D	10.71	-7.8670E-04	54.22	14.10	54.22	26.02	ACTIVE	0.000	-4.6000	39.43	
1.000	1.000	53.53	0.000	0.000	Ug2_741_743_L_0						
25 D	11.17	-7.2160E-04	56.63	14.72	56.63	27.05	ACTIVE	0.000	-4.8000	41.14	
1.000	1.000	55.87	0.000	0.000	Ug2_741_743_L_0						
26 D	11.64	-6.6042E-04	59.04	15.35	59.04	28.08	ACTIVE	0.000	-5.0000	42.86	
1.000	1.000	58.21	0.000	0.000	Ug2_741_743_L_0						
27 D	12.10	-6.0316E-04	61.28	15.93	61.28	29.11	ACTIVE	0.000	-5.2000	44.57	
1.000	1.000	60.50	0.000	0.000	Ug2_741_743_L_0						
28 D	12.57	-5.4982E-04	63.67	16.56	63.67	30.14	ACTIVE	0.000	-5.4000	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	62.84	0.000	0.000	Ug2_741_743_L_0					
29 D	13.03	-5.0037E-04	65.92	17.14	65.92	31.17	ACTIVE	0.000	-5.600	48.00
1.000	1.000	65.14	0.000	0.000	Ug2_741_743_L_0					
30 D	13.49	-4.5479E-04	68.30	17.76	68.30	32.20	ACTIVE	0.000	-5.800	49.71
1.000	1.000	67.47	0.000	0.000	Ug2_741_743_L_0					
31 D	13.96	-4.1302E-04	70.68	18.38	70.68	33.23	ACTIVE	0.000	-6.000	51.43
1.000	1.000	69.81	0.000	0.000	Ug2_741_743_L_0					
32 D	14.42	-3.7501E-04	72.93	18.96	72.93	34.26	ACTIVE	0.000	-6.200	53.14
1.000	1.000	72.10	0.000	0.000	Ug2_741_743_L_0					
33 D	14.89	-3.4065E-04	75.30	19.58	75.30	35.29	ACTIVE	0.000	-6.400	54.86
1.000	1.000	74.44	0.000	0.000	Ug2_741_743_L_0					
34 D	15.35	-3.0983E-04	77.55	20.16	77.55	36.32	ACTIVE	0.000	-6.600	56.57
1.000	1.000	76.73	0.000	0.000	Ug2_741_743_L_0					
35 D	15.81	-2.8242E-04	79.91	20.78	79.91	37.35	ACTIVE	0.000	-6.800	58.29
1.000	1.000	79.06	0.000	0.000	Ug2_741_743_L_0					
36 D	16.49	-2.5825E-04	82.27	22.46	82.27	38.38	UL-RL	6.6238E+04	-7.000	60.00
1.000	1.000	82.46	0.000	0.000	Ug2_741_743_L_0					
37 D	17.35	-2.3711E-04	84.52	25.02	84.52	39.41	UL-RL	6.6238E+04	-7.200	61.71
1.000	1.000	86.73	0.000	0.000	Ug2_741_743_L_0					
38 D	18.16	-2.1878E-04	86.88	27.39	86.88	40.44	UL-RL	6.6238E+04	-7.400	63.43
1.000	1.000	90.82	0.000	0.000	Ug2_741_743_L_0					
39 D	18.95	-2.0302E-04	89.13	29.59	89.13	41.46	UL-RL	6.6238E+04	-7.600	65.14
1.000	1.000	94.73	0.000	0.000	Ug2_741_743_L_0					
40 D	19.70	-1.8956E-04	91.48	31.63	91.48	42.49	UL-RL	6.6238E+04	-7.800	66.86
1.000	1.000	98.49	0.000	0.000	Ug2_741_743_L_0					
41 D	20.42	-1.7817E-04	93.83	33.54	93.83	43.52	UL-RL	6.6238E+04	-8.000	68.57
1.000	1.000	102.1	0.000	0.000	Ug2_741_743_L_0					
42 D	21.12	-1.6859E-04	96.08	35.32	96.08	44.55	UL-RL	6.6238E+04	-8.200	70.29
1.000	1.000	105.6	0.000	0.000	Ug2_741_743_L_0					
43 D	21.80	-1.6059E-04	98.43	37.00	98.43	45.58	UL-RL	6.6238E+04	-8.400	72.00
1.000	1.000	109.0	0.000	0.000	Ug2_741_743_L_0					
44 D	22.46	-1.5395E-04	100.7	38.58	100.7	46.60	UL-RL	6.6238E+04	-8.600	73.71
1.000	1.000	112.3	0.000	0.000	Ug2_741_743_L_0					
45 D	23.10	-1.4847E-04	103.0	40.09	103.0	47.63	UL-RL	6.6238E+04	-8.800	75.43
1.000	1.000	115.5	0.000	0.000	Ug2_741_743_L_0					
46 D	23.74	-1.4396E-04	105.4	41.54	105.4	48.66	UL-RL	6.6238E+04	-9.000	77.14
1.000	1.000	118.7	0.000	0.000	Ug2_741_743_L_0					
47 D	24.36	-1.4027E-04	107.6	42.93	107.6	49.69	UL-RL	6.6238E+04	-9.200	78.86
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
48 D	24.97	-1.3725E-04	110.0	44.28	110.0	50.72	UL-RL	6.6238E+04	-9.400	80.57
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
49 D	25.58	-1.3477E-04	112.3	45.59	112.3	51.75	UL-RL	6.6238E+04	-9.600	82.29
1.000	1.000	127.9	0.000	0.000	Ug2_741_743_L_0					
50 D	26.17	-1.3271E-04	114.5	46.87	114.5	52.77	UL-RL	6.6238E+04	-9.800	84.00
1.000	1.000	130.9	0.000	0.000	Ug2_741_743_L_0					
51 D	26.77	-1.3099E-04	116.9	48.14	116.9	53.80	UL-RL	6.6238E+04	-10.000	85.71
1.000	1.000	133.9	0.000	0.000	Ug2_741_743_L_0					
52 D	27.36	-1.2953E-04	119.1	49.38	119.1	54.83	UL-RL	6.6238E+04	-10.200	87.43
1.000	1.000	136.8	0.000	0.000	Ug2_741_743_L_0					
53 D	27.95	-1.2826E-04	121.5	50.62	121.5	55.86	UL-RL	6.6238E+04	-10.400	89.14
1.000	1.000	139.8	0.000	0.000	Ug2_741_743_L_0					
54 D	28.54	-1.2713E-04	123.8	51.85	123.8	56.89	UL-RL	6.6238E+04	-10.600	90.86
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
55 D	29.13	-1.2609E-04	126.0	53.07	126.0	57.92	UL-RL	6.6238E+04	-10.800	92.57
1.000	1.000	145.6	0.000	0.000	Ug2_741_743_L_0					
56 D	29.71	-1.2511E-04	128.4	54.28	128.4	58.95	UL-RL	6.6238E+04	-11.000	94.29
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
57 D	30.30	-1.2416E-04	130.6	55.50	130.6	59.97	UL-RL	6.6238E+04	-11.200	96.00
1.000	1.000	151.5	0.000	0.000	Ug2_741_743_L_0					
58 D	30.89	-1.2324E-04	133.0	56.71	133.0	61.00	UL-RL	6.6238E+04	-11.400	97.71
1.000	1.000	154.4	0.000	0.000	Ug2_741_743_L_0					
59 D	31.47	-1.2233E-04	135.3	57.93	135.3	62.03	UL-RL	6.6238E+04	-11.600	99.43
1.000	1.000	157.4	0.000	0.000	Ug2_741_743_L_0					
60 D	32.06	-1.2142E-04	137.5	59.14	137.5	63.06	UL-RL	6.6238E+04	-11.800	101.1
1.000	1.000	160.3	0.000	0.000	Ug2_741_743_L_0					
61 D	16.32	-1.2051E-04	139.9	60.35	139.9	64.09	UL-RL	6.6238E+04	-12.000	102.9
1.000	1.000	163.2	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018          18:15:59                                                                                           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	5.095	1.9572E-03	0.000	25.47	20.00	25.47	UL-RL	2.8119E+04	-2.000	0.000	
1.000	1.000	25.47	0.000	0.000	Ug1_2_8_L_0						
12 D	5.953	1.8497E-03	3.800	29.77	22.00	29.77	UL-RL	2.8119E+04	-2.200	0.000	
1.000	1.000	29.77	0.000	0.000	Ug1_2_8_L_0						
13 D	6.181	1.7442E-03	7.600	30.90	24.00	30.91	UL-RL	2.8119E+04	-2.400	0.000	
1.000	1.000	30.90	0.000	0.000	Ug1_2_8_L_0						
14 D	6.397	1.6411E-03	11.40	31.98	26.00	31.98	UL-RL	2.8119E+04	-2.600	0.000	
1.000	1.000	31.98	0.000	0.000	Ug1_2_8_L_0						
15 D	6.610	1.5406E-03	15.20	33.05	28.00	33.05	UL-RL	2.8119E+04	-2.800	0.000	
1.000	1.000	33.05	0.000	0.000	Ug1_2_8_L_0						
16 D	6.824	1.4431E-03	19.00	34.12	30.00	34.12	UL-RL	2.8119E+04	-3.000	0.000	
1.000	1.000	34.12	0.000	0.000	Ug1_2_8_L_0						
17 D	7.290	1.3486E-03	20.71	34.17	32.00	34.17	UL-RL	2.8119E+04	-3.200	2.286	
1.000	1.000	36.45	0.000	0.000	Ug1_2_8_L_0						
18 D	7.761	1.2575E-03	22.43	34.23	34.00	34.23	UL-RL	2.8119E+04	-3.400	4.571	
1.000	1.000	38.80	0.000	0.000	Ug1_2_8_L_0						
19 D	8.236	1.1698E-03	24.14	34.32	36.00	34.33	UL-RL	2.8119E+04	-3.600	6.857	
1.000	1.000	41.18	0.000	0.000	Ug1_2_8_L_0						
20 D	8.718	1.0857E-03	25.86	34.45	38.00	34.45	UL-RL	2.8119E+04	-3.800	9.143	
1.000	1.000	43.59	0.000	0.000	Ug1_2_8_L_0						
21 D	9.206	1.0053E-03	27.57	34.60	40.00	34.60	V-C	9373.	-4.000	11.43	
1.000	1.000	46.03	0.000	0.000	Ug1_2_8_L_0						
22 D	9.701	9.2857E-04	29.29	34.79	42.00	34.79	V-C	9373.	-4.200	13.71	
1.000	1.000	48.50	0.000	0.000	Ug1_2_8_L_0						
23 D	10.20	8.5570E-04	31.00	35.01	44.00	35.01	V-C	9373.	-4.400	16.00	
1.000	1.000	51.01	0.000	0.000	Ug1_2_8_L_0						
24 D	11.06	7.8670E-04	32.71	37.03	46.00	37.03	V-C	1.1464E+04	-4.600	18.29	
1.000	1.000	55.31	0.000	0.000	Ug2_741_743_L_0						
25 D	11.55	7.2160E-04	34.43	37.18	48.00	37.18	V-C	1.1464E+04	-4.800	20.57	
1.000	1.000	57.75	0.000	0.000	Ug2_741_743_L_0						
26 D	12.05	6.6042E-04	36.14	37.38	50.00	37.38	V-C	1.1464E+04	-5.000	22.86	
1.000	1.000	60.24	0.000	0.000	Ug2_741_743_L_0						
27 D	12.55	6.0316E-04	37.86	37.63	52.00	37.63	V-C	1.1464E+04	-5.200	25.14	
1.000	1.000	62.77	0.000	0.000	Ug2_741_743_L_0						
28 D	13.07	5.4982E-04	39.57	37.92	54.00	37.92	V-C	1.1464E+04	-5.400	27.43	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.35	0.000	0.000	Ug2_741_743_L_0					
29 D	13.59	5.0037E-04	41.29	38.26	56.00	38.26	V-C	1.1464E+04	-5.600	29.71
1.000	1.000	67.97	0.000	0.000	Ug2_741_743_L_0					
30 D	14.13	4.5479E-04	43.00	38.64	58.00	38.64	V-C	1.1464E+04	-5.800	32.00
1.000	1.000	70.64	0.000	0.000	Ug2_741_743_L_0					
31 D	14.67	4.1302E-04	44.71	39.07	60.00	39.07	V-C	1.1464E+04	-6.000	34.29
1.000	1.000	73.36	0.000	0.000	Ug2_741_743_L_0					
32 D	15.22	3.7501E-04	46.43	39.55	62.00	39.55	V-C	1.1464E+04	-6.200	36.57
1.000	1.000	76.12	0.000	0.000	Ug2_741_743_L_0					
33 D	15.78	3.4065E-04	48.14	40.07	64.00	40.07	V-C	1.1464E+04	-6.400	38.86
1.000	1.000	78.92	0.000	0.000	Ug2_741_743_L_0					
34 D	16.35	3.0983E-04	49.86	40.63	66.00	40.63	V-C	1.1464E+04	-6.600	41.14
1.000	1.000	81.77	0.000	0.000	Ug2_741_743_L_0					
35 D	16.93	2.8242E-04	51.57	41.23	68.00	41.23	V-C	1.1464E+04	-6.800	43.43
1.000	1.000	84.66	0.000	0.000	Ug2_741_743_L_0					
36 D	17.47	2.5825E-04	53.29	41.61	70.00	41.61	V-C	1.1464E+04	-7.000	45.71
1.000	1.000	87.33	0.000	0.000	Ug2_741_743_L_0					
37 D	17.93	2.3711E-04	55.00	41.66	72.00	41.66	V-C	1.1464E+04	-7.200	48.00
1.000	1.000	89.66	0.000	0.000	Ug2_741_743_L_0					
38 D	18.42	2.1878E-04	56.71	41.82	74.00	41.82	V-C	1.1464E+04	-7.400	50.29
1.000	1.000	92.10	0.000	0.000	Ug2_741_743_L_0					
39 D	18.93	2.0302E-04	58.43	42.09	76.00	42.09	V-C	1.1464E+04	-7.600	52.57
1.000	1.000	94.66	0.000	0.000	Ug2_741_743_L_0					
40 D	19.46	1.8956E-04	60.14	42.46	78.00	42.46	V-C	1.1464E+04	-7.800	54.86
1.000	1.000	97.32	0.000	0.000	Ug2_741_743_L_0					
41 D	20.01	1.7817E-04	61.86	42.91	80.00	42.93	UL-RL	3.4393E+04	-8.000	57.14
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
42 D	20.57	1.6859E-04	63.57	43.44	82.00	43.48	UL-RL	3.4393E+04	-8.200	59.43
1.000	1.000	102.9	0.000	0.000	Ug2_741_743_L_0					
43 D	21.20	1.6059E-04	65.29	44.27	84.00	44.32	UL-RL	3.4393E+04	-8.400	61.71
1.000	1.000	106.0	0.000	0.000	Ug2_741_743_L_0					
44 D	21.83	1.5395E-04	67.00	45.14	86.00	45.20	UL-RL	3.4393E+04	-8.600	64.00
1.000	1.000	109.1	0.000	0.000	Ug2_741_743_L_0					
45 D	22.46	1.4847E-04	68.71	46.03	88.00	46.10	UL-RL	3.4393E+04	-8.800	66.29
1.000	1.000	112.3	0.000	0.000	Ug2_741_743_L_0					
46 D	23.10	1.4396E-04	70.43	46.94	90.00	47.00	UL-RL	3.4393E+04	-9.000	68.57
1.000	1.000	115.5	0.000	0.000	Ug2_741_743_L_0					
47 D	23.74	1.4027E-04	72.14	47.85	92.00	47.92	UL-RL	3.4393E+04	-9.200	70.86
1.000	1.000	118.7	0.000	0.000	Ug2_741_743_L_0					
48 D	24.38	1.3725E-04	73.86	48.77	94.00	48.84	UL-RL	3.4393E+04	-9.400	73.14
1.000	1.000	121.9	0.000	0.000	Ug2_741_743_L_0					
49 D	25.03	1.3477E-04	75.57	49.70	96.00	49.77	UL-RL	3.4393E+04	-9.600	75.43
1.000	1.000	125.1	0.000	0.000	Ug2_741_743_L_0					
50 D	25.67	1.3271E-04	77.29	50.63	98.00	50.71	UL-RL	3.4393E+04	-9.800	77.71
1.000	1.000	128.3	0.000	0.000	Ug2_741_743_L_0					
51 D	26.31	1.3099E-04	79.00	51.54	100.00	51.65	UL-RL	3.4393E+04	-10.000	80.00
1.000	1.000	131.5	0.000	0.000	Ug2_741_743_L_0					
52 D	26.95	1.2953E-04	80.71	52.44	102.0	52.61	UL-RL	3.4393E+04	-10.200	82.29
1.000	1.000	134.7	0.000	0.000	Ug2_741_743_L_0					
53 D	27.57	1.2826E-04	82.43	53.30	104.0	53.60	UL-RL	3.4393E+04	-10.400	84.57
1.000	1.000	137.9	0.000	0.000	Ug2_741_743_L_0					
54 D	28.20	1.2713E-04	84.14	54.16	106.0	54.58	UL-RL	3.4393E+04	-10.600	86.86
1.000	1.000	141.0	0.000	0.000	Ug2_741_743_L_0					
55 D	28.83	1.2609E-04	85.86	55.02	108.0	55.57	UL-RL	3.4393E+04	-10.800	89.14
1.000	1.000	144.2	0.000	0.000	Ug2_741_743_L_0					
56 D	29.46	1.2511E-04	87.57	55.89	110.0	56.55	UL-RL	3.4393E+04	-11.000	91.43
1.000	1.000	147.3	0.000	0.000	Ug2_741_743_L_0					
57 D	30.09	1.2416E-04	89.29	56.75	112.0	57.54	UL-RL	3.4393E+04	-11.200	93.71
1.000	1.000	150.5	0.000	0.000	Ug2_741_743_L_0					
58 D	30.72	1.2324E-04	91.00	57.62	114.0	58.52	UL-RL	3.4393E+04	-11.400	96.00
1.000	1.000	153.6	0.000	0.000	Ug2_741_743_L_0					
59 D	31.35	1.2233E-04	92.71	58.49	116.0	59.51	UL-RL	3.4393E+04	-11.600	98.29
1.000	1.000	156.8	0.000	0.000	Ug2_741_743_L_0					
60 D	31.99	1.2142E-04	94.43	59.36	118.0	60.50	UL-RL	3.4393E+04	-11.800	100.6
1.000	1.000	159.9	0.000	0.000	Ug2_741_743_L_0					
61 D	16.31	1.2051E-04	96.14	60.22	120.0	61.48	UL-RL	3.4393E+04	-12.000	102.9
1.000	1.000	163.1	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018           18:15:59       |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-5.14839E-11	5.14839E-11	-5.07026E-12	-1.11895E-11
2	0.34286	-0.34286	1.51376E-12	6.85714E-02
3	1.0286	-1.0286	-6.85714E-02	0.27429
4	2.0571	-2.0571	-0.27429	0.68571
5	3.4286	-3.4286	-0.68571	1.3714
6	5.1429	-5.1429	-1.3714	2.4000
7	7.2000	-7.2000	-2.4000	3.8400
8	9.6000	-9.6000	-3.8400	5.7600
9	12.343	-12.343	-5.7600	8.2286
10	15.429	-15.429	-8.2286	11.314
11	13.762	-13.762	-11.314	14.067
12	11.585	-11.585	-14.067	16.384
13	9.7118	-9.7118	-16.384	18.326
14	8.1450	-8.1450	-18.326	19.955
15	6.9034	-6.9034	-19.955	21.336
16	5.9865	-5.9865	-21.336	22.533
17	5.1217	-5.1217	-22.533	23.557
18	4.3231	-4.3231	-23.557	24.422
19	3.5670	-3.5670	-24.422	25.135
20	2.8641	-2.8641	-25.135	25.708
21	2.2067	-2.2067	-25.708	26.149
22	1.5725	-1.5725	-26.149	26.464
23	0.96892	-0.96892	-26.464	26.658
24	0.61109	-0.61109	-26.658	26.780
25	0.23393	-0.23393	-26.780	26.827
26	-0.17237	0.17237	-26.827	26.792
27	-0.62553	0.62553	-26.792	26.667
28	-1.1270	1.1270	-26.667	26.442
29	-1.6939	1.6939	-26.442	26.103
30	-2.3281	2.3281	-26.103	25.637
31	-3.0389	3.0389	-25.637	25.030
32	-3.8423	3.8423	-25.030	24.261
33	-4.7403	4.7403	-24.261	23.313
34	-5.7477	5.7477	-23.313	22.164
35	-6.8663	6.8663	-22.164	20.790
36	-7.8407	7.8407	-20.790	19.222
37	-8.4253	8.4253	-19.222	17.537
38	-8.6820	8.6820	-17.537	15.801
39	-8.6676	8.6676	-15.801	14.067
40	-8.4334	8.4334	-14.067	12.381
41	-8.0231	8.0231	-12.381	10.776
42	-7.4761	7.4761	-10.776	9.2807
43	-6.8734	6.8734	-9.2807	7.9060
44	-6.2426	6.2426	-7.9060	6.6575
45	-5.6020	5.6020	-6.6575	5.5371
46	-4.9673	4.9673	-5.5371	4.5436
47	-4.3513	4.3513	-4.5436	3.6733
48	-3.7645	3.7645	-3.6733	2.9204
49	-3.2154	3.2154	-2.9204	2.2774
50	-2.7084	2.7084	-2.2774	1.7357
51	-2.2461	2.2461	-1.7357	1.2865
52	-1.8288	1.8288	-1.2865	0.92070
53	-1.4501	1.4501	-0.92070	0.63068
54	-1.1124	1.1124	-0.63068	0.40820
55	-0.81763	0.81763	-0.40820	0.24467
56	-0.56683	0.56683	-0.24467	0.13131
57	-0.36068	0.36068	-0.13131	5.91731E-02
58	-0.19953	0.19953	-5.91731E-02	1.92663E-02
59	-8.35521E-02	8.35521E-02	-1.92663E-02	2.55584E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-1.27786E-02 1.27786E-02-2.55584E-03-1.92395E-13

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM= 17.46    REMNOR=0.8312E-21  RATIO =0.2107E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.2107E-01  RATIO= 0.000
            MAX UN= 1.014    IEQ=   41 NODE      21 DOF   1  Y-DISPL.F
            MIN UN=-.1710    IEQ=   31 NODE      16 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM= 3.646    REMNOR=0.1082E-20  RATIO =0.9630E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.9630E-02  RATIO= 0.000
            MAX UN=0.5364    IEQ=   53 NODE      27 DOF   1  Y-DISPL.F
            MIN UN=-.4719E-01 IEQ=    1 NODE       1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM=0.3203    REMNOR=0.5958E-21  RATIO =0.2854E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.2854E-02  RATIO= 0.000
            MAX UN=0.3921    IEQ=   73 NODE      37 DOF   1  Y-DISPL.F
            MIN UN=-.1317E-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=0.3932E+05 RIMNOR=0.3242E+05
            RENORM=0.8950E-02 REMNOR=0.9684E-21  RATIO =0.4771E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.4771E-03  RATIO= 0.000
            MAX UN=0.8396E-01 IEQ=    9 NODE       5 DOF   1  Y-DISPL.F
            MIN UN=-.2515E-01 IEQ=    1 NODE       1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM=0.2171E-03 REMNOR=0.5936E-21  RATIO =0.7430E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.7430E-04  RATIO= 0.000
            MAX UN=0.1472E-01 IEQ=    5 NODE       3 DOF   1  Y-DISPL.F
            MIN UN=-.2031E-09 IEQ=    9 NODE       5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018 18:15:59
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.0639680E-03	-5.2210403E-04	
2	2.9595472E-03	-5.2210403E-04	
3	2.8551281E-03	-5.2207823E-04	
4	2.7507224E-03	-5.2195509E-04	
5	2.6463603E-03	-5.2161866E-04	
6	2.5421000E-03	-5.2090511E-04	
7	2.4380374E-03	-5.1960377E-04	
8	2.3343149E-03	-5.1745719E-04	
9	2.2311312E-03	-5.1416110E-04	
10	2.1287505E-03	-5.0936440E-04	
11	2.0275120E-03	-5.0266920E-04	
12	1.9278142E-03	-4.9400345E-04	
13	1.8300206E-03	-4.8368695E-04	
14	1.7344266E-03	-4.7206190E-04	
15	1.6412630E-03	-4.5942996E-04	
16	1.5507045E-03	-4.4605068E-04	
17	1.4628777E-03	-4.3214001E-04	
18	1.3778718E-03	-4.1787225E-04	
19	1.2957438E-03	-4.0338024E-04	
20	1.2165285E-03	-3.8875625E-04	
21	1.1402469E-03	-3.7405272E-04	
22	1.0669123E-03	-3.5928160E-04	
23	9.9653929E-04	-3.4443572E-04	
24	9.2914346E-04	-3.2950847E-04	
25	8.6474221E-04	-3.1448661E-04	
26	8.0335620E-04	-2.9935398E-04	
27	7.4500884E-04	-2.8410228E-04	
28	6.8972346E-04	-2.6873245E-04	
29	6.3752295E-04	-2.5325627E-04	
30	5.8842648E-04	-2.3769712E-04	
31	5.4244722E-04	-2.2209118E-04	
32	4.9959003E-04	-2.0648809E-04	
33	4.5984772E-04	-1.9095224E-04	
34	4.2319926E-04	-1.7556441E-04	
35	3.8960556E-04	-1.6042246E-04	
36	3.5900614E-04	-1.4564253E-04	
37	3.3131579E-04	-1.3135602E-04	
38	3.0642174E-04	-1.1770155E-04	
39	2.8418352E-04	-1.0482192E-04	
40	2.6443333E-04	-9.2836876E-05	
41	2.4698428E-04	-8.1819077E-05	
42	2.3163903E-04	-7.1801369E-05	
43	2.1819709E-04	-6.2783270E-05	
44	2.0646070E-04	-5.4740479E-05	
45	1.9623855E-04	-4.7633687E-05	
46	1.8734822E-04	-4.1412687E-05	
47	1.7961826E-04	-3.6019940E-05	
48	1.7288917E-04	-3.1393359E-05	
49	1.6701411E-04	-2.7468874E-05	
50	1.6185910E-04	-2.4182609E-05	
51	1.5730270E-04	-2.1472299E-05	
52	1.5323567E-04	-1.9278102E-05	
53	1.4956094E-04	-1.7542803E-05	
54	1.4619192E-04	-1.6209668E-05	
55	1.4305401E-04	-1.5222435E-05	
56	1.4008358E-04	-1.4525698E-05	
57	1.3722796E-04	-1.4065586E-05	
58	1.3444504E-04	-1.3790166E-05	
59	1.3170289E-04	-1.3649700E-05	
60	1.2897932E-04	-1.3596792E-05	
61	1.2626120E-04	-1.3586452E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59   |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	0.000	-3.0640E-03	0.000	0.000	0.000	0.4382	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.3528	-2.9595E-03	2.401	0.1638	2.401	1.341	UL-RL	3.6008E+04	-0.2000	1.600	
1.000	1.000	1.764	0.000	0.000	Ug1_2_8_L_0						
3 D	0.6400	-2.8551E-03	4.808	0.000	4.808	2.671	ACTIVE	0.000	-0.4000	3.200	
1.000	1.000	3.200	0.000	0.000	Ug1_2_8_L_0						
4 D	0.9600	-2.7507E-03	7.226	0.000	7.226	3.978	ACTIVE	0.000	-0.6000	4.800	
1.000	1.000	4.800	0.000	0.000	Ug1_2_8_L_0						
5 D	1.280	-2.6464E-03	9.657	0.000	9.657	5.256	ACTIVE	0.000	-0.8000	6.400	
1.000	1.000	6.400	0.000	0.000	Ug1_2_8_L_0						
6 D	1.600	-2.5421E-03	12.10	0.000	12.10	6.501	ACTIVE	0.000	-1.000	8.000	
1.000	1.000	8.000	0.000	0.000	Ug1_2_8_L_0						
7 D	1.920	-2.4380E-03	14.56	0.000	14.56	7.714	ACTIVE	0.000	-1.200	9.600	
1.000	1.000	9.600	0.000	0.000	Ug1_2_8_L_0						
8 D	2.240	-2.3343E-03	17.02	0.000	17.02	8.897	ACTIVE	0.000	-1.400	11.20	
1.000	1.000	11.20	0.000	0.000	Ug1_2_8_L_0						
9 D	2.560	-2.2311E-03	19.50	0.000	19.50	10.05	ACTIVE	0.000	-1.600	12.80	
1.000	1.000	12.80	0.000	0.000	Ug1_2_8_L_0						
10 D	2.880	-2.1288E-03	21.97	0.000	21.97	11.19	ACTIVE	0.000	-1.800	14.40	
1.000	1.000	14.40	0.000	0.000	Ug1_2_8_L_0						
11 D	3.200	-2.0275E-03	24.45	0.000	24.45	12.30	ACTIVE	0.000	-2.000	16.00	
1.000	1.000	16.00	0.000	0.000	Ug1_2_8_L_0						
12 D	3.622	-1.9278E-03	26.93	0.5120	26.93	13.40	ACTIVE	0.000	-2.200	17.60	
1.000	1.000	18.11	0.000	0.000	Ug1_2_8_L_0						
13 D	4.141	-1.8300E-03	29.47	1.503	29.47	14.48	ACTIVE	0.000	-2.400	19.20	
1.000	1.000	20.70	0.000	0.000	Ug1_2_8_L_0						
14 D	4.649	-1.7344E-03	31.89	2.444	31.89	15.56	ACTIVE	0.000	-2.600	20.80	
1.000	1.000	23.24	0.000	0.000	Ug1_2_8_L_0						
15 D	5.173	-1.6413E-03	34.51	3.466	34.51	16.62	ACTIVE	0.000	-2.800	22.40	
1.000	1.000	25.87	0.000	0.000	Ug1_2_8_L_0						
16 D	5.698	-1.5507E-03	37.14	4.492	37.14	17.68	ACTIVE	0.000	-3.000	24.00	
1.000	1.000	28.49	0.000	0.000	Ug1_2_8_L_0						
17 D	6.203	-1.4629E-03	39.50	5.413	39.50	18.73	ACTIVE	0.000	-3.200	25.60	
1.000	1.000	31.01	0.000	0.000	Ug1_2_8_L_0						
18 D	6.725	-1.3779E-03	42.10	6.426	42.10	19.78	ACTIVE	0.000	-3.400	27.20	
1.000	1.000	33.63	0.000	0.000	Ug1_2_8_L_0						
19 D	7.229	-1.2957E-03	44.46	7.347	44.46	20.83	ACTIVE	0.000	-3.600	28.80	
1.000	1.000	36.15	0.000	0.000	Ug1_2_8_L_0						
20 D	7.750	-1.2165E-03	47.03	8.351	47.03	21.87	ACTIVE	0.000	-3.800	30.40	
1.000	1.000	38.75	0.000	0.000	Ug1_2_8_L_0						
21 D	8.270	-1.1402E-03	49.59	9.348	49.59	22.91	ACTIVE	0.000	-4.000	32.00	
1.000	1.000	41.35	0.000	0.000	Ug1_2_8_L_0						
22 D	8.774	-1.0669E-03	51.95	10.27	51.95	23.95	ACTIVE	0.000	-4.200	33.60	
1.000	1.000	43.87	0.000	0.000	Ug1_2_8_L_0						
23 D	9.292	-9.9654E-04	54.49	11.26	54.49	24.98	ACTIVE	0.000	-4.400	35.20	
1.000	1.000	46.46	0.000	0.000	Ug1_2_8_L_0						
24 D	10.32	-9.2914E-04	56.85	14.78	56.85	26.02	ACTIVE	0.000	-4.600	36.80	
1.000	1.000	51.58	0.000	0.000	Ug2_741_743_L_0						
25 D	10.77	-8.6474E-04	59.38	15.44	59.38	27.05	ACTIVE	0.000	-4.800	38.40	
1.000	1.000	53.84	0.000	0.000	Ug2_741_743_L_0						
26 D	11.22	-8.0336E-04	61.89	16.09	61.89	28.08	ACTIVE	0.000	-5.000	40.00	
1.000	1.000	56.09	0.000	0.000	Ug2_741_743_L_0						
27 D	11.66	-7.4501E-04	64.25	16.71	64.25	29.11	ACTIVE	0.000	-5.200	41.60	
1.000	1.000	58.31	0.000	0.000	Ug2_741_743_L_0						
28 D	12.11	-6.8972E-04	66.76	17.36	66.76	30.14	ACTIVE	0.000	-5.400	43.20	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	60.56	0.000	0.000	Ug2_741_743_L_0					
29 D	12.55	-6.3752E-04	69.12	17.97	69.12	31.17	ACTIVE	0.000	-5.600	44.80
1.000	1.000	62.77	0.000	0.000	Ug2_741_743_L_0					
30 D	13.00	-5.8843E-04	71.62	18.62	71.62	32.20	ACTIVE	0.000	-5.800	46.40
1.000	1.000	65.02	0.000	0.000	Ug2_741_743_L_0					
31 D	13.45	-5.4245E-04	74.11	19.27	74.11	33.23	ACTIVE	0.000	-6.000	48.00
1.000	1.000	67.27	0.000	0.000	Ug2_741_743_L_0					
32 D	13.90	-4.9959E-04	76.47	19.88	76.47	34.26	ACTIVE	0.000	-6.200	49.60
1.000	1.000	69.48	0.000	0.000	Ug2_741_743_L_0					
33 D	14.35	-4.5985E-04	78.96	20.53	78.96	35.29	ACTIVE	0.000	-6.400	51.20
1.000	1.000	71.73	0.000	0.000	Ug2_741_743_L_0					
34 D	14.79	-4.2320E-04	81.32	21.14	81.32	36.32	ACTIVE	0.000	-6.600	52.80
1.000	1.000	73.94	0.000	0.000	Ug2_741_743_L_0					
35 D	15.24	-3.8961E-04	83.80	21.79	83.80	37.35	ACTIVE	0.000	-6.800	54.40
1.000	1.000	76.19	0.000	0.000	Ug2_741_743_L_0					
36 D	15.69	-3.5901E-04	86.27	22.43	86.27	38.38	ACTIVE	0.000	-7.000	56.00
1.000	1.000	78.43	0.000	0.000	Ug2_741_743_L_0					
37 D	16.13	-3.3132E-04	88.64	23.05	88.64	39.41	ACTIVE	0.000	-7.200	57.60
1.000	1.000	80.65	0.000	0.000	Ug2_741_743_L_0					
38 D	16.58	-3.0642E-04	91.11	23.70	91.11	40.44	UL-RL	6.6238E+04	-7.400	59.20
1.000	1.000	82.90	0.000	0.000	Ug2_741_743_L_0					
39 D	17.44	-2.8418E-04	93.47	26.39	93.47	41.46	UL-RL	6.6238E+04	-7.600	60.80
1.000	1.000	87.19	0.000	0.000	Ug2_741_743_L_0					
40 D	18.26	-2.6443E-04	95.94	28.90	95.94	42.49	UL-RL	6.6238E+04	-7.800	62.40
1.000	1.000	91.30	0.000	0.000	Ug2_741_743_L_0					
41 D	19.05	-2.4698E-04	98.40	31.27	98.40	43.52	UL-RL	6.6238E+04	-8.000	64.00
1.000	1.000	95.27	0.000	0.000	Ug2_741_743_L_0					
42 D	19.82	-2.3164E-04	100.8	33.49	100.8	44.55	UL-RL	6.6238E+04	-8.200	65.60
1.000	1.000	99.09	0.000	0.000	Ug2_741_743_L_0					
43 D	20.56	-2.1820E-04	103.2	35.58	103.2	45.58	UL-RL	6.6238E+04	-8.400	67.20
1.000	1.000	102.8	0.000	0.000	Ug2_741_743_L_0					
44 D	21.27	-2.0646E-04	105.6	37.56	105.6	46.60	UL-RL	6.6238E+04	-8.600	68.80
1.000	1.000	106.4	0.000	0.000	Ug2_741_743_L_0					
45 D	21.97	-1.9624E-04	108.0	39.44	108.0	47.63	UL-RL	6.6238E+04	-8.800	70.40
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
46 D	22.65	-1.8735E-04	110.5	41.24	110.5	48.66	UL-RL	6.6238E+04	-9.000	72.00
1.000	1.000	113.2	0.000	0.000	Ug2_741_743_L_0					
47 D	23.31	-1.7962E-04	112.9	42.95	112.9	49.69	UL-RL	6.6238E+04	-9.200	73.60
1.000	1.000	116.6	0.000	0.000	Ug2_741_743_L_0					
48 D	23.96	-1.7289E-04	115.3	44.60	115.3	50.72	UL-RL	6.6238E+04	-9.400	75.20
1.000	1.000	119.8	0.000	0.000	Ug2_741_743_L_0					
49 D	24.60	-1.6701E-04	117.8	46.20	117.8	51.75	UL-RL	6.6238E+04	-9.600	76.80
1.000	1.000	123.0	0.000	0.000	Ug2_741_743_L_0					
50 D	25.23	-1.6186E-04	120.1	47.74	120.1	52.77	UL-RL	6.6238E+04	-9.800	78.40
1.000	1.000	126.1	0.000	0.000	Ug2_741_743_L_0					
51 D	25.85	-1.5730E-04	122.6	49.25	122.6	53.80	UL-RL	6.6238E+04	-10.000	80.00
1.000	1.000	129.3	0.000	0.000	Ug2_741_743_L_0					
52 D	26.47	-1.5324E-04	125.0	50.73	125.0	54.83	UL-RL	6.6238E+04	-10.200	81.60
1.000	1.000	132.3	0.000	0.000	Ug2_741_743_L_0					
53 D	27.08	-1.4956E-04	127.4	52.18	127.4	55.86	UL-RL	6.6238E+04	-10.400	83.20
1.000	1.000	135.4	0.000	0.000	Ug2_741_743_L_0					
54 D	27.68	-1.4619E-04	129.8	53.61	129.8	56.89	UL-RL	6.6238E+04	-10.600	84.80
1.000	1.000	138.4	0.000	0.000	Ug2_741_743_L_0					
55 D	28.29	-1.4305E-04	132.2	55.03	132.2	57.92	UL-RL	6.6238E+04	-10.800	86.40
1.000	1.000	141.4	0.000	0.000	Ug2_741_743_L_0					
56 D	28.89	-1.4008E-04	134.7	56.43	134.7	58.95	UL-RL	6.6238E+04	-11.000	88.00
1.000	1.000	144.4	0.000	0.000	Ug2_741_743_L_0					
57 D	29.49	-1.3723E-04	137.0	57.83	137.0	59.97	UL-RL	6.6238E+04	-11.200	89.60
1.000	1.000	147.4	0.000	0.000	Ug2_741_743_L_0					
58 D	30.09	-1.3445E-04	139.5	59.23	139.5	61.00	UL-RL	6.6238E+04	-11.400	91.20
1.000	1.000	150.4	0.000	0.000	Ug2_741_743_L_0					
59 D	30.68	-1.3170E-04	141.9	60.62	141.9	62.03	UL-RL	6.6238E+04	-11.600	92.80
1.000	1.000	153.4	0.000	0.000	Ug2_741_743_L_0					
60 D	31.28	-1.2898E-04	144.3	62.01	144.3	63.06	UL-RL	6.6238E+04	-11.800	94.40
1.000	1.000	156.4	0.000	0.000	Ug2_741_743_L_0					
61 D	15.94	-1.2626E-04	146.7	63.40	146.7	64.09	UL-RL	6.6238E+04	-12.000	96.00
1.000	1.000	159.4	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018          18:15:59          |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	5.095	2.0275E-03	0.000	25.47	20.00	25.47	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	25.47	0.000	0.000	Ug1_2_8_L_0						
12 D	6.100	1.9278E-03	3.800	30.50	22.00	30.50	V-C	9373.	-2.200	0.000	
1.000	1.000	30.50	0.000	0.000	Ug1_2_8_L_0						
13 D	6.342	1.8300E-03	7.600	31.71	24.00	31.71	V-C	9373.	-2.400	0.000	
1.000	1.000	31.71	0.000	0.000	Ug1_2_8_L_0						
14 D	6.572	1.7344E-03	11.40	32.86	26.00	32.86	V-C	9373.	-2.600	0.000	
1.000	1.000	32.86	0.000	0.000	Ug1_2_8_L_0						
15 D	6.799	1.6413E-03	15.20	33.99	28.00	33.99	V-C	9373.	-2.800	0.000	
1.000	1.000	33.99	0.000	0.000	Ug1_2_8_L_0						
16 D	7.026	1.5507E-03	19.00	35.13	30.00	35.13	V-C	9373.	-3.000	0.000	
1.000	1.000	35.13	0.000	0.000	Ug1_2_8_L_0						
17 D	7.256	1.4629E-03	22.80	36.28	32.00	36.28	V-C	9373.	-3.200	0.000	
1.000	1.000	36.28	0.000	0.000	Ug1_2_8_L_0						
18 D	7.489	1.3779E-03	26.60	37.45	34.00	37.45	V-C	9373.	-3.400	0.000	
1.000	1.000	37.45	0.000	0.000	Ug1_2_8_L_0						
19 D	7.727	1.2957E-03	30.40	38.63	36.00	38.63	V-C	9373.	-3.600	0.000	
1.000	1.000	38.63	0.000	0.000	Ug1_2_8_L_0						
20 D	7.969	1.2165E-03	34.20	39.84	38.00	39.84	V-C	9373.	-3.800	0.000	
1.000	1.000	39.84	0.000	0.000	Ug1_2_8_L_0						
21 D	8.216	1.1402E-03	38.00	41.08	40.00	41.08	V-C	9373.	-4.000	0.000	
1.000	1.000	41.08	0.000	0.000	Ug1_2_8_L_0						
22 D	8.728	1.0669E-03	39.60	41.24	42.00	41.24	V-C	9373.	-4.200	2.400	
1.000	1.000	43.64	0.000	0.000	Ug1_2_8_L_0						
23 D	9.246	9.9654E-04	41.20	41.43	44.00	41.43	V-C	9373.	-4.400	4.800	
1.000	1.000	46.23	0.000	0.000	Ug1_2_8_L_0						
24 D	10.18	9.2914E-04	42.80	43.70	46.00	43.70	V-C	1.1464E+04	-4.600	7.200	
1.000	1.000	50.90	0.000	0.000	Ug2_741_743_L_0						
25 D	10.68	8.6474E-04	44.40	43.81	48.00	43.81	V-C	1.1464E+04	-4.800	9.600	
1.000	1.000	53.41	0.000	0.000	Ug2_741_743_L_0						
26 D	11.19	8.0336E-04	46.00	43.95	50.00	43.95	V-C	1.1464E+04	-5.000	12.00	
1.000	1.000	55.95	0.000	0.000	Ug2_741_743_L_0						
27 D	11.70	7.4501E-04	47.60	44.12	52.00	44.12	V-C	1.1464E+04	-5.200	14.40	
1.000	1.000	58.52	0.000	0.000	Ug2_741_743_L_0						
28 D	12.23	6.8972E-04	49.20	44.34	54.00	44.34	V-C	1.1464E+04	-5.400	16.80	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.14	0.000	0.000	Ug2_741_743_L_0					
29 D	12.76	6.3752E-04	50.80	44.59	56.00	44.59	V-C	1.1464E+04	-5.600	19.20
1.000	1.000	63.79	0.000	0.000	Ug2_741_743_L_0					
30 D	13.30	5.8843E-04	52.40	44.88	58.00	44.88	V-C	1.1464E+04	-5.800	21.60
1.000	1.000	66.48	0.000	0.000	Ug2_741_743_L_0					
31 D	13.84	5.4245E-04	54.00	45.20	60.00	45.20	V-C	1.1464E+04	-6.000	24.00
1.000	1.000	69.20	0.000	0.000	Ug2_741_743_L_0					
32 D	14.39	4.9959E-04	55.60	45.56	62.00	45.56	V-C	1.1464E+04	-6.200	26.40
1.000	1.000	71.96	0.000	0.000	Ug2_741_743_L_0					
33 D	14.95	4.5985E-04	57.20	45.96	64.00	45.96	V-C	1.1464E+04	-6.400	28.80
1.000	1.000	74.76	0.000	0.000	Ug2_741_743_L_0					
34 D	15.52	4.2320E-04	58.80	46.40	66.00	46.40	V-C	1.1464E+04	-6.600	31.20
1.000	1.000	77.60	0.000	0.000	Ug2_741_743_L_0					
35 D	16.09	3.8961E-04	60.40	46.87	68.00	46.87	V-C	1.1464E+04	-6.800	33.60
1.000	1.000	80.47	0.000	0.000	Ug2_741_743_L_0					
36 D	16.63	3.5901E-04	62.00	47.13	70.00	47.13	V-C	1.1464E+04	-7.000	36.00
1.000	1.000	83.13	0.000	0.000	Ug2_741_743_L_0					
37 D	17.09	3.3132E-04	63.60	47.04	72.00	47.04	V-C	1.1464E+04	-7.200	38.40
1.000	1.000	85.44	0.000	0.000	Ug2_741_743_L_0					
38 D	17.57	3.0642E-04	65.20	47.07	74.00	47.07	V-C	1.1464E+04	-7.400	40.80
1.000	1.000	87.87	0.000	0.000	Ug2_741_743_L_0					
39 D	18.08	2.8418E-04	66.80	47.21	76.00	47.21	V-C	1.1464E+04	-7.600	43.20
1.000	1.000	90.41	0.000	0.000	Ug2_741_743_L_0					
40 D	18.61	2.6443E-04	68.40	47.45	78.00	47.45	UL-RL	3.4393E+04	-7.800	45.60
1.000	1.000	93.05	0.000	0.000	Ug2_741_743_L_0					
41 D	19.15	2.4698E-04	70.00	47.76	80.00	47.76	UL-RL	3.4393E+04	-8.000	48.00
1.000	1.000	95.76	0.000	0.000	Ug2_741_743_L_0					
42 D	19.71	2.3164E-04	71.60	48.16	82.00	48.16	UL-RL	3.4393E+04	-8.200	50.40
1.000	1.000	98.55	0.000	0.000	Ug2_741_743_L_0					
43 D	20.33	2.1820E-04	73.20	48.85	84.00	48.85	UL-RL	3.4393E+04	-8.400	52.80
1.000	1.000	101.7	0.000	0.000	Ug2_741_743_L_0					
44 D	20.96	2.0646E-04	74.80	49.60	86.00	49.60	UL-RL	3.4393E+04	-8.600	55.20
1.000	1.000	104.8	0.000	0.000	Ug2_741_743_L_0					
45 D	21.59	1.9624E-04	76.40	50.37	88.00	50.38	UL-RL	3.4393E+04	-8.800	57.60
1.000	1.000	108.0	0.000	0.000	Ug2_741_743_L_0					
46 D	22.23	1.8735E-04	78.00	51.17	90.00	51.17	UL-RL	3.4393E+04	-9.000	60.00
1.000	1.000	111.2	0.000	0.000	Ug2_741_743_L_0					
47 D	22.87	1.7962E-04	79.60	51.97	92.00	51.98	UL-RL	3.4393E+04	-9.200	62.40
1.000	1.000	114.4	0.000	0.000	Ug2_741_743_L_0					
48 D	23.52	1.7289E-04	81.20	52.80	94.00	52.80	UL-RL	3.4393E+04	-9.400	64.80
1.000	1.000	117.6	0.000	0.000	Ug2_741_743_L_0					
49 D	24.17	1.6701E-04	82.80	53.63	96.00	53.63	UL-RL	3.4393E+04	-9.600	67.20
1.000	1.000	120.8	0.000	0.000	Ug2_741_743_L_0					
50 D	24.81	1.6186E-04	84.40	54.45	98.00	54.45	UL-RL	3.4393E+04	-9.800	69.60
1.000	1.000	124.1	0.000	0.000	Ug2_741_743_L_0					
51 D	25.45	1.5730E-04	86.00	55.25	100.00	55.25	UL-RL	3.4393E+04	-10.000	72.00
1.000	1.000	127.3	0.000	0.000	Ug2_741_743_L_0					
52 D	26.08	1.5324E-04	87.60	56.00	102.0	56.03	UL-RL	3.4393E+04	-10.200	74.40
1.000	1.000	130.4	0.000	0.000	Ug2_741_743_L_0					
53 D	26.69	1.4956E-04	89.20	56.64	104.0	56.71	UL-RL	3.4393E+04	-10.400	76.80
1.000	1.000	133.4	0.000	0.000	Ug2_741_743_L_0					
54 D	27.30	1.4619E-04	90.80	57.30	106.0	57.40	UL-RL	3.4393E+04	-10.600	79.20
1.000	1.000	136.5	0.000	0.000	Ug2_741_743_L_0					
55 D	27.91	1.4305E-04	92.40	57.96	108.0	58.10	UL-RL	3.4393E+04	-10.800	81.60
1.000	1.000	139.6	0.000	0.000	Ug2_741_743_L_0					
56 D	28.52	1.4008E-04	94.00	58.62	110.0	58.80	UL-RL	3.4393E+04	-11.000	84.00
1.000	1.000	142.6	0.000	0.000	Ug2_741_743_L_0					
57 D	29.14	1.3723E-04	95.60	59.29	112.0	59.50	UL-RL	3.4393E+04	-11.200	86.40
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
58 D	29.75	1.3445E-04	97.20	59.97	114.0	60.20	UL-RL	3.4393E+04	-11.400	88.80
1.000	1.000	148.8	0.000	0.000	Ug2_741_743_L_0					
59 D	30.37	1.3170E-04	98.80	60.64	116.0	60.90	UL-RL	3.4393E+04	-11.600	91.20
1.000	1.000	151.8	0.000	0.000	Ug2_741_743_L_0					
60 D	30.98	1.2898E-04	100.4	61.31	118.0	61.60	UL-RL	3.4393E+04	-11.800	93.60
1.000	1.000	154.9	0.000	0.000	Ug2_741_743_L_0					
61 D	15.80	1.2626E-04	102.0	61.99	120.0	62.30	UL-RL	3.4393E+04	-12.000	96.00
1.000	1.000	158.0	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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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 May 2018       18:15:59          |
|                                     |
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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 60
C U R R E N T T I M E I S 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	7.38771E-11	-7.38771E-11	7.43018E-12	1.24903E-12
2	0.35275	-0.35275	3.19286E-12	7.05505E-02
3	0.97803	-0.97803	-7.05505E-02	0.26616
4	1.9380	-1.9380	-0.26616	0.65376
5	3.2180	-3.2180	-0.65376	1.2974
6	4.8180	-4.8180	-1.2974	2.2610
7	6.7380	-6.7380	-2.2610	3.6086
8	8.9780	-8.9780	-3.6086	5.4042
9	11.538	-11.538	-5.4042	7.7118
10	14.418	-14.418	-7.7118	10.595
11	12.523	-12.523	-10.595	13.100
12	10.046	-10.046	-13.100	15.109
13	7.8446	-7.8446	-15.109	16.678
14	5.9215	-5.9215	-16.678	17.862
15	4.2960	-4.2960	-17.862	18.722
16	2.9681	-2.9681	-18.722	19.315
17	1.9149	-1.9149	-19.315	19.698
18	1.1510	-1.1510	-19.698	19.928
19	0.65357	-0.65357	-19.928	20.059
20	0.43481	-0.43481	-20.059	20.146
21	0.48841	-0.48841	-20.146	20.244
22	0.53352	-0.53352	-20.244	20.350
23	0.57915	-0.57915	-20.350	20.466
24	0.71427	-0.71427	-20.466	20.609
25	0.80011	-0.80011	-20.609	20.769
26	0.82893	-0.82893	-20.769	20.935
27	0.78505	-0.78505	-20.935	21.092
28	0.66896	-0.66896	-21.092	21.226
29	0.46540	-0.46540	-21.226	21.319
30	0.17431	-0.17431	-21.319	21.354
31	-0.21213	0.21213	-21.354	21.311
32	-0.70839	0.70839	-21.311	21.170
33	-1.3152	1.3152	-21.170	20.907
34	-2.0465	2.0465	-20.907	20.497
35	-2.9031	2.9031	-20.497	19.917
36	-3.8419	3.8419	-19.917	19.148
37	-4.8003	4.8003	-19.148	18.188
38	-5.7933	5.7933	-18.188	17.030
39	-6.4374	6.4374	-17.030	15.742
40	-6.7867	6.7867	-15.742	14.385
41	-6.8864	6.8864	-14.385	13.007
42	-6.7801	6.7801	-13.007	11.651
43	-6.5542	6.5542	-11.651	10.341
44	-6.2422	6.2422	-10.341	9.0921
45	-5.8687	5.8687	-9.0921	7.9184
46	-5.4551	5.4551	-7.9184	6.8274
47	-5.0199	5.0199	-6.8274	5.8234
48	-4.5791	4.5791	-5.8234	4.9076
49	-4.1464	4.1464	-4.9076	4.0783
50	-3.7283	3.7283	-4.0783	3.3327
51	-3.3286	3.3286	-3.3327	2.6669
52	-2.9435	2.9435	-2.6669	2.0783
53	-2.5562	2.5562	-2.0783	1.5670
54	-2.1730	2.1730	-1.5670	1.1324
55	-1.7986	1.7986	-1.1324	0.77271
56	-1.4365	1.4365	-0.77271	0.48541
57	-1.0886	1.0886	-0.48541	0.26769
58	-0.75646	0.75646	-0.26769	0.11640
59	-0.44062	0.44062	-0.11640	2.82725E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60-0.14136 0.14136 -2.82725E-02-3.61620E-13

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM= 13.48 REMNOR=0.5936E-21 RATIO =0.1954E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.1954E-01 RATIO= 0.000
MAX UN=0.9592 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.2526 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM= 1.674 REMNOR=0.7934E-21 RATIO =0.6885E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.6885E-02 RATIO= 0.000
MAX UN=0.3740 IEQ= 65 NODE 33 DOF 1 Y-DISPL.F
MIN UN=-.2203E-01 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM=0.1644 REMNOR=0.1098E-20 RATIO =0.2158E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.2158E-02 RATIO= 0.000
MAX UN=0.2810 IEQ= 77 NODE 39 DOF 1 Y-DISPL.F
MIN UN=-.2839E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM=0.1750E-03 REMNOR=0.6330E-21 RATIO =0.7041E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.7041E-04 RATIO= 0.000
MAX UN=0.1575E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN=-.1214E-01 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59             |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

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	6.3858E-02	-3.0310E-03	0.000	0.6386	0.000	0.7122	UL-RL	3.6008E+04	0.000	0.000	
1.000	1.000	0.6386	0.000	0.000	Ug1_2_8_L_0						
2 D	0.5462	-2.9305E-03	2.527	1.258	2.527	1.349	UL-RL	3.6008E+04	-0.2000	1.474	
1.000	1.000	2.731	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7953	-2.8301E-03	5.061	1.029	5.061	2.671	UL-RL	3.6008E+04	-0.4000	2.947	
1.000	1.000	3.976	0.000	0.000	Ug1_2_8_L_0						
4 D	1.074	-2.7296E-03	7.605	0.9498	7.605	3.978	UL-RL	3.6008E+04	-0.6000	4.421	
1.000	1.000	5.371	0.000	0.000	Ug1_2_8_L_0						
5 D	1.353	-2.6292E-03	10.16	0.8697	10.16	5.256	UL-RL	3.6008E+04	-0.8000	5.895	
1.000	1.000	6.764	0.000	0.000	Ug1_2_8_L_0						
6 D	1.631	-2.5290E-03	12.73	0.7881	12.73	6.501	UL-RL	3.6008E+04	-1.000	7.368	
1.000	1.000	8.157	0.000	0.000	Ug1_2_8_L_0						
7 D	1.909	-2.4290E-03	15.32	0.7045	15.32	7.714	UL-RL	3.6008E+04	-1.200	8.842	
1.000	1.000	9.547	0.000	0.000	Ug1_2_8_L_0						
8 D	2.187	-2.3294E-03	17.91	0.6180	17.91	8.897	UL-RL	3.6008E+04	-1.400	10.32	
1.000	1.000	10.93	0.000	0.000	Ug1_2_8_L_0						
9 D	2.464	-2.2305E-03	20.51	0.5281	20.51	10.05	UL-RL	3.6008E+04	-1.600	11.79	
1.000	1.000	12.32	0.000	0.000	Ug1_2_8_L_0						
10 D	2.739	-2.1325E-03	23.11	0.4342	23.11	11.19	UL-RL	3.6008E+04	-1.800	13.26	
1.000	1.000	13.70	0.000	0.000	Ug1_2_8_L_0						
11 D	3.014	-2.0357E-03	25.72	0.3356	25.72	12.30	UL-RL	3.6008E+04	-2.000	14.74	
1.000	1.000	15.07	0.000	0.000	Ug1_2_8_L_0						
12 D	3.453	-1.9407E-03	28.32	1.054	28.32	13.40	ACTIVE	0.000	-2.200	16.21	
1.000	1.000	17.26	0.000	0.000	Ug1_2_8_L_0						
13 D	3.956	-1.8476E-03	30.99	2.094	30.99	14.48	ACTIVE	0.000	-2.400	17.68	
1.000	1.000	19.78	0.000	0.000	Ug1_2_8_L_0						
14 D	4.448	-1.7570E-03	33.53	3.084	33.53	15.56	ACTIVE	0.000	-2.600	19.16	
1.000	1.000	22.24	0.000	0.000	Ug1_2_8_L_0						
15 D	4.958	-1.6689E-03	36.28	4.156	36.28	16.62	ACTIVE	0.000	-2.800	20.63	
1.000	1.000	24.79	0.000	0.000	Ug1_2_8_L_0						
16 D	5.467	-1.5835E-03	39.03	5.231	39.03	17.68	ACTIVE	0.000	-3.000	22.11	
1.000	1.000	27.34	0.000	0.000	Ug1_2_8_L_0						
17 D	5.956	-1.5009E-03	41.52	6.201	41.52	18.73	ACTIVE	0.000	-3.200	23.58	
1.000	1.000	29.78	0.000	0.000	Ug1_2_8_L_0						
18 D	6.463	-1.4213E-03	44.25	7.264	44.25	19.78	ACTIVE	0.000	-3.400	25.05	
1.000	1.000	32.32	0.000	0.000	Ug1_2_8_L_0						
19 D	6.952	-1.3445E-03	46.73	8.233	46.73	20.83	ACTIVE	0.000	-3.600	26.53	
1.000	1.000	34.76	0.000	0.000	Ug1_2_8_L_0						
20 D	7.457	-1.2706E-03	49.43	9.287	49.43	21.87	ACTIVE	0.000	-3.800	28.00	
1.000	1.000	37.29	0.000	0.000	Ug1_2_8_L_0						
21 D	7.961	-1.1996E-03	52.12	10.33	52.12	22.91	ACTIVE	0.000	-4.000	29.47	
1.000	1.000	39.81	0.000	0.000	Ug1_2_8_L_0						
22 D	8.450	-1.1314E-03	54.60	11.30	54.60	23.95	ACTIVE	0.000	-4.200	30.95	
1.000	1.000	42.25	0.000	0.000	Ug1_2_8_L_0						
23 D	8.953	-1.0659E-03	57.27	12.34	57.27	24.98	ACTIVE	0.000	-4.400	32.42	
1.000	1.000	44.76	0.000	0.000	Ug1_2_8_L_0						
24 D	9.886	-1.0031E-03	59.75	15.54	59.75	26.02	ACTIVE	0.000	-4.600	33.89	
1.000	1.000	49.43	0.000	0.000	Ug2_741_743_L_0						
25 D	10.32	-9.4281E-04	62.41	16.23	62.41	27.05	ACTIVE	0.000	-4.800	35.37	
1.000	1.000	51.59	0.000	0.000	Ug2_741_743_L_0						
26 D	10.75	-8.8507E-04	65.05	16.91	65.05	28.08	ACTIVE	0.000	-5.000	36.84	
1.000	1.000	53.76	0.000	0.000	Ug2_741_743_L_0						
27 D	11.17	-8.2981E-04	67.54	17.56	67.54	29.11	ACTIVE	0.000	-5.200	38.32	
1.000	1.000	55.87	0.000	0.000	Ug2_741_743_L_0						
28 D	11.61	-7.7699E-04	70.17	18.24	70.17	30.14	ACTIVE	0.000	-5.400	39.79	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	58.03	0.000	0.000	Ug2_741_743_L_0					
29 D	12.03	-7.2660E-04	72.65	18.89	72.65	31.17	ACTIVE	0.000	-5.600	41.26
1.000	1.000	60.15	0.000	0.000	Ug2_741_743_L_0					
30 D	12.46	-6.7864E-04	75.28	19.57	75.28	32.20	ACTIVE	0.000	-5.800	42.74
1.000	1.000	62.31	0.000	0.000	Ug2_741_743_L_0					
31 D	12.89	-6.3311E-04	77.90	20.25	77.90	33.23	ACTIVE	0.000	-6.000	44.21
1.000	1.000	64.46	0.000	0.000	Ug2_741_743_L_0					
32 D	13.32	-5.9003E-04	80.39	20.90	80.39	34.26	ACTIVE	0.000	-6.200	45.68
1.000	1.000	66.58	0.000	0.000	Ug2_741_743_L_0					
33 D	13.75	-5.4942E-04	83.00	21.58	83.00	35.29	ACTIVE	0.000	-6.400	47.16
1.000	1.000	68.74	0.000	0.000	Ug2_741_743_L_0					
34 D	14.17	-5.1129E-04	85.49	22.23	85.49	36.32	ACTIVE	0.000	-6.600	48.63
1.000	1.000	70.86	0.000	0.000	Ug2_741_743_L_0					
35 D	14.60	-4.7563E-04	88.09	22.90	88.09	37.35	ACTIVE	0.000	-6.800	50.11
1.000	1.000	73.01	0.000	0.000	Ug2_741_743_L_0					
36 D	15.03	-4.4245E-04	90.70	23.58	90.70	38.38	ACTIVE	0.000	-7.000	51.58
1.000	1.000	75.16	0.000	0.000	Ug2_741_743_L_0					
37 D	15.46	-4.1173E-04	93.18	24.23	93.18	39.41	ACTIVE	0.000	-7.200	53.05
1.000	1.000	77.28	0.000	0.000	Ug2_741_743_L_0					
38 D	15.89	-3.8342E-04	95.78	24.90	95.78	40.44	ACTIVE	0.000	-7.400	54.53
1.000	1.000	79.43	0.000	0.000	Ug2_741_743_L_0					
39 D	16.31	-3.5747E-04	98.27	25.55	98.27	41.46	ACTIVE	0.000	-7.600	56.00
1.000	1.000	81.55	0.000	0.000	Ug2_741_743_L_0					
40 D	16.85	-3.3379E-04	100.9	26.77	100.9	42.49	UL-RL	6.6238E+04	-7.800	57.47
1.000	1.000	84.25	0.000	0.000	Ug2_741_743_L_0					
41 D	17.68	-3.1229E-04	103.5	29.47	103.5	43.52	UL-RL	6.6238E+04	-8.000	58.95
1.000	1.000	88.41	0.000	0.000	Ug2_741_743_L_0					
42 D	18.49	-2.9283E-04	105.9	32.02	105.9	44.55	UL-RL	6.6238E+04	-8.200	60.42
1.000	1.000	92.44	0.000	0.000	Ug2_741_743_L_0					
43 D	19.27	-2.7527E-04	108.5	34.45	108.5	45.58	UL-RL	6.6238E+04	-8.400	61.89
1.000	1.000	96.35	0.000	0.000	Ug2_741_743_L_0					
44 D	20.03	-2.5946E-04	111.0	36.77	111.0	46.60	UL-RL	6.6238E+04	-8.600	63.37
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
45 D	20.76	-2.4525E-04	113.6	38.98	113.6	47.63	UL-RL	6.6238E+04	-8.800	64.84
1.000	1.000	103.8	0.000	0.000	Ug2_741_743_L_0					
46 D	21.48	-2.3247E-04	116.2	41.09	116.2	48.66	UL-RL	6.6238E+04	-9.000	66.32
1.000	1.000	107.4	0.000	0.000	Ug2_741_743_L_0					
47 D	22.18	-2.2097E-04	118.7	43.12	118.7	49.69	UL-RL	6.6238E+04	-9.200	67.79
1.000	1.000	110.9	0.000	0.000	Ug2_741_743_L_0					
48 D	22.87	-2.1061E-04	121.3	45.07	121.3	50.72	UL-RL	6.6238E+04	-9.400	69.26
1.000	1.000	114.3	0.000	0.000	Ug2_741_743_L_0					
49 D	23.54	-2.0124E-04	123.8	46.96	123.8	51.75	UL-RL	6.6238E+04	-9.600	70.74
1.000	1.000	117.7	0.000	0.000	Ug2_741_743_L_0					
50 D	24.20	-1.9273E-04	126.3	48.79	126.3	52.77	UL-RL	6.6238E+04	-9.800	72.21
1.000	1.000	121.0	0.000	0.000	Ug2_741_743_L_0					
51 D	24.85	-1.8495E-04	128.9	50.58	128.9	53.80	UL-RL	6.6238E+04	-10.000	73.68
1.000	1.000	124.3	0.000	0.000	Ug2_741_743_L_0					
52 D	25.50	-1.7777E-04	131.4	52.32	131.4	54.83	UL-RL	6.6238E+04	-10.200	75.16
1.000	1.000	127.5	0.000	0.000	Ug2_741_743_L_0					
53 D	26.13	-1.7110E-04	134.0	54.04	134.0	55.86	UL-RL	6.6238E+04	-10.400	76.63
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
54 D	26.77	-1.6483E-04	136.5	55.72	136.5	56.96	UL-RL	6.6238E+04	-10.600	78.11
1.000	1.000	133.8	0.000	0.000	Ug2_741_743_L_0					
55 D	27.39	-1.5887E-04	139.0	57.39	139.0	58.44	UL-RL	6.6238E+04	-10.800	79.58
1.000	1.000	137.0	0.000	0.000	Ug2_741_743_L_0					
56 D	28.02	-1.5314E-04	141.6	59.04	141.6	59.91	UL-RL	6.6238E+04	-11.000	81.05
1.000	1.000	140.1	0.000	0.000	Ug2_741_743_L_0					
57 D	28.64	-1.4758E-04	144.1	60.68	144.1	61.37	UL-RL	6.6238E+04	-11.200	82.53
1.000	1.000	143.2	0.000	0.000	Ug2_741_743_L_0					
58 D	29.26	-1.4211E-04	146.7	62.32	146.7	62.83	UL-RL	6.6238E+04	-11.400	84.00
1.000	1.000	146.3	0.000	0.000	Ug2_741_743_L_0					
59 D	29.88	-1.3671E-04	149.2	63.95	149.2	64.28	UL-RL	6.6238E+04	-11.600	85.47
1.000	1.000	149.4	0.000	0.000	Ug2_741_743_L_0					
60 D	30.51	-1.3134E-04	151.7	65.58	151.7	65.74	UL-RL	6.6238E+04	-11.800	86.95
1.000	1.000	152.5	0.000	0.000	Ug2_741_743_L_0					
61 D	15.56	-1.2597E-04	154.3	67.18	154.3	67.20	UL-RL	6.6238E+04	-12.000	88.42
1.000	1.000	155.6	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018          18:15:59                                          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

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	Peg	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 D	5.095	2.0357E-03	0.000	25.47	20.00	25.47	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	25.47	0.000	0.000	Ug1_2_8_L_0						
12 D	6.124	1.9407E-03	3.800	30.62	22.00	30.62	V-C	9373.	-2.200	0.000	
1.000	1.000	30.62	0.000	0.000	Ug1_2_8_L_0						
13 D	6.375	1.8476E-03	7.600	31.87	24.00	31.87	V-C	9373.	-2.400	0.000	
1.000	1.000	31.87	0.000	0.000	Ug1_2_8_L_0						
14 D	6.614	1.7570E-03	11.40	33.07	26.00	33.07	V-C	9373.	-2.600	0.000	
1.000	1.000	33.07	0.000	0.000	Ug1_2_8_L_0						
15 D	6.851	1.6689E-03	15.20	34.25	28.00	34.25	V-C	9373.	-2.800	0.000	
1.000	1.000	34.25	0.000	0.000	Ug1_2_8_L_0						
16 D	7.088	1.5835E-03	19.00	35.44	30.00	35.44	V-C	9373.	-3.000	0.000	
1.000	1.000	35.44	0.000	0.000	Ug1_2_8_L_0						
17 D	7.327	1.5009E-03	22.80	36.64	32.00	36.64	V-C	9373.	-3.200	0.000	
1.000	1.000	36.64	0.000	0.000	Ug1_2_8_L_0						
18 D	7.570	1.4213E-03	26.60	37.85	34.00	37.85	V-C	9373.	-3.400	0.000	
1.000	1.000	37.85	0.000	0.000	Ug1_2_8_L_0						
19 D	7.818	1.3445E-03	30.40	39.09	36.00	39.09	V-C	9373.	-3.600	0.000	
1.000	1.000	39.09	0.000	0.000	Ug1_2_8_L_0						
20 D	8.070	1.2706E-03	34.20	40.35	38.00	40.35	V-C	9373.	-3.800	0.000	
1.000	1.000	40.35	0.000	0.000	Ug1_2_8_L_0						
21 D	8.327	1.1996E-03	38.00	41.64	40.00	41.64	V-C	9373.	-4.000	0.000	
1.000	1.000	41.64	0.000	0.000	Ug1_2_8_L_0						
22 D	8.589	1.1314E-03	41.80	42.95	42.00	42.95	V-C	9373.	-4.200	0.000	
1.000	1.000	42.95	0.000	0.000	Ug1_2_8_L_0						
23 D	8.856	1.0659E-03	45.60	44.28	45.60	44.28	V-C	9373.	-4.400	0.000	
1.000	1.000	44.28	0.000	0.000	Ug1_2_8_L_0						
24 D	9.575	1.0031E-03	49.45	47.88	49.45	47.88	V-C	1.1464E+04	-4.600	0.000	
1.000	1.000	47.88	0.000	0.000	Ug2_741_743_L_0						
25 D	9.836	9.4281E-04	53.35	49.18	53.35	49.18	V-C	1.1464E+04	-4.800	0.000	
1.000	1.000	49.18	0.000	0.000	Ug2_741_743_L_0						
26 D	10.10	8.8507E-04	57.25	50.51	57.25	50.51	V-C	1.1464E+04	-5.000	0.000	
1.000	1.000	50.51	0.000	0.000	Ug2_741_743_L_0						
27 D	10.64	8.2981E-04	58.72	50.66	58.72	50.66	V-C	1.1464E+04	-5.200	2.526	
1.000	1.000	53.18	0.000	0.000	Ug2_741_743_L_0						
28 D	11.18	7.7699E-04	60.20	50.84	60.20	50.84	V-C	1.1464E+04	-5.400	5.053	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	55.89	0.000	0.000	Ug2_741_743_L_0					
29 D	11.72	7.2660E-04	61.67	51.05	61.67	51.05	V-C	1.1464E+04	-5.600	7.579
1.000	1.000	58.62	0.000	0.000	Ug2_741_743_L_0					
30 D	12.28	6.7864E-04	63.14	51.28	63.14	51.28	V-C	1.1464E+04	-5.800	10.11
1.000	1.000	61.39	0.000	0.000	Ug2_741_743_L_0					
31 D	12.84	6.3311E-04	64.62	51.55	64.62	51.55	V-C	1.1464E+04	-6.000	12.63
1.000	1.000	64.18	0.000	0.000	Ug2_741_743_L_0					
32 D	13.40	5.9003E-04	66.09	51.85	66.09	51.85	V-C	1.1464E+04	-6.200	15.16
1.000	1.000	67.00	0.000	0.000	Ug2_741_743_L_0					
33 D	13.97	5.4942E-04	67.57	52.17	67.57	52.17	V-C	1.1464E+04	-6.400	17.68
1.000	1.000	69.86	0.000	0.000	Ug2_741_743_L_0					
34 D	14.55	5.1129E-04	69.04	52.53	69.04	52.53	V-C	1.1464E+04	-6.600	20.21
1.000	1.000	72.74	0.000	0.000	Ug2_741_743_L_0					
35 D	15.13	4.7563E-04	70.51	52.91	70.51	52.91	V-C	1.1464E+04	-6.800	22.74
1.000	1.000	75.65	0.000	0.000	Ug2_741_743_L_0					
36 D	15.67	4.4245E-04	71.99	53.08	71.99	53.08	V-C	1.1464E+04	-7.000	25.26
1.000	1.000	78.34	0.000	0.000	Ug2_741_743_L_0					
37 D	16.14	4.1173E-04	73.46	52.89	73.46	52.89	V-C	1.1464E+04	-7.200	27.79
1.000	1.000	80.68	0.000	0.000	Ug2_741_743_L_0					
38 D	16.63	3.8342E-04	74.93	52.82	74.93	52.82	V-C	1.1464E+04	-7.400	30.32
1.000	1.000	83.13	0.000	0.000	Ug2_741_743_L_0					
39 D	17.14	3.5747E-04	76.41	52.85	76.41	52.85	V-C	1.1464E+04	-7.600	32.84
1.000	1.000	85.69	0.000	0.000	Ug2_741_743_L_0					
40 D	17.67	3.3379E-04	77.88	52.99	78.00	52.99	V-C	1.1464E+04	-7.800	35.37
1.000	1.000	88.35	0.000	0.000	Ug2_741_743_L_0					
41 D	18.22	3.1229E-04	79.36	53.19	80.00	53.19	V-C	1.1464E+04	-8.000	37.89
1.000	1.000	91.08	0.000	0.000	Ug2_741_743_L_0					
42 D	18.78	2.9283E-04	80.83	53.47	82.00	53.47	V-C	1.1464E+04	-8.200	40.42
1.000	1.000	93.89	0.000	0.000	Ug2_741_743_L_0					
43 D	19.40	2.7527E-04	82.30	54.06	84.00	54.06	V-C	1.1464E+04	-8.400	42.95
1.000	1.000	97.00	0.000	0.000	Ug2_741_743_L_0					
44 D	20.03	2.5946E-04	83.78	54.70	86.00	54.70	V-C	1.1464E+04	-8.600	45.47
1.000	1.000	100.2	0.000	0.000	Ug2_741_743_L_0					
45 D	20.67	2.4525E-04	85.25	55.36	88.00	55.36	V-C	1.1464E+04	-8.800	48.00
1.000	1.000	103.4	0.000	0.000	Ug2_741_743_L_0					
46 D	21.31	2.3247E-04	86.72	56.04	90.00	56.04	V-C	1.1464E+04	-9.000	50.53
1.000	1.000	106.6	0.000	0.000	Ug2_741_743_L_0					
47 D	21.96	2.2097E-04	88.20	56.75	92.00	56.75	V-C	1.1464E+04	-9.200	53.05
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
48 D	22.61	2.1061E-04	89.67	57.46	94.00	57.46	V-C	1.1464E+04	-9.400	55.58
1.000	1.000	113.0	0.000	0.000	Ug2_741_743_L_0					
49 D	23.26	2.0124E-04	91.14	58.20	96.00	58.20	V-C	1.1464E+04	-9.600	58.11
1.000	1.000	116.3	0.000	0.000	Ug2_741_743_L_0					
50 D	23.91	1.9273E-04	92.62	58.91	98.00	58.91	V-C	1.1464E+04	-9.800	60.63
1.000	1.000	119.5	0.000	0.000	Ug2_741_743_L_0					
51 D	24.55	1.8495E-04	94.09	59.61	100.00	59.61	V-C	1.1464E+04	-10.000	63.16
1.000	1.000	122.8	0.000	0.000	Ug2_741_743_L_0					
52 D	25.19	1.7777E-04	95.57	60.25	102.0	60.25	V-C	1.1464E+04	-10.200	65.68
1.000	1.000	125.9	0.000	0.000	Ug2_741_743_L_0					
53 D	25.79	1.7110E-04	97.04	60.75	104.0	60.75	V-C	1.1464E+04	-10.400	68.21
1.000	1.000	129.0	0.000	0.000	Ug2_741_743_L_0					
54 D	26.40	1.6483E-04	98.51	61.26	106.0	61.28	UL-RL	3.4393E+04	-10.600	70.74
1.000	1.000	132.0	0.000	0.000	Ug2_741_743_L_0					
55 D	27.01	1.5887E-04	99.99	61.77	108.0	61.83	UL-RL	3.4393E+04	-10.800	73.26
1.000	1.000	135.0	0.000	0.000	Ug2_741_743_L_0					
56 D	27.62	1.5314E-04	101.5	62.29	110.0	62.38	UL-RL	3.4393E+04	-11.000	75.79
1.000	1.000	138.1	0.000	0.000	Ug2_741_743_L_0					
57 D	28.23	1.4758E-04	102.9	62.82	112.0	62.95	UL-RL	3.4393E+04	-11.200	78.32
1.000	1.000	141.1	0.000	0.000	Ug2_741_743_L_0					
58 D	28.84	1.4211E-04	104.4	63.35	114.0	63.51	UL-RL	3.4393E+04	-11.400	80.84
1.000	1.000	144.2	0.000	0.000	Ug2_741_743_L_0					
59 D	29.45	1.3671E-04	105.9	63.88	116.0	64.08	UL-RL	3.4393E+04	-11.600	83.37
1.000	1.000	147.3	0.000	0.000	Ug2_741_743_L_0					
60 D	30.06	1.3134E-04	107.4	64.42	118.0	64.65	UL-RL	3.4393E+04	-11.800	85.89
1.000	1.000	150.3	0.000	0.000	Ug2_741_743_L_0					
61 D	15.34	1.2597E-04	108.8	64.95	120.0	65.21	UL-RL	3.4393E+04	-12.000	88.42
1.000	1.000	153.4	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60-0.22436 0.22436 -4.48741E-02 4.98698E-14

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3013E+05 RIMNOR=0.2018E+05
            RENORM= 338.4    REMNOR=0.6330E-21  RATIO =0.1060    TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 29.68    RMMAX = 19.91
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT =0.3013E+05  RDR =0.2018E+05
            RATIO=0.1060    RATIO= 0.000
            MAX UN= 6.654    IEQ= 29 NODE      15 DOF   1  Y-DISPL.F
            MIN UN=-.1263   IEQ= 19 NODE      10 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3013E+05 RIMNOR=0.2018E+05
            RENORM= 74.40    REMNOR=0.1513E-20  RATIO =0.4970E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 29.68    RMMAX = 19.91
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT =0.3013E+05  RDR =0.2018E+05
            RATIO=0.4970E-01 RATIO= 0.000
            MAX UN= 2.231    IEQ= 37 NODE      19 DOF   1  Y-DISPL.F
            MIN UN=-.1285E-10 IEQ= 117 NODE     59 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3013E+05 RIMNOR=0.2018E+05
            RENORM= 177.8    REMNOR=0.4361E-19  RATIO =0.7683E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 29.68    RMMAX = 19.91
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT =0.3013E+05  RDR =0.2018E+05
            RATIO=0.7683E-01 RATIO= 0.000
            MAX UN= 7.146    IEQ= 41 NODE      21 DOF   1  Y-DISPL.F
            MIN UN=-.1428E-08 IEQ= 17 NODE      9 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3013E+05 RIMNOR=0.2018E+05
            RENORM= 8.037    REMNOR=0.5593E-19  RATIO =0.1633E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 29.68    RMMAX = 19.91
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT =0.3013E+05  RDR =0.2018E+05
            RATIO=0.1633E-01 RATIO= 0.000
            MAX UN= 2.037    IEQ= 89 NODE      45 DOF   1  Y-DISPL.F
            MIN UN=-.9711   IEQ= 119 NODE     60 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3013E+05 RIMNOR=0.2018E+05
            RENORM=0.2923E-02 REMNOR=0.2064E-19  RATIO =0.3115E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 29.68    RMMAX = 19.91
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT =0.3013E+05  RDR =0.2018E+05
            RATIO=0.3115E-03 RATIO= 0.000
            MAX UN=0.7452E-09 IEQ= 19 NODE      10 DOF   1  Y-DISPL.F
            MIN UN=-.5407E-01 IEQ= 107 NODE     54 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3013E+05 RIMNOR=0.2018E+05
            RENORM=0.5936E-04 REMNOR=0.1670E-19  RATIO =0.4439E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 29.68    RMMAX = 19.91
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT =0.3013E+05  RDR =0.2018E+05
            RATIO=0.4439E-04 RATIO= 0.000
            MAX UN=0.3330E-02 IEQ= 93 NODE      47 DOF   1  Y-DISPL.F
            MIN UN=-.1038E-08 IEQ= 33 NODE      17 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59             |
+-----+

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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

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

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.5075369E-02	-2.2025494E-03	
2	1.4634859E-02	-2.2025494E-03	
3	1.4194350E-02	-2.2025299E-03	
4	1.3753852E-02	-2.2024323E-03	
5	1.3313389E-02	-2.2021593E-03	
6	1.2873009E-02	-2.2015741E-03	
7	1.2432792E-02	-2.2005014E-03	
8	1.1992855E-02	-2.1987264E-03	
9	1.1553365E-02	-2.1959958E-03	
10	1.1114540E-02	-2.1920168E-03	
11	1.0676664E-02	-2.1864579E-03	
12	1.0240088E-02	-2.1789400E-03	
13	9.8052476E-03	-2.1690207E-03	
14	9.3726737E-03	-2.1561869E-03	
15	8.9430060E-03	-2.1398552E-03	
16	8.5170084E-03	-2.1193715E-03	
17	8.0955628E-03	-2.0942757E-03	
18	7.6796163E-03	-2.0643761E-03	
19	7.2701405E-03	-2.0295543E-03	
20	6.8681257E-03	-1.9897655E-03	
21	6.4745654E-03	-1.9450389E-03	
22	6.0904345E-03	-1.8954757E-03	
23	5.7166859E-03	-1.8412517E-03	
24	5.3542279E-03	-1.7826164E-03	
25	5.0038924E-03	-1.7201856E-03	
26	4.6663466E-03	-1.6548613E-03	
27	4.3420878E-03	-1.5874614E-03	
28	4.0314540E-03	-1.5187067E-03	
29	3.7346544E-03	-1.4492130E-03	
30	3.4517840E-03	-1.3794920E-03	
31	3.1828453E-03	-1.3099552E-03	
32	2.9277699E-03	-1.2409172E-03	
33	2.6864295E-03	-1.1726334E-03	
34	2.4586504E-03	-1.1053417E-03	
35	2.2442119E-03	-1.0392638E-03	
36	2.0428500E-03	-9.7460964E-04	
37	1.8542609E-03	-9.1157620E-04	
38	1.6781006E-03	-8.5034105E-04	
39	1.5139940E-03	-7.9106295E-04	
40	1.3615353E-03	-7.3388608E-04	
41	1.2202905E-03	-6.7894548E-04	
42	1.0897994E-03	-6.2637118E-04	
43	9.6957565E-04	-5.7629274E-04	
44	8.5910676E-04	-5.2884668E-04	
45	7.5785193E-04	-4.8418382E-04	
46	6.6523706E-04	-4.4247132E-04	
47	5.8065425E-04	-4.0389596E-04	
48	5.0345567E-04	-3.6866566E-04	
49	4.3295171E-04	-3.3697961E-04	
50	3.6841891E-04	-3.0897200E-04	
51	3.0911479E-04	-2.8469112E-04	
52	2.5429467E-04	-2.6410698E-04	
53	2.0323402E-04	-2.4710950E-04	
54	1.5522774E-04	-2.3349753E-04	
55	1.0962768E-04	-2.2299539E-04	
56	6.5844367E-05	-2.1527154E-04	
57	2.3358564E-05	-2.0995522E-04	
58	-1.8270952E-05	-2.0663737E-04	
59	-5.9399877E-05	-2.0487194E-04	
60	-1.0029108E-04	-2.0417683E-04	
61	-1.4110949E-04	-2.0403436E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018      18:15:59           |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

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	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-1.5075E-02	0.000	0.000	0.000	0.7122	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.2667	-1.4635E-02	2.668	0.000	2.668	1.349	ACTIVE	0.000	-0.2000	1.333	
1.000	1.000	1.333	0.000	0.000	Ug1_2_8_L_0						
3 D	0.5333	-1.4194E-02	5.341	0.000	5.341	2.671	ACTIVE	0.000	-0.4000	2.667	
1.000	1.000	2.667	0.000	0.000	Ug1_2_8_L_0						
4 D	0.8000	-1.3754E-02	8.026	0.000	8.026	3.978	ACTIVE	0.000	-0.6000	4.000	
1.000	1.000	4.000	0.000	0.000	Ug1_2_8_L_0						
5 D	1.067	-1.3313E-02	10.72	0.000	10.72	5.256	ACTIVE	0.000	-0.8000	5.333	
1.000	1.000	5.333	0.000	0.000	Ug1_2_8_L_0						
6 D	1.333	-1.2873E-02	13.43	0.000	13.43	6.501	ACTIVE	0.000	-1.000	6.667	
1.000	1.000	6.667	0.000	0.000	Ug1_2_8_L_0						
7 D	1.600	-1.2433E-02	16.16	0.000	16.16	7.714	ACTIVE	0.000	-1.200	8.000	
1.000	1.000	8.000	0.000	0.000	Ug1_2_8_L_0						
8 D	1.867	-1.1993E-02	18.89	0.000	18.89	8.897	ACTIVE	0.000	-1.400	9.333	
1.000	1.000	9.333	0.000	0.000	Ug1_2_8_L_0						
9 D	2.133	-1.1553E-02	21.63	0.000	21.63	10.05	ACTIVE	0.000	-1.600	10.67	
1.000	1.000	10.67	0.000	0.000	Ug1_2_8_L_0						
10 D	2.400	-1.1115E-02	24.37	0.000	24.37	11.19	ACTIVE	0.000	-1.800	12.00	
1.000	1.000	12.00	0.000	0.000	Ug1_2_8_L_0						
11 D	2.784	-1.0677E-02	27.12	0.5851	27.12	12.30	ACTIVE	0.000	-2.000	13.33	
1.000	1.000	13.92	0.000	0.000	Ug1_2_8_L_0						
12 D	3.265	-1.0240E-02	29.87	1.656	29.87	13.40	ACTIVE	0.000	-2.200	14.67	
1.000	1.000	16.32	0.000	0.000	Ug1_2_8_L_0						
13 D	3.750	-9.8052E-03	32.67	2.751	32.67	14.48	ACTIVE	0.000	-2.400	16.00	
1.000	1.000	18.75	0.000	0.000	Ug1_2_8_L_0						
14 D	4.226	-9.3727E-03	35.35	3.796	35.35	15.56	ACTIVE	0.000	-2.600	17.33	
1.000	1.000	21.13	0.000	0.000	Ug1_2_8_L_0						
15 D	4.718	-8.9430E-03	38.24	4.922	38.24	16.62	ACTIVE	0.000	-2.800	18.67	
1.000	1.000	23.59	0.000	0.000	Ug1_2_8_L_0						
16 D	5.210	-8.5170E-03	41.14	6.052	41.14	17.68	ACTIVE	0.000	-3.000	20.00	
1.000	1.000	26.05	0.000	0.000	Ug1_2_8_L_0						
17 D	5.682	-8.0956E-03	43.77	7.077	43.77	18.73	ACTIVE	0.000	-3.200	21.33	
1.000	1.000	28.41	0.000	0.000	Ug1_2_8_L_0						
18 D	6.172	-7.6796E-03	46.63	8.194	46.63	19.78	ACTIVE	0.000	-3.400	22.67	
1.000	1.000	30.86	0.000	0.000	Ug1_2_8_L_0						
19 D	6.644	-7.2701E-03	49.26	9.219	49.26	20.83	ACTIVE	0.000	-3.600	24.00	
1.000	1.000	33.22	0.000	0.000	Ug1_2_8_L_0						
20 D	7.132	-6.8681E-03	52.10	10.33	52.10	21.87	ACTIVE	0.000	-3.800	25.33	
1.000	1.000	35.66	0.000	0.000	Ug1_2_8_L_0						
21 D	7.619	-6.4746E-03	54.92	11.43	54.92	22.91	ACTIVE	0.000	-4.000	26.67	
1.000	1.000	38.10	0.000	0.000	Ug1_2_8_L_0						
22 D	8.090	-6.0904E-03	57.55	12.45	57.55	23.95	ACTIVE	0.000	-4.200	28.00	
1.000	1.000	40.45	0.000	0.000	Ug1_2_8_L_0						
23 D	8.576	-5.7167E-03	60.36	13.55	60.36	24.98	ACTIVE	0.000	-4.400	29.33	
1.000	1.000	42.88	0.000	0.000	Ug1_2_8_L_0						
24 D	9.408	-5.3542E-03	62.98	16.37	62.98	26.02	ACTIVE	0.000	-4.600	30.67	
1.000	1.000	47.04	0.000	0.000	Ug2_741_743_L_0						
25 D	9.820	-5.0039E-03	65.78	17.10	65.78	27.05	ACTIVE	0.000	-4.800	32.00	
1.000	1.000	49.10	0.000	0.000	Ug2_741_743_L_0						
26 D	10.23	-4.6663E-03	68.56	17.83	68.56	28.08	ACTIVE	0.000	-5.000	33.33	
1.000	1.000	51.16	0.000	0.000	Ug2_741_743_L_0						
27 D	10.63	-4.3421E-03	71.18	18.51	71.18	29.11	ACTIVE	0.000	-5.200	34.67	
1.000	1.000	53.17	0.000	0.000	Ug2_741_743_L_0						
28 D	11.05	-4.0315E-03	73.96	19.23	73.96	30.14	ACTIVE	0.000	-5.400	36.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	55.23	0.000	0.000	Ug2_741_743_L_0					
29 D	11.45	-3.7347E-03	76.58	19.91	76.58	31.17	ACTIVE	0.000	-5.600	37.33
1.000	1.000	57.25	0.000	0.000	Ug2_741_743_L_0					
30 D	11.86	-3.4518E-03	79.35	20.63	79.35	32.20	ACTIVE	0.000	-5.800	38.67
1.000	1.000	59.30	0.000	0.000	Ug2_741_743_L_0					
31 D	12.27	-3.1828E-03	82.11	21.35	82.11	33.23	ACTIVE	0.000	-6.000	40.00
1.000	1.000	61.35	0.000	0.000	Ug2_741_743_L_0					
32 D	12.67	-2.9278E-03	84.74	22.03	84.74	34.26	ACTIVE	0.000	-6.200	41.33
1.000	1.000	63.36	0.000	0.000	Ug2_741_743_L_0					
33 D	13.08	-2.6864E-03	87.49	22.75	87.49	35.29	UL-RL	4.4159E+04	-6.400	42.67
1.000	1.000	65.41	0.000	0.000	Ug2_741_743_L_0					
34 D	13.49	-2.4587E-03	90.12	23.43	90.12	36.32	UL-RL	4.4159E+04	-6.600	44.00
1.000	1.000	67.43	0.000	0.000	Ug2_741_743_L_0					
35 D	13.90	-2.2442E-03	92.86	24.15	92.86	37.35	UL-RL	4.4159E+04	-6.800	45.33
1.000	1.000	69.48	0.000	0.000	Ug2_741_743_L_0					
36 D	14.31	-2.0428E-03	95.61	24.86	95.61	38.38	UL-RL	4.4159E+04	-7.000	46.67
1.000	1.000	71.53	0.000	0.000	Ug2_741_743_L_0					
37 D	14.71	-1.8543E-03	98.24	25.54	98.24	39.41	UL-RL	4.4159E+04	-7.200	48.00
1.000	1.000	73.54	0.000	0.000	Ug2_741_743_L_0					
38 D	15.12	-1.6781E-03	101.0	26.26	101.0	40.44	UL-RL	4.4159E+04	-7.400	49.33
1.000	1.000	75.59	0.000	0.000	Ug2_741_743_L_0					
39 D	15.52	-1.5140E-03	103.6	26.94	103.6	41.46	UL-RL	4.4159E+04	-7.600	50.67
1.000	1.000	77.61	0.000	0.000	Ug2_741_743_L_0					
40 D	15.93	-1.3615E-03	106.3	27.65	106.3	42.49	UL-RL	4.4159E+04	-7.800	52.00
1.000	1.000	79.65	0.000	0.000	Ug2_741_743_L_0					
41 D	16.34	-1.2203E-03	109.1	28.36	109.1	43.52	UL-RL	4.4159E+04	-8.000	53.33
1.000	1.000	81.70	0.000	0.000	Ug2_741_743_L_0					
42 D	16.74	-1.0898E-03	111.7	29.05	111.7	44.55	UL-RL	4.4159E+04	-8.200	54.67
1.000	1.000	83.72	0.000	0.000	Ug2_741_743_L_0					
43 D	17.15	-9.6958E-04	114.4	29.76	114.4	45.58	UL-RL	4.4159E+04	-8.400	56.00
1.000	1.000	85.76	0.000	0.000	Ug2_741_743_L_0					
44 D	17.56	-8.5911E-04	117.1	30.44	117.1	46.60	UL-RL	4.4159E+04	-8.600	57.33
1.000	1.000	87.78	0.000	0.000	Ug2_741_743_L_0					
45 D	17.96	-7.5785E-04	119.8	31.15	119.8	47.63	UL-RL	4.4159E+04	-8.800	58.67
1.000	1.000	89.82	0.000	0.000	Ug2_741_743_L_0					
46 D	18.37	-6.6524E-04	122.5	31.86	122.5	48.66	UL-RL	4.4159E+04	-9.000	60.00
1.000	1.000	91.86	0.000	0.000	Ug2_741_743_L_0					
47 D	18.78	-5.8065E-04	125.1	32.55	125.1	49.69	UL-RL	4.4159E+04	-9.200	61.33
1.000	1.000	93.88	0.000	0.000	Ug2_741_743_L_0					
48 D	19.62	-5.0346E-04	127.9	35.44	127.9	50.72	UL-RL	4.4159E+04	-9.400	62.67
1.000	1.000	98.10	0.000	0.000	Ug2_741_743_L_0					
49 D	20.82	-4.3295E-04	130.6	40.10	130.6	51.75	UL-RL	4.4159E+04	-9.600	64.00
1.000	1.000	104.1	0.000	0.000	Ug2_741_743_L_0					
50 D	21.96	-3.6842E-04	133.2	44.47	133.2	52.77	UL-RL	4.4159E+04	-9.800	65.33
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
51 D	23.05	-3.0911E-04	135.9	48.60	135.9	54.09	UL-RL	4.4159E+04	-10.00	66.67
1.000	1.000	115.3	0.000	0.000	Ug2_741_743_L_0					
52 D	24.10	-2.5429E-04	138.6	52.52	138.6	55.90	UL-RL	4.4159E+04	-10.20	68.00
1.000	1.000	120.5	0.000	0.000	Ug2_741_743_L_0					
53 D	25.12	-2.0323E-04	141.3	56.27	141.3	57.69	UL-RL	4.4159E+04	-10.40	69.33
1.000	1.000	125.6	0.000	0.000	Ug2_741_743_L_0					
54 D	26.05	-1.5523E-04	144.0	59.58	144.0	59.58	V-C	1.4720E+04	-10.60	70.67
1.000	1.000	130.3	0.000	0.000	Ug2_741_743_L_0					
55 D	26.78	-1.0963E-04	146.6	61.90	146.6	61.90	V-C	1.4720E+04	-10.80	72.00
1.000	1.000	133.9	0.000	0.000	Ug2_741_743_L_0					
56 D	27.50	-6.5844E-05	149.3	64.19	149.3	64.19	V-C	1.4720E+04	-11.00	73.33
1.000	1.000	137.5	0.000	0.000	Ug2_741_743_L_0					
57 D	28.22	-2.3359E-05	152.0	66.44	152.0	66.44	V-C	1.4720E+04	-11.20	74.67
1.000	1.000	141.1	0.000	0.000	Ug2_741_743_L_0					
58 D	28.94	1.8271E-05	154.7	68.68	154.7	68.68	V-C	1.4720E+04	-11.40	76.00
1.000	1.000	144.7	0.000	0.000	Ug2_741_743_L_0					
59 D	29.65	5.9400E-05	157.4	70.91	157.4	70.91	V-C	1.4720E+04	-11.60	77.33
1.000	1.000	148.2	0.000	0.000	Ug2_741_743_L_0					
60 D	30.36	1.0029E-04	160.0	73.13	160.0	73.13	V-C	1.4720E+04	-11.80	78.67
1.000	1.000	151.8	0.000	0.000	Ug2_741_743_L_0					
61 D	15.53	1.4111E-04	162.7	75.32	162.7	75.32	V-C	1.4720E+04	-12.00	80.00
1.000	1.000	155.3	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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 May 2018   18:15:59   |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

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	Peg	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	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	3.642	8.5170E-03	0.000	18.21	30.00	35.44	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	18.21	0.000	0.000	Ug1_2_8_L_0						
17 D	4.626	8.0956E-03	3.800	23.13	32.00	36.64	PASSIVE	0.000	-3.200	0.000	
1.000	1.000	23.13	0.000	0.000	Ug1_2_8_L_0						
18 D	5.610	7.6796E-03	7.600	28.05	34.00	37.85	PASSIVE	0.000	-3.400	0.000	
1.000	1.000	28.05	0.000	0.000	Ug1_2_8_L_0						
19 D	6.594	7.2701E-03	11.40	32.97	36.00	39.09	PASSIVE	0.000	-3.600	0.000	
1.000	1.000	32.97	0.000	0.000	Ug1_2_8_L_0						
20 D	7.578	6.8681E-03	15.20	37.89	38.00	40.35	PASSIVE	0.000	-3.800	0.000	
1.000	1.000	37.89	0.000	0.000	Ug1_2_8_L_0						
21 D	8.563	6.4746E-03	19.00	42.81	40.00	42.81	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	42.81	0.000	0.000	Ug1_2_8_L_0						
22 D	9.547	6.0904E-03	22.80	47.73	42.00	47.73	PASSIVE	0.000	-4.200	0.000	
1.000	1.000	47.73	0.000	0.000	Ug1_2_8_L_0						
23 D	10.53	5.7167E-03	26.60	52.65	45.60	52.65	PASSIVE	0.000	-4.400	0.000	
1.000	1.000	52.65	0.000	0.000	Ug1_2_8_L_0						
24 D	15.87	5.3542E-03	30.45	79.36	49.45	79.36	V-C	7643.	-4.600	0.000	
1.000	1.000	79.36	0.000	0.000	Ug2_741_743_L_0						
25 D	15.69	5.0039E-03	34.35	78.46	53.35	78.46	V-C	7643.	-4.800	0.000	
1.000	1.000	78.46	0.000	0.000	Ug2_741_743_L_0						
26 D	15.53	4.6663E-03	38.25	77.67	57.25	77.67	V-C	7643.	-5.000	0.000	
1.000	1.000	77.67	0.000	0.000	Ug2_741_743_L_0						
27 D	15.20	4.3421E-03	42.15	76.01	58.72	76.01	V-C	7643.	-5.200	0.000	
1.000	1.000	76.01	0.000	0.000	Ug2_741_743_L_0						
28 D	14.89	4.0315E-03	46.05	74.45	60.20	74.45	V-C	7643.	-5.400	0.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.45	0.000	0.000	Ug2_741_743_L_0					
29 D	14.60	3.7347E-03	49.95	73.01	61.67	73.01	V-C	7643.	-5.600	0.000
1.000	1.000	73.01	0.000	0.000	Ug2_741_743_L_0					
30 D	14.33	3.4518E-03	53.85	71.67	63.14	71.67	V-C	7643.	-5.800	0.000
1.000	1.000	71.67	0.000	0.000	Ug2_741_743_L_0					
31 D	14.09	3.1828E-03	57.75	70.45	64.62	70.45	V-C	7643.	-6.000	0.000
1.000	1.000	70.45	0.000	0.000	Ug2_741_743_L_0					
32 D	14.36	2.9278E-03	59.08	69.11	66.09	69.11	V-C	7643.	-6.200	2.667
1.000	1.000	71.78	0.000	0.000	Ug2_741_743_L_0					
33 D	14.65	2.6864E-03	60.42	67.89	67.57	67.89	UL-RL	2.2929E+04	-6.400	5.333
1.000	1.000	73.23	0.000	0.000	Ug2_741_743_L_0					
34 D	14.96	2.4587E-03	61.75	66.79	69.04	66.79	UL-RL	2.2929E+04	-6.600	8.000
1.000	1.000	74.79	0.000	0.000	Ug2_741_743_L_0					
35 D	15.29	2.2442E-03	63.08	65.79	70.51	65.79	UL-RL	2.2929E+04	-6.800	10.67
1.000	1.000	76.46	0.000	0.000	Ug2_741_743_L_0					
36 D	15.60	2.0428E-03	64.42	64.66	71.99	64.66	UL-RL	2.2929E+04	-7.000	13.33
1.000	1.000	77.99	0.000	0.000	Ug2_741_743_L_0					
37 D	15.85	1.8543E-03	65.75	63.25	73.46	63.25	UL-RL	2.2929E+04	-7.200	16.00
1.000	1.000	79.25	0.000	0.000	Ug2_741_743_L_0					
38 D	16.14	1.6781E-03	67.08	62.04	74.93	62.04	UL-RL	2.2929E+04	-7.400	18.67
1.000	1.000	80.70	0.000	0.000	Ug2_741_743_L_0					
39 D	16.47	1.5140E-03	68.42	61.00	76.41	61.01	UL-RL	2.2929E+04	-7.600	21.33
1.000	1.000	82.34	0.000	0.000	Ug2_741_743_L_0					
40 D	16.83	1.3615E-03	69.75	60.14	78.00	60.14	UL-RL	2.2929E+04	-7.800	24.00
1.000	1.000	84.14	0.000	0.000	Ug2_741_743_L_0					
41 D	17.22	1.2203E-03	71.08	59.42	80.00	59.42	UL-RL	2.2929E+04	-8.000	26.67
1.000	1.000	86.08	0.000	0.000	Ug2_741_743_L_0					
42 D	17.63	1.0898E-03	72.42	58.83	82.00	58.84	UL-RL	2.2929E+04	-8.200	29.33
1.000	1.000	88.17	0.000	0.000	Ug2_741_743_L_0					
43 D	18.12	9.6958E-04	73.75	58.62	84.00	58.62	UL-RL	2.2929E+04	-8.400	32.00
1.000	1.000	90.62	0.000	0.000	Ug2_741_743_L_0					
44 D	18.64	8.5911E-04	75.08	58.52	86.00	58.53	UL-RL	2.2929E+04	-8.600	34.67
1.000	1.000	93.19	0.000	0.000	Ug2_741_743_L_0					
45 D	19.17	7.5785E-04	76.42	58.51	88.00	58.51	UL-RL	2.2929E+04	-8.800	37.33
1.000	1.000	95.84	0.000	0.000	Ug2_741_743_L_0					
46 D	19.71	6.6524E-04	77.75	58.57	90.00	58.57	UL-RL	2.2929E+04	-9.000	40.00
1.000	1.000	98.57	0.000	0.000	Ug2_741_743_L_0					
47 D	20.27	5.8065E-04	79.08	58.69	92.00	58.70	UL-RL	2.2929E+04	-9.200	42.67
1.000	1.000	101.4	0.000	0.000	Ug2_741_743_L_0					
48 D	20.84	5.0346E-04	80.42	58.89	94.00	58.89	UL-RL	2.2929E+04	-9.400	45.33
1.000	1.000	104.2	0.000	0.000	Ug2_741_743_L_0					
49 D	21.43	4.3295E-04	81.75	59.14	96.00	59.14	UL-RL	2.2929E+04	-9.600	48.00
1.000	1.000	107.1	0.000	0.000	Ug2_741_743_L_0					
50 D	22.02	3.6842E-04	83.08	59.41	98.00	59.42	UL-RL	2.2929E+04	-9.800	50.67
1.000	1.000	110.1	0.000	0.000	Ug2_741_743_L_0					
51 D	22.59	3.0911E-04	84.42	59.63	100.00	59.75	UL-RL	2.2929E+04	-10.000	53.33
1.000	1.000	113.0	0.000	0.000	Ug2_741_743_L_0					
52 D	23.04	2.5429E-04	85.75	59.18	102.0	60.35	UL-RL	2.2929E+04	-10.200	56.00
1.000	1.000	115.2	0.000	0.000	Ug2_741_743_L_0					
53 D	23.47	2.0323E-04	87.08	58.68	104.0	60.83	UL-RL	2.2929E+04	-10.400	58.67
1.000	1.000	117.3	0.000	0.000	Ug2_741_743_L_0					
54 D	23.92	1.5523E-04	88.42	58.26	106.0	61.33	UL-RL	2.2929E+04	-10.600	61.33
1.000	1.000	119.6	0.000	0.000	Ug2_741_743_L_0					
55 D	24.38	1.0963E-04	89.75	57.90	108.0	61.83	UL-RL	2.2929E+04	-10.800	64.00
1.000	1.000	121.9	0.000	0.000	Ug2_741_743_L_0					
56 D	24.84	6.5844E-05	91.08	57.51	110.0	62.38	UL-RL	2.2929E+04	-11.000	66.67
1.000	1.000	124.2	0.000	0.000	Ug2_741_743_L_0					
57 D	25.30	2.3359E-05	92.42	57.15	112.0	62.95	UL-RL	2.2929E+04	-11.200	69.33
1.000	1.000	126.5	0.000	0.000	Ug2_741_743_L_0					
58 D	25.76	-1.8271E-05	93.75	56.81	114.0	63.51	UL-RL	2.2929E+04	-11.400	72.00
1.000	1.000	128.8	0.000	0.000	Ug2_741_743_L_0					
59 D	26.23	-5.9400E-05	95.08	56.48	116.0	64.08	UL-RL	2.2929E+04	-11.600	74.67
1.000	1.000	131.2	0.000	0.000	Ug2_741_743_L_0					
60 D	26.70	-1.0029E-04	96.42	56.16	118.0	64.65	UL-RL	2.2929E+04	-11.800	77.33
1.000	1.000	133.5	0.000	0.000	Ug2_741_743_L_0					
61 D	13.58	-1.4111E-04	97.75	55.84	120.0	65.21	UL-RL	2.2929E+04	-12.000	80.00
1.000	1.000	135.8	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018   18:15:59 |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.88030E-10	-2.88030E-10	2.88583E-11	8.00836E-11
2	0.26667	-0.26667	-2.43562E-11	5.33333E-02
3	0.80000	-0.80000	-5.33333E-02	0.21333
4	1.6000	-1.6000	-0.21333	0.53333
5	2.6667	-2.6667	-0.53333	1.0667
6	4.0000	-4.0000	-1.0667	1.8667
7	5.6000	-5.6000	-1.8667	2.9867
8	7.4667	-7.4667	-2.9867	4.4800
9	9.6000	-9.6000	-4.4800	6.4000
10	12.000	-12.000	-6.4000	8.8000
11	14.784	-14.784	-8.8000	11.757
12	18.048	-18.048	-11.757	15.366
13	21.798	-21.798	-15.366	19.726
14	26.024	-26.024	-19.726	24.931
15	30.742	-30.742	-24.931	31.079
16	32.311	-32.311	-31.079	37.542
17	33.367	-33.367	-37.542	44.215
18	33.929	-33.929	-44.215	51.001
19	33.979	-33.979	-51.001	57.797
20	33.533	-33.533	-57.797	64.503
21	32.589	-32.589	-64.503	71.021
22	31.133	-31.133	-71.021	77.248
23	29.178	-29.178	-77.248	83.083
24	22.715	-22.715	-83.083	87.626
25	16.843	-16.843	-87.626	90.995
26	11.541	-11.541	-90.995	93.303
27	6.9748	-6.9748	-93.303	94.698
28	3.1301	-3.1301	-94.698	95.324
29	-2.22735E-02	2.22735E-02	-95.324	95.320
30	-2.4971	2.4971	-95.320	94.820
31	-4.3170	4.3170	-94.820	93.957
32	-6.0000	6.0000	-93.957	92.757
33	-7.5625	7.5625	-92.757	91.244
34	-9.0339	9.0339	-91.244	89.437
35	-10.430	10.430	-89.437	87.351
36	-11.724	11.724	-87.351	85.007
37	-12.866	12.866	-85.007	82.433
38	-13.890	13.890	-82.433	79.655
39	-14.837	14.837	-79.655	76.688
40	-15.737	15.737	-76.688	73.540
41	-16.615	16.615	-73.540	70.217
42	-17.508	17.508	-70.217	66.716
43	-18.482	18.482	-66.716	63.019
44	-19.567	19.567	-63.019	59.106
45	-20.773	20.773	-59.106	54.951
46	-22.117	22.117	-54.951	50.528
47	-23.616	23.616	-50.528	45.805
48	-24.840	24.840	-45.805	40.837
49	-25.449	25.449	-40.837	35.747
50	-25.504	25.504	-35.747	30.646
51	-25.043	25.043	-30.646	25.637
52	-23.975	23.975	-25.637	20.843
53	-22.324	22.324	-20.843	16.378
54	-20.193	20.193	-16.378	12.339
55	-17.792	17.792	-12.339	8.7808
56	-15.124	15.124	-8.7808	5.7560
57	-12.199	12.199	-5.7560	3.3162
58	-9.0256	9.0256	-3.3162	1.5111
59	-5.6078	5.6078	-1.5111	0.38956

60 -1.9477 1.9477 -0.38956 -1.69510E-13

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018      18:15:59                             |
+-----+
```

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	6
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	5
6	CONVERGENCE :YES	4
7	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.06 [sec]

DATABASE CREATION CPU TIME..... 0.23 [sec]

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_1757
|          Exe Time :24 May 2018      18:16:00
|
-----+-----

```

```

*****
*
*  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.A1M1R1_1757
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL STRESS >
ACCEPTED <PARAM ITEMAX 40 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >

```

```

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

```

PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:16:00      |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 61
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 122
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 111
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.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018          18:16:00 |
+-----+

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   111

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
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 Ugl_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 8 26
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Ug2_741_743_L_0 -4.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19.5 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 0 36
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : BEAM WallElement_33 LeftWall_32 -12 0 S275_113 0.25 00 00 0
25 : STRIP LeftWall_32 1 7 2 33 0 5 45
26 : STEP Stage1_31
27 : CHANGE Ugl_2_8_L_0 U-FRICT=26 LeftWall_32
28 : CHANGE Ugl_2_8_L_0 D-FRICT=26 LeftWall_32
29 : CHANGE Ugl_2_8_L_0 U-KA=0.39 LeftWall_32
30 : CHANGE Ugl_2_8_L_0 U-KP=3.404 LeftWall_32
31 : CHANGE Ugl_2_8_L_0 D-KA=0.39 LeftWall_32
32 : CHANGE Ugl_2_8_L_0 D-KP=3.404 LeftWall_32
33 : CHANGE Ug2_741_743_L_0 U-FRICT=36 LeftWall_32
34 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
35 : CHANGE Ug2_741_743_L_0 U-KA=0.26 LeftWall_32
36 : CHANGE Ug2_741_743_L_0 U-KP=6.289 LeftWall_32
37 : CHANGE Ug2_741_743_L_0 D-KA=0.26 LeftWall_32
38 : CHANGE Ug2_741_743_L_0 D-KP=6.289 LeftWall_32
39 : CHANGE Ugl_2_8_L_0 U-COHE=8 LeftWall_32
40 : CHANGE Ugl_2_8_L_0 D-COHE=8 LeftWall_32
41 : CHANGE Ug2_741_743_L_0 U-COHE=0 LeftWall_32
42 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
43 : SETWALL LeftWall_32
44 : GEOM 0 0
45 : WATER 0 0 -12 0 0
46 : ADD WallElement_33
47 : ENDSTEP
48 : STEP Stage2_158
49 : CHANGE Ugl_2_8_L_0 D-FRICT=26 LeftWall_32
50 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
51 : CHANGE Ugl_2_8_L_0 D-COHE=8 LeftWall_32
52 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
53 : SETWALL LeftWall_32
54 : GEOM 0 -1
55 : WATER 0 1 -12 0 0
56 : ENDSTEP
57 : STEP Stage3_255
58 : CHANGE Ugl_2_8_L_0 D-FRICT=26 LeftWall_32
59 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
60 : CHANGE Ugl_2_8_L_0 D-COHE=8 LeftWall_32
61 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
62 : SETWALL LeftWall_32
63 : GEOM 0 -2
64 : WATER 0 2 -12 0 0
65 : ENDSTEP
66 : STEP Stage4_352
67 : CHANGE Ugl_2_8_L_0 D-FRICT=26 LeftWall_32
68 : CHANGE Ugl_2_8_L_0 D-KP=2.535 LeftWall_32
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
70 : CHANGE Ug2_741_743_L_0 D-KA=0.234 LeftWall_32
71 : CHANGE Ug2_741_743_L_0 D-KP=5.075 LeftWall_32
72 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
73 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
74 : SETWALL LeftWall_32
75 : GEOM 0 -2
76 : WATER 0 3 -12 0 0
77 : ENDSTEP
78 : STEP Stage5_449
79 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
80 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
81 : CHANGE Ug2_741_743_L_0 D-KA=0.228 LeftWall_32
82 : CHANGE Ug2_741_743_L_0 D-KP=3.864 LeftWall_32
83 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
84 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
85 : SETWALL LeftWall_32
86 : GEOM 0 -2
87 : WATER 0 4 -12 0 0
88 : ENDSTEP
89 : STEP Stage6_546
90 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
91 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
92 : CHANGE Ug2_741_743_L_0 D-KP=2.844 LeftWall_32
93 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
94 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
95 : SETWALL LeftWall_32
96 : GEOM 0 -2
97 : WATER 0 5 -12 0 0
98 : ENDSTEP
99 : STEP Stage7_643
100 : CHANGE Ug1_2_8_L_0 D-FRICT=26 LeftWall_32
101 : CHANGE Ug1_2_8_L_0 D-KA=0.319 LeftWall_32
102 : CHANGE Ug1_2_8_L_0 D-KP=1.295 LeftWall_32
103 : CHANGE Ug2_741_743_L_0 D-FRICT=36 LeftWall_32
104 : CHANGE Ug2_741_743_L_0 D-KA=0.218 LeftWall_32
105 : CHANGE Ug2_741_743_L_0 D-KP=2.637 LeftWall_32
106 : CHANGE Ug1_2_8_L_0 D-COHE=8 LeftWall_32
107 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
108 : SETWALL LeftWall_32
109 : GEOM 0 -3
110 : WATER 0 6 -12 0 0
111 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

```

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 / 42 0.0000    -8.2000 / 43 0.0000    -8.4000 / 44 0.0000    -8.6000 / |
| 45 0.0000    -8.8000 / 46 0.0000    -9.0000 / 47 0.0000    -9.2000 / 48 0.0000    -9.4000 / |
| 49 0.0000    -9.6000 / 50 0.0000    -9.8000 / 51 0.0000    -10.000 / 52 0.0000    -10.200 / |
| 53 0.0000    -10.400 / 54 0.0000    -10.600 / 55 0.0000    -10.800 / 56 0.0000    -11.000 / |
| 57 0.0000    -11.200 / 58 0.0000    -11.400 / 59 0.0000    -11.600 / 60 0.0000    -11.800 / |
| 61 0.0000    -12.000 / |
+-----+

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                      |
|                               Exe Time :24 May 2018      18:16:00                            |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L      :
 5 61  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
 6  active
 7  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	2	0.2000	0.000	0.000	0.000	1.000
25	25	2	0.2000	0.000	0.000	0.000	1.000
26	26	2	0.2000	0.000	0.000	0.000	1.000
27	27	2	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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	0.2000	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	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R          :
 5 61  0  1  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
 6  active
 7  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	2	0.2000	0.000	0.000	0.000	2.000
25	25	2	0.2000	0.000	0.000	0.000	2.000
26	26	2	0.2000	0.000	0.000	0.000	2.000
27	27	2	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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	0.2000	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	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
ELEMENT GROUP NO.  3

WallElement_33      :
  2  60  0  1  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
  6  active
  7  active

material set no.  1

prop( 1) young modulus      0.210000E+09
prop( 2) modification time  0.000000
prop( 3) new young modulus  0.000000
prop( 4) poisson ratio      0.000000
prop( 5) future .....      0.000000

no. of step variable items:  1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000
  4  1.000
  5  1.000
  6  1.000
  7  1.000

element data

  e1  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
  1  1  2  1  0.000  0.000  0.2500  0.000  0.000
  2  2  3  1  0.000  0.000  0.2500  0.000  0.000
  3  3  4  1  0.000  0.000  0.2500  0.000  0.000
  4  4  5  1  0.000  0.000  0.2500  0.000  0.000
  5  5  6  1  0.000  0.000  0.2500  0.000  0.000
  6  6  7  1  0.000  0.000  0.2500  0.000  0.000
  7  7  8  1  0.000  0.000  0.2500  0.000  0.000
  8  8  9  1  0.000  0.000  0.2500  0.000  0.000
  9  9 10  1  0.000  0.000  0.2500  0.000  0.000
 10 10 11  1  0.000  0.000  0.2500  0.000  0.000
 11 11 12  1  0.000  0.000  0.2500  0.000  0.000
 12 12 13  1  0.000  0.000  0.2500  0.000  0.000
 13 13 14  1  0.000  0.000  0.2500  0.000  0.000
 14 14 15  1  0.000  0.000  0.2500  0.000  0.000
 15 15 16  1  0.000  0.000  0.2500  0.000  0.000
 16 16 17  1  0.000  0.000  0.2500  0.000  0.000
 17 17 18  1  0.000  0.000  0.2500  0.000  0.000
 18 18 19  1  0.000  0.000  0.2500  0.000  0.000
 19 19 20  1  0.000  0.000  0.2500  0.000  0.000
 20 20 21  1  0.000  0.000  0.2500  0.000  0.000
 21 21 22  1  0.000  0.000  0.2500  0.000  0.000
 22 22 23  1  0.000  0.000  0.2500  0.000  0.000
 23 23 24  1  0.000  0.000  0.2500  0.000  0.000
 24 24 25  1  0.000  0.000  0.2500  0.000  0.000
 25 25 26  1  0.000  0.000  0.2500  0.000  0.000
 26 26 27  1  0.000  0.000  0.2500  0.000  0.000
 27 27 28  1  0.000  0.000  0.2500  0.000  0.000
 28 28 29  1  0.000  0.000  0.2500  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.2500	0.000	0.000
30	30	31	1	0.000	0.000	0.2500	0.000	0.000
31	31	32	1	0.000	0.000	0.2500	0.000	0.000
32	32	33	1	0.000	0.000	0.2500	0.000	0.000
33	33	34	1	0.000	0.000	0.2500	0.000	0.000
34	34	35	1	0.000	0.000	0.2500	0.000	0.000
35	35	36	1	0.000	0.000	0.2500	0.000	0.000
36	36	37	1	0.000	0.000	0.2500	0.000	0.000
37	37	38	1	0.000	0.000	0.2500	0.000	0.000
38	38	39	1	0.000	0.000	0.2500	0.000	0.000
39	39	40	1	0.000	0.000	0.2500	0.000	0.000
40	40	41	1	0.000	0.000	0.2500	0.000	0.000
41	41	42	1	0.000	0.000	0.2500	0.000	0.000
42	42	43	1	0.000	0.000	0.2500	0.000	0.000
43	43	44	1	0.000	0.000	0.2500	0.000	0.000
44	44	45	1	0.000	0.000	0.2500	0.000	0.000
45	45	46	1	0.000	0.000	0.2500	0.000	0.000
46	46	47	1	0.000	0.000	0.2500	0.000	0.000
47	47	48	1	0.000	0.000	0.2500	0.000	0.000
48	48	49	1	0.000	0.000	0.2500	0.000	0.000
49	49	50	1	0.000	0.000	0.2500	0.000	0.000
50	50	51	1	0.000	0.000	0.2500	0.000	0.000
51	51	52	1	0.000	0.000	0.2500	0.000	0.000
52	52	53	1	0.000	0.000	0.2500	0.000	0.000
53	53	54	1	0.000	0.000	0.2500	0.000	0.000
54	54	55	1	0.000	0.000	0.2500	0.000	0.000
55	55	56	1	0.000	0.000	0.2500	0.000	0.000
56	56	57	1	0.000	0.000	0.2500	0.000	0.000
57	57	58	1	0.000	0.000	0.2500	0.000	0.000
58	58	59	1	0.000	0.000	0.2500	0.000	0.000
59	59	60	1	0.000	0.000	0.2500	0.000	0.000
60	60	61	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:16:00                               |
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 14
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:16:00                             |
+-----+
```

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
8.00000	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
8.00000	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
8.00000	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
8.00000	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
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757                                          |
|          Exe Time :24 May 2018      18:16:00                                                  |
+-----+
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
STEP  6  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  6  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F       0.0000000
STEP  7  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  7  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F       0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.A1M1R1_1757  |  
|                               Exe Time :24 May 2018      18:16:00  |  
+-----+
```

```
NO. OF LAYERS ..... 2  
NO. OF DATA PER LAYER..... 100
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|                PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A1M1R1_1757  |
|                Exe Time :24 May 2018  18:16:00  |
+-----+

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LAYER DESCRIPTORS FOR STEP NO. 1

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

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ITEM NO. 1<NAME >= 18.000 (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 >= 19.0000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 8.0000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 26.0000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.39000 WALL NO. 1
ITEM NO. 11<U-KP >= 3.4040 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 >= 20000. (BOTH WALLS)
ITEM NO. 18<EUR >= 60000. (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 >= 8.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 26.0000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.39000 WALL NO. 1
ITEM NO. 61<D-KP >= 3.4040 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

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

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ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 36.0000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.26000 WALL NO. 1
ITEM NO. 11<U-KP >= 6.2890 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 >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (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. 59<D-FRICT >= 36.0000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.26000 WALL NO. 1
ITEM NO. 61<D-KP >= 6.2890 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

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LAYER DESCRIPTORS FOR STEP NO. 2

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

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ITEM NO. 1<NAME >= 18.000 (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 >= 19.0000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 8.0000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 26.0000 (BOTH WALLS)

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.26000	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.2890	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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.26000	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.2890	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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.5350	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.23400	WALL NO.	1
ITEM NO.	61<D-KP	>= 5.0750	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	1<NAME	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.5350	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.26000	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.2890	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 36.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.22800	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.8640	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 8.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 8.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.5350	WALL NO.	1

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 36.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.26000 WALL NO. 1
ITEM NO. 11<U-KP >= 6.2890 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 >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (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. 59<D-FRICT >= 36.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.22800 WALL NO. 1
ITEM NO. 61<D-KP >= 2.8440 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO. 1<NAME >= 18.000 (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 >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 8.0000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 26.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.39000 WALL NO. 1
ITEM NO. 11<U-KP >= 3.4040 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 >= 20000. (BOTH WALLS)
ITEM NO. 18<EUR >= 60000. (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 >= 8.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 26.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 1.2950 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 36.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.26000 WALL NO. 1
ITEM NO. 11<U-KP >= 6.2890 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 >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (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. 59<D-FRICT >= 36.000 (BOTH WALLS)

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 60<D-KA >= 0.21800 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6370 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018      18:16:00  |
+-----+

```

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  0.000      -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   -1.000         0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  1.000         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

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
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  -2.000      0.000
Z-WATER_TABLE  0.000    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL          0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE             2.000      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  -2.000      0.000
Z-WATER_TABLE  0.000    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL          0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE             3.000      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
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

=====
=====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			-2.000	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			4.000	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

STEP NO.	6		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			-2.000	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			5.000	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 6

STEP NO.	7		LEFT WALL	RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
 l'A26 (Genova Voltri-Gravellona) in località Ghemme
 Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	6.000	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 7

LEFT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A1M1R1_1757  |
|                Exe Time :24 May 2018  18:16:00  |
+-----+

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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 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 2.0000000000000000
FOUNDATION WIDTH (B) 33.0000000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.0000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4503

NO. OF D.P.W FOR THIS AREA 7204
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5271E+05 RIMNOR= 0.000
          RENORM=0.1168E-27 REMNOR= 0.000        RATIO =0.4706E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.5271E+05 RDR    = 0.000
          RATIOI=0.4706E-16 RATIOOR= 0.000
          MAX UN=0.3553E-14 IEQ=    83 NODE        42 DOF    1  Y-DISPL.F
          MIN UN=-.3553E-14 IEQ=    85 NODE        43 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

```

ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5271E+05 RIMNOR= 0.000
          RENORM=0.7565E-29 REMNOR=0.5405E-53 RATIO =0.1198E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.5271E+05 RDR    = 0.000
          RATIOI=0.1198E-16 RATIOOR= 0.000
          MAX UN=0.5717E-15 IEQ=    61 NODE        31 DOF    1  Y-DISPL.F
          MIN UN=-.5700E-15 IEQ=    119 NODE       60 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

```

ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.5271E+05 RIMNOR= 0.000
          RENORM=0.6091E-29 REMNOR=0.9522E-53 RATIO =0.1075E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.5271E+05 RDR    = 0.000
          RATIOI=0.1075E-16 RATIOOR= 0.000
          MAX UN=0.4705E-15 IEQ=    53 NODE        27 DOF    1  Y-DISPL.F
          MIN UN=-.6528E-15 IEQ=    119 NODE       60 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                    |
|                               Exe Time :24 May 2018      18:16:00                          |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

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)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 1

O_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	2.8800E-21	0.000	0.000	0.000	0.000	V-C	2.0004E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.6596	-1.0698E-21	2.001	1.298	2.001	1.298	V-C	2.0004E+04	-0.2000	2.000	
1.000	1.000	3.298	0.000	0.000	Ug1_2_8_L_0						
3 D	1.317	-5.0195E-21	4.008	2.584	4.008	2.584	V-C	2.0004E+04	-0.4000	4.000	
1.000	1.000	6.584	0.000	0.000	Ug1_2_8_L_0						
4 D	1.969	-8.9689E-21	6.026	3.847	6.026	3.847	V-C	2.0004E+04	-0.6000	6.000	
1.000	1.000	9.847	0.000	0.000	Ug1_2_8_L_0						
5 D	2.616	-1.2917E-20	8.057	5.082	8.057	5.082	V-C	2.0004E+04	-0.8000	8.000	
1.000	1.000	13.08	0.000	0.000	Ug1_2_8_L_0						
6 D	3.257	-1.6861E-20	10.10	6.284	10.10	6.284	V-C	2.0004E+04	-1.0000	10.000	
1.000	1.000	16.28	0.000	0.000	Ug1_2_8_L_0						
7 D	3.891	-2.0798E-20	12.16	7.453	12.16	7.453	V-C	2.0004E+04	-1.2000	12.000	
1.000	1.000	19.45	0.000	0.000	Ug1_2_8_L_0						
8 D	4.519	-2.4721E-20	14.22	8.593	14.22	8.593	V-C	2.0004E+04	-1.4000	14.000	
1.000	1.000	22.59	0.000	0.000	Ug1_2_8_L_0						
9 D	5.141	-2.8621E-20	16.30	9.705	16.30	9.705	V-C	2.0004E+04	-1.6000	16.000	
1.000	1.000	25.70	0.000	0.000	Ug1_2_8_L_0						
10 D	5.759	-3.2488E-20	18.37	10.79	18.37	10.79	V-C	2.0004E+04	-1.8000	18.000	
1.000	1.000	28.79	0.000	0.000	Ug1_2_8_L_0						
11 D	6.373	-3.6307E-20	20.45	11.86	20.45	11.86	V-C	2.0004E+04	-2.0000	20.000	
1.000	1.000	31.86	0.000	0.000	Ug1_2_8_L_0						
12 D	6.984	-4.0058E-20	22.53	12.92	22.53	12.92	V-C	2.0004E+04	-2.2000	22.000	
1.000	1.000	34.92	0.000	0.000	Ug1_2_8_L_0						
13 D	7.592	-4.3729E-20	24.67	13.96	24.67	13.96	V-C	2.0004E+04	-2.4000	24.000	
1.000	1.000	37.96	0.000	0.000	Ug1_2_8_L_0						
14 D	8.198	-4.7333E-20	26.69	14.99	26.69	14.99	V-C	2.0004E+04	-2.6000	26.000	
1.000	1.000	40.99	0.000	0.000	Ug1_2_8_L_0						
15 D	8.802	-5.0892E-20	28.91	16.01	28.91	16.01	V-C	2.0004E+04	-2.8000	28.000	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
16 D	9.405	-5.4418E-20	31.14	17.03	31.14	17.03	V-C	2.0004E+04	-3.0000	30.000	
1.000	1.000	47.03	0.000	0.000	Ug1_2_8_L_0						
17 D	10.01	-5.7920E-20	33.10	18.04	33.10	18.04	V-C	2.0004E+04	-3.2000	32.000	
1.000	1.000	50.04	0.000	0.000	Ug1_2_8_L_0						
18 D	10.61	-6.1401E-20	35.30	19.04	35.30	19.04	V-C	2.0004E+04	-3.4000	34.000	
1.000	1.000	53.04	0.000	0.000	Ug1_2_8_L_0						
19 D	11.21	-6.4854E-20	37.26	20.04	37.26	20.04	V-C	2.0004E+04	-3.6000	36.000	
1.000	1.000	56.04	0.000	0.000	Ug1_2_8_L_0						
20 D	11.81	-6.8269E-20	39.43	21.04	39.43	21.04	V-C	2.0004E+04	-3.8000	38.000	
1.000	1.000	59.04	0.000	0.000	Ug1_2_8_L_0						
21 D	12.41	-7.1626E-20	41.59	22.04	41.59	22.04	V-C	2.0004E+04	-4.0000	40.000	
1.000	1.000	62.04	0.000	0.000	Ug1_2_8_L_0						
22 D	13.01	-7.4900E-20	43.55	23.03	43.55	23.03	V-C	2.0004E+04	-4.2000	42.000	
1.000	1.000	65.03	0.000	0.000	Ug1_2_8_L_0						
23 D	13.60	-7.8056E-20	45.69	24.02	45.69	24.02	V-C	2.0004E+04	-4.4000	44.000	
1.000	1.000	68.02	0.000	0.000	Ug1_2_8_L_0						
24 D	14.20	-8.1051E-20	47.65	25.02	47.65	25.02	V-C	3.6799E+04	-4.6000	46.000	
1.000	1.000	71.02	0.000	0.000	Ug2_741_743_L_0						
25 D	14.80	-8.3834E-20	49.78	26.01	49.78	26.01	V-C	3.6799E+04	-4.8000	48.000	
1.000	1.000	74.01	0.000	0.000	Ug2_741_743_L_0						
26 D	15.40	-8.6341E-20	51.89	26.99	51.89	26.99	V-C	3.6799E+04	-5.0000	50.000	
1.000	1.000	76.99	0.000	0.000	Ug2_741_743_L_0						
27 D	16.00	-8.8494E-20	53.85	27.98	53.85	27.98	V-C	3.6799E+04	-5.2000	52.000	
1.000	1.000	79.98	0.000	0.000	Ug2_741_743_L_0						
28 D	16.59	-9.0203E-20	55.96	28.97	55.96	28.97	V-C	3.6799E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.97	0.000	0.000	Ug2_741_743_L_0					
29 D	17.19	-9.1362E-20	57.92	29.96	57.92	29.96	V-C	3.6799E+04	-5.600	56.00
1.000	1.000	85.96	0.000	0.000	Ug2_741_743_L_0					
30 D	17.79	-9.1852E-20	60.02	30.94	60.02	30.94	V-C	3.6799E+04	-5.800	58.00
1.000	1.000	88.94	0.000	0.000	Ug2_741_743_L_0					
31 D	18.39	-9.1541E-20	62.11	31.93	62.11	31.93	V-C	3.6799E+04	-6.000	60.00
1.000	1.000	91.93	0.000	0.000	Ug2_741_743_L_0					
32 D	18.98	-9.0301E-20	64.07	32.92	64.07	32.92	V-C	3.6799E+04	-6.200	62.00
1.000	1.000	94.92	0.000	0.000	Ug2_741_743_L_0					
33 D	19.58	-8.8059E-20	66.16	33.90	66.16	33.90	V-C	3.6799E+04	-6.400	64.00
1.000	1.000	97.90	0.000	0.000	Ug2_741_743_L_0					
34 D	20.18	-8.4764E-20	68.12	34.89	68.12	34.89	V-C	3.6799E+04	-6.600	66.00
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
35 D	20.77	-8.0423E-20	70.20	35.87	70.20	35.87	V-C	3.6799E+04	-6.800	68.00
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.37	-7.5064E-20	72.27	36.86	72.27	36.86	V-C	3.6799E+04	-7.000	70.00
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
37 D	21.97	-6.8776E-20	74.24	37.84	74.24	37.84	V-C	3.6799E+04	-7.200	72.00
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
38 D	22.57	-6.1652E-20	76.31	38.83	76.31	38.83	V-C	3.6799E+04	-7.400	74.00
1.000	1.000	112.8	0.000	0.000	Ug2_741_743_L_0					
39 D	23.16	-5.3777E-20	78.27	39.81	78.27	39.81	V-C	3.6799E+04	-7.600	76.00
1.000	1.000	115.8	0.000	0.000	Ug2_741_743_L_0					
40 D	23.76	-4.5227E-20	80.34	40.80	80.34	40.80	V-C	3.6799E+04	-7.800	78.00
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
41 D	24.36	-3.6087E-20	82.40	41.78	82.40	41.78	V-C	3.6799E+04	-8.000	80.00
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
42 D	24.95	-2.6506E-20	84.37	42.77	84.37	42.77	V-C	3.6799E+04	-8.200	82.00
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
43 D	25.55	-1.6661E-20	86.43	43.75	86.43	43.75	V-C	3.6799E+04	-8.400	84.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
44 D	26.15	-6.7773E-21	88.39	44.74	88.39	44.74	V-C	3.6799E+04	-8.600	86.00
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
45 D	26.74	2.9918E-21	90.45	45.72	90.45	45.72	V-C	3.6799E+04	-8.800	88.00
1.000	1.000	133.7	0.000	0.000	Ug2_741_743_L_0					
46 D	27.34	1.2582E-20	92.50	46.70	92.50	46.70	V-C	3.6799E+04	-9.000	90.00
1.000	1.000	136.7	0.000	0.000	Ug2_741_743_L_0					
47 D	27.94	2.1947E-20	94.47	47.69	94.47	47.69	V-C	3.6799E+04	-9.200	92.00
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
48 D	28.53	3.1039E-20	96.52	48.67	96.52	48.67	V-C	3.6799E+04	-9.400	94.00
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
49 D	29.13	3.9807E-20	98.57	49.66	98.57	49.66	V-C	3.6799E+04	-9.600	96.00
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
50 D	29.73	4.8200E-20	100.5	50.64	100.5	50.64	V-C	3.6799E+04	-9.800	98.00
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
51 D	30.33	5.6159E-20	102.6	51.63	102.6	51.63	V-C	3.6799E+04	-10.00	100.00
1.000	1.000	151.6	0.000	0.000	Ug2_741_743_L_0					
52 D	30.92	6.3619E-20	104.6	52.61	104.6	52.61	V-C	3.6799E+04	-10.20	102.0
1.000	1.000	154.6	0.000	0.000	Ug2_741_743_L_0					
53 D	31.52	7.0526E-20	106.6	53.60	106.6	53.60	V-C	3.6799E+04	-10.40	104.0
1.000	1.000	157.6	0.000	0.000	Ug2_741_743_L_0					
54 D	32.12	7.6904E-20	108.6	54.58	108.6	54.58	V-C	3.6799E+04	-10.60	106.0
1.000	1.000	160.6	0.000	0.000	Ug2_741_743_L_0					
55 D	32.71	8.2852E-20	110.6	55.57	110.6	55.57	V-C	3.6799E+04	-10.80	108.0
1.000	1.000	163.6	0.000	0.000	Ug2_741_743_L_0					
56 D	33.31	8.8475E-20	112.7	56.55	112.7	56.55	V-C	3.6799E+04	-11.00	110.0
1.000	1.000	166.6	0.000	0.000	Ug2_741_743_L_0					
57 D	33.91	9.3867E-20	114.6	57.54	114.6	57.54	V-C	3.6799E+04	-11.20	112.0
1.000	1.000	169.5	0.000	0.000	Ug2_741_743_L_0					
58 D	34.50	9.9105E-20	116.7	58.52	116.7	58.52	V-C	3.6799E+04	-11.40	114.0
1.000	1.000	172.5	0.000	0.000	Ug2_741_743_L_0					
59 D	35.10	1.0425E-19	118.7	59.51	118.7	59.51	V-C	3.6799E+04	-11.60	116.0
1.000	1.000	175.5	0.000	0.000	Ug2_741_743_L_0					
60 D	35.70	1.0936E-19	120.7	60.50	120.7	60.50	V-C	3.6799E+04	-11.80	118.0
1.000	1.000	178.5	0.000	0.000	Ug2_741_743_L_0					
61 D	18.15	1.1446E-19	122.7	61.48	122.7	61.48	V-C	3.6799E+04	-12.00	120.0
1.000	1.000	181.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018   18:16:00   |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-2.8800E-21	0.000	0.000	0.000	0.000	V-C	1.5622E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.6596	1.0698E-21	2.000	1.298	2.000	1.298	V-C	1.5622E+04	-0.2000	2.000	
1.000	1.000	3.298	0.000	0.000	Ug1_2_8_L_0						
3 D	1.317	5.0195E-21	4.000	2.584	4.000	2.584	V-C	1.5622E+04	-0.4000	4.000	
1.000	1.000	6.584	0.000	0.000	Ug1_2_8_L_0						
4 D	1.969	8.9689E-21	6.000	3.847	6.000	3.847	V-C	1.5622E+04	-0.6000	6.000	
1.000	1.000	9.847	0.000	0.000	Ug1_2_8_L_0						
5 D	2.616	1.2917E-20	8.000	5.082	8.000	5.082	V-C	1.5622E+04	-0.8000	8.000	
1.000	1.000	13.08	0.000	0.000	Ug1_2_8_L_0						
6 D	3.257	1.6861E-20	10.00	6.284	10.00	6.284	V-C	1.5622E+04	-1.0000	10.00	
1.000	1.000	16.28	0.000	0.000	Ug1_2_8_L_0						
7 D	3.891	2.0798E-20	12.00	7.453	12.00	7.453	V-C	1.5622E+04	-1.2000	12.00	
1.000	1.000	19.45	0.000	0.000	Ug1_2_8_L_0						
8 D	4.519	2.4721E-20	14.00	8.593	14.00	8.593	V-C	1.5622E+04	-1.4000	14.00	
1.000	1.000	22.59	0.000	0.000	Ug1_2_8_L_0						
9 D	5.141	2.8621E-20	16.00	9.705	16.00	9.705	V-C	1.5622E+04	-1.6000	16.00	
1.000	1.000	25.70	0.000	0.000	Ug1_2_8_L_0						
10 D	5.759	3.2488E-20	18.00	10.79	18.00	10.79	V-C	1.5622E+04	-1.8000	18.00	
1.000	1.000	28.79	0.000	0.000	Ug1_2_8_L_0						
11 D	6.373	3.6307E-20	20.00	11.86	20.00	11.86	V-C	1.5622E+04	-2.0000	20.00	
1.000	1.000	31.86	0.000	0.000	Ug1_2_8_L_0						
12 D	6.984	4.0058E-20	22.00	12.92	22.00	12.92	V-C	1.5622E+04	-2.2000	22.00	
1.000	1.000	34.92	0.000	0.000	Ug1_2_8_L_0						
13 D	7.592	4.3729E-20	24.00	13.96	24.00	13.96	V-C	1.5622E+04	-2.4000	24.00	
1.000	1.000	37.96	0.000	0.000	Ug1_2_8_L_0						
14 D	8.198	4.7333E-20	26.00	14.99	26.00	14.99	V-C	1.5622E+04	-2.6000	26.00	
1.000	1.000	40.99	0.000	0.000	Ug1_2_8_L_0						
15 D	8.802	5.0892E-20	28.00	16.01	28.00	16.01	V-C	1.5622E+04	-2.8000	28.00	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
16 D	9.405	5.4418E-20	30.00	17.03	30.00	17.03	V-C	1.5622E+04	-3.0000	30.00	
1.000	1.000	47.03	0.000	0.000	Ug1_2_8_L_0						
17 D	10.01	5.7920E-20	32.00	18.04	32.00	18.04	V-C	1.5622E+04	-3.2000	32.00	
1.000	1.000	50.04	0.000	0.000	Ug1_2_8_L_0						
18 D	10.61	6.1401E-20	34.00	19.04	34.00	19.04	V-C	1.5622E+04	-3.4000	34.00	
1.000	1.000	53.04	0.000	0.000	Ug1_2_8_L_0						
19 D	11.21	6.4854E-20	36.00	20.04	36.00	20.04	V-C	1.5622E+04	-3.6000	36.00	
1.000	1.000	56.04	0.000	0.000	Ug1_2_8_L_0						
20 D	11.81	6.8269E-20	38.00	21.04	38.00	21.04	V-C	1.5622E+04	-3.8000	38.00	
1.000	1.000	59.04	0.000	0.000	Ug1_2_8_L_0						
21 D	12.41	7.1626E-20	40.00	22.04	40.00	22.04	V-C	1.5622E+04	-4.0000	40.00	
1.000	1.000	62.04	0.000	0.000	Ug1_2_8_L_0						
22 D	13.01	7.4900E-20	42.00	23.03	42.00	23.03	V-C	1.5622E+04	-4.2000	42.00	
1.000	1.000	65.03	0.000	0.000	Ug1_2_8_L_0						
23 D	13.60	7.8056E-20	44.00	24.02	44.00	24.02	V-C	1.5622E+04	-4.4000	44.00	
1.000	1.000	68.02	0.000	0.000	Ug1_2_8_L_0						
24 D	14.20	8.1051E-20	46.00	25.02	46.00	25.02	V-C	1.9107E+04	-4.6000	46.00	
1.000	1.000	71.02	0.000	0.000	Ug2_741_743_L_0						
25 D	14.80	8.3834E-20	48.00	26.01	48.00	26.01	V-C	1.9107E+04	-4.8000	48.00	
1.000	1.000	74.01	0.000	0.000	Ug2_741_743_L_0						
26 D	15.40	8.6341E-20	50.00	26.99	50.00	26.99	V-C	1.9107E+04	-5.0000	50.00	
1.000	1.000	76.99	0.000	0.000	Ug2_741_743_L_0						
27 D	16.00	8.8494E-20	52.00	27.98	52.00	27.98	V-C	1.9107E+04	-5.2000	52.00	
1.000	1.000	79.98	0.000	0.000	Ug2_741_743_L_0						
28 D	16.59	9.0203E-20	54.00	28.97	54.00	28.97	V-C	1.9107E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.97	0.000	0.000	Ug2_741_743_L_0					
29 D	17.19	9.1362E-20	56.00	29.96	56.00	29.96	V-C	1.9107E+04	-5.600	56.00
1.000	1.000	85.96	0.000	0.000	Ug2_741_743_L_0					
30 D	17.79	9.1852E-20	58.00	30.94	58.00	30.94	V-C	1.9107E+04	-5.800	58.00
1.000	1.000	88.94	0.000	0.000	Ug2_741_743_L_0					
31 D	18.39	9.1541E-20	60.00	31.93	60.00	31.93	V-C	1.9107E+04	-6.000	60.00
1.000	1.000	91.93	0.000	0.000	Ug2_741_743_L_0					
32 D	18.98	9.0301E-20	62.00	32.92	62.00	32.92	V-C	1.9107E+04	-6.200	62.00
1.000	1.000	94.92	0.000	0.000	Ug2_741_743_L_0					
33 D	19.58	8.8059E-20	64.00	33.90	64.00	33.90	V-C	1.9107E+04	-6.400	64.00
1.000	1.000	97.90	0.000	0.000	Ug2_741_743_L_0					
34 D	20.18	8.4764E-20	66.00	34.89	66.00	34.89	V-C	1.9107E+04	-6.600	66.00
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
35 D	20.77	8.0423E-20	68.00	35.87	68.00	35.87	V-C	1.9107E+04	-6.800	68.00
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.37	7.5064E-20	70.00	36.86	70.00	36.86	V-C	1.9107E+04	-7.000	70.00
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
37 D	21.97	6.8776E-20	72.00	37.84	72.00	37.84	V-C	1.9107E+04	-7.200	72.00
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
38 D	22.57	6.1652E-20	74.00	38.83	74.00	38.83	V-C	1.9107E+04	-7.400	74.00
1.000	1.000	112.8	0.000	0.000	Ug2_741_743_L_0					
39 D	23.16	5.3777E-20	76.00	39.81	76.00	39.81	V-C	1.9107E+04	-7.600	76.00
1.000	1.000	115.8	0.000	0.000	Ug2_741_743_L_0					
40 D	23.76	4.5227E-20	78.00	40.80	78.00	40.80	V-C	1.9107E+04	-7.800	78.00
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
41 D	24.36	3.6087E-20	80.00	41.78	80.00	41.78	V-C	1.9107E+04	-8.000	80.00
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
42 D	24.95	2.6506E-20	82.00	42.77	82.00	42.77	V-C	1.9107E+04	-8.200	82.00
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
43 D	25.55	1.6661E-20	84.00	43.75	84.00	43.75	V-C	1.9107E+04	-8.400	84.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
44 D	26.15	6.7773E-21	86.00	44.74	86.00	44.74	V-C	1.9107E+04	-8.600	86.00
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
45 D	26.74	-2.9918E-21	88.00	45.72	88.00	45.72	V-C	1.9107E+04	-8.800	88.00
1.000	1.000	133.7	0.000	0.000	Ug2_741_743_L_0					
46 D	27.34	-1.2582E-20	90.00	46.70	90.00	46.70	V-C	1.9107E+04	-9.000	90.00
1.000	1.000	136.7	0.000	0.000	Ug2_741_743_L_0					
47 D	27.94	-2.1947E-20	92.00	47.69	92.00	47.69	V-C	1.9107E+04	-9.200	92.00
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
48 D	28.53	-3.1039E-20	94.00	48.67	94.00	48.67	V-C	1.9107E+04	-9.400	94.00
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
49 D	29.13	-3.9807E-20	96.00	49.66	96.00	49.66	V-C	1.9107E+04	-9.600	96.00
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
50 D	29.73	-4.8200E-20	98.00	50.64	98.00	50.64	V-C	1.9107E+04	-9.800	98.00
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
51 D	30.33	-5.6159E-20	100.00	51.63	100.00	51.63	V-C	1.9107E+04	-10.000	100.00
1.000	1.000	151.6	0.000	0.000	Ug2_741_743_L_0					
52 D	30.92	-6.3619E-20	102.0	52.61	102.0	52.61	V-C	1.9107E+04	-10.200	102.0
1.000	1.000	154.6	0.000	0.000	Ug2_741_743_L_0					
53 D	31.52	-7.0526E-20	104.0	53.60	104.0	53.60	V-C	1.9107E+04	-10.400	104.0
1.000	1.000	157.6	0.000	0.000	Ug2_741_743_L_0					
54 D	32.12	-7.6904E-20	106.0	54.58	106.0	54.58	V-C	1.9107E+04	-10.600	106.0
1.000	1.000	160.6	0.000	0.000	Ug2_741_743_L_0					
55 D	32.71	-8.2852E-20	108.0	55.57	108.0	55.57	V-C	1.9107E+04	-10.800	108.0
1.000	1.000	163.6	0.000	0.000	Ug2_741_743_L_0					
56 D	33.31	-8.8475E-20	110.0	56.55	110.0	56.55	V-C	1.9107E+04	-11.000	110.0
1.000	1.000	166.6	0.000	0.000	Ug2_741_743_L_0					
57 D	33.91	-9.3867E-20	112.0	57.54	112.0	57.54	V-C	1.9107E+04	-11.200	112.0
1.000	1.000	169.5	0.000	0.000	Ug2_741_743_L_0					
58 D	34.50	-9.9105E-20	114.0	58.52	114.0	58.52	V-C	1.9107E+04	-11.400	114.0
1.000	1.000	172.5	0.000	0.000	Ug2_741_743_L_0					
59 D	35.10	-1.0425E-19	116.0	59.51	116.0	59.51	V-C	1.9107E+04	-11.600	116.0
1.000	1.000	175.5	0.000	0.000	Ug2_741_743_L_0					
60 D	35.70	-1.0936E-19	118.0	60.50	118.0	60.50	V-C	1.9107E+04	-11.800	118.0
1.000	1.000	178.5	0.000	0.000	Ug2_741_743_L_0					
61 D	18.15	-1.1446E-19	120.0	61.48	120.0	61.48	V-C	1.9107E+04	-12.000	120.0
1.000	1.000	181.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|      PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|      NewProject.BaseDesignSection_28.A1M1R1_1757  |
|      Exe Time :24 May 2018           18:16:00  |
|-----+
New Project
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.97343E-18	-1.97343E-18	-1.89327E-29	3.94686E-19
2	-9.06016E-18	9.06016E-18	-3.94686E-19	-1.41735E-18
3	-3.50724E-17	3.50724E-17	1.41735E-18	-8.43183E-18
4	-7.60571E-17	7.60571E-17	8.43183E-18	-2.36432E-17
5	-1.32000E-16	1.32000E-16	2.36432E-17	-5.00433E-17
6	-2.02876E-16	2.02876E-16	5.00433E-17	-9.06185E-17
7	-2.88644E-16	2.88644E-16	9.06185E-17	-1.48347E-16
8	-3.89242E-16	3.89242E-16	1.48347E-16	-2.26196E-16
9	-5.04584E-16	5.04584E-16	2.26196E-16	-3.27112E-16
10	-6.34553E-16	6.34553E-16	3.27112E-16	-4.54023E-16
11	-7.78996E-16	7.78996E-16	4.54023E-16	-6.09822E-16
12	-8.38637E-16	8.38637E-16	6.09822E-16	-4.42095E-16
13	-6.65876E-16	6.65876E-16	4.42095E-16	-3.08920E-16
14	-4.79374E-16	4.79374E-16	3.08920E-16	-2.13045E-16
15	-2.79491E-16	2.79491E-16	2.13045E-16	-1.57147E-16
16	-6.66541E-17	6.66541E-17	1.57147E-16	-1.43816E-16
17	-1.58630E-16	1.58630E-16	1.43816E-16	-1.75542E-16
18	-3.95772E-16	3.95772E-16	1.75542E-16	-2.54696E-16
19	-6.44089E-16	6.44089E-16	2.54696E-16	-3.83514E-16
20	-9.02797E-16	9.02797E-16	3.83514E-16	-5.64073E-16
21	-1.17101E-15	1.17101E-15	5.64073E-16	-7.98274E-16
22	-1.44771E-15	1.44771E-15	7.98274E-16	-1.08782E-15
23	-1.73179E-15	1.73179E-15	1.08782E-15	-1.43417E-15
24	-2.18719E-15	2.18719E-15	1.43417E-15	-1.87161E-15
25	-2.65004E-15	2.65004E-15	1.87161E-15	-2.40162E-15
26	-3.11800E-15	3.11800E-15	2.40162E-15	-3.02522E-15
27	-3.58851E-15	3.58851E-15	3.02522E-15	-3.74292E-15
28	-4.05884E-15	4.05884E-15	3.74292E-15	-4.55468E-15
29	-4.52609E-15	4.52609E-15	4.55468E-15	-5.45990E-15
30	-4.98721E-15	4.98721E-15	5.45990E-15	-6.45734E-15
31	-1.88631E-15	1.88631E-15	6.45734E-15	-6.83460E-15
32	-2.32558E-15	2.32558E-15	6.83460E-15	-7.29972E-15
33	-8.03711E-16	8.03711E-16	7.29972E-15	-7.13898E-15
34	-3.99439E-16	3.99439E-16	7.13898E-15	-7.05909E-15
35	-3.57029E-15	3.57029E-15	7.05909E-15	-6.34503E-15
36	-3.21400E-15	3.21400E-15	6.34503E-15	-5.70224E-15
37	-2.88632E-15	2.88632E-15	5.70224E-15	-5.12497E-15
38	-2.59013E-15	2.59013E-15	5.12497E-15	-4.60695E-15
39	-2.32808E-15	2.32808E-15	4.60695E-15	-4.14133E-15
40	-5.65530E-15	5.65530E-15	4.14133E-15	-3.01027E-15
41	-5.46851E-15	5.46851E-15	3.01027E-15	-1.91657E-15
42	-8.87500E-15	8.87500E-15	1.91657E-15	-1.41568E-16
43	-5.21821E-15	5.21821E-15	1.41568E-16	-9.02074E-16
44	-1.60483E-15	1.60483E-15	9.02074E-16	-1.22304E-15
45	-1.58858E-15	1.58858E-15	1.22304E-15	-1.54076E-15
46	-1.61745E-15	1.61745E-15	1.54076E-15	-1.86425E-15
47	-1.69191E-15	1.69191E-15	1.86425E-15	-2.20263E-15
48	-1.81219E-15	1.81219E-15	2.20263E-15	-2.56506E-15
49	-1.97834E-15	1.97834E-15	2.56506E-15	-2.96073E-15
50	-2.19024E-15	2.19024E-15	2.96073E-15	-3.39878E-15
51	-2.44767E-15	2.44767E-15	3.39878E-15	-3.88832E-15
52	-8.02423E-16	8.02423E-16	3.88832E-15	-3.72785E-15
53	-4.00769E-15	4.00769E-15	3.72785E-15	-2.92631E-15
54	-3.61579E-15	3.61579E-15	2.92631E-15	-2.20315E-15
55	-3.17982E-15	3.17982E-15	2.20315E-15	-1.56719E-15
56	-2.70009E-15	2.70009E-15	1.56719E-15	-1.02717E-15
57	-2.17687E-15	2.17687E-15	1.02717E-15	-5.91798E-16
58	-1.61036E-15	1.61036E-15	5.91798E-16	-2.69726E-16
59	-1.00069E-15	1.00069E-15	2.69726E-16	-6.95878E-17

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-3.47921E-16 3.47921E-16-6.95878E-17 4.79627E-28

```
ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1135E-26
RENORM= 225.0 REMNOR=0.9522E-53 RATIO =0.6867E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7300E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.6867E-01 RATIO= 0.000
MAX UN= 2.957 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.1973E-17 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1135E-26
RENORM= 5.291 REMNOR=0.4404E-22 RATIO =0.1053E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7300E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.1053E-01 RATIO= 0.000
MAX UN= 1.368 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.7014E-11 IEQ= 113 NODE 57 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1135E-26
RENORM= 1.579 REMNOR=0.1091E-22 RATIO =0.5754E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7300E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.5754E-02 RATIO= 0.000
MAX UN= 1.032 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN=-.1444E-10 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1135E-26
RENORM=0.4855E-01 REMNOR=0.6837E-23 RATIO =0.1009E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7300E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.1009E-02 RATIO= 0.000
MAX UN=0.2202 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
MIN UN=-.3000E-10 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1135E-26
RENORM=0.1884E-20 REMNOR=0.3435E-23 RATIO =0.1987E-12 TOLER =0.1000E-03 CONVERGED !
RFMAX = 35.19 RMMAX =0.7300E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.1987E-12 RATIO= 0.000
MAX UN=0.1548E-10 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
MIN UN=-.1658E-10 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757 |
|                               Exe Time :24 May 2018      18:16:00 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.4417659E-04	-7.8541682E-05	
2	3.2846825E-04	-7.8541682E-05	
3	3.1276178E-04	-7.8513697E-05	
4	2.9707023E-04	-7.8373772E-05	
5	2.8142906E-04	-7.7981980E-05	
6	2.6590729E-04	-7.7142427E-05	
7	2.5061018E-04	-7.5731553E-05	
8	2.3565278E-04	-7.3749081E-05	
9	2.2114600E-04	-7.1234776E-05	
10	2.0718946E-04	-6.8261628E-05	
11	1.9386495E-04	-6.4934435E-05	
12	1.8123088E-04	-6.1379320E-05	
13	1.6932043E-04	-5.7716141E-05	
14	1.5814518E-04	-5.4041648E-05	
15	1.4769951E-04	-5.0431006E-05	
16	1.3796484E-04	-4.6939342E-05	
17	1.2891336E-04	-4.3603278E-05	
18	1.2051180E-04	-4.0442501E-05	
19	1.1272440E-04	-3.7461106E-05	
20	1.0551607E-04	-3.4649041E-05	
21	9.8855055E-05	-3.1983405E-05	
22	9.2715283E-05	-2.9429625E-05	
23	8.7078748E-05	-2.6942708E-05	
24	8.1937366E-05	-2.4468305E-05	
25	7.7290460E-05	-2.2008395E-05	
26	7.3129333E-05	-1.9618613E-05	
27	6.9435537E-05	-1.7341274E-05	
28	6.6183299E-05	-1.5207076E-05	
29	6.3341771E-05	-1.3236909E-05	
30	6.0876767E-05	-1.1443268E-05	
31	5.8752324E-05	-9.8317230E-06	
32	5.6931935E-05	-8.4024524E-06	
33	5.5379459E-05	-7.1515851E-06	
34	5.4059853E-05	-6.0724401E-06	
35	5.2939621E-05	-5.1562130E-06	
36	5.1987233E-05	-4.3920056E-06	
37	5.1173536E-05	-3.7671006E-06	
38	5.0472030E-05	-3.2676972E-06	
39	4.9859041E-05	-2.8795395E-06	
40	4.9313747E-05	-2.5883920E-06	
41	4.8818139E-05	-2.3804215E-06	
42	4.8356910E-05	-2.2424814E-06	
43	4.7917295E-05	-2.1623144E-06	
44	4.7488881E-05	-2.1286868E-06	
45	4.7063395E-05	-2.1314655E-06	
46	4.6634470E-05	-2.1616503E-06	
47	4.6197433E-05	-2.2113700E-06	
48	4.5749071E-05	-2.2738512E-06	
49	4.5287423E-05	-2.3433690E-06	
50	4.4811573E-05	-2.4151834E-06	
51	4.4321454E-05	-2.4854720E-06	
52	4.3817672E-05	-2.5512572E-06	
53	4.3301412E-05	-2.6103286E-06	
54	4.2774113E-05	-2.6611979E-06	
55	4.2237536E-05	-2.7030152E-06	
56	4.1693527E-05	-2.7355319E-06	
57	4.1143923E-05	-2.7590547E-06	
58	4.0590449E-05	-2.7744130E-06	
59	4.0034614E-05	-2.7829342E-06	
60	3.9477611E-05	-2.7864270E-06	
61	3.8920198E-05	-2.7871722E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-3.4418E-04	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	Ug1_2_8_L_0						
2 D	0.3826	-3.2847E-04	2.088	0.000	2.088	1.341	ACTIVE	0.000	-0.2000	1.913	
1.000	1.000	1.913	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7652	-3.1276E-04	4.182	0.000	4.182	2.671	ACTIVE	0.000	-0.4000	3.826	
1.000	1.000	3.826	0.000	0.000	Ug1_2_8_L_0						
4 D	1.148	-2.9707E-04	6.287	0.000	6.287	3.978	ACTIVE	0.000	-0.6000	5.739	
1.000	1.000	5.739	0.000	0.000	Ug1_2_8_L_0						
5 D	1.530	-2.8143E-04	8.405	0.000	8.405	5.256	ACTIVE	0.000	-0.8000	7.652	
1.000	1.000	7.652	0.000	0.000	Ug1_2_8_L_0						
6 D	1.913	-2.6591E-04	10.54	0.000	10.54	6.501	ACTIVE	0.000	-1.000	9.565	
1.000	1.000	9.565	0.000	0.000	Ug1_2_8_L_0						
7 D	2.296	-2.5061E-04	12.68	0.000	12.68	7.714	ACTIVE	0.000	-1.200	11.48	
1.000	1.000	11.48	0.000	0.000	Ug1_2_8_L_0						
8 D	2.678	-2.3565E-04	14.83	0.000	14.83	8.897	ACTIVE	0.000	-1.400	13.39	
1.000	1.000	13.39	0.000	0.000	Ug1_2_8_L_0						
9 D	3.061	-2.2115E-04	16.99	0.000	16.99	10.05	ACTIVE	0.000	-1.600	15.30	
1.000	1.000	15.30	0.000	0.000	Ug1_2_8_L_0						
10 D	3.443	-2.0719E-04	19.16	0.000	19.16	11.19	ACTIVE	0.000	-1.800	17.22	
1.000	1.000	17.22	0.000	0.000	Ug1_2_8_L_0						
11 D	3.959	-1.9386E-04	21.32	0.6647	21.32	12.30	UL-RL	6.0013E+04	-2.000	19.13	
1.000	1.000	19.80	0.000	0.000	Ug1_2_8_L_0						
12 D	4.713	-1.8123E-04	23.49	2.520	23.49	13.40	UL-RL	6.0013E+04	-2.200	21.04	
1.000	1.000	23.56	0.000	0.000	Ug1_2_8_L_0						
13 D	5.455	-1.6932E-04	25.72	4.320	25.72	14.48	UL-RL	6.0013E+04	-2.400	22.96	
1.000	1.000	27.28	0.000	0.000	Ug1_2_8_L_0						
14 D	6.187	-1.5815E-04	27.82	6.065	27.82	15.56	UL-RL	6.0013E+04	-2.600	24.87	
1.000	1.000	30.93	0.000	0.000	Ug1_2_8_L_0						
15 D	6.908	-1.4770E-04	30.13	7.757	30.13	16.62	UL-RL	6.0013E+04	-2.800	26.78	
1.000	1.000	34.54	0.000	0.000	Ug1_2_8_L_0						
16 D	7.619	-1.3796E-04	32.44	9.400	32.44	17.68	UL-RL	6.0013E+04	-3.000	28.70	
1.000	1.000	38.10	0.000	0.000	Ug1_2_8_L_0						
17 D	8.321	-1.2891E-04	34.49	11.00	34.49	18.73	UL-RL	6.0013E+04	-3.200	30.61	
1.000	1.000	41.60	0.000	0.000	Ug1_2_8_L_0						
18 D	9.014	-1.2051E-04	36.78	12.55	36.78	19.78	UL-RL	6.0013E+04	-3.400	32.52	
1.000	1.000	45.07	0.000	0.000	Ug1_2_8_L_0						
19 D	9.699	-1.1272E-04	38.82	14.06	38.82	20.83	UL-RL	6.0013E+04	-3.600	34.43	
1.000	1.000	48.50	0.000	0.000	Ug1_2_8_L_0						
20 D	10.38	-1.0552E-04	41.09	15.54	41.09	21.87	UL-RL	6.0013E+04	-3.800	36.35	
1.000	1.000	51.88	0.000	0.000	Ug1_2_8_L_0						
21 D	11.05	-9.8855E-05	43.33	16.98	43.33	22.91	UL-RL	6.0013E+04	-4.000	38.26	
1.000	1.000	55.24	0.000	0.000	Ug1_2_8_L_0						
22 D	11.71	-9.2715E-05	45.37	18.38	45.37	23.95	UL-RL	6.0013E+04	-4.200	40.17	
1.000	1.000	58.56	0.000	0.000	Ug1_2_8_L_0						
23 D	12.37	-8.7079E-05	47.60	19.76	47.60	24.98	UL-RL	6.0013E+04	-4.400	42.09	
1.000	1.000	61.84	0.000	0.000	Ug1_2_8_L_0						
24 D	12.19	-8.1937E-05	49.65	16.97	49.65	26.02	UL-RL	1.1040E+05	-4.600	44.00	
1.000	1.000	60.97	0.000	0.000	Ug2_741_743_L_0						
25 D	12.89	-7.7290E-05	51.86	18.52	51.86	27.05	UL-RL	1.1040E+05	-4.800	45.91	
1.000	1.000	64.43	0.000	0.000	Ug2_741_743_L_0						
26 D	13.57	-7.3129E-05	54.07	20.01	54.07	28.08	UL-RL	1.1040E+05	-5.000	47.83	
1.000	1.000	67.83	0.000	0.000	Ug2_741_743_L_0						
27 D	14.24	-6.9436E-05	56.11	21.45	56.11	29.11	UL-RL	1.1040E+05	-5.200	49.74	
1.000	1.000	71.19	0.000	0.000	Ug2_741_743_L_0						
28 D	14.90	-6.6183E-05	58.31	22.84	58.31	30.14	UL-RL	1.1040E+05	-5.400	51.65	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.49	0.000	0.000	Ug2_741_743_L_0					
29 D	15.55	-6.3342E-05	60.35	24.18	60.35	31.17	UL-RL	1.1040E+05	-5.600	53.57
1.000	1.000	77.75	0.000	0.000	Ug2_741_743_L_0					
30 D	16.19	-6.0877E-05	62.54	25.48	62.54	32.20	UL-RL	1.1040E+05	-5.800	55.48
1.000	1.000	80.96	0.000	0.000	Ug2_741_743_L_0					
31 D	16.83	-5.8752E-05	64.72	26.75	64.72	33.23	UL-RL	1.1040E+05	-6.000	57.39
1.000	1.000	84.14	0.000	0.000	Ug2_741_743_L_0					
32 D	17.46	-5.6932E-05	66.77	27.98	66.77	34.26	UL-RL	1.1040E+05	-6.200	59.30
1.000	1.000	87.28	0.000	0.000	Ug2_741_743_L_0					
33 D	18.08	-5.5379E-05	68.94	29.18	68.94	35.29	UL-RL	1.1040E+05	-6.400	61.22
1.000	1.000	90.40	0.000	0.000	Ug2_741_743_L_0					
34 D	18.70	-5.4060E-05	70.99	30.35	70.99	36.32	UL-RL	1.1040E+05	-6.600	63.13
1.000	1.000	93.48	0.000	0.000	Ug2_741_743_L_0					
35 D	19.31	-5.2940E-05	73.15	31.51	73.15	37.35	UL-RL	1.1040E+05	-6.800	65.04
1.000	1.000	96.55	0.000	0.000	Ug2_741_743_L_0					
36 D	19.92	-5.1987E-05	75.32	32.64	75.32	38.38	UL-RL	1.1040E+05	-7.000	66.96
1.000	1.000	99.60	0.000	0.000	Ug2_741_743_L_0					
37 D	20.53	-5.1174E-05	77.37	33.76	77.37	39.41	UL-RL	1.1040E+05	-7.200	68.87
1.000	1.000	102.6	0.000	0.000	Ug2_741_743_L_0					
38 D	21.13	-5.0472E-05	79.52	34.86	79.52	40.44	UL-RL	1.1040E+05	-7.400	70.78
1.000	1.000	105.6	0.000	0.000	Ug2_741_743_L_0					
39 D	21.73	-4.9859E-05	81.57	35.96	81.57	41.46	UL-RL	1.1040E+05	-7.600	72.70
1.000	1.000	108.7	0.000	0.000	Ug2_741_743_L_0					
40 D	22.33	-4.9314E-05	83.73	37.05	83.73	42.49	UL-RL	1.1040E+05	-7.800	74.61
1.000	1.000	111.7	0.000	0.000	Ug2_741_743_L_0					
41 D	22.93	-4.8818E-05	85.88	38.13	85.88	43.52	UL-RL	1.1040E+05	-8.000	76.52
1.000	1.000	114.7	0.000	0.000	Ug2_741_743_L_0					
42 D	23.53	-4.8357E-05	87.93	39.21	87.93	44.55	UL-RL	1.1040E+05	-8.200	78.43
1.000	1.000	117.6	0.000	0.000	Ug2_741_743_L_0					
43 D	24.13	-4.7917E-05	90.08	40.29	90.08	45.58	UL-RL	1.1040E+05	-8.400	80.35
1.000	1.000	120.6	0.000	0.000	Ug2_741_743_L_0					
44 D	24.72	-4.7489E-05	92.13	41.36	92.13	46.60	UL-RL	1.1040E+05	-8.600	82.26
1.000	1.000	123.6	0.000	0.000	Ug2_741_743_L_0					
45 D	25.32	-4.7063E-05	94.27	42.44	94.27	47.63	UL-RL	1.1040E+05	-8.800	84.17
1.000	1.000	126.6	0.000	0.000	Ug2_741_743_L_0					
46 D	25.92	-4.6634E-05	96.42	43.51	96.42	48.66	UL-RL	1.1040E+05	-9.000	86.09
1.000	1.000	129.6	0.000	0.000	Ug2_741_743_L_0					
47 D	26.52	-4.6197E-05	98.47	44.59	98.47	49.69	UL-RL	1.1040E+05	-9.200	88.00
1.000	1.000	132.6	0.000	0.000	Ug2_741_743_L_0					
48 D	27.12	-4.5749E-05	100.6	45.67	100.6	50.72	UL-RL	1.1040E+05	-9.400	89.91
1.000	1.000	135.6	0.000	0.000	Ug2_741_743_L_0					
49 D	27.71	-4.5287E-05	102.7	46.75	102.7	51.75	UL-RL	1.1040E+05	-9.600	91.83
1.000	1.000	138.6	0.000	0.000	Ug2_741_743_L_0					
50 D	28.31	-4.4812E-05	104.8	47.83	104.8	52.77	UL-RL	1.1040E+05	-9.800	93.74
1.000	1.000	141.6	0.000	0.000	Ug2_741_743_L_0					
51 D	28.91	-4.4321E-05	106.9	48.91	106.9	53.80	UL-RL	1.1040E+05	-10.000	95.65
1.000	1.000	144.6	0.000	0.000	Ug2_741_743_L_0					
52 D	29.51	-4.3818E-05	109.0	49.99	109.0	54.83	UL-RL	1.1040E+05	-10.200	97.57
1.000	1.000	147.6	0.000	0.000	Ug2_741_743_L_0					
53 D	30.11	-4.3301E-05	111.1	51.08	111.1	55.86	UL-RL	1.1040E+05	-10.400	99.48
1.000	1.000	150.6	0.000	0.000	Ug2_741_743_L_0					
54 D	30.71	-4.2774E-05	113.3	52.17	113.3	56.89	UL-RL	1.1040E+05	-10.600	101.4
1.000	1.000	153.6	0.000	0.000	Ug2_741_743_L_0					
55 D	31.31	-4.2238E-05	115.3	53.25	115.3	57.92	UL-RL	1.1040E+05	-10.800	103.3
1.000	1.000	156.6	0.000	0.000	Ug2_741_743_L_0					
56 D	31.91	-4.1694E-05	117.4	54.34	117.4	58.95	UL-RL	1.1040E+05	-11.000	105.2
1.000	1.000	159.6	0.000	0.000	Ug2_741_743_L_0					
57 D	32.51	-4.1144E-05	119.5	55.43	119.5	59.97	UL-RL	1.1040E+05	-11.200	107.1
1.000	1.000	162.6	0.000	0.000	Ug2_741_743_L_0					
58 D	33.11	-4.0590E-05	121.6	56.52	121.6	61.00	UL-RL	1.1040E+05	-11.400	109.0
1.000	1.000	165.6	0.000	0.000	Ug2_741_743_L_0					
59 D	33.71	-4.0035E-05	123.8	57.61	123.8	62.03	UL-RL	1.1040E+05	-11.600	111.0
1.000	1.000	168.6	0.000	0.000	Ug2_741_743_L_0					
60 D	34.31	-3.9478E-05	125.8	58.70	125.8	63.06	UL-RL	1.1040E+05	-11.800	112.9
1.000	1.000	171.6	0.000	0.000	Ug2_741_743_L_0					
61 D	17.46	-3.8920E-05	127.9	59.79	127.9	64.09	UL-RL	1.1040E+05	-12.000	114.8
1.000	1.000	174.6	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:16:00          |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	1.754	2.6591E-04	0.000	8.771	10.00	8.771	V-C	1.5622E+04	-1.000	0.000	
1.000	1.000	8.771	0.000	0.000	Ug1_2_8_L_0						
7 D	2.451	2.5061E-04	1.913	10.17	12.00	10.17	V-C	1.5622E+04	-1.200	2.087	
1.000	1.000	12.25	0.000	0.000	Ug1_2_8_L_0						
8 D	3.067	2.3565E-04	3.826	11.16	14.00	11.16	V-C	1.5622E+04	-1.400	4.174	
1.000	1.000	15.33	0.000	0.000	Ug1_2_8_L_0						
9 D	3.670	2.2115E-04	5.739	12.09	16.00	12.09	V-C	1.5622E+04	-1.600	6.261	
1.000	1.000	18.35	0.000	0.000	Ug1_2_8_L_0						
10 D	4.267	2.0719E-04	7.652	12.99	18.00	12.99	V-C	1.5622E+04	-1.800	8.348	
1.000	1.000	21.33	0.000	0.000	Ug1_2_8_L_0						
11 D	4.860	1.9386E-04	9.565	13.86	20.00	13.86	V-C	1.5622E+04	-2.000	10.43	
1.000	1.000	24.30	0.000	0.000	Ug1_2_8_L_0						
12 D	5.451	1.8123E-04	11.48	14.73	22.00	14.73	V-C	1.5622E+04	-2.200	12.52	
1.000	1.000	27.25	0.000	0.000	Ug1_2_8_L_0						
13 D	6.040	1.6932E-04	13.39	15.59	24.00	15.59	V-C	1.5622E+04	-2.400	14.61	
1.000	1.000	30.20	0.000	0.000	Ug1_2_8_L_0						
14 D	6.629	1.5815E-04	15.30	16.45	26.00	16.45	V-C	1.5622E+04	-2.600	16.70	
1.000	1.000	33.15	0.000	0.000	Ug1_2_8_L_0						
15 D	7.219	1.4770E-04	17.22	17.31	28.00	17.31	V-C	1.5622E+04	-2.800	18.78	
1.000	1.000	36.09	0.000	0.000	Ug1_2_8_L_0						
16 D	7.809	1.3796E-04	19.13	18.18	30.00	18.18	V-C	1.5622E+04	-3.000	20.87	
1.000	1.000	39.04	0.000	0.000	Ug1_2_8_L_0						
17 D	8.400	1.2891E-04	21.04	19.04	32.00	19.04	V-C	1.5622E+04	-3.200	22.96	
1.000	1.000	42.00	0.000	0.000	Ug1_2_8_L_0						
18 D	8.992	1.2051E-04	22.96	19.91	34.00	19.91	V-C	1.5622E+04	-3.400	25.04	
1.000	1.000	44.96	0.000	0.000	Ug1_2_8_L_0						
19 D	9.584	1.1272E-04	24.87	20.79	36.00	20.79	V-C	1.5622E+04	-3.600	27.13	
1.000	1.000	47.92	0.000	0.000	Ug1_2_8_L_0						
20 D	10.18	1.0552E-04	26.78	21.67	38.00	21.67	V-C	1.5622E+04	-3.800	29.22	
1.000	1.000	50.89	0.000	0.000	Ug1_2_8_L_0						
21 D	10.77	9.8855E-05	28.70	22.56	40.00	22.56	V-C	1.5622E+04	-4.000	31.30	
1.000	1.000	53.87	0.000	0.000	Ug1_2_8_L_0						
22 D	11.37	9.2715E-05	30.61	23.46	42.00	23.46	V-C	1.5622E+04	-4.200	33.39	
1.000	1.000	56.85	0.000	0.000	Ug1_2_8_L_0						
23 D	11.97	8.7079E-05	32.52	24.36	44.00	24.36	V-C	1.5622E+04	-4.400	35.48	
1.000	1.000	59.83	0.000	0.000	Ug1_2_8_L_0						
24 D	12.62	8.1937E-05	34.43	25.55	46.00	25.55	V-C	1.9107E+04	-4.600	37.57	
1.000	1.000	63.11	0.000	0.000	Ug2_741_743_L_0						
25 D	13.22	7.7290E-05	36.35	26.44	48.00	26.45	UL-RL	5.7322E+04	-4.800	39.65	
1.000	1.000	66.09	0.000	0.000	Ug2_741_743_L_0						
26 D	13.81	7.3129E-05	38.26	27.33	50.00	27.36	UL-RL	5.7322E+04	-5.000	41.74	
1.000	1.000	69.07	0.000	0.000	Ug2_741_743_L_0						
27 D	14.41	6.9436E-05	40.17	28.23	52.00	28.28	UL-RL	5.7322E+04	-5.200	43.83	
1.000	1.000	72.05	0.000	0.000	Ug2_741_743_L_0						
28 D	15.01	6.6183E-05	42.09	29.14	54.00	29.20	UL-RL	5.7322E+04	-5.400	45.91	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	75.05	0.000	0.000	Ug2_741_743_L_0					
29 D	15.61	6.3342E-05	44.00	30.04	56.00	30.14	UL-RL	5.7322E+04	-5.600	48.00
1.000	1.000	78.04	0.000	0.000	Ug2_741_743_L_0					
30 D	16.21	6.0877E-05	45.91	30.96	58.00	31.08	UL-RL	5.7322E+04	-5.800	50.09
1.000	1.000	81.05	0.000	0.000	Ug2_741_743_L_0					
31 D	16.81	5.8752E-05	47.83	31.89	60.00	32.03	UL-RL	5.7322E+04	-6.000	52.17
1.000	1.000	84.07	0.000	0.000	Ug2_741_743_L_0					
32 D	17.42	5.6932E-05	49.74	32.83	62.00	32.97	UL-RL	5.7322E+04	-6.200	54.26
1.000	1.000	87.09	0.000	0.000	Ug2_741_743_L_0					
33 D	18.03	5.5379E-05	51.65	33.78	64.00	33.92	UL-RL	5.7322E+04	-6.400	56.35
1.000	1.000	90.13	0.000	0.000	Ug2_741_743_L_0					
34 D	18.63	5.4060E-05	53.57	34.71	66.00	34.89	UL-RL	5.7322E+04	-6.600	58.43
1.000	1.000	93.15	0.000	0.000	Ug2_741_743_L_0					
35 D	19.23	5.2940E-05	55.48	35.62	68.00	35.87	UL-RL	5.7322E+04	-6.800	60.52
1.000	1.000	96.14	0.000	0.000	Ug2_741_743_L_0					
36 D	19.83	5.1987E-05	57.39	36.53	70.00	36.86	UL-RL	5.7322E+04	-7.000	62.61
1.000	1.000	99.14	0.000	0.000	Ug2_741_743_L_0					
37 D	20.43	5.1174E-05	59.30	37.45	72.00	37.84	UL-RL	5.7322E+04	-7.200	64.70
1.000	1.000	102.1	0.000	0.000	Ug2_741_743_L_0					
38 D	21.03	5.0472E-05	61.22	38.37	74.00	38.83	UL-RL	5.7322E+04	-7.400	66.78
1.000	1.000	105.2	0.000	0.000	Ug2_741_743_L_0					
39 D	21.63	4.9859E-05	63.13	39.30	76.00	39.81	UL-RL	5.7322E+04	-7.600	68.87
1.000	1.000	108.2	0.000	0.000	Ug2_741_743_L_0					
40 D	22.24	4.9314E-05	65.04	40.24	78.00	40.80	UL-RL	5.7322E+04	-7.800	70.96
1.000	1.000	111.2	0.000	0.000	Ug2_741_743_L_0					
41 D	22.84	4.8818E-05	66.96	41.17	80.00	41.78	UL-RL	5.7322E+04	-8.000	73.04
1.000	1.000	114.2	0.000	0.000	Ug2_741_743_L_0					
42 D	23.45	4.8357E-05	68.87	42.11	82.00	42.77	UL-RL	5.7322E+04	-8.200	75.13
1.000	1.000	117.2	0.000	0.000	Ug2_741_743_L_0					
43 D	24.05	4.7917E-05	70.78	43.05	84.00	43.75	UL-RL	5.7322E+04	-8.400	77.22
1.000	1.000	120.3	0.000	0.000	Ug2_741_743_L_0					
44 D	24.66	4.7489E-05	72.70	43.99	86.00	44.74	UL-RL	5.7322E+04	-8.600	79.30
1.000	1.000	123.3	0.000	0.000	Ug2_741_743_L_0					
45 D	25.26	4.7063E-05	74.61	44.93	88.00	45.72	UL-RL	5.7322E+04	-8.800	81.39
1.000	1.000	126.3	0.000	0.000	Ug2_741_743_L_0					
46 D	25.87	4.6634E-05	76.52	45.87	90.00	46.70	UL-RL	5.7322E+04	-9.000	83.48
1.000	1.000	129.3	0.000	0.000	Ug2_741_743_L_0					
47 D	26.48	4.6197E-05	78.43	46.81	92.00	47.69	UL-RL	5.7322E+04	-9.200	85.57
1.000	1.000	132.4	0.000	0.000	Ug2_741_743_L_0					
48 D	27.08	4.5749E-05	80.35	47.75	94.00	48.67	UL-RL	5.7322E+04	-9.400	87.65
1.000	1.000	135.4	0.000	0.000	Ug2_741_743_L_0					
49 D	27.69	4.5287E-05	82.26	48.69	96.00	49.66	UL-RL	5.7322E+04	-9.600	89.74
1.000	1.000	138.4	0.000	0.000	Ug2_741_743_L_0					
50 D	28.29	4.4812E-05	84.17	49.62	98.00	50.64	UL-RL	5.7322E+04	-9.800	91.83
1.000	1.000	141.5	0.000	0.000	Ug2_741_743_L_0					
51 D	28.89	4.4321E-05	86.09	50.56	100.00	51.63	UL-RL	5.7322E+04	-10.000	93.91
1.000	1.000	144.5	0.000	0.000	Ug2_741_743_L_0					
52 D	29.50	4.3818E-05	88.00	51.50	102.0	52.61	UL-RL	5.7322E+04	-10.200	96.00
1.000	1.000	147.5	0.000	0.000	Ug2_741_743_L_0					
53 D	30.10	4.3301E-05	89.91	52.43	104.0	53.60	UL-RL	5.7322E+04	-10.400	98.09
1.000	1.000	150.5	0.000	0.000	Ug2_741_743_L_0					
54 D	30.71	4.2774E-05	91.83	53.36	106.0	54.58	UL-RL	5.7322E+04	-10.600	100.2
1.000	1.000	153.5	0.000	0.000	Ug2_741_743_L_0					
55 D	31.31	4.2238E-05	93.74	54.30	108.0	55.57	UL-RL	5.7322E+04	-10.800	102.3
1.000	1.000	156.6	0.000	0.000	Ug2_741_743_L_0					
56 D	31.92	4.1694E-05	95.65	55.23	110.0	56.55	UL-RL	5.7322E+04	-11.000	104.3
1.000	1.000	159.6	0.000	0.000	Ug2_741_743_L_0					
57 D	32.52	4.1144E-05	97.57	56.16	112.0	57.54	UL-RL	5.7322E+04	-11.200	106.4
1.000	1.000	162.6	0.000	0.000	Ug2_741_743_L_0					
58 D	33.12	4.0590E-05	99.48	57.10	114.0	58.52	UL-RL	5.7322E+04	-11.400	108.5
1.000	1.000	165.6	0.000	0.000	Ug2_741_743_L_0					
59 D	33.73	4.0035E-05	101.4	58.03	116.0	59.51	UL-RL	5.7322E+04	-11.600	110.6
1.000	1.000	168.6	0.000	0.000	Ug2_741_743_L_0					
60 D	34.33	3.9478E-05	103.3	58.96	118.0	60.50	UL-RL	5.7322E+04	-11.800	112.7
1.000	1.000	171.7	0.000	0.000	Ug2_741_743_L_0					
61 D	17.47	3.8920E-05	105.2	59.90	120.0	61.48	UL-RL	5.7322E+04	-12.000	114.8
1.000	1.000	174.7	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                     |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018          18:16:00       |
+-----+
New Project
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.61853E-12	-4.61853E-12	4.74287E-13	-1.63780E-12
2	0.38261	-0.38261	1.46683E-12	7.65217E-02
3	1.1478	-1.1478	-7.65217E-02	0.30609
4	2.2957	-2.2957	-0.30609	0.76522
5	3.8261	-3.8261	-0.76522	1.5304
6	3.9849	-3.9849	-1.5304	2.3274
7	3.8299	-3.8299	-2.3274	3.0934
8	3.4413	-3.4413	-3.0934	3.7817
9	2.8320	-2.8320	-3.7817	4.3480
10	2.0085	-2.0085	-4.3480	4.7497
11	1.1076	-1.1076	-4.7497	4.9713
12	0.36981	-0.36981	-4.9713	5.0452
13	-0.21514	0.21514	-5.0452	5.0022
14	-0.65781	0.65781	-5.0022	4.8706
15	-0.96885	0.96885	-4.8706	4.6769
16	-1.1587	1.1587	-4.6769	4.4451
17	-1.2375	1.2375	-4.4451	4.1976
18	-1.2150	1.2150	-4.1976	3.9546
19	-1.1001	1.1001	-3.9546	3.7346
20	-0.90167	0.90167	-3.7346	3.5543
21	-0.62780	0.62780	-3.5543	3.4287
22	-0.28632	0.28632	-3.4287	3.3715
23	-0.11523	-0.11523	-3.3715	3.3945
24	-0.31338	0.31338	-3.3945	3.3318
25	-0.64539	0.64539	-3.3318	3.2027
26	-0.89178	0.89178	-3.2027	3.0244
27	-1.0654	1.0654	-3.0244	2.8113
28	-1.1772	1.1772	-2.8113	2.5759
29	-1.2362	1.2362	-2.5759	2.3286
30	-1.2534	1.2534	-2.3286	2.0779
31	-1.2386	1.2386	-2.0779	1.8302
32	-1.2006	1.2006	-1.8302	1.5901
33	-1.1471	1.1471	-1.5901	1.3607
34	-1.0803	1.0803	-1.3607	1.1446
35	-0.99813	0.99813	-1.1446	0.94500
36	-0.90635	0.90635	-0.94500	0.76373
37	-0.80953	0.80953	-0.76373	0.60182
38	-0.71140	0.71140	-0.60182	0.45954
39	-0.61491	0.61491	-0.45954	0.33656
40	-0.52228	0.52228	-0.33656	0.23211
41	-0.43517	0.43517	-0.23211	0.14507
42	-0.35470	0.35470	-0.14507	7.41333E-02
43	-0.28158	0.28158	-7.41333E-02	1.78173E-02
44	-0.21616	0.21616	-1.78173E-02	-2.54153E-02
45	-0.15853	0.15853	2.54153E-02	-5.71214E-02
46	-0.10855	0.10855	5.71214E-02	-7.88309E-02
47	-6.59273E-02	6.59273E-02	7.88309E-02	-9.20163E-02
48	-3.02746E-02	3.02746E-02	9.20163E-02	-9.80713E-02
49	-1.12999E-03	1.12999E-03	9.80713E-02	-9.82973E-02
50	2.19962E-02	-2.19962E-02	9.82973E-02	-9.38980E-02
51	3.95946E-02	-3.95946E-02	9.38980E-02	-8.59789E-02
52	5.21344E-02	-5.21344E-02	8.59789E-02	-7.55526E-02
53	6.00467E-02	-6.00467E-02	7.55526E-02	-6.35432E-02
54	6.37108E-02	-6.37108E-02	6.35432E-02	-5.08010E-02
55	6.34474E-02	-6.34474E-02	5.08010E-02	-3.81116E-02
56	5.95147E-02	-5.95147E-02	3.81116E-02	-2.62086E-02
57	5.21090E-02	-5.21090E-02	2.62086E-02	-1.57868E-02
58	4.13680E-02	-4.13680E-02	1.57868E-02	-7.51324E-03
59	2.73786E-02	-2.73786E-02	7.51324E-03	-2.03752E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 1.01871E-02-1.01871E-02 2.03752E-03 1.35801E-13

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 265.8    REMNOR=0.3435E-23  RATIO =0.7979E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05 RDR  = 749.9
            RATIO=0.7979E-01 RATIO= 0.000
            MAX UN= 4.182    IEQ= 19 NODE      10 DOF   1  Y-DISPL.F
            MIN UN=-.3794E-01 IEQ= 9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 27.38    REMNOR=0.1592E-21  RATIO =0.2561E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05 RDR  = 749.9
            RATIO=0.2561E-01 RATIO= 0.000
            MAX UN= 1.470    IEQ= 15 NODE      8 DOF   1  Y-DISPL.F
            MIN UN=-.3668E-10 IEQ= 1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 25.67    REMNOR=0.6861E-21  RATIO =0.2480E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05 RDR  = 749.9
            RATIO=0.2480E-01 RATIO= 0.000
            MAX UN= 2.765    IEQ= 33 NODE     17 DOF   1  Y-DISPL.F
            MIN UN=-.1600E-09 IEQ= 15 NODE      8 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM= 1.088    REMNOR=0.9303E-21  RATIO =0.5105E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05 RDR  = 749.9
            RATIO=0.5105E-02 RATIO= 0.000
            MAX UN=0.9350    IEQ= 59 NODE     30 DOF   1  Y-DISPL.F
            MIN UN=-.1821E-09 IEQ= 7 NODE      4 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM=0.5505E-02 REMNOR=0.2643E-21  RATIO =0.3631E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05 RDR  = 749.9
            RATIO=0.3631E-03 RATIO= 0.000
            MAX UN=0.7419E-01 IEQ= 63 NODE     32 DOF   1  Y-DISPL.F
            MIN UN=-.2113E-09 IEQ= 11 NODE      6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4175E+05 RIMNOR= 749.9
            RENORM=0.9109E-19 REMNOR=0.4094E-21  RATIO =0.1477E-11  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 33.75    RMMAX = 5.045
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4175E+05 RDR  = 749.9
            RATIO=0.1477E-11 RATIO= 0.000
            MAX UN=0.1533E-09 IEQ= 11 NODE      6 DOF   1  Y-DISPL.F
            MIN UN=-.1193E-09 IEQ= 9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.A1M1R1_1757 |
|              Exe Time :24 May 2018           18:16:00 |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

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	2.6989792E-03	-5.3680338E-04	
2	2.5916186E-03	-5.3680338E-04	
3	2.4842597E-03	-5.3677678E-04	
4	2.3769149E-03	-5.3664380E-04	
5	2.2696181E-03	-5.3627143E-04	
6	2.1624347E-03	-5.3547351E-04	
7	2.0554730E-03	-5.3401065E-04	
8	1.9488943E-03	-5.3159029E-04	
9	1.8429238E-03	-5.2786665E-04	
10	1.7378611E-03	-5.2244078E-04	
11	1.6340911E-03	-5.1486052E-04	
12	1.5320698E-03	-5.0498710E-04	
13	1.4322347E-03	-4.9303784E-04	
14	1.3349774E-03	-4.7924744E-04	
15	1.2406430E-03	-4.6384666E-04	
16	1.1495315E-03	-4.4705475E-04	
17	1.0618997E-03	-4.2907802E-04	
18	9.7796577E-04	-4.1011212E-04	
19	8.9790843E-04	-3.9034233E-04	
20	8.2187070E-04	-3.6994470E-04	
21	7.4996157E-04	-3.4908720E-04	
22	6.8225622E-04	-3.2792914E-04	
23	6.1879970E-04	-3.0662417E-04	
24	5.5960643E-04	-2.8532103E-04	
25	5.0466342E-04	-2.6413602E-04	
26	4.5393830E-04	-2.4315686E-04	
27	4.0738111E-04	-2.2247463E-04	
28	3.6492248E-04	-2.0218541E-04	
29	3.2647386E-04	-1.8239241E-04	
30	2.9192502E-04	-1.6320696E-04	
31	2.6114251E-04	-1.4475003E-04	
32	2.3396781E-04	-1.2715311E-04	
33	2.1021451E-04	-1.1055970E-04	
34	1.8966822E-04	-9.5101820E-05	
35	1.7209188E-04	-8.0872419E-05	
36	1.5723366E-04	-6.7926940E-05	
37	1.4483405E-04	-5.6288196E-05	
38	1.3463191E-04	-4.5947578E-05	
39	1.2637089E-04	-3.6868887E-05	
40	1.1980407E-04	-2.8994359E-05	
41	1.1469779E-04	-2.2250205E-05	
42	1.1083430E-04	-1.6551360E-05	
43	1.0801371E-04	-1.1805519E-05	
44	1.0605497E-04	-7.9165468E-06	
45	1.0479645E-04	-4.7873087E-06	
46	1.0409580E-04	-2.3219143E-06	
47	1.0382960E-04	-4.2764919E-07	
48	1.0389254E-04	9.8365348E-07	
49	1.0419637E-04	1.9945010E-06	
50	1.0466871E-04	2.6809336E-06	
51	1.0525171E-04	3.1119702E-06	
52	1.0590060E-04	3.3492174E-06	
53	1.0658206E-04	3.4466385E-06	
54	1.0727298E-04	3.4504874E-06	
55	1.0795858E-04	3.3992192E-06	
56	1.0863104E-04	3.3235445E-06	
57	1.0928791E-04	3.2464708E-06	
58	1.0993056E-04	3.1833640E-06	
59	1.1056270E-04	3.1420065E-06	
60	1.1118883E-04	3.1226454E-06	
61	1.1181277E-04	3.1180249E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-2.6990E-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	Ug1_2_8_L_0						
2 D	0.3636	-2.5916E-03	2.183	0.000	2.183	1.341	ACTIVE	0.000	-0.2000	1.818	
1.000	1.000	1.818	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7273	-2.4843E-03	4.372	0.000	4.372	2.671	ACTIVE	0.000	-0.4000	3.636	
1.000	1.000	3.636	0.000	0.000	Ug1_2_8_L_0						
4 D	1.091	-2.3769E-03	6.571	0.000	6.571	3.978	ACTIVE	0.000	-0.6000	5.455	
1.000	1.000	5.455	0.000	0.000	Ug1_2_8_L_0						
5 D	1.455	-2.2696E-03	8.784	0.000	8.784	5.256	ACTIVE	0.000	-0.8000	7.273	
1.000	1.000	7.273	0.000	0.000	Ug1_2_8_L_0						
6 D	1.818	-2.1624E-03	11.01	0.000	11.01	6.501	ACTIVE	0.000	-1.000	9.091	
1.000	1.000	9.091	0.000	0.000	Ug1_2_8_L_0						
7 D	2.182	-2.0555E-03	13.25	0.000	13.25	7.714	ACTIVE	0.000	-1.200	10.91	
1.000	1.000	10.91	0.000	0.000	Ug1_2_8_L_0						
8 D	2.545	-1.9489E-03	15.50	0.000	15.50	8.897	ACTIVE	0.000	-1.400	12.73	
1.000	1.000	12.73	0.000	0.000	Ug1_2_8_L_0						
9 D	2.909	-1.8429E-03	17.75	0.000	17.75	10.05	ACTIVE	0.000	-1.600	14.55	
1.000	1.000	14.55	0.000	0.000	Ug1_2_8_L_0						
10 D	3.273	-1.7379E-03	20.01	0.000	20.01	11.19	ACTIVE	0.000	-1.800	16.36	
1.000	1.000	16.36	0.000	0.000	Ug1_2_8_L_0						
11 D	3.636	-1.6341E-03	22.27	0.000	22.27	12.30	ACTIVE	0.000	-2.000	18.18	
1.000	1.000	18.18	0.000	0.000	Ug1_2_8_L_0						
12 D	4.000	-1.5321E-03	24.53	0.000	24.53	13.40	ACTIVE	0.000	-2.200	20.00	
1.000	1.000	20.00	0.000	0.000	Ug1_2_8_L_0						
13 D	4.460	-1.4322E-03	26.86	0.4821	26.86	14.48	ACTIVE	0.000	-2.400	21.82	
1.000	1.000	22.30	0.000	0.000	Ug1_2_8_L_0						
14 D	4.995	-1.3350E-03	29.05	1.338	29.05	15.56	ACTIVE	0.000	-2.600	23.64	
1.000	1.000	24.97	0.000	0.000	Ug1_2_8_L_0						
15 D	5.546	-1.2406E-03	31.45	2.275	31.45	16.62	ACTIVE	0.000	-2.800	25.45	
1.000	1.000	27.73	0.000	0.000	Ug1_2_8_L_0						
16 D	6.098	-1.1495E-03	33.86	3.215	33.86	17.68	ACTIVE	0.000	-3.000	27.27	
1.000	1.000	30.49	0.000	0.000	Ug1_2_8_L_0						
17 D	6.628	-1.0619E-03	36.01	4.051	36.01	18.73	ACTIVE	0.000	-3.200	29.09	
1.000	1.000	33.14	0.000	0.000	Ug1_2_8_L_0						
18 D	7.178	-9.7797E-04	38.39	4.980	38.39	19.78	ACTIVE	0.000	-3.400	30.91	
1.000	1.000	35.89	0.000	0.000	Ug1_2_8_L_0						
19 D	7.708	-8.9791E-04	40.53	5.815	40.53	20.83	ACTIVE	0.000	-3.600	32.73	
1.000	1.000	38.54	0.000	0.000	Ug1_2_8_L_0						
20 D	8.256	-8.2187E-04	42.89	6.734	42.89	21.87	ACTIVE	0.000	-3.800	34.55	
1.000	1.000	41.28	0.000	0.000	Ug1_2_8_L_0						
21 D	8.802	-7.4996E-04	45.23	7.647	45.23	22.91	ACTIVE	0.000	-4.000	36.36	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
22 D	9.333	-6.8226E-04	47.37	8.481	47.37	23.95	ACTIVE	0.000	-4.200	38.18	
1.000	1.000	46.66	0.000	0.000	Ug1_2_8_L_0						
23 D	9.877	-6.1880E-04	49.69	9.387	49.69	24.98	ACTIVE	0.000	-4.400	40.00	
1.000	1.000	49.39	0.000	0.000	Ug1_2_8_L_0						
24 D	11.06	-5.5961E-04	51.83	13.48	51.83	26.02	ACTIVE	0.000	-4.600	41.82	
1.000	1.000	55.29	0.000	0.000	Ug2_741_743_L_0						
25 D	11.54	-5.0466E-04	54.14	14.08	54.14	27.05	ACTIVE	0.000	-4.800	43.64	
1.000	1.000	57.71	0.000	0.000	Ug2_741_743_L_0						
26 D	12.03	-4.5394E-04	56.44	14.67	56.44	28.08	ACTIVE	0.000	-5.000	45.45	
1.000	1.000	60.13	0.000	0.000	Ug2_741_743_L_0						
27 D	12.50	-4.0738E-04	58.58	15.23	58.58	29.11	ACTIVE	0.000	-5.200	47.27	
1.000	1.000	62.50	0.000	0.000	Ug2_741_743_L_0						
28 D	12.98	-3.6492E-04	60.87	15.83	60.87	30.14	ACTIVE	0.000	-5.400	49.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	64.92	0.000	0.000	Ug2_741_743_L_0					
29 D	13.46	-3.2647E-04	63.01	16.38	63.01	31.17	ACTIVE	0.000	-5.600	50.91
1.000	1.000	67.29	0.000	0.000	Ug2_741_743_L_0					
30 D	13.94	-2.9193E-04	65.29	16.98	65.29	32.20	ACTIVE	0.000	-5.800	52.73
1.000	1.000	69.70	0.000	0.000	Ug2_741_743_L_0					
31 D	14.42	-2.6114E-04	67.57	17.57	67.57	33.23	ACTIVE	0.000	-6.000	54.55
1.000	1.000	72.11	0.000	0.000	Ug2_741_743_L_0					
32 D	14.90	-2.3397E-04	69.71	18.12	69.71	34.26	ACTIVE	0.000	-6.200	56.36
1.000	1.000	74.49	0.000	0.000	Ug2_741_743_L_0					
33 D	15.72	-2.1021E-04	71.97	20.44	71.97	35.29	UL-RL	6.6238E+04	-6.400	58.18
1.000	1.000	78.62	0.000	0.000	Ug2_741_743_L_0					
34 D	16.59	-1.8967E-04	74.12	22.94	74.12	36.32	UL-RL	6.6238E+04	-6.600	60.00
1.000	1.000	82.94	0.000	0.000	Ug2_741_743_L_0					
35 D	17.41	-1.7209E-04	76.38	25.23	76.38	37.35	UL-RL	6.6238E+04	-6.800	61.82
1.000	1.000	87.04	0.000	0.000	Ug2_741_743_L_0					
36 D	18.19	-1.5723E-04	78.64	27.33	78.64	38.38	UL-RL	6.6238E+04	-7.000	63.64
1.000	1.000	90.96	0.000	0.000	Ug2_741_743_L_0					
37 D	18.94	-1.4483E-04	80.78	29.26	80.78	39.41	UL-RL	6.6238E+04	-7.200	65.45
1.000	1.000	94.72	0.000	0.000	Ug2_741_743_L_0					
38 D	19.66	-1.3463E-04	83.03	31.04	83.03	40.44	UL-RL	6.6238E+04	-7.400	67.27
1.000	1.000	98.32	0.000	0.000	Ug2_741_743_L_0					
39 D	20.36	-1.2637E-04	85.18	32.69	85.18	41.46	UL-RL	6.6238E+04	-7.600	69.09
1.000	1.000	101.8	0.000	0.000	Ug2_741_743_L_0					
40 D	21.03	-1.1980E-04	87.43	34.23	87.43	42.49	UL-RL	6.6238E+04	-7.800	70.91
1.000	1.000	105.1	0.000	0.000	Ug2_741_743_L_0					
41 D	21.68	-1.1470E-04	89.67	35.66	89.67	43.52	UL-RL	6.6238E+04	-8.000	72.73
1.000	1.000	108.4	0.000	0.000	Ug2_741_743_L_0					
42 D	22.31	-1.1083E-04	91.82	37.02	91.82	44.55	UL-RL	6.6238E+04	-8.200	74.55
1.000	1.000	111.6	0.000	0.000	Ug2_741_743_L_0					
43 D	22.93	-1.0801E-04	94.06	38.30	94.06	45.58	UL-RL	6.6238E+04	-8.400	76.36
1.000	1.000	114.7	0.000	0.000	Ug2_741_743_L_0					
44 D	23.54	-1.0605E-04	96.21	39.52	96.21	46.60	UL-RL	6.6238E+04	-8.600	78.18
1.000	1.000	117.7	0.000	0.000	Ug2_741_743_L_0					
45 D	24.14	-1.0480E-04	98.45	40.70	98.45	47.63	UL-RL	6.6238E+04	-8.800	80.00
1.000	1.000	120.7	0.000	0.000	Ug2_741_743_L_0					
46 D	24.73	-1.0410E-04	100.7	41.84	100.7	48.66	UL-RL	6.6238E+04	-9.000	81.82
1.000	1.000	123.7	0.000	0.000	Ug2_741_743_L_0					
47 D	25.32	-1.0383E-04	102.8	42.95	102.8	49.69	UL-RL	6.6238E+04	-9.200	83.64
1.000	1.000	126.6	0.000	0.000	Ug2_741_743_L_0					
48 D	25.90	-1.0389E-04	105.1	44.04	105.1	50.72	UL-RL	6.6238E+04	-9.400	85.45
1.000	1.000	129.5	0.000	0.000	Ug2_741_743_L_0					
49 D	26.48	-1.0420E-04	107.3	45.12	107.3	51.75	UL-RL	6.6238E+04	-9.600	87.27
1.000	1.000	132.4	0.000	0.000	Ug2_741_743_L_0					
50 D	27.06	-1.0467E-04	109.4	46.19	109.4	52.77	UL-RL	6.6238E+04	-9.800	89.09
1.000	1.000	135.3	0.000	0.000	Ug2_741_743_L_0					
51 D	27.63	-1.0525E-04	111.7	47.25	111.7	53.80	UL-RL	6.6238E+04	-10.000	90.91
1.000	1.000	138.2	0.000	0.000	Ug2_741_743_L_0					
52 D	28.21	-1.0590E-04	113.8	48.30	113.8	54.83	UL-RL	6.6238E+04	-10.200	92.73
1.000	1.000	141.0	0.000	0.000	Ug2_741_743_L_0					
53 D	28.78	-1.0658E-04	116.1	49.35	116.1	55.86	UL-RL	6.6238E+04	-10.400	94.55
1.000	1.000	143.9	0.000	0.000	Ug2_741_743_L_0					
54 D	29.35	-1.0727E-04	118.3	50.41	118.3	56.89	UL-RL	6.6238E+04	-10.600	96.36
1.000	1.000	146.8	0.000	0.000	Ug2_741_743_L_0					
55 D	29.93	-1.0796E-04	120.4	51.46	120.4	57.92	UL-RL	6.6238E+04	-10.800	98.18
1.000	1.000	149.6	0.000	0.000	Ug2_741_743_L_0					
56 D	30.50	-1.0863E-04	122.7	52.52	122.7	58.95	UL-RL	6.6238E+04	-11.000	100.00
1.000	1.000	152.5	0.000	0.000	Ug2_741_743_L_0					
57 D	31.08	-1.0929E-04	124.8	53.57	124.8	59.97	UL-RL	6.6238E+04	-11.200	101.8
1.000	1.000	155.4	0.000	0.000	Ug2_741_743_L_0					
58 D	31.65	-1.0993E-04	127.0	54.63	127.0	61.00	UL-RL	6.6238E+04	-11.400	103.6
1.000	1.000	158.3	0.000	0.000	Ug2_741_743_L_0					
59 D	32.23	-1.1056E-04	129.3	55.69	129.3	62.03	UL-RL	6.6238E+04	-11.600	105.5
1.000	1.000	161.1	0.000	0.000	Ug2_741_743_L_0					
60 D	32.80	-1.1119E-04	131.4	56.75	131.4	63.06	UL-RL	6.6238E+04	-11.800	107.3
1.000	1.000	164.0	0.000	0.000	Ug2_741_743_L_0					
61 D	16.69	-1.1181E-04	133.6	57.81	133.6	64.09	UL-RL	6.6238E+04	-12.000	109.1
1.000	1.000	166.9	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:16:00          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	5.012	1.6341E-03	0.000	25.06	20.00	25.06	V-C	9373.	-2.000	0.000	
1.000	1.000	25.06	0.000	0.000	Ug1_2_8_L_0						
12 D	5.596	1.5321E-03	1.818	25.80	22.00	25.80	V-C	9373.	-2.200	2.182	
1.000	1.000	27.98	0.000	0.000	Ug1_2_8_L_0						
13 D	6.072	1.4322E-03	3.636	26.00	24.00	26.00	V-C	9373.	-2.400	4.364	
1.000	1.000	30.36	0.000	0.000	Ug1_2_8_L_0						
14 D	6.538	1.3350E-03	5.455	26.14	26.00	26.14	V-C	9373.	-2.600	6.545	
1.000	1.000	32.69	0.000	0.000	Ug1_2_8_L_0						
15 D	7.001	1.2406E-03	7.273	26.28	28.00	26.28	V-C	9373.	-2.800	8.727	
1.000	1.000	35.00	0.000	0.000	Ug1_2_8_L_0						
16 D	7.465	1.1495E-03	9.091	26.42	30.00	26.42	V-C	9373.	-3.000	10.91	
1.000	1.000	37.33	0.000	0.000	Ug1_2_8_L_0						
17 D	7.933	1.0619E-03	10.91	26.58	32.00	26.58	V-C	9373.	-3.200	13.09	
1.000	1.000	39.67	0.000	0.000	Ug1_2_8_L_0						
18 D	8.407	9.7797E-04	12.73	26.76	34.00	26.76	V-C	9373.	-3.400	15.27	
1.000	1.000	42.03	0.000	0.000	Ug1_2_8_L_0						
19 D	8.886	8.9791E-04	14.55	26.98	36.00	26.98	V-C	9373.	-3.600	17.45	
1.000	1.000	44.43	0.000	0.000	Ug1_2_8_L_0						
20 D	9.373	8.2187E-04	16.36	27.23	38.00	27.23	V-C	9373.	-3.800	19.64	
1.000	1.000	46.86	0.000	0.000	Ug1_2_8_L_0						
21 D	9.866	7.4996E-04	18.18	27.51	40.00	27.51	V-C	9373.	-4.000	21.82	
1.000	1.000	49.33	0.000	0.000	Ug1_2_8_L_0						
22 D	10.37	6.8226E-04	20.00	27.84	42.00	27.84	V-C	9373.	-4.200	24.00	
1.000	1.000	51.84	0.000	0.000	Ug1_2_8_L_0						
23 D	10.88	6.1880E-04	21.82	28.20	44.00	28.20	V-C	9373.	-4.400	26.18	
1.000	1.000	54.38	0.000	0.000	Ug1_2_8_L_0						
24 D	11.65	5.5961E-04	23.64	29.89	46.00	29.89	V-C	1.1464E+04	-4.600	28.36	
1.000	1.000	58.25	0.000	0.000	Ug2_741_743_L_0						
25 D	12.15	5.0466E-04	25.45	30.21	48.00	30.21	V-C	1.1464E+04	-4.800	30.55	
1.000	1.000	60.75	0.000	0.000	Ug2_741_743_L_0						
26 D	12.66	4.5394E-04	27.27	30.58	50.00	30.58	V-C	1.1464E+04	-5.000	32.73	
1.000	1.000	63.31	0.000	0.000	Ug2_741_743_L_0						
27 D	13.18	4.0738E-04	29.09	31.00	52.00	31.00	V-C	1.1464E+04	-5.200	34.91	
1.000	1.000	65.91	0.000	0.000	Ug2_741_743_L_0						
28 D	13.71	3.6492E-04	30.91	31.47	54.00	31.47	V-C	1.1464E+04	-5.400	37.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	68.56	0.000	0.000	Ug2_741_743_L_0					
29 D	14.25	3.2647E-04	32.73	31.99	56.00	31.99	V-C	1.1464E+04	-5.600	39.27
1.000	1.000	71.26	0.000	0.000	Ug2_741_743_L_0					
30 D	14.80	2.9193E-04	34.55	32.55	58.00	32.55	V-C	1.1464E+04	-5.800	41.45
1.000	1.000	74.00	0.000	0.000	Ug2_741_743_L_0					
31 D	15.36	2.6114E-04	36.36	33.16	60.00	33.16	V-C	1.1464E+04	-6.000	43.64
1.000	1.000	76.79	0.000	0.000	Ug2_741_743_L_0					
32 D	15.93	2.3397E-04	38.18	33.81	62.00	33.81	V-C	1.1464E+04	-6.200	45.82
1.000	1.000	79.63	0.000	0.000	Ug2_741_743_L_0					
33 D	16.50	2.1021E-04	40.00	34.50	64.00	34.50	V-C	1.1464E+04	-6.400	48.00
1.000	1.000	82.50	0.000	0.000	Ug2_741_743_L_0					
34 D	17.08	1.8967E-04	41.82	35.23	66.00	35.23	V-C	1.1464E+04	-6.600	50.18
1.000	1.000	85.41	0.000	0.000	Ug2_741_743_L_0					
35 D	17.67	1.7209E-04	43.64	36.00	68.00	36.00	V-C	1.1464E+04	-6.800	52.36
1.000	1.000	88.36	0.000	0.000	Ug2_741_743_L_0					
36 D	18.24	1.5723E-04	45.45	36.66	70.00	36.66	UL-RL	3.4393E+04	-7.000	54.55
1.000	1.000	91.21	0.000	0.000	Ug2_741_743_L_0					
37 D	18.78	1.4483E-04	47.27	37.17	72.00	37.84	UL-RL	3.4393E+04	-7.200	56.73
1.000	1.000	93.89	0.000	0.000	Ug2_741_743_L_0					
38 D	19.33	1.3463E-04	49.09	37.75	74.00	38.83	UL-RL	3.4393E+04	-7.400	58.91
1.000	1.000	96.66	0.000	0.000	Ug2_741_743_L_0					
39 D	19.90	1.2637E-04	50.91	38.40	76.00	39.81	UL-RL	3.4393E+04	-7.600	61.09
1.000	1.000	99.49	0.000	0.000	Ug2_741_743_L_0					
40 D	20.48	1.1980E-04	52.73	39.11	78.00	40.80	UL-RL	3.4393E+04	-7.800	63.27
1.000	1.000	102.4	0.000	0.000	Ug2_741_743_L_0					
41 D	21.07	1.1470E-04	54.55	39.87	80.00	41.78	UL-RL	3.4393E+04	-8.000	65.45
1.000	1.000	105.3	0.000	0.000	Ug2_741_743_L_0					
42 D	21.66	1.1083E-04	56.36	40.68	82.00	42.77	UL-RL	3.4393E+04	-8.200	67.64
1.000	1.000	108.3	0.000	0.000	Ug2_741_743_L_0					
43 D	22.27	1.0801E-04	58.18	41.52	84.00	43.75	UL-RL	3.4393E+04	-8.400	69.82
1.000	1.000	111.3	0.000	0.000	Ug2_741_743_L_0					
44 D	22.88	1.0605E-04	60.00	42.39	86.00	44.74	UL-RL	3.4393E+04	-8.600	72.00
1.000	1.000	114.4	0.000	0.000	Ug2_741_743_L_0					
45 D	23.49	1.0480E-04	61.82	43.28	88.00	45.72	UL-RL	3.4393E+04	-8.800	74.18
1.000	1.000	117.5	0.000	0.000	Ug2_741_743_L_0					
46 D	24.11	1.0410E-04	63.64	44.19	90.00	46.70	UL-RL	3.4393E+04	-9.000	76.36
1.000	1.000	120.6	0.000	0.000	Ug2_741_743_L_0					
47 D	24.73	1.0383E-04	65.45	45.12	92.00	47.69	UL-RL	3.4393E+04	-9.200	78.55
1.000	1.000	123.7	0.000	0.000	Ug2_741_743_L_0					
48 D	25.36	1.0389E-04	67.27	46.06	94.00	48.67	UL-RL	3.4393E+04	-9.400	80.73
1.000	1.000	126.8	0.000	0.000	Ug2_741_743_L_0					
49 D	25.98	1.0420E-04	69.09	47.00	96.00	49.66	UL-RL	3.4393E+04	-9.600	82.91
1.000	1.000	129.9	0.000	0.000	Ug2_741_743_L_0					
50 D	26.61	1.0467E-04	70.91	47.95	98.00	50.64	UL-RL	3.4393E+04	-9.800	85.09
1.000	1.000	133.0	0.000	0.000	Ug2_741_743_L_0					
51 D	27.24	1.0525E-04	72.73	48.90	100.00	51.63	UL-RL	3.4393E+04	-10.000	87.27
1.000	1.000	136.2	0.000	0.000	Ug2_741_743_L_0					
52 D	27.86	1.0590E-04	74.55	49.86	102.0	52.61	UL-RL	3.4393E+04	-10.200	89.45
1.000	1.000	139.3	0.000	0.000	Ug2_741_743_L_0					
53 D	28.49	1.0658E-04	76.36	50.82	104.0	53.60	UL-RL	3.4393E+04	-10.400	91.64
1.000	1.000	142.5	0.000	0.000	Ug2_741_743_L_0					
54 D	29.12	1.0727E-04	78.18	51.77	106.0	54.58	UL-RL	3.4393E+04	-10.600	93.82
1.000	1.000	145.6	0.000	0.000	Ug2_741_743_L_0					
55 D	29.75	1.0796E-04	80.00	52.73	108.0	55.57	UL-RL	3.4393E+04	-10.800	96.00
1.000	1.000	148.7	0.000	0.000	Ug2_741_743_L_0					
56 D	30.37	1.0863E-04	81.82	53.68	110.0	56.55	UL-RL	3.4393E+04	-11.000	98.18
1.000	1.000	151.9	0.000	0.000	Ug2_741_743_L_0					
57 D	31.00	1.0929E-04	83.64	54.63	112.0	57.54	UL-RL	3.4393E+04	-11.200	100.4
1.000	1.000	155.0	0.000	0.000	Ug2_741_743_L_0					
58 D	31.63	1.0993E-04	85.45	55.59	114.0	58.52	UL-RL	3.4393E+04	-11.400	102.5
1.000	1.000	158.1	0.000	0.000	Ug2_741_743_L_0					
59 D	32.25	1.1056E-04	87.27	56.54	116.0	59.51	UL-RL	3.4393E+04	-11.600	104.7
1.000	1.000	161.3	0.000	0.000	Ug2_741_743_L_0					
60 D	32.88	1.1119E-04	89.09	57.49	118.0	60.50	UL-RL	3.4393E+04	-11.800	106.9
1.000	1.000	164.4	0.000	0.000	Ug2_741_743_L_0					
61 D	16.75	1.1181E-04	90.91	58.44	120.0	61.48	UL-RL	3.4393E+04	-12.000	109.1
1.000	1.000	167.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.A1M1R1_1757 |
|              Exe Time :24 May 2018           18:16:00 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.82983E-11	-4.82983E-11	4.73011E-12	-3.26402E-14
2	0.36364	-0.36364	1.06320E-12	7.27273E-02
3	1.0909	-1.0909	-7.27273E-02	0.29091
4	2.1818	-2.1818	-0.29091	0.72727
5	3.6364	-3.6364	-0.72727	1.4545
6	5.4545	-5.4545	-1.4545	2.5455
7	7.6364	-7.6364	-2.5455	4.0727
8	10.182	-10.182	-4.0727	6.1091
9	13.091	-13.091	-6.1091	8.7273
10	16.364	-16.364	-8.7273	12.000
11	14.988	-14.988	-12.000	14.998
12	13.392	-13.392	-14.998	17.676
13	11.780	-11.780	-17.676	20.032
14	10.237	-10.237	-20.032	22.079
15	8.7824	-8.7824	-22.079	23.836
16	7.4150	-7.4150	-23.836	25.319
17	6.1100	-6.1100	-25.319	26.541
18	4.8808	-4.8808	-26.541	27.517
19	3.7028	-3.7028	-27.517	28.258
20	2.5860	-2.5860	-28.258	28.775
21	1.5217	-1.5217	-28.775	29.079
22	0.48691	-0.48691	-29.079	29.177
23	-0.51193	0.51193	-29.177	29.074
24	-1.1032	1.1032	-29.074	28.854
25	-1.7113	1.7113	-28.854	28.511
26	-2.3468	2.3468	-28.511	28.042
27	-3.0278	3.0278	-28.042	27.436
28	-3.7565	3.7565	-27.436	26.685
29	-4.5499	4.5499	-26.685	25.775
30	-5.4102	5.4102	-25.775	24.693
31	-6.3466	6.3466	-24.693	23.424
32	-7.3746	7.3746	-23.424	21.949
33	-8.1502	8.1502	-21.949	20.319
34	-8.6454	8.6454	-20.319	18.590
35	-8.9082	8.9082	-18.590	16.808
36	-8.9565	8.9565	-16.808	15.017
37	-8.7922	8.7922	-15.017	13.258
38	-8.4608	8.4608	-13.258	11.566
39	-8.0024	8.0024	-11.566	9.9657
40	-7.4520	7.4520	-9.9657	8.4753
41	-6.8394	6.8394	-8.4753	7.1075
42	-6.1900	6.1900	-7.1075	5.8695
43	-5.5250	5.5250	-5.8695	4.7645
44	-4.8618	4.8618	-4.7645	3.7921
45	-4.2144	4.2144	-3.7921	2.9492
46	-3.5940	3.5940	-2.9492	2.2304
47	-3.0090	3.0090	-2.2304	1.6286
48	-2.4660	2.4660	-1.6286	1.1354
49	-1.9694	1.9694	-1.1354	0.74155
50	-1.5224	1.5224	-0.74155	0.43707
51	-1.1271	1.1271	-0.43707	0.21164
52	-0.78446	0.78446	-0.21164	5.47579E-02
53	-0.49496	0.49496	-5.47579E-02	-4.42338E-02
54	-0.25859	0.25859	4.42338E-02	-9.59526E-02
55	-7.50891E-02	7.50891E-02	9.59526E-02	-0.11097
56	5.59631E-02	-5.59631E-02	0.11097	-9.97778E-02
57	0.13499	-0.13499	9.97778E-02	-7.27799E-02
58	0.16237	-0.16237	7.27799E-02	-4.03069E-02
59	0.13837	-0.13837	4.03069E-02	-1.26335E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 6.31645E-02-6.31645E-02 1.26335E-02 1.61766E-13

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM= 25.28    REMNOR=0.4094E-21  RATIO =0.2425E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.2425E-01  RATIO= 0.000
            MAX UN= 1.035    IEQ=   31 NODE      16 DOF   1  Y-DISPL.F
            MIN UN=-.1039   IEQ=   21 NODE      11 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM= 5.657    REMNOR=0.6949E-21  RATIO =0.1147E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.1147E-01  RATIO= 0.000
            MAX UN=0.7250    IEQ=   47 NODE      24 DOF   1  Y-DISPL.F
            MIN UN=-.1517E-10 IEQ=   71 NODE      36 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM= 1.293    REMNOR=0.1123E-20  RATIO =0.5485E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.5485E-02  RATIO= 0.000
            MAX UN=0.6844    IEQ=    5 NODE       3 DOF   1  Y-DISPL.F
            MIN UN=-.1549E-09 IEQ=   11 NODE       6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM=0.6472E-03 REMNOR=0.8872E-21  RATIO =0.1227E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.1227E-03  RATIO= 0.000
            MAX UN=0.1015E-01 IEQ=   93 NODE      47 DOF   1  Y-DISPL.F
            MIN UN=-.1905E-09 IEQ=    5 NODE       3 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4298E+05 RIMNOR=0.3328E+05
            RENORM=0.9741E-05 REMNOR=0.8312E-21  RATIO =0.1506E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 32.19    RMMAX = 29.18
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.4298E+05  RDR   =0.3328E+05
            RATIO=0.1506E-04  RATIO= 0.000
            MAX UN=0.1075E-02 IEQ=    3 NODE       2 DOF   1  Y-DISPL.F
            MIN UN=-.3635E-10 IEQ=   43 NODE      22 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018          18:16:00 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.0749512E-03	-5.6296135E-04	
2	2.9623589E-03	-5.6296135E-04	
3	2.8497683E-03	-5.6293627E-04	
4	2.7371911E-03	-5.6281089E-04	
5	2.6246590E-03	-5.6245980E-04	
6	2.5122339E-03	-5.6170747E-04	
7	2.4000178E-03	-5.6032821E-04	
8	2.2881628E-03	-5.5804615E-04	
9	2.1768813E-03	-5.5453529E-04	
10	2.0664557E-03	-5.4941947E-04	
11	1.9572489E-03	-5.4227237E-04	
12	1.8496891E-03	-5.3299017E-04	
13	1.7441764E-03	-5.2185403E-04	
14	1.6410513E-03	-5.0916020E-04	
15	1.5405994E-03	-4.9516028E-04	
16	1.4430606E-03	-4.8005968E-04	
17	1.3486379E-03	-4.6401619E-04	
18	1.2575078E-03	-4.4716030E-04	
19	1.1698199E-03	-4.2961360E-04	
20	1.0857008E-03	-4.1148979E-04	
21	1.0052557E-03	-3.9289569E-04	
22	9.2856769E-04	-3.7393061E-04	
23	8.5570188E-04	-3.5468911E-04	
24	7.8670444E-04	-3.3526172E-04	
25	7.2160490E-04	-3.1571876E-04	
26	6.6042105E-04	-2.9611399E-04	
27	6.0315988E-04	-2.7650482E-04	
28	5.4981553E-04	-2.5695392E-04	
29	5.0036977E-04	-2.3753119E-04	
30	4.5478930E-04	-2.1831480E-04	
31	4.1302423E-04	-1.9939259E-04	
32	3.7500627E-04	-1.8086303E-04	
33	3.4064567E-04	-1.6283669E-04	
34	3.0982974E-04	-1.4543811E-04	
35	2.8241928E-04	-1.2880664E-04	
36	2.5824558E-04	-1.1309781E-04	
37	2.3710854E-04	-9.8464754E-05	
38	2.1878047E-04	-8.5021362E-05	
39	2.0301658E-04	-7.2829246E-05	
40	1.8956418E-04	-6.1906131E-05	
41	1.7817074E-04	-5.2233834E-05	
42	1.6859040E-04	-4.3765212E-05	
43	1.6058908E-04	-3.6430247E-05	
44	1.5394833E-04	-3.0144851E-05	
45	1.4846721E-04	-2.4818819E-05	
46	1.4396307E-04	-2.0359105E-05	
47	1.4027203E-04	-1.6672463E-05	
48	1.3724865E-04	-1.3667415E-05	
49	1.3476549E-04	-1.1255982E-05	
50	1.3271223E-04	-9.3550845E-06	
51	1.3099458E-04	-7.8874549E-06	
52	1.2953305E-04	-6.7821873E-06	
53	1.2826185E-04	-5.9750400E-06	
54	1.2712712E-04	-5.4076761E-06	
55	1.2608629E-04	-5.0277414E-06	
56	1.2510661E-04	-4.7889764E-06	
57	1.2416395E-04	-4.6514744E-06	
58	1.2324150E-04	-4.5818125E-06	
59	1.2232849E-04	-4.5531261E-06	
60	1.2141887E-04	-4.5451454E-06	
61	1.2050992E-04	-4.5442107E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	Su_a	Su_p	LAYER						
1 D	5.6657E-04	-3.0750E-03	0.000	5.6657E-03	0.000	0.1024	UL-RL	3.6008E+04	0.000	0.000	
1.000	1.000	5.6657E-03	0.000	0.000	Ug1_2_8_L_0						
2 D	0.3439	-2.9624E-03	2.287	5.3746E-03	2.287	1.341	UL-RL	3.6008E+04	-0.2000	1.714	
1.000	1.000	1.720	0.000	0.000	Ug1_2_8_L_0						
3 D	0.6867	-2.8498E-03	4.580	5.0836E-03	4.580	2.671	UL-RL	3.6008E+04	-0.4000	3.429	
1.000	1.000	3.434	0.000	0.000	Ug1_2_8_L_0						
4 D	1.030	-2.7372E-03	6.883	4.7925E-03	6.883	3.978	UL-RL	3.6008E+04	-0.6000	5.143	
1.000	1.000	5.148	0.000	0.000	Ug1_2_8_L_0						
5 D	1.372	-2.6247E-03	9.200	4.5015E-03	9.200	5.256	UL-RL	3.6008E+04	-0.8000	6.857	
1.000	1.000	6.862	0.000	0.000	Ug1_2_8_L_0						
6 D	1.715	-2.5122E-03	11.53	4.2104E-03	11.53	6.501	UL-RL	3.6008E+04	-1.0000	8.571	
1.000	1.000	8.576	0.000	0.000	Ug1_2_8_L_0						
7 D	2.058	-2.4000E-03	13.87	3.9194E-03	13.87	7.714	UL-RL	3.6008E+04	-1.2000	10.29	
1.000	1.000	10.29	0.000	0.000	Ug1_2_8_L_0						
8 D	2.401	-2.2882E-03	16.22	3.6283E-03	16.22	8.897	UL-RL	3.6008E+04	-1.4000	12.00	
1.000	1.000	12.00	0.000	0.000	Ug1_2_8_L_0						
9 D	2.744	-2.1769E-03	18.58	3.3373E-03	18.58	10.05	UL-RL	3.6008E+04	-1.6000	13.71	
1.000	1.000	13.72	0.000	0.000	Ug1_2_8_L_0						
10 D	3.086	-2.0665E-03	20.95	3.0462E-03	20.95	11.19	UL-RL	3.6008E+04	-1.8000	15.43	
1.000	1.000	15.43	0.000	0.000	Ug1_2_8_L_0						
11 D	3.429	-1.9572E-03	23.31	2.7552E-03	23.31	12.30	UL-RL	3.6008E+04	-2.0000	17.14	
1.000	1.000	17.15	0.000	0.000	Ug1_2_8_L_0						
12 D	3.776	-1.8497E-03	25.68	2.4167E-02	25.68	13.40	UL-RL	3.6008E+04	-2.2000	18.86	
1.000	1.000	18.88	0.000	0.000	Ug1_2_8_L_0						
13 D	4.308	-1.7442E-03	28.10	0.9705	28.10	14.48	UL-RL	3.6008E+04	-2.4000	20.57	
1.000	1.000	21.54	0.000	0.000	Ug1_2_8_L_0						
14 D	4.830	-1.6411E-03	30.40	1.866	30.40	15.56	UL-RL	3.6008E+04	-2.6000	22.29	
1.000	1.000	24.15	0.000	0.000	Ug1_2_8_L_0						
15 D	5.369	-1.5406E-03	32.91	2.844	32.91	16.62	UL-RL	3.6008E+04	-2.8000	24.00	
1.000	1.000	26.84	0.000	0.000	Ug1_2_8_L_0						
16 D	5.908	-1.4431E-03	35.42	3.824	35.42	17.68	UL-RL	3.6008E+04	-3.0000	25.71	
1.000	1.000	29.54	0.000	0.000	Ug1_2_8_L_0						
17 D	6.426	-1.3486E-03	37.67	4.701	37.67	18.73	UL-RL	3.6008E+04	-3.2000	27.43	
1.000	1.000	32.13	0.000	0.000	Ug1_2_8_L_0						
18 D	6.962	-1.2575E-03	40.16	5.669	40.16	19.78	UL-RL	3.6008E+04	-3.4000	29.14	
1.000	1.000	34.81	0.000	0.000	Ug1_2_8_L_0						
19 D	7.480	-1.1698E-03	42.40	6.545	42.40	20.83	UL-RL	3.6008E+04	-3.6000	30.86	
1.000	1.000	37.40	0.000	0.000	Ug1_2_8_L_0						
20 D	8.015	-1.0857E-03	44.86	7.504	44.86	21.87	UL-RL	3.6008E+04	-3.8000	32.57	
1.000	1.000	40.08	0.000	0.000	Ug1_2_8_L_0						
21 D	8.549	-1.0053E-03	47.31	8.457	47.31	22.91	ACTIVE	0.000	-4.0000	34.29	
1.000	1.000	42.74	0.000	0.000	Ug1_2_8_L_0						
22 D	9.066	-9.2857E-04	49.55	9.332	49.55	23.95	ACTIVE	0.000	-4.2000	36.00	
1.000	1.000	45.33	0.000	0.000	Ug1_2_8_L_0						
23 D	9.599	-8.5570E-04	51.98	10.28	51.98	24.98	ACTIVE	0.000	-4.4000	37.71	
1.000	1.000	47.99	0.000	0.000	Ug1_2_8_L_0						
24 D	10.71	-7.8670E-04	54.22	14.10	54.22	26.02	ACTIVE	0.000	-4.6000	39.43	
1.000	1.000	53.53	0.000	0.000	Ug2_741_743_L_0						
25 D	11.17	-7.2160E-04	56.63	14.72	56.63	27.05	ACTIVE	0.000	-4.8000	41.14	
1.000	1.000	55.87	0.000	0.000	Ug2_741_743_L_0						
26 D	11.64	-6.6042E-04	59.04	15.35	59.04	28.08	ACTIVE	0.000	-5.0000	42.86	
1.000	1.000	58.21	0.000	0.000	Ug2_741_743_L_0						
27 D	12.10	-6.0316E-04	61.28	15.93	61.28	29.11	ACTIVE	0.000	-5.2000	44.57	
1.000	1.000	60.50	0.000	0.000	Ug2_741_743_L_0						
28 D	12.57	-5.4982E-04	63.67	16.56	63.67	30.14	ACTIVE	0.000	-5.4000	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	62.84	0.000	0.000	Ug2_741_743_L_0					
29 D	13.03	-5.0037E-04	65.92	17.14	65.92	31.17	ACTIVE	0.000	-5.600	48.00
1.000	1.000	65.14	0.000	0.000	Ug2_741_743_L_0					
30 D	13.49	-4.5479E-04	68.30	17.76	68.30	32.20	ACTIVE	0.000	-5.800	49.71
1.000	1.000	67.47	0.000	0.000	Ug2_741_743_L_0					
31 D	13.96	-4.1302E-04	70.68	18.38	70.68	33.23	ACTIVE	0.000	-6.000	51.43
1.000	1.000	69.81	0.000	0.000	Ug2_741_743_L_0					
32 D	14.42	-3.7501E-04	72.93	18.96	72.93	34.26	ACTIVE	0.000	-6.200	53.14
1.000	1.000	72.10	0.000	0.000	Ug2_741_743_L_0					
33 D	14.89	-3.4065E-04	75.30	19.58	75.30	35.29	ACTIVE	0.000	-6.400	54.86
1.000	1.000	74.44	0.000	0.000	Ug2_741_743_L_0					
34 D	15.35	-3.0983E-04	77.55	20.16	77.55	36.32	ACTIVE	0.000	-6.600	56.57
1.000	1.000	76.73	0.000	0.000	Ug2_741_743_L_0					
35 D	15.81	-2.8242E-04	79.91	20.78	79.91	37.35	ACTIVE	0.000	-6.800	58.29
1.000	1.000	79.06	0.000	0.000	Ug2_741_743_L_0					
36 D	16.49	-2.5825E-04	82.27	22.46	82.27	38.38	UL-RL	6.6238E+04	-7.000	60.00
1.000	1.000	82.46	0.000	0.000	Ug2_741_743_L_0					
37 D	17.35	-2.3711E-04	84.52	25.02	84.52	39.41	UL-RL	6.6238E+04	-7.200	61.71
1.000	1.000	86.73	0.000	0.000	Ug2_741_743_L_0					
38 D	18.16	-2.1878E-04	86.88	27.39	86.88	40.44	UL-RL	6.6238E+04	-7.400	63.43
1.000	1.000	90.82	0.000	0.000	Ug2_741_743_L_0					
39 D	18.95	-2.0302E-04	89.13	29.59	89.13	41.46	UL-RL	6.6238E+04	-7.600	65.14
1.000	1.000	94.73	0.000	0.000	Ug2_741_743_L_0					
40 D	19.70	-1.8956E-04	91.48	31.63	91.48	42.49	UL-RL	6.6238E+04	-7.800	66.86
1.000	1.000	98.49	0.000	0.000	Ug2_741_743_L_0					
41 D	20.42	-1.7817E-04	93.83	33.54	93.83	43.52	UL-RL	6.6238E+04	-8.000	68.57
1.000	1.000	102.1	0.000	0.000	Ug2_741_743_L_0					
42 D	21.12	-1.6859E-04	96.08	35.32	96.08	44.55	UL-RL	6.6238E+04	-8.200	70.29
1.000	1.000	105.6	0.000	0.000	Ug2_741_743_L_0					
43 D	21.80	-1.6059E-04	98.43	37.00	98.43	45.58	UL-RL	6.6238E+04	-8.400	72.00
1.000	1.000	109.0	0.000	0.000	Ug2_741_743_L_0					
44 D	22.46	-1.5395E-04	100.7	38.58	100.7	46.60	UL-RL	6.6238E+04	-8.600	73.71
1.000	1.000	112.3	0.000	0.000	Ug2_741_743_L_0					
45 D	23.10	-1.4847E-04	103.0	40.09	103.0	47.63	UL-RL	6.6238E+04	-8.800	75.43
1.000	1.000	115.5	0.000	0.000	Ug2_741_743_L_0					
46 D	23.74	-1.4396E-04	105.4	41.54	105.4	48.66	UL-RL	6.6238E+04	-9.000	77.14
1.000	1.000	118.7	0.000	0.000	Ug2_741_743_L_0					
47 D	24.36	-1.4027E-04	107.6	42.93	107.6	49.69	UL-RL	6.6238E+04	-9.200	78.86
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
48 D	24.97	-1.3725E-04	110.0	44.28	110.0	50.72	UL-RL	6.6238E+04	-9.400	80.57
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
49 D	25.58	-1.3477E-04	112.3	45.59	112.3	51.75	UL-RL	6.6238E+04	-9.600	82.29
1.000	1.000	127.9	0.000	0.000	Ug2_741_743_L_0					
50 D	26.17	-1.3271E-04	114.5	46.87	114.5	52.77	UL-RL	6.6238E+04	-9.800	84.00
1.000	1.000	130.9	0.000	0.000	Ug2_741_743_L_0					
51 D	26.77	-1.3099E-04	116.9	48.14	116.9	53.80	UL-RL	6.6238E+04	-10.000	85.71
1.000	1.000	133.9	0.000	0.000	Ug2_741_743_L_0					
52 D	27.36	-1.2953E-04	119.1	49.38	119.1	54.83	UL-RL	6.6238E+04	-10.200	87.43
1.000	1.000	136.8	0.000	0.000	Ug2_741_743_L_0					
53 D	27.95	-1.2826E-04	121.5	50.62	121.5	55.86	UL-RL	6.6238E+04	-10.400	89.14
1.000	1.000	139.8	0.000	0.000	Ug2_741_743_L_0					
54 D	28.54	-1.2713E-04	123.8	51.85	123.8	56.89	UL-RL	6.6238E+04	-10.600	90.86
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
55 D	29.13	-1.2609E-04	126.0	53.07	126.0	57.92	UL-RL	6.6238E+04	-10.800	92.57
1.000	1.000	145.6	0.000	0.000	Ug2_741_743_L_0					
56 D	29.71	-1.2511E-04	128.4	54.28	128.4	58.95	UL-RL	6.6238E+04	-11.000	94.29
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
57 D	30.30	-1.2416E-04	130.6	55.50	130.6	59.97	UL-RL	6.6238E+04	-11.200	96.00
1.000	1.000	151.5	0.000	0.000	Ug2_741_743_L_0					
58 D	30.89	-1.2324E-04	133.0	56.71	133.0	61.00	UL-RL	6.6238E+04	-11.400	97.71
1.000	1.000	154.4	0.000	0.000	Ug2_741_743_L_0					
59 D	31.47	-1.2233E-04	135.3	57.93	135.3	62.03	UL-RL	6.6238E+04	-11.600	99.43
1.000	1.000	157.4	0.000	0.000	Ug2_741_743_L_0					
60 D	32.06	-1.2142E-04	137.5	59.14	137.5	63.06	UL-RL	6.6238E+04	-11.800	101.1
1.000	1.000	160.3	0.000	0.000	Ug2_741_743_L_0					
61 D	16.32	-1.2051E-04	139.9	60.35	139.9	64.09	UL-RL	6.6238E+04	-12.000	102.9
1.000	1.000	163.2	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:16:00          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	5.095	1.9572E-03	0.000	25.47	20.00	25.47	UL-RL	2.8119E+04	-2.000	0.000	
1.000	1.000	25.47	0.000	0.000	Ug1_2_8_L_0						
12 D	5.953	1.8497E-03	3.800	29.77	22.00	29.77	UL-RL	2.8119E+04	-2.200	0.000	
1.000	1.000	29.77	0.000	0.000	Ug1_2_8_L_0						
13 D	6.181	1.7442E-03	7.600	30.90	24.00	30.91	UL-RL	2.8119E+04	-2.400	0.000	
1.000	1.000	30.90	0.000	0.000	Ug1_2_8_L_0						
14 D	6.397	1.6411E-03	11.40	31.98	26.00	31.98	UL-RL	2.8119E+04	-2.600	0.000	
1.000	1.000	31.98	0.000	0.000	Ug1_2_8_L_0						
15 D	6.610	1.5406E-03	15.20	33.05	28.00	33.05	UL-RL	2.8119E+04	-2.800	0.000	
1.000	1.000	33.05	0.000	0.000	Ug1_2_8_L_0						
16 D	6.824	1.4431E-03	19.00	34.12	30.00	34.12	UL-RL	2.8119E+04	-3.000	0.000	
1.000	1.000	34.12	0.000	0.000	Ug1_2_8_L_0						
17 D	7.290	1.3486E-03	20.71	34.17	32.00	34.17	UL-RL	2.8119E+04	-3.200	2.286	
1.000	1.000	36.45	0.000	0.000	Ug1_2_8_L_0						
18 D	7.761	1.2575E-03	22.43	34.23	34.00	34.23	UL-RL	2.8119E+04	-3.400	4.571	
1.000	1.000	38.80	0.000	0.000	Ug1_2_8_L_0						
19 D	8.236	1.1698E-03	24.14	34.32	36.00	34.33	UL-RL	2.8119E+04	-3.600	6.857	
1.000	1.000	41.18	0.000	0.000	Ug1_2_8_L_0						
20 D	8.718	1.0857E-03	25.86	34.45	38.00	34.45	UL-RL	2.8119E+04	-3.800	9.143	
1.000	1.000	43.59	0.000	0.000	Ug1_2_8_L_0						
21 D	9.206	1.0053E-03	27.57	34.60	40.00	34.60	V-C	9373.	-4.000	11.43	
1.000	1.000	46.03	0.000	0.000	Ug1_2_8_L_0						
22 D	9.701	9.2857E-04	29.29	34.79	42.00	34.79	V-C	9373.	-4.200	13.71	
1.000	1.000	48.50	0.000	0.000	Ug1_2_8_L_0						
23 D	10.20	8.5570E-04	31.00	35.01	44.00	35.01	V-C	9373.	-4.400	16.00	
1.000	1.000	51.01	0.000	0.000	Ug1_2_8_L_0						
24 D	11.06	7.8670E-04	32.71	37.03	46.00	37.03	V-C	1.1464E+04	-4.600	18.29	
1.000	1.000	55.31	0.000	0.000	Ug2_741_743_L_0						
25 D	11.55	7.2160E-04	34.43	37.18	48.00	37.18	V-C	1.1464E+04	-4.800	20.57	
1.000	1.000	57.75	0.000	0.000	Ug2_741_743_L_0						
26 D	12.05	6.6042E-04	36.14	37.38	50.00	37.38	V-C	1.1464E+04	-5.000	22.86	
1.000	1.000	60.24	0.000	0.000	Ug2_741_743_L_0						
27 D	12.55	6.0316E-04	37.86	37.63	52.00	37.63	V-C	1.1464E+04	-5.200	25.14	
1.000	1.000	62.77	0.000	0.000	Ug2_741_743_L_0						
28 D	13.07	5.4982E-04	39.57	37.92	54.00	37.92	V-C	1.1464E+04	-5.400	27.43	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.35	0.000	0.000	Ug2_741_743_L_0					
29 D	13.59	5.0037E-04	41.29	38.26	56.00	38.26	V-C	1.1464E+04	-5.600	29.71
1.000	1.000	67.97	0.000	0.000	Ug2_741_743_L_0					
30 D	14.13	4.5479E-04	43.00	38.64	58.00	38.64	V-C	1.1464E+04	-5.800	32.00
1.000	1.000	70.64	0.000	0.000	Ug2_741_743_L_0					
31 D	14.67	4.1302E-04	44.71	39.07	60.00	39.07	V-C	1.1464E+04	-6.000	34.29
1.000	1.000	73.36	0.000	0.000	Ug2_741_743_L_0					
32 D	15.22	3.7501E-04	46.43	39.55	62.00	39.55	V-C	1.1464E+04	-6.200	36.57
1.000	1.000	76.12	0.000	0.000	Ug2_741_743_L_0					
33 D	15.78	3.4065E-04	48.14	40.07	64.00	40.07	V-C	1.1464E+04	-6.400	38.86
1.000	1.000	78.92	0.000	0.000	Ug2_741_743_L_0					
34 D	16.35	3.0983E-04	49.86	40.63	66.00	40.63	V-C	1.1464E+04	-6.600	41.14
1.000	1.000	81.77	0.000	0.000	Ug2_741_743_L_0					
35 D	16.93	2.8242E-04	51.57	41.23	68.00	41.23	V-C	1.1464E+04	-6.800	43.43
1.000	1.000	84.66	0.000	0.000	Ug2_741_743_L_0					
36 D	17.47	2.5825E-04	53.29	41.61	70.00	41.61	V-C	1.1464E+04	-7.000	45.71
1.000	1.000	87.33	0.000	0.000	Ug2_741_743_L_0					
37 D	17.93	2.3711E-04	55.00	41.66	72.00	41.66	V-C	1.1464E+04	-7.200	48.00
1.000	1.000	89.66	0.000	0.000	Ug2_741_743_L_0					
38 D	18.42	2.1878E-04	56.71	41.82	74.00	41.82	V-C	1.1464E+04	-7.400	50.29
1.000	1.000	92.10	0.000	0.000	Ug2_741_743_L_0					
39 D	18.93	2.0302E-04	58.43	42.09	76.00	42.09	V-C	1.1464E+04	-7.600	52.57
1.000	1.000	94.66	0.000	0.000	Ug2_741_743_L_0					
40 D	19.46	1.8956E-04	60.14	42.46	78.00	42.46	V-C	1.1464E+04	-7.800	54.86
1.000	1.000	97.32	0.000	0.000	Ug2_741_743_L_0					
41 D	20.01	1.7817E-04	61.86	42.91	80.00	42.93	UL-RL	3.4393E+04	-8.000	57.14
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
42 D	20.57	1.6859E-04	63.57	43.44	82.00	43.48	UL-RL	3.4393E+04	-8.200	59.43
1.000	1.000	102.9	0.000	0.000	Ug2_741_743_L_0					
43 D	21.20	1.6059E-04	65.29	44.27	84.00	44.32	UL-RL	3.4393E+04	-8.400	61.71
1.000	1.000	106.0	0.000	0.000	Ug2_741_743_L_0					
44 D	21.83	1.5395E-04	67.00	45.14	86.00	45.20	UL-RL	3.4393E+04	-8.600	64.00
1.000	1.000	109.1	0.000	0.000	Ug2_741_743_L_0					
45 D	22.46	1.4847E-04	68.71	46.03	88.00	46.10	UL-RL	3.4393E+04	-8.800	66.29
1.000	1.000	112.3	0.000	0.000	Ug2_741_743_L_0					
46 D	23.10	1.4396E-04	70.43	46.94	90.00	47.00	UL-RL	3.4393E+04	-9.000	68.57
1.000	1.000	115.5	0.000	0.000	Ug2_741_743_L_0					
47 D	23.74	1.4027E-04	72.14	47.85	92.00	47.92	UL-RL	3.4393E+04	-9.200	70.86
1.000	1.000	118.7	0.000	0.000	Ug2_741_743_L_0					
48 D	24.38	1.3725E-04	73.86	48.77	94.00	48.84	UL-RL	3.4393E+04	-9.400	73.14
1.000	1.000	121.9	0.000	0.000	Ug2_741_743_L_0					
49 D	25.03	1.3477E-04	75.57	49.70	96.00	49.77	UL-RL	3.4393E+04	-9.600	75.43
1.000	1.000	125.1	0.000	0.000	Ug2_741_743_L_0					
50 D	25.67	1.3271E-04	77.29	50.63	98.00	50.71	UL-RL	3.4393E+04	-9.800	77.71
1.000	1.000	128.3	0.000	0.000	Ug2_741_743_L_0					
51 D	26.31	1.3099E-04	79.00	51.54	100.00	51.65	UL-RL	3.4393E+04	-10.000	80.00
1.000	1.000	131.5	0.000	0.000	Ug2_741_743_L_0					
52 D	26.95	1.2953E-04	80.71	52.44	102.0	52.61	UL-RL	3.4393E+04	-10.200	82.29
1.000	1.000	134.7	0.000	0.000	Ug2_741_743_L_0					
53 D	27.57	1.2826E-04	82.43	53.30	104.0	53.60	UL-RL	3.4393E+04	-10.400	84.57
1.000	1.000	137.9	0.000	0.000	Ug2_741_743_L_0					
54 D	28.20	1.2713E-04	84.14	54.16	106.0	54.58	UL-RL	3.4393E+04	-10.600	86.86
1.000	1.000	141.0	0.000	0.000	Ug2_741_743_L_0					
55 D	28.83	1.2609E-04	85.86	55.02	108.0	55.57	UL-RL	3.4393E+04	-10.800	89.14
1.000	1.000	144.2	0.000	0.000	Ug2_741_743_L_0					
56 D	29.46	1.2511E-04	87.57	55.89	110.0	56.55	UL-RL	3.4393E+04	-11.000	91.43
1.000	1.000	147.3	0.000	0.000	Ug2_741_743_L_0					
57 D	30.09	1.2416E-04	89.29	56.75	112.0	57.54	UL-RL	3.4393E+04	-11.200	93.71
1.000	1.000	150.5	0.000	0.000	Ug2_741_743_L_0					
58 D	30.72	1.2324E-04	91.00	57.62	114.0	58.52	UL-RL	3.4393E+04	-11.400	96.00
1.000	1.000	153.6	0.000	0.000	Ug2_741_743_L_0					
59 D	31.35	1.2233E-04	92.71	58.49	116.0	59.51	UL-RL	3.4393E+04	-11.600	98.29
1.000	1.000	156.8	0.000	0.000	Ug2_741_743_L_0					
60 D	31.99	1.2142E-04	94.43	59.36	118.0	60.50	UL-RL	3.4393E+04	-11.800	100.6
1.000	1.000	159.9	0.000	0.000	Ug2_741_743_L_0					
61 D	16.31	1.2051E-04	96.14	60.22	120.0	61.48	UL-RL	3.4393E+04	-12.000	102.9
1.000	1.000	163.1	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|           PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                               |                           |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-5.14839E-11	5.14839E-11	-5.07026E-12	-1.11895E-11
2	0.34286	-0.34286	1.51376E-12	6.85714E-02
3	1.0286	-1.0286	-6.85714E-02	0.27429
4	2.0571	-2.0571	-0.27429	0.68571
5	3.4286	-3.4286	-0.68571	1.3714
6	5.1429	-5.1429	-1.3714	2.4000
7	7.2000	-7.2000	-2.4000	3.8400
8	9.6000	-9.6000	-3.8400	5.7600
9	12.343	-12.343	-5.7600	8.2286
10	15.429	-15.429	-8.2286	11.314
11	13.762	-13.762	-11.314	14.067
12	11.585	-11.585	-14.067	16.384
13	9.7118	-9.7118	-16.384	18.326
14	8.1450	-8.1450	-18.326	19.955
15	6.9034	-6.9034	-19.955	21.336
16	5.9865	-5.9865	-21.336	22.533
17	5.1217	-5.1217	-22.533	23.557
18	4.3231	-4.3231	-23.557	24.422
19	3.5670	-3.5670	-24.422	25.135
20	2.8641	-2.8641	-25.135	25.708
21	2.2067	-2.2067	-25.708	26.149
22	1.5725	-1.5725	-26.149	26.464
23	0.96892	-0.96892	-26.464	26.658
24	0.61109	-0.61109	-26.658	26.780
25	0.23393	-0.23393	-26.780	26.827
26	-0.17237	0.17237	-26.827	26.792
27	-0.62553	0.62553	-26.792	26.667
28	-1.1270	1.1270	-26.667	26.442
29	-1.6939	1.6939	-26.442	26.103
30	-2.3281	2.3281	-26.103	25.637
31	-3.0389	3.0389	-25.637	25.030
32	-3.8423	3.8423	-25.030	24.261
33	-4.7403	4.7403	-24.261	23.313
34	-5.7477	5.7477	-23.313	22.164
35	-6.8663	6.8663	-22.164	20.790
36	-7.8407	7.8407	-20.790	19.222
37	-8.4253	8.4253	-19.222	17.537
38	-8.6820	8.6820	-17.537	15.801
39	-8.6676	8.6676	-15.801	14.067
40	-8.4334	8.4334	-14.067	12.381
41	-8.0231	8.0231	-12.381	10.776
42	-7.4761	7.4761	-10.776	9.2807
43	-6.8734	6.8734	-9.2807	7.9060
44	-6.2426	6.2426	-7.9060	6.6575
45	-5.6020	5.6020	-6.6575	5.5371
46	-4.9673	4.9673	-5.5371	4.5436
47	-4.3513	4.3513	-4.5436	3.6733
48	-3.7645	3.7645	-3.6733	2.9204
49	-3.2154	3.2154	-2.9204	2.2774
50	-2.7084	2.7084	-2.2774	1.7357
51	-2.2461	2.2461	-1.7357	1.2865
52	-1.8288	1.8288	-1.2865	0.92070
53	-1.4501	1.4501	-0.92070	0.63068
54	-1.1124	1.1124	-0.63068	0.40820
55	-0.81763	0.81763	-0.40820	0.24467
56	-0.56683	0.56683	-0.24467	0.13131
57	-0.36068	0.36068	-0.13131	5.91731E-02
58	-0.19953	0.19953	-5.91731E-02	1.92663E-02
59	-8.35521E-02	8.35521E-02	-1.92663E-02	2.55584E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-1.27786E-02 1.27786E-02-2.55584E-03-1.92395E-13

```
ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM= 17.46    REMNOR=0.8312E-21  RATIO =0.2107E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.2107E-01 RATIO= 0.000
            MAX UN= 1.014    IEQ=   41 NODE      21 DOF   1  Y-DISPL.F
            MIN UN=-.1710   IEQ=   31 NODE      16 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM= 3.646    REMNOR=0.1082E-20  RATIO =0.9630E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.9630E-02 RATIO= 0.000
            MAX UN=0.5364    IEQ=   53 NODE      27 DOF   1  Y-DISPL.F
            MIN UN=-.4719E-01 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM=0.3203    REMNOR=0.5958E-21  RATIO =0.2854E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.2854E-02 RATIO= 0.000
            MAX UN=0.3921    IEQ=   73 NODE      37 DOF   1  Y-DISPL.F
            MIN UN=-.1317E-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=0.3932E+05 RIMNOR=0.3242E+05
            RENORM=0.8950E-02 REMNOR=0.9684E-21  RATIO =0.4771E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.4771E-03 RATIO= 0.000
            MAX UN=0.8396E-01 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            MIN UN=-.2515E-01 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.3932E+05 RIMNOR=0.3242E+05
            RENORM=0.2171E-03 REMNOR=0.5936E-21  RATIO =0.7430E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 31.38    RMMAX = 26.83
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.3932E+05  RDR   =0.3242E+05
            RATIO=0.7430E-04 RATIO= 0.000
            MAX UN=0.1472E-01 IEQ=    5 NODE      3 DOF   1  Y-DISPL.F
            MIN UN=-.2031E-09 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:16:00 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.0639680E-03	-5.2210403E-04	
2	2.9595472E-03	-5.2210403E-04	
3	2.8551281E-03	-5.2207823E-04	
4	2.7507224E-03	-5.2195509E-04	
5	2.6463603E-03	-5.2161866E-04	
6	2.5421000E-03	-5.2090511E-04	
7	2.4380374E-03	-5.1960377E-04	
8	2.3343149E-03	-5.1745719E-04	
9	2.2311312E-03	-5.1416110E-04	
10	2.1287505E-03	-5.0936440E-04	
11	2.0275120E-03	-5.0266920E-04	
12	1.9278142E-03	-4.9400345E-04	
13	1.8300206E-03	-4.8368695E-04	
14	1.7344266E-03	-4.7206190E-04	
15	1.6412630E-03	-4.5942996E-04	
16	1.5507045E-03	-4.4605068E-04	
17	1.4628777E-03	-4.3214001E-04	
18	1.3778718E-03	-4.1787225E-04	
19	1.2957438E-03	-4.0338024E-04	
20	1.2165285E-03	-3.8875625E-04	
21	1.1402469E-03	-3.7405272E-04	
22	1.0669123E-03	-3.5928160E-04	
23	9.9653929E-04	-3.4443572E-04	
24	9.2914346E-04	-3.2950847E-04	
25	8.6474221E-04	-3.1448661E-04	
26	8.0335620E-04	-2.9935398E-04	
27	7.4500884E-04	-2.8410228E-04	
28	6.8972346E-04	-2.6873245E-04	
29	6.3752295E-04	-2.5325627E-04	
30	5.8842648E-04	-2.3769712E-04	
31	5.4244722E-04	-2.2209118E-04	
32	4.9959003E-04	-2.0648809E-04	
33	4.5984772E-04	-1.9095224E-04	
34	4.2319926E-04	-1.7556441E-04	
35	3.8960556E-04	-1.6042246E-04	
36	3.5900614E-04	-1.4564253E-04	
37	3.3131579E-04	-1.3135602E-04	
38	3.0642174E-04	-1.1770155E-04	
39	2.8418352E-04	-1.0482192E-04	
40	2.6443333E-04	-9.2836876E-05	
41	2.4698428E-04	-8.1819077E-05	
42	2.3163903E-04	-7.1801369E-05	
43	2.1819709E-04	-6.2783270E-05	
44	2.0646070E-04	-5.4740479E-05	
45	1.9623855E-04	-4.7633687E-05	
46	1.8734822E-04	-4.1412687E-05	
47	1.7961826E-04	-3.6019940E-05	
48	1.7288917E-04	-3.1393359E-05	
49	1.6701411E-04	-2.7468874E-05	
50	1.6185910E-04	-2.4182609E-05	
51	1.5730270E-04	-2.1472299E-05	
52	1.5323567E-04	-1.9278102E-05	
53	1.4956094E-04	-1.7542803E-05	
54	1.4619192E-04	-1.6209668E-05	
55	1.4305401E-04	-1.5222435E-05	
56	1.4008358E-04	-1.4525698E-05	
57	1.3722796E-04	-1.4065586E-05	
58	1.3444504E-04	-1.3790166E-05	
59	1.3170289E-04	-1.3649700E-05	
60	1.2897932E-04	-1.3596792E-05	
61	1.2626120E-04	-1.3586452E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	0.000	-3.0640E-03	0.000	0.000	0.000	0.4382	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.3528	-2.9595E-03	2.401	0.1638	2.401	1.341	UL-RL	3.6008E+04	-0.2000	1.600	
1.000	1.000	1.764	0.000	0.000	Ug1_2_8_L_0						
3 D	0.6400	-2.8551E-03	4.808	0.000	4.808	2.671	ACTIVE	0.000	-0.4000	3.200	
1.000	1.000	3.200	0.000	0.000	Ug1_2_8_L_0						
4 D	0.9600	-2.7507E-03	7.226	0.000	7.226	3.978	ACTIVE	0.000	-0.6000	4.800	
1.000	1.000	4.800	0.000	0.000	Ug1_2_8_L_0						
5 D	1.280	-2.6464E-03	9.657	0.000	9.657	5.256	ACTIVE	0.000	-0.8000	6.400	
1.000	1.000	6.400	0.000	0.000	Ug1_2_8_L_0						
6 D	1.600	-2.5421E-03	12.10	0.000	12.10	6.501	ACTIVE	0.000	-1.000	8.000	
1.000	1.000	8.000	0.000	0.000	Ug1_2_8_L_0						
7 D	1.920	-2.4380E-03	14.56	0.000	14.56	7.714	ACTIVE	0.000	-1.200	9.600	
1.000	1.000	9.600	0.000	0.000	Ug1_2_8_L_0						
8 D	2.240	-2.3343E-03	17.02	0.000	17.02	8.897	ACTIVE	0.000	-1.400	11.20	
1.000	1.000	11.20	0.000	0.000	Ug1_2_8_L_0						
9 D	2.560	-2.2311E-03	19.50	0.000	19.50	10.05	ACTIVE	0.000	-1.600	12.80	
1.000	1.000	12.80	0.000	0.000	Ug1_2_8_L_0						
10 D	2.880	-2.1288E-03	21.97	0.000	21.97	11.19	ACTIVE	0.000	-1.800	14.40	
1.000	1.000	14.40	0.000	0.000	Ug1_2_8_L_0						
11 D	3.200	-2.0275E-03	24.45	0.000	24.45	12.30	ACTIVE	0.000	-2.000	16.00	
1.000	1.000	16.00	0.000	0.000	Ug1_2_8_L_0						
12 D	3.622	-1.9278E-03	26.93	0.5120	26.93	13.40	ACTIVE	0.000	-2.200	17.60	
1.000	1.000	18.11	0.000	0.000	Ug1_2_8_L_0						
13 D	4.141	-1.8300E-03	29.47	1.503	29.47	14.48	ACTIVE	0.000	-2.400	19.20	
1.000	1.000	20.70	0.000	0.000	Ug1_2_8_L_0						
14 D	4.649	-1.7344E-03	31.89	2.444	31.89	15.56	ACTIVE	0.000	-2.600	20.80	
1.000	1.000	23.24	0.000	0.000	Ug1_2_8_L_0						
15 D	5.173	-1.6413E-03	34.51	3.466	34.51	16.62	ACTIVE	0.000	-2.800	22.40	
1.000	1.000	25.87	0.000	0.000	Ug1_2_8_L_0						
16 D	5.698	-1.5507E-03	37.14	4.492	37.14	17.68	ACTIVE	0.000	-3.000	24.00	
1.000	1.000	28.49	0.000	0.000	Ug1_2_8_L_0						
17 D	6.203	-1.4629E-03	39.50	5.413	39.50	18.73	ACTIVE	0.000	-3.200	25.60	
1.000	1.000	31.01	0.000	0.000	Ug1_2_8_L_0						
18 D	6.725	-1.3779E-03	42.10	6.426	42.10	19.78	ACTIVE	0.000	-3.400	27.20	
1.000	1.000	33.63	0.000	0.000	Ug1_2_8_L_0						
19 D	7.229	-1.2957E-03	44.46	7.347	44.46	20.83	ACTIVE	0.000	-3.600	28.80	
1.000	1.000	36.15	0.000	0.000	Ug1_2_8_L_0						
20 D	7.750	-1.2165E-03	47.03	8.351	47.03	21.87	ACTIVE	0.000	-3.800	30.40	
1.000	1.000	38.75	0.000	0.000	Ug1_2_8_L_0						
21 D	8.270	-1.1402E-03	49.59	9.348	49.59	22.91	ACTIVE	0.000	-4.000	32.00	
1.000	1.000	41.35	0.000	0.000	Ug1_2_8_L_0						
22 D	8.774	-1.0669E-03	51.95	10.27	51.95	23.95	ACTIVE	0.000	-4.200	33.60	
1.000	1.000	43.87	0.000	0.000	Ug1_2_8_L_0						
23 D	9.292	-9.9654E-04	54.49	11.26	54.49	24.98	ACTIVE	0.000	-4.400	35.20	
1.000	1.000	46.46	0.000	0.000	Ug1_2_8_L_0						
24 D	10.32	-9.2914E-04	56.85	14.78	56.85	26.02	ACTIVE	0.000	-4.600	36.80	
1.000	1.000	51.58	0.000	0.000	Ug2_741_743_L_0						
25 D	10.77	-8.6474E-04	59.38	15.44	59.38	27.05	ACTIVE	0.000	-4.800	38.40	
1.000	1.000	53.84	0.000	0.000	Ug2_741_743_L_0						
26 D	11.22	-8.0336E-04	61.89	16.09	61.89	28.08	ACTIVE	0.000	-5.000	40.00	
1.000	1.000	56.09	0.000	0.000	Ug2_741_743_L_0						
27 D	11.66	-7.4501E-04	64.25	16.71	64.25	29.11	ACTIVE	0.000	-5.200	41.60	
1.000	1.000	58.31	0.000	0.000	Ug2_741_743_L_0						
28 D	12.11	-6.8972E-04	66.76	17.36	66.76	30.14	ACTIVE	0.000	-5.400	43.20	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	60.56	0.000	0.000	Ug2_741_743_L_0					
29 D	12.55	-6.3752E-04	69.12	17.97	69.12	31.17	ACTIVE	0.000	-5.600	44.80
1.000	1.000	62.77	0.000	0.000	Ug2_741_743_L_0					
30 D	13.00	-5.8843E-04	71.62	18.62	71.62	32.20	ACTIVE	0.000	-5.800	46.40
1.000	1.000	65.02	0.000	0.000	Ug2_741_743_L_0					
31 D	13.45	-5.4245E-04	74.11	19.27	74.11	33.23	ACTIVE	0.000	-6.000	48.00
1.000	1.000	67.27	0.000	0.000	Ug2_741_743_L_0					
32 D	13.90	-4.9959E-04	76.47	19.88	76.47	34.26	ACTIVE	0.000	-6.200	49.60
1.000	1.000	69.48	0.000	0.000	Ug2_741_743_L_0					
33 D	14.35	-4.5985E-04	78.96	20.53	78.96	35.29	ACTIVE	0.000	-6.400	51.20
1.000	1.000	71.73	0.000	0.000	Ug2_741_743_L_0					
34 D	14.79	-4.2320E-04	81.32	21.14	81.32	36.32	ACTIVE	0.000	-6.600	52.80
1.000	1.000	73.94	0.000	0.000	Ug2_741_743_L_0					
35 D	15.24	-3.8961E-04	83.80	21.79	83.80	37.35	ACTIVE	0.000	-6.800	54.40
1.000	1.000	76.19	0.000	0.000	Ug2_741_743_L_0					
36 D	15.69	-3.5901E-04	86.27	22.43	86.27	38.38	ACTIVE	0.000	-7.000	56.00
1.000	1.000	78.43	0.000	0.000	Ug2_741_743_L_0					
37 D	16.13	-3.3132E-04	88.64	23.05	88.64	39.41	ACTIVE	0.000	-7.200	57.60
1.000	1.000	80.65	0.000	0.000	Ug2_741_743_L_0					
38 D	16.58	-3.0642E-04	91.11	23.70	91.11	40.44	UL-RL	6.6238E+04	-7.400	59.20
1.000	1.000	82.90	0.000	0.000	Ug2_741_743_L_0					
39 D	17.44	-2.8418E-04	93.47	26.39	93.47	41.46	UL-RL	6.6238E+04	-7.600	60.80
1.000	1.000	87.19	0.000	0.000	Ug2_741_743_L_0					
40 D	18.26	-2.6443E-04	95.94	28.90	95.94	42.49	UL-RL	6.6238E+04	-7.800	62.40
1.000	1.000	91.30	0.000	0.000	Ug2_741_743_L_0					
41 D	19.05	-2.4698E-04	98.40	31.27	98.40	43.52	UL-RL	6.6238E+04	-8.000	64.00
1.000	1.000	95.27	0.000	0.000	Ug2_741_743_L_0					
42 D	19.82	-2.3164E-04	100.8	33.49	100.8	44.55	UL-RL	6.6238E+04	-8.200	65.60
1.000	1.000	99.09	0.000	0.000	Ug2_741_743_L_0					
43 D	20.56	-2.1820E-04	103.2	35.58	103.2	45.58	UL-RL	6.6238E+04	-8.400	67.20
1.000	1.000	102.8	0.000	0.000	Ug2_741_743_L_0					
44 D	21.27	-2.0646E-04	105.6	37.56	105.6	46.60	UL-RL	6.6238E+04	-8.600	68.80
1.000	1.000	106.4	0.000	0.000	Ug2_741_743_L_0					
45 D	21.97	-1.9624E-04	108.0	39.44	108.0	47.63	UL-RL	6.6238E+04	-8.800	70.40
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
46 D	22.65	-1.8735E-04	110.5	41.24	110.5	48.66	UL-RL	6.6238E+04	-9.000	72.00
1.000	1.000	113.2	0.000	0.000	Ug2_741_743_L_0					
47 D	23.31	-1.7962E-04	112.9	42.95	112.9	49.69	UL-RL	6.6238E+04	-9.200	73.60
1.000	1.000	116.6	0.000	0.000	Ug2_741_743_L_0					
48 D	23.96	-1.7289E-04	115.3	44.60	115.3	50.72	UL-RL	6.6238E+04	-9.400	75.20
1.000	1.000	119.8	0.000	0.000	Ug2_741_743_L_0					
49 D	24.60	-1.6701E-04	117.8	46.20	117.8	51.75	UL-RL	6.6238E+04	-9.600	76.80
1.000	1.000	123.0	0.000	0.000	Ug2_741_743_L_0					
50 D	25.23	-1.6186E-04	120.1	47.74	120.1	52.77	UL-RL	6.6238E+04	-9.800	78.40
1.000	1.000	126.1	0.000	0.000	Ug2_741_743_L_0					
51 D	25.85	-1.5730E-04	122.6	49.25	122.6	53.80	UL-RL	6.6238E+04	-10.000	80.00
1.000	1.000	129.3	0.000	0.000	Ug2_741_743_L_0					
52 D	26.47	-1.5324E-04	125.0	50.73	125.0	54.83	UL-RL	6.6238E+04	-10.200	81.60
1.000	1.000	132.3	0.000	0.000	Ug2_741_743_L_0					
53 D	27.08	-1.4956E-04	127.4	52.18	127.4	55.86	UL-RL	6.6238E+04	-10.400	83.20
1.000	1.000	135.4	0.000	0.000	Ug2_741_743_L_0					
54 D	27.68	-1.4619E-04	129.8	53.61	129.8	56.89	UL-RL	6.6238E+04	-10.600	84.80
1.000	1.000	138.4	0.000	0.000	Ug2_741_743_L_0					
55 D	28.29	-1.4305E-04	132.2	55.03	132.2	57.92	UL-RL	6.6238E+04	-10.800	86.40
1.000	1.000	141.4	0.000	0.000	Ug2_741_743_L_0					
56 D	28.89	-1.4008E-04	134.7	56.43	134.7	58.95	UL-RL	6.6238E+04	-11.000	88.00
1.000	1.000	144.4	0.000	0.000	Ug2_741_743_L_0					
57 D	29.49	-1.3723E-04	137.0	57.83	137.0	59.97	UL-RL	6.6238E+04	-11.200	89.60
1.000	1.000	147.4	0.000	0.000	Ug2_741_743_L_0					
58 D	30.09	-1.3445E-04	139.5	59.23	139.5	61.00	UL-RL	6.6238E+04	-11.400	91.20
1.000	1.000	150.4	0.000	0.000	Ug2_741_743_L_0					
59 D	30.68	-1.3170E-04	141.9	60.62	141.9	62.03	UL-RL	6.6238E+04	-11.600	92.80
1.000	1.000	153.4	0.000	0.000	Ug2_741_743_L_0					
60 D	31.28	-1.2898E-04	144.3	62.01	144.3	63.06	UL-RL	6.6238E+04	-11.800	94.40
1.000	1.000	156.4	0.000	0.000	Ug2_741_743_L_0					
61 D	15.94	-1.2626E-04	146.7	63.40	146.7	64.09	UL-RL	6.6238E+04	-12.000	96.00
1.000	1.000	159.4	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018   18:16:00   |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	5.095	2.0275E-03	0.000	25.47	20.00	25.47	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	25.47	0.000	0.000	Ug1_2_8_L_0						
12 D	6.100	1.9278E-03	3.800	30.50	22.00	30.50	V-C	9373.	-2.200	0.000	
1.000	1.000	30.50	0.000	0.000	Ug1_2_8_L_0						
13 D	6.342	1.8300E-03	7.600	31.71	24.00	31.71	V-C	9373.	-2.400	0.000	
1.000	1.000	31.71	0.000	0.000	Ug1_2_8_L_0						
14 D	6.572	1.7344E-03	11.40	32.86	26.00	32.86	V-C	9373.	-2.600	0.000	
1.000	1.000	32.86	0.000	0.000	Ug1_2_8_L_0						
15 D	6.799	1.6413E-03	15.20	33.99	28.00	33.99	V-C	9373.	-2.800	0.000	
1.000	1.000	33.99	0.000	0.000	Ug1_2_8_L_0						
16 D	7.026	1.5507E-03	19.00	35.13	30.00	35.13	V-C	9373.	-3.000	0.000	
1.000	1.000	35.13	0.000	0.000	Ug1_2_8_L_0						
17 D	7.256	1.4629E-03	22.80	36.28	32.00	36.28	V-C	9373.	-3.200	0.000	
1.000	1.000	36.28	0.000	0.000	Ug1_2_8_L_0						
18 D	7.489	1.3779E-03	26.60	37.45	34.00	37.45	V-C	9373.	-3.400	0.000	
1.000	1.000	37.45	0.000	0.000	Ug1_2_8_L_0						
19 D	7.727	1.2957E-03	30.40	38.63	36.00	38.63	V-C	9373.	-3.600	0.000	
1.000	1.000	38.63	0.000	0.000	Ug1_2_8_L_0						
20 D	7.969	1.2165E-03	34.20	39.84	38.00	39.84	V-C	9373.	-3.800	0.000	
1.000	1.000	39.84	0.000	0.000	Ug1_2_8_L_0						
21 D	8.216	1.1402E-03	38.00	41.08	40.00	41.08	V-C	9373.	-4.000	0.000	
1.000	1.000	41.08	0.000	0.000	Ug1_2_8_L_0						
22 D	8.728	1.0669E-03	39.60	41.24	42.00	41.24	V-C	9373.	-4.200	2.400	
1.000	1.000	43.64	0.000	0.000	Ug1_2_8_L_0						
23 D	9.246	9.9654E-04	41.20	41.43	44.00	41.43	V-C	9373.	-4.400	4.800	
1.000	1.000	46.23	0.000	0.000	Ug1_2_8_L_0						
24 D	10.18	9.2914E-04	42.80	43.70	46.00	43.70	V-C	1.1464E+04	-4.600	7.200	
1.000	1.000	50.90	0.000	0.000	Ug2_741_743_L_0						
25 D	10.68	8.6474E-04	44.40	43.81	48.00	43.81	V-C	1.1464E+04	-4.800	9.600	
1.000	1.000	53.41	0.000	0.000	Ug2_741_743_L_0						
26 D	11.19	8.0336E-04	46.00	43.95	50.00	43.95	V-C	1.1464E+04	-5.000	12.00	
1.000	1.000	55.95	0.000	0.000	Ug2_741_743_L_0						
27 D	11.70	7.4501E-04	47.60	44.12	52.00	44.12	V-C	1.1464E+04	-5.200	14.40	
1.000	1.000	58.52	0.000	0.000	Ug2_741_743_L_0						
28 D	12.23	6.8972E-04	49.20	44.34	54.00	44.34	V-C	1.1464E+04	-5.400	16.80	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.14	0.000	0.000	Ug2_741_743_L_0					
29 D	12.76	6.3752E-04	50.80	44.59	56.00	44.59	V-C	1.1464E+04	-5.600	19.20
1.000	1.000	63.79	0.000	0.000	Ug2_741_743_L_0					
30 D	13.30	5.8843E-04	52.40	44.88	58.00	44.88	V-C	1.1464E+04	-5.800	21.60
1.000	1.000	66.48	0.000	0.000	Ug2_741_743_L_0					
31 D	13.84	5.4245E-04	54.00	45.20	60.00	45.20	V-C	1.1464E+04	-6.000	24.00
1.000	1.000	69.20	0.000	0.000	Ug2_741_743_L_0					
32 D	14.39	4.9959E-04	55.60	45.56	62.00	45.56	V-C	1.1464E+04	-6.200	26.40
1.000	1.000	71.96	0.000	0.000	Ug2_741_743_L_0					
33 D	14.95	4.5985E-04	57.20	45.96	64.00	45.96	V-C	1.1464E+04	-6.400	28.80
1.000	1.000	74.76	0.000	0.000	Ug2_741_743_L_0					
34 D	15.52	4.2320E-04	58.80	46.40	66.00	46.40	V-C	1.1464E+04	-6.600	31.20
1.000	1.000	77.60	0.000	0.000	Ug2_741_743_L_0					
35 D	16.09	3.8961E-04	60.40	46.87	68.00	46.87	V-C	1.1464E+04	-6.800	33.60
1.000	1.000	80.47	0.000	0.000	Ug2_741_743_L_0					
36 D	16.63	3.5901E-04	62.00	47.13	70.00	47.13	V-C	1.1464E+04	-7.000	36.00
1.000	1.000	83.13	0.000	0.000	Ug2_741_743_L_0					
37 D	17.09	3.3132E-04	63.60	47.04	72.00	47.04	V-C	1.1464E+04	-7.200	38.40
1.000	1.000	85.44	0.000	0.000	Ug2_741_743_L_0					
38 D	17.57	3.0642E-04	65.20	47.07	74.00	47.07	V-C	1.1464E+04	-7.400	40.80
1.000	1.000	87.87	0.000	0.000	Ug2_741_743_L_0					
39 D	18.08	2.8418E-04	66.80	47.21	76.00	47.21	V-C	1.1464E+04	-7.600	43.20
1.000	1.000	90.41	0.000	0.000	Ug2_741_743_L_0					
40 D	18.61	2.6443E-04	68.40	47.45	78.00	47.45	UL-RL	3.4393E+04	-7.800	45.60
1.000	1.000	93.05	0.000	0.000	Ug2_741_743_L_0					
41 D	19.15	2.4698E-04	70.00	47.76	80.00	47.76	UL-RL	3.4393E+04	-8.000	48.00
1.000	1.000	95.76	0.000	0.000	Ug2_741_743_L_0					
42 D	19.71	2.3164E-04	71.60	48.16	82.00	48.16	UL-RL	3.4393E+04	-8.200	50.40
1.000	1.000	98.55	0.000	0.000	Ug2_741_743_L_0					
43 D	20.33	2.1820E-04	73.20	48.85	84.00	48.85	UL-RL	3.4393E+04	-8.400	52.80
1.000	1.000	101.7	0.000	0.000	Ug2_741_743_L_0					
44 D	20.96	2.0646E-04	74.80	49.60	86.00	49.60	UL-RL	3.4393E+04	-8.600	55.20
1.000	1.000	104.8	0.000	0.000	Ug2_741_743_L_0					
45 D	21.59	1.9624E-04	76.40	50.37	88.00	50.38	UL-RL	3.4393E+04	-8.800	57.60
1.000	1.000	108.0	0.000	0.000	Ug2_741_743_L_0					
46 D	22.23	1.8735E-04	78.00	51.17	90.00	51.17	UL-RL	3.4393E+04	-9.000	60.00
1.000	1.000	111.2	0.000	0.000	Ug2_741_743_L_0					
47 D	22.87	1.7962E-04	79.60	51.97	92.00	51.98	UL-RL	3.4393E+04	-9.200	62.40
1.000	1.000	114.4	0.000	0.000	Ug2_741_743_L_0					
48 D	23.52	1.7289E-04	81.20	52.80	94.00	52.80	UL-RL	3.4393E+04	-9.400	64.80
1.000	1.000	117.6	0.000	0.000	Ug2_741_743_L_0					
49 D	24.17	1.6701E-04	82.80	53.63	96.00	53.63	UL-RL	3.4393E+04	-9.600	67.20
1.000	1.000	120.8	0.000	0.000	Ug2_741_743_L_0					
50 D	24.81	1.6186E-04	84.40	54.45	98.00	54.45	UL-RL	3.4393E+04	-9.800	69.60
1.000	1.000	124.1	0.000	0.000	Ug2_741_743_L_0					
51 D	25.45	1.5730E-04	86.00	55.25	100.00	55.25	UL-RL	3.4393E+04	-10.000	72.00
1.000	1.000	127.3	0.000	0.000	Ug2_741_743_L_0					
52 D	26.08	1.5324E-04	87.60	56.00	102.0	56.03	UL-RL	3.4393E+04	-10.200	74.40
1.000	1.000	130.4	0.000	0.000	Ug2_741_743_L_0					
53 D	26.69	1.4956E-04	89.20	56.64	104.0	56.71	UL-RL	3.4393E+04	-10.400	76.80
1.000	1.000	133.4	0.000	0.000	Ug2_741_743_L_0					
54 D	27.30	1.4619E-04	90.80	57.30	106.0	57.40	UL-RL	3.4393E+04	-10.600	79.20
1.000	1.000	136.5	0.000	0.000	Ug2_741_743_L_0					
55 D	27.91	1.4305E-04	92.40	57.96	108.0	58.10	UL-RL	3.4393E+04	-10.800	81.60
1.000	1.000	139.6	0.000	0.000	Ug2_741_743_L_0					
56 D	28.52	1.4008E-04	94.00	58.62	110.0	58.80	UL-RL	3.4393E+04	-11.000	84.00
1.000	1.000	142.6	0.000	0.000	Ug2_741_743_L_0					
57 D	29.14	1.3723E-04	95.60	59.29	112.0	59.50	UL-RL	3.4393E+04	-11.200	86.40
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
58 D	29.75	1.3445E-04	97.20	59.97	114.0	60.20	UL-RL	3.4393E+04	-11.400	88.80
1.000	1.000	148.8	0.000	0.000	Ug2_741_743_L_0					
59 D	30.37	1.3170E-04	98.80	60.64	116.0	60.90	UL-RL	3.4393E+04	-11.600	91.20
1.000	1.000	151.8	0.000	0.000	Ug2_741_743_L_0					
60 D	30.98	1.2898E-04	100.4	61.31	118.0	61.60	UL-RL	3.4393E+04	-11.800	93.60
1.000	1.000	154.9	0.000	0.000	Ug2_741_743_L_0					
61 D	15.80	1.2626E-04	102.0	61.99	120.0	62.30	UL-RL	3.4393E+04	-12.000	96.00
1.000	1.000	158.0	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
New Project
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	7.38771E-11	-7.38771E-11	7.43018E-12	1.24903E-12
2	0.35275	-0.35275	3.19286E-12	7.05505E-02
3	0.97803	-0.97803	-7.05505E-02	0.26616
4	1.9380	-1.9380	-0.26616	0.65376
5	3.2180	-3.2180	-0.65376	1.2974
6	4.8180	-4.8180	-1.2974	2.2610
7	6.7380	-6.7380	-2.2610	3.6086
8	8.9780	-8.9780	-3.6086	5.4042
9	11.538	-11.538	-5.4042	7.7118
10	14.418	-14.418	-7.7118	10.595
11	12.523	-12.523	-10.595	13.100
12	10.046	-10.046	-13.100	15.109
13	7.8446	-7.8446	-15.109	16.678
14	5.9215	-5.9215	-16.678	17.862
15	4.2960	-4.2960	-17.862	18.722
16	2.9681	-2.9681	-18.722	19.315
17	1.9149	-1.9149	-19.315	19.698
18	1.1510	-1.1510	-19.698	19.928
19	0.65357	-0.65357	-19.928	20.059
20	0.43481	-0.43481	-20.059	20.146
21	0.48841	-0.48841	-20.146	20.244
22	0.53352	-0.53352	-20.244	20.350
23	0.57915	-0.57915	-20.350	20.466
24	0.71427	-0.71427	-20.466	20.609
25	0.80011	-0.80011	-20.609	20.769
26	0.82893	-0.82893	-20.769	20.935
27	0.78505	-0.78505	-20.935	21.092
28	0.66896	-0.66896	-21.092	21.226
29	0.46540	-0.46540	-21.226	21.319
30	0.17431	-0.17431	-21.319	21.354
31	-0.21213	0.21213	-21.354	21.311
32	-0.70839	0.70839	-21.311	21.170
33	-1.3152	1.3152	-21.170	20.907
34	-2.0465	2.0465	-20.907	20.497
35	-2.9031	2.9031	-20.497	19.917
36	-3.8419	3.8419	-19.917	19.148
37	-4.8003	4.8003	-19.148	18.188
38	-5.7933	5.7933	-18.188	17.030
39	-6.4374	6.4374	-17.030	15.742
40	-6.7867	6.7867	-15.742	14.385
41	-6.8864	6.8864	-14.385	13.007
42	-6.7801	6.7801	-13.007	11.651
43	-6.5542	6.5542	-11.651	10.341
44	-6.2422	6.2422	-10.341	9.0921
45	-5.8687	5.8687	-9.0921	7.9184
46	-5.4551	5.4551	-7.9184	6.8274
47	-5.0199	5.0199	-6.8274	5.8234
48	-4.5791	4.5791	-5.8234	4.9076
49	-4.1464	4.1464	-4.9076	4.0783
50	-3.7283	3.7283	-4.0783	3.3327
51	-3.3286	3.3286	-3.3327	2.6669
52	-2.9435	2.9435	-2.6669	2.0783
53	-2.5562	2.5562	-2.0783	1.5670
54	-2.1730	2.1730	-1.5670	1.1324
55	-1.7986	1.7986	-1.1324	0.77271
56	-1.4365	1.4365	-0.77271	0.48541
57	-1.0886	1.0886	-0.48541	0.26769
58	-0.75646	0.75646	-0.26769	0.11640
59	-0.44062	0.44062	-0.11640	2.82725E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60-0.14136 0.14136 -2.82725E-02-3.61620E-13

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM= 13.48 REMNOR=0.5936E-21 RATIO =0.1954E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.1954E-01 RATIO= 0.000
MAX UN=0.9592 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.2526 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM= 1.674 REMNOR=0.7934E-21 RATIO =0.6885E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.6885E-02 RATIO= 0.000
MAX UN=0.3740 IEQ= 65 NODE 33 DOF 1 Y-DISPL.F
MIN UN=-.2203E-01 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM=0.1644 REMNOR=0.1098E-20 RATIO =0.2158E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.2158E-02 RATIO= 0.000
MAX UN=0.2810 IEQ= 77 NODE 39 DOF 1 Y-DISPL.F
MIN UN=-.2839E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3531E+05 RIMNOR=0.2437E+05
RENORM=0.1750E-03 REMNOR=0.6330E-21 RATIO =0.7041E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 30.54 RMMAX = 21.35
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3531E+05 RDR =0.2437E+05
RATIOT=0.7041E-04 RATIO= 0.000
MAX UN=0.1575E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN=-.1214E-01 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                      NewProject.BaseDesignSection_28.A1M1R1_1757 |
|                      Exe Time :24 May 2018           18:16:00   |
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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

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

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0310103E-03	-5.0239661E-04	
2	2.9305313E-03	-5.0239158E-04	
3	2.8300570E-03	-5.0233565E-04	
4	2.7296070E-03	-5.0212981E-04	
5	2.6292242E-03	-5.0163731E-04	
6	2.5289830E-03	-5.0068065E-04	
7	2.4289975E-03	-4.9904154E-04	
8	2.3294292E-03	-4.9646102E-04	
9	2.2304958E-03	-4.9263948E-04	
10	2.1324788E-03	-4.8723680E-04	
11	2.0357318E-03	-4.7987241E-04	
12	1.9406638E-03	-4.7049811E-04	
13	1.8476434E-03	-4.5946142E-04	
14	1.7569653E-03	-4.4713466E-04	
15	1.6688532E-03	-4.3385317E-04	
16	1.5834679E-03	-4.1991379E-04	
17	1.5009140E-03	-4.0557346E-04	
18	1.4212502E-03	-3.9105111E-04	
19	1.3444936E-03	-3.7652796E-04	
20	1.2706294E-03	-3.6214834E-04	
21	1.1996178E-03	-3.4802052E-04	
22	1.1314000E-03	-3.3421594E-04	
23	1.0659075E-03	-3.2077164E-04	
24	1.0030672E-03	-3.0769075E-04	
25	9.4280891E-04	-2.9494350E-04	
26	8.8507138E-04	-2.8247181E-04	
27	8.2980761E-04	-2.7019293E-04	
28	7.7698743E-04	-2.5801991E-04	
29	7.2659730E-04	-2.4588210E-04	
30	6.7863583E-04	-2.3372576E-04	
31	6.3311062E-04	-2.2151504E-04	
32	5.9003482E-04	-2.0923236E-04	
33	5.4942256E-04	-1.9687960E-04	
34	5.1128615E-04	-1.8447933E-04	
35	4.7563107E-04	-1.7207544E-04	
36	4.4245181E-04	-1.5973408E-04	
37	4.1172774E-04	-1.4754045E-04	
38	3.8341953E-04	-1.3559063E-04	
39	3.5746831E-04	-1.2398858E-04	
40	3.3379326E-04	-1.1284906E-04	
41	3.1228980E-04	-1.0229278E-04	
42	2.9283066E-04	-9.2418898E-05	
43	2.7527273E-04	-8.3287666E-05	
44	2.5946403E-04	-7.4929826E-05	
45	2.4524864E-04	-6.7355501E-05	
46	2.3247009E-04	-6.0558427E-05	
47	2.2097471E-04	-5.4519754E-05	
48	2.1061352E-04	-4.9211072E-05	
49	2.0124395E-04	-4.4597279E-05	
50	1.9273094E-04	-4.0639065E-05	
51	1.8494745E-04	-3.7294634E-05	
52	1.7777487E-04	-3.4520823E-05	
53	1.7110418E-04	-3.2273358E-05	
54	1.6483398E-04	-3.0504245E-05	
55	1.5887403E-04	-2.9161821E-05	
56	1.5314448E-04	-2.8190938E-05	
57	1.4757674E-04	-2.7533769E-05	
58	1.4211405E-04	-2.7130431E-05	
59	1.3671175E-04	-2.6919404E-05	
60	1.3133766E-04	-2.6837774E-05	
61	1.2597203E-04	-2.6821362E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

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	6.3858E-02	-3.0310E-03	0.000	0.6386	0.000	0.7122	UL-RL	3.6008E+04	0.000	0.000	
1.000	1.000	0.6386	0.000	0.000	Ug1_2_8_L_0						
2 D	0.5462	-2.9305E-03	2.527	1.258	2.527	1.349	UL-RL	3.6008E+04	-0.2000	1.474	
1.000	1.000	2.731	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7953	-2.8301E-03	5.061	1.029	5.061	2.671	UL-RL	3.6008E+04	-0.4000	2.947	
1.000	1.000	3.976	0.000	0.000	Ug1_2_8_L_0						
4 D	1.074	-2.7296E-03	7.605	0.9498	7.605	3.978	UL-RL	3.6008E+04	-0.6000	4.421	
1.000	1.000	5.371	0.000	0.000	Ug1_2_8_L_0						
5 D	1.353	-2.6292E-03	10.16	0.8697	10.16	5.256	UL-RL	3.6008E+04	-0.8000	5.895	
1.000	1.000	6.764	0.000	0.000	Ug1_2_8_L_0						
6 D	1.631	-2.5290E-03	12.73	0.7881	12.73	6.501	UL-RL	3.6008E+04	-1.0000	7.368	
1.000	1.000	8.157	0.000	0.000	Ug1_2_8_L_0						
7 D	1.909	-2.4290E-03	15.32	0.7045	15.32	7.714	UL-RL	3.6008E+04	-1.2000	8.842	
1.000	1.000	9.547	0.000	0.000	Ug1_2_8_L_0						
8 D	2.187	-2.3294E-03	17.91	0.6180	17.91	8.897	UL-RL	3.6008E+04	-1.4000	10.32	
1.000	1.000	10.93	0.000	0.000	Ug1_2_8_L_0						
9 D	2.464	-2.2305E-03	20.51	0.5281	20.51	10.05	UL-RL	3.6008E+04	-1.6000	11.79	
1.000	1.000	12.32	0.000	0.000	Ug1_2_8_L_0						
10 D	2.739	-2.1325E-03	23.11	0.4342	23.11	11.19	UL-RL	3.6008E+04	-1.8000	13.26	
1.000	1.000	13.70	0.000	0.000	Ug1_2_8_L_0						
11 D	3.014	-2.0357E-03	25.72	0.3356	25.72	12.30	UL-RL	3.6008E+04	-2.0000	14.74	
1.000	1.000	15.07	0.000	0.000	Ug1_2_8_L_0						
12 D	3.453	-1.9407E-03	28.32	1.054	28.32	13.40	ACTIVE	0.000	-2.2000	16.21	
1.000	1.000	17.26	0.000	0.000	Ug1_2_8_L_0						
13 D	3.956	-1.8476E-03	30.99	2.094	30.99	14.48	ACTIVE	0.000	-2.4000	17.68	
1.000	1.000	19.78	0.000	0.000	Ug1_2_8_L_0						
14 D	4.448	-1.7570E-03	33.53	3.084	33.53	15.56	ACTIVE	0.000	-2.6000	19.16	
1.000	1.000	22.24	0.000	0.000	Ug1_2_8_L_0						
15 D	4.958	-1.6689E-03	36.28	4.156	36.28	16.62	ACTIVE	0.000	-2.8000	20.63	
1.000	1.000	24.79	0.000	0.000	Ug1_2_8_L_0						
16 D	5.467	-1.5835E-03	39.03	5.231	39.03	17.68	ACTIVE	0.000	-3.0000	22.11	
1.000	1.000	27.34	0.000	0.000	Ug1_2_8_L_0						
17 D	5.956	-1.5009E-03	41.52	6.201	41.52	18.73	ACTIVE	0.000	-3.2000	23.58	
1.000	1.000	29.78	0.000	0.000	Ug1_2_8_L_0						
18 D	6.463	-1.4213E-03	44.25	7.264	44.25	19.78	ACTIVE	0.000	-3.4000	25.05	
1.000	1.000	32.32	0.000	0.000	Ug1_2_8_L_0						
19 D	6.952	-1.3445E-03	46.73	8.233	46.73	20.83	ACTIVE	0.000	-3.6000	26.53	
1.000	1.000	34.76	0.000	0.000	Ug1_2_8_L_0						
20 D	7.457	-1.2706E-03	49.43	9.287	49.43	21.87	ACTIVE	0.000	-3.8000	28.00	
1.000	1.000	37.29	0.000	0.000	Ug1_2_8_L_0						
21 D	7.961	-1.1996E-03	52.12	10.33	52.12	22.91	ACTIVE	0.000	-4.0000	29.47	
1.000	1.000	39.81	0.000	0.000	Ug1_2_8_L_0						
22 D	8.450	-1.1314E-03	54.60	11.30	54.60	23.95	ACTIVE	0.000	-4.2000	30.95	
1.000	1.000	42.25	0.000	0.000	Ug1_2_8_L_0						
23 D	8.953	-1.0659E-03	57.27	12.34	57.27	24.98	ACTIVE	0.000	-4.4000	32.42	
1.000	1.000	44.76	0.000	0.000	Ug1_2_8_L_0						
24 D	9.886	-1.0031E-03	59.75	15.54	59.75	26.02	ACTIVE	0.000	-4.6000	33.89	
1.000	1.000	49.43	0.000	0.000	Ug2_741_743_L_0						
25 D	10.32	-9.4281E-04	62.41	16.23	62.41	27.05	ACTIVE	0.000	-4.8000	35.37	
1.000	1.000	51.59	0.000	0.000	Ug2_741_743_L_0						
26 D	10.75	-8.8507E-04	65.05	16.91	65.05	28.08	ACTIVE	0.000	-5.0000	36.84	
1.000	1.000	53.76	0.000	0.000	Ug2_741_743_L_0						
27 D	11.17	-8.2981E-04	67.54	17.56	67.54	29.11	ACTIVE	0.000	-5.2000	38.32	
1.000	1.000	55.87	0.000	0.000	Ug2_741_743_L_0						
28 D	11.61	-7.7699E-04	70.17	18.24	70.17	30.14	ACTIVE	0.000	-5.4000	39.79	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	58.03	0.000	0.000	Ug2_741_743_L_0					
29 D	12.03	-7.2660E-04	72.65	18.89	72.65	31.17	ACTIVE	0.000	-5.600	41.26
1.000	1.000	60.15	0.000	0.000	Ug2_741_743_L_0					
30 D	12.46	-6.7864E-04	75.28	19.57	75.28	32.20	ACTIVE	0.000	-5.800	42.74
1.000	1.000	62.31	0.000	0.000	Ug2_741_743_L_0					
31 D	12.89	-6.3311E-04	77.90	20.25	77.90	33.23	ACTIVE	0.000	-6.000	44.21
1.000	1.000	64.46	0.000	0.000	Ug2_741_743_L_0					
32 D	13.32	-5.9003E-04	80.39	20.90	80.39	34.26	ACTIVE	0.000	-6.200	45.68
1.000	1.000	66.58	0.000	0.000	Ug2_741_743_L_0					
33 D	13.75	-5.4942E-04	83.00	21.58	83.00	35.29	ACTIVE	0.000	-6.400	47.16
1.000	1.000	68.74	0.000	0.000	Ug2_741_743_L_0					
34 D	14.17	-5.1129E-04	85.49	22.23	85.49	36.32	ACTIVE	0.000	-6.600	48.63
1.000	1.000	70.86	0.000	0.000	Ug2_741_743_L_0					
35 D	14.60	-4.7563E-04	88.09	22.90	88.09	37.35	ACTIVE	0.000	-6.800	50.11
1.000	1.000	73.01	0.000	0.000	Ug2_741_743_L_0					
36 D	15.03	-4.4245E-04	90.70	23.58	90.70	38.38	ACTIVE	0.000	-7.000	51.58
1.000	1.000	75.16	0.000	0.000	Ug2_741_743_L_0					
37 D	15.46	-4.1173E-04	93.18	24.23	93.18	39.41	ACTIVE	0.000	-7.200	53.05
1.000	1.000	77.28	0.000	0.000	Ug2_741_743_L_0					
38 D	15.89	-3.8342E-04	95.78	24.90	95.78	40.44	ACTIVE	0.000	-7.400	54.53
1.000	1.000	79.43	0.000	0.000	Ug2_741_743_L_0					
39 D	16.31	-3.5747E-04	98.27	25.55	98.27	41.46	ACTIVE	0.000	-7.600	56.00
1.000	1.000	81.55	0.000	0.000	Ug2_741_743_L_0					
40 D	16.85	-3.3379E-04	100.9	26.77	100.9	42.49	UL-RL	6.6238E+04	-7.800	57.47
1.000	1.000	84.25	0.000	0.000	Ug2_741_743_L_0					
41 D	17.68	-3.1229E-04	103.5	29.47	103.5	43.52	UL-RL	6.6238E+04	-8.000	58.95
1.000	1.000	88.41	0.000	0.000	Ug2_741_743_L_0					
42 D	18.49	-2.9283E-04	105.9	32.02	105.9	44.55	UL-RL	6.6238E+04	-8.200	60.42
1.000	1.000	92.44	0.000	0.000	Ug2_741_743_L_0					
43 D	19.27	-2.7527E-04	108.5	34.45	108.5	45.58	UL-RL	6.6238E+04	-8.400	61.89
1.000	1.000	96.35	0.000	0.000	Ug2_741_743_L_0					
44 D	20.03	-2.5946E-04	111.0	36.77	111.0	46.60	UL-RL	6.6238E+04	-8.600	63.37
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
45 D	20.76	-2.4525E-04	113.6	38.98	113.6	47.63	UL-RL	6.6238E+04	-8.800	64.84
1.000	1.000	103.8	0.000	0.000	Ug2_741_743_L_0					
46 D	21.48	-2.3247E-04	116.2	41.09	116.2	48.66	UL-RL	6.6238E+04	-9.000	66.32
1.000	1.000	107.4	0.000	0.000	Ug2_741_743_L_0					
47 D	22.18	-2.2097E-04	118.7	43.12	118.7	49.69	UL-RL	6.6238E+04	-9.200	67.79
1.000	1.000	110.9	0.000	0.000	Ug2_741_743_L_0					
48 D	22.87	-2.1061E-04	121.3	45.07	121.3	50.72	UL-RL	6.6238E+04	-9.400	69.26
1.000	1.000	114.3	0.000	0.000	Ug2_741_743_L_0					
49 D	23.54	-2.0124E-04	123.8	46.96	123.8	51.75	UL-RL	6.6238E+04	-9.600	70.74
1.000	1.000	117.7	0.000	0.000	Ug2_741_743_L_0					
50 D	24.20	-1.9273E-04	126.3	48.79	126.3	52.77	UL-RL	6.6238E+04	-9.800	72.21
1.000	1.000	121.0	0.000	0.000	Ug2_741_743_L_0					
51 D	24.85	-1.8495E-04	128.9	50.58	128.9	53.80	UL-RL	6.6238E+04	-10.000	73.68
1.000	1.000	124.3	0.000	0.000	Ug2_741_743_L_0					
52 D	25.50	-1.7777E-04	131.4	52.32	131.4	54.83	UL-RL	6.6238E+04	-10.200	75.16
1.000	1.000	127.5	0.000	0.000	Ug2_741_743_L_0					
53 D	26.13	-1.7110E-04	134.0	54.04	134.0	55.86	UL-RL	6.6238E+04	-10.400	76.63
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
54 D	26.77	-1.6483E-04	136.5	55.72	136.5	56.96	UL-RL	6.6238E+04	-10.600	78.11
1.000	1.000	133.8	0.000	0.000	Ug2_741_743_L_0					
55 D	27.39	-1.5887E-04	139.0	57.39	139.0	58.44	UL-RL	6.6238E+04	-10.800	79.58
1.000	1.000	137.0	0.000	0.000	Ug2_741_743_L_0					
56 D	28.02	-1.5314E-04	141.6	59.04	141.6	59.91	UL-RL	6.6238E+04	-11.000	81.05
1.000	1.000	140.1	0.000	0.000	Ug2_741_743_L_0					
57 D	28.64	-1.4758E-04	144.1	60.68	144.1	61.37	UL-RL	6.6238E+04	-11.200	82.53
1.000	1.000	143.2	0.000	0.000	Ug2_741_743_L_0					
58 D	29.26	-1.4211E-04	146.7	62.32	146.7	62.83	UL-RL	6.6238E+04	-11.400	84.00
1.000	1.000	146.3	0.000	0.000	Ug2_741_743_L_0					
59 D	29.88	-1.3671E-04	149.2	63.95	149.2	64.28	UL-RL	6.6238E+04	-11.600	85.47
1.000	1.000	149.4	0.000	0.000	Ug2_741_743_L_0					
60 D	30.51	-1.3134E-04	151.7	65.58	151.7	65.74	UL-RL	6.6238E+04	-11.800	86.95
1.000	1.000	152.5	0.000	0.000	Ug2_741_743_L_0					
61 D	15.56	-1.2597E-04	154.3	67.18	154.3	67.20	UL-RL	6.6238E+04	-12.000	88.42
1.000	1.000	155.6	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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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_1757          |
|          Exe Time :24 May 2018          18:16:00          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

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 D	5.095	2.0357E-03	0.000	25.47	20.00	25.47	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	25.47	0.000	0.000	Ug1_2_8_L_0						
12 D	6.124	1.9407E-03	3.800	30.62	22.00	30.62	V-C	9373.	-2.200	0.000	
1.000	1.000	30.62	0.000	0.000	Ug1_2_8_L_0						
13 D	6.375	1.8476E-03	7.600	31.87	24.00	31.87	V-C	9373.	-2.400	0.000	
1.000	1.000	31.87	0.000	0.000	Ug1_2_8_L_0						
14 D	6.614	1.7570E-03	11.40	33.07	26.00	33.07	V-C	9373.	-2.600	0.000	
1.000	1.000	33.07	0.000	0.000	Ug1_2_8_L_0						
15 D	6.851	1.6689E-03	15.20	34.25	28.00	34.25	V-C	9373.	-2.800	0.000	
1.000	1.000	34.25	0.000	0.000	Ug1_2_8_L_0						
16 D	7.088	1.5835E-03	19.00	35.44	30.00	35.44	V-C	9373.	-3.000	0.000	
1.000	1.000	35.44	0.000	0.000	Ug1_2_8_L_0						
17 D	7.327	1.5009E-03	22.80	36.64	32.00	36.64	V-C	9373.	-3.200	0.000	
1.000	1.000	36.64	0.000	0.000	Ug1_2_8_L_0						
18 D	7.570	1.4213E-03	26.60	37.85	34.00	37.85	V-C	9373.	-3.400	0.000	
1.000	1.000	37.85	0.000	0.000	Ug1_2_8_L_0						
19 D	7.818	1.3445E-03	30.40	39.09	36.00	39.09	V-C	9373.	-3.600	0.000	
1.000	1.000	39.09	0.000	0.000	Ug1_2_8_L_0						
20 D	8.070	1.2706E-03	34.20	40.35	38.00	40.35	V-C	9373.	-3.800	0.000	
1.000	1.000	40.35	0.000	0.000	Ug1_2_8_L_0						
21 D	8.327	1.1996E-03	38.00	41.64	40.00	41.64	V-C	9373.	-4.000	0.000	
1.000	1.000	41.64	0.000	0.000	Ug1_2_8_L_0						
22 D	8.589	1.1314E-03	41.80	42.95	42.00	42.95	V-C	9373.	-4.200	0.000	
1.000	1.000	42.95	0.000	0.000	Ug1_2_8_L_0						
23 D	8.856	1.0659E-03	45.60	44.28	45.60	44.28	V-C	9373.	-4.400	0.000	
1.000	1.000	44.28	0.000	0.000	Ug1_2_8_L_0						
24 D	9.575	1.0031E-03	49.45	47.88	49.45	47.88	V-C	1.1464E+04	-4.600	0.000	
1.000	1.000	47.88	0.000	0.000	Ug2_741_743_L_0						
25 D	9.836	9.4281E-04	53.35	49.18	53.35	49.18	V-C	1.1464E+04	-4.800	0.000	
1.000	1.000	49.18	0.000	0.000	Ug2_741_743_L_0						
26 D	10.10	8.8507E-04	57.25	50.51	57.25	50.51	V-C	1.1464E+04	-5.000	0.000	
1.000	1.000	50.51	0.000	0.000	Ug2_741_743_L_0						
27 D	10.64	8.2981E-04	58.72	50.66	58.72	50.66	V-C	1.1464E+04	-5.200	2.526	
1.000	1.000	53.18	0.000	0.000	Ug2_741_743_L_0						
28 D	11.18	7.7699E-04	60.20	50.84	60.20	50.84	V-C	1.1464E+04	-5.400	5.053	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	55.89	0.000	0.000	Ug2_741_743_L_0					
29 D	11.72	7.2660E-04	61.67	51.05	61.67	51.05	V-C	1.1464E+04	-5.600	7.579
1.000	1.000	58.62	0.000	0.000	Ug2_741_743_L_0					
30 D	12.28	6.7864E-04	63.14	51.28	63.14	51.28	V-C	1.1464E+04	-5.800	10.11
1.000	1.000	61.39	0.000	0.000	Ug2_741_743_L_0					
31 D	12.84	6.3311E-04	64.62	51.55	64.62	51.55	V-C	1.1464E+04	-6.000	12.63
1.000	1.000	64.18	0.000	0.000	Ug2_741_743_L_0					
32 D	13.40	5.9003E-04	66.09	51.85	66.09	51.85	V-C	1.1464E+04	-6.200	15.16
1.000	1.000	67.00	0.000	0.000	Ug2_741_743_L_0					
33 D	13.97	5.4942E-04	67.57	52.17	67.57	52.17	V-C	1.1464E+04	-6.400	17.68
1.000	1.000	69.86	0.000	0.000	Ug2_741_743_L_0					
34 D	14.55	5.1129E-04	69.04	52.53	69.04	52.53	V-C	1.1464E+04	-6.600	20.21
1.000	1.000	72.74	0.000	0.000	Ug2_741_743_L_0					
35 D	15.13	4.7563E-04	70.51	52.91	70.51	52.91	V-C	1.1464E+04	-6.800	22.74
1.000	1.000	75.65	0.000	0.000	Ug2_741_743_L_0					
36 D	15.67	4.4245E-04	71.99	53.08	71.99	53.08	V-C	1.1464E+04	-7.000	25.26
1.000	1.000	78.34	0.000	0.000	Ug2_741_743_L_0					
37 D	16.14	4.1173E-04	73.46	52.89	73.46	52.89	V-C	1.1464E+04	-7.200	27.79
1.000	1.000	80.68	0.000	0.000	Ug2_741_743_L_0					
38 D	16.63	3.8342E-04	74.93	52.82	74.93	52.82	V-C	1.1464E+04	-7.400	30.32
1.000	1.000	83.13	0.000	0.000	Ug2_741_743_L_0					
39 D	17.14	3.5747E-04	76.41	52.85	76.41	52.85	V-C	1.1464E+04	-7.600	32.84
1.000	1.000	85.69	0.000	0.000	Ug2_741_743_L_0					
40 D	17.67	3.3379E-04	77.88	52.99	78.00	52.99	V-C	1.1464E+04	-7.800	35.37
1.000	1.000	88.35	0.000	0.000	Ug2_741_743_L_0					
41 D	18.22	3.1229E-04	79.36	53.19	80.00	53.19	V-C	1.1464E+04	-8.000	37.89
1.000	1.000	91.08	0.000	0.000	Ug2_741_743_L_0					
42 D	18.78	2.9283E-04	80.83	53.47	82.00	53.47	V-C	1.1464E+04	-8.200	40.42
1.000	1.000	93.89	0.000	0.000	Ug2_741_743_L_0					
43 D	19.40	2.7527E-04	82.30	54.06	84.00	54.06	V-C	1.1464E+04	-8.400	42.95
1.000	1.000	97.00	0.000	0.000	Ug2_741_743_L_0					
44 D	20.03	2.5946E-04	83.78	54.70	86.00	54.70	V-C	1.1464E+04	-8.600	45.47
1.000	1.000	100.2	0.000	0.000	Ug2_741_743_L_0					
45 D	20.67	2.4525E-04	85.25	55.36	88.00	55.36	V-C	1.1464E+04	-8.800	48.00
1.000	1.000	103.4	0.000	0.000	Ug2_741_743_L_0					
46 D	21.31	2.3247E-04	86.72	56.04	90.00	56.04	V-C	1.1464E+04	-9.000	50.53
1.000	1.000	106.6	0.000	0.000	Ug2_741_743_L_0					
47 D	21.96	2.2097E-04	88.20	56.75	92.00	56.75	V-C	1.1464E+04	-9.200	53.05
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
48 D	22.61	2.1061E-04	89.67	57.46	94.00	57.46	V-C	1.1464E+04	-9.400	55.58
1.000	1.000	113.0	0.000	0.000	Ug2_741_743_L_0					
49 D	23.26	2.0124E-04	91.14	58.20	96.00	58.20	V-C	1.1464E+04	-9.600	58.11
1.000	1.000	116.3	0.000	0.000	Ug2_741_743_L_0					
50 D	23.91	1.9273E-04	92.62	58.91	98.00	58.91	V-C	1.1464E+04	-9.800	60.63
1.000	1.000	119.5	0.000	0.000	Ug2_741_743_L_0					
51 D	24.55	1.8495E-04	94.09	59.61	100.00	59.61	V-C	1.1464E+04	-10.000	63.16
1.000	1.000	122.8	0.000	0.000	Ug2_741_743_L_0					
52 D	25.19	1.7777E-04	95.57	60.25	102.0	60.25	V-C	1.1464E+04	-10.200	65.68
1.000	1.000	125.9	0.000	0.000	Ug2_741_743_L_0					
53 D	25.79	1.7110E-04	97.04	60.75	104.0	60.75	V-C	1.1464E+04	-10.400	68.21
1.000	1.000	129.0	0.000	0.000	Ug2_741_743_L_0					
54 D	26.40	1.6483E-04	98.51	61.26	106.0	61.28	UL-RL	3.4393E+04	-10.600	70.74
1.000	1.000	132.0	0.000	0.000	Ug2_741_743_L_0					
55 D	27.01	1.5887E-04	99.99	61.77	108.0	61.83	UL-RL	3.4393E+04	-10.800	73.26
1.000	1.000	135.0	0.000	0.000	Ug2_741_743_L_0					
56 D	27.62	1.5314E-04	101.5	62.29	110.0	62.38	UL-RL	3.4393E+04	-11.000	75.79
1.000	1.000	138.1	0.000	0.000	Ug2_741_743_L_0					
57 D	28.23	1.4758E-04	102.9	62.82	112.0	62.95	UL-RL	3.4393E+04	-11.200	78.32
1.000	1.000	141.1	0.000	0.000	Ug2_741_743_L_0					
58 D	28.84	1.4211E-04	104.4	63.35	114.0	63.51	UL-RL	3.4393E+04	-11.400	80.84
1.000	1.000	144.2	0.000	0.000	Ug2_741_743_L_0					
59 D	29.45	1.3671E-04	105.9	63.88	116.0	64.08	UL-RL	3.4393E+04	-11.600	83.37
1.000	1.000	147.3	0.000	0.000	Ug2_741_743_L_0					
60 D	30.06	1.3134E-04	107.4	64.42	118.0	64.65	UL-RL	3.4393E+04	-11.800	85.89
1.000	1.000	150.3	0.000	0.000	Ug2_741_743_L_0					
61 D	15.34	1.2597E-04	108.8	64.95	120.0	65.21	UL-RL	3.4393E+04	-12.000	88.42
1.000	1.000	153.4	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	6.87681E-02	-6.87681E-02	-8.27725E-12	1.37536E-02
2	0.62715	-0.62715	-1.37536E-02	0.13918
3	1.4224	-1.4224	-0.13918	0.42367
4	2.4966	-2.4966	-0.42367	0.92299
5	3.8495	-3.8495	-0.92299	1.6929
6	5.4808	-5.4808	-1.6929	2.7890
7	7.3901	-7.3901	-2.7890	4.2671
8	9.5769	-9.5769	-4.2671	6.1824
9	12.040	-12.040	-6.1824	8.5905
10	14.780	-14.780	-8.5905	11.546
11	12.699	-12.699	-11.546	14.086
12	10.028	-10.028	-14.086	16.092
13	7.6093	-7.6093	-16.092	17.614
14	5.4437	-5.4437	-17.614	18.703
15	3.5507	-3.5507	-18.703	19.413
16	1.9302	-1.9302	-19.413	19.799
17	0.55912	-0.55912	-19.799	19.911
18	-0.54810	0.54810	-19.911	19.801
19	-1.4143	1.4143	-19.801	19.518
20	-2.0272	2.0272	-19.518	19.113
21	-2.3931	2.3931	-19.113	18.634
22	-2.5325	2.5325	-18.634	18.128
23	-2.4360	2.4360	-18.128	17.640
24	-2.1253	2.1253	-17.640	17.215
25	-1.6422	1.6422	-17.215	16.887
26	-0.99308	0.99308	-16.887	16.688
27	-0.45509	0.45509	-16.688	16.597
28	-2.62869E-02	2.62869E-02	-16.597	16.592
29	0.27957	-0.27957	-16.592	16.648
30	0.46397	-0.46397	-16.648	16.741
31	0.52065	-0.52065	-16.741	16.845
32	0.43669	-0.43669	-16.845	16.932
33	0.21285	-0.21285	-16.932	16.975
34	-0.16337	0.16337	-16.975	16.942
35	-0.69154	0.69154	-16.942	16.804
36	-1.3273	1.3273	-16.804	16.538
37	-2.0070	2.0070	-16.538	16.137
38	-2.7475	2.7475	-16.137	15.587
39	-3.5762	3.5762	-15.587	14.872
40	-4.3978	4.3978	-14.872	13.993
41	-4.9320	4.9320	-13.993	13.006
42	-5.2214	5.2214	-13.006	11.962
43	-5.3524	5.3524	-11.962	10.891
44	-5.3593	5.3593	-10.891	9.8197
45	-5.2678	5.2678	-9.8197	8.7661
46	-5.1010	5.1010	-8.7661	7.7459
47	-4.8794	4.8794	-7.7459	6.7700
48	-4.6210	4.6210	-6.7700	5.8458
49	-4.3417	4.3417	-5.8458	4.9775
50	-4.0501	4.0501	-4.9775	4.1674
51	-3.7521	3.7521	-4.1674	3.4170
52	-3.4416	3.4416	-3.4170	2.7287
53	-3.1001	3.1001	-2.7287	2.1087
54	-2.7335	2.7335	-2.1087	1.5620
55	-2.3461	2.3461	-1.5620	1.0928
56	-1.9429	1.9429	-1.0928	0.70418
57	-1.5274	1.5274	-0.70418	0.39870
58	-1.1018	1.1018	-0.39870	0.17833
59	-0.66729	0.66729	-0.17833	4.48741E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-0.22436 0.22436 -4.48741E-02 4.98698E-14

```

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3013E+05 RIMNOR=0.2018E+05
RENORM= 338.4 REMNOR=0.6330E-21 RATIO =0.1060 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 29.68 RMMAX = 19.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3013E+05 RDR =0.2018E+05
RATIOT=0.1060 RATIO= 0.000
MAX UN= 6.654 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN=-.1263 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3013E+05 RIMNOR=0.2018E+05
RENORM= 74.40 REMNOR=0.1513E-20 RATIO =0.4970E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 29.68 RMMAX = 19.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3013E+05 RDR =0.2018E+05
RATIOT=0.4970E-01 RATIO= 0.000
MAX UN= 2.231 IEQ= 37 NODE 19 DOF 1 Y-DISPL.F
MIN UN=-.1285E-10 IEQ= 117 NODE 59 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3013E+05 RIMNOR=0.2018E+05
RENORM= 177.8 REMNOR=0.4361E-19 RATIO =0.7683E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 29.68 RMMAX = 19.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3013E+05 RDR =0.2018E+05
RATIOT=0.7683E-01 RATIO= 0.000
MAX UN= 7.146 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.1428E-08 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3013E+05 RIMNOR=0.2018E+05
RENORM= 8.037 REMNOR=0.5593E-19 RATIO =0.1633E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 29.68 RMMAX = 19.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3013E+05 RDR =0.2018E+05
RATIOT=0.1633E-01 RATIO= 0.000
MAX UN= 2.037 IEQ= 89 NODE 45 DOF 1 Y-DISPL.F
MIN UN=-.9711 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3013E+05 RIMNOR=0.2018E+05
RENORM=0.2923E-02 REMNOR=0.2064E-19 RATIO =0.3115E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 29.68 RMMAX = 19.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3013E+05 RDR =0.2018E+05
RATIOT=0.3115E-03 RATIO= 0.000
MAX UN=0.7452E-09 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
MIN UN=-.5407E-01 IEQ= 107 NODE 54 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 6 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3013E+05 RIMNOR=0.2018E+05
RENORM=0.5936E-04 REMNOR=0.1670E-19 RATIO =0.4439E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 29.68 RMMAX = 19.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3013E+05 RDR =0.2018E+05
RATIOT=0.4439E-04 RATIO= 0.000
MAX UN=0.3330E-02 IEQ= 93 NODE 47 DOF 1 Y-DISPL.F
MIN UN=-.1038E-08 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                      NewProject.BaseDesignSection_28.A1M1R1_1757 |
|                      Exe Time :24 May 2018           18:16:00   |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

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

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.5075369E-02	-2.2025494E-03	
2	1.4634859E-02	-2.2025494E-03	
3	1.4194350E-02	-2.2025299E-03	
4	1.3753852E-02	-2.2024323E-03	
5	1.3313389E-02	-2.2021593E-03	
6	1.2873009E-02	-2.2015741E-03	
7	1.2432792E-02	-2.2005014E-03	
8	1.1992855E-02	-2.1987264E-03	
9	1.1553365E-02	-2.195958E-03	
10	1.1114540E-02	-2.1920168E-03	
11	1.0676664E-02	-2.1864579E-03	
12	1.0240088E-02	-2.1789400E-03	
13	9.8052476E-03	-2.1690207E-03	
14	9.3726737E-03	-2.1561869E-03	
15	8.9430060E-03	-2.1398552E-03	
16	8.5170084E-03	-2.1193715E-03	
17	8.0955628E-03	-2.0942757E-03	
18	7.6796163E-03	-2.0643761E-03	
19	7.2701405E-03	-2.0295543E-03	
20	6.8681257E-03	-1.9897655E-03	
21	6.4745654E-03	-1.9450389E-03	
22	6.0904345E-03	-1.8954757E-03	
23	5.7166859E-03	-1.8412517E-03	
24	5.3542279E-03	-1.7826164E-03	
25	5.0038924E-03	-1.7201856E-03	
26	4.6663466E-03	-1.6548613E-03	
27	4.3420878E-03	-1.5874614E-03	
28	4.0314540E-03	-1.5187067E-03	
29	3.7346544E-03	-1.4492130E-03	
30	3.4517840E-03	-1.3794920E-03	
31	3.1828453E-03	-1.3099552E-03	
32	2.9277699E-03	-1.2409172E-03	
33	2.6864295E-03	-1.1726334E-03	
34	2.4586504E-03	-1.1053417E-03	
35	2.2442119E-03	-1.0392638E-03	
36	2.0428500E-03	-9.7460964E-04	
37	1.8542609E-03	-9.1157620E-04	
38	1.6781006E-03	-8.5034105E-04	
39	1.5139940E-03	-7.9106295E-04	
40	1.3615353E-03	-7.3388608E-04	
41	1.2202905E-03	-6.7894548E-04	
42	1.0897994E-03	-6.2637118E-04	
43	9.6957565E-04	-5.7629274E-04	
44	8.5910676E-04	-5.2884668E-04	
45	7.5785193E-04	-4.8418382E-04	
46	6.6523706E-04	-4.4247132E-04	
47	5.8065425E-04	-4.0389596E-04	
48	5.0345567E-04	-3.6866566E-04	
49	4.3295171E-04	-3.3697961E-04	
50	3.6841891E-04	-3.0897200E-04	
51	3.0911479E-04	-2.8469112E-04	
52	2.5429467E-04	-2.6410698E-04	
53	2.0323402E-04	-2.4710950E-04	
54	1.5522774E-04	-2.3349753E-04	
55	1.0962768E-04	-2.2299539E-04	
56	6.5844367E-05	-2.1527154E-04	
57	2.3358564E-05	-2.0995522E-04	
58	-1.8270952E-05	-2.0663737E-04	
59	-5.9399877E-05	-2.0487194E-04	
60	-1.0029108E-04	-2.0417683E-04	
61	-1.4110949E-04	-2.0403436E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

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	-1.5075E-02	0.000	0.000	0.000	0.7122	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.2667	-1.4635E-02	2.668	0.000	2.668	1.349	ACTIVE	0.000	-0.2000	1.333	
1.000	1.000	1.333	0.000	0.000	Ug1_2_8_L_0						
3 D	0.5333	-1.4194E-02	5.341	0.000	5.341	2.671	ACTIVE	0.000	-0.4000	2.667	
1.000	1.000	2.667	0.000	0.000	Ug1_2_8_L_0						
4 D	0.8000	-1.3754E-02	8.026	0.000	8.026	3.978	ACTIVE	0.000	-0.6000	4.000	
1.000	1.000	4.000	0.000	0.000	Ug1_2_8_L_0						
5 D	1.067	-1.3313E-02	10.72	0.000	10.72	5.256	ACTIVE	0.000	-0.8000	5.333	
1.000	1.000	5.333	0.000	0.000	Ug1_2_8_L_0						
6 D	1.333	-1.2873E-02	13.43	0.000	13.43	6.501	ACTIVE	0.000	-1.000	6.667	
1.000	1.000	6.667	0.000	0.000	Ug1_2_8_L_0						
7 D	1.600	-1.2433E-02	16.16	0.000	16.16	7.714	ACTIVE	0.000	-1.200	8.000	
1.000	1.000	8.000	0.000	0.000	Ug1_2_8_L_0						
8 D	1.867	-1.1993E-02	18.89	0.000	18.89	8.897	ACTIVE	0.000	-1.400	9.333	
1.000	1.000	9.333	0.000	0.000	Ug1_2_8_L_0						
9 D	2.133	-1.1553E-02	21.63	0.000	21.63	10.05	ACTIVE	0.000	-1.600	10.67	
1.000	1.000	10.67	0.000	0.000	Ug1_2_8_L_0						
10 D	2.400	-1.1115E-02	24.37	0.000	24.37	11.19	ACTIVE	0.000	-1.800	12.00	
1.000	1.000	12.00	0.000	0.000	Ug1_2_8_L_0						
11 D	2.784	-1.0677E-02	27.12	0.5851	27.12	12.30	ACTIVE	0.000	-2.000	13.33	
1.000	1.000	13.92	0.000	0.000	Ug1_2_8_L_0						
12 D	3.265	-1.0240E-02	29.87	1.656	29.87	13.40	ACTIVE	0.000	-2.200	14.67	
1.000	1.000	16.32	0.000	0.000	Ug1_2_8_L_0						
13 D	3.750	-9.8052E-03	32.67	2.751	32.67	14.48	ACTIVE	0.000	-2.400	16.00	
1.000	1.000	18.75	0.000	0.000	Ug1_2_8_L_0						
14 D	4.226	-9.3727E-03	35.35	3.796	35.35	15.56	ACTIVE	0.000	-2.600	17.33	
1.000	1.000	21.13	0.000	0.000	Ug1_2_8_L_0						
15 D	4.718	-8.9430E-03	38.24	4.922	38.24	16.62	ACTIVE	0.000	-2.800	18.67	
1.000	1.000	23.59	0.000	0.000	Ug1_2_8_L_0						
16 D	5.210	-8.5170E-03	41.14	6.052	41.14	17.68	ACTIVE	0.000	-3.000	20.00	
1.000	1.000	26.05	0.000	0.000	Ug1_2_8_L_0						
17 D	5.682	-8.0956E-03	43.77	7.077	43.77	18.73	ACTIVE	0.000	-3.200	21.33	
1.000	1.000	28.41	0.000	0.000	Ug1_2_8_L_0						
18 D	6.172	-7.6796E-03	46.63	8.194	46.63	19.78	ACTIVE	0.000	-3.400	22.67	
1.000	1.000	30.86	0.000	0.000	Ug1_2_8_L_0						
19 D	6.644	-7.2701E-03	49.26	9.219	49.26	20.83	ACTIVE	0.000	-3.600	24.00	
1.000	1.000	33.22	0.000	0.000	Ug1_2_8_L_0						
20 D	7.132	-6.8681E-03	52.10	10.33	52.10	21.87	ACTIVE	0.000	-3.800	25.33	
1.000	1.000	35.66	0.000	0.000	Ug1_2_8_L_0						
21 D	7.619	-6.4746E-03	54.92	11.43	54.92	22.91	ACTIVE	0.000	-4.000	26.67	
1.000	1.000	38.10	0.000	0.000	Ug1_2_8_L_0						
22 D	8.090	-6.0904E-03	57.55	12.45	57.55	23.95	ACTIVE	0.000	-4.200	28.00	
1.000	1.000	40.45	0.000	0.000	Ug1_2_8_L_0						
23 D	8.576	-5.7167E-03	60.36	13.55	60.36	24.98	ACTIVE	0.000	-4.400	29.33	
1.000	1.000	42.88	0.000	0.000	Ug1_2_8_L_0						
24 D	9.408	-5.3542E-03	62.98	16.37	62.98	26.02	ACTIVE	0.000	-4.600	30.67	
1.000	1.000	47.04	0.000	0.000	Ug2_741_743_L_0						
25 D	9.820	-5.0039E-03	65.78	17.10	65.78	27.05	ACTIVE	0.000	-4.800	32.00	
1.000	1.000	49.10	0.000	0.000	Ug2_741_743_L_0						
26 D	10.23	-4.6663E-03	68.56	17.83	68.56	28.08	ACTIVE	0.000	-5.000	33.33	
1.000	1.000	51.16	0.000	0.000	Ug2_741_743_L_0						
27 D	10.63	-4.3421E-03	71.18	18.51	71.18	29.11	ACTIVE	0.000	-5.200	34.67	
1.000	1.000	53.17	0.000	0.000	Ug2_741_743_L_0						
28 D	11.05	-4.0315E-03	73.96	19.23	73.96	30.14	ACTIVE	0.000	-5.400	36.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	55.23	0.000	0.000	Ug2_741_743_L_0					
29 D	11.45	-3.7347E-03	76.58	19.91	76.58	31.17	ACTIVE	0.000	-5.600	37.33
1.000	1.000	57.25	0.000	0.000	Ug2_741_743_L_0					
30 D	11.86	-3.4518E-03	79.35	20.63	79.35	32.20	ACTIVE	0.000	-5.800	38.67
1.000	1.000	59.30	0.000	0.000	Ug2_741_743_L_0					
31 D	12.27	-3.1828E-03	82.11	21.35	82.11	33.23	ACTIVE	0.000	-6.000	40.00
1.000	1.000	61.35	0.000	0.000	Ug2_741_743_L_0					
32 D	12.67	-2.9278E-03	84.74	22.03	84.74	34.26	ACTIVE	0.000	-6.200	41.33
1.000	1.000	63.36	0.000	0.000	Ug2_741_743_L_0					
33 D	13.08	-2.6864E-03	87.49	22.75	87.49	35.29	UL-RL	4.4159E+04	-6.400	42.67
1.000	1.000	65.41	0.000	0.000	Ug2_741_743_L_0					
34 D	13.49	-2.4587E-03	90.12	23.43	90.12	36.32	UL-RL	4.4159E+04	-6.600	44.00
1.000	1.000	67.43	0.000	0.000	Ug2_741_743_L_0					
35 D	13.90	-2.2442E-03	92.86	24.15	92.86	37.35	UL-RL	4.4159E+04	-6.800	45.33
1.000	1.000	69.48	0.000	0.000	Ug2_741_743_L_0					
36 D	14.31	-2.0428E-03	95.61	24.86	95.61	38.38	UL-RL	4.4159E+04	-7.000	46.67
1.000	1.000	71.53	0.000	0.000	Ug2_741_743_L_0					
37 D	14.71	-1.8543E-03	98.24	25.54	98.24	39.41	UL-RL	4.4159E+04	-7.200	48.00
1.000	1.000	73.54	0.000	0.000	Ug2_741_743_L_0					
38 D	15.12	-1.6781E-03	101.0	26.26	101.0	40.44	UL-RL	4.4159E+04	-7.400	49.33
1.000	1.000	75.59	0.000	0.000	Ug2_741_743_L_0					
39 D	15.52	-1.5140E-03	103.6	26.94	103.6	41.46	UL-RL	4.4159E+04	-7.600	50.67
1.000	1.000	77.61	0.000	0.000	Ug2_741_743_L_0					
40 D	15.93	-1.3615E-03	106.3	27.65	106.3	42.49	UL-RL	4.4159E+04	-7.800	52.00
1.000	1.000	79.65	0.000	0.000	Ug2_741_743_L_0					
41 D	16.34	-1.2203E-03	109.1	28.36	109.1	43.52	UL-RL	4.4159E+04	-8.000	53.33
1.000	1.000	81.70	0.000	0.000	Ug2_741_743_L_0					
42 D	16.74	-1.0898E-03	111.7	29.05	111.7	44.55	UL-RL	4.4159E+04	-8.200	54.67
1.000	1.000	83.72	0.000	0.000	Ug2_741_743_L_0					
43 D	17.15	-9.6958E-04	114.4	29.76	114.4	45.58	UL-RL	4.4159E+04	-8.400	56.00
1.000	1.000	85.76	0.000	0.000	Ug2_741_743_L_0					
44 D	17.56	-8.5911E-04	117.1	30.44	117.1	46.60	UL-RL	4.4159E+04	-8.600	57.33
1.000	1.000	87.78	0.000	0.000	Ug2_741_743_L_0					
45 D	17.96	-7.5785E-04	119.8	31.15	119.8	47.63	UL-RL	4.4159E+04	-8.800	58.67
1.000	1.000	89.82	0.000	0.000	Ug2_741_743_L_0					
46 D	18.37	-6.6524E-04	122.5	31.86	122.5	48.66	UL-RL	4.4159E+04	-9.000	60.00
1.000	1.000	91.86	0.000	0.000	Ug2_741_743_L_0					
47 D	18.78	-5.8065E-04	125.1	32.55	125.1	49.69	UL-RL	4.4159E+04	-9.200	61.33
1.000	1.000	93.88	0.000	0.000	Ug2_741_743_L_0					
48 D	19.62	-5.0346E-04	127.9	35.44	127.9	50.72	UL-RL	4.4159E+04	-9.400	62.67
1.000	1.000	98.10	0.000	0.000	Ug2_741_743_L_0					
49 D	20.82	-4.3295E-04	130.6	40.10	130.6	51.75	UL-RL	4.4159E+04	-9.600	64.00
1.000	1.000	104.1	0.000	0.000	Ug2_741_743_L_0					
50 D	21.96	-3.6842E-04	133.2	44.47	133.2	52.77	UL-RL	4.4159E+04	-9.800	65.33
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
51 D	23.05	-3.0911E-04	135.9	48.60	135.9	54.09	UL-RL	4.4159E+04	-10.00	66.67
1.000	1.000	115.3	0.000	0.000	Ug2_741_743_L_0					
52 D	24.10	-2.5429E-04	138.6	52.52	138.6	55.90	UL-RL	4.4159E+04	-10.20	68.00
1.000	1.000	120.5	0.000	0.000	Ug2_741_743_L_0					
53 D	25.12	-2.0323E-04	141.3	56.27	141.3	57.69	UL-RL	4.4159E+04	-10.40	69.33
1.000	1.000	125.6	0.000	0.000	Ug2_741_743_L_0					
54 D	26.05	-1.5523E-04	144.0	59.58	144.0	59.58	V-C	1.4720E+04	-10.60	70.67
1.000	1.000	130.3	0.000	0.000	Ug2_741_743_L_0					
55 D	26.78	-1.0963E-04	146.6	61.90	146.6	61.90	V-C	1.4720E+04	-10.80	72.00
1.000	1.000	133.9	0.000	0.000	Ug2_741_743_L_0					
56 D	27.50	-6.5844E-05	149.3	64.19	149.3	64.19	V-C	1.4720E+04	-11.00	73.33
1.000	1.000	137.5	0.000	0.000	Ug2_741_743_L_0					
57 D	28.22	-2.3359E-05	152.0	66.44	152.0	66.44	V-C	1.4720E+04	-11.20	74.67
1.000	1.000	141.1	0.000	0.000	Ug2_741_743_L_0					
58 D	28.94	1.8271E-05	154.7	68.68	154.7	68.68	V-C	1.4720E+04	-11.40	76.00
1.000	1.000	144.7	0.000	0.000	Ug2_741_743_L_0					
59 D	29.65	5.9400E-05	157.4	70.91	157.4	70.91	V-C	1.4720E+04	-11.60	77.33
1.000	1.000	148.2	0.000	0.000	Ug2_741_743_L_0					
60 D	30.36	1.0029E-04	160.0	73.13	160.0	73.13	V-C	1.4720E+04	-11.80	78.67
1.000	1.000	151.8	0.000	0.000	Ug2_741_743_L_0					
61 D	15.53	1.4111E-04	162.7	75.32	162.7	75.32	V-C	1.4720E+04	-12.00	80.00
1.000	1.000	155.3	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:16:00          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

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	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	3.642	8.5170E-03	0.000	18.21	30.00	35.44	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	18.21	0.000	0.000	Ug1_2_8_L_0						
17 D	4.626	8.0956E-03	3.800	23.13	32.00	36.64	PASSIVE	0.000	-3.200	0.000	
1.000	1.000	23.13	0.000	0.000	Ug1_2_8_L_0						
18 D	5.610	7.6796E-03	7.600	28.05	34.00	37.85	PASSIVE	0.000	-3.400	0.000	
1.000	1.000	28.05	0.000	0.000	Ug1_2_8_L_0						
19 D	6.594	7.2701E-03	11.40	32.97	36.00	39.09	PASSIVE	0.000	-3.600	0.000	
1.000	1.000	32.97	0.000	0.000	Ug1_2_8_L_0						
20 D	7.578	6.8681E-03	15.20	37.89	38.00	40.35	PASSIVE	0.000	-3.800	0.000	
1.000	1.000	37.89	0.000	0.000	Ug1_2_8_L_0						
21 D	8.563	6.4746E-03	19.00	42.81	40.00	42.81	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	42.81	0.000	0.000	Ug1_2_8_L_0						
22 D	9.547	6.0904E-03	22.80	47.73	42.00	47.73	PASSIVE	0.000	-4.200	0.000	
1.000	1.000	47.73	0.000	0.000	Ug1_2_8_L_0						
23 D	10.53	5.7167E-03	26.60	52.65	45.60	52.65	PASSIVE	0.000	-4.400	0.000	
1.000	1.000	52.65	0.000	0.000	Ug1_2_8_L_0						
24 D	15.87	5.3542E-03	30.45	79.36	49.45	79.36	V-C	7643.	-4.600	0.000	
1.000	1.000	79.36	0.000	0.000	Ug2_741_743_L_0						
25 D	15.69	5.0039E-03	34.35	78.46	53.35	78.46	V-C	7643.	-4.800	0.000	
1.000	1.000	78.46	0.000	0.000	Ug2_741_743_L_0						
26 D	15.53	4.6663E-03	38.25	77.67	57.25	77.67	V-C	7643.	-5.000	0.000	
1.000	1.000	77.67	0.000	0.000	Ug2_741_743_L_0						
27 D	15.20	4.3421E-03	42.15	76.01	58.72	76.01	V-C	7643.	-5.200	0.000	
1.000	1.000	76.01	0.000	0.000	Ug2_741_743_L_0						
28 D	14.89	4.0315E-03	46.05	74.45	60.20	74.45	V-C	7643.	-5.400	0.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.45	0.000	0.000	Ug2_741_743_L_0					
29 D	14.60	3.7347E-03	49.95	73.01	61.67	73.01	V-C	7643.	-5.600	0.000
1.000	1.000	73.01	0.000	0.000	Ug2_741_743_L_0					
30 D	14.33	3.4518E-03	53.85	71.67	63.14	71.67	V-C	7643.	-5.800	0.000
1.000	1.000	71.67	0.000	0.000	Ug2_741_743_L_0					
31 D	14.09	3.1828E-03	57.75	70.45	64.62	70.45	V-C	7643.	-6.000	0.000
1.000	1.000	70.45	0.000	0.000	Ug2_741_743_L_0					
32 D	14.36	2.9278E-03	59.08	69.11	66.09	69.11	V-C	7643.	-6.200	2.667
1.000	1.000	71.78	0.000	0.000	Ug2_741_743_L_0					
33 D	14.65	2.6864E-03	60.42	67.89	67.57	67.89	UL-RL	2.2929E+04	-6.400	5.333
1.000	1.000	73.23	0.000	0.000	Ug2_741_743_L_0					
34 D	14.96	2.4587E-03	61.75	66.79	69.04	66.79	UL-RL	2.2929E+04	-6.600	8.000
1.000	1.000	74.79	0.000	0.000	Ug2_741_743_L_0					
35 D	15.29	2.2442E-03	63.08	65.79	70.51	65.79	UL-RL	2.2929E+04	-6.800	10.67
1.000	1.000	76.46	0.000	0.000	Ug2_741_743_L_0					
36 D	15.60	2.0428E-03	64.42	64.66	71.99	64.66	UL-RL	2.2929E+04	-7.000	13.33
1.000	1.000	77.99	0.000	0.000	Ug2_741_743_L_0					
37 D	15.85	1.8543E-03	65.75	63.25	73.46	63.25	UL-RL	2.2929E+04	-7.200	16.00
1.000	1.000	79.25	0.000	0.000	Ug2_741_743_L_0					
38 D	16.14	1.6781E-03	67.08	62.04	74.93	62.04	UL-RL	2.2929E+04	-7.400	18.67
1.000	1.000	80.70	0.000	0.000	Ug2_741_743_L_0					
39 D	16.47	1.5140E-03	68.42	61.00	76.41	61.01	UL-RL	2.2929E+04	-7.600	21.33
1.000	1.000	82.34	0.000	0.000	Ug2_741_743_L_0					
40 D	16.83	1.3615E-03	69.75	60.14	78.00	60.14	UL-RL	2.2929E+04	-7.800	24.00
1.000	1.000	84.14	0.000	0.000	Ug2_741_743_L_0					
41 D	17.22	1.2203E-03	71.08	59.42	80.00	59.42	UL-RL	2.2929E+04	-8.000	26.67
1.000	1.000	86.08	0.000	0.000	Ug2_741_743_L_0					
42 D	17.63	1.0898E-03	72.42	58.83	82.00	58.84	UL-RL	2.2929E+04	-8.200	29.33
1.000	1.000	88.17	0.000	0.000	Ug2_741_743_L_0					
43 D	18.12	9.6958E-04	73.75	58.62	84.00	58.62	UL-RL	2.2929E+04	-8.400	32.00
1.000	1.000	90.62	0.000	0.000	Ug2_741_743_L_0					
44 D	18.64	8.5911E-04	75.08	58.52	86.00	58.53	UL-RL	2.2929E+04	-8.600	34.67
1.000	1.000	93.19	0.000	0.000	Ug2_741_743_L_0					
45 D	19.17	7.5785E-04	76.42	58.51	88.00	58.51	UL-RL	2.2929E+04	-8.800	37.33
1.000	1.000	95.84	0.000	0.000	Ug2_741_743_L_0					
46 D	19.71	6.6524E-04	77.75	58.57	90.00	58.57	UL-RL	2.2929E+04	-9.000	40.00
1.000	1.000	98.57	0.000	0.000	Ug2_741_743_L_0					
47 D	20.27	5.8065E-04	79.08	58.69	92.00	58.70	UL-RL	2.2929E+04	-9.200	42.67
1.000	1.000	101.4	0.000	0.000	Ug2_741_743_L_0					
48 D	20.84	5.0346E-04	80.42	58.89	94.00	58.89	UL-RL	2.2929E+04	-9.400	45.33
1.000	1.000	104.2	0.000	0.000	Ug2_741_743_L_0					
49 D	21.43	4.3295E-04	81.75	59.14	96.00	59.14	UL-RL	2.2929E+04	-9.600	48.00
1.000	1.000	107.1	0.000	0.000	Ug2_741_743_L_0					
50 D	22.02	3.6842E-04	83.08	59.41	98.00	59.42	UL-RL	2.2929E+04	-9.800	50.67
1.000	1.000	110.1	0.000	0.000	Ug2_741_743_L_0					
51 D	22.59	3.0911E-04	84.42	59.63	100.00	59.75	UL-RL	2.2929E+04	-10.000	53.33
1.000	1.000	113.0	0.000	0.000	Ug2_741_743_L_0					
52 D	23.04	2.5429E-04	85.75	59.18	102.0	60.35	UL-RL	2.2929E+04	-10.200	56.00
1.000	1.000	115.2	0.000	0.000	Ug2_741_743_L_0					
53 D	23.47	2.0323E-04	87.08	58.68	104.0	60.83	UL-RL	2.2929E+04	-10.400	58.67
1.000	1.000	117.3	0.000	0.000	Ug2_741_743_L_0					
54 D	23.92	1.5523E-04	88.42	58.26	106.0	61.33	UL-RL	2.2929E+04	-10.600	61.33
1.000	1.000	119.6	0.000	0.000	Ug2_741_743_L_0					
55 D	24.38	1.0963E-04	89.75	57.90	108.0	61.83	UL-RL	2.2929E+04	-10.800	64.00
1.000	1.000	121.9	0.000	0.000	Ug2_741_743_L_0					
56 D	24.84	6.5844E-05	91.08	57.51	110.0	62.38	UL-RL	2.2929E+04	-11.000	66.67
1.000	1.000	124.2	0.000	0.000	Ug2_741_743_L_0					
57 D	25.30	2.3359E-05	92.42	57.15	112.0	62.95	UL-RL	2.2929E+04	-11.200	69.33
1.000	1.000	126.5	0.000	0.000	Ug2_741_743_L_0					
58 D	25.76	-1.8271E-05	93.75	56.81	114.0	63.51	UL-RL	2.2929E+04	-11.400	72.00
1.000	1.000	128.8	0.000	0.000	Ug2_741_743_L_0					
59 D	26.23	-5.9400E-05	95.08	56.48	116.0	64.08	UL-RL	2.2929E+04	-11.600	74.67
1.000	1.000	131.2	0.000	0.000	Ug2_741_743_L_0					
60 D	26.70	-1.0029E-04	96.42	56.16	118.0	64.65	UL-RL	2.2929E+04	-11.800	77.33
1.000	1.000	133.5	0.000	0.000	Ug2_741_743_L_0					
61 D	13.58	-1.4111E-04	97.75	55.84	120.0	65.21	UL-RL	2.2929E+04	-12.000	80.00
1.000	1.000	135.8	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018          18:16:00 |
+-----+
New Project

```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.88030E-10	-2.88030E-10	2.88583E-11	8.00836E-11
2	0.26667	-0.26667	-2.43562E-11	5.33333E-02
3	0.80000	-0.80000	-5.33333E-02	0.21333
4	1.6000	-1.6000	-0.21333	0.53333
5	2.6667	-2.6667	-0.53333	1.0667
6	4.0000	-4.0000	-1.0667	1.8667
7	5.6000	-5.6000	-1.8667	2.9867
8	7.4667	-7.4667	-2.9867	4.4800
9	9.6000	-9.6000	-4.4800	6.4000
10	12.000	-12.000	-6.4000	8.8000
11	14.784	-14.784	-8.8000	11.757
12	18.048	-18.048	-11.757	15.366
13	21.798	-21.798	-15.366	19.726
14	26.024	-26.024	-19.726	24.931
15	30.742	-30.742	-24.931	31.079
16	32.311	-32.311	-31.079	37.542
17	33.367	-33.367	-37.542	44.215
18	33.929	-33.929	-44.215	51.001
19	33.979	-33.979	-51.001	57.797
20	33.533	-33.533	-57.797	64.503
21	32.589	-32.589	-64.503	71.021
22	31.133	-31.133	-71.021	77.248
23	29.178	-29.178	-77.248	83.083
24	22.715	-22.715	-83.083	87.626
25	16.843	-16.843	-87.626	90.995
26	11.541	-11.541	-90.995	93.303
27	6.9748	-6.9748	-93.303	94.698
28	3.1301	-3.1301	-94.698	95.324
29	-2.22735E-02	2.22735E-02	-95.324	95.320
30	-2.4971	2.4971	-95.320	94.820
31	-4.3170	4.3170	-94.820	93.957
32	-6.0000	6.0000	-93.957	92.757
33	-7.5625	7.5625	-92.757	91.244
34	-9.0339	9.0339	-91.244	89.437
35	-10.430	10.430	-89.437	87.351
36	-11.724	11.724	-87.351	85.007
37	-12.866	12.866	-85.007	82.433
38	-13.890	13.890	-82.433	79.655
39	-14.837	14.837	-79.655	76.688
40	-15.737	15.737	-76.688	73.540
41	-16.615	16.615	-73.540	70.217
42	-17.508	17.508	-70.217	66.716
43	-18.482	18.482	-66.716	63.019
44	-19.567	19.567	-63.019	59.106
45	-20.773	20.773	-59.106	54.951
46	-22.117	22.117	-54.951	50.528
47	-23.616	23.616	-50.528	45.805
48	-24.840	24.840	-45.805	40.837
49	-25.449	25.449	-40.837	35.747
50	-25.504	25.504	-35.747	30.646
51	-25.043	25.043	-30.646	25.637
52	-23.975	23.975	-25.637	20.843
53	-22.324	22.324	-20.843	16.378
54	-20.193	20.193	-16.378	12.339
55	-17.792	17.792	-12.339	8.7808
56	-15.124	15.124	-8.7808	5.7560
57	-12.199	12.199	-5.7560	3.3162
58	-9.0256	9.0256	-3.3162	1.5111
59	-5.6078	5.6078	-1.5111	0.38956

60 -1.9477 1.9477 -0.38956 -1.69510E-13

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018      18:16:00  |
+-----+
```

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	6
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	5
6	CONVERGENCE :YES	4
7	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.05 [sec]

DATABASE CREATION CPU TIME..... 0.23 [sec]

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_1787  |  
|          Exe Time :24 May 2018      18:16:00  |  
|          |  
+-----+-----
```

```
*****  
*  
* 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.A2M2R1_1787  
STARTING  
ACCEPTED <FILE,GENW >  
ACCEPTED <FILE,PLOTTER,BINARY >  
ACCEPTED <SOLVE TOTAL STRESS >  
ACCEPTED <PARAM ITEMAX 40 >  
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

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

```
PRELIMINARY OPERATIONS CPU TIME 0.02 [sec]
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:16:00       |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 61
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 122
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 111
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.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                           |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787          |
|                               Exe Time :24 May 2018           18:16:00          |
+-----+
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   111

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
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 Ugl_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 8 26
14 : YOUNG 2E+04 6E+04
15 : ENDL
16 : LDATA Ug2_741_743_L_0 -4.5 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 19.5 10 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 0 36
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S275_113 2.1E+08
24 : BEAM WallElement_33 LeftWall_32 -12 0 S275_113 0.25 00 00 0
25 : STRIP LeftWall_32 1 7 2 33 0 5 45
26 : STEP Stage1_31
27 : CHANGE Ugl_2_8_L_0 U-FRICT=21.32 LeftWall_32
28 : CHANGE Ugl_2_8_L_0 D-FRICT=21.32 LeftWall_32
29 : CHANGE Ugl_2_8_L_0 U-KA=0.467 LeftWall_32
30 : CHANGE Ugl_2_8_L_0 U-KP=2.649 LeftWall_32
31 : CHANGE Ugl_2_8_L_0 D-KA=0.467 LeftWall_32
32 : CHANGE Ugl_2_8_L_0 D-KP=2.649 LeftWall_32
33 : CHANGE Ug2_741_743_L_0 U-FRICT=30.17 LeftWall_32
34 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
35 : CHANGE Ug2_741_743_L_0 U-KA=0.331 LeftWall_32
36 : CHANGE Ug2_741_743_L_0 U-KP=4.331 LeftWall_32
37 : CHANGE Ug2_741_743_L_0 D-KA=0.331 LeftWall_32
38 : CHANGE Ug2_741_743_L_0 D-KP=4.331 LeftWall_32
39 : CHANGE Ugl_2_8_L_0 U-COHE=6.4 LeftWall_32
40 : CHANGE Ugl_2_8_L_0 D-COHE=6.4 LeftWall_32
41 : CHANGE Ug2_741_743_L_0 U-COHE=0 LeftWall_32
42 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
43 : SETWALL LeftWall_32
44 : GEOM 0 0
45 : WATER 0 0 -12 0 0
46 : ADD WallElement_33
47 : ENDSTEP
48 : STEP Stage2_158
49 : CHANGE Ugl_2_8_L_0 D-FRICT=21.32 LeftWall_32
50 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
51 : CHANGE Ugl_2_8_L_0 D-COHE=6.4 LeftWall_32
52 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
53 : SETWALL LeftWall_32
54 : GEOM 0 -1
55 : WATER 0 1 -12 0 0
56 : ENDSTEP
57 : STEP Stage3_255
58 : CHANGE Ugl_2_8_L_0 D-FRICT=21.32 LeftWall_32
59 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
60 : CHANGE Ugl_2_8_L_0 D-COHE=6.4 LeftWall_32
61 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
62 : SETWALL LeftWall_32
63 : GEOM 0 -2
64 : WATER 0 2 -12 0 0
65 : ENDSTEP
66 : STEP Stage4_352
67 : CHANGE Ugl_2_8_L_0 D-FRICT=21.32 LeftWall_32
68 : CHANGE Ugl_2_8_L_0 D-KP=1.999 LeftWall_32

```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
70 : CHANGE Ug2_741_743_L_0 D-KA=0.295 LeftWall_32
71 : CHANGE Ug2_741_743_L_0 D-KP=3.57 LeftWall_32
72 : CHANGE Ug1_2_8_L_0 D-COHE=6.4 LeftWall_32
73 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
74 : SETWALL LeftWall_32
75 : GEOM 0 -2
76 : WATER 0 3 -12 0 0
77 : ENDSTEP
78 : STEP Stage5_449
79 : CHANGE Ug1_2_8_L_0 D-FRICT=21.32 LeftWall_32
80 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
81 : CHANGE Ug2_741_743_L_0 D-KA=0.287 LeftWall_32
82 : CHANGE Ug2_741_743_L_0 D-KP=2.766 LeftWall_32
83 : CHANGE Ug1_2_8_L_0 D-COHE=6.4 LeftWall_32
84 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
85 : SETWALL LeftWall_32
86 : GEOM 0 -2
87 : WATER 0 4 -12 0 0
88 : ENDSTEP
89 : STEP Stage6_546
90 : CHANGE Ug1_2_8_L_0 D-FRICT=21.32 LeftWall_32
91 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
92 : CHANGE Ug2_741_743_L_0 D-KP=2.046 LeftWall_32
93 : CHANGE Ug1_2_8_L_0 D-COHE=6.4 LeftWall_32
94 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
95 : SETWALL LeftWall_32
96 : GEOM 0 -2
97 : WATER 0 5 -12 0 0
98 : ENDSTEP
99 : STEP Stage7_643
100 : CHANGE Ug1_2_8_L_0 D-FRICT=21.32 LeftWall_32
101 : CHANGE Ug1_2_8_L_0 D-KA=0.377 LeftWall_32
102 : CHANGE Ug1_2_8_L_0 D-KP=0.928 LeftWall_32
103 : CHANGE Ug2_741_743_L_0 D-FRICT=30.17 LeftWall_32
104 : CHANGE Ug2_741_743_L_0 D-KA=0.274 LeftWall_32
105 : CHANGE Ug2_741_743_L_0 D-KP=1.894 LeftWall_32
106 : CHANGE Ug1_2_8_L_0 D-COHE=6.4 LeftWall_32
107 : CHANGE Ug2_741_743_L_0 D-COHE=0 LeftWall_32
108 : SETWALL LeftWall_32
109 : GEOM 0 -3
110 : WATER 0 6 -12 0 0
111 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

```

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 / 42 0.0000    -8.2000 / 43 0.0000    -8.4000 / 44 0.0000    -8.6000 / |
| 45 0.0000    -8.8000 / 46 0.0000    -9.0000 / 47 0.0000    -9.2000 / 48 0.0000    -9.4000 / |
| 49 0.0000    -9.6000 / 50 0.0000    -9.8000 / 51 0.0000    -10.000 / 52 0.0000    -10.200 / |
| 53 0.0000   -10.400 / 54 0.0000   -10.600 / 55 0.0000   -10.800 / 56 0.0000   -11.000 / |
| 57 0.0000   -11.200 / 58 0.0000   -11.400 / 59 0.0000   -11.600 / 60 0.0000   -11.800 / |
| 61 0.0000   -12.000 / |
+-----+

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L          :
 5 61  0  1  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
  6  active
  7  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	2	0.2000	0.000	0.000	0.000	1.000
25	25	2	0.2000	0.000	0.000	0.000	1.000
26	26	2	0.2000	0.000	0.000	0.000	1.000
27	27	2	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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	0.2000	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	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R          :
 5 61  0  1  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
 6  active
 7  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	2	0.2000	0.000	0.000	0.000	2.000
25	25	2	0.2000	0.000	0.000	0.000	2.000
26	26	2	0.2000	0.000	0.000	0.000	2.000
27	27	2	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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	0.2000	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	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018      18:16:00 |
+-----+
ELEMENT GROUP NO. 3

WallElement_33      :
 2 60 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
 6  active
 7  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 .....      0.00000

no. of step variable items: 1
step  inertia multiplier
-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000
 6  1.000
 7  1.000

element data

  e1  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
 1  1  2  1  0.000  0.000  0.2500  0.000  0.000
 2  2  3  1  0.000  0.000  0.2500  0.000  0.000
 3  3  4  1  0.000  0.000  0.2500  0.000  0.000
 4  4  5  1  0.000  0.000  0.2500  0.000  0.000
 5  5  6  1  0.000  0.000  0.2500  0.000  0.000
 6  6  7  1  0.000  0.000  0.2500  0.000  0.000
 7  7  8  1  0.000  0.000  0.2500  0.000  0.000
 8  8  9  1  0.000  0.000  0.2500  0.000  0.000
 9  9 10  1  0.000  0.000  0.2500  0.000  0.000
10 10 11  1  0.000  0.000  0.2500  0.000  0.000
11 11 12  1  0.000  0.000  0.2500  0.000  0.000
12 12 13  1  0.000  0.000  0.2500  0.000  0.000
13 13 14  1  0.000  0.000  0.2500  0.000  0.000
14 14 15  1  0.000  0.000  0.2500  0.000  0.000
15 15 16  1  0.000  0.000  0.2500  0.000  0.000
16 16 17  1  0.000  0.000  0.2500  0.000  0.000
17 17 18  1  0.000  0.000  0.2500  0.000  0.000
18 18 19  1  0.000  0.000  0.2500  0.000  0.000
19 19 20  1  0.000  0.000  0.2500  0.000  0.000
20 20 21  1  0.000  0.000  0.2500  0.000  0.000
21 21 22  1  0.000  0.000  0.2500  0.000  0.000
22 22 23  1  0.000  0.000  0.2500  0.000  0.000
23 23 24  1  0.000  0.000  0.2500  0.000  0.000
24 24 25  1  0.000  0.000  0.2500  0.000  0.000
25 25 26  1  0.000  0.000  0.2500  0.000  0.000
26 26 27  1  0.000  0.000  0.2500  0.000  0.000
27 27 28  1  0.000  0.000  0.2500  0.000  0.000
28 28 29  1  0.000  0.000  0.2500  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.2500	0.000	0.000
30	30	31	1	0.000	0.000	0.2500	0.000	0.000
31	31	32	1	0.000	0.000	0.2500	0.000	0.000
32	32	33	1	0.000	0.000	0.2500	0.000	0.000
33	33	34	1	0.000	0.000	0.2500	0.000	0.000
34	34	35	1	0.000	0.000	0.2500	0.000	0.000
35	35	36	1	0.000	0.000	0.2500	0.000	0.000
36	36	37	1	0.000	0.000	0.2500	0.000	0.000
37	37	38	1	0.000	0.000	0.2500	0.000	0.000
38	38	39	1	0.000	0.000	0.2500	0.000	0.000
39	39	40	1	0.000	0.000	0.2500	0.000	0.000
40	40	41	1	0.000	0.000	0.2500	0.000	0.000
41	41	42	1	0.000	0.000	0.2500	0.000	0.000
42	42	43	1	0.000	0.000	0.2500	0.000	0.000
43	43	44	1	0.000	0.000	0.2500	0.000	0.000
44	44	45	1	0.000	0.000	0.2500	0.000	0.000
45	45	46	1	0.000	0.000	0.2500	0.000	0.000
46	46	47	1	0.000	0.000	0.2500	0.000	0.000
47	47	48	1	0.000	0.000	0.2500	0.000	0.000
48	48	49	1	0.000	0.000	0.2500	0.000	0.000
49	49	50	1	0.000	0.000	0.2500	0.000	0.000
50	50	51	1	0.000	0.000	0.2500	0.000	0.000
51	51	52	1	0.000	0.000	0.2500	0.000	0.000
52	52	53	1	0.000	0.000	0.2500	0.000	0.000
53	53	54	1	0.000	0.000	0.2500	0.000	0.000
54	54	55	1	0.000	0.000	0.2500	0.000	0.000
55	55	56	1	0.000	0.000	0.2500	0.000	0.000
56	56	57	1	0.000	0.000	0.2500	0.000	0.000
57	57	58	1	0.000	0.000	0.2500	0.000	0.000
58	58	59	1	0.000	0.000	0.2500	0.000	0.000
59	59	60	1	0.000	0.000	0.2500	0.000	0.000
60	60	61	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.A2M2R1_1787  |  
|                               Exe Time :24 May 2018      18:16:00  |  
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0  
NO. OF LOAD CURVES (NLCUR) ..... 14  
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
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
8.00000	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
8.00000	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
8.00000	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
8.00000	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
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787                                          |
|          Exe Time :24 May 2018      18:16:00                                                  |
+-----+
```

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
STEP	6	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	6	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:16:00                             |
+-----+
```

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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

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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      >= 18.000   (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   >= 10.000   (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000   (BOTH WALLS)
ITEM NO. 8<U-COHE   >= 6.4000   WALL NO.    1
ITEM NO. 8<U-COHE   >= 8.0000   WALL NO.    2
ITEM NO. 9<U-FRICT  >= 21.320   WALL NO.    1
ITEM NO. 9<U-FRICT  >= 26.000   WALL NO.    2
ITEM NO. 10<U-KA    >= 0.46700  WALL NO.    1
ITEM NO. 11<U-KP    >= 2.6490   WALL NO.    1
ITEM NO. 12<KO-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     >= 20000.   (BOTH WALLS)
ITEM NO. 18<EUR     >= 60000.   (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  >= 6.4000   WALL NO.    1
ITEM NO. 58<D-COHE  >= 8.0000   WALL NO.    2
ITEM NO. 59<D-FRICT >= 21.320   WALL NO.    1
ITEM NO. 59<D-FRICT >= 26.000   WALL NO.    2
ITEM NO. 60<D-KA    >= 0.46700  WALL NO.    1
ITEM NO. 61<D-KP    >= 2.6490   WALL NO.    1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

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

```

ITEM NO. 1<NAME      >= 19.000   (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000   (BOTH WALLS)
ITEM NO. 3<LEVEL    >= -4.5000   (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000   (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.500   (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000   (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000   (BOTH WALLS)
ITEM NO. 9<U-FRICT  >= 30.170   WALL NO.    1
ITEM NO. 9<U-FRICT  >= 36.000   WALL NO.    2
ITEM NO. 10<U-KA    >= 0.33100  WALL NO.    1
ITEM NO. 11<U-KP    >= 4.3310   WALL NO.    1
ITEM NO. 12<KO-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     >= 30000.   (BOTH WALLS)
ITEM NO. 18<EUR     >= 90000.   (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. 59<D-FRICT >= 30.170   WALL NO.    1
ITEM NO. 59<D-FRICT >= 36.000   WALL NO.    2
ITEM NO. 60<D-KA    >= 0.33100  WALL NO.    1
ITEM NO. 61<D-KP    >= 4.3310   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      >= 18.000   (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000   (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000   (BOTH WALLS)

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>=	6.4000	WALL NO.	1
ITEM NO.	8<U-COHE	>=	8.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>=	21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>=	26.000	WALL NO.	2
ITEM NO.	10<U-KA	>=	0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>=	2.6490	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	>=	20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	60000.	(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	>=	6.4000	WALL NO.	1
ITEM NO.	58<D-COHE	>=	8.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>=	21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>=	26.000	WALL NO.	2
ITEM NO.	60<D-KA	>=	0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>=	2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>=	19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	-4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	30.170	WALL NO.	1
ITEM NO.	9<U-FRICT	>=	36.000	WALL NO.	2
ITEM NO.	10<U-KA	>=	0.33100	WALL NO.	1
ITEM NO.	11<U-KP	>=	4.3310	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	>=	30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	90000.	(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.	59<D-FRICT	>=	30.170	WALL NO.	1
ITEM NO.	59<D-FRICT	>=	36.000	WALL NO.	2
ITEM NO.	60<D-KA	>=	0.33100	WALL NO.	1
ITEM NO.	61<D-KP	>=	4.3310	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	>=	18.000	(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	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>=	6.4000	WALL NO.	1
ITEM NO.	8<U-COHE	>=	8.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>=	21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>=	26.000	WALL NO.	2
ITEM NO.	10<U-KA	>=	0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>=	2.6490	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	>=	20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	60000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>	>=	1.0000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 6.4000 WALL NO. 1
ITEM NO. 58<D-COHE >= 8.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

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

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 30.170 WALL NO. 1
ITEM NO. 9<U-FRICT >= 36.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.33100 WALL NO. 1
ITEM NO. 11<U-KP >= 4.3310 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 >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (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. 59<D-FRICT >= 30.170 WALL NO. 1
ITEM NO. 59<D-FRICT >= 36.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.33100 WALL NO. 1
ITEM NO. 61<D-KP >= 4.3310 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 >= 18.000 (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 >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 6.4000 WALL NO. 1
ITEM NO. 8<U-COHE >= 8.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 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 >= 20000. (BOTH WALLS)
ITEM NO. 18<EUR >= 60000. (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 >= 6.4000 WALL NO. 1
ITEM NO. 58<D-COHE >= 8.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 1.9990 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

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

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -4.5000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	9<U-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.33100	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.3310	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.29500	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.5700	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	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 6.4000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 8.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 6.4000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 8.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 1.9990	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

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

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.33100	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.3310	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.28700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.7660	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 6.4000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 8.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 6.4000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 8.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 1.9990	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.33100	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.3310	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.28700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.0460	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 18.000	(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	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 6.4000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 8.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	11<U-KP	>= 2.6490	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	>= 20000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 60000.	(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	>= 6.4000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 8.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.37700	WALL NO.	1
ITEM NO.	61<D-KP	>= 0.92800	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -4.5000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.33100	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.3310	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	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(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.	59<D-FRICT	>= 30.170	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 36.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.27400	WALL NO.	1
ITEM NO.	61<D-KP	>= 1.8940	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
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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  0.000        -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 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   -1.000         0.000
Z-WATER_TABLE  0.000        -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  1.000         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

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	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		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

=====
=====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			-2.000	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			4.000	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

STEP NO.	6		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			-2.000	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			5.000	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 6

STEP NO.	7		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			-2.000	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			5.000	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

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-3.000	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	6.000	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 7

LEFT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018   18:16:00 |
+-----+

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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 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 2.0000000000000000
FOUNDATION WIDTH (B) 33.0000000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.0000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4503

NO. OF D.P.W FOR THIS AREA 7204
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000        RMNORM= 0.000
          RINORM=0.5271E+05   RIMNOR= 0.000
          RENORM=0.1168E-27   REMNOR= 0.000        RATIO =0.4706E-16   TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03   RMSMAL= 0.000
          RDT    =0.5271E+05   RDR    = 0.000
          RATIOI=0.4706E-16   RATIOR= 0.000
          MAX UN=0.3553E-14   IEQ=    83 NODE        42 DOF    1   Y-DISPL.F
          MIN UN=-.3553E-14   IEQ=    85 NODE        43 DOF    1   Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

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ITER    1  RNORM = 0.000        RMNORM= 0.000
          RINORM=0.5271E+05   RIMNOR= 0.000
          RENORM=0.7496E-29   REMNOR=0.4278E-53   RATIO =0.1193E-16   TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03   RMSMAL= 0.000
          RDT    =0.5271E+05   RDR    = 0.000
          RATIOI=0.1193E-16   RATIOR= 0.000
          MAX UN=0.5665E-15   IEQ=    61 NODE        31 DOF    1   Y-DISPL.F
          MIN UN=-.5724E-15   IEQ=    119 NODE       60 DOF    1   Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

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ITER    2  RNORM = 0.000        RMNORM= 0.000
          RINORM=0.5271E+05   RIMNOR= 0.000
          RENORM=0.6026E-29   REMNOR=0.9984E-53   RATIO =0.1069E-16   TOLER =0.1000E-03        CONVERGED !
          RFMAX = 35.70        RMMAX = 0.000
          RTSMAL=0.1000E-03   RMSMAL= 0.000
          RDT    =0.5271E+05   RDR    = 0.000
          RATIOI=0.1069E-16   RATIOR= 0.000
          MAX UN=0.4654E-15   IEQ=    53 NODE        27 DOF    1   Y-DISPL.F
          MIN UN=-.6508E-15   IEQ=    119 NODE       60 DOF    1   Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:16:00                             |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

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)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	3.2139E-21	0.000	0.000	0.000	0.000	V-C	1.8297E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.6596	-8.4027E-22	2.001	1.298	2.001	1.298	V-C	1.8297E+04	-0.2000	2.000	
1.000	1.000	3.298	0.000	0.000	Ug1_2_8_L_0						
3 D	1.317	-4.8945E-21	4.008	2.584	4.008	2.584	V-C	1.8297E+04	-0.4000	4.000	
1.000	1.000	6.584	0.000	0.000	Ug1_2_8_L_0						
4 D	1.969	-8.9484E-21	6.026	3.847	6.026	3.847	V-C	1.8297E+04	-0.6000	6.000	
1.000	1.000	9.847	0.000	0.000	Ug1_2_8_L_0						
5 D	2.616	-1.3001E-20	8.057	5.082	8.057	5.082	V-C	1.8297E+04	-0.8000	8.000	
1.000	1.000	13.08	0.000	0.000	Ug1_2_8_L_0						
6 D	3.257	-1.7050E-20	10.10	6.284	10.10	6.284	V-C	1.8297E+04	-1.0000	10.000	
1.000	1.000	16.28	0.000	0.000	Ug1_2_8_L_0						
7 D	3.891	-2.1091E-20	12.16	7.453	12.16	7.453	V-C	1.8297E+04	-1.2000	12.000	
1.000	1.000	19.45	0.000	0.000	Ug1_2_8_L_0						
8 D	4.519	-2.5119E-20	14.22	8.593	14.22	8.593	V-C	1.8297E+04	-1.4000	14.000	
1.000	1.000	22.59	0.000	0.000	Ug1_2_8_L_0						
9 D	5.141	-2.9124E-20	16.30	9.705	16.30	9.705	V-C	1.8297E+04	-1.6000	16.000	
1.000	1.000	25.70	0.000	0.000	Ug1_2_8_L_0						
10 D	5.759	-3.3096E-20	18.37	10.79	18.37	10.79	V-C	1.8297E+04	-1.8000	18.000	
1.000	1.000	28.79	0.000	0.000	Ug1_2_8_L_0						
11 D	6.373	-3.7020E-20	20.45	11.86	20.45	11.86	V-C	1.8297E+04	-2.0000	20.000	
1.000	1.000	31.86	0.000	0.000	Ug1_2_8_L_0						
12 D	6.984	-4.0876E-20	22.53	12.92	22.53	12.92	V-C	1.8297E+04	-2.2000	22.000	
1.000	1.000	34.92	0.000	0.000	Ug1_2_8_L_0						
13 D	7.592	-4.4650E-20	24.67	13.96	24.67	13.96	V-C	1.8297E+04	-2.4000	24.000	
1.000	1.000	37.96	0.000	0.000	Ug1_2_8_L_0						
14 D	8.198	-4.8358E-20	26.69	14.99	26.69	14.99	V-C	1.8297E+04	-2.6000	26.000	
1.000	1.000	40.99	0.000	0.000	Ug1_2_8_L_0						
15 D	8.802	-5.2019E-20	28.91	16.01	28.91	16.01	V-C	1.8297E+04	-2.8000	28.000	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
16 D	9.405	-5.5646E-20	31.14	17.03	31.14	17.03	V-C	1.8297E+04	-3.0000	30.000	
1.000	1.000	47.03	0.000	0.000	Ug1_2_8_L_0						
17 D	10.01	-5.9247E-20	33.10	18.04	33.10	18.04	V-C	1.8297E+04	-3.2000	32.000	
1.000	1.000	50.04	0.000	0.000	Ug1_2_8_L_0						
18 D	10.61	-6.2823E-20	35.30	19.04	35.30	19.04	V-C	1.8297E+04	-3.4000	34.000	
1.000	1.000	53.04	0.000	0.000	Ug1_2_8_L_0						
19 D	11.21	-6.6369E-20	37.26	20.04	37.26	20.04	V-C	1.8297E+04	-3.6000	36.000	
1.000	1.000	56.04	0.000	0.000	Ug1_2_8_L_0						
20 D	11.81	-6.9872E-20	39.43	21.04	39.43	21.04	V-C	1.8297E+04	-3.8000	38.000	
1.000	1.000	59.04	0.000	0.000	Ug1_2_8_L_0						
21 D	12.41	-7.3313E-20	41.59	22.04	41.59	22.04	V-C	1.8297E+04	-4.0000	40.000	
1.000	1.000	62.04	0.000	0.000	Ug1_2_8_L_0						
22 D	13.01	-7.6664E-20	43.55	23.03	43.55	23.03	V-C	1.8297E+04	-4.2000	42.000	
1.000	1.000	65.03	0.000	0.000	Ug1_2_8_L_0						
23 D	13.60	-7.9890E-20	45.69	24.02	45.69	24.02	V-C	1.8297E+04	-4.4000	44.000	
1.000	1.000	68.02	0.000	0.000	Ug1_2_8_L_0						
24 D	14.20	-8.2947E-20	47.65	25.02	47.65	25.02	V-C	3.2588E+04	-4.6000	46.000	
1.000	1.000	71.02	0.000	0.000	Ug2_741_743_L_0						
25 D	14.80	-8.5782E-20	49.78	26.01	49.78	26.01	V-C	3.2588E+04	-4.8000	48.000	
1.000	1.000	74.01	0.000	0.000	Ug2_741_743_L_0						
26 D	15.40	-8.8330E-20	51.89	26.99	51.89	26.99	V-C	3.2588E+04	-5.0000	50.000	
1.000	1.000	76.99	0.000	0.000	Ug2_741_743_L_0						
27 D	16.00	-9.0513E-20	53.85	27.98	53.85	27.98	V-C	3.2588E+04	-5.2000	52.000	
1.000	1.000	79.98	0.000	0.000	Ug2_741_743_L_0						
28 D	16.59	-9.2238E-20	55.96	28.97	55.96	28.97	V-C	3.2588E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.97	0.000	0.000	Ug2_741_743_L_0					
29 D	17.19	-9.3399E-20	57.92	29.96	57.92	29.96	V-C	3.2588E+04	-5.600	56.00
1.000	1.000	85.96	0.000	0.000	Ug2_741_743_L_0					
30 D	17.79	-9.3878E-20	60.02	30.94	60.02	30.94	V-C	3.2588E+04	-5.800	58.00
1.000	1.000	88.94	0.000	0.000	Ug2_741_743_L_0					
31 D	18.39	-9.3540E-20	62.11	31.93	62.11	31.93	V-C	3.2588E+04	-6.000	60.00
1.000	1.000	91.93	0.000	0.000	Ug2_741_743_L_0					
32 D	18.98	-9.2259E-20	64.07	32.92	64.07	32.92	V-C	3.2588E+04	-6.200	62.00
1.000	1.000	94.92	0.000	0.000	Ug2_741_743_L_0					
33 D	19.58	-8.9960E-20	66.16	33.90	66.16	33.90	V-C	3.2588E+04	-6.400	64.00
1.000	1.000	97.90	0.000	0.000	Ug2_741_743_L_0					
34 D	20.18	-8.6593E-20	68.12	34.89	68.12	34.89	V-C	3.2588E+04	-6.600	66.00
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
35 D	20.77	-8.2164E-20	70.20	35.87	70.20	35.87	V-C	3.2588E+04	-6.800	68.00
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.37	-7.6703E-20	72.27	36.86	72.27	36.86	V-C	3.2588E+04	-7.000	70.00
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
37 D	21.97	-7.0298E-20	74.24	37.84	74.24	37.84	V-C	3.2588E+04	-7.200	72.00
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
38 D	22.57	-6.3043E-20	76.31	38.83	76.31	38.83	V-C	3.2588E+04	-7.400	74.00
1.000	1.000	112.8	0.000	0.000	Ug2_741_743_L_0					
39 D	23.16	-5.5023E-20	78.27	39.81	78.27	39.81	V-C	3.2588E+04	-7.600	76.00
1.000	1.000	115.8	0.000	0.000	Ug2_741_743_L_0					
40 D	23.76	-4.6315E-20	80.34	40.80	80.34	40.80	V-C	3.2588E+04	-7.800	78.00
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
41 D	24.36	-3.7005E-20	82.40	41.78	82.40	41.78	V-C	3.2588E+04	-8.000	80.00
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
42 D	24.95	-2.7243E-20	84.37	42.77	84.37	42.77	V-C	3.2588E+04	-8.200	82.00
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
43 D	25.55	-1.7206E-20	86.43	43.75	86.43	43.75	V-C	3.2588E+04	-8.400	84.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
44 D	26.15	-7.1212E-21	88.39	44.74	88.39	44.74	V-C	3.2588E+04	-8.600	86.00
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
45 D	26.74	2.8582E-21	90.45	45.72	90.45	45.72	V-C	3.2588E+04	-8.800	88.00
1.000	1.000	133.7	0.000	0.000	Ug2_741_743_L_0					
46 D	27.34	1.2667E-20	92.50	46.70	92.50	46.70	V-C	3.2588E+04	-9.000	90.00
1.000	1.000	136.7	0.000	0.000	Ug2_741_743_L_0					
47 D	27.94	2.2257E-20	94.47	47.69	94.47	47.69	V-C	3.2588E+04	-9.200	92.00
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
48 D	28.53	3.1580E-20	96.52	48.67	96.52	48.67	V-C	3.2588E+04	-9.400	94.00
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
49 D	29.13	4.0586E-20	98.57	49.66	98.57	49.66	V-C	3.2588E+04	-9.600	96.00
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
50 D	29.73	4.9220E-20	100.5	50.64	100.5	50.64	V-C	3.2588E+04	-9.800	98.00
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
51 D	30.33	5.7424E-20	102.6	51.63	102.6	51.63	V-C	3.2588E+04	-10.000	100.00
1.000	1.000	151.6	0.000	0.000	Ug2_741_743_L_0					
52 D	30.92	6.5133E-20	104.6	52.61	104.6	52.61	V-C	3.2588E+04	-10.200	102.0
1.000	1.000	154.6	0.000	0.000	Ug2_741_743_L_0					
53 D	31.52	7.2291E-20	106.6	53.60	106.6	53.60	V-C	3.2588E+04	-10.400	104.0
1.000	1.000	157.6	0.000	0.000	Ug2_741_743_L_0					
54 D	32.12	7.8921E-20	108.6	54.58	108.6	54.58	V-C	3.2588E+04	-10.600	106.0
1.000	1.000	160.6	0.000	0.000	Ug2_741_743_L_0					
55 D	32.71	8.5123E-20	110.6	55.57	110.6	55.57	V-C	3.2588E+04	-10.800	108.0
1.000	1.000	163.6	0.000	0.000	Ug2_741_743_L_0					
56 D	33.31	9.1002E-20	112.7	56.55	112.7	56.55	V-C	3.2588E+04	-11.000	110.0
1.000	1.000	166.6	0.000	0.000	Ug2_741_743_L_0					
57 D	33.91	9.6650E-20	114.6	57.54	114.6	57.54	V-C	3.2588E+04	-11.200	112.0
1.000	1.000	169.5	0.000	0.000	Ug2_741_743_L_0					
58 D	34.50	1.0215E-19	116.7	58.52	116.7	58.52	V-C	3.2588E+04	-11.400	114.0
1.000	1.000	172.5	0.000	0.000	Ug2_741_743_L_0					
59 D	35.10	1.0755E-19	118.7	59.51	118.7	59.51	V-C	3.2588E+04	-11.600	116.0
1.000	1.000	175.5	0.000	0.000	Ug2_741_743_L_0					
60 D	35.70	1.1292E-19	120.7	60.50	120.7	60.50	V-C	3.2588E+04	-11.800	118.0
1.000	1.000	178.5	0.000	0.000	Ug2_741_743_L_0					
61 D	18.15	1.1827E-19	122.7	61.48	122.7	61.48	V-C	3.2588E+04	-12.000	120.0
1.000	1.000	181.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-3.2139E-21	0.000	0.000	0.000	0.000	V-C	1.7079E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.6596	8.4027E-22	2.000	1.298	2.000	1.298	V-C	1.7079E+04	-0.2000	2.000	
1.000	1.000	3.298	0.000	0.000	Ug1_2_8_L_0						
3 D	1.317	4.8945E-21	4.000	2.584	4.000	2.584	V-C	1.7079E+04	-0.4000	4.000	
1.000	1.000	6.584	0.000	0.000	Ug1_2_8_L_0						
4 D	1.969	8.9484E-21	6.000	3.847	6.000	3.847	V-C	1.7079E+04	-0.6000	6.000	
1.000	1.000	9.847	0.000	0.000	Ug1_2_8_L_0						
5 D	2.616	1.3001E-20	8.000	5.082	8.000	5.082	V-C	1.7079E+04	-0.8000	8.000	
1.000	1.000	13.08	0.000	0.000	Ug1_2_8_L_0						
6 D	3.257	1.7050E-20	10.00	6.284	10.00	6.284	V-C	1.7079E+04	-1.000	10.00	
1.000	1.000	16.28	0.000	0.000	Ug1_2_8_L_0						
7 D	3.891	2.1091E-20	12.00	7.453	12.00	7.453	V-C	1.7079E+04	-1.200	12.00	
1.000	1.000	19.45	0.000	0.000	Ug1_2_8_L_0						
8 D	4.519	2.5119E-20	14.00	8.593	14.00	8.593	V-C	1.7079E+04	-1.400	14.00	
1.000	1.000	22.59	0.000	0.000	Ug1_2_8_L_0						
9 D	5.141	2.9124E-20	16.00	9.705	16.00	9.705	V-C	1.7079E+04	-1.600	16.00	
1.000	1.000	25.70	0.000	0.000	Ug1_2_8_L_0						
10 D	5.759	3.3096E-20	18.00	10.79	18.00	10.79	V-C	1.7079E+04	-1.800	18.00	
1.000	1.000	28.79	0.000	0.000	Ug1_2_8_L_0						
11 D	6.373	3.7020E-20	20.00	11.86	20.00	11.86	V-C	1.7079E+04	-2.000	20.00	
1.000	1.000	31.86	0.000	0.000	Ug1_2_8_L_0						
12 D	6.984	4.0876E-20	22.00	12.92	22.00	12.92	V-C	1.7079E+04	-2.200	22.00	
1.000	1.000	34.92	0.000	0.000	Ug1_2_8_L_0						
13 D	7.592	4.4650E-20	24.00	13.96	24.00	13.96	V-C	1.7079E+04	-2.400	24.00	
1.000	1.000	37.96	0.000	0.000	Ug1_2_8_L_0						
14 D	8.198	4.8358E-20	26.00	14.99	26.00	14.99	V-C	1.7079E+04	-2.600	26.00	
1.000	1.000	40.99	0.000	0.000	Ug1_2_8_L_0						
15 D	8.802	5.2019E-20	28.00	16.01	28.00	16.01	V-C	1.7079E+04	-2.800	28.00	
1.000	1.000	44.01	0.000	0.000	Ug1_2_8_L_0						
16 D	9.405	5.5646E-20	30.00	17.03	30.00	17.03	V-C	1.7079E+04	-3.000	30.00	
1.000	1.000	47.03	0.000	0.000	Ug1_2_8_L_0						
17 D	10.01	5.9247E-20	32.00	18.04	32.00	18.04	V-C	1.7079E+04	-3.200	32.00	
1.000	1.000	50.04	0.000	0.000	Ug1_2_8_L_0						
18 D	10.61	6.2823E-20	34.00	19.04	34.00	19.04	V-C	1.7079E+04	-3.400	34.00	
1.000	1.000	53.04	0.000	0.000	Ug1_2_8_L_0						
19 D	11.21	6.6369E-20	36.00	20.04	36.00	20.04	V-C	1.7079E+04	-3.600	36.00	
1.000	1.000	56.04	0.000	0.000	Ug1_2_8_L_0						
20 D	11.81	6.9872E-20	38.00	21.04	38.00	21.04	V-C	1.7079E+04	-3.800	38.00	
1.000	1.000	59.04	0.000	0.000	Ug1_2_8_L_0						
21 D	12.41	7.3313E-20	40.00	22.04	40.00	22.04	V-C	1.7079E+04	-4.000	40.00	
1.000	1.000	62.04	0.000	0.000	Ug1_2_8_L_0						
22 D	13.01	7.6664E-20	42.00	23.03	42.00	23.03	V-C	1.7079E+04	-4.200	42.00	
1.000	1.000	65.03	0.000	0.000	Ug1_2_8_L_0						
23 D	13.60	7.9890E-20	44.00	24.02	44.00	24.02	V-C	1.7079E+04	-4.400	44.00	
1.000	1.000	68.02	0.000	0.000	Ug1_2_8_L_0						
24 D	14.20	8.2947E-20	46.00	25.02	46.00	25.02	V-C	2.1577E+04	-4.600	46.00	
1.000	1.000	71.02	0.000	0.000	Ug2_741_743_L_0						
25 D	14.80	8.5782E-20	48.00	26.01	48.00	26.01	V-C	2.1577E+04	-4.800	48.00	
1.000	1.000	74.01	0.000	0.000	Ug2_741_743_L_0						
26 D	15.40	8.8330E-20	50.00	26.99	50.00	26.99	V-C	2.1577E+04	-5.000	50.00	
1.000	1.000	76.99	0.000	0.000	Ug2_741_743_L_0						
27 D	16.00	9.0513E-20	52.00	27.98	52.00	27.98	V-C	2.1577E+04	-5.200	52.00	
1.000	1.000	79.98	0.000	0.000	Ug2_741_743_L_0						
28 D	16.59	9.2238E-20	54.00	28.97	54.00	28.97	V-C	2.1577E+04	-5.400	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.97	0.000	0.000	Ug2_741_743_L_0					
29 D	17.19	9.3399E-20	56.00	29.96	56.00	29.96	V-C	2.1577E+04	-5.600	56.00
1.000	1.000	85.96	0.000	0.000	Ug2_741_743_L_0					
30 D	17.79	9.3878E-20	58.00	30.94	58.00	30.94	V-C	2.1577E+04	-5.800	58.00
1.000	1.000	88.94	0.000	0.000	Ug2_741_743_L_0					
31 D	18.39	9.3540E-20	60.00	31.93	60.00	31.93	V-C	2.1577E+04	-6.000	60.00
1.000	1.000	91.93	0.000	0.000	Ug2_741_743_L_0					
32 D	18.98	9.2259E-20	62.00	32.92	62.00	32.92	V-C	2.1577E+04	-6.200	62.00
1.000	1.000	94.92	0.000	0.000	Ug2_741_743_L_0					
33 D	19.58	8.9960E-20	64.00	33.90	64.00	33.90	V-C	2.1577E+04	-6.400	64.00
1.000	1.000	97.90	0.000	0.000	Ug2_741_743_L_0					
34 D	20.18	8.6593E-20	66.00	34.89	66.00	34.89	V-C	2.1577E+04	-6.600	66.00
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
35 D	20.77	8.2164E-20	68.00	35.87	68.00	35.87	V-C	2.1577E+04	-6.800	68.00
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.37	7.6703E-20	70.00	36.86	70.00	36.86	V-C	2.1577E+04	-7.000	70.00
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
37 D	21.97	7.0298E-20	72.00	37.84	72.00	37.84	V-C	2.1577E+04	-7.200	72.00
1.000	1.000	109.8	0.000	0.000	Ug2_741_743_L_0					
38 D	22.57	6.3043E-20	74.00	38.83	74.00	38.83	V-C	2.1577E+04	-7.400	74.00
1.000	1.000	112.8	0.000	0.000	Ug2_741_743_L_0					
39 D	23.16	5.5023E-20	76.00	39.81	76.00	39.81	V-C	2.1577E+04	-7.600	76.00
1.000	1.000	115.8	0.000	0.000	Ug2_741_743_L_0					
40 D	23.76	4.6315E-20	78.00	40.80	78.00	40.80	V-C	2.1577E+04	-7.800	78.00
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
41 D	24.36	3.7005E-20	80.00	41.78	80.00	41.78	V-C	2.1577E+04	-8.000	80.00
1.000	1.000	121.8	0.000	0.000	Ug2_741_743_L_0					
42 D	24.95	2.7243E-20	82.00	42.77	82.00	42.77	V-C	2.1577E+04	-8.200	82.00
1.000	1.000	124.8	0.000	0.000	Ug2_741_743_L_0					
43 D	25.55	1.7206E-20	84.00	43.75	84.00	43.75	V-C	2.1577E+04	-8.400	84.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
44 D	26.15	7.1212E-21	86.00	44.74	86.00	44.74	V-C	2.1577E+04	-8.600	86.00
1.000	1.000	130.7	0.000	0.000	Ug2_741_743_L_0					
45 D	26.74	-2.8582E-21	88.00	45.72	88.00	45.72	V-C	2.1577E+04	-8.800	88.00
1.000	1.000	133.7	0.000	0.000	Ug2_741_743_L_0					
46 D	27.34	-1.2667E-20	90.00	46.70	90.00	46.70	V-C	2.1577E+04	-9.000	90.00
1.000	1.000	136.7	0.000	0.000	Ug2_741_743_L_0					
47 D	27.94	-2.2257E-20	92.00	47.69	92.00	47.69	V-C	2.1577E+04	-9.200	92.00
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
48 D	28.53	-3.1580E-20	94.00	48.67	94.00	48.67	V-C	2.1577E+04	-9.400	94.00
1.000	1.000	142.7	0.000	0.000	Ug2_741_743_L_0					
49 D	29.13	-4.0586E-20	96.00	49.66	96.00	49.66	V-C	2.1577E+04	-9.600	96.00
1.000	1.000	145.7	0.000	0.000	Ug2_741_743_L_0					
50 D	29.73	-4.9220E-20	98.00	50.64	98.00	50.64	V-C	2.1577E+04	-9.800	98.00
1.000	1.000	148.6	0.000	0.000	Ug2_741_743_L_0					
51 D	30.33	-5.7424E-20	100.00	51.63	100.00	51.63	V-C	2.1577E+04	-10.000	100.00
1.000	1.000	151.6	0.000	0.000	Ug2_741_743_L_0					
52 D	30.92	-6.5133E-20	102.0	52.61	102.0	52.61	V-C	2.1577E+04	-10.200	102.0
1.000	1.000	154.6	0.000	0.000	Ug2_741_743_L_0					
53 D	31.52	-7.2291E-20	104.0	53.60	104.0	53.60	V-C	2.1577E+04	-10.400	104.0
1.000	1.000	157.6	0.000	0.000	Ug2_741_743_L_0					
54 D	32.12	-7.8921E-20	106.0	54.58	106.0	54.58	V-C	2.1577E+04	-10.600	106.0
1.000	1.000	160.6	0.000	0.000	Ug2_741_743_L_0					
55 D	32.71	-8.5123E-20	108.0	55.57	108.0	55.57	V-C	2.1577E+04	-10.800	108.0
1.000	1.000	163.6	0.000	0.000	Ug2_741_743_L_0					
56 D	33.31	-9.1002E-20	110.0	56.55	110.0	56.55	V-C	2.1577E+04	-11.000	110.0
1.000	1.000	166.6	0.000	0.000	Ug2_741_743_L_0					
57 D	33.91	-9.6650E-20	112.0	57.54	112.0	57.54	V-C	2.1577E+04	-11.200	112.0
1.000	1.000	169.5	0.000	0.000	Ug2_741_743_L_0					
58 D	34.50	-1.0215E-19	114.0	58.52	114.0	58.52	V-C	2.1577E+04	-11.400	114.0
1.000	1.000	172.5	0.000	0.000	Ug2_741_743_L_0					
59 D	35.10	-1.0755E-19	116.0	59.51	116.0	59.51	V-C	2.1577E+04	-11.600	116.0
1.000	1.000	175.5	0.000	0.000	Ug2_741_743_L_0					
60 D	35.70	-1.1292E-19	118.0	60.50	118.0	60.50	V-C	2.1577E+04	-11.800	118.0
1.000	1.000	178.5	0.000	0.000	Ug2_741_743_L_0					
61 D	18.15	-1.1827E-19	120.0	61.48	120.0	61.48	V-C	2.1577E+04	-12.000	120.0
1.000	1.000	181.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                     |
|                                                                     |
|               NewProject.BaseDesignSection_28.A2M2R1_1787   |
|               Exe Time :24 May 2018           18:16:00     |
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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 60
CURRENT TIME IS 1.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.33131E-18	-2.33131E-18	0.0000	4.66262E-19
2	-8.25797E-18	8.25797E-18	-4.66262E-19	-1.18533E-18
3	-3.40972E-17	3.40972E-17	1.18533E-18	-8.00478E-18
4	-7.51800E-17	7.51800E-17	8.00478E-18	-2.30408E-17
5	-1.31491E-16	1.31491E-16	2.30408E-17	-4.93391E-17
6	-2.03005E-16	2.03005E-16	4.93391E-17	-8.99401E-17
7	-2.89678E-16	2.89678E-16	8.99401E-17	-1.47876E-16
8	-3.91446E-16	3.91446E-16	1.47876E-16	-2.26165E-16
9	-5.08219E-16	5.08219E-16	2.26165E-16	-3.27809E-16
10	-6.39877E-16	6.39877E-16	3.27809E-16	-4.55784E-16
11	-7.86260E-16	7.86260E-16	4.55784E-16	-6.13036E-16
12	-8.29188E-16	8.29188E-16	6.13036E-16	-4.47199E-16
13	-6.54005E-16	6.54005E-16	4.47199E-16	-3.16398E-16
14	-4.64854E-16	4.64854E-16	3.16398E-16	-2.23427E-16
15	-2.62105E-16	2.62105E-16	2.23427E-16	-1.71006E-16
16	-4.61989E-17	4.61989E-17	1.71006E-16	-1.61766E-16
17	-1.82346E-16	1.82346E-16	1.61766E-16	-1.98235E-16
18	-4.22923E-16	4.22923E-16	1.98235E-16	-2.82820E-16
19	-6.74833E-16	6.74833E-16	2.82820E-16	-4.17786E-16
20	-9.37275E-16	9.37275E-16	4.17786E-16	-6.05241E-16
21	-1.20934E-15	1.20934E-15	6.05241E-16	-8.47108E-16
22	-1.49000E-15	1.49000E-15	8.47108E-16	-1.14511E-15
23	-1.77811E-15	1.77811E-15	1.14511E-15	-1.50073E-15
24	-2.22870E-15	2.22870E-15	1.50073E-15	-1.94647E-15
25	-2.68662E-15	2.68662E-15	1.94647E-15	-2.48380E-15
26	-3.14954E-15	3.14954E-15	2.48380E-15	-3.11370E-15
27	-3.61494E-15	3.61494E-15	3.11370E-15	-3.83669E-15
28	-4.08011E-15	4.08011E-15	3.83669E-15	-4.65271E-15
29	-4.54220E-15	4.54220E-15	4.65271E-15	-5.56115E-15
30	-4.99820E-15	4.99820E-15	5.56115E-15	-6.56079E-15
31	-1.89227E-15	1.89227E-15	6.56079E-15	-6.93924E-15
32	-2.32665E-15	2.32665E-15	6.93924E-15	-7.40457E-15
33	-8.07350E-16	8.07350E-16	7.40457E-15	-7.24310E-15
34	-4.07537E-16	4.07537E-16	7.24310E-15	-7.16160E-15
35	-3.58255E-15	3.58255E-15	7.16160E-15	-6.44509E-15
36	-3.23008E-15	3.23008E-15	6.44509E-15	-5.79907E-15
37	-2.90584E-15	2.90584E-15	5.79907E-15	-5.21791E-15
38	-2.61265E-15	2.61265E-15	5.21791E-15	-4.69538E-15
39	-2.35314E-15	2.35314E-15	4.69538E-15	-4.22475E-15
40	-5.68243E-15	5.68243E-15	4.22475E-15	-3.08826E-15
41	-5.49721E-15	5.49721E-15	3.08826E-15	-1.98882E-15
42	-8.90478E-15	8.90478E-15	1.98882E-15	-2.07865E-16
43	-5.24857E-15	5.24857E-15	2.07865E-16	-8.41850E-16
44	-1.63531E-15	1.63531E-15	8.41850E-16	-1.16891E-15
45	-1.61873E-15	1.61873E-15	1.16891E-15	-1.49266E-15
46	-1.64685E-15	1.64685E-15	1.49266E-15	-1.82203E-15
47	-1.72019E-15	1.72019E-15	1.82203E-15	-2.16606E-15
48	-1.83902E-15	1.83902E-15	2.16606E-15	-2.53387E-15
49	-2.00344E-15	2.00344E-15	2.53387E-15	-2.93455E-15
50	-2.21340E-15	2.21340E-15	2.93455E-15	-3.37723E-15
51	-2.46870E-15	2.46870E-15	3.37723E-15	-3.87099E-15
52	-7.83639E-16	7.83639E-16	3.87099E-15	-3.71427E-15
53	-3.99122E-15	3.99122E-15	3.71427E-15	-2.91602E-15
54	-3.60168E-15	3.60168E-15	2.91602E-15	-2.19568E-15
55	-3.16805E-15	3.16805E-15	2.19568E-15	-1.56207E-15
56	-2.69063E-15	2.69063E-15	1.56207E-15	-1.02395E-15
57	-2.16967E-15	2.16967E-15	1.02395E-15	-5.90014E-16
58	-1.60533E-15	1.60533E-15	5.90014E-16	-2.68947E-16
59	-9.97747E-16	9.97747E-16	2.68947E-16	-6.93980E-17

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-3.46972E-16 3.46972E-16-6.93980E-17 3.78653E-28

```
ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1167E-26
RENORM= 225.0 REMNOR=0.9984E-53 RATIO =0.6867E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7405E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.6867E-01 RATIO= 0.000
MAX UN= 2.957 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.2331E-17 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1167E-26
RENORM= 5.727 REMNOR=0.2784E-22 RATIO =0.1096E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7405E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.1096E-01 RATIO= 0.000
MAX UN= 1.297 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.6544E-11 IEQ= 101 NODE 51 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1167E-26
RENORM= 1.140 REMNOR=0.8555E-23 RATIO =0.4889E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7405E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.4889E-02 RATIO= 0.000
MAX UN=0.9041 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN=-.2741E-10 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1167E-26
RENORM=0.9880E-02 REMNOR=0.8880E-23 RATIO =0.4551E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 35.19 RMMAX =0.7405E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.4551E-03 RATIO= 0.000
MAX UN=0.9462E-01 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
MIN UN=-.3489E-10 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4771E+05 RIMNOR=0.1167E-26
RENORM=0.1378E-20 REMNOR=0.7364E-23 RATIO =0.1700E-12 TOLER =0.1000E-03 CONVERGED !
RFMAX = 35.19 RMMAX =0.7405E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.4771E+05 RDR =0.1000E-19
RATIOT=0.1700E-12 RATIO= 0.000
MAX UN=0.1620E-10 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.1112E-10 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                |                |                |                |                |                |                |
|                |                |                |                |                |                |                |
|                |                |                |                |                |                |                |
|                |                |                |                |                |                |                |
|                |                |                |                |                |                |                |
|                |                |                |                |                |                |                |
+-----+
NewProject.BaseDesignSection_28.A2M2R1_1787
Exe Time :24 May 2018      18:16:00
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.4200913E-04	-7.5868277E-05	
2	3.2683548E-04	-7.5868277E-05	
3	3.1166369E-04	-7.5840291E-05	
4	2.9650682E-04	-7.5700366E-05	
5	2.8140033E-04	-7.5308575E-05	
6	2.6641324E-04	-7.4469022E-05	
7	2.5165042E-04	-7.3063944E-05	
8	2.3722463E-04	-7.1104466E-05	
9	2.2324221E-04	-6.8641374E-05	
10	2.0979607E-04	-6.5758314E-05	
11	1.9695941E-04	-6.2567479E-05	
12	1.8478152E-04	-5.9190012E-05	
13	1.7328873E-04	-5.5732658E-05	
14	1.6248806E-04	-5.2281296E-05	
15	1.5237138E-04	-4.8902285E-05	
16	1.4291911E-04	-4.5643851E-05	
17	1.3410367E-04	-4.2537439E-05	
18	1.2589288E-04	-3.9599107E-05	
19	1.1825269E-04	-3.6830713E-05	
20	1.1115001E-04	-3.4221187E-05	
21	1.0455518E-04	-3.1747682E-05	
22	9.8444140E-05	-2.9376604E-05	
23	9.2800596E-05	-2.7064721E-05	
24	8.7617767E-05	-2.4760106E-05	
25	8.2895998E-05	-2.2463824E-05	
26	7.8628238E-05	-2.0227532E-05	
27	7.4798381E-05	-1.8090573E-05	
28	7.1383507E-05	-1.6081439E-05	
29	6.8355998E-05	-1.4219419E-05	
30	6.5685164E-05	-1.2516031E-05	
31	6.3338669E-05	-1.0976393E-05	
32	6.1283702E-05	-9.6004758E-06	
33	5.9487847E-05	-8.3841890E-06	
34	5.7919859E-05	-7.3204167E-06	
35	5.6550133E-05	-6.3998630E-06	
36	5.5351079E-05	-5.6118192E-06	
37	5.4297341E-05	-4.9448210E-06	
38	5.3365865E-05	-4.3871932E-06	
39	5.2535934E-05	-3.9275071E-06	
40	5.1789057E-05	-3.5549003E-06	
41	5.1108834E-05	-3.2593861E-06	
42	5.0480789E-05	-3.0315703E-06	
43	4.9892306E-05	-2.8622597E-06	
44	4.9332575E-05	-2.7426030E-06	
45	4.8792514E-05	-2.6642507E-06	
46	4.8264640E-05	-2.6194653E-06	
47	4.7742960E-05	-2.6011976E-06	
48	4.7222814E-05	-2.6031257E-06	
49	4.6700735E-05	-2.6196715E-06	
50	4.6174296E-05	-2.6459979E-06	
51	4.5641960E-05	-2.6779922E-06	
52	4.5102936E-05	-2.7122400E-06	
53	4.4557112E-05	-2.7459888E-06	
54	4.4004741E-05	-2.7771262E-06	
55	4.3446536E-05	-2.8041330E-06	
56	4.2883427E-05	-2.8260600E-06	
57	4.2316478E-05	-2.8424995E-06	
58	4.1746786E-05	-2.8535631E-06	
59	4.1175371E-05	-2.8598650E-06	
60	4.0603083E-05	-2.8625102E-06	
61	4.0030476E-05	-2.8630871E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:16:00  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-3.4201E-04	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	Ug1_2_8_L_0						
2 D	0.3826	-3.2684E-04	2.088	0.000	2.088	1.341	ACTIVE	0.000	-0.2000	1.913	
1.000	1.000	1.913	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7652	-3.1166E-04	4.182	0.000	4.182	2.671	ACTIVE	0.000	-0.4000	3.826	
1.000	1.000	3.826	0.000	0.000	Ug1_2_8_L_0						
4 D	1.148	-2.9651E-04	6.287	0.000	6.287	3.978	ACTIVE	0.000	-0.6000	5.739	
1.000	1.000	5.739	0.000	0.000	Ug1_2_8_L_0						
5 D	1.530	-2.8140E-04	8.405	0.000	8.405	5.256	ACTIVE	0.000	-0.8000	7.652	
1.000	1.000	7.652	0.000	0.000	Ug1_2_8_L_0						
6 D	1.913	-2.6641E-04	10.54	0.000	10.54	6.501	ACTIVE	0.000	-1.000	9.565	
1.000	1.000	9.565	0.000	0.000	Ug1_2_8_L_0						
7 D	2.296	-2.5165E-04	12.68	0.000	12.68	7.714	ACTIVE	0.000	-1.200	11.48	
1.000	1.000	11.48	0.000	0.000	Ug1_2_8_L_0						
8 D	2.678	-2.3722E-04	14.83	0.000	14.83	8.897	ACTIVE	0.000	-1.400	13.39	
1.000	1.000	13.39	0.000	0.000	Ug1_2_8_L_0						
9 D	3.061	-2.2324E-04	16.99	0.000	16.99	10.05	ACTIVE	0.000	-1.600	15.30	
1.000	1.000	15.30	0.000	0.000	Ug1_2_8_L_0						
10 D	3.483	-2.0980E-04	19.16	0.1993	19.16	11.19	ACTIVE	0.000	-1.800	17.22	
1.000	1.000	17.42	0.000	0.000	Ug1_2_8_L_0						
11 D	4.124	-1.9696E-04	21.32	1.488	21.32	12.30	UL-RL	5.4891E+04	-2.000	19.13	
1.000	1.000	20.62	0.000	0.000	Ug1_2_8_L_0						
12 D	4.859	-1.8478E-04	23.49	3.254	23.49	13.40	UL-RL	5.4891E+04	-2.200	21.04	
1.000	1.000	24.30	0.000	0.000	Ug1_2_8_L_0						
13 D	5.585	-1.7329E-04	25.72	4.969	25.72	14.48	UL-RL	5.4891E+04	-2.400	22.96	
1.000	1.000	27.93	0.000	0.000	Ug1_2_8_L_0						
14 D	6.301	-1.6249E-04	27.82	6.636	27.82	15.56	UL-RL	5.4891E+04	-2.600	24.87	
1.000	1.000	31.51	0.000	0.000	Ug1_2_8_L_0						
15 D	7.008	-1.5237E-04	30.13	8.257	30.13	16.62	UL-RL	5.4891E+04	-2.800	26.78	
1.000	1.000	35.04	0.000	0.000	Ug1_2_8_L_0						
16 D	7.706	-1.4292E-04	32.44	9.834	32.44	17.68	UL-RL	5.4891E+04	-3.000	28.70	
1.000	1.000	38.53	0.000	0.000	Ug1_2_8_L_0						
17 D	8.396	-1.3410E-04	34.49	11.37	34.49	18.73	UL-RL	5.4891E+04	-3.200	30.61	
1.000	1.000	41.98	0.000	0.000	Ug1_2_8_L_0						
18 D	9.079	-1.2589E-04	36.78	12.87	36.78	19.78	UL-RL	5.4891E+04	-3.400	32.52	
1.000	1.000	45.39	0.000	0.000	Ug1_2_8_L_0						
19 D	9.754	-1.1825E-04	38.82	14.34	38.82	20.83	UL-RL	5.4891E+04	-3.600	34.43	
1.000	1.000	48.77	0.000	0.000	Ug1_2_8_L_0						
20 D	10.42	-1.1115E-04	41.09	15.77	41.09	21.87	UL-RL	5.4891E+04	-3.800	36.35	
1.000	1.000	52.11	0.000	0.000	Ug1_2_8_L_0						
21 D	11.09	-1.0456E-04	43.33	17.17	43.33	22.91	UL-RL	5.4891E+04	-4.000	38.26	
1.000	1.000	55.43	0.000	0.000	Ug1_2_8_L_0						
22 D	11.74	-9.8444E-05	45.37	18.54	45.37	23.95	UL-RL	5.4891E+04	-4.200	40.17	
1.000	1.000	58.72	0.000	0.000	Ug1_2_8_L_0						
23 D	12.39	-9.2801E-05	47.60	19.89	47.60	24.98	UL-RL	5.4891E+04	-4.400	42.09	
1.000	1.000	61.97	0.000	0.000	Ug1_2_8_L_0						
24 D	12.29	-8.7618E-05	49.65	17.45	49.65	26.02	UL-RL	9.7763E+04	-4.600	44.00	
1.000	1.000	61.45	0.000	0.000	Ug2_741_743_L_0						
25 D	12.97	-8.2896E-05	51.86	18.94	51.86	27.05	UL-RL	9.7763E+04	-4.800	45.91	
1.000	1.000	64.86	0.000	0.000	Ug2_741_743_L_0						
26 D	13.64	-7.8628E-05	54.07	20.39	54.07	28.08	UL-RL	9.7763E+04	-5.000	47.83	
1.000	1.000	68.22	0.000	0.000	Ug2_741_743_L_0						
27 D	14.31	-7.4798E-05	56.11	21.80	56.11	29.11	UL-RL	9.7763E+04	-5.200	49.74	
1.000	1.000	71.54	0.000	0.000	Ug2_741_743_L_0						
28 D	14.96	-7.1384E-05	58.31	23.17	58.31	30.14	UL-RL	9.7763E+04	-5.400	51.65	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.82	0.000	0.000	Ug2_741_743_L_0					
29 D	15.61	-6.8356E-05	60.35	24.49	60.35	31.17	UL-RL	9.7763E+04	-5.600	53.57
1.000	1.000	78.06	0.000	0.000	Ug2_741_743_L_0					
30 D	16.25	-6.5685E-05	62.54	25.78	62.54	32.20	UL-RL	9.7763E+04	-5.800	55.48
1.000	1.000	81.26	0.000	0.000	Ug2_741_743_L_0					
31 D	16.89	-6.3339E-05	64.72	27.04	64.72	33.23	UL-RL	9.7763E+04	-6.000	57.39
1.000	1.000	84.43	0.000	0.000	Ug2_741_743_L_0					
32 D	17.52	-6.1284E-05	66.77	28.27	66.77	34.26	UL-RL	9.7763E+04	-6.200	59.30
1.000	1.000	87.58	0.000	0.000	Ug2_741_743_L_0					
33 D	18.14	-5.9488E-05	68.94	29.48	68.94	35.29	UL-RL	9.7763E+04	-6.400	61.22
1.000	1.000	90.69	0.000	0.000	Ug2_741_743_L_0					
34 D	18.76	-5.7920E-05	70.99	30.66	70.99	36.32	UL-RL	9.7763E+04	-6.600	63.13
1.000	1.000	93.79	0.000	0.000	Ug2_741_743_L_0					
35 D	19.37	-5.6550E-05	73.15	31.82	73.15	37.35	UL-RL	9.7763E+04	-6.800	65.04
1.000	1.000	96.87	0.000	0.000	Ug2_741_743_L_0					
36 D	19.98	-5.5351E-05	75.32	32.97	75.32	38.38	UL-RL	9.7763E+04	-7.000	66.96
1.000	1.000	99.92	0.000	0.000	Ug2_741_743_L_0					
37 D	20.59	-5.4297E-05	77.37	34.10	77.37	39.41	UL-RL	9.7763E+04	-7.200	68.87
1.000	1.000	103.0	0.000	0.000	Ug2_741_743_L_0					
38 D	21.20	-5.3366E-05	79.52	35.22	79.52	40.44	UL-RL	9.7763E+04	-7.400	70.78
1.000	1.000	106.0	0.000	0.000	Ug2_741_743_L_0					
39 D	21.80	-5.2536E-05	81.57	36.33	81.57	41.46	UL-RL	9.7763E+04	-7.600	72.70
1.000	1.000	109.0	0.000	0.000	Ug2_741_743_L_0					
40 D	22.41	-5.1789E-05	83.73	37.43	83.73	42.49	UL-RL	9.7763E+04	-7.800	74.61
1.000	1.000	112.0	0.000	0.000	Ug2_741_743_L_0					
41 D	23.01	-5.1109E-05	85.88	38.52	85.88	43.52	UL-RL	9.7763E+04	-8.000	76.52
1.000	1.000	115.0	0.000	0.000	Ug2_741_743_L_0					
42 D	23.61	-5.0481E-05	87.93	39.61	87.93	44.55	UL-RL	9.7763E+04	-8.200	78.43
1.000	1.000	118.0	0.000	0.000	Ug2_741_743_L_0					
43 D	24.21	-4.9892E-05	90.08	40.70	90.08	45.58	UL-RL	9.7763E+04	-8.400	80.35
1.000	1.000	121.0	0.000	0.000	Ug2_741_743_L_0					
44 D	24.81	-4.9333E-05	92.13	41.78	92.13	46.60	UL-RL	9.7763E+04	-8.600	82.26
1.000	1.000	124.0	0.000	0.000	Ug2_741_743_L_0					
45 D	25.41	-4.8793E-05	94.27	42.86	94.27	47.63	UL-RL	9.7763E+04	-8.800	84.17
1.000	1.000	127.0	0.000	0.000	Ug2_741_743_L_0					
46 D	26.01	-4.8265E-05	96.42	43.94	96.42	48.66	UL-RL	9.7763E+04	-9.000	86.09
1.000	1.000	130.0	0.000	0.000	Ug2_741_743_L_0					
47 D	26.60	-4.7743E-05	98.47	45.02	98.47	49.69	UL-RL	9.7763E+04	-9.200	88.00
1.000	1.000	133.0	0.000	0.000	Ug2_741_743_L_0					
48 D	27.20	-4.7223E-05	100.6	46.10	100.6	50.72	UL-RL	9.7763E+04	-9.400	89.91
1.000	1.000	136.0	0.000	0.000	Ug2_741_743_L_0					
49 D	27.80	-4.6701E-05	102.7	47.18	102.7	51.75	UL-RL	9.7763E+04	-9.600	91.83
1.000	1.000	139.0	0.000	0.000	Ug2_741_743_L_0					
50 D	28.40	-4.6174E-05	104.8	48.26	104.8	52.77	UL-RL	9.7763E+04	-9.800	93.74
1.000	1.000	142.0	0.000	0.000	Ug2_741_743_L_0					
51 D	29.00	-4.5642E-05	106.9	49.34	106.9	53.80	UL-RL	9.7763E+04	-10.000	95.65
1.000	1.000	145.0	0.000	0.000	Ug2_741_743_L_0					
52 D	29.60	-4.5103E-05	109.0	50.42	109.0	54.83	UL-RL	9.7763E+04	-10.200	97.57
1.000	1.000	148.0	0.000	0.000	Ug2_741_743_L_0					
53 D	30.20	-4.4557E-05	111.1	51.50	111.1	55.86	UL-RL	9.7763E+04	-10.400	99.48
1.000	1.000	151.0	0.000	0.000	Ug2_741_743_L_0					
54 D	30.80	-4.4005E-05	113.3	52.59	113.3	56.89	UL-RL	9.7763E+04	-10.600	101.4
1.000	1.000	154.0	0.000	0.000	Ug2_741_743_L_0					
55 D	31.39	-4.3447E-05	115.3	53.67	115.3	57.92	UL-RL	9.7763E+04	-10.800	103.3
1.000	1.000	157.0	0.000	0.000	Ug2_741_743_L_0					
56 D	31.99	-4.2883E-05	117.4	54.75	117.4	58.95	UL-RL	9.7763E+04	-11.000	105.2
1.000	1.000	160.0	0.000	0.000	Ug2_741_743_L_0					
57 D	32.59	-4.2316E-05	119.5	55.84	119.5	59.97	UL-RL	9.7763E+04	-11.200	107.1
1.000	1.000	163.0	0.000	0.000	Ug2_741_743_L_0					
58 D	33.19	-4.1747E-05	121.6	56.92	121.6	61.00	UL-RL	9.7763E+04	-11.400	109.0
1.000	1.000	166.0	0.000	0.000	Ug2_741_743_L_0					
59 D	33.79	-4.1175E-05	123.8	58.01	123.8	62.03	UL-RL	9.7763E+04	-11.600	111.0
1.000	1.000	169.0	0.000	0.000	Ug2_741_743_L_0					
60 D	34.39	-4.0603E-05	125.8	59.09	125.8	63.06	UL-RL	9.7763E+04	-11.800	112.9
1.000	1.000	172.0	0.000	0.000	Ug2_741_743_L_0					
61 D	17.50	-4.0030E-05	127.9	60.18	127.9	64.09	UL-RL	9.7763E+04	-12.000	114.8
1.000	1.000	175.0	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:16:00          |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	1.833	2.6641E-04	0.000	9.167	10.00	9.167	V-C	1.7079E+04	-1.000	0.000	
1.000	1.000	9.167	0.000	0.000	Ug1_2_8_L_0						
7 D	2.527	2.5165E-04	1.913	10.55	12.00	10.55	V-C	1.7079E+04	-1.200	2.087	
1.000	1.000	12.64	0.000	0.000	Ug1_2_8_L_0						
8 D	3.141	2.3722E-04	3.826	11.53	14.00	11.53	V-C	1.7079E+04	-1.400	4.174	
1.000	1.000	15.70	0.000	0.000	Ug1_2_8_L_0						
9 D	3.742	2.2324E-04	5.739	12.45	16.00	12.45	V-C	1.7079E+04	-1.600	6.261	
1.000	1.000	18.71	0.000	0.000	Ug1_2_8_L_0						
10 D	4.336	2.0980E-04	7.652	13.33	18.00	13.33	V-C	1.7079E+04	-1.800	8.348	
1.000	1.000	21.68	0.000	0.000	Ug1_2_8_L_0						
11 D	4.927	1.9696E-04	9.565	14.20	20.00	14.20	V-C	1.7079E+04	-2.000	10.43	
1.000	1.000	24.63	0.000	0.000	Ug1_2_8_L_0						
12 D	5.516	1.8478E-04	11.48	15.06	22.00	15.06	V-C	1.7079E+04	-2.200	12.52	
1.000	1.000	27.58	0.000	0.000	Ug1_2_8_L_0						
13 D	6.103	1.7329E-04	13.39	15.91	24.00	15.91	V-C	1.7079E+04	-2.400	14.61	
1.000	1.000	30.52	0.000	0.000	Ug1_2_8_L_0						
14 D	6.690	1.6249E-04	15.30	16.76	26.00	16.76	V-C	1.7079E+04	-2.600	16.70	
1.000	1.000	33.45	0.000	0.000	Ug1_2_8_L_0						
15 D	7.278	1.5237E-04	17.22	17.61	28.00	17.61	V-C	1.7079E+04	-2.800	18.78	
1.000	1.000	36.39	0.000	0.000	Ug1_2_8_L_0						
16 D	7.866	1.4292E-04	19.13	18.46	30.00	18.46	V-C	1.7079E+04	-3.000	20.87	
1.000	1.000	39.33	0.000	0.000	Ug1_2_8_L_0						
17 D	8.455	1.3410E-04	21.04	19.32	32.00	19.32	V-C	1.7079E+04	-3.200	22.96	
1.000	1.000	42.28	0.000	0.000	Ug1_2_8_L_0						
18 D	9.045	1.2589E-04	22.96	20.18	34.00	20.18	V-C	1.7079E+04	-3.400	25.04	
1.000	1.000	45.23	0.000	0.000	Ug1_2_8_L_0						
19 D	9.636	1.1825E-04	24.87	21.05	36.00	21.05	V-C	1.7079E+04	-3.600	27.13	
1.000	1.000	48.18	0.000	0.000	Ug1_2_8_L_0						
20 D	10.23	1.1115E-04	26.78	21.92	38.00	21.92	V-C	1.7079E+04	-3.800	29.22	
1.000	1.000	51.14	0.000	0.000	Ug1_2_8_L_0						
21 D	10.82	1.0456E-04	28.70	22.80	40.00	22.80	V-C	1.7079E+04	-4.000	31.30	
1.000	1.000	54.11	0.000	0.000	Ug1_2_8_L_0						
22 D	11.42	9.8444E-05	30.61	23.69	42.00	23.69	V-C	1.7079E+04	-4.200	33.39	
1.000	1.000	57.08	0.000	0.000	Ug1_2_8_L_0						
23 D	12.01	9.2801E-05	32.52	24.58	44.00	24.58	V-C	1.7079E+04	-4.400	35.48	
1.000	1.000	60.06	0.000	0.000	Ug1_2_8_L_0						
24 D	12.69	8.7618E-05	34.43	25.47	46.00	25.47	V-C	2.1577E+04	-4.600	37.57	
1.000	1.000	63.44	0.000	0.000	Ug2_741_743_L_0						
25 D	13.28	8.2896E-05	36.35	26.35	48.00	26.35	UL-RL	6.4730E+04	-4.800	39.65	
1.000	1.000	66.40	0.000	0.000	Ug2_741_743_L_0						
26 D	13.87	7.8628E-05	38.26	27.23	50.00	27.23	UL-RL	6.4730E+04	-5.000	41.74	
1.000	1.000	69.37	0.000	0.000	Ug2_741_743_L_0						
27 D	14.47	7.4798E-05	40.17	28.11	52.00	28.11	UL-RL	6.4730E+04	-5.200	43.83	
1.000	1.000	72.34	0.000	0.000	Ug2_741_743_L_0						
28 D	15.07	7.1384E-05	42.09	29.00	54.00	29.00	UL-RL	6.4730E+04	-5.400	45.91	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	75.33	0.000	0.000	Ug2_741_743_L_0					
29 D	15.67	6.8356E-05	44.00	30.33	56.00	30.39	UL-RL	6.4730E+04	-5.600	48.00
1.000	1.000	78.33	0.000	0.000	Ug2_741_743_L_0					
30 D	16.27	6.5685E-05	45.91	31.25	58.00	31.32	UL-RL	6.4730E+04	-5.800	50.09
1.000	1.000	81.34	0.000	0.000	Ug2_741_743_L_0					
31 D	16.87	6.3339E-05	47.83	32.18	60.00	32.25	UL-RL	6.4730E+04	-6.000	52.17
1.000	1.000	84.35	0.000	0.000	Ug2_741_743_L_0					
32 D	17.48	6.1284E-05	49.74	33.12	62.00	33.18	UL-RL	6.4730E+04	-6.200	54.26
1.000	1.000	87.38	0.000	0.000	Ug2_741_743_L_0					
33 D	18.08	5.9488E-05	51.65	34.06	64.00	34.12	UL-RL	6.4730E+04	-6.400	56.35
1.000	1.000	90.41	0.000	0.000	Ug2_741_743_L_0					
34 D	18.69	5.7920E-05	53.57	35.01	66.00	35.07	UL-RL	6.4730E+04	-6.600	58.43
1.000	1.000	93.44	0.000	0.000	Ug2_741_743_L_0					
35 D	19.30	5.6550E-05	55.48	35.96	68.00	36.01	UL-RL	6.4730E+04	-6.800	60.52
1.000	1.000	96.48	0.000	0.000	Ug2_741_743_L_0					
36 D	19.90	5.5351E-05	57.39	36.92	70.00	36.97	UL-RL	6.4730E+04	-7.000	62.61
1.000	1.000	99.52	0.000	0.000	Ug2_741_743_L_0					
37 D	20.51	5.4297E-05	59.30	37.88	72.00	37.92	UL-RL	6.4730E+04	-7.200	64.70
1.000	1.000	102.6	0.000	0.000	Ug2_741_743_L_0					
38 D	21.12	5.3366E-05	61.22	38.83	74.00	38.88	UL-RL	6.4730E+04	-7.400	66.78
1.000	1.000	105.6	0.000	0.000	Ug2_741_743_L_0					
39 D	21.73	5.2536E-05	63.13	39.80	76.00	39.84	UL-RL	6.4730E+04	-7.600	68.87
1.000	1.000	108.7	0.000	0.000	Ug2_741_743_L_0					
40 D	22.34	5.1789E-05	65.04	40.76	78.00	40.80	UL-RL	6.4730E+04	-7.800	70.96
1.000	1.000	111.7	0.000	0.000	Ug2_741_743_L_0					
41 D	22.95	5.1109E-05	66.96	41.68	80.00	41.78	UL-RL	6.4730E+04	-8.000	73.04
1.000	1.000	114.7	0.000	0.000	Ug2_741_743_L_0					
42 D	23.55	5.0481E-05	68.87	42.61	82.00	42.77	UL-RL	6.4730E+04	-8.200	75.13
1.000	1.000	117.7	0.000	0.000	Ug2_741_743_L_0					
43 D	24.15	4.9892E-05	70.78	43.53	84.00	43.75	UL-RL	6.4730E+04	-8.400	77.22
1.000	1.000	120.8	0.000	0.000	Ug2_741_743_L_0					
44 D	24.75	4.9333E-05	72.70	44.46	86.00	44.74	UL-RL	6.4730E+04	-8.600	79.30
1.000	1.000	123.8	0.000	0.000	Ug2_741_743_L_0					
45 D	25.36	4.8793E-05	74.61	45.39	88.00	45.72	UL-RL	6.4730E+04	-8.800	81.39
1.000	1.000	126.8	0.000	0.000	Ug2_741_743_L_0					
46 D	25.96	4.8265E-05	76.52	46.32	90.00	46.70	UL-RL	6.4730E+04	-9.000	83.48
1.000	1.000	129.8	0.000	0.000	Ug2_741_743_L_0					
47 D	26.56	4.7743E-05	78.43	47.25	92.00	47.69	UL-RL	6.4730E+04	-9.200	85.57
1.000	1.000	132.8	0.000	0.000	Ug2_741_743_L_0					
48 D	27.17	4.7223E-05	80.35	48.18	94.00	48.67	UL-RL	6.4730E+04	-9.400	87.65
1.000	1.000	135.8	0.000	0.000	Ug2_741_743_L_0					
49 D	27.77	4.6701E-05	82.26	49.11	96.00	49.66	UL-RL	6.4730E+04	-9.600	89.74
1.000	1.000	138.9	0.000	0.000	Ug2_741_743_L_0					
50 D	28.37	4.6174E-05	84.17	50.04	98.00	50.64	UL-RL	6.4730E+04	-9.800	91.83
1.000	1.000	141.9	0.000	0.000	Ug2_741_743_L_0					
51 D	28.98	4.5642E-05	86.09	50.97	100.00	51.63	UL-RL	6.4730E+04	-10.000	93.91
1.000	1.000	144.9	0.000	0.000	Ug2_741_743_L_0					
52 D	29.58	4.5103E-05	88.00	51.90	102.0	52.61	UL-RL	6.4730E+04	-10.200	96.00
1.000	1.000	147.9	0.000	0.000	Ug2_741_743_L_0					
53 D	30.18	4.4557E-05	89.91	52.83	104.0	53.60	UL-RL	6.4730E+04	-10.400	98.09
1.000	1.000	150.9	0.000	0.000	Ug2_741_743_L_0					
54 D	30.79	4.4005E-05	91.83	53.76	106.0	54.58	UL-RL	6.4730E+04	-10.600	100.2
1.000	1.000	153.9	0.000	0.000	Ug2_741_743_L_0					
55 D	31.39	4.3447E-05	93.74	54.69	108.0	55.57	UL-RL	6.4730E+04	-10.800	102.3
1.000	1.000	157.0	0.000	0.000	Ug2_741_743_L_0					
56 D	31.99	4.2883E-05	95.65	55.62	110.0	56.55	UL-RL	6.4730E+04	-11.000	104.3
1.000	1.000	160.0	0.000	0.000	Ug2_741_743_L_0					
57 D	32.60	4.2316E-05	97.57	56.55	112.0	57.54	UL-RL	6.4730E+04	-11.200	106.4
1.000	1.000	163.0	0.000	0.000	Ug2_741_743_L_0					
58 D	33.20	4.1747E-05	99.48	57.47	114.0	58.52	UL-RL	6.4730E+04	-11.400	108.5
1.000	1.000	166.0	0.000	0.000	Ug2_741_743_L_0					
59 D	33.80	4.1175E-05	101.4	58.40	116.0	59.51	UL-RL	6.4730E+04	-11.600	110.6
1.000	1.000	169.0	0.000	0.000	Ug2_741_743_L_0					
60 D	34.40	4.0603E-05	103.3	59.33	118.0	60.50	UL-RL	6.4730E+04	-11.800	112.7
1.000	1.000	172.0	0.000	0.000	Ug2_741_743_L_0					
61 D	17.50	4.0030E-05	105.2	60.26	120.0	61.48	UL-RL	6.4730E+04	-12.000	114.8
1.000	1.000	175.0	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                     |
|                                                                     |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:16:00          |
|-----+-----+-----+
New Project
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.11235E-11	-1.11235E-11	1.09179E-12	1.51568E-12
2	0.38261	-0.38261	-9.06387E-13	7.65217E-02
3	1.1478	-1.1478	-7.65217E-02	0.30609
4	2.2957	-2.2957	-0.30609	0.76522
5	3.8261	-3.8261	-0.76522	1.5304
6	3.9057	-3.9057	-1.5304	2.3116
7	3.6740	-3.6740	-2.3116	3.0464
8	3.2113	-3.2113	-3.0464	3.6886
9	2.5304	-2.5304	-3.6886	4.1947
10	1.6775	-1.6775	-4.1947	4.5302
11	0.87415	-0.87415	-4.5302	4.7050
12	0.21804	-0.21804	-4.7050	4.7487
13	-0.29995	0.29995	-4.7487	4.6887
14	-0.68923	0.68923	-4.6887	4.5508
15	-0.95928	0.95928	-4.5508	4.3590
16	-1.1194	1.1194	-4.3590	4.1351
17	-1.1784	1.1784	-4.1351	3.8994
18	-1.1450	1.1450	-3.8994	3.6704
19	-1.0271	1.0271	-3.6704	3.4650
20	-0.83241	0.83241	-3.4650	3.2985
21	-0.56814	0.56814	-3.2985	3.1849
22	-0.24118	0.24118	-3.1849	3.1367
23	0.14183	-0.14183	-3.1367	3.1650
24	-0.25577	0.25577	-3.1650	3.1139
25	-0.56440	0.56440	-3.1139	3.0010
26	-0.79352	0.79352	-3.0010	2.8423
27	-0.95425	0.95425	-2.8423	2.6514
28	-1.0571	1.0571	-2.6514	2.4400
29	-1.1117	1.1117	-2.4400	2.2177
30	-1.1271	1.1271	-2.2177	1.9923
31	-1.1112	1.1112	-1.9923	1.7700
32	-1.0713	1.0713	-1.7700	1.5558
33	-1.0138	1.0138	-1.5558	1.3530
34	-0.94424	0.94424	-1.3530	1.1641
35	-0.86742	0.86742	-1.1641	0.99066
36	-0.78747	0.78747	-0.99066	0.83317
37	-0.70788	0.70788	-0.83317	0.69159
38	-0.63117	0.63117	-0.69159	0.56536
39	-0.55937	0.55937	-0.56536	0.45349
40	-0.49463	0.49463	-0.45349	0.35456
41	-0.43093	0.43093	-0.35456	0.26837
42	-0.36894	0.36894	-0.26837	0.19459
43	-0.30992	0.30992	-0.19459	0.13260
44	-0.25478	0.25478	-0.13260	8.16448E-02
45	-0.20415	0.20415	-8.16448E-02	4.08151E-02
46	-0.15840	0.15840	-4.08151E-02	9.13557E-03
47	-0.11772	0.11772	-9.13557E-03	1.44075E-02
48	-8.21368E-02	8.21368E-02	1.44075E-02	3.08349E-02
49	-5.15847E-02	5.15847E-02	3.08349E-02	4.11518E-02
50	-2.59045E-02	2.59045E-02	4.11518E-02	4.63327E-02
51	-4.89235E-03	4.89235E-03	4.63327E-02	4.73112E-02
52	1.16800E-02	-1.16800E-02	4.73112E-02	4.49753E-02
53	2.40460E-02	-2.40460E-02	4.49753E-02	4.01661E-02
54	3.24273E-02	-3.24273E-02	4.01661E-02	3.36806E-02
55	3.70231E-02	-3.70231E-02	3.36806E-02	2.62760E-02
56	3.80018E-02	-3.80018E-02	2.62760E-02	1.86757E-02
57	3.54966E-02	-3.54966E-02	1.86757E-02	1.15764E-02
58	2.96047E-02	-2.96047E-02	1.15764E-02	5.65543E-03
59	2.03897E-02	-2.03897E-02	5.65543E-03	1.57749E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60 7.88706E-03-7.88706E-03 1.57749E-03 1.25722E-13

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4201E+05 RIMNOR= 669.5
            RENORM= 268.0    REMNOR=0.7364E-23  RATIO =0.7987E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.83    RMMAX = 4.749
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4201E+05  RDR   = 669.5
            RATIO=0.7987E-01 RATIO= 0.000
            MAX UN= 4.251    IEQ=   19 NODE    10 DOF   1  Y-DISPL.F
            MIN UN=-.3794E-01 IEQ=    9 NODE    5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4201E+05 RIMNOR= 669.5
            RENORM= 42.24    REMNOR=0.8447E-22  RATIO =0.3171E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.83    RMMAX = 4.749
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4201E+05  RDR   = 669.5
            RATIO=0.3171E-01 RATIO= 0.000
            MAX UN= 1.913    IEQ=   47 NODE    24 DOF   1  Y-DISPL.F
            MIN UN=-.1450E-10 IEQ=  119 NODE   60 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4201E+05 RIMNOR= 669.5
            RENORM= 46.71    REMNOR=0.2978E-20  RATIO =0.3334E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.83    RMMAX = 4.749
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4201E+05  RDR   = 669.5
            RATIO=0.3334E-01 RATIO= 0.000
            MAX UN= 5.715    IEQ=   21 NODE    11 DOF   1  Y-DISPL.F
            MIN UN=-.1930E-09 IEQ=   11 NODE    6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4201E+05 RIMNOR= 669.5
            RENORM=0.2405    REMNOR=0.8661E-21  RATIO =0.2393E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 33.83    RMMAX = 4.749
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4201E+05  RDR   = 669.5
            RATIO=0.2393E-02 RATIO= 0.000
            MAX UN=0.3723    IEQ=   71 NODE    36 DOF   1  Y-DISPL.F
            MIN UN=-.2631E-09 IEQ=   11 NODE    6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.4201E+05 RIMNOR= 669.5
            RENORM=0.1240E-04 REMNOR=0.5301E-21  RATIO =0.1718E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 33.83    RMMAX = 4.749
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.4201E+05  RDR   = 669.5
            RATIO=0.1718E-04 RATIO= 0.000
            MAX UN=0.3521E-02 IEQ=   81 NODE    41 DOF   1  Y-DISPL.F
            MIN UN=-.1886E-09 IEQ=    7 NODE    4 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A2M2R1_1787  |
|                Exe Time :24 May 2018  18:16:00  |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

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	3.4155206E-03	-6.3742516E-04	
2	3.2880356E-03	-6.3742516E-04	
3	3.1605523E-03	-6.3739856E-04	
4	3.0330833E-03	-6.3726558E-04	
5	2.9056621E-03	-6.3689321E-04	
6	2.7783543E-03	-6.3609529E-04	
7	2.6512683E-03	-6.3463244E-04	
8	2.5245652E-03	-6.3221207E-04	
9	2.3984703E-03	-6.2848844E-04	
10	2.2732833E-03	-6.2306256E-04	
11	2.1493895E-03	-6.1547356E-04	
12	2.0272537E-03	-6.0548787E-04	
13	1.9073482E-03	-5.9319502E-04	
14	1.7901155E-03	-5.7880473E-04	
15	1.6759472E-03	-5.6260084E-04	
16	1.5651771E-03	-5.4486794E-04	
17	1.4580842E-03	-5.2586391E-04	
18	1.3549001E-03	-5.0582255E-04	
19	1.2558103E-03	-4.8495411E-04	
20	1.1609611E-03	-4.6344655E-04	
21	1.0704636E-03	-4.4146694E-04	
22	9.8439656E-04	-4.1916078E-04	
23	9.0281261E-04	-3.9665543E-04	
24	8.2574032E-04	-3.7406108E-04	
25	7.5318714E-04	-3.5148227E-04	
26	6.8513958E-04	-3.2902092E-04	
27	6.2156516E-04	-3.0676845E-04	
28	5.6241306E-04	-2.8480792E-04	
29	5.0761739E-04	-2.6321649E-04	
30	4.5709702E-04	-2.4206667E-04	
31	4.1075663E-04	-2.2142820E-04	
32	3.6848733E-04	-2.0136911E-04	
33	3.3016603E-04	-1.8195765E-04	
34	2.9565638E-04	-1.6326447E-04	
35	2.6480741E-04	-1.4536372E-04	
36	2.3745278E-04	-1.2833466E-04	
37	2.1340987E-04	-1.1226251E-04	
38	1.9247792E-04	-9.7240078E-05	
39	1.7443835E-04	-8.3350026E-05	
40	1.5905895E-04	-7.0644409E-05	
41	1.4610005E-04	-5.9146808E-05	
42	1.3531964E-04	-4.8858009E-05	
43	1.2647770E-04	-3.9756295E-05	
44	1.1934091E-04	-3.1797701E-05	
45	1.1368651E-04	-2.4921284E-05	
46	1.0930518E-04	-1.9053579E-05	
47	1.0600328E-04	-1.4112745E-05	
48	1.0360409E-04	-1.0011787E-05	
49	1.0194853E-04	-6.6614177E-06	
50	1.0089544E-04	-3.9724035E-06	
51	1.0032130E-04	-1.8574210E-06	
52	1.0011978E-04	-2.3262579E-07	
53	1.0020083E-04	9.8100723E-07	
54	1.0048969E-04	1.8572228E-06	
55	1.0092571E-04	2.4632677E-06	
56	1.0146102E-04	2.8597107E-06	
57	1.0205919E-04	3.1000373E-06	
58	1.0269371E-04	3.2304325E-06	
59	1.0334661E-04	3.2896513E-06	
60	1.0400691E-04	3.3089498E-06	
61	1.0466915E-04	3.3120561E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+

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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	-3.4155E-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	Ug1_2_8_L_0						
2 D	0.3636	-3.2880E-03	2.183	0.000	2.183	1.341	ACTIVE	0.000	-0.2000	1.818	
1.000	1.000	1.818	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7273	-3.1606E-03	4.372	0.000	4.372	2.671	ACTIVE	0.000	-0.4000	3.636	
1.000	1.000	3.636	0.000	0.000	Ug1_2_8_L_0						
4 D	1.091	-3.0331E-03	6.571	0.000	6.571	3.978	ACTIVE	0.000	-0.6000	5.455	
1.000	1.000	5.455	0.000	0.000	Ug1_2_8_L_0						
5 D	1.455	-2.9057E-03	8.784	0.000	8.784	5.256	ACTIVE	0.000	-0.8000	7.273	
1.000	1.000	7.273	0.000	0.000	Ug1_2_8_L_0						
6 D	1.818	-2.7784E-03	11.01	0.000	11.01	6.501	ACTIVE	0.000	-1.000	9.091	
1.000	1.000	9.091	0.000	0.000	Ug1_2_8_L_0						
7 D	2.182	-2.6513E-03	13.25	0.000	13.25	7.714	ACTIVE	0.000	-1.200	10.91	
1.000	1.000	10.91	0.000	0.000	Ug1_2_8_L_0						
8 D	2.545	-2.5246E-03	15.50	0.000	15.50	8.897	ACTIVE	0.000	-1.400	12.73	
1.000	1.000	12.73	0.000	0.000	Ug1_2_8_L_0						
9 D	2.909	-2.3985E-03	17.75	0.000	17.75	10.05	ACTIVE	0.000	-1.600	14.55	
1.000	1.000	14.55	0.000	0.000	Ug1_2_8_L_0						
10 D	3.392	-2.2733E-03	20.01	0.5980	20.01	11.19	ACTIVE	0.000	-1.800	16.36	
1.000	1.000	16.96	0.000	0.000	Ug1_2_8_L_0						
11 D	3.967	-2.1494E-03	22.27	1.654	22.27	12.30	ACTIVE	0.000	-2.000	18.18	
1.000	1.000	19.84	0.000	0.000	Ug1_2_8_L_0						
12 D	4.542	-2.0273E-03	24.53	2.710	24.53	13.40	ACTIVE	0.000	-2.200	20.00	
1.000	1.000	22.71	0.000	0.000	Ug1_2_8_L_0						
13 D	5.123	-1.9073E-03	26.86	3.795	26.86	14.48	ACTIVE	0.000	-2.400	21.82	
1.000	1.000	25.61	0.000	0.000	Ug1_2_8_L_0						
14 D	5.691	-1.7901E-03	29.05	4.819	29.05	15.56	ACTIVE	0.000	-2.600	23.64	
1.000	1.000	28.46	0.000	0.000	Ug1_2_8_L_0						
15 D	6.279	-1.6759E-03	31.45	5.942	31.45	16.62	ACTIVE	0.000	-2.800	25.45	
1.000	1.000	31.40	0.000	0.000	Ug1_2_8_L_0						
16 D	6.868	-1.5652E-03	33.86	7.068	33.86	17.68	ACTIVE	0.000	-3.000	27.27	
1.000	1.000	34.34	0.000	0.000	Ug1_2_8_L_0						
17 D	7.432	-1.4581E-03	36.01	8.069	36.01	18.73	ACTIVE	0.000	-3.200	29.09	
1.000	1.000	37.16	0.000	0.000	Ug1_2_8_L_0						
18 D	8.018	-1.3549E-03	38.39	9.180	38.39	19.78	ACTIVE	0.000	-3.400	30.91	
1.000	1.000	40.09	0.000	0.000	Ug1_2_8_L_0						
19 D	8.582	-1.2558E-03	40.53	10.18	40.53	20.83	ACTIVE	0.000	-3.600	32.73	
1.000	1.000	42.91	0.000	0.000	Ug1_2_8_L_0						
20 D	9.165	-1.1610E-03	42.89	11.28	42.89	21.87	ACTIVE	0.000	-3.800	34.55	
1.000	1.000	45.83	0.000	0.000	Ug1_2_8_L_0						
21 D	9.748	-1.0705E-03	45.23	12.37	45.23	22.91	ACTIVE	0.000	-4.000	36.36	
1.000	1.000	48.74	0.000	0.000	Ug1_2_8_L_0						
22 D	10.31	-9.8440E-04	47.37	13.37	47.37	23.95	ACTIVE	0.000	-4.200	38.18	
1.000	1.000	51.55	0.000	0.000	Ug1_2_8_L_0						
23 D	10.89	-9.0281E-04	49.69	14.46	49.69	24.98	ACTIVE	0.000	-4.400	40.00	
1.000	1.000	54.46	0.000	0.000	Ug1_2_8_L_0						
24 D	11.79	-8.2574E-04	51.83	17.16	51.83	26.02	ACTIVE	0.000	-4.600	41.82	
1.000	1.000	58.97	0.000	0.000	Ug2_741_743_L_0						
25 D	12.31	-7.5319E-04	54.14	17.92	54.14	27.05	ACTIVE	0.000	-4.800	43.64	
1.000	1.000	61.56	0.000	0.000	Ug2_741_743_L_0						
26 D	12.83	-6.8514E-04	56.44	18.68	56.44	28.08	ACTIVE	0.000	-5.000	45.45	
1.000	1.000	64.14	0.000	0.000	Ug2_741_743_L_0						
27 D	13.33	-6.2157E-04	58.58	19.39	58.58	29.11	ACTIVE	0.000	-5.200	47.27	
1.000	1.000	66.66	0.000	0.000	Ug2_741_743_L_0						
28 D	13.85	-5.6241E-04	60.87	20.15	60.87	30.14	ACTIVE	0.000	-5.400	49.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	69.24	0.000	0.000	Ug2_741_743_L_0					
29 D	14.35	-5.0762E-04	63.01	20.86	63.01	31.17	ACTIVE	0.000	-5.600	50.91
1.000	1.000	71.76	0.000	0.000	Ug2_741_743_L_0					
30 D	14.87	-4.5710E-04	65.29	21.61	65.29	32.20	ACTIVE	0.000	-5.800	52.73
1.000	1.000	74.34	0.000	0.000	Ug2_741_743_L_0					
31 D	15.38	-4.1076E-04	67.57	22.36	67.57	33.23	ACTIVE	0.000	-6.000	54.55
1.000	1.000	76.91	0.000	0.000	Ug2_741_743_L_0					
32 D	15.89	-3.6849E-04	69.71	23.07	69.71	34.26	ACTIVE	0.000	-6.200	56.36
1.000	1.000	79.44	0.000	0.000	Ug2_741_743_L_0					
33 D	16.40	-3.3017E-04	71.97	23.82	71.97	35.29	ACTIVE	0.000	-6.400	58.18
1.000	1.000	82.01	0.000	0.000	Ug2_741_743_L_0					
34 D	16.91	-2.9566E-04	74.12	24.53	74.12	36.32	ACTIVE	0.000	-6.600	60.00
1.000	1.000	84.53	0.000	0.000	Ug2_741_743_L_0					
35 D	17.42	-2.6481E-04	76.38	25.28	76.38	37.35	ACTIVE	0.000	-6.800	61.82
1.000	1.000	87.10	0.000	0.000	Ug2_741_743_L_0					
36 D	17.93	-2.3745E-04	78.64	26.03	78.64	38.38	ACTIVE	0.000	-7.000	63.64
1.000	1.000	89.67	0.000	0.000	Ug2_741_743_L_0					
37 D	18.44	-2.1341E-04	80.78	26.74	80.78	39.41	ACTIVE	0.000	-7.200	65.45
1.000	1.000	92.19	0.000	0.000	Ug2_741_743_L_0					
38 D	19.22	-1.9248E-04	83.03	28.81	83.03	40.44	UL-RL	5.8658E+04	-7.400	67.27
1.000	1.000	96.09	0.000	0.000	Ug2_741_743_L_0					
39 D	20.01	-1.7444E-04	85.18	30.98	85.18	41.46	UL-RL	5.8658E+04	-7.600	69.09
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
40 D	20.78	-1.5906E-04	87.43	32.99	87.43	42.49	UL-RL	5.8658E+04	-7.800	70.91
1.000	1.000	103.9	0.000	0.000	Ug2_741_743_L_0					
41 D	21.52	-1.4610E-04	89.67	34.85	89.67	43.52	UL-RL	5.8658E+04	-8.000	72.73
1.000	1.000	107.6	0.000	0.000	Ug2_741_743_L_0					
42 D	22.23	-1.3532E-04	91.82	36.58	91.82	44.55	UL-RL	5.8658E+04	-8.200	74.55
1.000	1.000	111.1	0.000	0.000	Ug2_741_743_L_0					
43 D	22.91	-1.2648E-04	94.06	38.20	94.06	45.58	UL-RL	5.8658E+04	-8.400	76.36
1.000	1.000	114.6	0.000	0.000	Ug2_741_743_L_0					
44 D	23.58	-1.1934E-04	96.21	39.71	96.21	46.60	UL-RL	5.8658E+04	-8.600	78.18
1.000	1.000	117.9	0.000	0.000	Ug2_741_743_L_0					
45 D	24.23	-1.1369E-04	98.45	41.14	98.45	47.63	UL-RL	5.8658E+04	-8.800	80.00
1.000	1.000	121.1	0.000	0.000	Ug2_741_743_L_0					
46 D	24.86	-1.0931E-04	100.7	42.50	100.7	48.66	UL-RL	5.8658E+04	-9.000	81.82
1.000	1.000	124.3	0.000	0.000	Ug2_741_743_L_0					
47 D	25.48	-1.0600E-04	102.8	43.79	102.8	49.69	UL-RL	5.8658E+04	-9.200	83.64
1.000	1.000	127.4	0.000	0.000	Ug2_741_743_L_0					
48 D	26.10	-1.0360E-04	105.1	45.02	105.1	50.72	UL-RL	5.8658E+04	-9.400	85.45
1.000	1.000	130.5	0.000	0.000	Ug2_741_743_L_0					
49 D	26.70	-1.0195E-04	107.3	46.22	107.3	51.75	UL-RL	5.8658E+04	-9.600	87.27
1.000	1.000	133.5	0.000	0.000	Ug2_741_743_L_0					
50 D	27.29	-1.0090E-04	109.4	47.37	109.4	52.77	UL-RL	5.8658E+04	-9.800	89.09
1.000	1.000	136.5	0.000	0.000	Ug2_741_743_L_0					
51 D	27.88	-1.0032E-04	111.7	48.50	111.7	53.80	UL-RL	5.8658E+04	-10.000	90.91
1.000	1.000	139.4	0.000	0.000	Ug2_741_743_L_0					
52 D	28.47	-1.0012E-04	113.8	49.61	113.8	54.83	UL-RL	5.8658E+04	-10.200	92.73
1.000	1.000	142.3	0.000	0.000	Ug2_741_743_L_0					
53 D	29.05	-1.0020E-04	116.1	50.71	116.1	55.86	UL-RL	5.8658E+04	-10.400	94.55
1.000	1.000	145.3	0.000	0.000	Ug2_741_743_L_0					
54 D	29.63	-1.0049E-04	118.3	51.79	118.3	56.89	UL-RL	5.8658E+04	-10.600	96.36
1.000	1.000	148.2	0.000	0.000	Ug2_741_743_L_0					
55 D	30.21	-1.0093E-04	120.4	52.86	120.4	57.92	UL-RL	5.8658E+04	-10.800	98.18
1.000	1.000	151.0	0.000	0.000	Ug2_741_743_L_0					
56 D	30.79	-1.0146E-04	122.7	53.93	122.7	58.95	UL-RL	5.8658E+04	-11.000	100.00
1.000	1.000	153.9	0.000	0.000	Ug2_741_743_L_0					
57 D	31.36	-1.0206E-04	124.8	54.99	124.8	59.97	UL-RL	5.8658E+04	-11.200	101.8
1.000	1.000	156.8	0.000	0.000	Ug2_741_743_L_0					
58 D	31.94	-1.0269E-04	127.0	56.05	127.0	61.00	UL-RL	5.8658E+04	-11.400	103.6
1.000	1.000	159.7	0.000	0.000	Ug2_741_743_L_0					
59 D	32.51	-1.0335E-04	129.3	57.11	129.3	62.03	UL-RL	5.8658E+04	-11.600	105.5
1.000	1.000	162.6	0.000	0.000	Ug2_741_743_L_0					
60 D	33.09	-1.0401E-04	131.4	58.17	131.4	63.06	UL-RL	5.8658E+04	-11.800	107.3
1.000	1.000	165.4	0.000	0.000	Ug2_741_743_L_0					
61 D	16.83	-1.0467E-04	133.6	59.23	133.6	64.09	UL-RL	5.8658E+04	-12.000	109.1
1.000	1.000	168.3	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787                                          |
|          Exe Time :24 May 2018          18:16:00                                          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	4.167	2.1494E-03	0.000	20.83	20.00	20.83	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	20.83	0.000	0.000	Ug1_2_8_L_0						
12 D	5.566	2.0273E-03	1.818	25.65	22.00	25.65	PASSIVE	0.000	-2.200	2.182	
1.000	1.000	27.83	0.000	0.000	Ug1_2_8_L_0						
13 D	6.966	1.9073E-03	3.636	30.47	24.00	30.47	PASSIVE	0.000	-2.400	4.364	
1.000	1.000	34.83	0.000	0.000	Ug1_2_8_L_0						
14 D	7.728	1.7901E-03	5.455	32.10	26.00	32.10	V-C	1.0248E+04	-2.600	6.545	
1.000	1.000	38.64	0.000	0.000	Ug1_2_8_L_0						
15 D	8.133	1.6759E-03	7.273	31.94	28.00	31.94	V-C	1.0248E+04	-2.800	8.727	
1.000	1.000	40.67	0.000	0.000	Ug1_2_8_L_0						
16 D	8.541	1.5652E-03	9.091	31.80	30.00	31.80	V-C	1.0248E+04	-3.000	10.91	
1.000	1.000	42.70	0.000	0.000	Ug1_2_8_L_0						
17 D	8.953	1.4581E-03	10.91	31.68	32.00	31.68	V-C	1.0248E+04	-3.200	13.09	
1.000	1.000	44.77	0.000	0.000	Ug1_2_8_L_0						
18 D	9.372	1.3549E-03	12.73	31.59	34.00	31.59	V-C	1.0248E+04	-3.400	15.27	
1.000	1.000	46.86	0.000	0.000	Ug1_2_8_L_0						
19 D	9.798	1.2558E-03	14.55	31.53	36.00	31.53	V-C	1.0248E+04	-3.600	17.45	
1.000	1.000	48.99	0.000	0.000	Ug1_2_8_L_0						
20 D	10.23	1.1610E-03	16.36	31.52	38.00	31.52	V-C	1.0248E+04	-3.800	19.64	
1.000	1.000	51.16	0.000	0.000	Ug1_2_8_L_0						
21 D	10.67	1.0705E-03	18.18	31.55	40.00	31.55	V-C	1.0248E+04	-4.000	21.82	
1.000	1.000	53.37	0.000	0.000	Ug1_2_8_L_0						
22 D	11.12	9.8440E-04	20.00	31.62	42.00	31.62	V-C	1.0248E+04	-4.200	24.00	
1.000	1.000	55.62	0.000	0.000	Ug1_2_8_L_0						
23 D	11.58	9.0281E-04	21.82	31.74	44.00	31.74	V-C	1.0248E+04	-4.400	26.18	
1.000	1.000	57.92	0.000	0.000	Ug1_2_8_L_0						
24 D	12.53	8.2574E-04	23.64	34.29	46.00	34.29	V-C	1.2946E+04	-4.600	28.36	
1.000	1.000	62.65	0.000	0.000	Ug2_741_743_L_0						
25 D	12.97	7.5319E-04	25.45	34.30	48.00	34.30	V-C	1.2946E+04	-4.800	30.55	
1.000	1.000	64.84	0.000	0.000	Ug2_741_743_L_0						
26 D	13.42	6.8514E-04	27.27	34.36	50.00	34.36	V-C	1.2946E+04	-5.000	32.73	
1.000	1.000	67.09	0.000	0.000	Ug2_741_743_L_0						
27 D	13.88	6.2157E-04	29.09	34.49	52.00	34.49	V-C	1.2946E+04	-5.200	34.91	
1.000	1.000	69.40	0.000	0.000	Ug2_741_743_L_0						
28 D	14.35	5.6241E-04	30.91	34.68	54.00	34.68	V-C	1.2946E+04	-5.400	37.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	71.77	0.000	0.000	Ug2_741_743_L_0					
29 D	14.84	5.0762E-04	32.73	34.92	56.00	34.92	V-C	1.2946E+04	-5.600	39.27
1.000	1.000	74.19	0.000	0.000	Ug2_741_743_L_0					
30 D	15.34	4.5710E-04	34.55	35.22	58.00	35.22	V-C	1.2946E+04	-5.800	41.45
1.000	1.000	76.68	0.000	0.000	Ug2_741_743_L_0					
31 D	15.84	4.1076E-04	36.36	35.58	60.00	35.58	V-C	1.2946E+04	-6.000	43.64
1.000	1.000	79.22	0.000	0.000	Ug2_741_743_L_0					
32 D	16.36	3.6849E-04	38.18	35.99	62.00	35.99	V-C	1.2946E+04	-6.200	45.82
1.000	1.000	81.81	0.000	0.000	Ug2_741_743_L_0					
33 D	16.89	3.3017E-04	40.00	36.46	64.00	36.46	V-C	1.2946E+04	-6.400	48.00
1.000	1.000	84.46	0.000	0.000	Ug2_741_743_L_0					
34 D	17.43	2.9566E-04	41.82	36.97	66.00	36.97	V-C	1.2946E+04	-6.600	50.18
1.000	1.000	87.15	0.000	0.000	Ug2_741_743_L_0					
35 D	17.98	2.6481E-04	43.64	37.53	68.00	37.53	V-C	1.2946E+04	-6.800	52.36
1.000	1.000	89.90	0.000	0.000	Ug2_741_743_L_0					
36 D	18.54	2.3745E-04	45.45	38.14	70.00	38.14	V-C	1.2946E+04	-7.000	54.55
1.000	1.000	92.69	0.000	0.000	Ug2_741_743_L_0					
37 D	19.10	2.1341E-04	47.27	38.80	72.00	38.80	V-C	1.2946E+04	-7.200	56.73
1.000	1.000	95.52	0.000	0.000	Ug2_741_743_L_0					
38 D	19.68	1.9248E-04	49.09	39.49	74.00	39.49	V-C	1.2946E+04	-7.400	58.91
1.000	1.000	98.40	0.000	0.000	Ug2_741_743_L_0					
39 D	20.26	1.7444E-04	50.91	40.22	76.00	40.22	V-C	1.2946E+04	-7.600	61.09
1.000	1.000	101.3	0.000	0.000	Ug2_741_743_L_0					
40 D	20.85	1.5906E-04	52.73	40.99	78.00	40.99	V-C	1.2946E+04	-7.800	63.27
1.000	1.000	104.3	0.000	0.000	Ug2_741_743_L_0					
41 D	21.45	1.4610E-04	54.55	41.79	80.00	41.79	V-C	1.2946E+04	-8.000	65.45
1.000	1.000	107.2	0.000	0.000	Ug2_741_743_L_0					
42 D	21.99	1.3532E-04	56.36	42.32	82.00	42.77	UL-RL	3.8838E+04	-8.200	67.64
1.000	1.000	110.0	0.000	0.000	Ug2_741_743_L_0					
43 D	22.55	1.2648E-04	58.18	42.91	84.00	43.75	UL-RL	3.8838E+04	-8.400	69.82
1.000	1.000	112.7	0.000	0.000	Ug2_741_743_L_0					
44 D	23.11	1.1934E-04	60.00	43.56	86.00	44.74	UL-RL	3.8838E+04	-8.600	72.00
1.000	1.000	115.6	0.000	0.000	Ug2_741_743_L_0					
45 D	23.69	1.1369E-04	61.82	44.28	88.00	45.72	UL-RL	3.8838E+04	-8.800	74.18
1.000	1.000	118.5	0.000	0.000	Ug2_741_743_L_0					
46 D	24.28	1.0931E-04	63.64	45.04	90.00	46.70	UL-RL	3.8838E+04	-9.000	76.36
1.000	1.000	121.4	0.000	0.000	Ug2_741_743_L_0					
47 D	24.88	1.0600E-04	65.45	45.84	92.00	47.69	UL-RL	3.8838E+04	-9.200	78.55
1.000	1.000	124.4	0.000	0.000	Ug2_741_743_L_0					
48 D	25.48	1.0360E-04	67.27	46.68	94.00	48.67	UL-RL	3.8838E+04	-9.400	80.73
1.000	1.000	127.4	0.000	0.000	Ug2_741_743_L_0					
49 D	26.09	1.0195E-04	69.09	47.55	96.00	49.66	UL-RL	3.8838E+04	-9.600	82.91
1.000	1.000	130.5	0.000	0.000	Ug2_741_743_L_0					
50 D	26.71	1.0090E-04	70.91	48.44	98.00	50.64	UL-RL	3.8838E+04	-9.800	85.09
1.000	1.000	133.5	0.000	0.000	Ug2_741_743_L_0					
51 D	27.32	1.0032E-04	72.73	49.35	100.00	51.63	UL-RL	3.8838E+04	-10.000	87.27
1.000	1.000	136.6	0.000	0.000	Ug2_741_743_L_0					
52 D	27.94	1.0012E-04	74.55	50.27	102.0	52.61	UL-RL	3.8838E+04	-10.200	89.45
1.000	1.000	139.7	0.000	0.000	Ug2_741_743_L_0					
53 D	28.57	1.0020E-04	76.36	51.20	104.0	53.60	UL-RL	3.8838E+04	-10.400	91.64
1.000	1.000	142.8	0.000	0.000	Ug2_741_743_L_0					
54 D	29.19	1.0049E-04	78.18	52.14	106.0	54.58	UL-RL	3.8838E+04	-10.600	93.82
1.000	1.000	146.0	0.000	0.000	Ug2_741_743_L_0					
55 D	29.82	1.0093E-04	80.00	53.09	108.0	55.57	UL-RL	3.8838E+04	-10.800	96.00
1.000	1.000	149.1	0.000	0.000	Ug2_741_743_L_0					
56 D	30.44	1.0146E-04	81.82	54.04	110.0	56.55	UL-RL	3.8838E+04	-11.000	98.18
1.000	1.000	152.2	0.000	0.000	Ug2_741_743_L_0					
57 D	31.07	1.0206E-04	83.64	54.99	112.0	57.54	UL-RL	3.8838E+04	-11.200	100.4
1.000	1.000	155.4	0.000	0.000	Ug2_741_743_L_0					
58 D	31.70	1.0269E-04	85.45	55.94	114.0	58.52	UL-RL	3.8838E+04	-11.400	102.5
1.000	1.000	158.5	0.000	0.000	Ug2_741_743_L_0					
59 D	32.33	1.0335E-04	87.27	56.90	116.0	59.51	UL-RL	3.8838E+04	-11.600	104.7
1.000	1.000	161.6	0.000	0.000	Ug2_741_743_L_0					
60 D	32.95	1.0401E-04	89.09	57.85	118.0	60.50	UL-RL	3.8838E+04	-11.800	106.9
1.000	1.000	164.8	0.000	0.000	Ug2_741_743_L_0					
61 D	16.79	1.0467E-04	90.91	58.81	120.0	61.48	UL-RL	3.8838E+04	-12.000	109.1
1.000	1.000	167.9	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
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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 . 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
C U R R E N T T I M E I S 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-5.01821E-11	5.01821E-11	-4.91229E-12	-2.30704E-12
2	0.36364	-0.36364	2.83107E-12	7.27273E-02
3	1.0909	-1.0909	-7.27273E-02	0.29091
4	2.1818	-2.1818	-0.29091	0.72727
5	3.6364	-3.6364	-0.72727	1.4545
6	5.4545	-5.4545	-1.4545	2.5455
7	7.6364	-7.6364	-2.5455	4.0727
8	10.182	-10.182	-4.0727	6.1091
9	13.091	-13.091	-6.1091	8.7273
10	16.483	-16.483	-8.7273	12.024
11	16.284	-16.284	-12.024	15.281
12	15.260	-15.260	-15.281	18.333
13	13.416	-13.416	-18.333	21.016
14	11.379	-11.379	-21.016	23.292
15	9.5252	-9.5252	-23.292	25.197
16	7.8523	-7.8523	-25.197	26.767
17	6.3310	-6.3310	-26.767	28.033
18	4.9770	-4.9770	-28.033	29.029
19	3.7608	-3.7608	-29.029	29.781
20	2.6946	-2.6946	-29.781	30.320
21	1.7685	-1.7685	-30.320	30.674
22	0.95483	-0.95483	-30.674	30.865
23	0.26186	-0.26186	-30.865	30.917
24	-0.47430	0.47430	-30.917	30.822
25	-1.1316	1.1316	-30.822	30.596
26	-1.7227	1.7227	-30.596	30.251
27	-2.2702	2.2702	-30.251	29.797
28	-2.7760	2.7760	-29.797	29.242
29	-3.2617	3.2617	-29.242	28.590
30	-3.7293	3.7293	-28.590	27.844
31	-4.1906	4.1906	-27.844	27.006
32	-4.6651	4.6651	-27.006	26.073
33	-5.1551	5.1551	-26.073	25.042
34	-5.6790	5.6790	-25.042	23.906
35	-6.2385	6.2385	-23.906	22.658
36	-6.8432	6.8432	-22.658	21.289
37	-7.5095	7.5095	-21.289	19.788
38	-7.9723	7.9723	-19.788	18.193
39	-8.2211	8.2211	-18.193	16.549
40	-8.2947	8.2947	-16.549	14.890
41	-8.2319	8.2319	-14.890	13.244
42	-7.9978	7.9978	-13.244	11.644
43	-7.6308	7.6308	-11.644	10.118
44	-7.1642	7.1642	-10.118	8.6850
45	-6.6273	6.6273	-8.6850	7.3595
46	-6.0448	6.0448	-7.3595	6.1506
47	-5.4379	5.4379	-6.1506	5.0630
48	-4.8241	4.8241	-5.0630	4.0982
49	-4.2177	4.2177	-4.0982	3.2546
50	-3.6306	3.6306	-3.2546	2.5285
51	-3.0717	3.0717	-2.5285	1.9142
52	-2.5483	2.5483	-1.9142	1.4045
53	-2.0658	2.0658	-1.4045	0.99137
54	-1.6280	1.6280	-0.99137	0.66578
55	-1.2377	1.2377	-0.66578	0.41824
56	-0.89672	0.89672	-0.41824	0.23890
57	-0.60624	0.60624	-0.23890	0.11765
58	-0.36687	0.36687	-0.11765	4.42759E-02
59	-0.17891	0.17891	-4.42759E-02	8.49343E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-4.24650E-02 4.24650E-02-8.49343E-03 1.62544E-14

```
ITER      0  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.4443E+05 RIMNOR=0.4210E+05
           RENORM= 23.40    REMNOR=0.5301E-21  RATIO =0.2295E-01  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 32.48    RMMAX = 30.92
           RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
           RDT  =0.4443E+05 RDR  =0.4210E+05
           RATIO=0.2295E-01 RATIO= 0.000
           MAX UN= 1.035    IEQ= 31 NODE      16 DOF   1  Y-DISPL.F
           MIN UN=-.9351E-01 IEQ= 19 NODE      10 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      2  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.4443E+05 RIMNOR=0.4210E+05
           RENORM= 7.339    REMNOR=0.1520E-20  RATIO =0.1285E-01  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 32.48    RMMAX = 30.92
           RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
           RDT  =0.4443E+05 RDR  =0.4210E+05
           RATIO=0.1285E-01 RATIO= 0.000
           MAX UN=0.7235    IEQ= 47 NODE      24 DOF   1  Y-DISPL.F
           MIN UN=-.1519E-10 IEQ= 83 NODE      42 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      3  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.4443E+05 RIMNOR=0.4210E+05
           RENORM=0.9324    REMNOR=0.7664E-21  RATIO =0.4581E-02  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 32.48    RMMAX = 30.92
           RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
           RDT  =0.4443E+05 RDR  =0.4210E+05
           RATIO=0.4581E-02 RATIO= 0.000
           MAX UN=0.5903    IEQ= 25 NODE      13 DOF   1  Y-DISPL.F
           MIN UN=-.1195E-09 IEQ= 5 NODE       3 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      4  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.4443E+05 RIMNOR=0.4210E+05
           RENORM=0.2022E-18 REMNOR=0.8889E-21  RATIO =0.2133E-11  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 32.48    RMMAX = 30.92
           RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
           RDT  =0.4443E+05 RDR  =0.4210E+05
           RATIO=0.2133E-11 RATIO= 0.000
           MAX UN=0.1648E-09 IEQ= 27 NODE      14 DOF   1  Y-DISPL.F
           MIN UN=-.2050E-09 IEQ= 25 NODE      13 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                               Exe Time :24 May 2018      18:16:00 |
+-----+

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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 40

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	4.0283405E-03	-7.0064840E-04	
2	3.8882108E-03	-7.0064840E-04	
3	3.7480828E-03	-7.0062332E-04	
4	3.6079681E-03	-7.0049794E-04	
5	3.4678986E-03	-7.0014685E-04	
6	3.3279362E-03	-6.9939452E-04	
7	3.1881826E-03	-6.9801526E-04	
8	3.0487902E-03	-6.9573320E-04	
9	2.9099713E-03	-6.9222234E-04	
10	2.7720083E-03	-6.8710652E-04	
11	2.6352651E-03	-6.7994428E-04	
12	2.5001842E-03	-6.7047747E-04	
13	2.3672254E-03	-6.5874130E-04	
14	2.2368274E-03	-6.4491036E-04	
15	2.1093812E-03	-6.2928090E-04	
16	1.9852138E-03	-6.1216940E-04	
17	1.8645948E-03	-5.9382837E-04	
18	1.7477498E-03	-5.7446719E-04	
19	1.6348636E-03	-5.5427072E-04	
20	1.5260865E-03	-5.3340059E-04	
21	1.4215395E-03	-5.1199649E-04	
22	1.3213162E-03	-4.9017552E-04	
23	1.2254905E-03	-4.6803553E-04	
24	1.1341179E-03	-4.4565610E-04	
25	1.0472381E-03	-4.2312692E-04	
26	9.6487033E-04	-4.0055050E-04	
27	8.8701538E-04	-3.7801698E-04	
28	8.1365574E-04	-3.5560625E-04	
29	7.4475988E-04	-3.3339049E-04	
30	6.8028217E-04	-3.1143540E-04	
31	6.2016427E-04	-2.8980216E-04	
32	5.6433627E-04	-2.6854855E-04	
33	5.1271607E-04	-2.4773091E-04	
34	4.6521102E-04	-2.2740650E-04	
35	4.2171663E-04	-2.0763462E-04	
36	3.8211613E-04	-1.8847838E-04	
37	3.4627988E-04	-1.7000570E-04	
38	3.1406350E-04	-1.5229107E-04	
39	2.8530739E-04	-1.3541748E-04	
40	2.5983427E-04	-1.1947743E-04	
41	2.3744728E-04	-1.0457437E-04	
42	2.1792822E-04	-9.0815856E-05	
43	2.0103917E-04	-7.8283881E-05	
44	1.8653043E-04	-6.7015452E-05	
45	1.7414886E-04	-5.7009914E-05	
46	1.6364444E-04	-4.8235772E-05	
47	1.5477618E-04	-4.0637223E-05	
48	1.4731617E-04	-3.4139414E-05	
49	1.4105284E-04	-2.8655167E-05	
50	1.3579271E-04	-2.4092206E-05	
51	1.3136079E-04	-2.0357213E-05	
52	1.2760069E-04	-1.7357805E-05	
53	1.2437469E-04	-1.5003955E-05	
54	1.2156210E-04	-1.3207630E-05	
55	1.1906009E-04	-1.1884562E-05	
56	1.1678208E-04	-1.0954549E-05	
57	1.1465708E-04	-1.0342250E-05	
58	1.1262872E-04	-9.9768054E-06	
59	1.1065439E-04	-9.7910204E-06	
60	1.0870457E-04	-9.7212929E-06	
61	1.0676203E-04	-9.7077218E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-4.0283E-03	0.000	0.000	0.000	9.8613E-03	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.3429	-3.8882E-03	2.287	0.000	2.287	1.341	ACTIVE	0.000	-0.2000	1.714	
1.000	1.000	1.714	0.000	0.000	Ug1_2_8_L_0						
3 D	0.6857	-3.7481E-03	4.580	0.000	4.580	2.671	ACTIVE	0.000	-0.4000	3.429	
1.000	1.000	3.429	0.000	0.000	Ug1_2_8_L_0						
4 D	1.029	-3.6080E-03	6.883	0.000	6.883	3.978	ACTIVE	0.000	-0.6000	5.143	
1.000	1.000	5.143	0.000	0.000	Ug1_2_8_L_0						
5 D	1.371	-3.4679E-03	9.200	0.000	9.200	5.256	ACTIVE	0.000	-0.8000	6.857	
1.000	1.000	6.857	0.000	0.000	Ug1_2_8_L_0						
6 D	1.714	-3.3279E-03	11.53	0.000	11.53	6.501	ACTIVE	0.000	-1.000	8.571	
1.000	1.000	8.571	0.000	0.000	Ug1_2_8_L_0						
7 D	2.057	-3.1882E-03	13.87	0.000	13.87	7.714	ACTIVE	0.000	-1.200	10.29	
1.000	1.000	10.29	0.000	0.000	Ug1_2_8_L_0						
8 D	2.400	-3.0488E-03	16.22	0.000	16.22	8.897	ACTIVE	0.000	-1.400	12.00	
1.000	1.000	12.00	0.000	0.000	Ug1_2_8_L_0						
9 D	2.743	-2.9100E-03	18.58	0.000	18.58	10.05	ACTIVE	0.000	-1.600	13.71	
1.000	1.000	13.71	0.000	0.000	Ug1_2_8_L_0						
10 D	3.293	-2.7720E-03	20.95	1.035	20.95	11.19	ACTIVE	0.000	-1.800	15.43	
1.000	1.000	16.46	0.000	0.000	Ug1_2_8_L_0						
11 D	3.856	-2.6353E-03	23.31	2.139	23.31	12.30	ACTIVE	0.000	-2.000	17.14	
1.000	1.000	19.28	0.000	0.000	Ug1_2_8_L_0						
12 D	4.420	-2.5002E-03	25.68	3.244	25.68	13.40	ACTIVE	0.000	-2.200	18.86	
1.000	1.000	22.10	0.000	0.000	Ug1_2_8_L_0						
13 D	4.990	-2.3672E-03	28.10	4.377	28.10	14.48	ACTIVE	0.000	-2.400	20.57	
1.000	1.000	24.95	0.000	0.000	Ug1_2_8_L_0						
14 D	5.547	-2.2368E-03	30.40	5.450	30.40	15.56	ACTIVE	0.000	-2.600	22.29	
1.000	1.000	27.74	0.000	0.000	Ug1_2_8_L_0						
15 D	6.124	-2.1094E-03	32.91	6.621	32.91	16.62	ACTIVE	0.000	-2.800	24.00	
1.000	1.000	30.62	0.000	0.000	Ug1_2_8_L_0						
16 D	6.702	-1.9852E-03	35.42	7.796	35.42	17.68	ACTIVE	0.000	-3.000	25.71	
1.000	1.000	33.51	0.000	0.000	Ug1_2_8_L_0						
17 D	7.255	-1.8646E-03	37.67	8.845	37.67	18.73	ACTIVE	0.000	-3.200	27.43	
1.000	1.000	36.27	0.000	0.000	Ug1_2_8_L_0						
18 D	7.830	-1.7477E-03	40.16	10.01	40.16	19.78	ACTIVE	0.000	-3.400	29.14	
1.000	1.000	39.15	0.000	0.000	Ug1_2_8_L_0						
19 D	8.382	-1.6349E-03	42.40	11.05	42.40	20.83	ACTIVE	0.000	-3.600	30.86	
1.000	1.000	41.91	0.000	0.000	Ug1_2_8_L_0						
20 D	8.955	-1.5261E-03	44.86	12.20	44.86	21.87	ACTIVE	0.000	-3.800	32.57	
1.000	1.000	44.77	0.000	0.000	Ug1_2_8_L_0						
21 D	9.526	-1.4215E-03	47.31	13.34	47.31	22.91	ACTIVE	0.000	-4.000	34.29	
1.000	1.000	47.63	0.000	0.000	Ug1_2_8_L_0						
22 D	10.08	-1.3213E-03	49.55	14.39	49.55	23.95	ACTIVE	0.000	-4.200	36.00	
1.000	1.000	50.39	0.000	0.000	Ug1_2_8_L_0						
23 D	10.65	-1.2255E-03	51.98	15.53	51.98	24.98	ACTIVE	0.000	-4.400	37.71	
1.000	1.000	53.24	0.000	0.000	Ug1_2_8_L_0						
24 D	11.47	-1.1341E-03	54.22	17.95	54.22	26.02	ACTIVE	0.000	-4.600	39.43	
1.000	1.000	57.37	0.000	0.000	Ug2_741_743_L_0						
25 D	11.98	-1.0472E-03	56.63	18.75	56.63	27.05	ACTIVE	0.000	-4.800	41.14	
1.000	1.000	59.89	0.000	0.000	Ug2_741_743_L_0						
26 D	12.48	-9.6487E-04	59.04	19.54	59.04	28.08	ACTIVE	0.000	-5.000	42.86	
1.000	1.000	62.40	0.000	0.000	Ug2_741_743_L_0						
27 D	12.97	-8.8702E-04	61.28	20.28	61.28	29.11	ACTIVE	0.000	-5.200	44.57	
1.000	1.000	64.85	0.000	0.000	Ug2_741_743_L_0						
28 D	13.47	-8.1366E-04	63.67	21.08	63.67	30.14	ACTIVE	0.000	-5.400	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	67.36	0.000	0.000	Ug2_741_743_L_0					
29 D	13.96	-7.4476E-04	65.92	21.82	65.92	31.17	ACTIVE	0.000	-5.600	48.00
1.000	1.000	69.82	0.000	0.000	Ug2_741_743_L_0					
30 D	14.46	-6.8028E-04	68.30	22.61	68.30	32.20	ACTIVE	0.000	-5.800	49.71
1.000	1.000	72.32	0.000	0.000	Ug2_741_743_L_0					
31 D	14.96	-6.2016E-04	70.68	23.40	70.68	33.23	ACTIVE	0.000	-6.000	51.43
1.000	1.000	74.82	0.000	0.000	Ug2_741_743_L_0					
32 D	15.46	-5.6434E-04	72.93	24.14	72.93	34.26	ACTIVE	0.000	-6.200	53.14
1.000	1.000	77.28	0.000	0.000	Ug2_741_743_L_0					
33 D	15.96	-5.1272E-04	75.30	24.92	75.30	35.29	ACTIVE	0.000	-6.400	54.86
1.000	1.000	79.78	0.000	0.000	Ug2_741_743_L_0					
34 D	16.45	-4.6521E-04	77.55	25.67	77.55	36.32	ACTIVE	0.000	-6.600	56.57
1.000	1.000	82.24	0.000	0.000	Ug2_741_743_L_0					
35 D	16.95	-4.2172E-04	79.91	26.45	79.91	37.35	ACTIVE	0.000	-6.800	58.29
1.000	1.000	84.74	0.000	0.000	Ug2_741_743_L_0					
36 D	17.45	-3.8212E-04	82.27	27.23	82.27	38.38	ACTIVE	0.000	-7.000	60.00
1.000	1.000	87.23	0.000	0.000	Ug2_741_743_L_0					
37 D	17.94	-3.4628E-04	84.52	27.98	84.52	39.41	ACTIVE	0.000	-7.200	61.71
1.000	1.000	89.69	0.000	0.000	Ug2_741_743_L_0					
38 D	18.44	-3.1406E-04	86.88	28.76	86.88	40.44	ACTIVE	0.000	-7.400	63.43
1.000	1.000	92.19	0.000	0.000	Ug2_741_743_L_0					
39 D	18.93	-2.8531E-04	89.13	29.50	89.13	41.46	ACTIVE	0.000	-7.600	65.14
1.000	1.000	94.64	0.000	0.000	Ug2_741_743_L_0					
40 D	19.43	-2.5983E-04	91.48	30.28	91.48	42.49	ACTIVE	0.000	-7.800	66.86
1.000	1.000	97.14	0.000	0.000	Ug2_741_743_L_0					
41 D	20.03	-2.3745E-04	93.83	31.57	93.83	43.52	UL-RL	5.8658E+04	-8.000	68.57
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
42 D	20.83	-2.1793E-04	96.08	33.87	96.08	44.55	UL-RL	5.8658E+04	-8.200	70.29
1.000	1.000	104.2	0.000	0.000	Ug2_741_743_L_0					
43 D	21.60	-2.0104E-04	98.43	36.01	98.43	45.58	UL-RL	5.8658E+04	-8.400	72.00
1.000	1.000	108.0	0.000	0.000	Ug2_741_743_L_0					
44 D	22.34	-1.8653E-04	100.7	38.01	100.7	46.60	UL-RL	5.8658E+04	-8.600	73.71
1.000	1.000	111.7	0.000	0.000	Ug2_741_743_L_0					
45 D	23.06	-1.7415E-04	103.0	39.88	103.0	47.63	UL-RL	5.8658E+04	-8.800	75.43
1.000	1.000	115.3	0.000	0.000	Ug2_741_743_L_0					
46 D	23.76	-1.6364E-04	105.4	41.65	105.4	48.66	UL-RL	5.8658E+04	-9.000	77.14
1.000	1.000	118.8	0.000	0.000	Ug2_741_743_L_0					
47 D	24.43	-1.5478E-04	107.6	43.31	107.6	49.69	UL-RL	5.8658E+04	-9.200	78.86
1.000	1.000	122.2	0.000	0.000	Ug2_741_743_L_0					
48 D	25.09	-1.4732E-04	110.0	44.90	110.0	50.72	UL-RL	5.8658E+04	-9.400	80.57
1.000	1.000	125.5	0.000	0.000	Ug2_741_743_L_0					
49 D	25.74	-1.4105E-04	112.3	46.42	112.3	51.75	UL-RL	5.8658E+04	-9.600	82.29
1.000	1.000	128.7	0.000	0.000	Ug2_741_743_L_0					
50 D	26.37	-1.3579E-04	114.5	47.87	114.5	52.77	UL-RL	5.8658E+04	-9.800	84.00
1.000	1.000	131.9	0.000	0.000	Ug2_741_743_L_0					
51 D	27.00	-1.3136E-04	116.9	49.28	116.9	53.80	UL-RL	5.8658E+04	-10.000	85.71
1.000	1.000	135.0	0.000	0.000	Ug2_741_743_L_0					
52 D	27.62	-1.2760E-04	119.1	50.65	119.1	54.83	UL-RL	5.8658E+04	-10.200	87.43
1.000	1.000	138.1	0.000	0.000	Ug2_741_743_L_0					
53 D	28.23	-1.2437E-04	121.5	51.99	121.5	55.86	UL-RL	5.8658E+04	-10.400	89.14
1.000	1.000	141.1	0.000	0.000	Ug2_741_743_L_0					
54 D	28.83	-1.2156E-04	123.8	53.30	123.8	56.89	UL-RL	5.8658E+04	-10.600	90.86
1.000	1.000	144.2	0.000	0.000	Ug2_741_743_L_0					
55 D	29.43	-1.1906E-04	126.0	54.60	126.0	57.92	UL-RL	5.8658E+04	-10.800	92.57
1.000	1.000	147.2	0.000	0.000	Ug2_741_743_L_0					
56 D	30.03	-1.1678E-04	128.4	55.88	128.4	58.95	UL-RL	5.8658E+04	-11.000	94.29
1.000	1.000	150.2	0.000	0.000	Ug2_741_743_L_0					
57 D	30.63	-1.1466E-04	130.6	57.16	130.6	59.97	UL-RL	5.8658E+04	-11.200	96.00
1.000	1.000	153.2	0.000	0.000	Ug2_741_743_L_0					
58 D	31.23	-1.1263E-04	133.0	58.43	133.0	61.00	UL-RL	5.8658E+04	-11.400	97.71
1.000	1.000	156.1	0.000	0.000	Ug2_741_743_L_0					
59 D	31.82	-1.1065E-04	135.3	59.69	135.3	62.03	UL-RL	5.8658E+04	-11.600	99.43
1.000	1.000	159.1	0.000	0.000	Ug2_741_743_L_0					
60 D	32.42	-1.0870E-04	137.5	60.96	137.5	63.06	UL-RL	5.8658E+04	-11.800	101.1
1.000	1.000	162.1	0.000	0.000	Ug2_741_743_L_0					
61 D	16.51	-1.0676E-04	139.9	62.22	139.9	64.09	UL-RL	5.8658E+04	-12.000	102.9
1.000	1.000	165.1	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:16:00          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	3.619	2.6353E-03	0.000	18.10	20.00	20.83	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	18.10	0.000	0.000	Ug1_2_8_L_0						
12 D	5.139	2.5002E-03	3.800	25.69	22.00	25.69	PASSIVE	0.000	-2.200	0.000	
1.000	1.000	25.69	0.000	0.000	Ug1_2_8_L_0						
13 D	6.658	2.3672E-03	7.600	33.29	24.00	33.29	PASSIVE	0.000	-2.400	0.000	
1.000	1.000	33.29	0.000	0.000	Ug1_2_8_L_0						
14 D	7.929	2.2368E-03	11.40	39.65	26.00	39.65	V-C	1.0248E+04	-2.600	0.000	
1.000	1.000	39.65	0.000	0.000	Ug1_2_8_L_0						
15 D	8.069	2.1094E-03	15.20	40.34	28.00	40.34	V-C	1.0248E+04	-2.800	0.000	
1.000	1.000	40.34	0.000	0.000	Ug1_2_8_L_0						
16 D	8.211	1.9852E-03	19.00	41.05	30.00	41.05	V-C	1.0248E+04	-3.000	0.000	
1.000	1.000	41.05	0.000	0.000	Ug1_2_8_L_0						
17 D	8.606	1.8646E-03	20.71	40.74	32.00	40.74	V-C	1.0248E+04	-3.200	2.286	
1.000	1.000	43.03	0.000	0.000	Ug1_2_8_L_0						
18 D	9.007	1.7477E-03	22.43	40.46	34.00	40.46	V-C	1.0248E+04	-3.400	4.571	
1.000	1.000	45.03	0.000	0.000	Ug1_2_8_L_0						
19 D	9.415	1.6349E-03	24.14	40.22	36.00	40.22	V-C	1.0248E+04	-3.600	6.857	
1.000	1.000	47.07	0.000	0.000	Ug1_2_8_L_0						
20 D	9.830	1.5261E-03	25.86	40.01	38.00	40.01	V-C	1.0248E+04	-3.800	9.143	
1.000	1.000	49.15	0.000	0.000	Ug1_2_8_L_0						
21 D	10.25	1.4215E-03	27.57	39.84	40.00	39.84	V-C	1.0248E+04	-4.000	11.43	
1.000	1.000	51.27	0.000	0.000	Ug1_2_8_L_0						
22 D	10.69	1.3213E-03	29.29	39.72	42.00	39.72	V-C	1.0248E+04	-4.200	13.71	
1.000	1.000	53.43	0.000	0.000	Ug1_2_8_L_0						
23 D	11.13	1.2255E-03	31.00	39.64	44.00	39.64	V-C	1.0248E+04	-4.400	16.00	
1.000	1.000	55.64	0.000	0.000	Ug1_2_8_L_0						
24 D	12.22	1.1341E-03	32.71	42.82	46.00	42.82	V-C	1.2946E+04	-4.600	18.29	
1.000	1.000	61.11	0.000	0.000	Ug2_741_743_L_0						
25 D	12.63	1.0472E-03	34.43	42.59	48.00	42.59	V-C	1.2946E+04	-4.800	20.57	
1.000	1.000	63.16	0.000	0.000	Ug2_741_743_L_0						
26 D	13.06	9.6487E-04	36.14	42.42	50.00	42.42	V-C	1.2946E+04	-5.000	22.86	
1.000	1.000	65.28	0.000	0.000	Ug2_741_743_L_0						
27 D	13.49	8.8702E-04	37.86	42.31	52.00	42.31	V-C	1.2946E+04	-5.200	25.14	
1.000	1.000	67.45	0.000	0.000	Ug2_741_743_L_0						
28 D	13.94	8.1366E-04	39.57	42.26	54.00	42.26	V-C	1.2946E+04	-5.400	27.43	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	69.69	0.000	0.000	Ug2_741_743_L_0					
29 D	14.40	7.4476E-04	41.29	42.27	56.00	42.27	V-C	1.2946E+04	-5.600	29.71
1.000	1.000	71.98	0.000	0.000	Ug2_741_743_L_0					
30 D	14.87	6.8028E-04	43.00	42.34	58.00	42.34	V-C	1.2946E+04	-5.800	32.00
1.000	1.000	74.34	0.000	0.000	Ug2_741_743_L_0					
31 D	15.35	6.2016E-04	44.71	42.47	60.00	42.47	V-C	1.2946E+04	-6.000	34.29
1.000	1.000	76.75	0.000	0.000	Ug2_741_743_L_0					
32 D	15.84	5.6434E-04	46.43	42.65	62.00	42.65	V-C	1.2946E+04	-6.200	36.57
1.000	1.000	79.22	0.000	0.000	Ug2_741_743_L_0					
33 D	16.35	5.1272E-04	48.14	42.89	64.00	42.89	V-C	1.2946E+04	-6.400	38.86
1.000	1.000	81.75	0.000	0.000	Ug2_741_743_L_0					
34 D	16.87	4.6521E-04	49.86	43.18	66.00	43.18	V-C	1.2946E+04	-6.600	41.14
1.000	1.000	84.33	0.000	0.000	Ug2_741_743_L_0					
35 D	17.39	4.2172E-04	51.57	43.53	68.00	43.53	V-C	1.2946E+04	-6.800	43.43
1.000	1.000	86.96	0.000	0.000	Ug2_741_743_L_0					
36 D	17.93	3.8212E-04	53.29	43.93	70.00	43.93	V-C	1.2946E+04	-7.000	45.71
1.000	1.000	89.65	0.000	0.000	Ug2_741_743_L_0					
37 D	18.48	3.4628E-04	55.00	44.38	72.00	44.38	V-C	1.2946E+04	-7.200	48.00
1.000	1.000	92.38	0.000	0.000	Ug2_741_743_L_0					
38 D	19.03	3.1406E-04	56.71	44.88	74.00	44.88	V-C	1.2946E+04	-7.400	50.29
1.000	1.000	95.16	0.000	0.000	Ug2_741_743_L_0					
39 D	19.60	2.8531E-04	58.43	45.42	76.00	45.42	V-C	1.2946E+04	-7.600	52.57
1.000	1.000	97.99	0.000	0.000	Ug2_741_743_L_0					
40 D	20.17	2.5983E-04	60.14	46.00	78.00	46.00	V-C	1.2946E+04	-7.800	54.86
1.000	1.000	100.9	0.000	0.000	Ug2_741_743_L_0					
41 D	20.75	2.3745E-04	61.86	46.63	80.00	46.63	V-C	1.2946E+04	-8.000	57.14
1.000	1.000	103.8	0.000	0.000	Ug2_741_743_L_0					
42 D	21.22	2.1793E-04	63.57	46.70	82.00	46.70	V-C	1.2946E+04	-8.200	59.43
1.000	1.000	106.1	0.000	0.000	Ug2_741_743_L_0					
43 D	21.71	2.0104E-04	65.29	46.85	84.00	46.85	V-C	1.2946E+04	-8.400	61.71
1.000	1.000	108.6	0.000	0.000	Ug2_741_743_L_0					
44 D	22.22	1.8653E-04	67.00	47.12	86.00	47.12	V-C	1.2946E+04	-8.600	64.00
1.000	1.000	111.1	0.000	0.000	Ug2_741_743_L_0					
45 D	22.75	1.7415E-04	68.71	47.48	88.00	47.48	V-C	1.2946E+04	-8.800	66.29
1.000	1.000	113.8	0.000	0.000	Ug2_741_743_L_0					
46 D	23.30	1.6364E-04	70.43	47.94	90.00	47.94	V-C	1.2946E+04	-9.000	68.57
1.000	1.000	116.5	0.000	0.000	Ug2_741_743_L_0					
47 D	23.87	1.5478E-04	72.14	48.48	92.00	48.48	V-C	1.2946E+04	-9.200	70.86
1.000	1.000	119.3	0.000	0.000	Ug2_741_743_L_0					
48 D	24.47	1.4732E-04	73.86	49.21	94.00	49.21	V-C	1.2946E+04	-9.400	73.14
1.000	1.000	122.4	0.000	0.000	Ug2_741_743_L_0					
49 D	25.10	1.4105E-04	75.57	50.08	96.00	50.08	V-C	1.2946E+04	-9.600	75.43
1.000	1.000	125.5	0.000	0.000	Ug2_741_743_L_0					
50 D	25.74	1.3579E-04	77.29	50.97	98.00	50.97	V-C	1.2946E+04	-9.800	77.71
1.000	1.000	128.7	0.000	0.000	Ug2_741_743_L_0					
51 D	26.37	1.3136E-04	79.00	51.87	100.00	51.87	V-C	1.2946E+04	-10.000	80.00
1.000	1.000	131.9	0.000	0.000	Ug2_741_743_L_0					
52 D	27.01	1.2760E-04	80.71	52.75	102.0	52.75	UL-RL	3.8838E+04	-10.200	82.29
1.000	1.000	135.0	0.000	0.000	Ug2_741_743_L_0					
53 D	27.64	1.2437E-04	82.43	53.61	104.0	53.73	UL-RL	3.8838E+04	-10.400	84.57
1.000	1.000	138.2	0.000	0.000	Ug2_741_743_L_0					
54 D	28.27	1.2156E-04	84.14	54.48	106.0	54.67	UL-RL	3.8838E+04	-10.600	86.86
1.000	1.000	141.3	0.000	0.000	Ug2_741_743_L_0					
55 D	28.90	1.1906E-04	85.86	55.37	108.0	55.62	UL-RL	3.8838E+04	-10.800	89.14
1.000	1.000	144.5	0.000	0.000	Ug2_741_743_L_0					
56 D	29.54	1.1678E-04	87.57	56.25	110.0	56.56	UL-RL	3.8838E+04	-11.000	91.43
1.000	1.000	147.7	0.000	0.000	Ug2_741_743_L_0					
57 D	30.16	1.1466E-04	89.29	57.09	112.0	57.54	UL-RL	3.8838E+04	-11.200	93.71
1.000	1.000	150.8	0.000	0.000	Ug2_741_743_L_0					
58 D	30.78	1.1263E-04	91.00	57.91	114.0	58.52	UL-RL	3.8838E+04	-11.400	96.00
1.000	1.000	153.9	0.000	0.000	Ug2_741_743_L_0					
59 D	31.40	1.1065E-04	92.71	58.73	116.0	59.51	UL-RL	3.8838E+04	-11.600	98.29
1.000	1.000	157.0	0.000	0.000	Ug2_741_743_L_0					
60 D	32.02	1.0870E-04	94.43	59.55	118.0	60.50	UL-RL	3.8838E+04	-11.800	100.6
1.000	1.000	160.1	0.000	0.000	Ug2_741_743_L_0					
61 D	16.32	1.0676E-04	96.14	60.37	120.0	61.48	UL-RL	3.8838E+04	-12.000	102.9
1.000	1.000	163.2	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
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New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.82663E-11	-3.82663E-11	4.97136E-12	8.16636E-12
2	0.34286	-0.34286	-1.02571E-11	6.85714E-02
3	1.0286	-1.0286	-6.85714E-02	0.27429
4	2.0571	-2.0571	-0.27429	0.68571
5	3.4286	-3.4286	-0.68571	1.3714
6	5.1429	-5.1429	-1.3714	2.4000
7	7.2000	-7.2000	-2.4000	3.8400
8	9.6000	-9.6000	-3.8400	5.7600
9	12.343	-12.343	-5.7600	8.2286
10	15.636	-15.636	-8.2286	11.356
11	15.872	-15.872	-11.356	14.530
12	15.154	-15.154	-14.530	17.561
13	13.486	-13.486	-17.561	20.258
14	11.103	-11.103	-20.258	22.479
15	9.1588	-9.1588	-22.479	24.311
16	7.6499	-7.6499	-24.311	25.840
17	6.2987	-6.2987	-25.840	27.100
18	5.1214	-5.1214	-27.100	28.125
19	4.0887	-4.0887	-28.125	28.942
20	3.2131	-3.2131	-28.942	29.585
21	2.4849	-2.4849	-29.585	30.082
22	1.8767	-1.8767	-30.082	30.457
23	1.3969	-1.3969	-30.457	30.737
24	0.65037	-0.65037	-30.737	30.867
25	-4.49917E-03	4.49917E-03	-30.867	30.866
26	-0.58039	0.58039	-30.866	30.750
27	-1.1000	1.1000	-30.750	30.530
28	-1.5654	1.5654	-30.530	30.217
29	-1.9985	1.9985	-30.217	29.817
30	-2.4017	2.4017	-29.817	29.337
31	-2.7871	2.7871	-29.337	28.779
32	-3.1750	3.1750	-28.779	28.144
33	-3.5682	3.5682	-28.144	27.430
34	-3.9860	3.9860	-27.430	26.633
35	-4.4309	4.4309	-26.633	25.747
36	-4.9136	4.9136	-25.747	24.764
37	-5.4516	5.4516	-24.764	23.674
38	-6.0470	6.0470	-23.674	22.465
39	-6.7163	6.7163	-22.465	21.121
40	-7.4610	7.4610	-21.121	19.629
41	-8.1872	8.1872	-19.629	17.992
42	-8.5818	8.5818	-17.992	16.275
43	-8.6933	8.6933	-16.275	14.537
44	-8.5722	8.5722	-14.537	12.822
45	-8.2640	8.2640	-12.822	11.169
46	-7.8086	7.8086	-11.169	9.6078
47	-7.2406	7.2406	-9.6078	8.1597
48	-6.6166	6.6166	-8.1597	6.8363
49	-5.9788	5.9788	-6.8363	5.6406
50	-5.3414	5.3414	-5.6406	4.5723
51	-4.7163	4.7163	-4.5723	3.6290
52	-4.1071	4.1071	-3.6290	2.8076
53	-3.5171	3.5171	-2.8076	2.1042
54	-2.9532	2.9532	-2.1042	1.5136
55	-2.4206	2.4206	-1.5136	1.0294
56	-1.9232	1.9232	-1.0294	0.64481
57	-1.4518	1.4518	-0.64481	0.35445
58	-1.0045	1.0045	-0.35445	0.15355
59	-0.58224	0.58224	-0.15355	3.71066E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-0.18552 0.18552 -3.71066E-02 1.95666E-13

```

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4173E+05 RIMNOR=0.4608E+05
RENORM= 17.15 REMNOR=0.8889E-21 RATIO =0.2027E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.75 RMMAX = 30.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.4173E+05 RDR =0.4608E+05
RATIOT=0.2027E-01 RATIO= 0.000
MAX UN= 1.014 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.1714 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4173E+05 RIMNOR=0.4608E+05
RENORM= 4.848 REMNOR=0.5075E-21 RATIO =0.1078E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.75 RMMAX = 30.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.4173E+05 RDR =0.4608E+05
RATIOT=0.1078E-01 RATIO= 0.000
MAX UN=0.5499 IEQ= 55 NODE 28 DOF 1 Y-DISPL.F
MIN UN=-.4917E-01 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4173E+05 RIMNOR=0.4608E+05
RENORM=0.4446 REMNOR=0.1454E-20 RATIO =0.3264E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.75 RMMAX = 30.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.4173E+05 RDR =0.4608E+05
RATIOT=0.3264E-02 RATIO= 0.000
MAX UN=0.5349 IEQ= 83 NODE 42 DOF 1 Y-DISPL.F
MIN UN=-.2937E-03 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4173E+05 RIMNOR=0.4608E+05
RENORM=0.1683E-01 REMNOR=0.1471E-20 RATIO =0.6350E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.75 RMMAX = 30.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.4173E+05 RDR =0.4608E+05
RATIOT=0.6350E-03 RATIO= 0.000
MAX UN=0.1055 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
MIN UN=-.1497E-01 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4173E+05 RIMNOR=0.4608E+05
RENORM=0.1482E-02 REMNOR=0.1309E-20 RATIO =0.1884E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.75 RMMAX = 30.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.4173E+05 RDR =0.4608E+05
RATIOT=0.1884E-03 RATIO= 0.000
MAX UN=0.1635E-01 IEQ= 85 NODE 43 DOF 1 Y-DISPL.F
MIN UN=-.2397E-09 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 6 RNORM = 0.000 RMNORM= 0.000
RINORM=0.4173E+05 RIMNOR=0.4608E+05
RENORM=0.2946E-04 REMNOR=0.9390E-21 RATIO =0.2657E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 31.75 RMMAX = 30.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.4173E+05 RDR =0.4608E+05
RATIOT=0.2657E-04 RATIO= 0.000
MAX UN=0.3042E-02 IEQ= 71 NODE 36 DOF 1 Y-DISPL.F
MIN UN=-.9163E-10 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787  |
|                               Exe Time :24 May 2018      18:16:00  |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

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	4.0803833E-03	-6.6446812E-04	
2	3.9474897E-03	-6.6446812E-04	
3	3.8145976E-03	-6.6444471E-04	
4	3.6817181E-03	-6.6432768E-04	
5	3.5488806E-03	-6.6400000E-04	
6	3.4161430E-03	-6.6329783E-04	
7	3.2836005E-03	-6.6201052E-04	
8	3.1513950E-03	-6.5988060E-04	
9	3.0197247E-03	-6.5660380E-04	
10	2.8888537E-03	-6.5182379E-04	
11	2.7591238E-03	-6.4511529E-04	
12	2.6309522E-03	-6.3623704E-04	
13	2.5047700E-03	-6.2524301E-04	
14	2.3809831E-03	-6.1232826E-04	
15	2.2599443E-03	-5.9782945E-04	
16	2.1419315E-03	-5.8212783E-04	
17	2.0271511E-03	-5.6554782E-04	
18	1.9157525E-03	-5.4835609E-04	
19	1.8078355E-03	-5.3076191E-04	
20	1.7034644E-03	-5.1291832E-04	
21	1.6026788E-03	-4.9492322E-04	
22	1.5055029E-03	-4.7681860E-04	
23	1.4119581E-03	-4.5861262E-04	
24	1.3220650E-03	-4.4029943E-04	
25	1.2358441E-03	-4.2189998E-04	
26	1.1533074E-03	-4.0346469E-04	
27	1.0744582E-03	-3.8503558E-04	
28	9.9929081E-04	-3.6664822E-04	
29	9.2779407E-04	-3.4833373E-04	
30	8.5995061E-04	-3.3011990E-04	
31	7.9573767E-04	-3.1203272E-04	
32	7.3512770E-04	-2.9409730E-04	
33	6.7808720E-04	-2.7633959E-04	
34	6.2457810E-04	-2.5878835E-04	
35	5.7455592E-04	-2.4147618E-04	
36	5.2796916E-04	-2.2444099E-04	
37	4.8475832E-04	-2.0772712E-04	
38	4.4485364E-04	-1.9138658E-04	
39	4.0817472E-04	-1.7548053E-04	
40	3.7462772E-04	-1.6008019E-04	
41	3.4410341E-04	-1.4526832E-04	
42	3.1647482E-04	-1.3113995E-04	
43	2.9159518E-04	-1.1779534E-04	
44	2.6929785E-04	-1.0533326E-04	
45	2.4939706E-04	-9.3844879E-05	
46	2.3169084E-04	-8.3393950E-05	
47	2.1596849E-04	-7.4007896E-05	
48	2.0201689E-04	-6.5683712E-05	
49	1.8962594E-04	-5.8395447E-05	
50	1.7859243E-04	-5.2102214E-05	
51	1.6872218E-04	-4.6752957E-05	
52	1.5983199E-04	-4.2289173E-05	
53	1.5175193E-04	-3.8646670E-05	
54	1.4432372E-04	-3.5754475E-05	
55	1.3740514E-04	-3.3537389E-05	
56	1.3086906E-04	-3.1915782E-05	
57	1.2460471E-04	-3.0805829E-05	
58	1.1851857E-04	-3.0118205E-05	
59	1.1253572E-04	-2.9756247E-05	
60	1.0660131E-04	-2.9615744E-05	
61	1.0068165E-04	-2.9587366E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.30	0.000	0.000	Ug2_741_743_L_0					
29 D	13.54	-9.2779E-04	69.12	22.88	69.12	31.17	ACTIVE	0.000	-5.600	44.80
1.000	1.000	67.68	0.000	0.000	Ug2_741_743_L_0					
30 D	14.02	-8.5995E-04	71.62	23.71	71.62	32.20	ACTIVE	0.000	-5.800	46.40
1.000	1.000	70.11	0.000	0.000	Ug2_741_743_L_0					
31 D	14.51	-7.9574E-04	74.11	24.53	74.11	33.23	ACTIVE	0.000	-6.000	48.00
1.000	1.000	72.53	0.000	0.000	Ug2_741_743_L_0					
32 D	14.98	-7.3513E-04	76.47	25.31	76.47	34.26	ACTIVE	0.000	-6.200	49.60
1.000	1.000	74.91	0.000	0.000	Ug2_741_743_L_0					
33 D	15.47	-6.7809E-04	78.96	26.13	78.96	35.29	ACTIVE	0.000	-6.400	51.20
1.000	1.000	77.33	0.000	0.000	Ug2_741_743_L_0					
34 D	15.94	-6.2458E-04	81.32	26.92	81.32	36.32	ACTIVE	0.000	-6.600	52.80
1.000	1.000	79.72	0.000	0.000	Ug2_741_743_L_0					
35 D	16.43	-5.7456E-04	83.80	27.74	83.80	37.35	ACTIVE	0.000	-6.800	54.40
1.000	1.000	82.14	0.000	0.000	Ug2_741_743_L_0					
36 D	16.91	-5.2797E-04	86.27	28.56	86.27	38.38	ACTIVE	0.000	-7.000	56.00
1.000	1.000	84.56	0.000	0.000	Ug2_741_743_L_0					
37 D	17.39	-4.8476E-04	88.64	29.34	88.64	39.41	UL-RL	5.8658E+04	-7.200	57.60
1.000	1.000	86.94	0.000	0.000	Ug2_741_743_L_0					
38 D	17.87	-4.4485E-04	91.11	30.17	91.11	40.44	UL-RL	5.8658E+04	-7.400	59.20
1.000	1.000	89.37	0.000	0.000	Ug2_741_743_L_0					
39 D	18.35	-4.0817E-04	93.47	30.96	93.47	41.46	UL-RL	5.8658E+04	-7.600	60.80
1.000	1.000	91.76	0.000	0.000	Ug2_741_743_L_0					
40 D	18.84	-3.7463E-04	95.94	31.78	95.94	42.49	UL-RL	5.8658E+04	-7.800	62.40
1.000	1.000	94.18	0.000	0.000	Ug2_741_743_L_0					
41 D	19.32	-3.4410E-04	98.40	32.60	98.40	43.52	UL-RL	5.8658E+04	-8.000	64.00
1.000	1.000	96.60	0.000	0.000	Ug2_741_743_L_0					
42 D	19.80	-3.1647E-04	100.8	33.38	100.8	44.55	UL-RL	5.8658E+04	-8.200	65.60
1.000	1.000	98.98	0.000	0.000	Ug2_741_743_L_0					
43 D	20.28	-2.9160E-04	103.2	34.20	103.2	45.58	UL-RL	5.8658E+04	-8.400	67.20
1.000	1.000	101.4	0.000	0.000	Ug2_741_743_L_0					
44 D	20.88	-2.6930E-04	105.6	35.61	105.6	46.60	UL-RL	5.8658E+04	-8.600	68.80
1.000	1.000	104.4	0.000	0.000	Ug2_741_743_L_0					
45 D	21.68	-2.4940E-04	108.0	37.98	108.0	47.63	UL-RL	5.8658E+04	-8.800	70.40
1.000	1.000	108.4	0.000	0.000	Ug2_741_743_L_0					
46 D	22.45	-2.3169E-04	110.5	40.23	110.5	48.66	UL-RL	5.8658E+04	-9.000	72.00
1.000	1.000	112.2	0.000	0.000	Ug2_741_743_L_0					
47 D	23.19	-2.1597E-04	112.9	42.35	112.9	49.69	UL-RL	5.8658E+04	-9.200	73.60
1.000	1.000	116.0	0.000	0.000	Ug2_741_743_L_0					
48 D	23.92	-2.0202E-04	115.3	44.38	115.3	50.72	UL-RL	5.8658E+04	-9.400	75.20
1.000	1.000	119.6	0.000	0.000	Ug2_741_743_L_0					
49 D	24.62	-1.8963E-04	117.8	46.31	117.8	51.75	UL-RL	5.8658E+04	-9.600	76.80
1.000	1.000	123.1	0.000	0.000	Ug2_741_743_L_0					
50 D	25.31	-1.7859E-04	120.1	48.16	120.1	52.77	UL-RL	5.8658E+04	-9.800	78.40
1.000	1.000	126.6	0.000	0.000	Ug2_741_743_L_0					
51 D	25.99	-1.6872E-04	122.6	49.95	122.6	53.80	UL-RL	5.8658E+04	-10.000	80.00
1.000	1.000	129.9	0.000	0.000	Ug2_741_743_L_0					
52 D	26.65	-1.5983E-04	125.0	51.67	125.0	54.83	UL-RL	5.8658E+04	-10.200	81.60
1.000	1.000	133.3	0.000	0.000	Ug2_741_743_L_0					
53 D	27.31	-1.5175E-04	127.4	53.35	127.4	55.86	UL-RL	5.8658E+04	-10.400	83.20
1.000	1.000	136.6	0.000	0.000	Ug2_741_743_L_0					
54 D	27.96	-1.4432E-04	129.8	55.00	129.8	56.89	UL-RL	5.8658E+04	-10.600	84.80
1.000	1.000	139.8	0.000	0.000	Ug2_741_743_L_0					
55 D	28.60	-1.3741E-04	132.2	56.61	132.2	57.92	UL-RL	5.8658E+04	-10.800	86.40
1.000	1.000	143.0	0.000	0.000	Ug2_741_743_L_0					
56 D	29.24	-1.3087E-04	134.7	58.20	134.7	59.03	UL-RL	5.8658E+04	-11.000	88.00
1.000	1.000	146.2	0.000	0.000	Ug2_741_743_L_0					
57 D	29.88	-1.2460E-04	137.0	59.78	137.0	60.36	UL-RL	5.8658E+04	-11.200	89.60
1.000	1.000	149.4	0.000	0.000	Ug2_741_743_L_0					
58 D	30.51	-1.1852E-04	139.5	61.34	139.5	61.69	UL-RL	5.8658E+04	-11.400	91.20
1.000	1.000	152.5	0.000	0.000	Ug2_741_743_L_0					
59 D	31.14	-1.1254E-04	141.9	62.90	141.9	63.01	UL-RL	5.8658E+04	-11.600	92.80
1.000	1.000	155.7	0.000	0.000	Ug2_741_743_L_0					
60 D	31.74	-1.0660E-04	144.3	64.30	144.3	64.41	UL-RL	5.8658E+04	-11.800	94.40
1.000	1.000	158.7	0.000	0.000	Ug2_741_743_L_0					
61 D	16.17	-1.0068E-04	146.7	65.70	146.7	65.81	UL-RL	5.8658E+04	-12.000	96.00
1.000	1.000	161.7	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:16:00          |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
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	Peg	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 D	3.619	2.7591E-03	0.000	18.09	20.00	20.83	UL-RL	3.0743E+04	-2.000	0.000	
1.000	1.000	18.09	0.000	0.000	Ug1_2_8_L_0						
12 D	5.138	2.6310E-03	3.800	25.69	22.00	25.69	UL-RL	3.0743E+04	-2.200	0.000	
1.000	1.000	25.69	0.000	0.000	Ug1_2_8_L_0						
13 D	6.658	2.5048E-03	7.600	33.29	24.00	33.29	UL-RL	3.0743E+04	-2.400	0.000	
1.000	1.000	33.29	0.000	0.000	Ug1_2_8_L_0						
14 D	8.177	2.3810E-03	11.40	40.89	26.00	40.89	UL-RL	3.0743E+04	-2.600	0.000	
1.000	1.000	40.89	0.000	0.000	Ug1_2_8_L_0						
15 D	8.377	2.2599E-03	15.20	41.89	28.00	41.89	UL-RL	3.0743E+04	-2.800	0.000	
1.000	1.000	41.89	0.000	0.000	Ug1_2_8_L_0						
16 D	8.532	2.1419E-03	19.00	42.66	30.00	42.66	V-C	1.0248E+04	-3.000	0.000	
1.000	1.000	42.66	0.000	0.000	Ug1_2_8_L_0						
17 D	8.691	2.0272E-03	22.80	43.45	32.00	43.45	V-C	1.0248E+04	-3.200	0.000	
1.000	1.000	43.45	0.000	0.000	Ug1_2_8_L_0						
18 D	8.854	1.9158E-03	26.60	44.27	34.00	44.27	V-C	1.0248E+04	-3.400	0.000	
1.000	1.000	44.27	0.000	0.000	Ug1_2_8_L_0						
19 D	9.024	1.8078E-03	30.40	45.12	36.00	45.12	V-C	1.0248E+04	-3.600	0.000	
1.000	1.000	45.12	0.000	0.000	Ug1_2_8_L_0						
20 D	9.200	1.7035E-03	34.20	46.00	38.00	46.00	V-C	1.0248E+04	-3.800	0.000	
1.000	1.000	46.00	0.000	0.000	Ug1_2_8_L_0						
21 D	9.383	1.6027E-03	38.00	46.91	40.00	46.91	V-C	1.0248E+04	-4.000	0.000	
1.000	1.000	46.91	0.000	0.000	Ug1_2_8_L_0						
22 D	9.833	1.5055E-03	39.60	46.76	42.00	46.76	V-C	1.0248E+04	-4.200	2.400	
1.000	1.000	49.16	0.000	0.000	Ug1_2_8_L_0						
23 D	10.29	1.4120E-03	41.20	46.65	44.00	46.65	V-C	1.0248E+04	-4.400	4.800	
1.000	1.000	51.45	0.000	0.000	Ug1_2_8_L_0						
24 D	11.50	1.3221E-03	42.80	50.30	46.00	50.30	V-C	1.2946E+04	-4.600	7.200	
1.000	1.000	57.50	0.000	0.000	Ug2_741_743_L_0						
25 D	11.92	1.2358E-03	44.40	50.02	48.00	50.02	V-C	1.2946E+04	-4.800	9.600	
1.000	1.000	59.62	0.000	0.000	Ug2_741_743_L_0						
26 D	12.36	1.1533E-03	46.00	49.79	50.00	49.79	V-C	1.2946E+04	-5.000	12.00	
1.000	1.000	61.79	0.000	0.000	Ug2_741_743_L_0						
27 D	12.80	1.0745E-03	47.60	49.61	52.00	49.61	V-C	1.2946E+04	-5.200	14.40	
1.000	1.000	64.01	0.000	0.000	Ug2_741_743_L_0						
28 D	13.26	9.9929E-04	49.20	49.48	54.00	49.48	V-C	1.2946E+04	-5.400	16.80	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	66.28	0.000	0.000	Ug2_741_743_L_0					
29 D	13.72	9.2779E-04	50.80	49.40	56.00	49.40	V-C	1.2946E+04	-5.600	19.20
1.000	1.000	68.60	0.000	0.000	Ug2_741_743_L_0					
30 D	14.19	8.5995E-04	52.40	49.36	58.00	49.36	V-C	1.2946E+04	-5.800	21.60
1.000	1.000	70.96	0.000	0.000	Ug2_741_743_L_0					
31 D	14.68	7.9574E-04	54.00	49.38	60.00	49.38	V-C	1.2946E+04	-6.000	24.00
1.000	1.000	73.38	0.000	0.000	Ug2_741_743_L_0					
32 D	15.17	7.3513E-04	55.60	49.45	62.00	49.45	V-C	1.2946E+04	-6.200	26.40
1.000	1.000	75.85	0.000	0.000	Ug2_741_743_L_0					
33 D	15.67	6.7809E-04	57.20	49.56	64.00	49.56	V-C	1.2946E+04	-6.400	28.80
1.000	1.000	78.36	0.000	0.000	Ug2_741_743_L_0					
34 D	16.18	6.2458E-04	58.80	49.72	66.00	49.72	V-C	1.2946E+04	-6.600	31.20
1.000	1.000	80.92	0.000	0.000	Ug2_741_743_L_0					
35 D	16.71	5.7456E-04	60.40	49.93	68.00	49.93	V-C	1.2946E+04	-6.800	33.60
1.000	1.000	83.53	0.000	0.000	Ug2_741_743_L_0					
36 D	17.24	5.2797E-04	62.00	50.18	70.00	50.18	V-C	1.2946E+04	-7.000	36.00
1.000	1.000	86.18	0.000	0.000	Ug2_741_743_L_0					
37 D	17.77	4.8476E-04	63.60	50.47	72.00	50.47	UL-RL	3.8838E+04	-7.200	38.40
1.000	1.000	88.87	0.000	0.000	Ug2_741_743_L_0					
38 D	18.32	4.4485E-04	65.20	50.81	74.00	50.82	UL-RL	3.8838E+04	-7.400	40.80
1.000	1.000	91.61	0.000	0.000	Ug2_741_743_L_0					
39 D	18.88	4.0817E-04	66.80	51.19	76.00	51.20	UL-RL	3.8838E+04	-7.600	43.20
1.000	1.000	94.39	0.000	0.000	Ug2_741_743_L_0					
40 D	19.44	3.7463E-04	68.40	51.61	78.00	51.62	UL-RL	3.8838E+04	-7.800	45.60
1.000	1.000	97.21	0.000	0.000	Ug2_741_743_L_0					
41 D	20.01	3.4410E-04	70.00	52.07	80.00	52.09	UL-RL	3.8838E+04	-8.000	48.00
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
42 D	20.47	3.1647E-04	71.60	51.97	82.00	51.99	UL-RL	3.8838E+04	-8.200	50.40
1.000	1.000	102.4	0.000	0.000	Ug2_741_743_L_0					
43 D	20.95	2.9160E-04	73.20	51.96	84.00	51.99	UL-RL	3.8838E+04	-8.400	52.80
1.000	1.000	104.8	0.000	0.000	Ug2_741_743_L_0					
44 D	21.45	2.6930E-04	74.80	52.07	86.00	52.10	UL-RL	3.8838E+04	-8.600	55.20
1.000	1.000	107.3	0.000	0.000	Ug2_741_743_L_0					
45 D	21.98	2.4940E-04	76.40	52.29	88.00	52.31	UL-RL	3.8838E+04	-8.800	57.60
1.000	1.000	109.9	0.000	0.000	Ug2_741_743_L_0					
46 D	22.52	2.3169E-04	78.00	52.59	90.00	52.61	UL-RL	3.8838E+04	-9.000	60.00
1.000	1.000	112.6	0.000	0.000	Ug2_741_743_L_0					
47 D	23.08	2.1597E-04	79.60	52.98	92.00	53.00	UL-RL	3.8838E+04	-9.200	62.40
1.000	1.000	115.4	0.000	0.000	Ug2_741_743_L_0					
48 D	23.68	2.0202E-04	81.20	53.58	94.00	53.60	UL-RL	3.8838E+04	-9.400	64.80
1.000	1.000	118.4	0.000	0.000	Ug2_741_743_L_0					
49 D	24.30	1.8963E-04	82.80	54.31	96.00	54.33	UL-RL	3.8838E+04	-9.600	67.20
1.000	1.000	121.5	0.000	0.000	Ug2_741_743_L_0					
50 D	24.93	1.7859E-04	84.40	55.07	98.00	55.09	UL-RL	3.8838E+04	-9.800	69.60
1.000	1.000	124.7	0.000	0.000	Ug2_741_743_L_0					
51 D	25.57	1.6872E-04	86.00	55.84	100.00	55.86	UL-RL	3.8838E+04	-10.000	72.00
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
52 D	26.19	1.5983E-04	87.60	56.56	102.0	56.58	UL-RL	3.8838E+04	-10.200	74.40
1.000	1.000	131.0	0.000	0.000	Ug2_741_743_L_0					
53 D	26.81	1.5175E-04	89.20	57.25	104.0	57.26	UL-RL	3.8838E+04	-10.400	76.80
1.000	1.000	134.0	0.000	0.000	Ug2_741_743_L_0					
54 D	27.43	1.4432E-04	90.80	57.95	106.0	57.96	UL-RL	3.8838E+04	-10.600	79.20
1.000	1.000	137.2	0.000	0.000	Ug2_741_743_L_0					
55 D	28.04	1.3741E-04	92.40	58.61	108.0	58.71	UL-RL	3.8838E+04	-10.800	81.60
1.000	1.000	140.2	0.000	0.000	Ug2_741_743_L_0					
56 D	28.65	1.3087E-04	94.00	59.27	110.0	59.48	UL-RL	3.8838E+04	-11.000	84.00
1.000	1.000	143.3	0.000	0.000	Ug2_741_743_L_0					
57 D	29.24	1.2460E-04	95.60	59.80	112.0	60.12	UL-RL	3.8838E+04	-11.200	86.40
1.000	1.000	146.2	0.000	0.000	Ug2_741_743_L_0					
58 D	29.82	1.1852E-04	97.20	60.30	114.0	60.73	UL-RL	3.8838E+04	-11.400	88.80
1.000	1.000	149.1	0.000	0.000	Ug2_741_743_L_0					
59 D	30.40	1.1254E-04	98.80	60.81	116.0	61.34	UL-RL	3.8838E+04	-11.600	91.20
1.000	1.000	152.0	0.000	0.000	Ug2_741_743_L_0					
60 D	30.98	1.0660E-04	100.4	61.32	118.0	61.96	UL-RL	3.8838E+04	-11.800	93.60
1.000	1.000	154.9	0.000	0.000	Ug2_741_743_L_0					
61 D	15.78	1.0068E-04	102.0	61.82	120.0	62.57	UL-RL	3.8838E+04	-12.000	96.00
1.000	1.000	157.8	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018          18:16:00      |
+-----+
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 . 3

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WallElement_33          :
ELEMENT TYPE          2 NO.OF ELEMENTS. IN THIS GROUP  60
CURRENT TIME IS      5.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.12471E-10	-1.12471E-10	1.11907E-11	1.68231E-11
2	0.32000	-0.32000	-3.85325E-12	6.40000E-02
3	0.96000	-0.96000	-6.40000E-02	0.25600
4	1.9200	-1.9200	-0.25600	0.64000
5	3.2000	-3.2000	-0.64000	1.2800
6	4.8000	-4.8000	-1.2800	2.2400
7	6.7200	-6.7200	-2.2400	3.5840
8	8.9600	-8.9600	-3.5840	5.3760
9	11.592	-11.592	-5.3760	7.6943
10	14.775	-14.775	-7.6943	10.649
11	14.890	-14.890	-10.649	13.627
12	14.037	-14.037	-13.627	16.435
13	12.223	-12.223	-16.435	18.879
14	9.4343	-9.4343	-18.879	20.766
15	7.0105	-7.0105	-20.766	22.168
16	4.9976	-4.9976	-22.168	23.168
17	3.3669	-3.3669	-23.168	23.841
18	2.1353	-2.1353	-23.841	24.268
19	1.2745	-1.2745	-24.268	24.523
20	0.79821	-0.79821	-24.523	24.683
21	0.69794	-0.69794	-24.683	24.822
22	0.68783	-0.68783	-24.822	24.960
23	0.77786	-0.77786	-24.960	25.115
24	0.40155	-0.40155	-25.115	25.196
25	8.84943E-02	-8.84943E-02	-25.196	25.213
26	-0.17186	0.17186	-25.213	25.179
27	-0.40012	0.40012	-25.179	25.099
28	-0.59619	0.59619	-25.099	24.980
29	-0.77992	0.77992	-24.980	24.824
30	-0.95175	0.95175	-24.824	24.633
31	-1.1219	1.1219	-24.633	24.409
32	-1.3089	1.3089	-24.409	24.147
33	-1.5139	1.5139	-24.147	23.844
34	-1.7546	1.7546	-23.844	23.494
35	-2.0323	2.0323	-23.494	23.087
36	-2.3594	2.3594	-23.087	22.615
37	-2.7460	2.7460	-22.615	22.066
38	-3.1941	3.1941	-22.066	21.427
39	-3.7200	3.7200	-21.427	20.683
40	-4.3255	4.3255	-20.683	19.818
41	-5.0191	5.0191	-19.818	18.814
42	-5.6965	5.6965	-18.814	17.675
43	-6.3693	6.3693	-17.675	16.401
44	-6.9420	6.9420	-16.401	15.013
45	-7.2428	7.2428	-15.013	13.564
46	-7.3161	7.3161	-13.564	12.101
47	-7.2017	7.2017	-12.101	10.661
48	-6.9613	6.9613	-10.661	9.2683
49	-6.6423	6.6423	-9.2683	7.9398
50	-6.2641	6.2641	-7.9398	6.6870
51	-5.8434	5.8434	-6.6870	5.5183
52	-5.3812	5.3812	-5.5183	4.4421
53	-4.8797	4.8797	-4.4421	3.4662
54	-4.3503	4.3503	-3.4662	2.5961
55	-3.7910	3.7910	-2.5961	1.8379
56	-3.2043	3.2043	-1.8379	1.1971
57	-2.5698	2.5698	-1.1971	0.68313
58	-1.8827	1.8827	-0.68313	0.30660
59	-1.1450	1.1450	-0.30660	7.75916E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-0.38794 0.38794 -7.75916E-02-2.34916E-14

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ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3788E+05 RIMNOR=0.3619E+05
RENORM= 13.57 REMNOR=0.9390E-21 RATIO =0.1893E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.00 RMMAX = 25.21
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3788E+05 RDR =0.3619E+05
RATIOT=0.1893E-01 RATIO= 0.000
MAX UN=0.9592 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.2526 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3788E+05 RIMNOR=0.3619E+05
RENORM= 2.571 REMNOR=0.1408E-20 RATIO =0.8239E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.00 RMMAX = 25.21
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3788E+05 RDR =0.3619E+05
RATIOT=0.8239E-02 RATIO= 0.000
MAX UN=0.4049 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
MIN UN=-.3557E-01 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3788E+05 RIMNOR=0.3619E+05
RENORM=0.2786 REMNOR=0.2407E-20 RATIO =0.2712E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.00 RMMAX = 25.21
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3788E+05 RDR =0.3619E+05
RATIOT=0.2712E-02 RATIO= 0.000
MAX UN=0.3016 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
MIN UN=-.7958E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3788E+05 RIMNOR=0.3619E+05
RENORM=0.6913E-02 REMNOR=0.1595E-20 RATIO =0.4272E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 31.00 RMMAX = 25.21
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3788E+05 RDR =0.3619E+05
RATIOT=0.4272E-03 RATIO= 0.000
MAX UN=0.6854E-01 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
MIN UN=-.3108E-01 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3788E+05 RIMNOR=0.3619E+05
RENORM=0.4719E-06 REMNOR=0.7549E-21 RATIO =0.3530E-05 TOLER =0.1000E-03 CONVERGED !
RFMAX = 31.00 RMMAX = 25.21
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.3788E+05 RDR =0.3619E+05
RATIOT=0.3530E-05 RATIO= 0.000
MAX UN=0.4562E-03 IEQ= 109 NODE 55 DOF 1 Y-DISPL.F
MIN UN=-.1402E-09 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                    |
|                                                                    |
|                NewProject.BaseDesignSection_28.A2M2R1_1787   |
|                Exe Time :24 May 2018           18:16:00     |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

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

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	4.0416918E-03	-6.3663328E-04	
2	3.9143654E-03	-6.3662996E-04	
3	3.7870428E-03	-6.3658201E-04	
4	3.6597420E-03	-6.3639306E-04	
5	3.5325041E-03	-6.3592659E-04	
6	3.4054016E-03	-6.3500654E-04	
7	3.2785461E-03	-6.3341729E-04	
8	3.1520963E-03	-6.3090377E-04	
9	3.0262658E-03	-6.2717143E-04	
10	2.9013318E-03	-6.2187859E-04	
11	2.7776457E-03	-6.1461666E-04	
12	2.6556312E-03	-6.0516315E-04	
13	2.5357216E-03	-5.9359267E-04	
14	2.4183208E-03	-5.8012294E-04	
15	2.3037749E-03	-5.6511527E-04	
16	2.1923495E-03	-5.4898404E-04	
17	2.0842312E-03	-5.3209637E-04	
18	1.9795400E-03	-5.1476558E-04	
19	1.8783372E-03	-4.9725156E-04	
20	1.7806377E-03	-4.7976196E-04	
21	1.6864208E-03	-4.6245324E-04	
22	1.5956379E-03	-4.4542993E-04	
23	1.5082261E-03	-4.2874763E-04	
24	1.4241156E-03	-4.1241373E-04	
25	1.3432367E-03	-3.9643830E-04	
26	1.2655153E-03	-3.8083788E-04	
27	1.1908785E-03	-3.6558841E-04	
28	1.1192598E-03	-3.5064625E-04	
29	1.0506024E-03	-3.3596903E-04	
30	9.8485723E-04	-3.2151662E-04	
31	9.2198317E-04	-3.0725234E-04	
32	8.6194622E-04	-2.9314359E-04	
33	8.0471747E-04	-2.7916333E-04	
34	7.5027365E-04	-2.6529167E-04	
35	6.9859436E-04	-2.5151670E-04	
36	6.4966071E-04	-2.3783564E-04	
37	6.0345361E-04	-2.2425546E-04	
38	5.5995083E-04	-2.1079419E-04	
39	5.1912597E-04	-1.9748228E-04	
40	4.8094506E-04	-1.8436326E-04	
41	4.4536396E-04	-1.7149492E-04	
42	4.1232554E-04	-1.5894985E-04	
43	3.8175711E-04	-1.4680830E-04	
44	3.5356992E-04	-1.3515124E-04	
45	3.2765880E-04	-1.2406331E-04	
46	3.0390069E-04	-1.1363584E-04	
47	2.8215409E-04	-1.0396407E-04	
48	2.6225956E-04	-9.5124883E-05	
49	2.4404562E-04	-8.7163376E-05	
50	2.2733434E-04	-8.0101125E-05	
51	2.1194510E-04	-7.3941205E-05	
52	1.9769817E-04	-6.8671237E-05	
53	1.8441928E-04	-6.4265585E-05	
54	1.7193765E-04	-6.0684332E-05	
55	1.6009399E-04	-5.7876461E-05	
56	1.4873973E-04	-5.5778718E-05	
57	1.3774027E-04	-5.4314413E-05	
58	1.2697791E-04	-5.3390808E-05	
59	1.1635532E-04	-5.2896639E-05	
60	1.0579928E-04	-5.2702083E-05	
61	9.5263640E-05	-5.2662332E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

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	Peg	Su_a	Su_p	LAYER						
1 D	4.5378E-02	-4.0417E-03	0.000	0.4538	0.000	0.6710	UL-RL	3.2934E+04	0.000	0.000	
1.000	1.000	0.4538	0.000	0.000	Ug1_2_8_L_0						
2 D	0.5195	-3.9144E-03	2.527	1.124	2.527	1.361	UL-RL	3.2934E+04	-0.2000	1.474	
1.000	1.000	2.597	0.000	0.000	Ug1_2_8_L_0						
3 D	0.7980	-3.7870E-03	5.061	1.043	5.061	2.671	UL-RL	3.2934E+04	-0.4000	2.947	
1.000	1.000	3.990	0.000	0.000	Ug1_2_8_L_0						
4 D	1.068	-3.6597E-03	7.605	0.9212	7.605	3.978	UL-RL	3.2934E+04	-0.6000	4.421	
1.000	1.000	5.342	0.000	0.000	Ug1_2_8_L_0						
5 D	1.339	-3.5325E-03	10.16	0.7993	10.16	5.256	UL-RL	3.2934E+04	-0.8000	5.895	
1.000	1.000	6.694	0.000	0.000	Ug1_2_8_L_0						
6 D	1.609	-3.4054E-03	12.73	0.6761	12.73	6.501	UL-RL	3.2934E+04	-1.000	7.368	
1.000	1.000	8.045	0.000	0.000	Ug1_2_8_L_0						
7 D	1.879	-3.2785E-03	15.32	0.5512	15.32	7.714	UL-RL	3.2934E+04	-1.200	8.842	
1.000	1.000	9.393	0.000	0.000	Ug1_2_8_L_0						
8 D	2.148	-3.1521E-03	17.91	0.4241	17.91	8.897	UL-RL	3.2934E+04	-1.400	10.32	
1.000	1.000	10.74	0.000	0.000	Ug1_2_8_L_0						
9 D	2.524	-3.0263E-03	20.51	0.8300	20.51	10.05	ACTIVE	0.000	-1.600	11.79	
1.000	1.000	12.62	0.000	0.000	Ug1_2_8_L_0						
10 D	3.062	-2.9013E-03	23.11	2.046	23.11	11.19	ACTIVE	0.000	-1.800	13.26	
1.000	1.000	15.31	0.000	0.000	Ug1_2_8_L_0						
11 D	3.600	-2.7776E-03	25.72	3.263	25.72	12.30	ACTIVE	0.000	-2.000	14.74	
1.000	1.000	18.00	0.000	0.000	Ug1_2_8_L_0						
12 D	4.138	-2.6556E-03	28.32	4.480	28.32	13.40	ACTIVE	0.000	-2.200	16.21	
1.000	1.000	20.69	0.000	0.000	Ug1_2_8_L_0						
13 D	4.682	-2.5357E-03	30.99	5.725	30.99	14.48	ACTIVE	0.000	-2.400	17.68	
1.000	1.000	23.41	0.000	0.000	Ug1_2_8_L_0						
14 D	5.214	-2.4183E-03	33.53	6.911	33.53	15.56	ACTIVE	0.000	-2.600	19.16	
1.000	1.000	26.07	0.000	0.000	Ug1_2_8_L_0						
15 D	5.765	-2.3038E-03	36.28	8.194	36.28	16.62	ACTIVE	0.000	-2.800	20.63	
1.000	1.000	28.83	0.000	0.000	Ug1_2_8_L_0						
16 D	6.317	-2.1923E-03	39.03	9.481	39.03	17.68	ACTIVE	0.000	-3.000	22.11	
1.000	1.000	31.59	0.000	0.000	Ug1_2_8_L_0						
17 D	6.844	-2.0842E-03	41.52	10.64	41.52	18.73	ACTIVE	0.000	-3.200	23.58	
1.000	1.000	34.22	0.000	0.000	Ug1_2_8_L_0						
18 D	7.394	-1.9795E-03	44.25	11.92	44.25	19.78	ACTIVE	0.000	-3.400	25.05	
1.000	1.000	36.97	0.000	0.000	Ug1_2_8_L_0						
19 D	7.921	-1.8783E-03	46.73	13.08	46.73	20.83	ACTIVE	0.000	-3.600	26.53	
1.000	1.000	39.60	0.000	0.000	Ug1_2_8_L_0						
20 D	8.468	-1.7806E-03	49.43	14.34	49.43	21.87	ACTIVE	0.000	-3.800	28.00	
1.000	1.000	42.34	0.000	0.000	Ug1_2_8_L_0						
21 D	9.013	-1.6864E-03	52.12	15.59	52.12	22.91	ACTIVE	0.000	-4.000	29.47	
1.000	1.000	45.07	0.000	0.000	Ug1_2_8_L_0						
22 D	9.540	-1.5956E-03	54.60	16.75	54.60	23.95	ACTIVE	0.000	-4.200	30.95	
1.000	1.000	47.70	0.000	0.000	Ug1_2_8_L_0						
23 D	10.08	-1.5082E-03	57.27	18.00	57.27	24.98	ACTIVE	0.000	-4.400	32.42	
1.000	1.000	50.42	0.000	0.000	Ug1_2_8_L_0						
24 D	10.73	-1.4241E-03	59.75	19.78	59.75	26.02	ACTIVE	0.000	-4.600	33.89	
1.000	1.000	53.67	0.000	0.000	Ug2_741_743_L_0						
25 D	11.21	-1.3432E-03	62.41	20.66	62.41	27.05	ACTIVE	0.000	-4.800	35.37	
1.000	1.000	56.03	0.000	0.000	Ug2_741_743_L_0						
26 D	11.67	-1.2655E-03	65.05	21.53	65.05	28.08	ACTIVE	0.000	-5.000	36.84	
1.000	1.000	58.37	0.000	0.000	Ug2_741_743_L_0						
27 D	12.13	-1.1909E-03	67.54	22.35	67.54	29.11	ACTIVE	0.000	-5.200	38.32	
1.000	1.000	60.67	0.000	0.000	Ug2_741_743_L_0						
28 D	12.60	-1.1193E-03	70.17	23.23	70.17	30.14	ACTIVE	0.000	-5.400	39.79	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	63.02	0.000	0.000	Ug2_741_743_L_0					
29 D	13.06	-1.0506E-03	72.65	24.05	72.65	31.17	ACTIVE	0.000	-5.600	41.26
1.000	1.000	65.31	0.000	0.000	Ug2_741_743_L_0					
30 D	13.53	-9.8486E-04	75.28	24.92	75.28	32.20	ACTIVE	0.000	-5.800	42.74
1.000	1.000	67.65	0.000	0.000	Ug2_741_743_L_0					
31 D	14.00	-9.2198E-04	77.90	25.79	77.90	33.23	ACTIVE	0.000	-6.000	44.21
1.000	1.000	70.00	0.000	0.000	Ug2_741_743_L_0					
32 D	14.46	-8.6195E-04	80.39	26.61	80.39	34.26	ACTIVE	0.000	-6.200	45.68
1.000	1.000	72.29	0.000	0.000	Ug2_741_743_L_0					
33 D	14.93	-8.0472E-04	83.00	27.47	83.00	35.29	ACTIVE	0.000	-6.400	47.16
1.000	1.000	74.63	0.000	0.000	Ug2_741_743_L_0					
34 D	15.39	-7.5027E-04	85.49	28.30	85.49	36.32	ACTIVE	0.000	-6.600	48.63
1.000	1.000	76.93	0.000	0.000	Ug2_741_743_L_0					
35 D	15.85	-6.9859E-04	88.09	29.16	88.09	37.35	ACTIVE	0.000	-6.800	50.11
1.000	1.000	79.26	0.000	0.000	Ug2_741_743_L_0					
36 D	16.32	-6.4966E-04	90.70	30.02	90.70	38.38	ACTIVE	0.000	-7.000	51.58
1.000	1.000	81.60	0.000	0.000	Ug2_741_743_L_0					
37 D	16.78	-6.0345E-04	93.18	30.84	93.18	39.41	ACTIVE	0.000	-7.200	53.05
1.000	1.000	83.90	0.000	0.000	Ug2_741_743_L_0					
38 D	17.25	-5.5995E-04	95.78	31.70	95.78	40.44	ACTIVE	0.000	-7.400	54.53
1.000	1.000	86.23	0.000	0.000	Ug2_741_743_L_0					
39 D	17.71	-5.1913E-04	98.27	32.53	98.27	41.46	ACTIVE	0.000	-7.600	56.00
1.000	1.000	88.53	0.000	0.000	Ug2_741_743_L_0					
40 D	18.17	-4.8095E-04	100.9	33.39	100.9	42.49	ACTIVE	0.000	-7.800	57.47
1.000	1.000	90.86	0.000	0.000	Ug2_741_743_L_0					
41 D	18.64	-4.4536E-04	103.5	34.24	103.5	43.52	ACTIVE	0.000	-8.000	58.95
1.000	1.000	93.19	0.000	0.000	Ug2_741_743_L_0					
42 D	19.10	-4.1233E-04	105.9	35.07	105.9	44.55	ACTIVE	0.000	-8.200	60.42
1.000	1.000	95.49	0.000	0.000	Ug2_741_743_L_0					
43 D	19.56	-3.8176E-04	108.5	35.92	108.5	45.58	ACTIVE	0.000	-8.400	61.89
1.000	1.000	97.82	0.000	0.000	Ug2_741_743_L_0					
44 D	20.02	-3.5357E-04	111.0	36.75	111.0	46.60	ACTIVE	0.000	-8.600	63.37
1.000	1.000	100.1	0.000	0.000	Ug2_741_743_L_0					
45 D	20.49	-3.2766E-04	113.6	37.60	113.6	47.63	ACTIVE	0.000	-8.800	64.84
1.000	1.000	102.4	0.000	0.000	Ug2_741_743_L_0					
46 D	21.03	-3.0390E-04	116.2	38.83	116.2	48.66	UL-RL	5.8658E+04	-9.000	66.32
1.000	1.000	105.1	0.000	0.000	Ug2_741_743_L_0					
47 D	21.83	-2.8215E-04	118.7	41.38	118.7	49.69	UL-RL	5.8658E+04	-9.200	67.79
1.000	1.000	109.2	0.000	0.000	Ug2_741_743_L_0					
48 D	22.62	-2.6226E-04	121.3	43.81	121.3	50.72	UL-RL	5.8658E+04	-9.400	69.26
1.000	1.000	113.1	0.000	0.000	Ug2_741_743_L_0					
49 D	23.38	-2.4405E-04	123.8	46.15	123.8	51.75	UL-RL	5.8658E+04	-9.600	70.74
1.000	1.000	116.9	0.000	0.000	Ug2_741_743_L_0					
50 D	24.12	-2.2733E-04	126.3	48.40	126.3	52.77	UL-RL	5.8658E+04	-9.800	72.21
1.000	1.000	120.6	0.000	0.000	Ug2_741_743_L_0					
51 D	24.85	-2.1195E-04	128.9	50.57	128.9	53.80	UL-RL	5.8658E+04	-10.000	73.68
1.000	1.000	124.3	0.000	0.000	Ug2_741_743_L_0					
52 D	25.57	-1.9770E-04	131.4	52.67	131.4	54.90	UL-RL	5.8658E+04	-10.200	75.16
1.000	1.000	127.8	0.000	0.000	Ug2_741_743_L_0					
53 D	26.27	-1.8442E-04	134.0	54.72	134.0	56.64	UL-RL	5.8658E+04	-10.400	76.63
1.000	1.000	131.4	0.000	0.000	Ug2_741_743_L_0					
54 D	26.97	-1.7194E-04	136.5	56.72	136.5	58.34	UL-RL	5.8658E+04	-10.600	78.11
1.000	1.000	134.8	0.000	0.000	Ug2_741_743_L_0					
55 D	27.65	-1.6009E-04	139.0	58.69	139.0	60.02	UL-RL	5.8658E+04	-10.800	79.58
1.000	1.000	138.3	0.000	0.000	Ug2_741_743_L_0					
56 D	28.34	-1.4874E-04	141.6	60.63	141.6	61.67	UL-RL	5.8658E+04	-11.000	81.05
1.000	1.000	141.7	0.000	0.000	Ug2_741_743_L_0					
57 D	29.01	-1.3774E-04	144.1	62.54	144.1	63.31	UL-RL	5.8658E+04	-11.200	82.53
1.000	1.000	145.1	0.000	0.000	Ug2_741_743_L_0					
58 D	29.69	-1.2698E-04	146.7	64.44	146.7	64.94	UL-RL	5.8658E+04	-11.400	84.00
1.000	1.000	148.4	0.000	0.000	Ug2_741_743_L_0					
59 D	30.36	-1.1636E-04	149.2	66.34	149.2	66.56	UL-RL	5.8658E+04	-11.600	85.47
1.000	1.000	151.8	0.000	0.000	Ug2_741_743_L_0					
60 D	30.99	-1.0580E-04	151.7	68.01	151.7	68.07	UL-RL	5.8658E+04	-11.800	86.95
1.000	1.000	155.0	0.000	0.000	Ug2_741_743_L_0					
61 D	15.80	-9.5264E-05	154.3	69.56	154.3	69.62	UL-RL	5.8658E+04	-12.000	88.42
1.000	1.000	158.0	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018   18:16:00   |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

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	Peg	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 D	3.619	2.7776E-03	0.000	18.10	20.00	20.83	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	18.10	0.000	0.000	Ug1_2_8_L_0						
12 D	5.139	2.6556E-03	3.800	25.69	22.00	25.69	PASSIVE	0.000	-2.200	0.000	
1.000	1.000	25.69	0.000	0.000	Ug1_2_8_L_0						
13 D	6.658	2.5357E-03	7.600	33.29	24.00	33.29	PASSIVE	0.000	-2.400	0.000	
1.000	1.000	33.29	0.000	0.000	Ug1_2_8_L_0						
14 D	8.177	2.4183E-03	11.40	40.89	26.00	40.89	PASSIVE	0.000	-2.600	0.000	
1.000	1.000	40.89	0.000	0.000	Ug1_2_8_L_0						
15 D	8.467	2.3038E-03	15.20	42.34	28.00	42.34	V-C	1.0248E+04	-2.800	0.000	
1.000	1.000	42.34	0.000	0.000	Ug1_2_8_L_0						
16 D	8.635	2.1923E-03	19.00	43.18	30.00	43.18	V-C	1.0248E+04	-3.000	0.000	
1.000	1.000	43.18	0.000	0.000	Ug1_2_8_L_0						
17 D	8.808	2.0842E-03	22.80	44.04	32.00	44.04	V-C	1.0248E+04	-3.200	0.000	
1.000	1.000	44.04	0.000	0.000	Ug1_2_8_L_0						
18 D	8.985	1.9795E-03	26.60	44.92	34.00	44.92	V-C	1.0248E+04	-3.400	0.000	
1.000	1.000	44.92	0.000	0.000	Ug1_2_8_L_0						
19 D	9.168	1.8783E-03	30.40	45.84	36.00	45.84	V-C	1.0248E+04	-3.600	0.000	
1.000	1.000	45.84	0.000	0.000	Ug1_2_8_L_0						
20 D	9.358	1.7806E-03	34.20	46.79	38.00	46.79	V-C	1.0248E+04	-3.800	0.000	
1.000	1.000	46.79	0.000	0.000	Ug1_2_8_L_0						
21 D	9.554	1.6864E-03	38.00	47.77	40.00	47.77	V-C	1.0248E+04	-4.000	0.000	
1.000	1.000	47.77	0.000	0.000	Ug1_2_8_L_0						
22 D	9.757	1.5956E-03	41.80	48.79	42.00	48.79	V-C	1.0248E+04	-4.200	0.000	
1.000	1.000	48.79	0.000	0.000	Ug1_2_8_L_0						
23 D	9.967	1.5082E-03	45.60	49.84	45.60	49.84	V-C	1.0248E+04	-4.400	0.000	
1.000	1.000	49.84	0.000	0.000	Ug1_2_8_L_0						
24 D	10.99	1.4241E-03	49.45	54.94	49.45	54.94	V-C	1.2946E+04	-4.600	0.000	
1.000	1.000	54.94	0.000	0.000	Ug2_741_743_L_0						
25 D	11.18	1.3432E-03	53.35	55.88	53.35	55.88	V-C	1.2946E+04	-4.800	0.000	
1.000	1.000	55.88	0.000	0.000	Ug2_741_743_L_0						
26 D	11.37	1.2655E-03	57.25	56.87	57.25	56.87	V-C	1.2946E+04	-5.000	0.000	
1.000	1.000	56.87	0.000	0.000	Ug2_741_743_L_0						
27 D	11.84	1.1909E-03	58.72	56.68	58.72	56.68	V-C	1.2946E+04	-5.200	2.526	
1.000	1.000	59.20	0.000	0.000	Ug2_741_743_L_0						
28 D	12.32	1.1193E-03	60.20	56.53	60.20	56.53	V-C	1.2946E+04	-5.400	5.053	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.58	0.000	0.000	Ug2_741_743_L_0					
29 D	12.80	1.0506E-03	61.67	56.42	61.67	56.42	V-C	1.2946E+04	-5.600	7.579
1.000	1.000	64.00	0.000	0.000	Ug2_741_743_L_0					
30 D	13.29	9.8486E-04	63.14	56.35	63.14	56.35	V-C	1.2946E+04	-5.800	10.11
1.000	1.000	66.46	0.000	0.000	Ug2_741_743_L_0					
31 D	13.79	9.2198E-04	64.62	56.33	64.62	56.33	V-C	1.2946E+04	-6.000	12.63
1.000	1.000	68.96	0.000	0.000	Ug2_741_743_L_0					
32 D	14.30	8.6195E-04	66.09	56.33	66.09	56.33	V-C	1.2946E+04	-6.200	15.16
1.000	1.000	71.49	0.000	0.000	Ug2_741_743_L_0					
33 D	14.81	8.0472E-04	67.57	56.38	67.57	56.38	V-C	1.2946E+04	-6.400	17.68
1.000	1.000	74.07	0.000	0.000	Ug2_741_743_L_0					
34 D	15.34	7.5027E-04	69.04	56.47	69.04	56.47	V-C	1.2946E+04	-6.600	20.21
1.000	1.000	76.68	0.000	0.000	Ug2_741_743_L_0					
35 D	15.86	6.9859E-04	70.51	56.59	70.51	56.59	V-C	1.2946E+04	-6.800	22.74
1.000	1.000	79.32	0.000	0.000	Ug2_741_743_L_0					
36 D	16.40	6.4966E-04	71.99	56.75	71.99	56.75	V-C	1.2946E+04	-7.000	25.26
1.000	1.000	82.01	0.000	0.000	Ug2_741_743_L_0					
37 D	16.95	6.0345E-04	73.46	56.94	73.46	56.94	V-C	1.2946E+04	-7.200	27.79
1.000	1.000	84.73	0.000	0.000	Ug2_741_743_L_0					
38 D	17.49	5.5995E-04	74.93	57.16	74.93	57.16	V-C	1.2946E+04	-7.400	30.32
1.000	1.000	87.47	0.000	0.000	Ug2_741_743_L_0					
39 D	18.05	5.1913E-04	76.41	57.42	76.41	57.42	V-C	1.2946E+04	-7.600	32.84
1.000	1.000	90.26	0.000	0.000	Ug2_741_743_L_0					
40 D	18.62	4.8095E-04	77.88	57.71	78.00	57.71	V-C	1.2946E+04	-7.800	35.37
1.000	1.000	93.08	0.000	0.000	Ug2_741_743_L_0					
41 D	19.19	4.4536E-04	79.36	58.04	80.00	58.04	V-C	1.2946E+04	-8.000	37.89
1.000	1.000	95.93	0.000	0.000	Ug2_741_743_L_0					
42 D	19.65	4.1233E-04	80.83	57.81	82.00	57.81	V-C	1.2946E+04	-8.200	40.42
1.000	1.000	98.23	0.000	0.000	Ug2_741_743_L_0					
43 D	20.12	3.8176E-04	82.30	57.66	84.00	57.66	V-C	1.2946E+04	-8.400	42.95
1.000	1.000	100.6	0.000	0.000	Ug2_741_743_L_0					
44 D	20.62	3.5357E-04	83.78	57.63	86.00	57.63	V-C	1.2946E+04	-8.600	45.47
1.000	1.000	103.1	0.000	0.000	Ug2_741_743_L_0					
45 D	21.14	3.2766E-04	85.25	57.71	88.00	57.71	V-C	1.2946E+04	-8.800	48.00
1.000	1.000	105.7	0.000	0.000	Ug2_741_743_L_0					
46 D	21.68	3.0390E-04	86.72	57.87	90.00	57.87	V-C	1.2946E+04	-9.000	50.53
1.000	1.000	108.4	0.000	0.000	Ug2_741_743_L_0					
47 D	22.23	2.8215E-04	88.20	58.12	92.00	58.12	V-C	1.2946E+04	-9.200	53.05
1.000	1.000	111.2	0.000	0.000	Ug2_741_743_L_0					
48 D	22.83	2.6226E-04	89.67	58.57	94.00	58.57	V-C	1.2946E+04	-9.400	55.58
1.000	1.000	114.2	0.000	0.000	Ug2_741_743_L_0					
49 D	23.46	2.4405E-04	91.14	59.18	96.00	59.18	V-C	1.2946E+04	-9.600	58.11
1.000	1.000	117.3	0.000	0.000	Ug2_741_743_L_0					
50 D	24.09	2.2733E-04	92.62	59.80	98.00	59.80	UL-RL	3.8838E+04	-9.800	60.63
1.000	1.000	120.4	0.000	0.000	Ug2_741_743_L_0					
51 D	24.72	2.1195E-04	94.09	60.43	100.00	60.44	UL-RL	3.8838E+04	-10.000	63.16
1.000	1.000	123.6	0.000	0.000	Ug2_741_743_L_0					
52 D	25.34	1.9770E-04	95.57	61.02	102.0	61.02	UL-RL	3.8838E+04	-10.200	65.68
1.000	1.000	126.7	0.000	0.000	Ug2_741_743_L_0					
53 D	25.96	1.8442E-04	97.04	61.58	104.0	61.58	UL-RL	3.8838E+04	-10.400	68.21
1.000	1.000	129.8	0.000	0.000	Ug2_741_743_L_0					
54 D	26.58	1.7194E-04	98.51	62.15	106.0	62.16	UL-RL	3.8838E+04	-10.600	70.74
1.000	1.000	132.9	0.000	0.000	Ug2_741_743_L_0					
55 D	27.18	1.6009E-04	99.99	62.62	108.0	62.62	UL-RL	3.8838E+04	-10.800	73.26
1.000	1.000	135.9	0.000	0.000	Ug2_741_743_L_0					
56 D	27.76	1.4874E-04	101.5	63.03	110.0	63.06	UL-RL	3.8838E+04	-11.000	75.79
1.000	1.000	138.8	0.000	0.000	Ug2_741_743_L_0					
57 D	28.32	1.3774E-04	102.9	63.27	112.0	63.42	UL-RL	3.8838E+04	-11.200	78.32
1.000	1.000	141.6	0.000	0.000	Ug2_741_743_L_0					
58 D	28.86	1.2698E-04	104.4	63.48	114.0	63.74	UL-RL	3.8838E+04	-11.400	80.84
1.000	1.000	144.3	0.000	0.000	Ug2_741_743_L_0					
59 D	29.41	1.1636E-04	105.9	63.69	116.0	64.07	UL-RL	3.8838E+04	-11.600	83.37
1.000	1.000	147.1	0.000	0.000	Ug2_741_743_L_0					
60 D	29.96	1.0580E-04	107.4	63.91	118.0	64.40	UL-RL	3.8838E+04	-11.800	85.89
1.000	1.000	149.8	0.000	0.000	Ug2_741_743_L_0					
61 D	15.25	9.5264E-05	108.8	64.13	120.0	64.74	UL-RL	3.8838E+04	-12.000	88.42
1.000	1.000	152.5	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                     |
|                                                                     |
|               NewProject.BaseDesignSection_28.A2M2R1_1787   |
|               Exe Time :24 May 2018           18:16:00       |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	4.53781E-02	-4.53781E-02	-1.44035E-12	9.07563E-03
2	0.56486	-0.56486	-9.07563E-03	0.12205
3	1.3628	-1.3628	-0.12205	0.39462
4	2.4313	-2.4313	-0.39462	0.88088
5	3.7701	-3.7701	-0.88088	1.6349
6	5.3790	-5.3790	-1.6349	2.7107
7	7.2577	-7.2577	-2.7107	4.1622
8	9.4057	-9.4057	-4.1622	6.0434
9	11.930	-11.930	-6.0434	8.4293
10	14.991	-14.991	-8.4293	11.428
11	14.972	-14.972	-11.428	14.422
12	13.971	-13.971	-14.422	17.216
13	11.995	-11.995	-17.216	19.615
14	9.0316	-9.0316	-19.615	21.421
15	6.3295	-6.3295	-21.421	22.687
16	4.0113	-4.0113	-22.687	23.490
17	2.0482	-2.0482	-23.490	23.899
18	0.45688	-0.45688	-23.899	23.991
19	-0.79073	0.79073	-23.991	23.832
20	-1.6811	1.6811	-23.832	23.496
21	-2.2223	2.2223	-23.496	23.052
22	-2.4399	2.4399	-23.052	22.564
23	-2.3234	2.3234	-22.564	22.099
24	-2.5777	2.5777	-22.099	21.584
25	-2.5494	2.5494	-21.584	21.074
26	-2.2478	2.2478	-21.074	20.624
27	-1.9546	1.9546	-20.624	20.233
28	-1.6678	1.6678	-20.233	19.900
29	-1.4057	1.4057	-19.900	19.619
30	-1.1666	1.1666	-19.619	19.385
31	-0.95876	0.95876	-19.385	19.194
32	-0.79887	0.79887	-19.194	19.034
33	-0.68596	0.68596	-19.034	18.897
34	-0.63592	0.63592	-18.897	18.769
35	-0.64810	0.64810	-18.769	18.640
36	-0.73012	0.73012	-18.640	18.494
37	-0.89655	0.89655	-18.494	18.314
38	-1.1455	1.1455	-18.314	18.085
39	-1.4917	1.4917	-18.085	17.787
40	-1.9355	1.9355	-17.787	17.400
41	-2.4843	2.4843	-17.400	16.903
42	-3.0326	3.0326	-16.903	16.297
43	-3.5912	3.5912	-16.297	15.578
44	-4.1892	4.1892	-15.578	14.740
45	-4.8411	4.8411	-14.740	13.772
46	-5.4908	5.4908	-13.772	12.674
47	-5.8920	5.8920	-12.674	11.496
48	-6.1075	6.1075	-11.496	10.274
49	-6.1865	6.1865	-10.274	9.0368
50	-6.1505	6.1505	-9.0368	7.8067
51	-6.0184	6.0184	-7.8067	6.6030
52	-5.7937	5.7937	-6.6030	5.4443
53	-5.4807	5.4807	-5.4443	4.3482
54	-5.0929	5.0929	-4.3482	3.3296
55	-4.6159	4.6159	-3.3296	2.4064
56	-4.0444	4.0444	-2.4064	1.5975
57	-3.3480	3.3480	-1.5975	0.92794
58	-2.5232	2.5232	-0.92794	0.42330
59	-1.5731	1.5731	-0.42330	0.10869

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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60-0.54341    0.54341    -0.10869    2.47514E-13

ITER    0  RNORM = 0.000    RMNORM= 0.000
        RINORM=0.3235E+05  RIMNOR=0.2929E+05
        RENORM= 487.2    REMNOR=0.7549E-21  RATIO =0.1227    TOLER =0.1000E-03  NOT CONVERGED
        RFMAX = 30.16    RMMAX = 23.99
        RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
        RDT =0.3235E+05  RDR =0.2929E+05
        RATIO=0.1227    RATIO= 0.000
        MAX UN= 8.271    IEQ= 29 NODE    15 DOF    1 Y-DISPL.F
        MIN UN=-.1263    IEQ= 19 NODE    10 DOF    1 Y-DISPL.F
        NO. OF CONTACT CONSTRAINT VIOLATIONS    0

ITER    2  RNORM = 0.000    RMNORM= 0.000
        RINORM=0.3235E+05  RIMNOR=0.2929E+05
        RENORM= 177.3    REMNOR=0.1464E-20  RATIO =0.7403E-01  TOLER =0.1000E-03  NOT CONVERGED
        RFMAX = 30.16    RMMAX = 23.99
        RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
        RDT =0.3235E+05  RDR =0.2929E+05
        RATIO=0.7403E-01  RATIO= 0.000
        MAX UN= 3.407    IEQ= 47 NODE    24 DOF    1 Y-DISPL.F
        MIN UN=-.1642E-10  IEQ= 6 NODE    3 DOF    2 X-ROT. F
        NO. OF CONTACT CONSTRAINT VIOLATIONS    0

ITER    3  RNORM = 0.000    RMNORM= 0.000
        RINORM=0.3235E+05  RIMNOR=0.2929E+05
        RENORM= 250.4    REMNOR=0.1706E-18  RATIO =0.8798E-01  TOLER =0.1000E-03  NOT CONVERGED
        RFMAX = 30.16    RMMAX = 23.99
        RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
        RDT =0.3235E+05  RDR =0.2929E+05
        RATIO=0.8798E-01  RATIO= 0.000
        MAX UN= 10.42    IEQ= 47 NODE    24 DOF    1 Y-DISPL.F
        MIN UN=-1.716    IEQ= 119 NODE    60 DOF    1 Y-DISPL.F
        NO. OF CONTACT CONSTRAINT VIOLATIONS    0

ITER    4  RNORM = 0.000    RMNORM= 0.000
        RINORM=0.3235E+05  RIMNOR=0.2929E+05
        RENORM= 26.19    REMNOR=0.8999E-19  RATIO =0.2845E-01  TOLER =0.1000E-03  NOT CONVERGED
        RFMAX = 30.16    RMMAX = 23.99
        RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
        RDT =0.3235E+05  RDR =0.2929E+05
        RATIO=0.2845E-01  RATIO= 0.000
        MAX UN= 4.602    IEQ= 57 NODE    29 DOF    1 Y-DISPL.F
        MIN UN=-.6874E-02  IEQ= 105 NODE    53 DOF    1 Y-DISPL.F
        NO. OF CONTACT CONSTRAINT VIOLATIONS    0

ITER    5  RNORM = 0.000    RMNORM= 0.000
        RINORM=0.3235E+05  RIMNOR=0.2929E+05
        RENORM=0.6923    REMNOR=0.5855E-19  RATIO =0.4626E-02  TOLER =0.1000E-03  NOT CONVERGED
        RFMAX = 30.16    RMMAX = 23.99
        RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
        RDT =0.3235E+05  RDR =0.2929E+05
        RATIO=0.4626E-02  RATIO= 0.000
        MAX UN=0.8295    IEQ= 61 NODE    31 DOF    1 Y-DISPL.F
        MIN UN=-.6482E-01  IEQ= 105 NODE    53 DOF    1 Y-DISPL.F
        NO. OF CONTACT CONSTRAINT VIOLATIONS    0

ITER    6  RNORM = 0.000    RMNORM= 0.000
        RINORM=0.3235E+05  RIMNOR=0.2929E+05
        RENORM=0.2355E-16  REMNOR=0.9039E-19  RATIO =0.2698E-10  TOLER =0.1000E-03  CONVERGED !
        RFMAX = 30.16    RMMAX = 23.99
        RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
        RDT =0.3235E+05  RDR =0.2929E+05
        RATIO=0.2698E-10  RATIO= 0.000
        MAX UN=0.1960E-08  IEQ= 35 NODE    18 DOF    1 Y-DISPL.F
        MIN UN=-.2056E-08  IEQ= 5 NODE    3 DOF    1 Y-DISPL.F
        NO. OF CONTACT CONSTRAINT VIOLATIONS    0

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:16:00 |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

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

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.1747560E-02	-4.2880329E-03	
2	3.0889953E-02	-4.2880329E-03	
3	3.0032348E-02	-4.2880134E-03	
4	2.9174753E-02	-4.2879159E-03	
5	2.8317193E-02	-4.2876429E-03	
6	2.7459717E-02	-4.2870577E-03	
7	2.6602403E-02	-4.2859849E-03	
8	2.5745369E-02	-4.2842100E-03	
9	2.4888782E-02	-4.2814783E-03	
10	2.4032863E-02	-4.2774762E-03	
11	2.3177903E-02	-4.2718139E-03	
12	2.2324279E-02	-4.2640248E-03	
13	2.1472471E-02	-4.2535660E-03	
14	2.0623072E-02	-4.2398176E-03	
15	1.9776809E-02	-4.2220830E-03	
16	1.8934556E-02	-4.1995889E-03	
17	1.8097332E-02	-4.1716634E-03	
18	1.7266283E-02	-4.1377904E-03	
19	1.6442645E-02	-4.0974800E-03	
20	1.5627751E-02	-4.0502690E-03	
21	1.4823030E-02	-3.9957215E-03	
22	1.4029983E-02	-3.9334259E-03	
23	1.3250202E-02	-3.8629988E-03	
24	1.2485349E-02	-3.7840830E-03	
25	1.1737140E-02	-3.6965968E-03	
26	1.1007265E-02	-3.6007954E-03	
27	1.0297353E-02	-3.4970847E-03	
28	9.6089250E-03	-3.3860197E-03	
29	8.9433879E-03	-3.2683081E-03	
30	8.3019876E-03	-3.1448081E-03	
31	7.6857833E-03	-3.0165288E-03	
32	7.0956203E-03	-2.8846303E-03	
33	6.5320926E-03	-2.7503551E-03	
34	5.9955570E-03	-2.6148992E-03	
35	5.4861393E-03	-2.4793481E-03	
36	5.0037586E-03	-2.3446840E-03	
37	4.5481497E-03	-2.2117935E-03	
38	4.1188722E-03	-2.0814726E-03	
39	3.7153416E-03	-1.9544377E-03	
40	3.3368353E-03	-1.8313296E-03	
41	2.9825098E-03	-1.7127209E-03	
42	2.6514129E-03	-1.5991226E-03	
43	2.3424969E-03	-1.4909817E-03	
44	2.0546310E-03	-1.3886797E-03	
45	1.7866155E-03	-1.2925405E-03	
46	1.5371871E-03	-1.2028368E-03	
47	1.3050364E-03	-1.1197991E-03	
48	1.0888102E-03	-1.0436212E-03	
49	8.8711956E-04	-9.7446858E-04	
50	6.9854563E-04	-9.1248665E-04	
51	5.2163912E-04	-8.5780568E-04	
52	3.5492455E-04	-8.1054482E-04	
53	1.9692661E-04	-7.7075708E-04	
54	4.6141753E-05	-7.3828827E-04	
55	-9.8852318E-05	-7.1277373E-04	
56	-2.3939588E-04	-6.9368133E-04	
57	-3.7670711E-04	-6.8032287E-04	
58	-5.1185118E-04	-6.7185656E-04	
59	-6.4570948E-04	-6.6728638E-04	
60	-7.7894878E-04	-6.6546195E-04	
61	-9.1199726E-04	-6.6508273E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:16:00  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

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	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-3.1748E-02	0.000	0.000	0.000	0.6710	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug1_2_8_L_0						
2 D	0.2667	-3.0890E-02	2.668	0.000	2.668	1.361	ACTIVE	0.000	-0.2000	1.333	
1.000	1.000	1.333	0.000	0.000	Ug1_2_8_L_0						
3 D	0.5333	-3.0032E-02	5.341	0.000	5.341	2.671	ACTIVE	0.000	-0.4000	2.667	
1.000	1.000	2.667	0.000	0.000	Ug1_2_8_L_0						
4 D	0.8000	-2.9175E-02	8.026	0.000	8.026	3.978	ACTIVE	0.000	-0.6000	4.000	
1.000	1.000	4.000	0.000	0.000	Ug1_2_8_L_0						
5 D	1.067	-2.8317E-02	10.72	0.000	10.72	5.256	ACTIVE	0.000	-0.8000	5.333	
1.000	1.000	5.333	0.000	0.000	Ug1_2_8_L_0						
6 D	1.333	-2.7460E-02	13.43	0.000	13.43	6.501	ACTIVE	0.000	-1.000	6.667	
1.000	1.000	6.667	0.000	0.000	Ug1_2_8_L_0						
7 D	1.600	-2.6602E-02	16.16	0.000	16.16	7.714	ACTIVE	0.000	-1.200	8.000	
1.000	1.000	8.000	0.000	0.000	Ug1_2_8_L_0						
8 D	1.882	-2.5745E-02	18.89	7.4859E-02	18.89	8.897	ACTIVE	0.000	-1.400	9.333	
1.000	1.000	9.408	0.000	0.000	Ug1_2_8_L_0						
9 D	2.404	-2.4889E-02	21.63	1.354	21.63	10.05	ACTIVE	0.000	-1.600	10.67	
1.000	1.000	12.02	0.000	0.000	Ug1_2_8_L_0						
10 D	2.927	-2.4033E-02	24.37	2.636	24.37	11.19	ACTIVE	0.000	-1.800	12.00	
1.000	1.000	14.64	0.000	0.000	Ug1_2_8_L_0						
11 D	3.450	-2.3178E-02	27.12	3.918	27.12	12.30	ACTIVE	0.000	-2.000	13.33	
1.000	1.000	17.25	0.000	0.000	Ug1_2_8_L_0						
12 D	3.973	-2.2324E-02	29.87	5.201	29.87	13.40	ACTIVE	0.000	-2.200	14.67	
1.000	1.000	19.87	0.000	0.000	Ug1_2_8_L_0						
13 D	4.502	-2.1472E-02	32.67	6.512	32.67	14.48	ACTIVE	0.000	-2.400	16.00	
1.000	1.000	22.51	0.000	0.000	Ug1_2_8_L_0						
14 D	5.019	-2.0623E-02	35.35	7.763	35.35	15.56	ACTIVE	0.000	-2.600	17.33	
1.000	1.000	25.10	0.000	0.000	Ug1_2_8_L_0						
15 D	5.556	-1.9777E-02	38.24	9.112	38.24	16.62	ACTIVE	0.000	-2.800	18.67	
1.000	1.000	27.78	0.000	0.000	Ug1_2_8_L_0						
16 D	6.093	-1.8935E-02	41.14	10.46	41.14	17.68	ACTIVE	0.000	-3.000	20.00	
1.000	1.000	30.46	0.000	0.000	Ug1_2_8_L_0						
17 D	6.605	-1.8097E-02	43.77	11.69	43.77	18.73	ACTIVE	0.000	-3.200	21.33	
1.000	1.000	33.02	0.000	0.000	Ug1_2_8_L_0						
18 D	7.139	-1.7266E-02	46.63	13.03	46.63	19.78	ACTIVE	0.000	-3.400	22.67	
1.000	1.000	35.70	0.000	0.000	Ug1_2_8_L_0						
19 D	7.651	-1.6443E-02	49.26	14.26	49.26	20.83	ACTIVE	0.000	-3.600	24.00	
1.000	1.000	38.26	0.000	0.000	Ug1_2_8_L_0						
20 D	8.183	-1.5628E-02	52.10	15.58	52.10	21.87	ACTIVE	0.000	-3.800	25.33	
1.000	1.000	40.92	0.000	0.000	Ug1_2_8_L_0						
21 D	8.714	-1.4823E-02	54.92	16.90	54.92	22.91	ACTIVE	0.000	-4.000	26.67	
1.000	1.000	43.57	0.000	0.000	Ug1_2_8_L_0						
22 D	9.226	-1.4030E-02	57.55	18.13	57.55	23.95	ACTIVE	0.000	-4.200	28.00	
1.000	1.000	46.13	0.000	0.000	Ug1_2_8_L_0						
23 D	9.755	-1.3250E-02	60.36	19.44	60.36	24.98	ACTIVE	0.000	-4.400	29.33	
1.000	1.000	48.77	0.000	0.000	Ug1_2_8_L_0						
24 D	10.30	-1.2485E-02	62.98	20.85	62.98	26.02	ACTIVE	0.000	-4.600	30.67	
1.000	1.000	51.51	0.000	0.000	Ug2_741_743_L_0						
25 D	10.75	-1.1737E-02	65.78	21.77	65.78	27.05	ACTIVE	0.000	-4.800	32.00	
1.000	1.000	53.77	0.000	0.000	Ug2_741_743_L_0						
26 D	11.21	-1.1007E-02	68.56	22.69	68.56	28.08	ACTIVE	0.000	-5.000	33.33	
1.000	1.000	56.03	0.000	0.000	Ug2_741_743_L_0						
27 D	11.65	-1.0297E-02	71.18	23.56	71.18	29.11	ACTIVE	0.000	-5.200	34.67	
1.000	1.000	58.23	0.000	0.000	Ug2_741_743_L_0						
28 D	12.10	-9.6089E-03	73.96	24.48	73.96	30.14	ACTIVE	0.000	-5.400	36.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	60.48	0.000	0.000	Ug2_741_743_L_0					
29 D	12.54	-8.9434E-03	76.58	25.35	76.58	31.17	ACTIVE	0.000	-5.600	37.33
1.000	1.000	62.68	0.000	0.000	Ug2_741_743_L_0					
30 D	12.99	-8.3020E-03	79.35	26.27	79.35	32.20	ACTIVE	0.000	-5.800	38.67
1.000	1.000	64.93	0.000	0.000	Ug2_741_743_L_0					
31 D	13.44	-7.6858E-03	82.11	27.18	82.11	33.23	ACTIVE	0.000	-6.000	40.00
1.000	1.000	67.18	0.000	0.000	Ug2_741_743_L_0					
32 D	13.88	-7.0956E-03	84.74	28.05	84.74	34.26	ACTIVE	0.000	-6.200	41.33
1.000	1.000	69.38	0.000	0.000	Ug2_741_743_L_0					
33 D	14.33	-6.5321E-03	87.49	28.96	87.49	35.29	ACTIVE	0.000	-6.400	42.67
1.000	1.000	71.63	0.000	0.000	Ug2_741_743_L_0					
34 D	14.77	-5.9956E-03	90.12	29.83	90.12	36.32	ACTIVE	0.000	-6.600	44.00
1.000	1.000	73.83	0.000	0.000	Ug2_741_743_L_0					
35 D	15.21	-5.4861E-03	92.86	30.74	92.86	37.35	ACTIVE	0.000	-6.800	45.33
1.000	1.000	76.07	0.000	0.000	Ug2_741_743_L_0					
36 D	15.66	-5.0038E-03	95.61	31.65	95.61	38.38	ACTIVE	0.000	-7.000	46.67
1.000	1.000	78.31	0.000	0.000	Ug2_741_743_L_0					
37 D	16.10	-4.5481E-03	98.24	32.52	98.24	39.41	ACTIVE	0.000	-7.200	48.00
1.000	1.000	80.52	0.000	0.000	Ug2_741_743_L_0					
38 D	16.55	-4.1189E-03	101.0	33.42	101.0	40.44	ACTIVE	0.000	-7.400	49.33
1.000	1.000	82.76	0.000	0.000	Ug2_741_743_L_0					
39 D	16.99	-3.7153E-03	103.6	34.29	103.6	41.46	ACTIVE	0.000	-7.600	50.67
1.000	1.000	84.96	0.000	0.000	Ug2_741_743_L_0					
40 D	17.44	-3.3368E-03	106.3	35.20	106.3	42.49	ACTIVE	0.000	-7.800	52.00
1.000	1.000	87.20	0.000	0.000	Ug2_741_743_L_0					
41 D	17.89	-2.9825E-03	109.1	36.10	109.1	43.52	ACTIVE	0.000	-8.000	53.33
1.000	1.000	89.44	0.000	0.000	Ug2_741_743_L_0					
42 D	18.33	-2.6514E-03	111.7	36.97	111.7	44.55	ACTIVE	0.000	-8.200	54.67
1.000	1.000	91.64	0.000	0.000	Ug2_741_743_L_0					
43 D	18.78	-2.3425E-03	114.4	37.88	114.4	45.58	ACTIVE	0.000	-8.400	56.00
1.000	1.000	93.88	0.000	0.000	Ug2_741_743_L_0					
44 D	19.22	-2.0546E-03	117.1	38.75	117.1	46.60	ACTIVE	0.000	-8.600	57.33
1.000	1.000	96.08	0.000	0.000	Ug2_741_743_L_0					
45 D	19.66	-1.7866E-03	119.8	39.65	119.8	47.63	ACTIVE	0.000	-8.800	58.67
1.000	1.000	98.31	0.000	0.000	Ug2_741_743_L_0					
46 D	20.11	-1.5372E-03	122.5	40.55	122.5	48.66	ACTIVE	0.000	-9.000	60.00
1.000	1.000	100.5	0.000	0.000	Ug2_741_743_L_0					
47 D	20.55	-1.3050E-03	125.1	41.42	125.1	49.69	ACTIVE	0.000	-9.200	61.33
1.000	1.000	102.8	0.000	0.000	Ug2_741_743_L_0					
48 D	21.00	-1.0888E-03	127.9	42.32	127.9	50.72	ACTIVE	0.000	-9.400	62.67
1.000	1.000	105.0	0.000	0.000	Ug2_741_743_L_0					
49 D	21.44	-8.8712E-04	130.6	43.22	130.6	51.75	ACTIVE	0.000	-9.600	64.00
1.000	1.000	107.2	0.000	0.000	Ug2_741_743_L_0					
50 D	21.88	-6.9855E-04	133.2	44.09	133.2	52.77	ACTIVE	0.000	-9.800	65.33
1.000	1.000	109.4	0.000	0.000	Ug2_741_743_L_0					
51 D	22.33	-5.2164E-04	135.9	44.99	135.9	54.08	ACTIVE	0.000	-10.000	66.67
1.000	1.000	111.7	0.000	0.000	Ug2_741_743_L_0					
52 D	23.62	-3.5492E-04	138.6	50.10	138.6	56.25	UL-RL	3.9105E+04	-10.200	68.00
1.000	1.000	118.1	0.000	0.000	Ug2_741_743_L_0					
53 D	25.44	-1.9693E-04	141.3	57.85	141.3	58.39	UL-RL	3.9105E+04	-10.400	69.33
1.000	1.000	127.2	0.000	0.000	Ug2_741_743_L_0					
54 D	26.55	-4.6142E-05	144.0	62.08	144.0	62.08	V-C	1.3035E+04	-10.600	70.67
1.000	1.000	132.8	0.000	0.000	Ug2_741_743_L_0					
55 D	27.57	9.8852E-05	146.6	65.85	146.6	65.85	V-C	1.3035E+04	-10.800	72.00
1.000	1.000	137.9	0.000	0.000	Ug2_741_743_L_0					
56 D	28.58	2.3940E-04	149.3	69.54	149.3	69.54	V-C	1.3035E+04	-11.000	73.33
1.000	1.000	142.9	0.000	0.000	Ug2_741_743_L_0					
57 D	29.57	3.7671E-04	152.0	73.18	152.0	73.18	V-C	1.3035E+04	-11.200	74.67
1.000	1.000	147.8	0.000	0.000	Ug2_741_743_L_0					
58 D	30.55	5.1185E-04	154.7	76.77	154.7	76.77	V-C	1.3035E+04	-11.400	76.00
1.000	1.000	152.8	0.000	0.000	Ug2_741_743_L_0					
59 D	31.53	6.4571E-04	157.4	80.34	157.4	80.34	V-C	1.3035E+04	-11.600	77.33
1.000	1.000	157.7	0.000	0.000	Ug2_741_743_L_0					
60 D	32.47	7.7895E-04	160.0	83.68	160.0	83.68	V-C	1.3035E+04	-11.800	78.67
1.000	1.000	162.3	0.000	0.000	Ug2_741_743_L_0					
61 D	16.69	9.1200E-04	162.7	86.90	162.7	86.90	V-C	1.3035E+04	-12.000	80.00
1.000	1.000	166.9	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:16:00          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

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	Peg	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	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	2.466	1.8935E-02	0.000	12.33	30.00	43.18	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	12.33	0.000	0.000	Ug1_2_8_L_0						
17 D	3.171	1.8097E-02	3.800	15.86	32.00	44.04	PASSIVE	0.000	-3.200	0.000	
1.000	1.000	15.86	0.000	0.000	Ug1_2_8_L_0						
18 D	3.877	1.7266E-02	7.600	19.38	34.00	44.92	PASSIVE	0.000	-3.400	0.000	
1.000	1.000	19.38	0.000	0.000	Ug1_2_8_L_0						
19 D	4.582	1.6443E-02	11.40	22.91	36.00	45.84	PASSIVE	0.000	-3.600	0.000	
1.000	1.000	22.91	0.000	0.000	Ug1_2_8_L_0						
20 D	5.287	1.5628E-02	15.20	26.44	38.00	46.79	PASSIVE	0.000	-3.800	0.000	
1.000	1.000	26.44	0.000	0.000	Ug1_2_8_L_0						
21 D	5.993	1.4823E-02	19.00	29.96	40.00	47.77	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	29.96	0.000	0.000	Ug1_2_8_L_0						
22 D	6.698	1.4030E-02	22.80	33.49	42.00	48.79	PASSIVE	0.000	-4.200	0.000	
1.000	1.000	33.49	0.000	0.000	Ug1_2_8_L_0						
23 D	7.403	1.3250E-02	26.60	37.02	45.60	49.84	PASSIVE	0.000	-4.400	0.000	
1.000	1.000	37.02	0.000	0.000	Ug1_2_8_L_0						
24 D	11.53	1.2485E-02	30.45	57.67	49.45	57.67	PASSIVE	0.000	-4.600	0.000	
1.000	1.000	57.67	0.000	0.000	Ug2_741_743_L_0						
25 D	13.01	1.1737E-02	34.35	65.06	53.35	65.06	PASSIVE	0.000	-4.800	0.000	
1.000	1.000	65.06	0.000	0.000	Ug2_741_743_L_0						
26 D	14.49	1.1007E-02	38.25	72.45	57.25	72.45	PASSIVE	0.000	-5.000	0.000	
1.000	1.000	72.45	0.000	0.000	Ug2_741_743_L_0						
27 D	15.97	1.0297E-02	42.15	79.83	58.72	79.83	PASSIVE	0.000	-5.200	0.000	
1.000	1.000	79.83	0.000	0.000	Ug2_741_743_L_0						
28 D	17.44	9.6089E-03	46.05	87.22	60.20	87.22	PASSIVE	0.000	-5.400	0.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	87.22	0.000	0.000	Ug2_741_743_L_0					
29 D	18.92	8.9434E-03	49.95	94.61	61.67	94.61	PASSIVE	0.000	-5.600	0.000
1.000	1.000	94.61	0.000	0.000	Ug2_741_743_L_0					
30 D	20.40	8.3020E-03	53.85	102.0	63.14	102.0	PASSIVE	0.000	-5.800	0.000
1.000	1.000	102.0	0.000	0.000	Ug2_741_743_L_0					
31 D	21.88	7.6858E-03	57.75	109.4	64.62	109.4	PASSIVE	0.000	-6.000	0.000
1.000	1.000	109.4	0.000	0.000	Ug2_741_743_L_0					
32 D	22.44	7.0956E-03	59.08	109.5	66.09	109.5	V-C	8631.	-6.200	2.667
1.000	1.000	112.2	0.000	0.000	Ug2_741_743_L_0					
33 D	22.11	6.5321E-03	60.42	105.2	67.57	105.2	V-C	8631.	-6.400	5.333
1.000	1.000	110.5	0.000	0.000	Ug2_741_743_L_0					
34 D	21.82	5.9956E-03	61.75	101.1	69.04	101.1	V-C	8631.	-6.600	8.000
1.000	1.000	109.1	0.000	0.000	Ug2_741_743_L_0					
35 D	21.59	5.4861E-03	63.08	97.27	70.51	97.27	V-C	8631.	-6.800	10.67
1.000	1.000	107.9	0.000	0.000	Ug2_741_743_L_0					
36 D	21.40	5.0038E-03	64.42	93.68	71.99	93.68	V-C	8631.	-7.000	13.33
1.000	1.000	107.0	0.000	0.000	Ug2_741_743_L_0					
37 D	21.26	4.5481E-03	65.75	90.32	73.46	90.32	V-C	8631.	-7.200	16.00
1.000	1.000	106.3	0.000	0.000	Ug2_741_743_L_0					
38 D	21.17	4.1189E-03	67.08	87.20	74.93	87.20	V-C	8631.	-7.400	18.67
1.000	1.000	105.9	0.000	0.000	Ug2_741_743_L_0					
39 D	21.13	3.7153E-03	68.42	84.32	76.41	84.32	V-C	8631.	-7.600	21.33
1.000	1.000	105.7	0.000	0.000	Ug2_741_743_L_0					
40 D	21.13	3.3368E-03	69.75	81.66	78.00	81.66	V-C	8631.	-7.800	24.00
1.000	1.000	105.7	0.000	0.000	Ug2_741_743_L_0					
41 D	21.18	2.9825E-03	71.08	79.23	80.00	79.23	V-C	8631.	-8.000	26.67
1.000	1.000	105.9	0.000	0.000	Ug2_741_743_L_0					
42 D	21.15	2.6514E-03	72.42	76.41	82.00	76.41	V-C	8631.	-8.200	29.33
1.000	1.000	105.7	0.000	0.000	Ug2_741_743_L_0					
43 D	21.17	2.3425E-03	73.75	73.85	84.00	73.85	V-C	8631.	-8.400	32.00
1.000	1.000	105.8	0.000	0.000	Ug2_741_743_L_0					
44 D	21.25	2.0546E-03	75.08	71.56	86.00	71.56	V-C	8631.	-8.600	34.67
1.000	1.000	106.2	0.000	0.000	Ug2_741_743_L_0					
45 D	21.37	1.7866E-03	76.42	69.53	88.00	69.53	V-C	8631.	-8.800	37.33
1.000	1.000	106.9	0.000	0.000	Ug2_741_743_L_0					
46 D	21.55	1.5372E-03	77.75	67.73	90.00	67.73	V-C	8631.	-9.000	40.00
1.000	1.000	107.7	0.000	0.000	Ug2_741_743_L_0					
47 D	21.76	1.3050E-03	79.08	66.15	92.00	66.15	V-C	8631.	-9.200	42.67
1.000	1.000	108.8	0.000	0.000	Ug2_741_743_L_0					
48 D	22.05	1.0888E-03	80.42	64.90	94.00	64.90	V-C	8631.	-9.400	45.33
1.000	1.000	110.2	0.000	0.000	Ug2_741_743_L_0					
49 D	22.38	8.8712E-04	81.75	63.90	96.00	63.90	V-C	8631.	-9.600	48.00
1.000	1.000	111.9	0.000	0.000	Ug2_741_743_L_0					
50 D	22.74	6.9855E-04	83.08	63.02	98.00	63.02	V-C	8631.	-9.800	50.67
1.000	1.000	113.7	0.000	0.000	Ug2_741_743_L_0					
51 D	23.12	5.2164E-04	84.42	62.25	100.00	62.25	V-C	8631.	-10.000	53.33
1.000	1.000	115.6	0.000	0.000	Ug2_741_743_L_0					
52 D	23.50	3.5492E-04	85.75	61.51	102.0	61.51	V-C	8631.	-10.200	56.00
1.000	1.000	117.5	0.000	0.000	Ug2_741_743_L_0					
53 D	23.52	1.9693E-04	87.08	58.92	104.0	61.74	UL-RL	2.5892E+04	-10.400	58.67
1.000	1.000	117.6	0.000	0.000	Ug2_741_743_L_0					
54 D	23.45	4.6142E-05	88.42	55.93	106.0	62.29	UL-RL	2.5892E+04	-10.600	61.33
1.000	1.000	117.3	0.000	0.000	Ug2_741_743_L_0					
55 D	23.39	-9.8852E-05	89.75	52.96	108.0	62.73	UL-RL	2.5892E+04	-10.800	64.00
1.000	1.000	117.0	0.000	0.000	Ug2_741_743_L_0					
56 D	23.35	-2.3940E-04	91.08	50.06	110.0	63.13	UL-RL	2.5892E+04	-11.000	66.67
1.000	1.000	116.7	0.000	0.000	Ug2_741_743_L_0					
57 D	23.29	-3.7671E-04	92.42	47.12	112.0	63.43	UL-RL	2.5892E+04	-11.200	69.33
1.000	1.000	116.5	0.000	0.000	Ug2_741_743_L_0					
58 D	23.22	-5.1185E-04	93.75	44.08	114.0	63.74	UL-RL	2.5892E+04	-11.400	72.00
1.000	1.000	116.1	0.000	0.000	Ug2_741_743_L_0					
59 D	23.15	-6.4571E-04	95.08	41.06	116.0	64.07	UL-RL	2.5892E+04	-11.600	74.67
1.000	1.000	115.7	0.000	0.000	Ug2_741_743_L_0					
60 D	23.08	-7.7895E-04	96.42	38.06	118.0	64.40	UL-RL	2.5892E+04	-11.800	77.33
1.000	1.000	115.4	0.000	0.000	Ug2_741_743_L_0					
61 D	11.51	-9.1200E-04	97.75	35.06	120.0	64.74	UL-RL	2.5892E+04	-12.000	80.00
1.000	1.000	115.1	0.000	0.000	Ug2_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018          18:16:00 |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-4.94492E-10	4.94492E-10	-4.97146E-11	1.69097E-11
2	0.26667	-0.26667	-1.84049E-10	5.33333E-02
3	0.80000	-0.80000	-5.33333E-02	0.21333
4	1.6000	-1.6000	-0.21333	0.53333
5	2.6667	-2.6667	-0.53333	1.0667
6	4.0000	-4.0000	-1.0667	1.8667
7	5.6000	-5.6000	-1.8667	2.9867
8	7.4816	-7.4816	-2.9867	4.4830
9	9.8858	-9.8858	-4.4830	6.4602
10	12.813	-12.813	-6.4602	9.0228
11	16.263	-16.263	-9.0228	12.275
12	20.237	-20.237	-12.275	16.323
13	24.739	-24.739	-16.323	21.271
14	29.758	-29.758	-21.271	27.222
15	35.314	-35.314	-27.222	34.285
16	38.941	-38.941	-34.285	42.073
17	42.374	-42.374	-42.073	50.548
18	45.637	-45.637	-50.548	59.676
19	48.706	-48.706	-59.676	69.417
20	51.602	-51.602	-69.417	79.737
21	54.324	-54.324	-79.737	90.602
22	56.851	-56.851	-90.602	101.97
23	59.203	-59.203	-101.97	113.81
24	57.971	-57.971	-113.81	125.41
25	55.714	-55.714	-125.41	136.55
26	52.430	-52.430	-136.55	147.04
27	48.109	-48.109	-147.04	156.66
28	42.762	-42.762	-156.66	165.21
29	36.377	-36.377	-165.21	172.49
30	28.965	-28.965	-172.49	178.28
31	20.525	-20.525	-178.28	182.38
32	11.961	-11.961	-182.38	184.78
33	4.1796	-4.1796	-184.78	185.61
34	-2.8770	2.8770	-185.61	185.04
35	-9.2503	9.2503	-185.04	183.19
36	-14.990	14.990	-183.19	180.19
37	-20.151	20.151	-180.19	176.16
38	-24.774	24.774	-176.16	171.20
39	-28.912	28.912	-171.20	165.42
40	-32.605	32.605	-165.42	158.90
41	-35.896	35.896	-158.90	151.72
42	-38.717	38.717	-151.72	143.98
43	-41.111	41.111	-143.98	135.75
44	-43.141	43.141	-135.75	127.13
45	-44.850	44.850	-127.13	118.16
46	-46.287	46.287	-118.16	108.90
47	-47.500	47.500	-108.90	99.399
48	-48.548	48.548	-99.399	89.690
49	-49.485	49.485	-89.690	79.793
50	-50.338	50.338	-79.793	69.725
51	-51.124	51.124	-69.725	59.500
52	-51.006	51.006	-59.500	49.300
53	-49.088	49.088	-49.300	39.482
54	-45.991	45.991	-39.482	30.284
55	-41.812	41.812	-30.284	21.922
56	-36.582	36.582	-21.922	14.605
57	-30.303	30.303	-14.605	8.5447
58	-22.965	22.965	-8.5447	3.9518
59	-14.575	14.575	-3.9518	1.0369

60 -5.1841 5.1841 -1.0369 -8.28157E-15

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:16:00                             |
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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	5
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	6
6	CONVERGENCE :YES	5
7	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.23 [sec]