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Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR



**GUVERNUL ROMANIEI**  
**ROMANIAN GOVERNMENT**

**PROIECT FINANȚAT DE UNIUNEA EUROPEANĂ**  
**EUROPEAN UNION FINANCED PROJECT**



**C.N.C.F. "C.F.R." - S.A.**

**CLIENT / CLIENT**



**CONSULTANT / CONSULTANT**

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Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible			
Întocmit Elaborated	Proiectant Designer			

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația trenurilor cu viteză maximă de 160 km/h.  
Secțiune 1 Brasov - Sighisoara

**Proiect/Project**  
2004/RO/16/P/PA/003

Rehabilitation of the railway line Braşov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h.  
Section 1 Brasov - Sighisoara

**Faza / Phase:**  
P.Th. / T.D.

Denumire desen / Drawing Title :

**MURENI TUNEL - MURENI TUNELUL**

**Vanatori side - Technical report and calculation of provisional and definitive entrance zones structures**  
**Zona inspre Vanatori - Raportul tehnic și calcularea intrarea provizoriei și definitive**

Codificare / Codification System	Scara / Scale	LOT	Nr. / No -
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Anexa 1 Excavarea STR A1+M1+R1 L= 8,95 m

Anexa 2 Excavarea STR A1+M1+R1 L= 11,75 m

Anexa 3 Excavarea STR A1+M1+R1 L= 15,50 m

Anexa 4 SAP 2000 – Mureni static

Anexa 5 SAP 2000– Mureni seismic

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

## 1 INTRODUCERE

În acest raport ne ocupăm cu problemele de proiectare referitoare la lucrările de construcții ale intrării de pe latura Vanatori a tunelului Mureni de-a lungul aliniamentului de cale ferată Brașov – Simeria (Secțiunea 1 Brașov – Sighisoara) ce aparține rețelei de căi ferate ale Coridorului IV Pan European.

Tunelul Mureni este compus din următoarele lucrări de construcții (structuri permanente):

	LATURA ARCHITA					LATURA VANATORI				
	CORNIȘA CANELURII	TUNEL ARTIFICIAL			TUNEL ARTIFICIAL		TUNEL ARTIFICIAL		CORNIȘA CANELURII	
	pk	pk	pk		pk	pk		pk	pk	
<b>MURENI</b>	265.685,90	265.704,27	265.764,68	5	265.769,68	266.370,06	5	266.375,06	266.407,95	266.426,32

	LATURA ARCHITA			LATURA VANATORI		
	CORNIȘA CANELURII	TUNEL ARTIFICIAL	TUNEL ARTIFICIAL	TUNEL ARTIFICIAL	CORNIȘA CANELURII	
	L (m)	L (m)	L (m)	L (m)	L (m)	
<b>MURENI</b>	18,37	60,41	600,38	32,89	18,37	

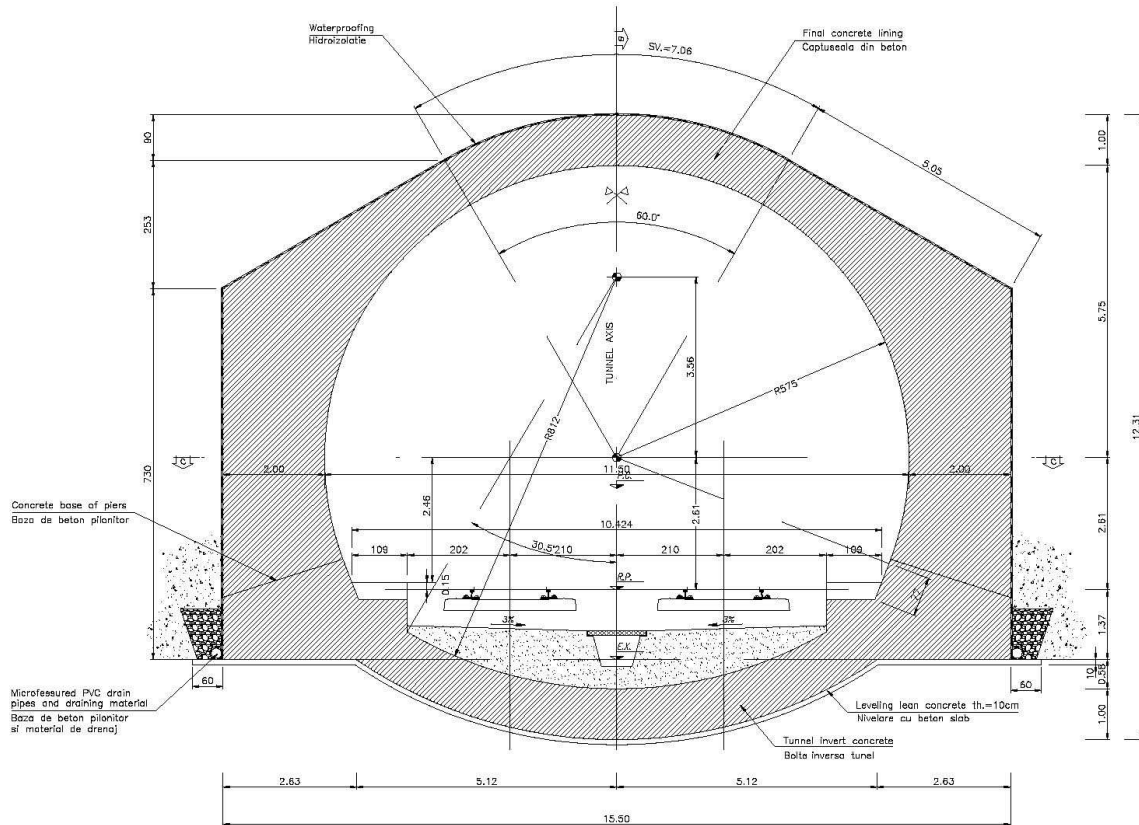
Pământul este excavat la adâncimea cerută cu ziduri de sprijin ancorate care suportă solul pe laturi. Zidurile de sprijin sunt constituite din piloni din beton armat în timp ce ancorele sunt pe 4 nivele (adâncime maximă) de extradrosuri de legătură cimentate.

În secțiunile următoare ale acestui document sunt definiți parametrii geotehnici ai proiectului iar apoi sunt prezentate analizele pentru a verifica gradul de adecvare a proiectării statice pentru structurile temporare și pentru structurile permanente.





REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.



## 2 DOCUMENTE DE REFERINȚĂ

### 2.1 Referințe normative

- [A] EN 1990:2002 – Eurocod: Baza proiectării structurale.
- [B] EN 1991 – Eurocod 1: Acțiuni pe structuri.
- [C] EN 1992 – Eurocod 2: Proiectarea structurilor din beton.
- [D] EN 1993 – Eurocod 3: Proiectarea structurilor din oțel.
- [E] EN 1997-1 – Eurocod 7: Proiectul geotehnic – Partea 1: Reguli generale.
- [F] EN 1997-2 – Eurocod 7: Proiectul geotehnic – Partea 2: Investigarea și testarea terenului.
- [G] EN 1998 – Eurocod 8: Proiectarea structurilor pentru rezistența la cutremur.

## **2.2 Bibliografie**

[H] Bowles (1998) – Analiza și proiectarea fundațiilor, Ediția 4, McGraw-Hill, Inc.

[J] Ce.A.S (2008) – Manualul de program Paratie.

## **3 CARACTERIZAREA GEOTEHNICĂ A ZONEI ȘI A PROIECTULUI**

În această secțiune sunt descrise caracteristicile geologice și geotehnice ale zonei și parametrii geotehnici ai proiectului cu referiri la investigarea terenului. Datele prezente sunt rezumate în Profilul geotehnic - geomecanic al tunelului.

### **3.1 Clasificarea geologică**

Reconstituirea geologică a zonei de intrare indică că tunelul traversează următoarele unități litologice:

- Straturi coezive (argile, argile prăfoase, argile nisipoase, prafuri nisipoase marnoase) și straturi necozive (nisipuri prăfoase cu pietriș), brune și brune gălbui.
- marne, formate din straturi coezive (argile marnoase, argile marnoase prăfoase, argile nisipoase marnoase, prafuri argiloase marnoase) și straturi slab coezive (nisipuri argiloase marnoase, nisipuri prăfoase marnoase), brune.

### **3.2 Investigarea terenului**

Investigarea terenului, efectuată de-a lungul aliniamentului Brasov- Sighisoara unde este inserat tunelul Mureni, a permis să se obțină informațiile geologice și geotehnice pentru proiectarea lucrărilor de construcții și de asemenea să se definească caracteristicile fizice și mecanice ale solurilor prin teste de laborator efectuate pe mai multe probe extrase. Investigațiile de teren de-a lungul aliniamentului au fost efectuate pentru a defini caracteristicile de deformabilitate și permeabilitate ale solurilor. Forajele au fost făcute cu un diametru de foraj (100 mm) și executate la o adâncime maximă de 25 m.

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Investigarea de teren, în cadrul zonei unde unde va fi construită intrarea tunelului constă din:

- MURF 1      adânc de 33,5m
- MURF 2      adânc de 25,5m
- MURF 3      adânc de 19,5m

Pentru a avea o caracterizare mai detaliată a materialelor, vor fi luate în considerare și rezultatele testelor de laborator făcute pe probe luate din investigații care nu se încadrează strict în zona de intrare a tunelului. Totuși acestea vor furniza informații utile pentru definirea parametrilor diferitelor formațiuni.

Prospecțiunea	Adâncime	Probe deranjate	Probe nederanjate	Teste SPT	Teste Menard	Test Lefranc	Nivel piezometric
MURF 1	33,5	5	5	5	1		
MURF 2	25,5	5	4	4			
MURF 3	19,5	3	4	4			
MURF 5	21,5	4	5	4			
MURF 6	24,5	5	4	4			-1,2m

### 3.3 Nivelul apei

Unele găuri de foraj executate în zona de investigare au fost prevăzute și cu piezometru iar intervalul de variație a nivelului apei este de cca 1,2 m. Prin urmare excavația va fi considerată în apa subterană.

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### **3.4 Caracterizarea parametrilor geotehnici**

Aceste depozite constau în argilă și argile nisipoase. În general, caracterizarea acestor depozite este rezultatul din analiza testărilor de laborator, a căror CU triaxial a fost efectuat pe probe nederanjate, și din testarea in situ. Rezultatele testării sunt sintetizate în tabele.

#### **3.4.1 Parametrii fizici, de rezistență și de deformare**







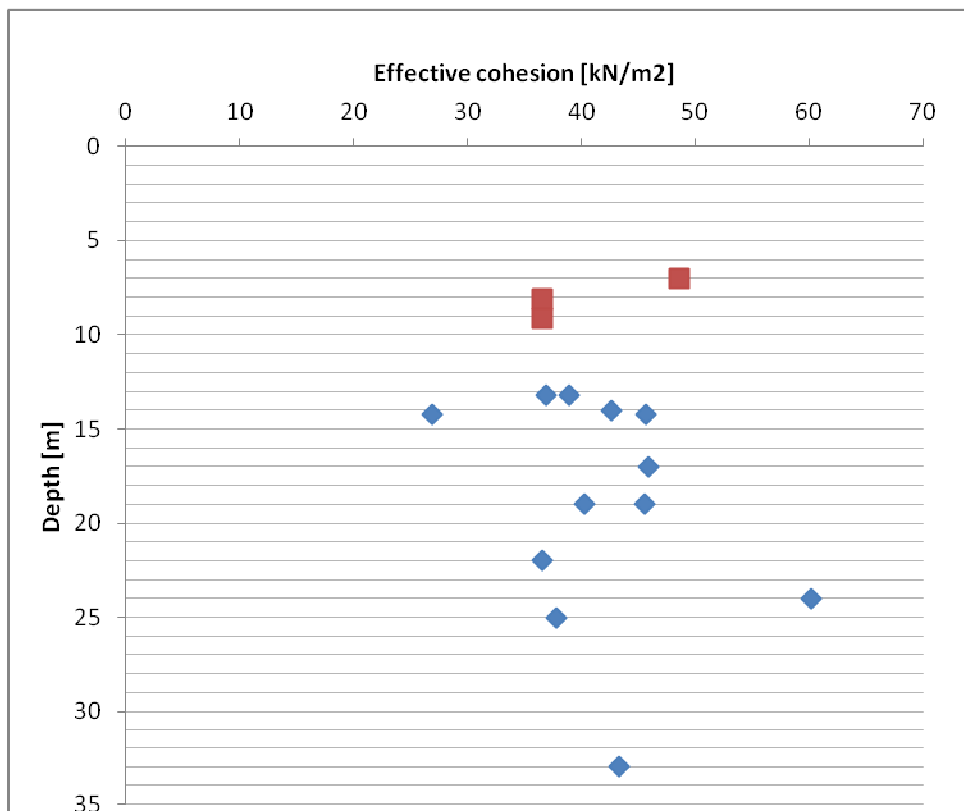
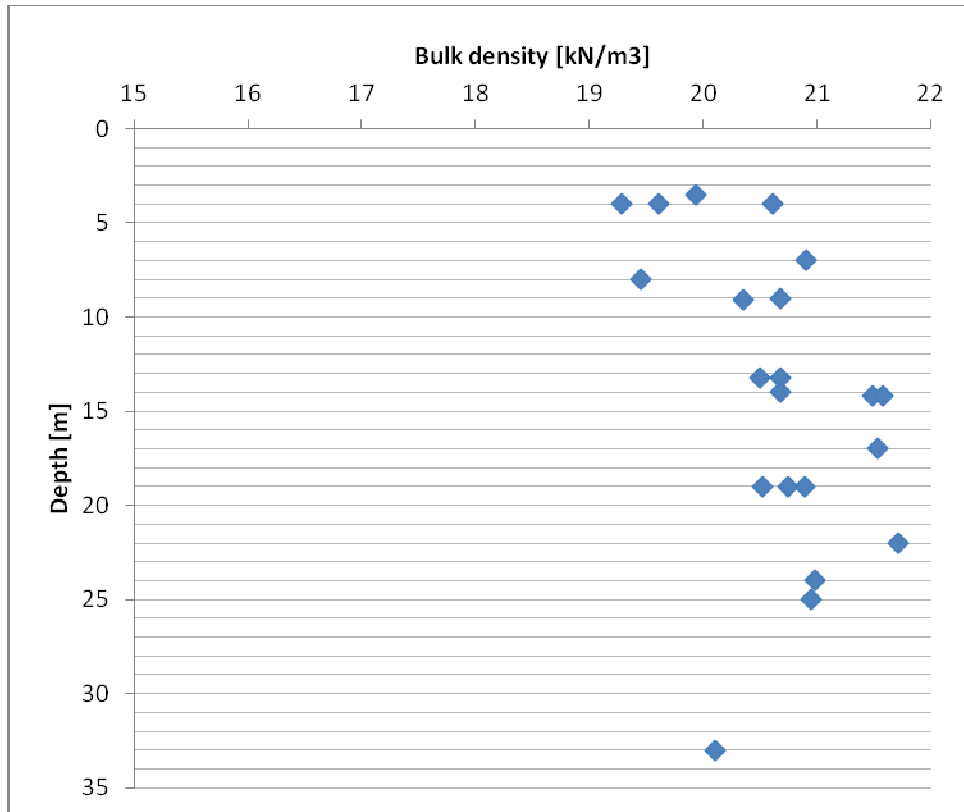




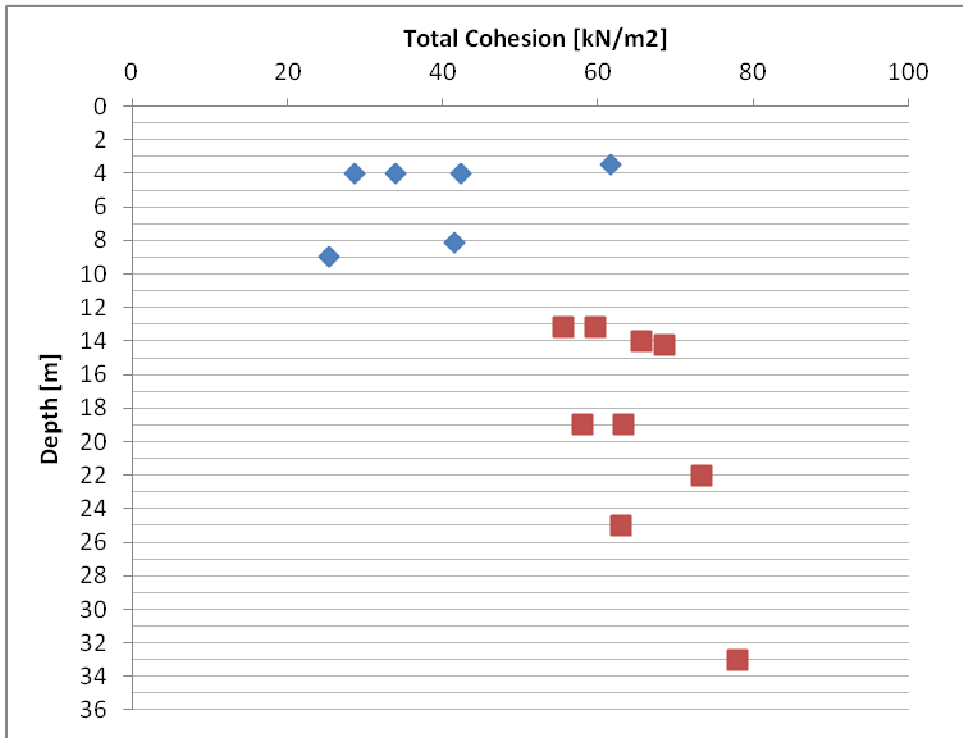
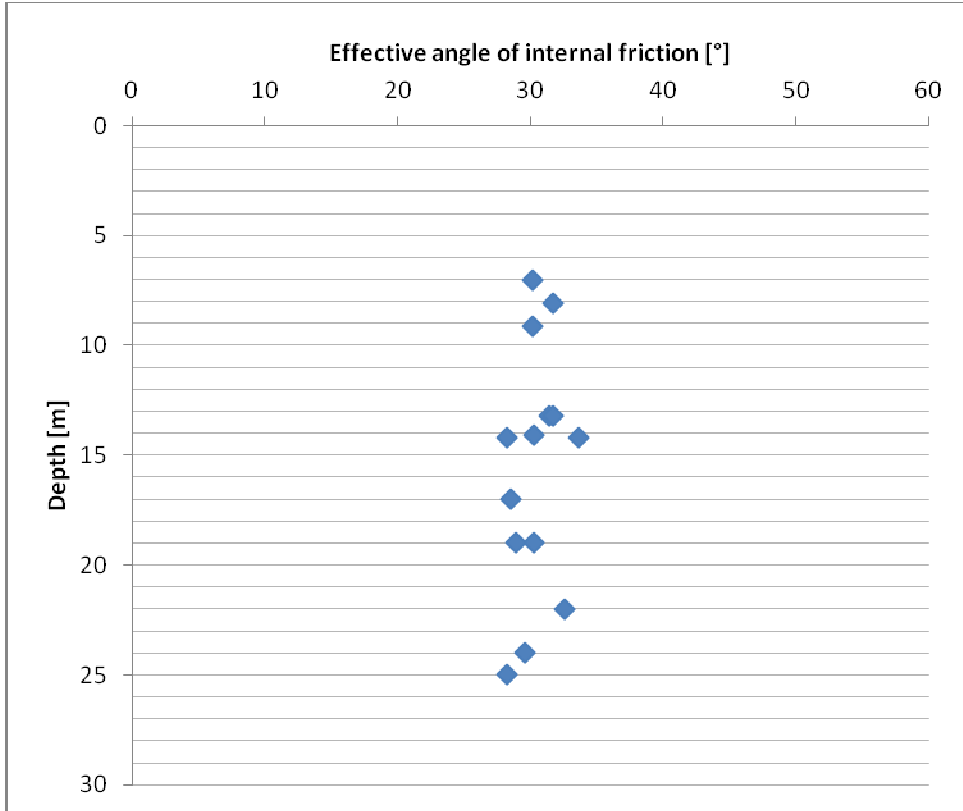




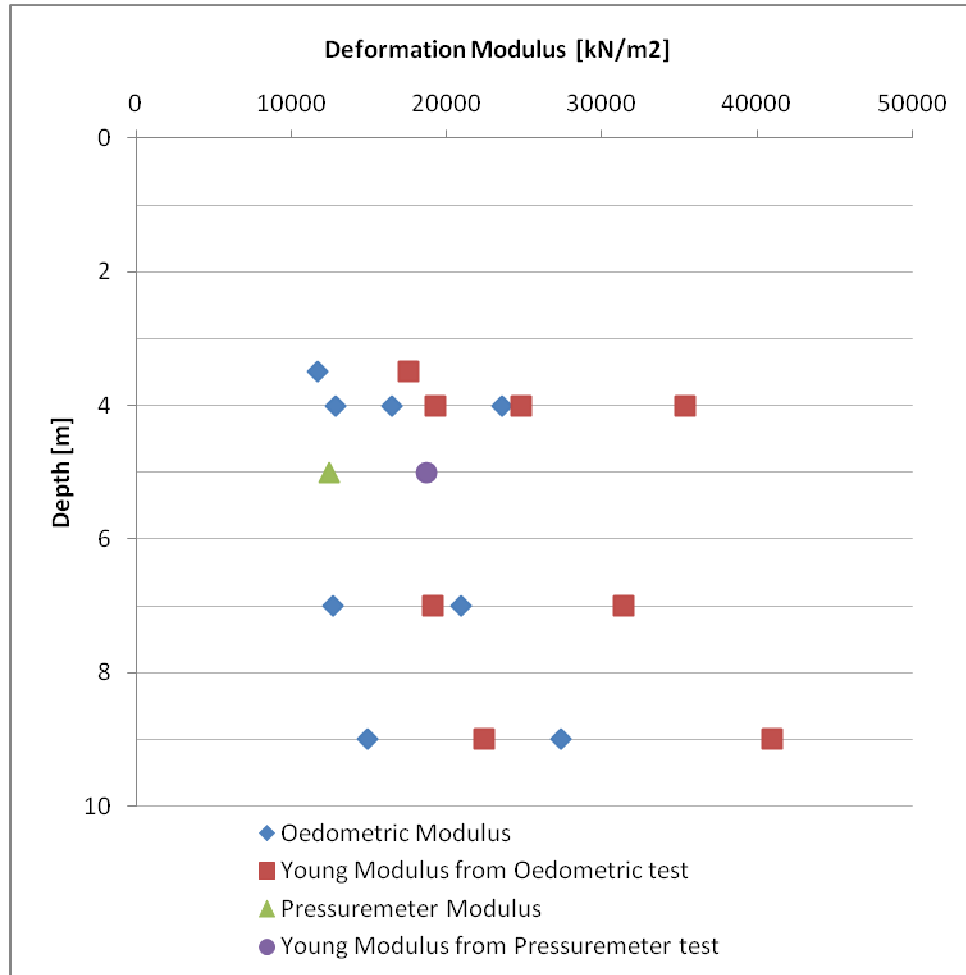
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### 3.4.2 Parametrii geotehnici

În această secțiune sunt descriși parametrii geotehnici ai proiectului cu referiri la investigația din teren.

Materialele au fost modelate cu un model “continuu echivalent” de comportare, descris de o plastică lineară perfect-elastică cu criteriul de rupere Mohr-Coulomb și cu legea de curgere neasociată. În tabelele următoare sunt sintetizați parametrii de proiectare folosiți în următoarele analize. Se face distincție între parametrii “M1” și “M2” conform Eurocod 7. Parametrii caracteristici “M1” sunt sintetizați mai jos:

z1 (m de la g.l.)	z2 (m de la g.l.)	$\gamma$ (kN/m <sup>3</sup> )	Cu (kPa)	c'(kPa)	$\phi'$	E' (MPa)
0	10	19	43	10	27	25
10	30	21	65	30	27	35

Parametrii “M2” sunt obținuți din parametrii caracteristici, reduși cu factorul de proiectare prevăzut de Eurocod 7:

z1 (m de la g.l.)	z2 (m de la g.l.)	$\gamma$ (kN/m <sup>3</sup> )	Cu (kPa)	c'(kPa)	$\phi'$	E' (MPa)
0	10	19	31	8	22	25
10	30	21	46	24	22	35

Pentru analizele următoare cu privire la lucrările temporare și permanente, aceste materiale au fost de asemenea modelate numai pentru condițiile drenate.

## 4 REZISTENȚA MATERIALULUI

Proprietățile de rezistență de proiectare a materialelor structurale sunt sintetizate mai jos.

### 4.1 Armături

- Oțel de armătură: *B450C controlat de instituție*  
 $f_{u_{nom}} = 540 \text{ MPa}$   
 $f_{y_{nom}} = 450 \text{ MPa}$
- Oțel structural: *S 355*  
 $f_{u_{nom}} = 510 \text{ MPa}$   
 $f_{y_{nom}} = 355 \text{ MPa}$
- Toroane de sârmă pentru ancore :  
Rezistența caracteristică de rupere la întindere  $f_{ptk} \geq 1860 \text{ N/mm}^2$   
Limita de curgere la întindere de 0,1 %  $f_{p1k} \geq 1670 \text{ N/mm}^2$

### 4.2 Beton

- Tunelul artificial și portalul tunelului: *Clasa de rezistență C30/37*
- Piloni și picior de reazem: *Clasa de rezistență C25/30*

## **5 CRITERIILE DE PROIECTARE ȘI ANALIZA STRUCTURILOR TEMPORARE**

### **5.1 Descrierea structurilor temporare pentru intrarea tunelului**

Pământul este excavat la adâncimea cerută cu ziduri de sprijin și ancore care suportă solul pe margini. Zidurile de sprijin sunt constituite din piloni găuriți din beton armat cu un diametru de 1200 mm și o lungime de la 17 m la 28 m. Distanța între piloni va fi de 1,3 m. Pilonii sunt conectați la partea superioară de un picior de reazem din beton armat care are dimensiunile 1,1 x 1,5 m.

Ancorele constau din găuri forate cu toroane de oțel precomprimat cimentate care se extind de la fața zidului la o zonă de ancoră localizată în spatele planurilor de ruptură potențială în solul rezemat. Se vor prevedea mai multe nivele de ancore în funcție de adâncimea excavației și de parametrii geotehnici ai solului. Pasul transversal între ancore va fi de 1,3 m și acestea vor fi în opoziție la diferite nivele cu grinzile de beton armat cu dimensiunile de 60 x 70 cm.

Conductele de drenaj suborizontal sunt instalate de-a lungul zidurilor de sprijin pentru a disipa presiunea hidrolică.

Fazele de construcție a zidurilor de sprijin sunt după cum urmează:

1. Executarea pilonilor găuriți din beton pe ambele laturi ale viitorului tunel artificial;
2. Decaparea pilonilor la partea superioară;
3. Realizarea unei grinzi de coronament din beton armat la partea superioară a pilonilor;
4. Plasarea nivelului de toroane și realizarea grinzii din beton armat de la partea superioară;
5. Excavarea la nivelul ancorelor;
6. Plasarea nivelului de toroane și realizarea grinzii de contrast din beton armat;
7. Dacă este necesar se repetă etapele 4 și 5;
8. Excavarea până la adâncimea finală;
9. Excavarea și construirea radierului de tunel pentru tunelul artificial;
10. Construirea coronamentului tunelului și a pilonilor pentru tunelul artificial.



## 5.2 Criteriile de proiectare

Proiectarea structurilor de reazem se face atât pentru starea limită extremă (ULS) cât și pentru starea limită de deservire (SLS).

### 5.2.1 Stările limită extreme

Sunt luate în considerare următoarele stări limită:

#### Tip ULS – STR :

- Ruperea unui element structural precum zidurile, ancorajele, grinzile de contravântuire sau contrafișele sau ruperea legăturii dintre asemenea elemente;

#### Tipuri ULS – GEO, UPL și HYD :

- Ruperea prin rotire sau translație a zidului sau a părților din acesta;
- Ruperea din lipsa echilibrului vertical;
- Ruperea prin dislocare hidrolică și afuiere;
- Pierdere de stabilitate globală;
- Rupere combinată în teren și în elementul structural.

Când se consideră o stare limită de rupere sau de deformare excesivă a unui element structural sau secțiune a terenului (STR și GEO), se va verifica dacă:

$$Ed \leq Rd$$

#### *Abordarea 1 de proiectare*

Analiza ULS – STR este efectuată cu următoarea combinație de seturi de factori parțiali:

**Combinația 1: A1 + M1 + R1.**

Analiza ULS – GEO este efectuată cu următoarea combinație de seturi de factori parțiali:

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## Combinăția 2: A2 + M2 + R1

Pentru verificarea stărilor limită structurale (STR) și geotehnice (GEO), în tabelele următoare sunt sintetizați factorii parțial recomandați de Eurocod 7 și factorii de corelație.

USL – Factorul parțial privind acțiunile și solul factorului parțial							
	Acțiunea $\gamma_F$				Parametrii solului ( $\gamma_m$ )		
	<u>Permanentă</u>		<u>Variabilă</u>				
	Nefavorabilă	Favorabilă	Nefavorabilă	Favorabilă	tan $\varphi'$	c'	c <sub>u</sub>
STR (A1+M1)	1,35	1,00	1,50	0,00	1,00	1,00	1,00
GEO (A2+M2)	1,00	1,00	1,30	0,00	1,25	1,25	1,40

USL – Factor parțial de rezistență	
Rezistența	Factori parțiali de rezistență ( $\gamma_R$ )
Ruptură de elemente structurale ale zidului	$\gamma_R = 1$
Ruptură structurală a ancorajelor	$\gamma_R = 1$
Ruptură prin rotire sau translație a zidului	$\gamma_R = 1$
Ruptură prin dislocare hidraulică și afuire	$\gamma_R = 1$
Pierdere de stabilitate generală	$\gamma_R = 1$
Ruptură prin smulgerea ancorajelor	Temporară $\gamma_R = 1,1$
	Permanentă $\gamma_R = 1,1$

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## 5.2.2 Stările limită de deservire

Sunt luate în considerare următoarele stări limită:

### SLS:

- Mișcarea structurii de reazem, care poate cauza prăbușirea sau afecta aspectul sau utilizarea eficientă a structurii.

Verificarea stărilor limită de deservire va cere ca:

$$Ed \leq Rd$$

Valorile factorilor parțiali pentru SLS sunt egale cu 1,0 atât pentru acțiuni cât și pentru parametrii solului, așa cum sunt recomandate de Eurocod 7 și rezumate în tabelul următor.

Acțiunea $\gamma_F$				Parametrii solului ( $\gamma_m$ )		
<u>Permanentă</u>		<u>Variabilă</u>		tan $\varphi'$	c'	c <sub>u</sub>
Nefavorabilă	Favorabilă	Nefavorabilă	Favorabilă			
1,00	1,00	1,00	1,00	1,00	1,00	1,00

### 5.2.3 Metoda de calcul

Analiza structurilor de sprijin este efectuată cu programul PARATIE versiunea 7.0 (CEAS Srl). Programul folosește pentru teren o comportare plastică-elastică și este în stare să urmărească întregul proces de construire. În tabelul următor sunt rezumate fazele de calcul pentru modelarea zidurilor de sprijin:

Fazele de calcul pentru zidurile de sprijin	
Faza	Descriere
1	Condiția geostatică inițială
2	Construirea zidului rezemat pe piloni
3	Excavarea la nivelul I de ancore
4	Instalarea ancorei I cu forța inițială egală cu 150 kN
5	Excavarea la nivelul II de ancore
6	Instalarea ancorei II cu forța inițială egală cu 150 kN
7	Excavarea la nivelul III de ancore
8	Instalarea ancorei III cu forța inițială egală cu 300 kN
7	Excavarea la nivelul IV de ancore
8	Instalarea ancorei IV cu forța inițială egală cu 300 kN

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## 5.3 Cazuri analizate și rezultate

### 5.3.1 Secțiuni reprezentative

Analiza zidurilor de sprijin este efectuată pentru 3 secțiuni reprezentative:

Secțiunea 1: Secțiunea cu înălțime maximă a excavației, lungimea măsurată 266+370 ;

Secțiunea 2: Secțiunea la lungimea măsurată 266+374;

Secțiunea 3: Secțiunea la lungimea măsurată 266+396,8

Secțiunea 1:

Secțiune și lungime măsurată	lungimea măsurată 266+370
Tipul de ziduri încastate	Pilonii zidului $\phi = 1200\text{mm}$ , $L = 28\text{m}$ ; distanțare 1,30 m
Suprasarcini	Suprasarcină variabilă = 20 kN/m
Straturi geotehnice	De la 0 m la 10 m h.c.
	De la 10 m la 30 m h.c.
Baza excavației	Z1 = 15,5 m de la grinda superioară (radierul tunelului)
Ancoră	Nivel I de ancoră $H1 = 0,5\text{ m}$
	Nivel II de ancoră $H2 = 4,0\text{ m}$
	Nivel III de ancoră $H3 = 8\text{ m}$
	Nivel IV de ancoră $H3 = 12\text{ m}$
Distanțarea transversală a ancorelor	1,3 m
Apa freatică	2 m de la h.c.

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### Secțiunea 2:

Secțiune și lungime măsurată	lungime măsurată 266+374
Tipul de ziduri încastrate	Zidul pe piloni $\phi = 1200\text{mm}$ , $L = 25\text{m}$ ; distanțare 1,30 m
Suprasarcini	Suprasarcină variabilă = 20 kN/m
Straturi geotehnice	De la 0 m la 10 m h.c.
	De la 10 m la 30 m h.c.
Baza excavației	Z1 = 11,5 m de la grinda superioară (radierul tunelului)
Ancoră	Nivel I de ancoră H1 = 0,5 m
	Nivel II de ancoră H2 = 4,0 m
	Nivel III de ancoră H3 = 8 m
Distanțarea transversală a ancorelor	1,3 m
Apa freatică	2 m de la h.c.

### Secțiunea 3:

Secțiune și lungime măsurată	lungime măsurată 711
Tipul de ziduri încastrate	Pilonii zidului $\phi = 1200\text{mm}$ , $L = 25\text{m}$ ; distanțare 1,30 m
Suprasarcini	Suprasarcină variabilă = 20 kN/m
Straturi geotehnice	De la 0 m la 10 m h.c.
	De la 10 m la 30 m h.c.
Baza excavației	Z1 = 8,95 m de la grinda superioară (radierul tunelului)
Ancoră	Nivel I de ancoră H1 = 0,5 m
	Nivel II de ancoră H2 = 4,0 m
	Nivel III de ancoră H3 = 8 m
Distanțarea transversală a ancorelor	1,3 m
Apa freatică	2 m de la h.c.

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### 5.3.2 Date de intrare pentru analiză

În tabelele următoare sunt prezentați parametrii geotehnici pentru analizele executate. În mod conservator, analizele au fost efectuate cu parametri drenați :

Strat	Combi-nația	$\gamma$ [kN/m <sup>3</sup> ]	c' [kPa]	$\phi'$ [°]	E'vc [Mpa]	E'ur [Mpa]
De la 0,0 m la 10,0 m	M1	19	10	27	25	30
	M2	19	8	22	25	30

$\gamma$  = greutatea specifică totală  
c' = coeziunea  
 $\phi'$  = unghiul de frecare  
E'vc = modulul elastic  
E'ur = modulul elastic în condiția de descărcare / reîncărcare

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Strat	Combi-nația	$\gamma$ [kN/m <sup>3</sup> ]	$c'$ [kPa]	$\phi'$ [°]	$E'_{vc}$ [Mpa]	$E'_{ur}$ [Mpa]
De la 10,0m la 30,0 m	M1	21	30	27	35	40
	M2	21	24	22	35	40

$\gamma$  = greutatea specifică totală  
 $c'$  = coeziunea  
 $\phi'$  = unghiul de frecare  
 $E'_{vc}$  = modulul elastic  
 $E'_{ur}$  = modulul elastic în condiția de descărcare / reîncărcare

În tabelele următoare sunt rezumate valorile coeficienților presiunii active a pământului  $K_a$  și a coeficienților presiunii pasive a pământului  $K_p$ .

Strat	Combi-nația	$k_{ah}$	$k_{ph}$
De la 0,0 m la 10,0 m	M1	0,33	3,701
	M2	0,406	2,792

Strat	Combi-nația	$k_{ah}$	$k_{ph}$
De la 10,0 m la 30,0 m	M1	0,33	3,701
	M2	0,406	2,792

### 5.3.3 Rezultatele analizelor

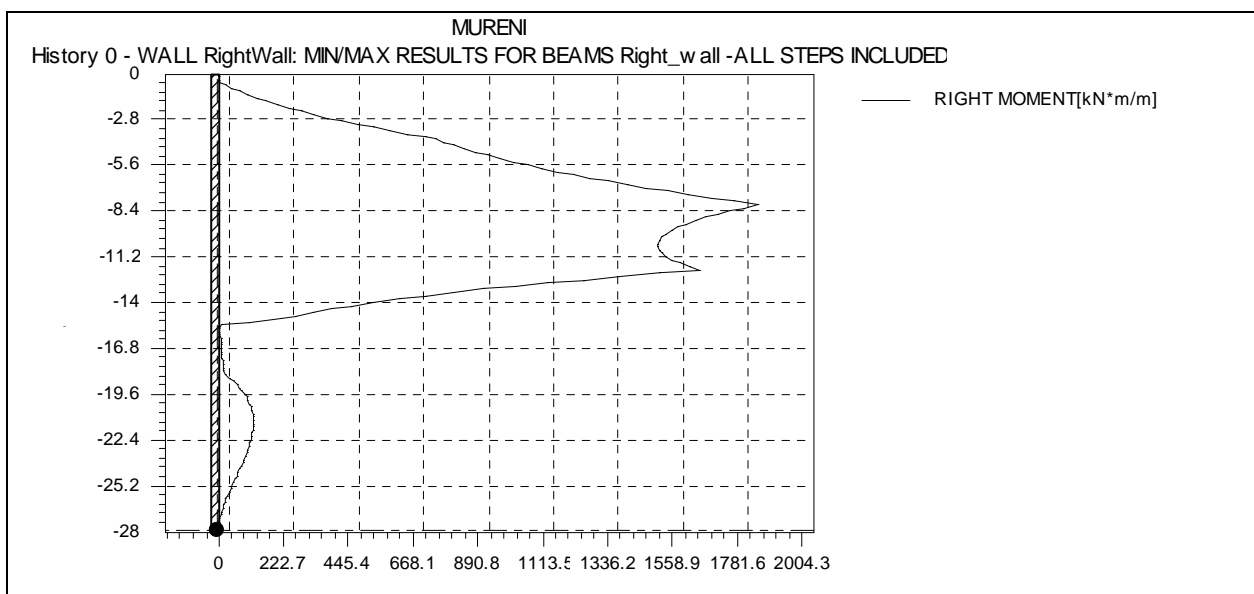
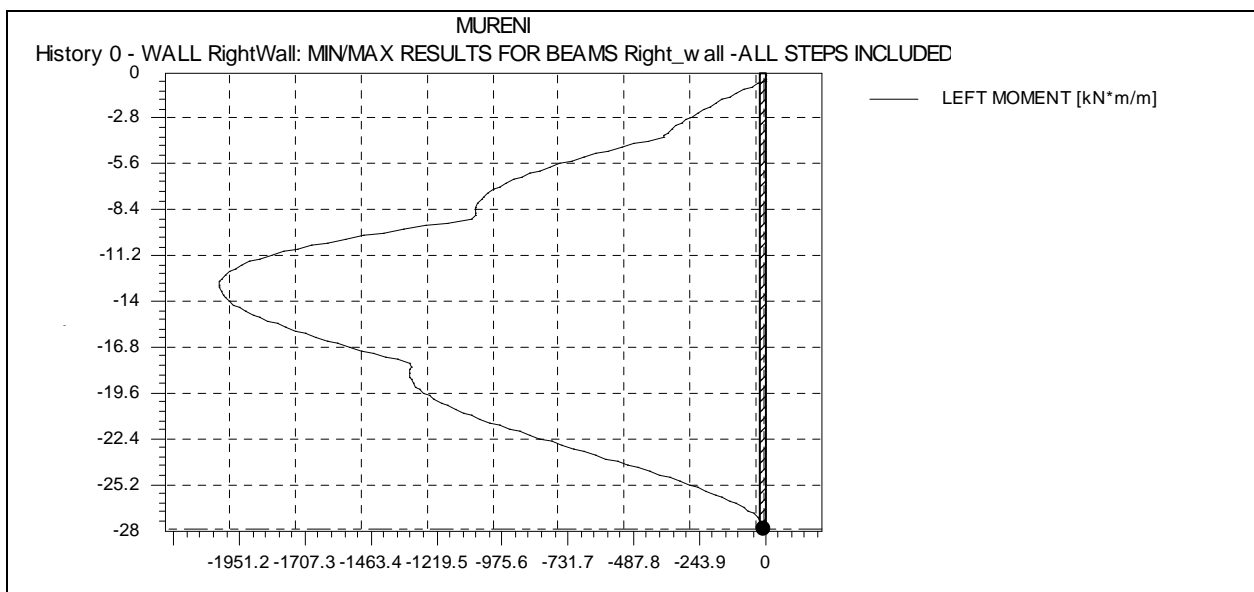
În tabelele următoare sunt sintetizate rezultatele principale pentru analizele efectuate. Rezultatele se referă la 1 metru de zid rezemat pe piloni. Tensiunile sunt ca valori nominale



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

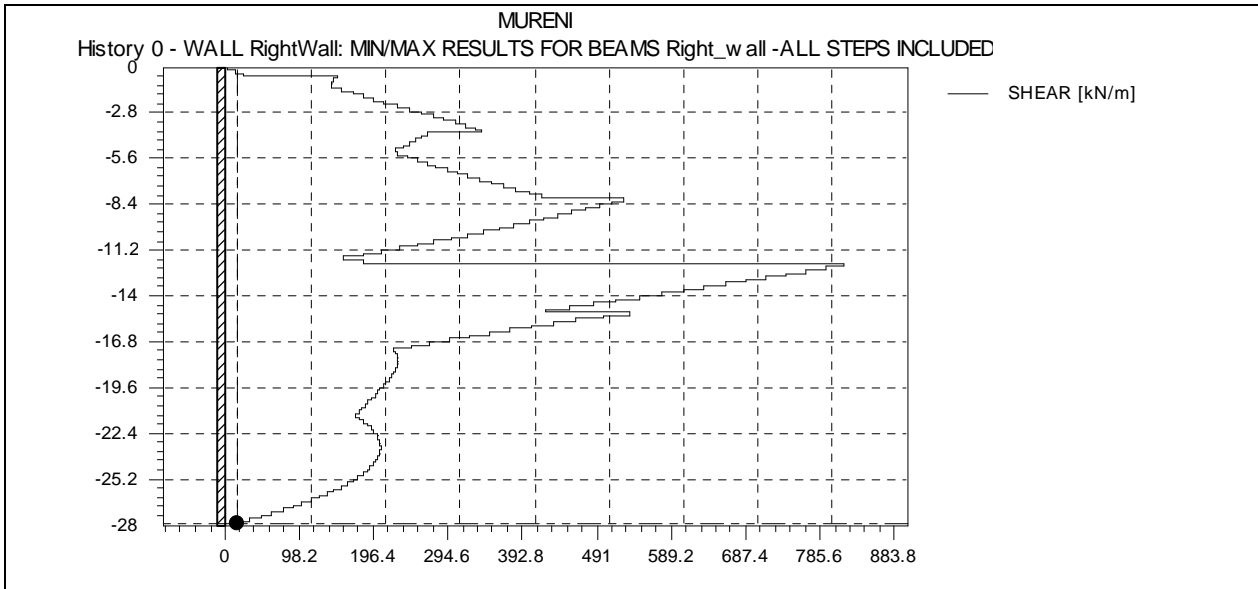
### 5.3.3.1 Secțiunea 1 (Combi-nația GEO)

Înfășurătoarea momentului de încovoiere

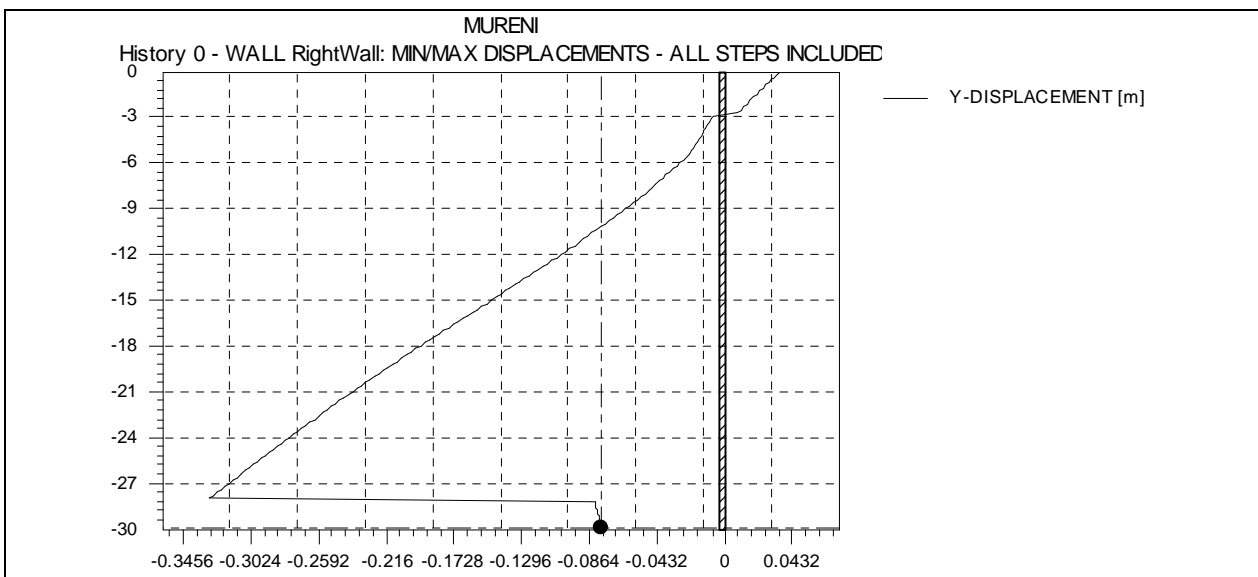


REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### Înfășurătoarea de forfecare



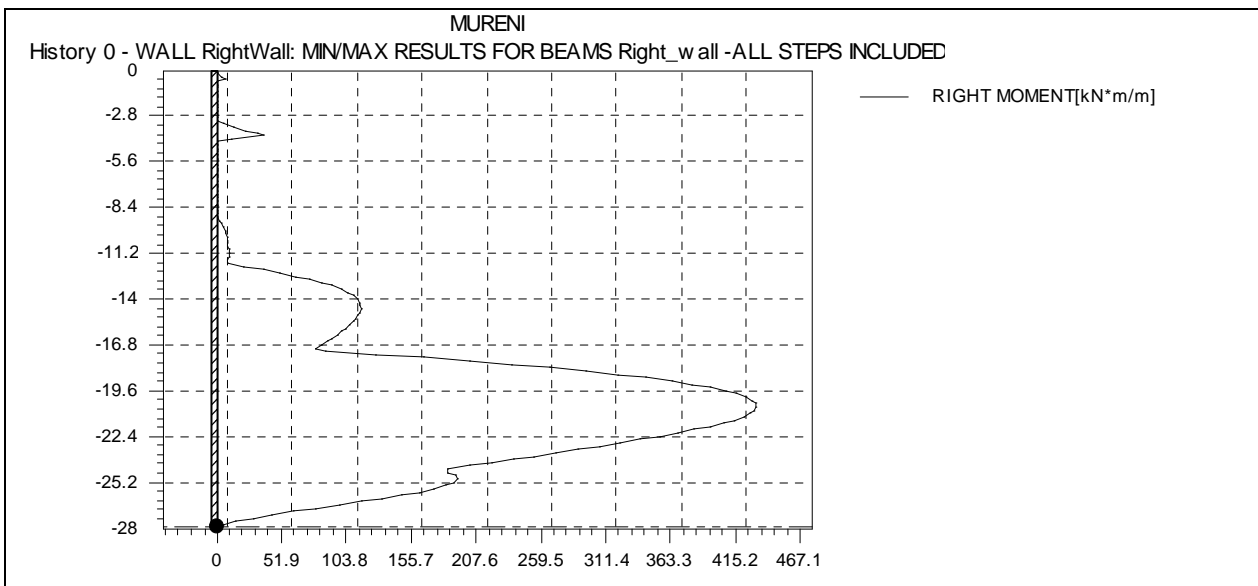
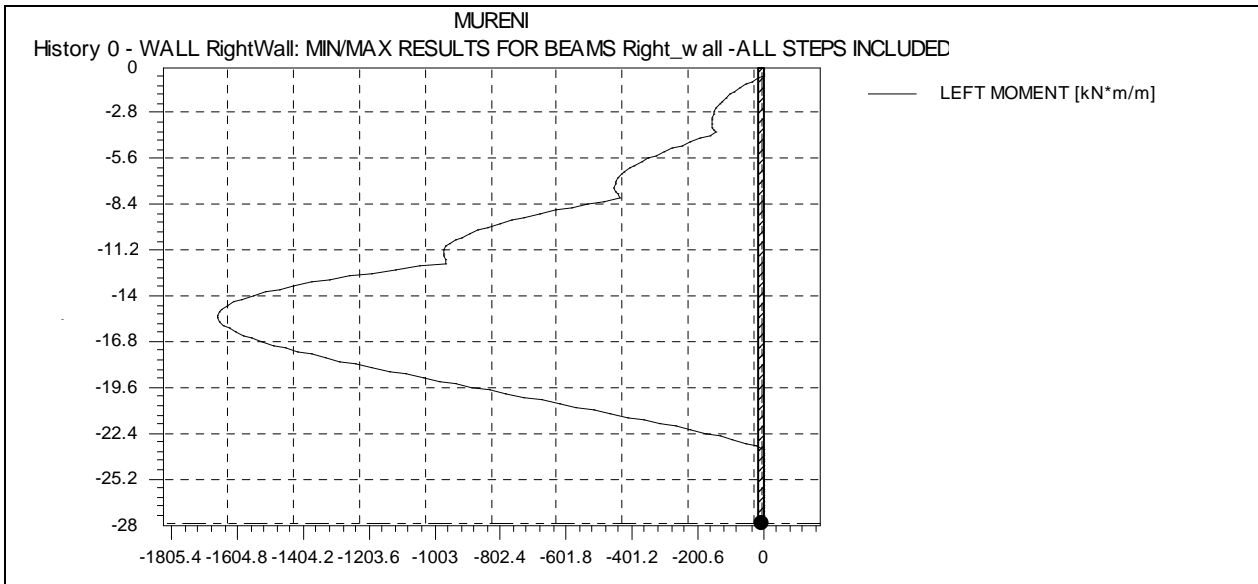
### Deplasare



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

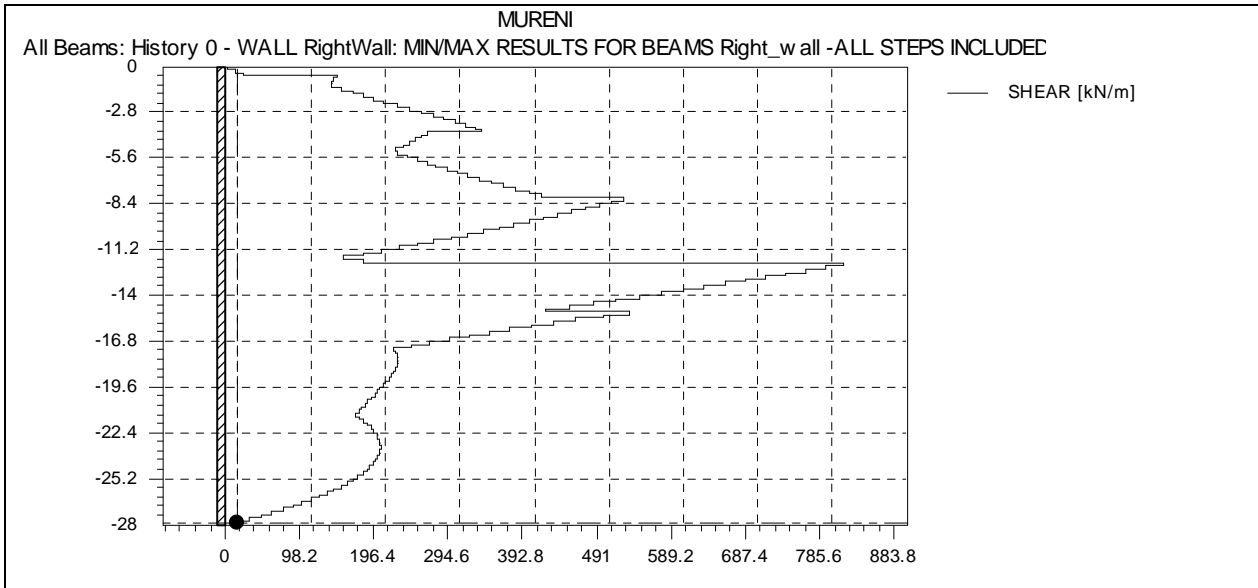
### 5.3.3.2 Secțiunea 1 (Combi-nația STR)

Înfășurătoarea momentului de încovoiere

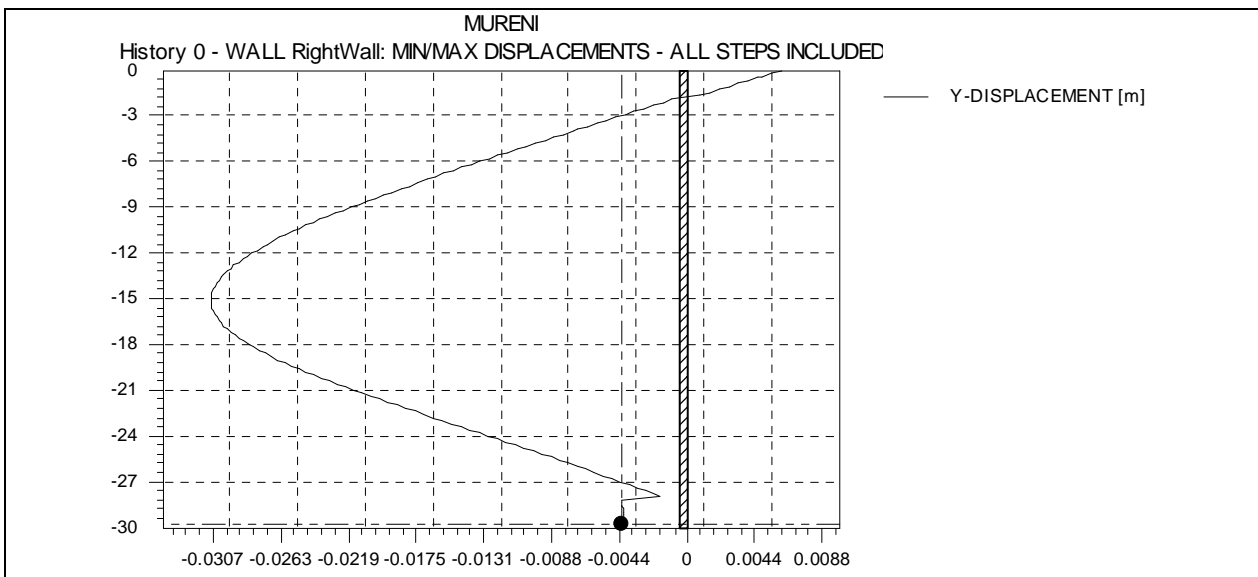


REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### Înfășurătoarea de forfecare



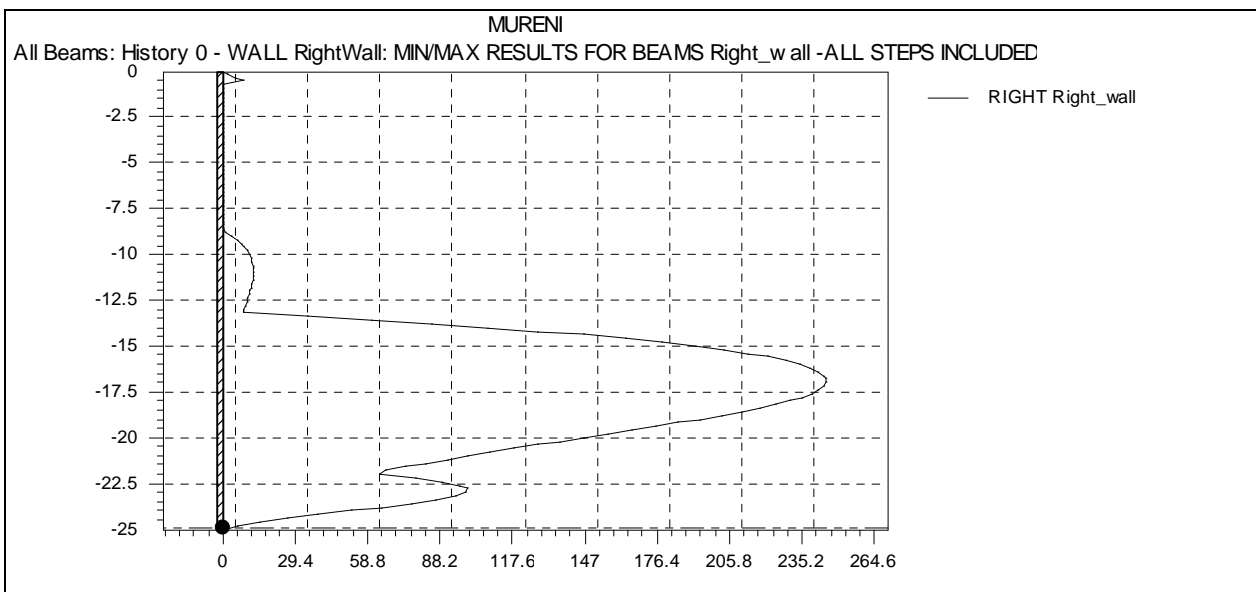
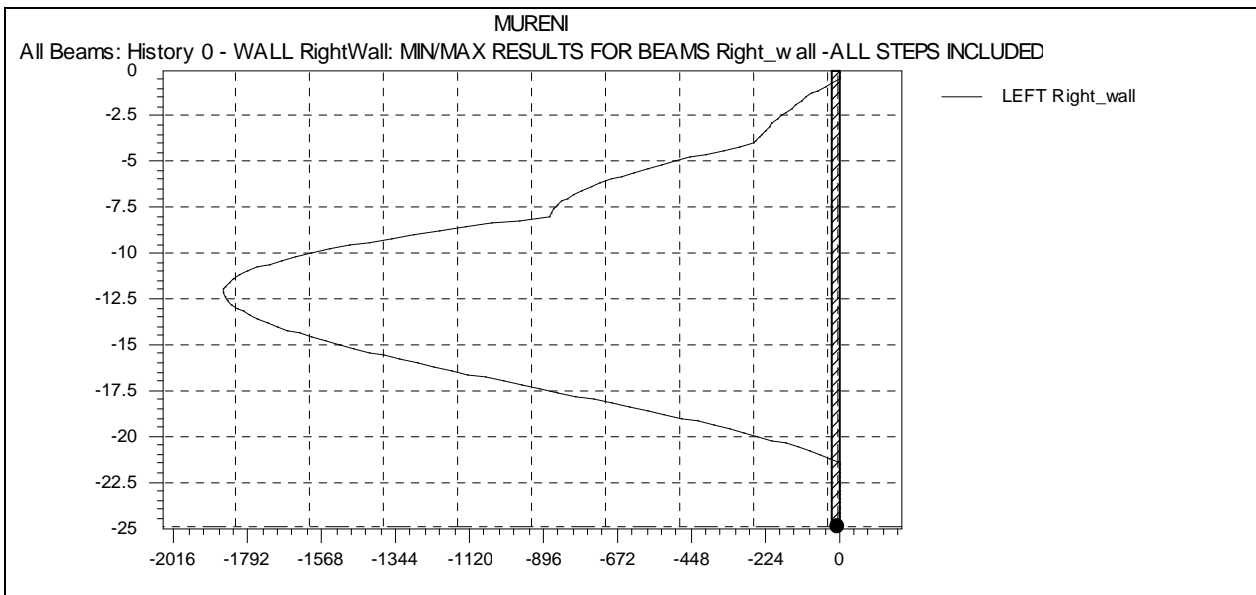
### Deplasare



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

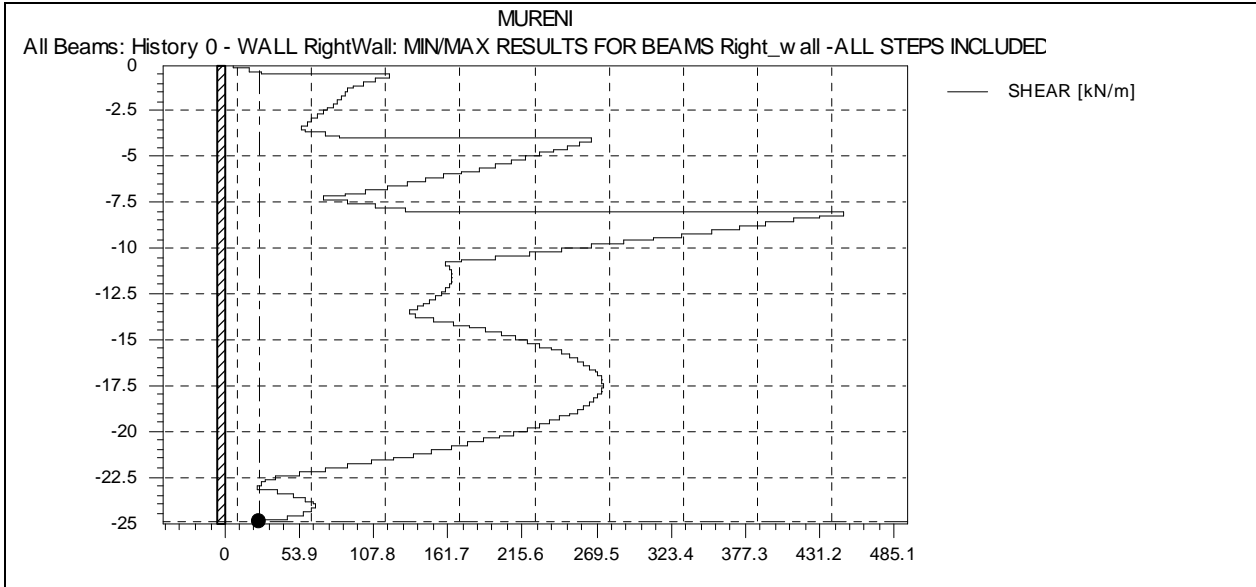
### 5.3.3.3 Secțiunea 2 (Combi-nația GEO)

Înfășurătoarea momentului de încovoiere

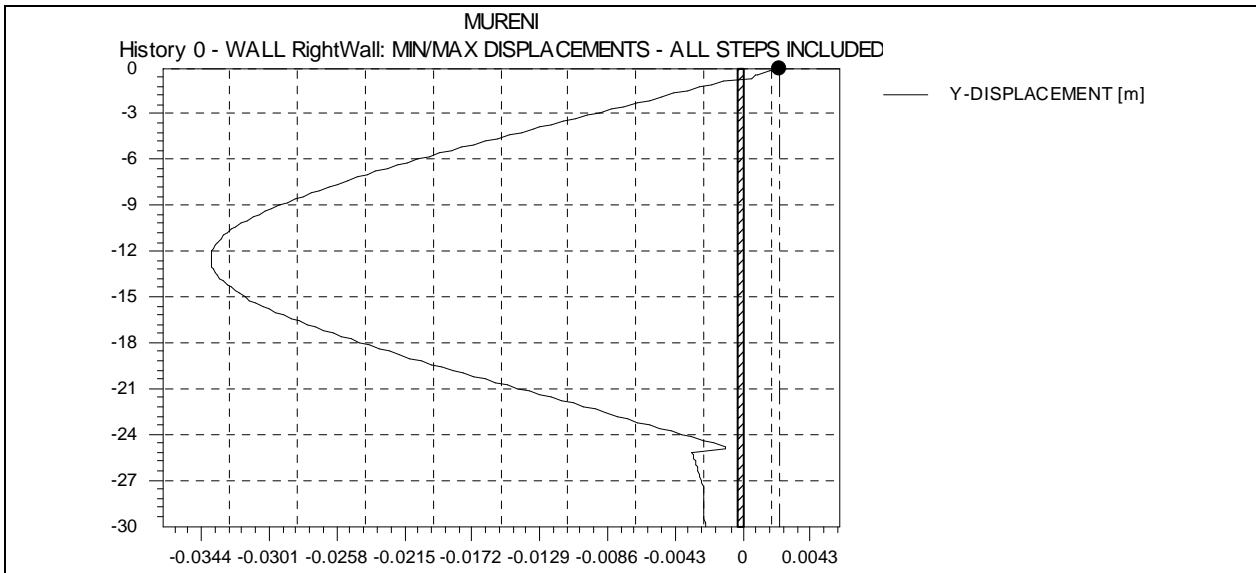


REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### Înfășurătoarea de forfecare



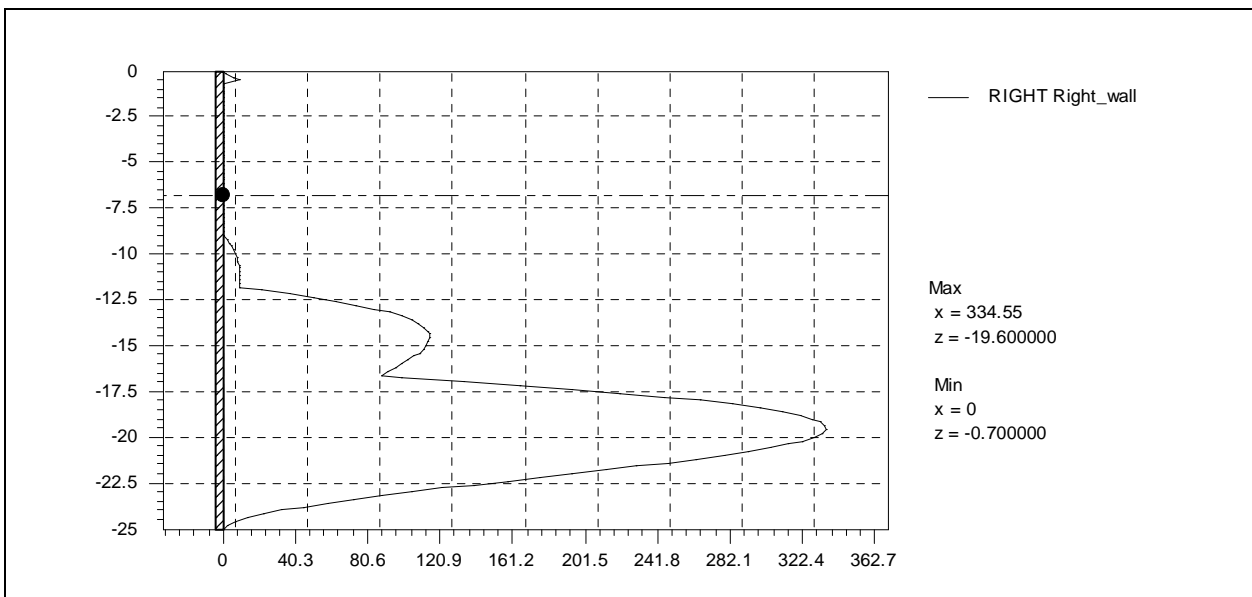
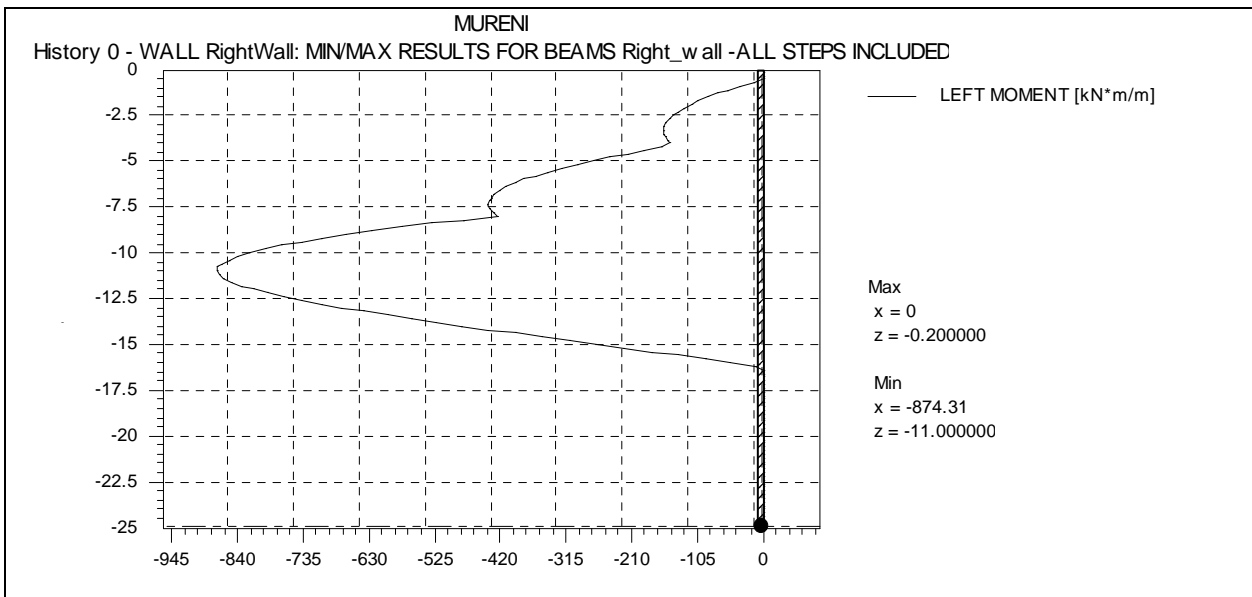
### Deplasare



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

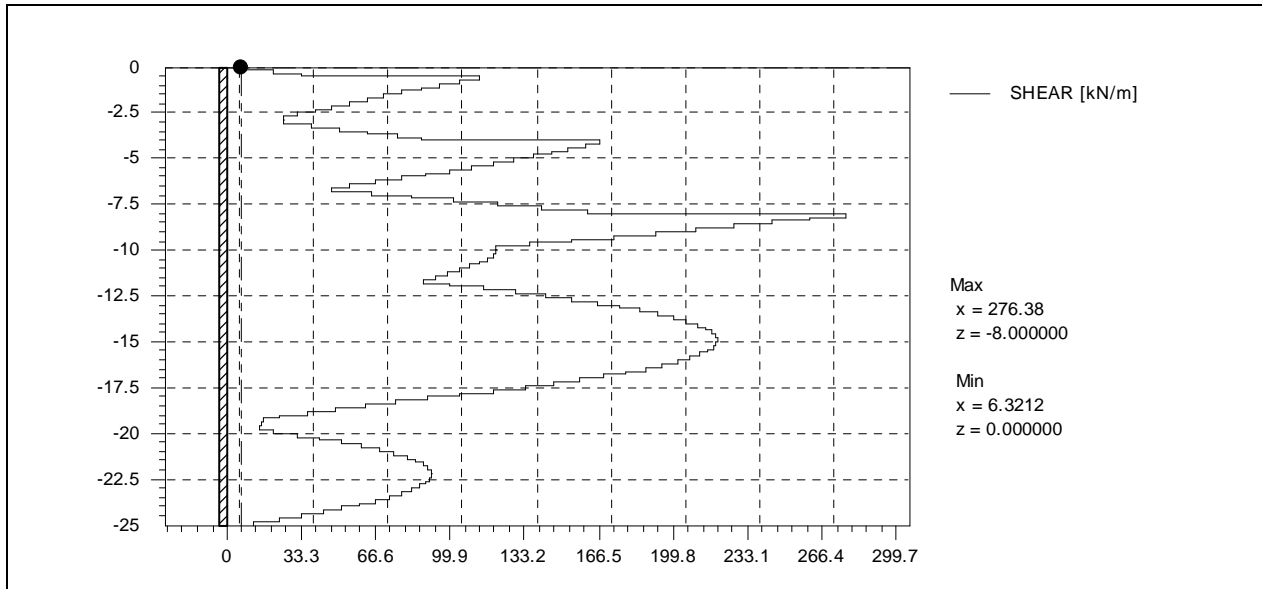
### 5.3.3.4 Secțiunea 2 (Combinăția STR)

Înfășurătoarea momentului de încovoiere

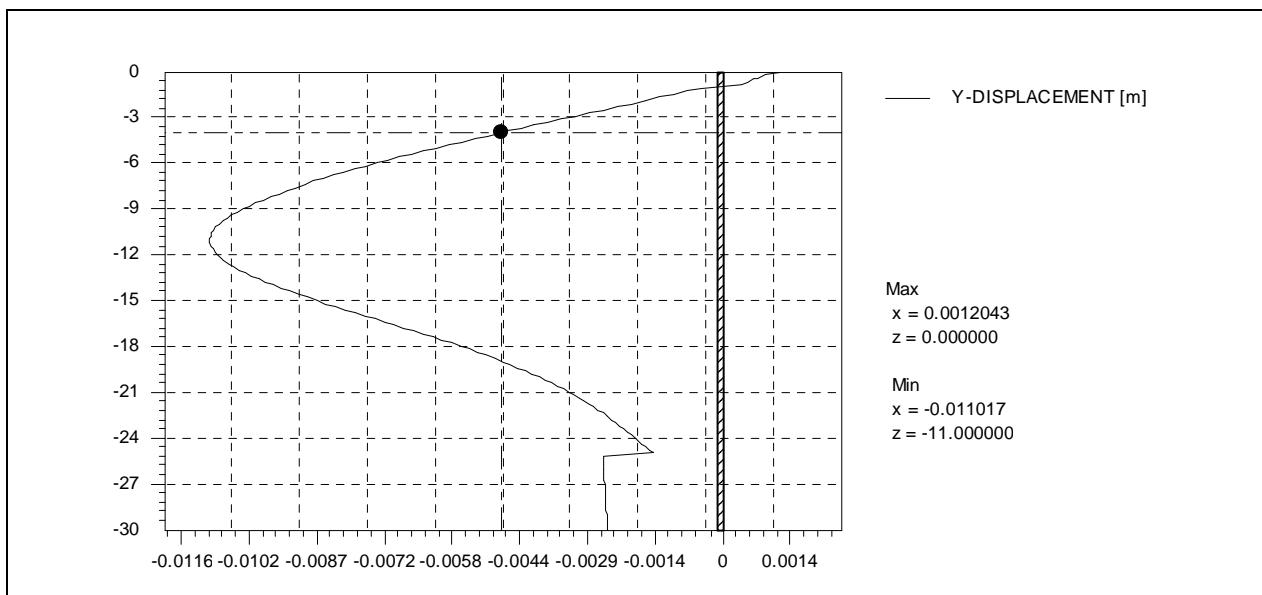


REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### Înfășurătoarea de forfecare



### Deplasare

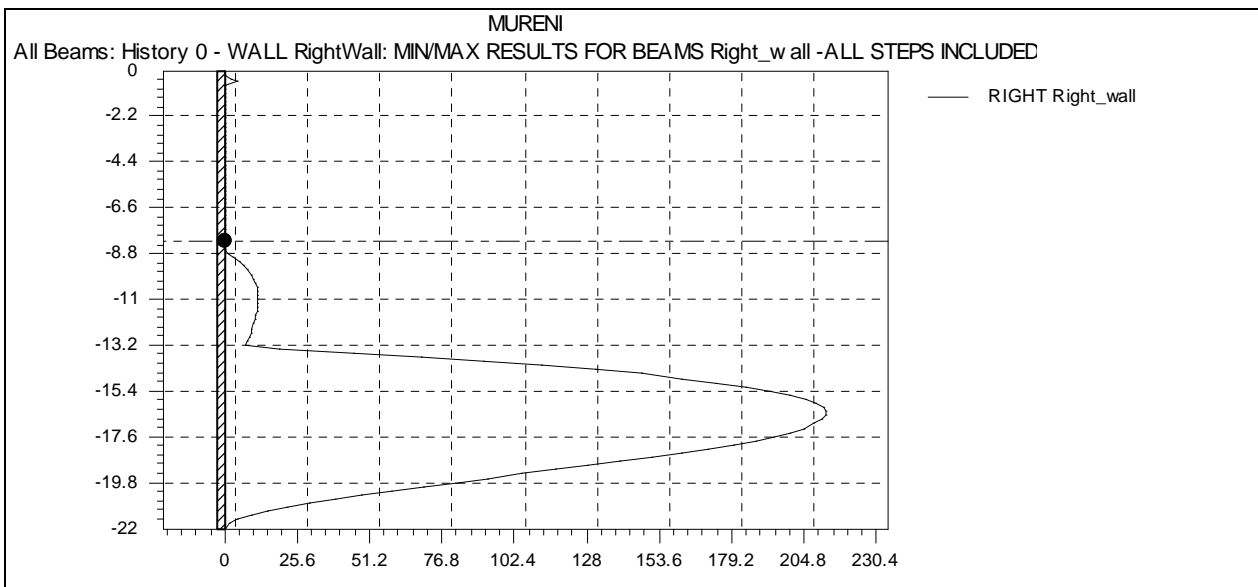
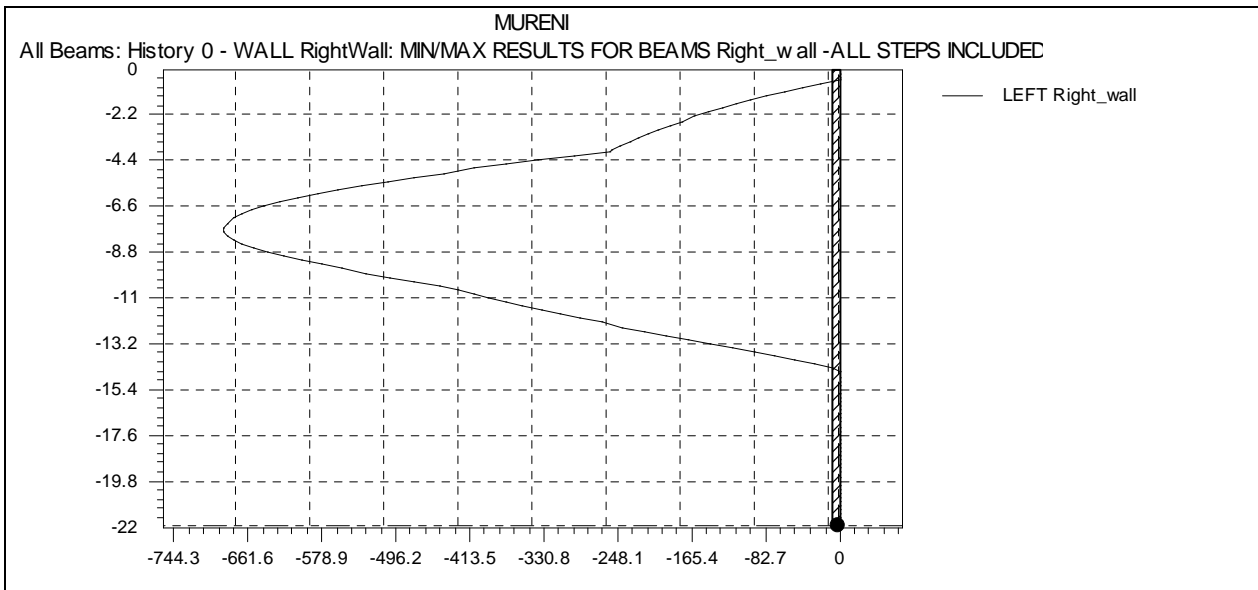




REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

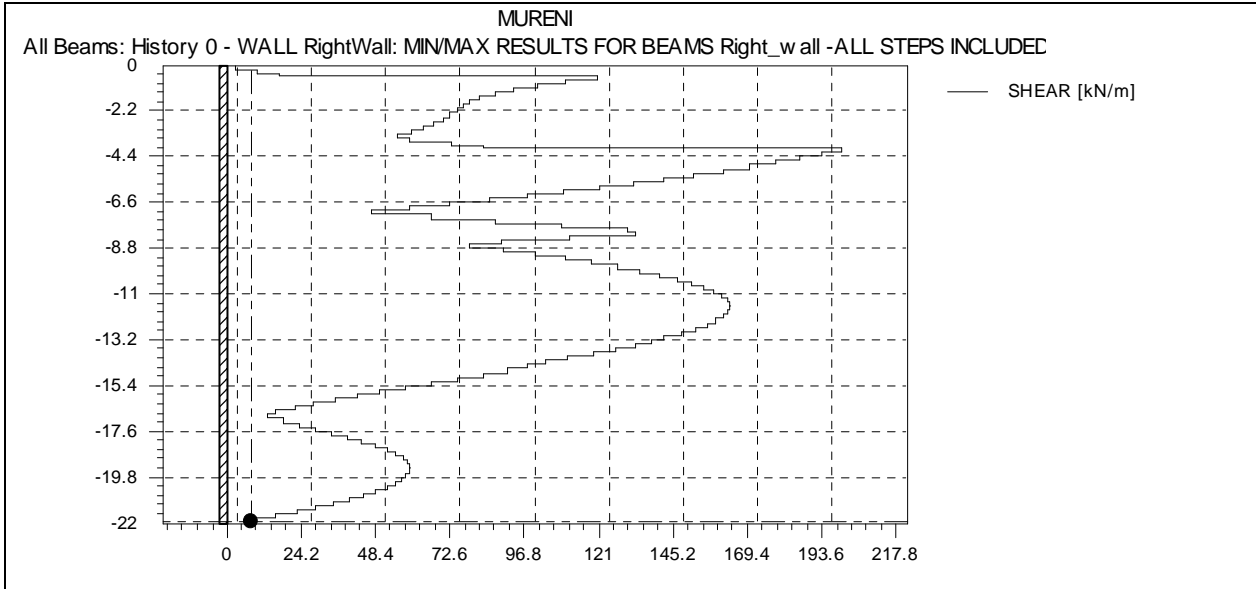
### 5.3.3.5 Secțiunea 3 (Combinăția GEO)

Înfășurătoarea momentului de încovoiere

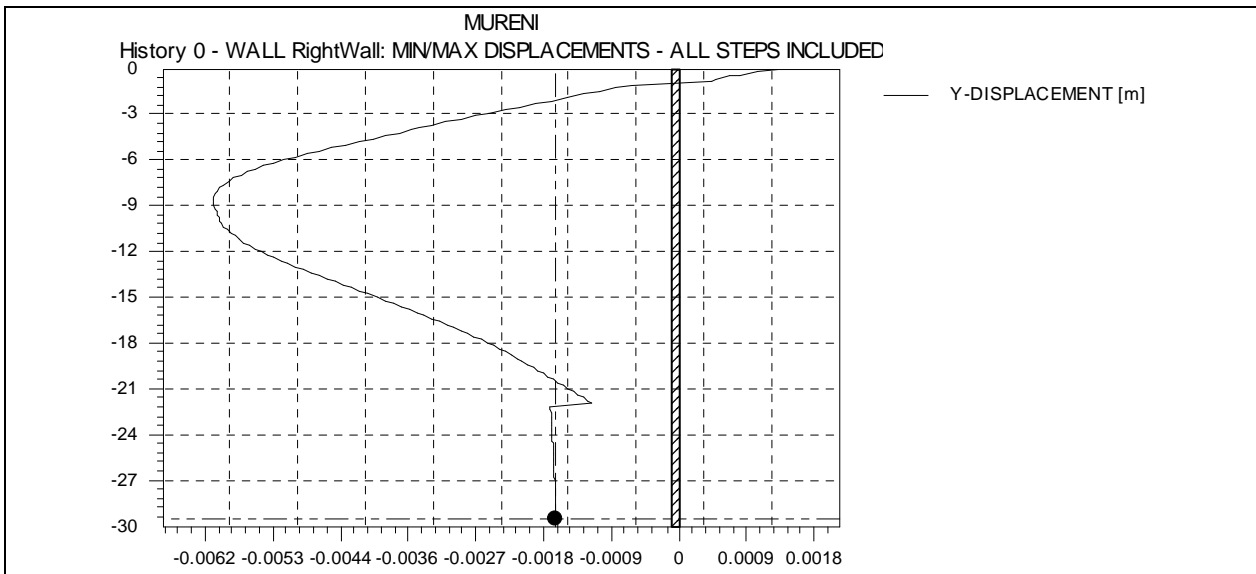


REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

## Înfășurătoarea de forfecare



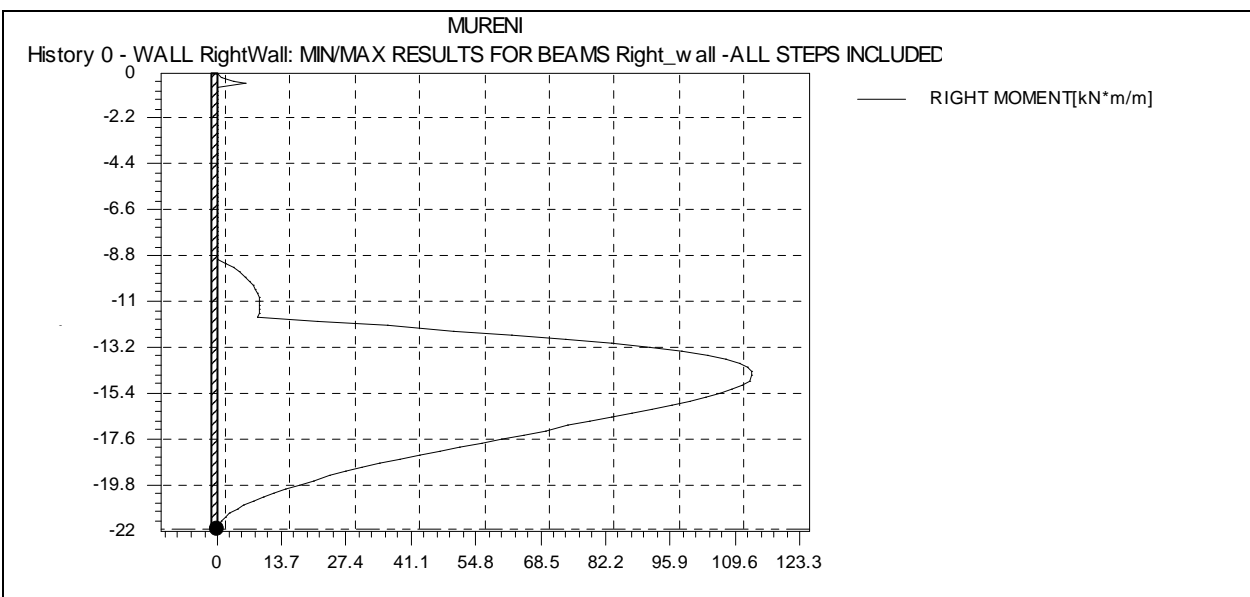
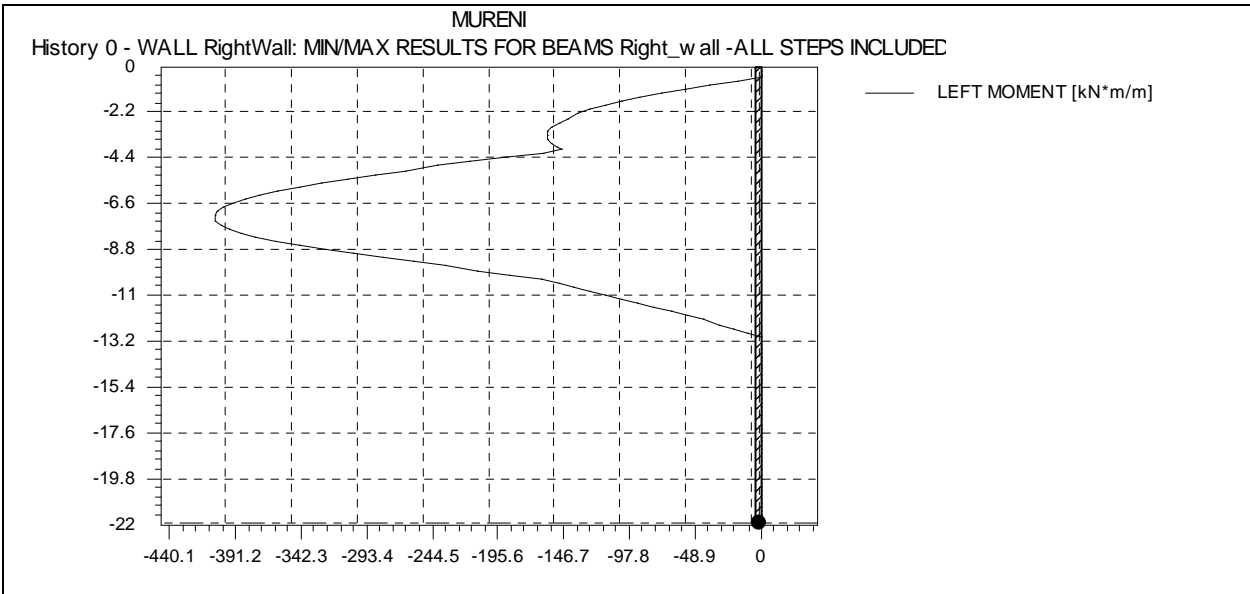
## Deplasare



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

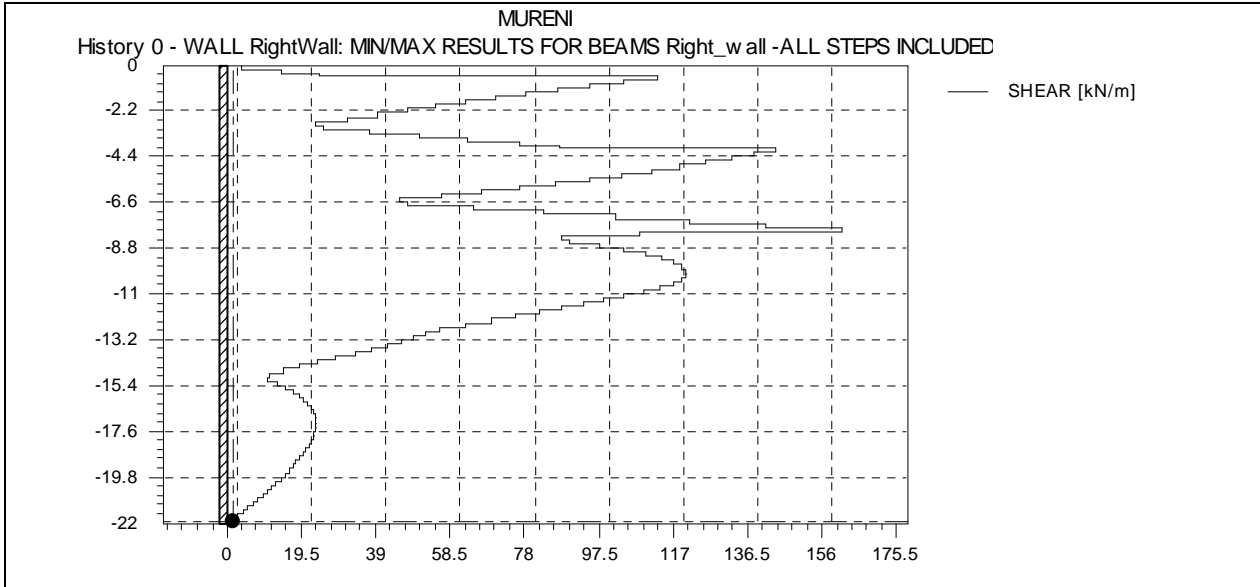
**5.3.3.6 Secțiunea 3 (Combinăția STR)**

Înfășurătoarea momentului de încovoiere

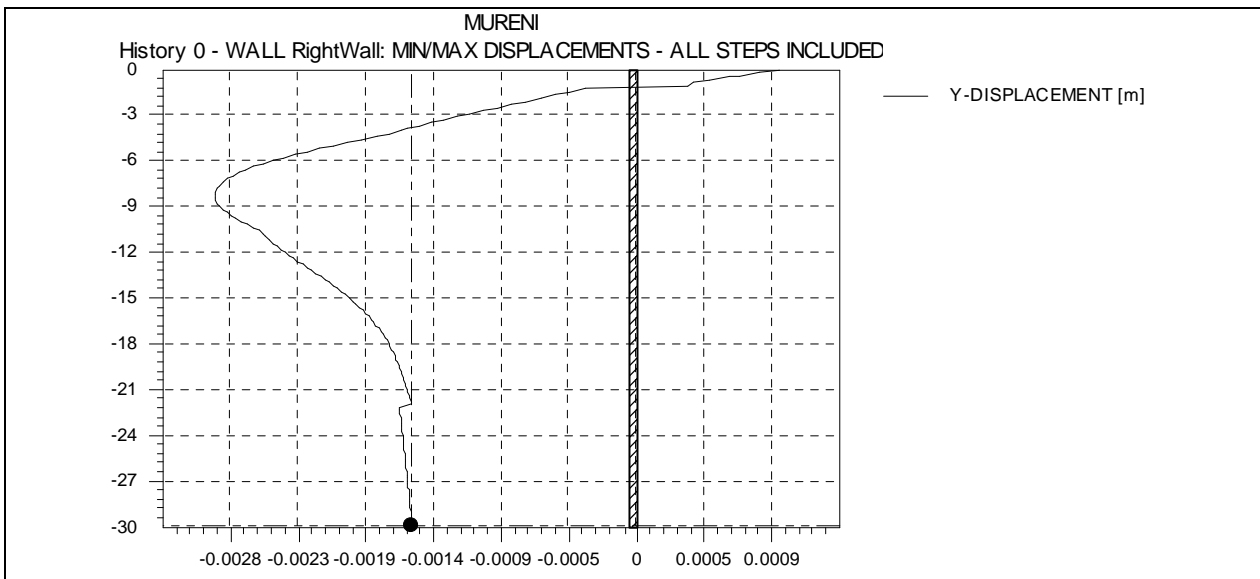


REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### Înfășurătoarea de forfecare



### Deplasare



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### 5.3.4 Verificarea rezistenței elementelor structurale

În această secțiune este prezentată verificarea elementelor structurale. Toate verificările structurale sunt efectuate cu combinația ULS – STR și USL GEO.

#### 5.3.4.1 Piloni

În tabelele următoare sunt sintetizate rezultatele repetării acțiunilor de încovoiere-axială (domeniul M-N) și verificările de forfecare pentru Secțiunea 1, 2 și 3. Pentru a obține valorile de proiectare, valorile luate prin Paratie sunt multiplicare cu distanțarea pilonilor (=1,30 m) și cu factorul parțial ULS privind efectele acțiunilor.

Verificările de forfecare a secțiunii circulare a pilonilor s-a referit la o secțiune rectangulară echivalentă, suprafața efectivă fiind obținută prin relația propusă de Buletinul CEB nr. 137, Anexa 5:

$$b_w, eq = 0,9 \cdot \Phi \text{ pilon} = 0,9 \cdot 120 = 108 \text{ cm}$$

$$h_{eq} = 0,45 \cdot \Phi \text{ pilon} + 0,64 \cdot (\Phi \text{ pilon} / 2 - c_p) + c_p = 96,0 \text{ cm}$$

Secțiunea 1 – Încovoierea cu forța axială								
	Secțiunea de verificat	Distanțare	M	Msd	Armare	Nsd	Mrd	S.F.
	m	m	KN*m/m	KN*m	n.	kN	KN*m	-
GEO	-7,8	1,3	689	896	35 $\phi$ 26	221	3102	3,46
STR	-15,2	1,3	1670	2931	35 $\phi$ 26	430	3157	1,08

Secțiunea 1 - Forfecare							
	Secțiunea de verificat	Distanțare	V	Vsd	Etrieri de grindă	Vrd	S.F.
	m	m	KN/m	KN	n.	KN*m	-
GEO	-4	1,3	200	260	Spirală $\phi$ 12/20 cm	794	3,05
STR	-12	1,3	401	704	Spirală $\phi$ 12/20 cm	794	1,13

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Secțiunea 2 – Încovoierea cu forța axială								
	Secțiunea de verificat	Distanțare	M	Msd	Armare	Nsd	Mrd	S.F.
	m	m	KN*m/m	KN*m	n.		KN*m	-
GEO	-12,2	1,3	1866	2426	30 $\phi$ 26	345	2761	1,14
STR	-11	1,3	874	1534	30 $\phi$ 26	311	2750	1,79

Secțiunea 2 - Forfecare							
	Secțiunea de verificat	Distanțare	V	Vsd	Etrieri de grindă	Vrd	S.F.
	m	m	KN/m	KN	n.	KN*m	-
GEO	-8	1,3	449	584	Spirală $\phi$ 12/20 cm	794	1,77
STR	-8	1,3	277	486	Spirală $\phi$ 12/20 cm	794	2,87

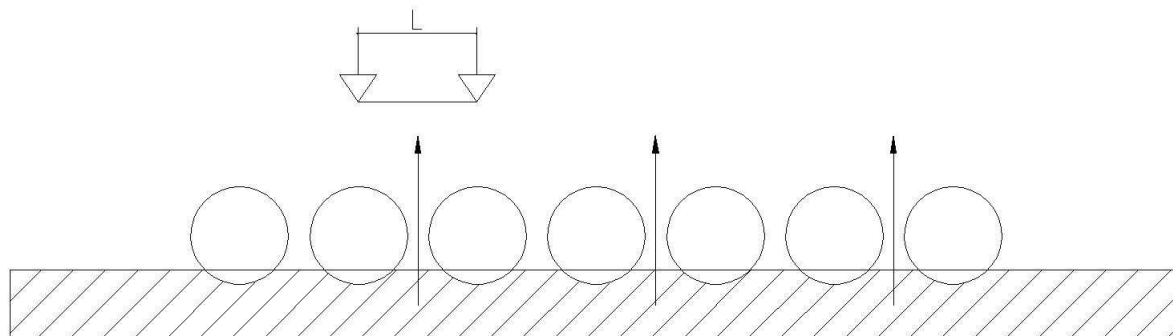
Secțiunea 3 – Încovoierea cu forța axială								
	Secțiunea de verificat	Distanțare	M	Msd	Armare	Nsd	Mrd	S.F.
	m	m	KN*m/m	KN*m	n.	kN	KN*m	-
GEO	-7,8	1,3	688	894	26 $\phi$ 20	221	1562	1,75
STR	-7,2	1,3	406	713	26 $\phi$ 20	204	1555	2,18

Secțiunea 3 - Forfecare							
	Secțiunea de verificat	Distanțare	V	Vsd	Etrieri de grindă	Vrd	S.F.
	m	m	KN/m	KN	n.	KN*m	-
GEO	-4	1,3	200	260	Spirală $\phi$ 12/20 cm	794	3,97
STR	-7,8	1,3	161	283	Spirală $\phi$ 12/20 cm	794	4,93

#### 5.3.4.2 Picioarele de reazem

Structura poate fi sintetizată cu o grindă simplu rezemată și supusă unei sarcini punctiforme la mijloc. Prin aceasta se formează încastrarea, în timp ce sarcina punctiformă este reprezentată de ancoră.

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.



### Secțiunea 1

	T	L	$\alpha$	Mx	My
	kPa	m	°	KN*m	KN*m
Nivel IV	1232	1,3	22,5	370	153
Nivel III	971	1,3	22,5	292	121
Nivel II	368	1,3	22,5	110	46
Nivel I	263	1,3	22,5	79	33

### Secțiunea 2

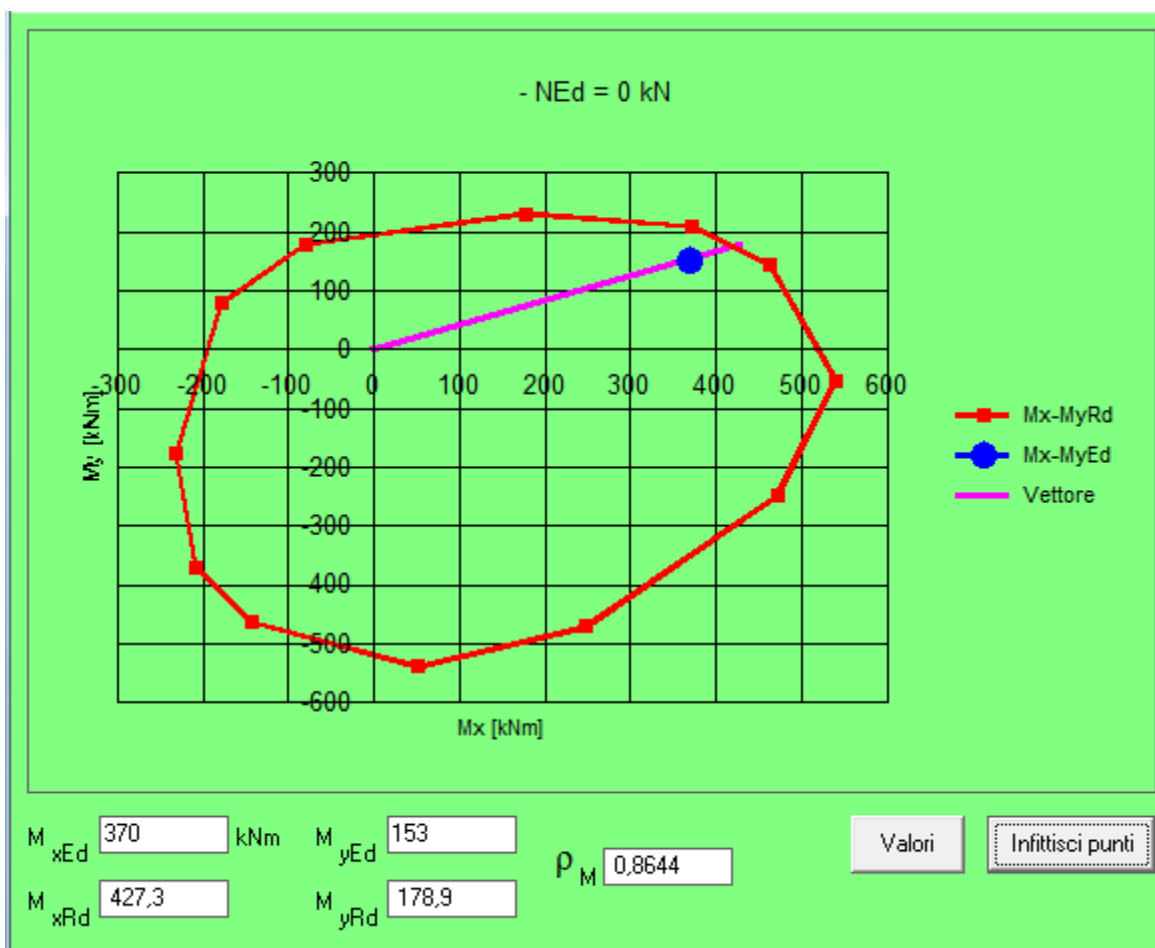
	T	L	$\alpha$	Mx	My
	kPa	m	°	KN*m	KN*m
Nivel IV	633	1,3	22,5	190	79
Nivel III	346	1,3	22,5	104	43
Nivel II	263	1,3	22,5	79	33

### Secțiunea 3

	T	L	$\alpha$	Mx	My
	kPa	m	°	KN*m	KN*m
Nivel III	530	1,3	22,5	159	66
Nivel II	284	1,3	22,5	85	35
Nivel I	266	1,3	22,5	80	33

REABILITAZIONE DELLA LINEA DI CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORRIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Caratteristiche		
Materiale		
C 25/30		
fcd	Mpa	14,17
B450C		
fyd	MPa	391
Sezione		
b	cm	60
h	cm	70
As	cm <sup>2</sup>	21.24
A's	cm <sup>2</sup>	21.24
c	cm	5
d	cm	65
Msd <sub>x</sub>	kN*m	370
Msd <sub>y</sub>	kN*m	153





REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Armare de forfecare

Caracteristici		
Materiale		
C 25/30		
fcd	Mpa	14,17
B450C		
fyd	MPa	391
Secțiune		
b	cm	60
h	cm	70
As	cm <sup>2</sup>	21.24
A's	cm <sup>2</sup>	21.24
c	cm	5
d	cm	55
Tsd	kN*m	616
Ast	cm <sup>2</sup> /m	11,31
ctgθ =		2,5
θ	( ° )	20,4
V <sub>Rsd</sub>	kN	880,96
V <sub>Rcd</sub>	kN	996,21
VRdu	kN	<b>880,96</b>

### 5.3.5 Proiectarea ancorelor

În lucrarea prezentă, pentru a defini o metodă de proiectare pentru fundația ancorei, a fost luată în considerare metoda propusă de Bustamante și Doix (1985). Rezistența laterală  $S$  este determinată prin:

$$S = \pi \cdot ds \cdot Ls \cdot s$$

unde  $ds$  este diametrul echivalent al fundației ancorei,  $Ls$  este lungimea zonei injectate, și  $s$  este rezistența tangențială la interfața dintre zona injectată și solul înconjurător. În ecuațiile anterioare s-a asumat  $ds = \alpha \cdot d$ , unde  $d$  este diametrul perforației și  $\alpha$  este un coeficient de creștere. Valorile rezistenței tangențiale pe suprafața unitară  $s$  corespund interfeței dintre zona injectată și sol depind atât de natura și caracteristicile solului cât și de tehnologia utilizată și pot fi ușor evaluate prin diagramele corespunzătoare raportate de Bustamante și Doix (1985).

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

## Secțiunea 1

Parametru	Simbol	U.m.	Nivel IV	Nivel III	Nivel II	Nivel I
			-12 m	-8 m	-4 m	-0,5 m
Rezistența caracteristică la rupere prin întindere	f <sub>ptk</sub>	N/mm <sup>2</sup>	1860	1860	1860	1860
Limita de curgere la 0.1 % elongație	f <sub>p1k</sub>	N/mm <sup>2</sup>	1670	1670	1670	1670
Număr de toroane din sârmă	n	-	6	6	6	6
Suprafața unitară a toronului din sârmă	A <sub>t</sub>	mm <sup>2</sup>	140	140	140	140
Suprafața totală a toroanelor din sârmă	A	mm <sup>2</sup>	840	840	840	840
Diametrul găurii de foraj	D <sub>p</sub>	m	0,16	0,16	0,16	0,16
Unghiul	θ	°	22,5	22,5	22,5	22,5
Coeficientul lui Bustamante și Doix	α		1,2	1,2	1,2	1,2
Rezistență tangențială pe suprafață unitară (q <sub>s</sub> )	q <sub>s</sub>	kPa	130	130	130	130
Distanțarea ancorelor	s	m	1,3	1,3	1,3	1,3
Sarcina care acționează pe ancoră (combinația STR)	T <sub>k</sub>	kN	774	770	368	263
Sarcina care acționează pe ancoră (combinația GEO)	T <sub>k</sub>	kN	1232	971	343	224
Lungimea zonei injectate	L <sub>ck</sub>	m	17,3	13,6	5,2	3,7
Înălțimea zidului sprijinit pe piloni	h <sub>pw</sub>	m	28,0	28,0	28,0	28,0
Altitudinea ancorei	h <sub>a</sub>	m	12,0	8,0	4,0	0,5
Lungimea liberă	L <sub>f</sub>	m	8,7	10,8	13,0	14,9
Lungimea totală a ancorei	L <sub>t</sub>	m	26,0	24,5	18,2	18,6
Tensiunea inițială a ancorei	T <sub>i</sub>	KN	390,0	390,0	195,0	195,0
Rezistența caracteristică de rupere la întindere a unei singure ancore	R <sub>k</sub>	kN	1562	1562	1562	1562
Rezistența extremă de rupere la întindere a unei singure ancore	R <sub>d</sub>	kN	1420	1420	1420	1420

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## Secțiunea 2

Parametru	Simbol	U.m.	Nivel III	Nivel II	Nivel I
			-8 m	-4 m	-0,5 m
Rezistența caracteristică la rupere prin întindere	f <sub>ptk</sub>	N/mm <sup>2</sup>	1860	1860	1860
Limita de curgere la 0.1 % elongație	f <sub>p1k</sub>	N/mm <sup>2</sup>	1670	1670	1670
Număr de toroane din sârmă	n	-	6	6	6
Suprafața unitară a toronului din sârmă	A <sub>t</sub>	mm <sup>2</sup>	140	140	140
Suprafața totală a toroanelor din sârmă	A	mm <sup>2</sup>	840	840	840
Diametrul găurii de foraj	D <sub>p</sub>	m	0,16	0,16	0,16
Unghiul	θ	°	22,5	22,5	22,5
Coeficientul lui Bustamante și Doix	α		1,2	1,2	1,2
Rezistență tangențială per suprafață unitară (q <sub>s</sub> )	q <sub>s</sub>	kPa	130	130	130
Distanțarea ancorelor	s	m	1,3	1,3	1,3
Sarcina care acționează pe ancoră (combinația STR)	T <sub>k</sub>	kN	632	329	263
Sarcina care acționează pe ancoră (combinația GEO)	T <sub>k</sub>	kN	633	346	198
Lungimea zonei injectate	L <sub>ck</sub>	m	8,9	4,9	3,7
Înălțimea zidului sprijinit pe piloni	h <sub>pw</sub>	m	25,0	25,0	25,0
Altitudinea ancorei	h <sub>a</sub>	m	8,0	4,0	0,5
Lungimea liberă	L <sub>f</sub>	m	9,2	11,4	13,3
Lungimea totală a ancorei	L <sub>t</sub>	m	18,1	16,2	17,0
Tensiunea inițială a ancorei	T <sub>i</sub>	KN	390,0	195,0	195,0
Rezistența caracteristică de rupere la întindere a unei singure ancore	R <sub>k</sub>	kN	1562	1562	1562
Rezistența extremă de rupere la întindere a unei singure ancore	R <sub>d</sub>	kN	1420	1420	1420

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### Secțiunea 3

Parametru	Simbol	U.m.	Nivel III	Nivel II	Nivel I
			-8 m	-4 m	-0,5 m
Rezistența caracteristică la rupere prin întindere	f <sub>ptk</sub>	N/mm <sup>2</sup>	1860	1860	1860
Limita de curgere la 0.1 % elongație	f <sub>p1k</sub>	N/mm <sup>2</sup>	1670	1670	1670
Număr de toroane din sârmă	n	-	6	6	6
Suprafața unitară a toronului din sârmă	A <sub>t</sub>	mm <sup>2</sup>	140	140	140
Suprafața totală a toroanelor din sârmă	A	mm <sup>2</sup>	840	840	840
Diametrul găurii de foraj	D <sub>p</sub>	m	0,16	0,16	0,16
Unghiul	θ	°	22,5	22,5	22,5
Coeficientul lui Bustamante și Doix	α		1,2	1,2	1,2
Rezistență tangențială per suprafață unitară (q <sub>s</sub> )	q <sub>s</sub>	kPa	130	130	130
Distanțarea ancorelor	s	m	1,3	1,3	1,3
Sarcina care acționează pe ancoră (combinația STR)	T <sub>k</sub>	kN	530	284	266
Sarcina care acționează pe ancoră (combinația GEO)	T <sub>k</sub>	kN	395	231	199
Lungimea zonei injectate	L <sub>ck</sub>	m	7,4	4,0	3,7
Înălțimea zidului sprijinit pe piloni	h <sub>pw</sub>	m	22,0	22,0	22,0
Altitudinea ancorei	h <sub>a</sub>	m	8,0	4,0	0,5
Lungimea liberă	L <sub>f</sub>	m	7,6	9,8	11,7
Lungimea totală a ancorei	L <sub>t</sub>	m	15,0	13,7	15,4
Tensiunea inițială a ancorei	T <sub>i</sub>	KN	390,0	195,0	195,0
Rezistența caracteristică de rupere la întindere a unei singure ancore	R <sub>k</sub>	kN	1562	1562	1562
Rezistența extremă de rupere la întindere a unei singure ancore	R <sub>d</sub>	kN	1420	1420	1420

## 6 CRITERIILE DE PROIECTARE ȘI ANALIZA STRUCTURILOR PERMANENTE

### 6.1 Descrierea structurilor permanente pentru intrarea tunelului

Structurile permanente pentru intrarea tunelului de pe latura Vanatori sunt descrise după cum urmează:

LATURA VANATORI		
	TUNEL ARTIFICIAL	CORNIȘA CANELURII
	L (m)	L (m)
MURENI	32,89	18,37

Structurile permanente sunt construite după executarea unei excavații sprijinită de zidul de reazem pe piloni și apoi acestea vor fi acoperite de excavarea solului .

### 6.2 Criteriile de proiectare

Tunelul artificial a fost verificat în secțiunea cu solul maxim de acoperire. Rezultatele acestei analize au fost extinse la portalul de intrare a tunelului.

Calcululele au fost făcute cu programul FEM versiunea Nelineară 14.2 SAP 2000, distribuită de Computers and Structures, Inc., iar verificările au fost efectuate la ULS și SLS.

În continuare, sunt explicate criteriile pentru determinarea cazurilor de sarcini și verificarea așteptată de la Eurocod 2.

## 6.3 Cazurile de sarcină

### 6.3.1 Sarcini verticale

Sarcinile verticale luate în considerare în analize sunt:

- Greutatea proprie a căptușelii;
- Solul acoperitor.

Greutatea volumetrică a betonului, conform EN 1991-1-1, se presupune egală cu 24 kN/m<sup>3</sup> și 25 kN/m<sup>3</sup> pentru beton nearamat și respectiv armat.

Sarcina verticală datorată solului acoperitor este calculată prin ecuația următoare:

$$P_v = \gamma H$$

unde:

$\gamma$  = greutatea specifică totală;

H = adâncimea solului acoperitor (raportată la coronament).

### 6.3.2 Sarcini orizontale

Sarcinile orizontale  $P_h$ , care acționează pe termen lung și sunt variabile în funcție de adâncimi, sunt estimate după cum urmează:

$$P_h = K P_v + K \gamma z$$

unde:

g = greutatea volumetrică;

K = coeficientul de presiune a pământului;

z = înălțimea totală a tunelului.

Dacă tunelul se confruntă cu un strat de apă, se va lua în considerare presiunea hidrostatică prin evaluarea presiunilor efective ale solului, în plus față de cea hidrostatică.

### 6.3.3 Sarcini seismice

Efectele seismice asupra tunelului căptușit artificial sunt introduce în calcul prin analiza statică echivalentă:

- $a_g = 0,16g$
- categoria de sol: C
- $S = 1,50$ ;  $ST = 1,0$
- Coeficientul seismic orizontal ( $k_h$ ) este  
$$k_h = S \times ST \times a_g / g = 1,50 \times 1,0 \times 0,16 = 0,24$$

Punctul de aplicare trebuie să fie luat la jumătatea laturii verticale a pilonului stâng și drept. În plus față de împingerea terenului, tunelul este supusă la forțele de inerție:

$$F_i = k_h \times W$$

unde  $W$  sunt greutatea cu sarcinile lor uzate și permanente.

Aceste sarcini sunt aplicate pe o direcție sau alta în funcție de situația solicitărilor pentru mai multă structură.

### 6.3.4 Presiunile seismice ale pământului (Mononobe–Okabe)

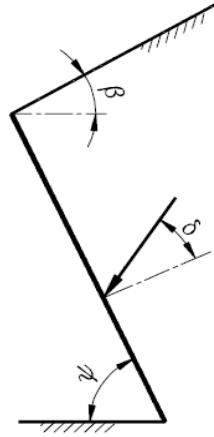
Aceasta a fost o extindere a metodei Coulomb în cazul static pentru determinarea presiunilor pământului luând în considerare echilibrul prisme triunghiulare de alunecare. Metoda este acum cunoscută în mod obișnuit ca și metoda Mononobe– Okabe. Pentru a calcula presiunea activă și pasivă a pământului prin forțele pseudostatice precum forțele seismice ce acționează în solul de umplutură fără coeziune, în analiză a fost asumată suprafața planară de rupere. Presiunea seismică activă și pasivă a pământului ( $P_{ae}$ ,  $P_{pe}$ ) poate fi calculată prin ecuația Mononobe–Okabe după cum urmează:

$$P_{ae}, P_{pe} = \frac{1}{2} \gamma H^2 (1 - k_v) K$$

Presiunea activă a pământului:



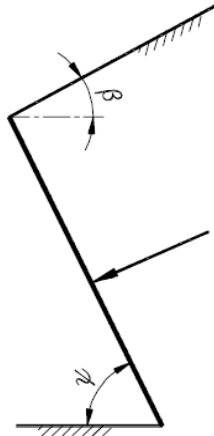
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$$\beta \leq \phi - \theta: \quad K = \frac{\text{sen}^2 (\psi + \phi - \theta)}{\cos \theta \text{sen}^2 \psi \text{sen} (\psi - \theta - \delta) \left[ 1 + \sqrt{\frac{\text{sen} (\phi + \delta) \text{sen} (\phi - \beta - \theta)}{\text{sen} (\psi - \theta - \delta) \text{sen} (\psi + \beta)}} \right]^2}$$

$$\beta > \phi - \theta: \quad K = \frac{\text{sen}^2 (\psi + \phi - \theta)}{\cos \theta \text{sen}^2 \psi \text{sen} (\psi - \theta - \delta)}$$

Presiunea pasivă a pământului:



$$K = \frac{\text{sen}^2 (\psi + \theta - \phi)}{\cos \theta \text{sen}^2 \psi \text{sen} (\psi + \theta) \left[ 1 - \sqrt{\frac{\text{sen} \phi \text{sen} (\phi + \beta - \theta)}{\text{sen} (\psi + \beta) \text{sen} (\psi + \theta)}} \right]^2}$$

$$\tan \vartheta = \frac{k_h}{1 \mp k_v}$$

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unde

$\gamma$  = greutatea specifică a solului;

H = înălțimea verticală a zidului;

K = coeficientul de presiune seismică activă și pasivă a pământului;

$\phi$  = unghiul de frecare a solului;

$\delta$  = unghiul de frecare a zidului;

$\beta$  = înclinarea zidului față de verticală;

i = înclinarea terenului față de orizontală;

kh = coeficientul de accelerație seismică în direcție orizontală; kv = coeficientul de accelerație seismică în direcție verticală.

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## 6.4 Caracterizarea materialului și criteriul de verificare

### 6.4.1 Starea limită extremă

Valorile de proiectare ale cazurilor de sarcină se găsesc prin aplicarea coeficientului prezentat în tabelul următor, în conformitate cu EN 1990:2002 (E): Baza proiectării structurale.

Table A1.2(B) - Design values of actions (STR/GEO) (Set B)

Persistent and transient design situations	Permanent actions		Leading variable action	Accompanying variable actions (*)		Persistent and transient design situations	Permanent actions		Leading variable action (*)	Accompanying variable actions (*)	
	Unfavourable	Favourable		Main (if any)	Others		Unfavourable	Favourable		Action	Main
(Eq. 6.10)	$\gamma_{G,sup} G_{k1,sup}$	$\gamma_{G,inf} G_{k1,inf}$	$\gamma_{Q,1} Q_{k,1}$		$\gamma_{Q,i} \psi_{0,i} Q_{k,i}$	(Eq. 6.10a)	$\gamma_{G,sup} G_{k1,sup}$	$\gamma_{G,inf} G_{k1,inf}$		$\gamma_{Q,1} \psi_{0,1} Q_{k,1}$	$\gamma_{Q,i} \psi_{0,i} Q_{k,i}$
						(Eq. 6.10b)	$\xi \gamma_{G,sup} G_{k1,sup}$	$\gamma_{G,inf} G_{k1,inf}$	$\gamma_{Q,1} Q_{k,1}$		$\gamma_{Q,i} \psi_{0,i} Q_{k,i}$

(\*) Variable actions are those considered in Table A1.1

NOTE 1 The choice between 6.10, or 6.10a and 6.10b will be in the National annex. In case of 6.10a and 6.10b, the National annex may in addition modify 6.10a to include permanent actions only.

NOTE 2 The  $\gamma$  and  $\xi$  values may be set by the National annex. The following values for  $\gamma$  and  $\xi$  are recommended when using expressions 6.10, or 6.10a and 6.10b.  
 $\gamma_{G,sup} = 1,35$   
 $\gamma_{G,inf} = 1,00$   
 $\gamma_{Q,1} = 1,50$  where unfavourable (0 where favourable)  
 $\gamma_{Q,i} = 1,50$  where unfavourable (0 where favourable)  
 $\xi = 0,85$  (so that  $\xi \gamma_{G,sup} = 0,85 \times 1,35 \cong 1,15$ ).  
 See also EN 1991 to EN 1999 for  $\gamma$  values to be used for imposed deformations.

NOTE 3 The characteristic values of all permanent actions from one source are multiplied by  $\gamma_{G,sup}$  if the total resulting action effect is unfavourable and  $\gamma_{G,inf}$  if the total resulting action effect is favourable. For example, all actions originating from the self weight of the structure may be considered as coming from one source ; this also applies if different materials are involved.

NOTE 4 For particular verifications, the values for  $\gamma_G$  and  $\gamma_Q$  may be subdivided into  $\gamma_g$  and  $\gamma_q$  and the model uncertainty factor  $\gamma_{\delta,i}$ . A value of  $\gamma_{\delta,i}$  in the range 1,05 to 1,15 can be used in most common cases and can be modified in the National annex.

Verificările sunt efectuate pentru repetarea forțelor axiale de încovoiere (domeniul M-N) și a forțelor de forfecare. Diagrama parabolă-rectangulară de tensiune-deformație se presupune că descrie comportarea betonului ( $\epsilon_2 = 0,2\%$  și  $\epsilon_{cu} = 0,35\%$ ), plastică perfect elastică pentru armăturile din oțel ( $\epsilon_{yd} = 0,186\%$  și  $\epsilon_{su} = 1\%$ ). Rezistența betonului la tensiune a fost asumată ca fiind egală cu zero.

#### 6.4.2 Starea limită de deservire

Acțiunile de proiectare pentru starea limită de deservire sunt obținute aplicând coeficientul unitar la cazurile de sarcină persistentă. Pentru cazurile de sarcină accidentală sunt incluși coeficienții  $\psi_i$ , în conformitate cu Eurocod, pentru combinațiile frecvente și cvasi-permanente.

Verificarea diferitelor stări limită de deservire este efectuată ca limitare a tensiunilor și a lățimii crăpăturilor.

În conformitate cu EN 1992-1-1, conform condițiilor de sarcini de serviciu, este cerută limitarea eforturilor pentru:

- Eforturile de compresie în beton;
- Eforturile de întindere în oțel.

Eforturile de compresie în beton trebuie să fie mai mici de  $k_2 f_{ck}$  ( $k_2=0,45$ ), în timp ce tensiunea în barele de oțel poate fi  $k_3 f_{yk}$  ( $k_3=0,8$ ).

Starea limită de verificare a crăpăturilor presupune că trebuie să fie respectată următoarea verificare:

$$w_k \leq w_{lim}$$

Unde  $w_k$  denotă lățimea caracteristică a crăpăturii calculată așa cum se explică în EN 1992-1-1 paragraf 7.3.4 și fiind egală cu 0,3 mm.

Verificarea este efectuată asumând următorii parametri:

- $k_1=0,4$
- $k_2=0,8$
- $k_3=0,5$
- $f_{ctm}=3,2$  MPa

## 6.5 Metoda de calcul

A fost asumată metoda de reacție hiperstatică pentru a stabili acțiunile interne în căptușeala de beton prin modelul numeric de element finit monodimensional. Modelul a fost creat pentru a reprezenta o adâncime unitară (1,0 m) de tunel, precizând geometria secțiunii la elementele de grindă. Pentru a simula corect repetarea de structură-sol, pentru fiecare nod al modelului de element finit, se precizează suportii radiali de rigidizare. Valoarea de rigiditate se determină din modulul K de reacție a solului.

La radierul tunelului, K a fost calculat prin formula lui Galerkin pentru suprafață curbilinie după cum urmează:

$$K = E / [Re_q \times (1+\nu)] [F/L^3]$$

cu:

E = modulul de elasticitate a solului;

$\nu$  = coeficientul Poisson al solului;

Re<sub>q</sub> = raza echivalentă de curbură a tunelului.

La piloni, K a fost calculat cu formula Bussinesque pentru suprafață liniară după cum urmează:

$$K = E / [(1+\nu^2) \times B \times C_d] [F/L^3]$$

E = modulul de elasticitate a solului;

$\nu$  = coeficientul Poisson al solului;

B = lățimea elementului structural.

C<sub>d</sub> = coeficient de formă

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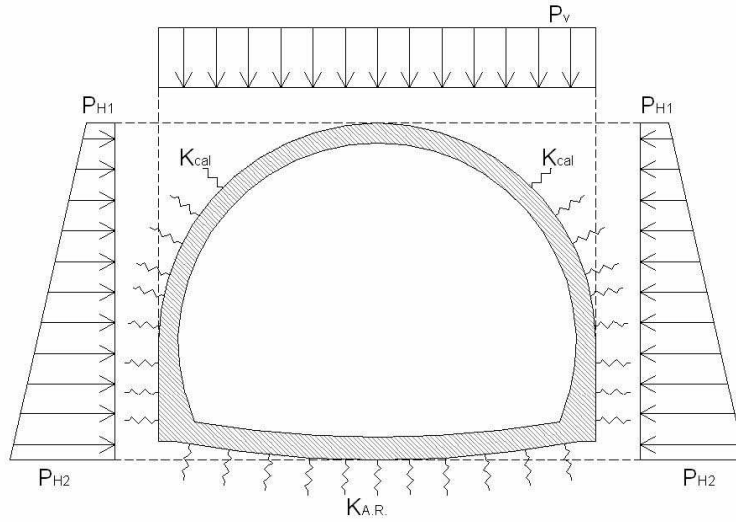
## 6.6 Cazuri analizate

În secțiunea tipică există o sarcină verticală uniformă și sarcini orizontale simetrice, toate definite ca permanente în conformitate cu Eurocod. Comportarea mecanică a solului este reprezentată prin suportii radiali, activi numai la compresie.

Tabelele următoare prezintă valorile sarcinilor și parametrilor folosiți în calcul:

USL			
Descriere	Simbol	U.M.	Valoar
Greutatea specifică a solului	$\gamma$	kN/m <sup>3</sup>	21
Raza tunelului	R	m	6,75
Modulul de elasticitate a solului	Ed	kN/m <sup>2</sup>	40000
Formula de rigiditate a lui Galerkin	Ka.r.	kN/m <sup>3</sup>	4558
Formula de rigiditate a lui Boussinesque	Kcal	kN/m <sup>3</sup>	17582
Presiunea activă a pământului (Caquot și Kerisel)	ka	-	0,33
Accelerația	ag	-	0,16
Coeficient care ia în considerare aspectele stratigrafice și topografice	S	-	1,50
Coeficient seismic orizontal	kh	-	0,240
Coeficient seismic vertical	kv	-	0,120
Presiunea dinamică a pământului (Mononobe și Okabe)	kas	-	0,59

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$P_v$	$P_{vw}$	$Ph1$	$Ph2$	$Phw1$	$phw2$	$\Delta S$
kPa	kPa	kPa	kPa	kPa	kPa	kPa
42	20	13,86	97,02	20	120	34



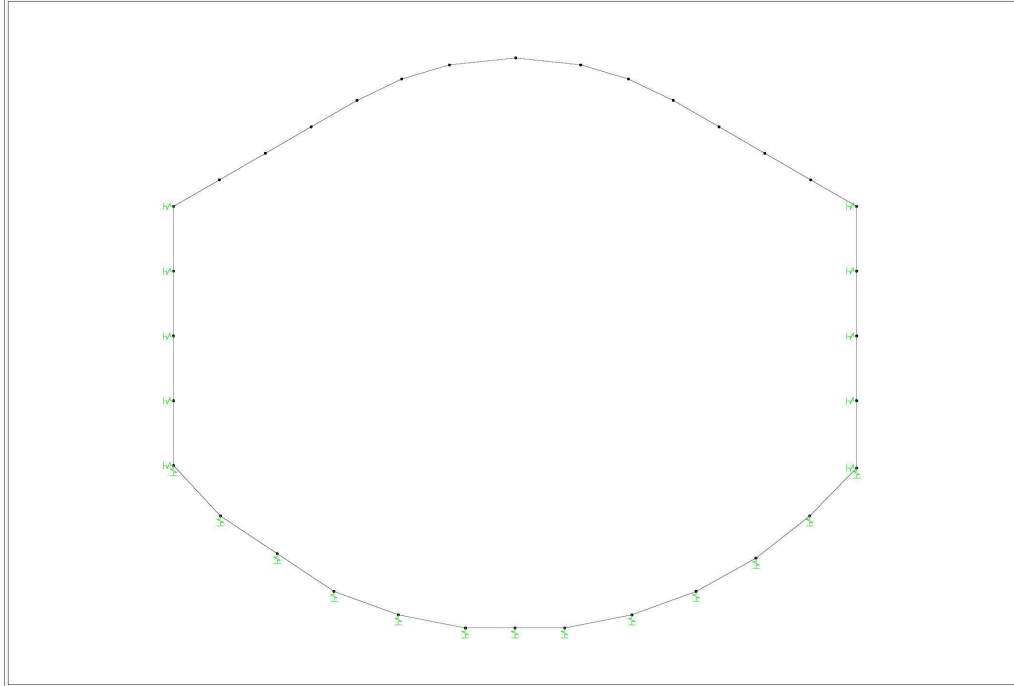


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### STAREA LIMITĂ EXTREMĂ - STATICĂ

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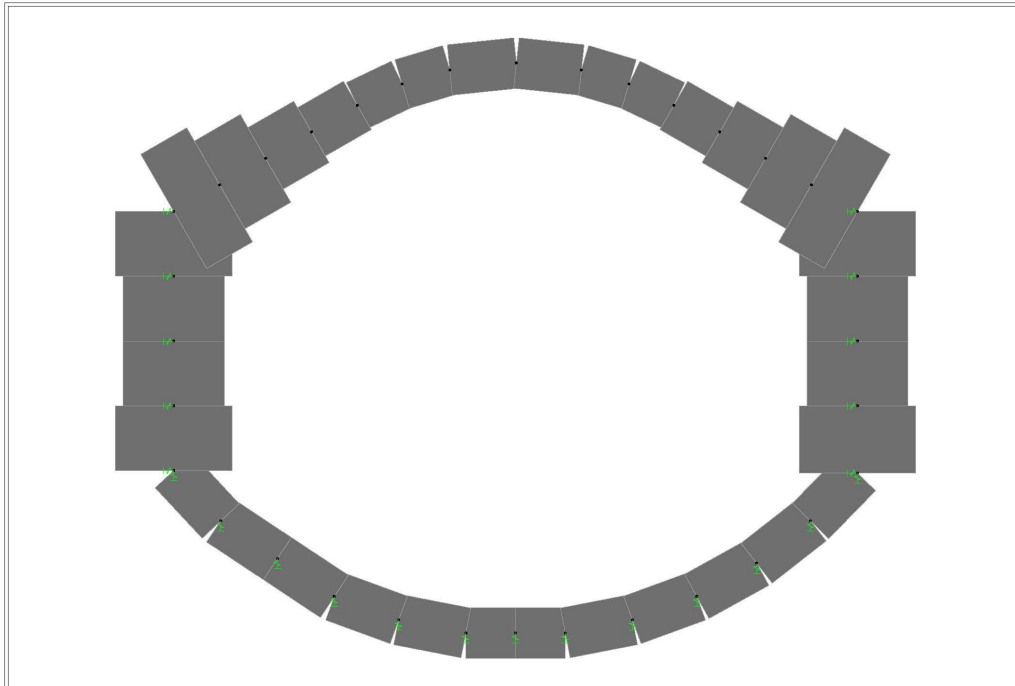
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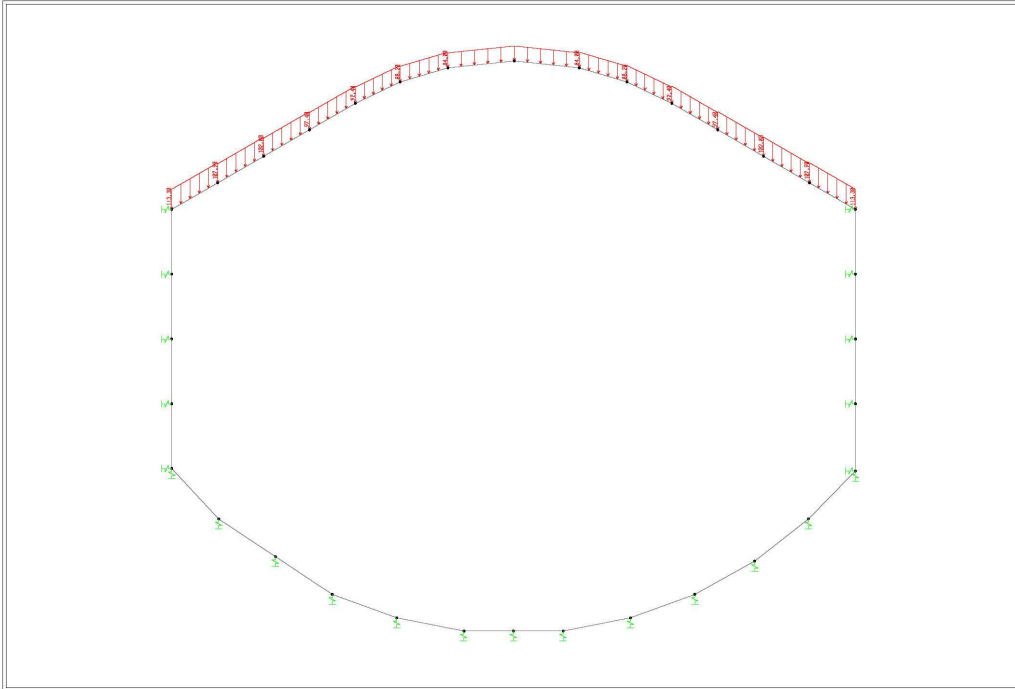


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REABILITAREA LINEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

SAP2000

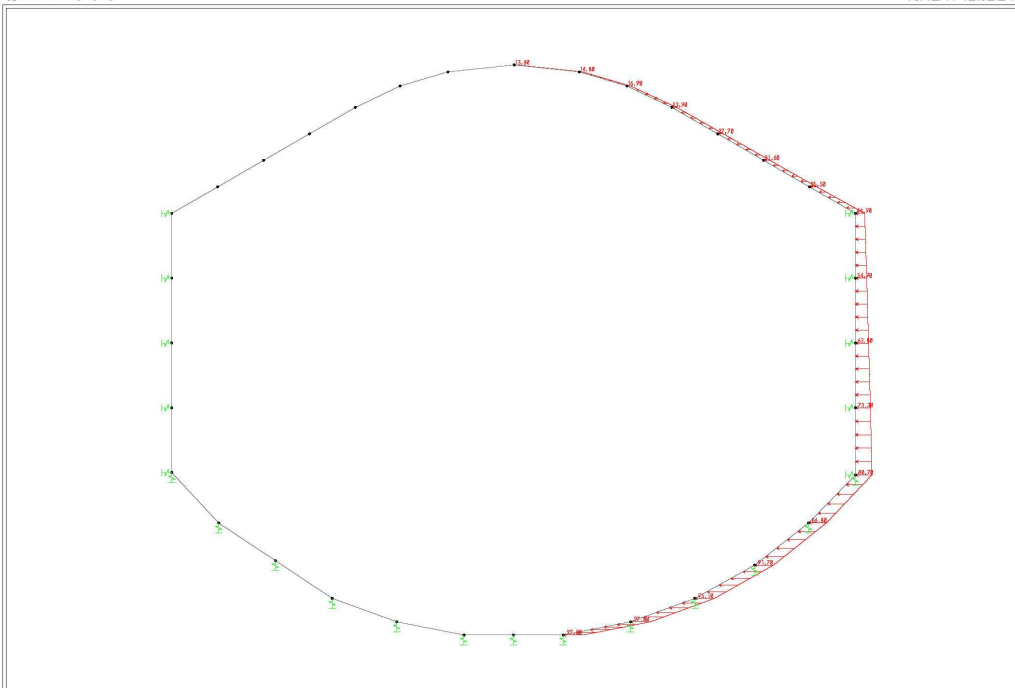
10/12/11 12:31:29



SAP2000 v14.2.2 - File:Mureni - Frame Span Loads (EARTH) (As Defined) - KN, m, C Units

SAP2000

10/12/11 12:32:24

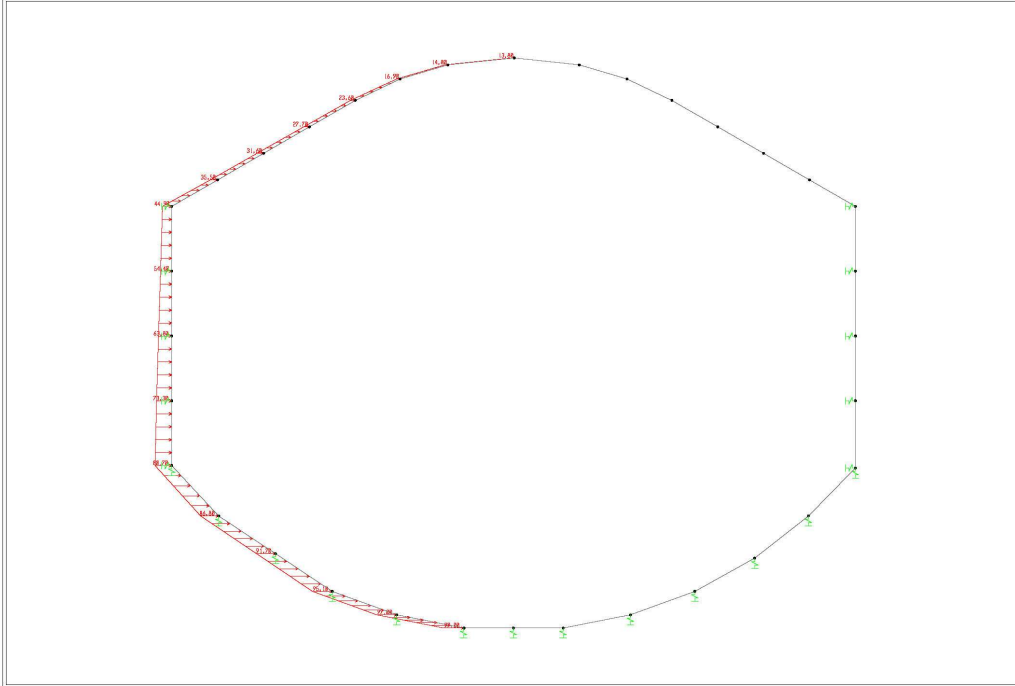


SAP2000 v14.2.2 - File:Mureni - Frame Span Loads (EARTH\_PRESSURED) (As Defined) - KN, m, C Units

REABILITAREA LINEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

SAP2000

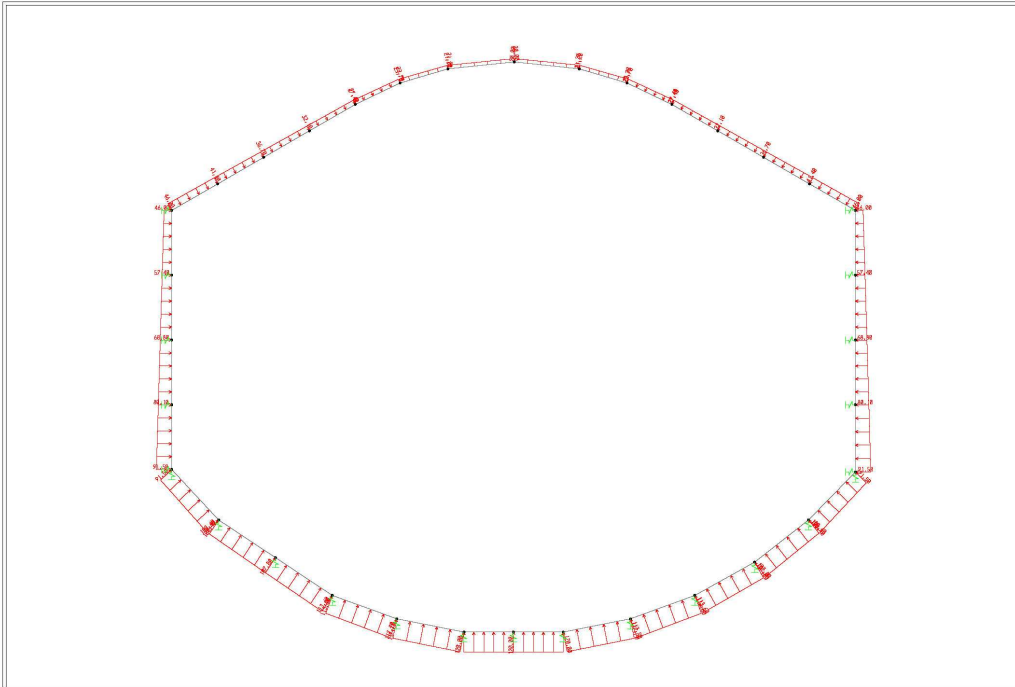
10/12/11 12:33:32



SAP2000 v14.2.2 - File:Mureni - Frame Span Loads (EARTH\_PRESSUREX) (As Defined) - KN, m, C Units

SAP2000

10/12/11 12:34:33



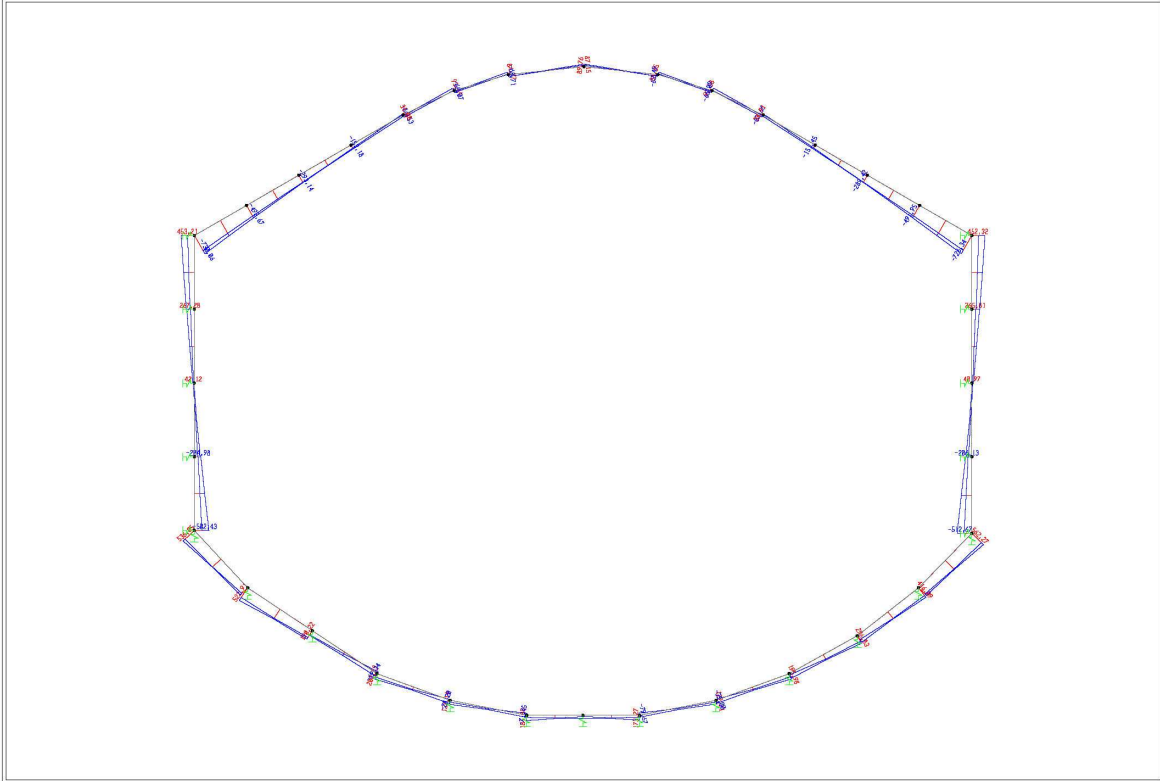
SAP2000 v14.2.2 - File:Mureni - Frame Span Loads (HYDROSTATIC) (As Defined) - KN, m, C Units



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

SAP2000

11/7/11 9:39:35



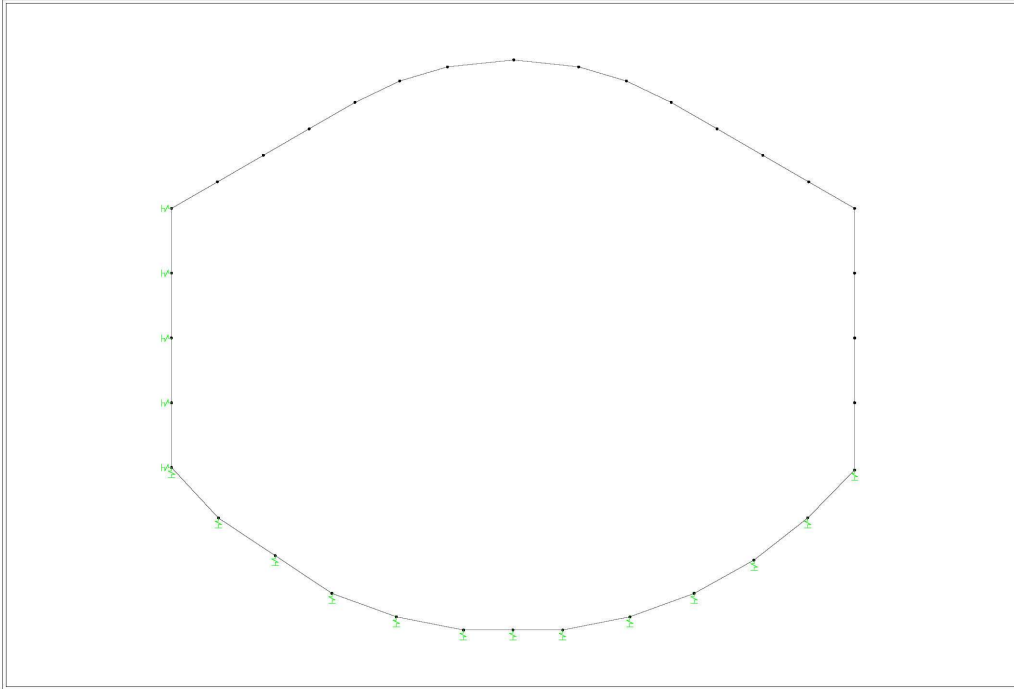
SAP2000 v14.2.2 - File:Mureni - Shear Force 2-2 Diagram (ENVELOPE\_ULS) - KN, m, C Units

REABILITAREA LINEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### STAREA LIMITĂ EXTREMĂ - SEISMICĂ

SAP2000

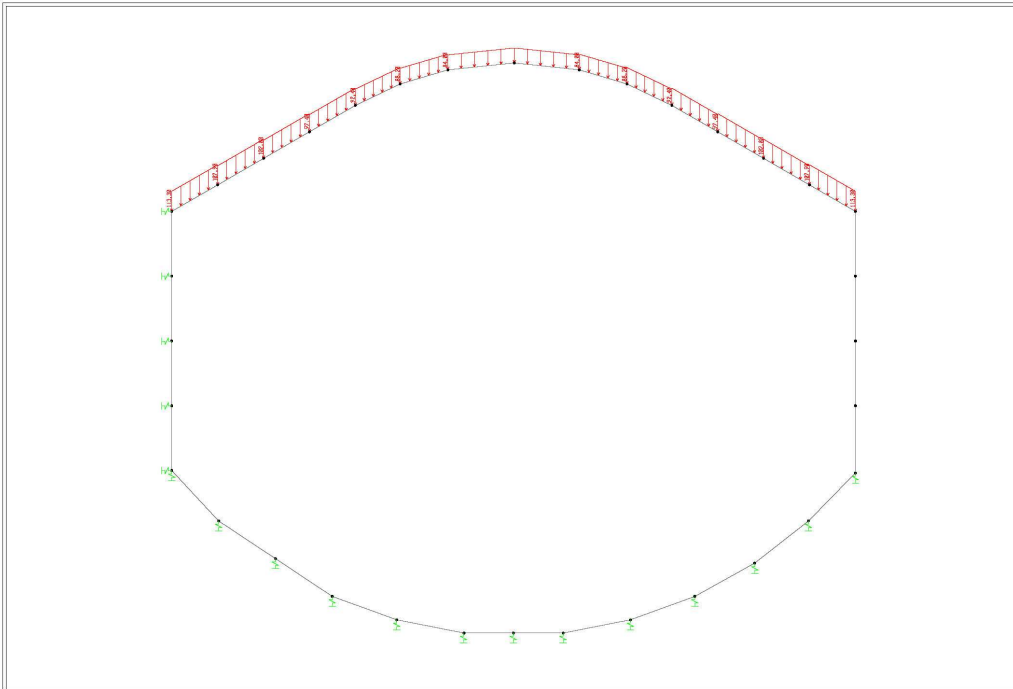
10/12/11 12:36:25



SAP2000 v14.2.2 - File:Mureni Seismic - X-Z Plane @ Y=0 - KN, m, C Units

SAP2000

10/12/11 12:45:37

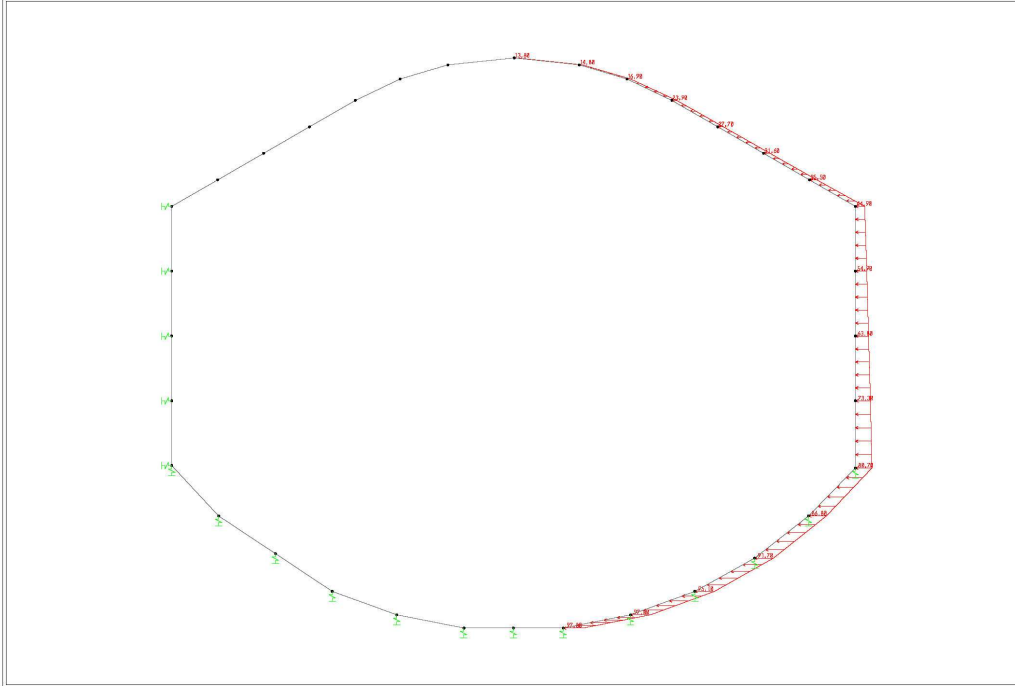


SAP2000 v14.2.2 - File:Mureni Seismic - Frame Span Loads (EARTH) (As Defined) - KN, m, C Units

REABILITAREA LINEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

SAP2000

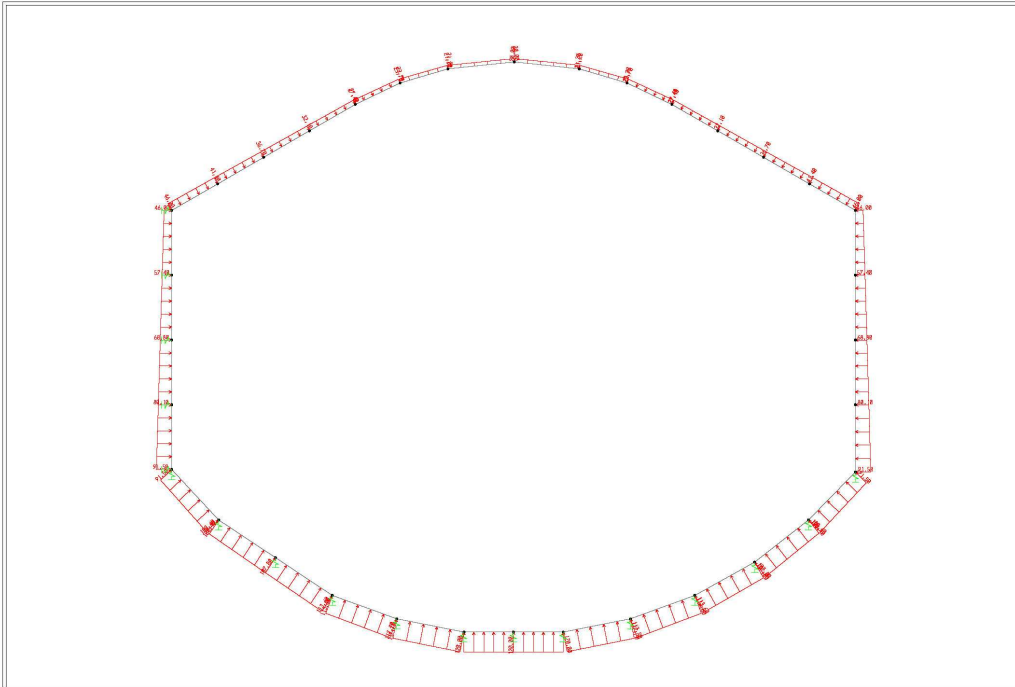
10/12/11 12:46:35



SAP2000 v14.2.2 - File:Mureni Seismic - Frame Span Loads (EARTH\_PRESSUREDX) (As Defined) - KN, m, C Units

SAP2000

10/12/11 12:47:55

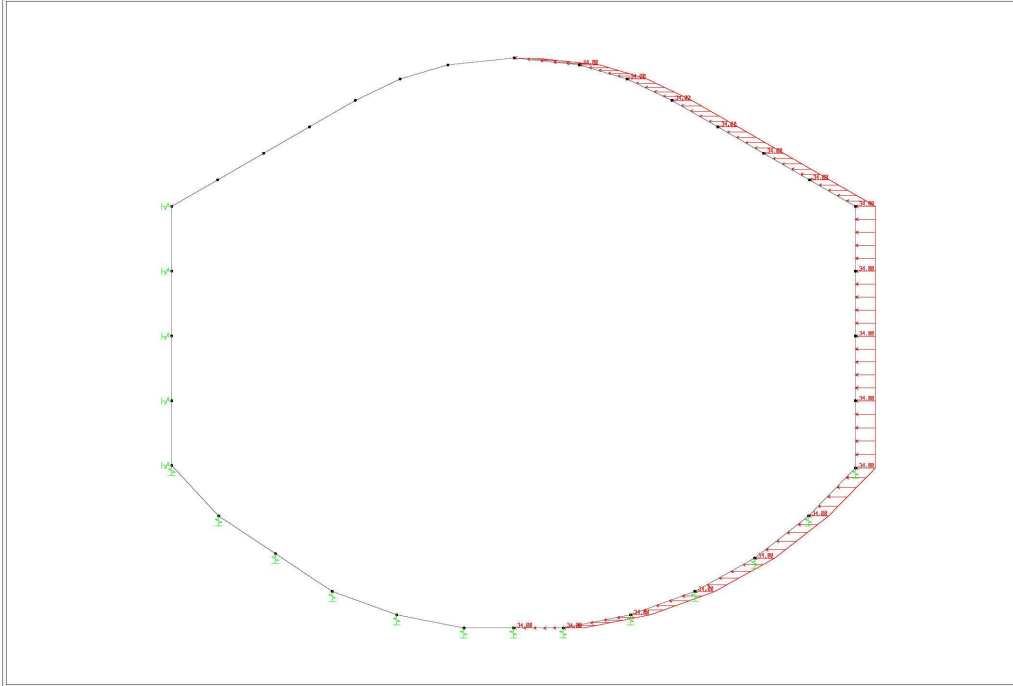


SAP2000 v14.2.2 - File:Mureni Seismic - Frame Span Loads (HYDROSTATIC) (As Defined) - KN, m, C Units

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

SAP2000

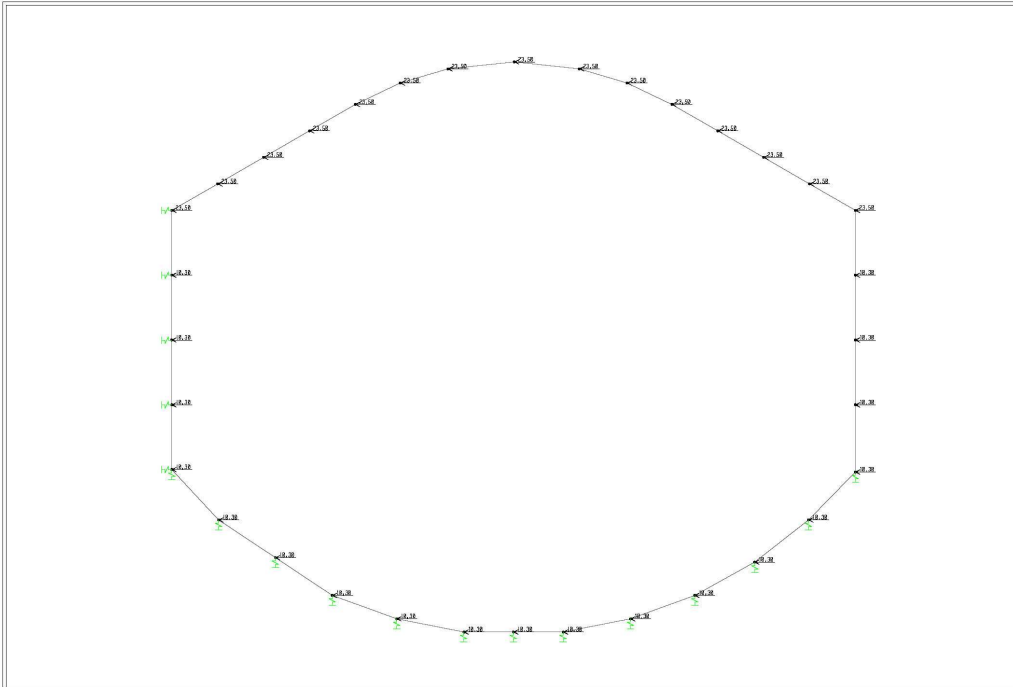
10/12/11 12:50:04



SAP2000 v14.2.2 - File:Mureni Seismic - Frame Span Loads (DINAMIC EARTH PRESSURE) (As Defined) - KN, m, C Units

SAP2000

10/12/11 12:55:05



SAP2000 v14.2.2 - File:Mureni Seismic - Joint Loads (INERTIA) (As Defined) - KN, m, C Units

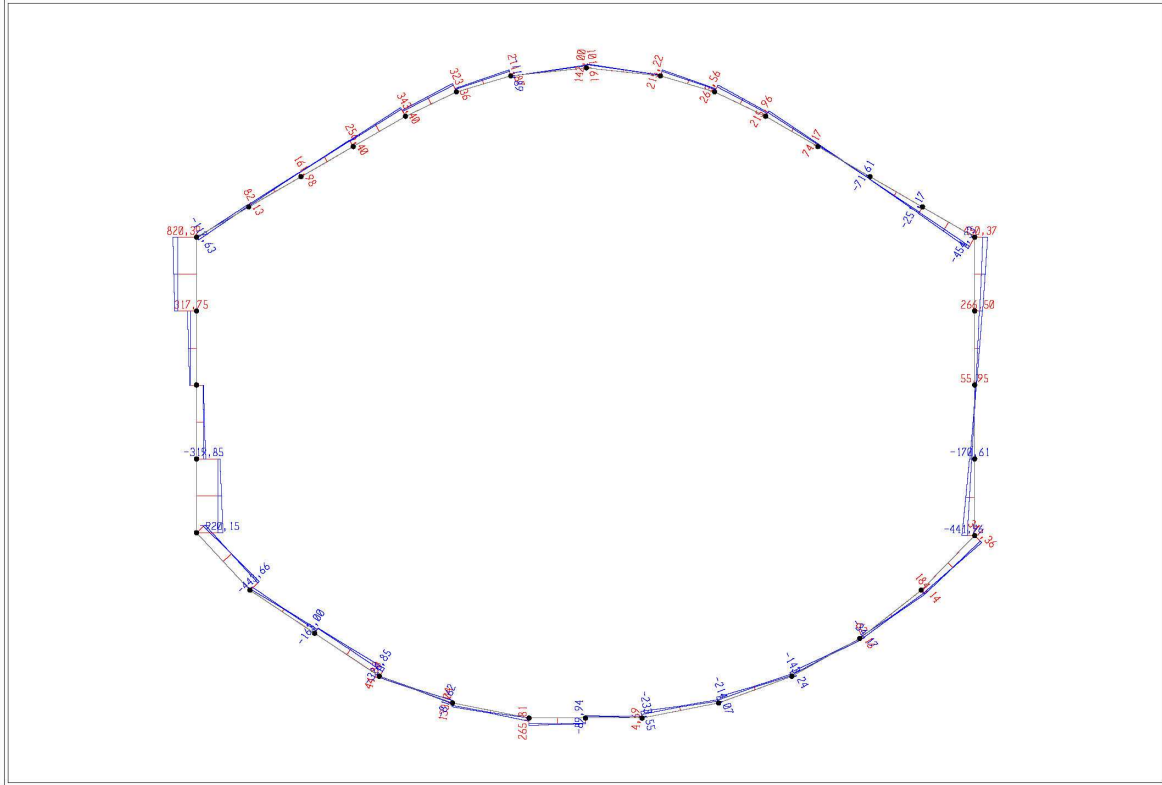




REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

SAP2000

11/7/11 9:46:34



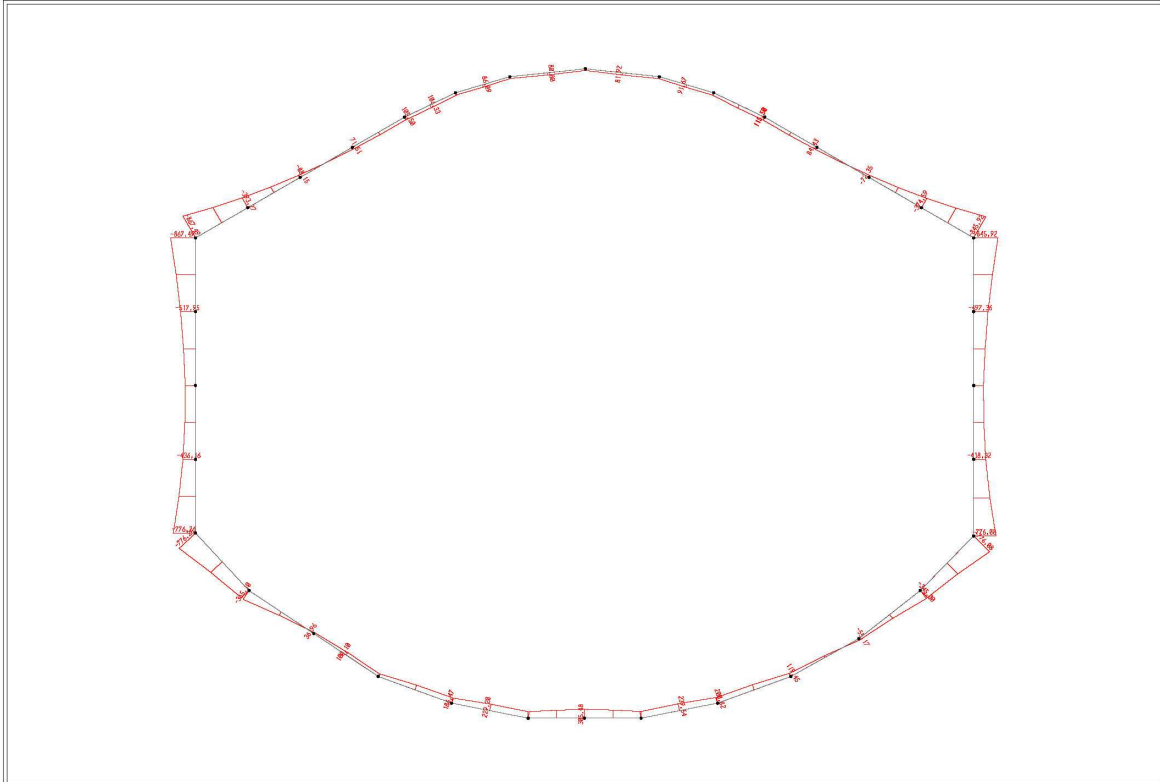
SAP2000 v14.2.2 - File:Mureni Seismic - Shear Force 2-2 Diagram (ENVELOPE\_ULS) - KN, m, C Units

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

### STAREA LIMITĂ DE DESERVIRE

SAP2000

11/7/11 9:48:22



SAP2000 v14.2.2 - File:Mureni - Moment 3-3 Diagram (SLS) - KN, m, C Units



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

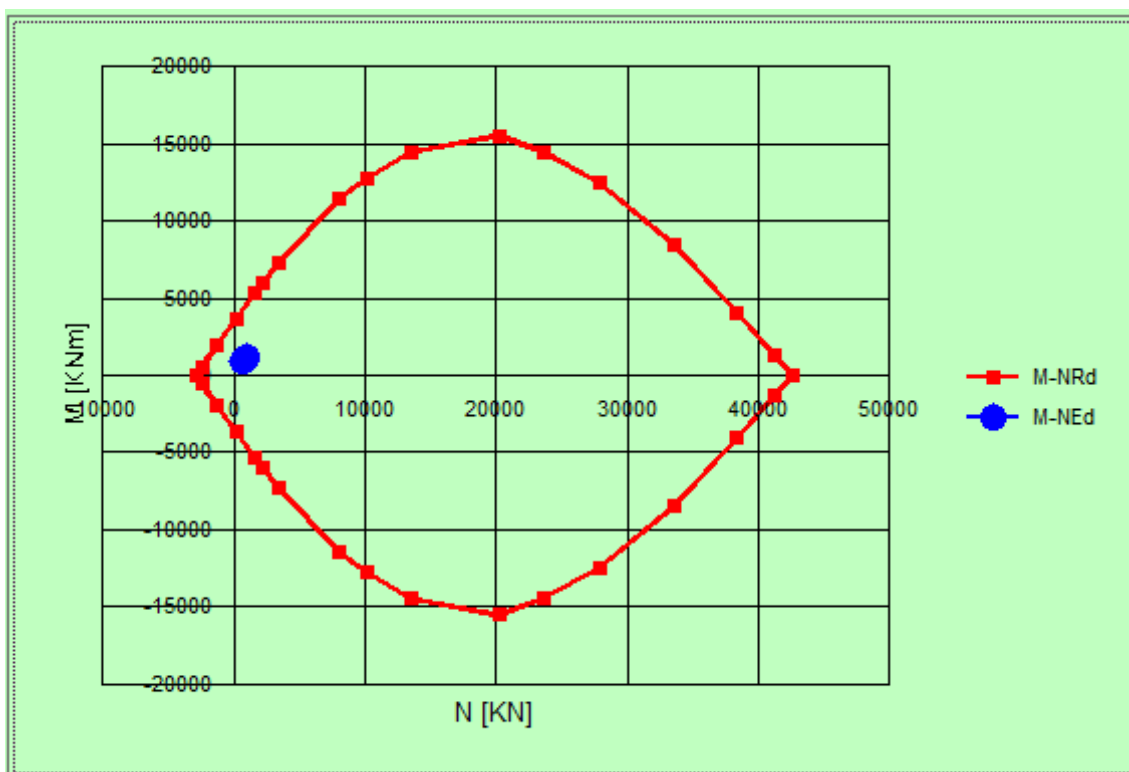
Secțiunea	B	H	ULS STATIC			ULS SEISMIC			SLS		
	cm	cm									
1	100	250	M=	1111	kNm	M=	690	kNm	M=	868	kNm
			N=	833	kN	N=	637	kN	N=	706	kN
			T=	453	kN	T=	820	kN	T=	541	kN
2	100	200	M=	862	kNm	M=	2033	kNm	M=	518	kNm
			N=	1202	kN	N=	766	kN	N=	890	kN
			T=	267	kN	T=	270	kN	T=	198	kN
3	100	100	M=	1048	kNm	M=	582	kNm	M=	776	kNm
			N=	897	kN	N=	1421	kN	N=	993	kN
			T=	536	kN	T=	335	kN	T=	397	kN
4	100	100	M=	503	kNm	M=	376	kNm	M=	305	kNm
			N=	1127	kN	N=	1731	kN	N=	1346	kN
			T=	182	kN	T=	189	kN	T=	40	kN

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

## 6.8 Verificări structurale ULS

### Secțiunea 1

Caracteristici			
Materiale			
C 30/37			
fcd	Mpa	15,87	
B450C			
fyd	MPa	391	
Secțiunea			
b	cm	100	
h	cm	250	
As	cm <sup>2</sup>	37,17	7 $\phi$ 26
A's	cm <sup>2</sup>	37,17	7 $\phi$ 26
c	cm	5	
d	cm	245	
<b>Mrd</b>	<b>kN*m</b>	<b>4831</b>	



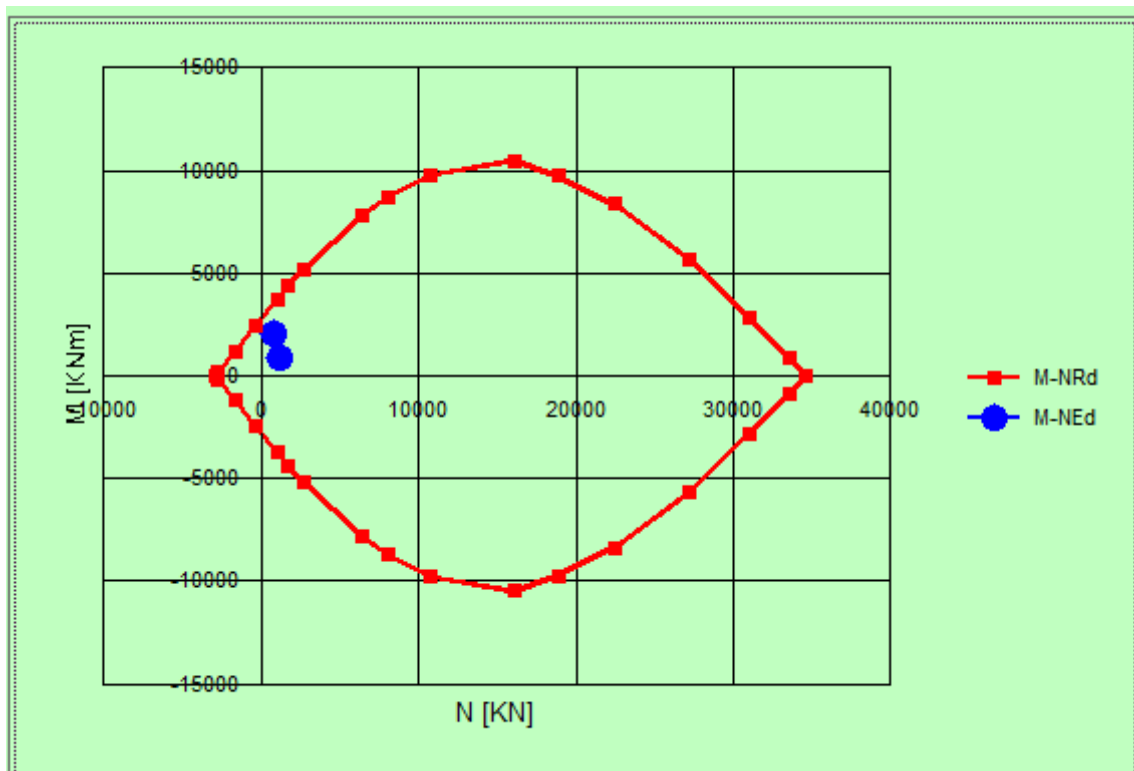
REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Caracteristici		
Materiale		
C 30/37		
fcd	Mpa	17
B450C		
fyd	MPa	391
Secțiune		
b	cm	100
h	cm	250
As	cm <sup>2</sup>	37,17
A's	cm <sup>2</sup>	37,17
c	cm	5
d	cm	245
Tsd	kN*m	820
V <sub>Rd1</sub>	kN	674 < 820
		Necesară armătură de forfecare
ctgθ =		2,5
θ	(°)	21,8
Ast	cm <sup>2</sup> /m	16,08 (2φ16/25 cm)
V <sub>Rsd</sub>	kN	3469
V <sub>Rcd</sub>	kN	6258
<b>VRdu</b>	<b>kN</b>	<b>3469</b>

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Sectiunea 2

Caracteristici			
Materiale			
C 30/37			
fcd	Mpa	17	
B450C			
fyd	MPa	391	
Secțiune			
b	cm	100	
h	cm	200	
As	cm <sup>2</sup>	37,17	7 φ 26
A's	cm <sup>2</sup>	37,17	7 φ 26
c	cm	5	
d	cm	195	
<b>Mrd</b>	<b>kN*m</b>	<b>3914</b>	





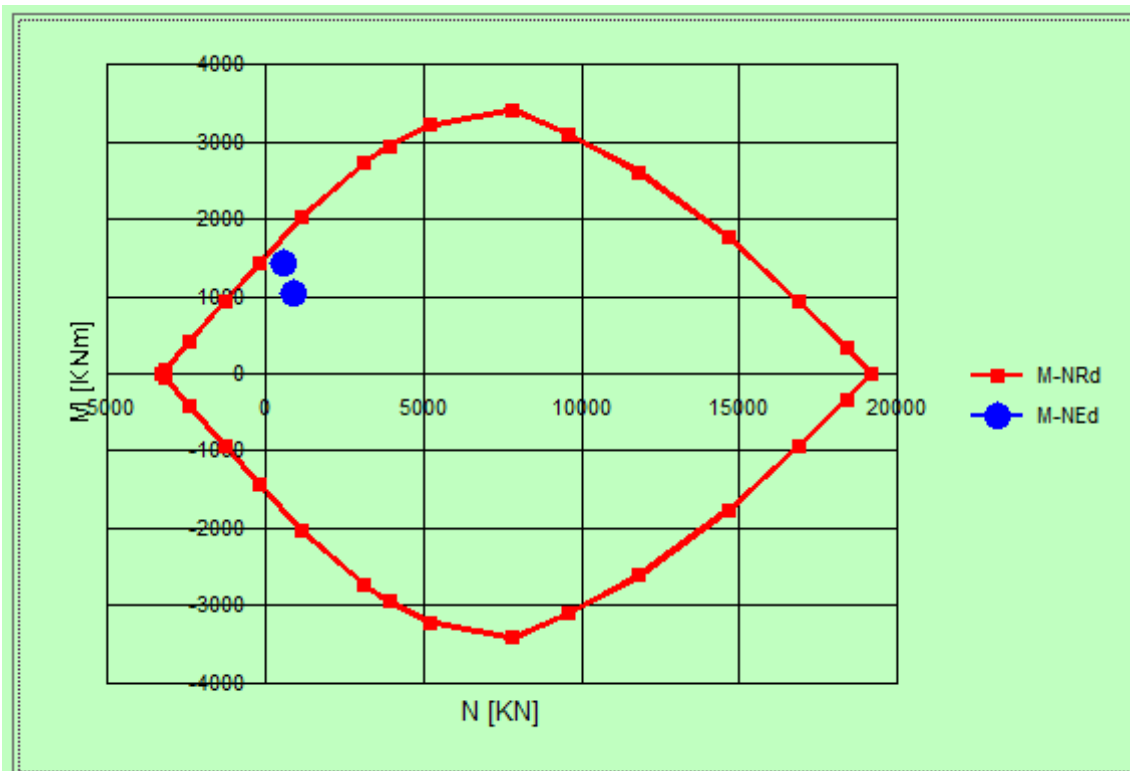
REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Caracteristici		
Materiale		
C 30/37		
fcd	Mpa	17
B450C		
fyd	MPa	391
Secțiune		
b	cm	100
h	cm	200
As	cm <sup>2</sup>	37,17
A's	cm <sup>2</sup>	37,17
c	cm	5
d	cm	195
Tsd	kN*m	270
V <sub>Rd1</sub>	kN	558 >270
		Nu este necesară armătură de forfecare

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Sectiunea 3

Caracteristici			
Materiale			
C 30/37			
fcd	Mpa	17	
B450C			
fyd	MPa	391	
Secțiune			
b	cm	100	
h	cm	100	
As	cm <sup>2</sup>	42,47	8 φ 26
A's	cm <sup>2</sup>	42,47	8 φ 26
c	cm	5	
d	cm	95	
<b>Mrd</b>	<b>kN*m</b>	<b>1913</b>	



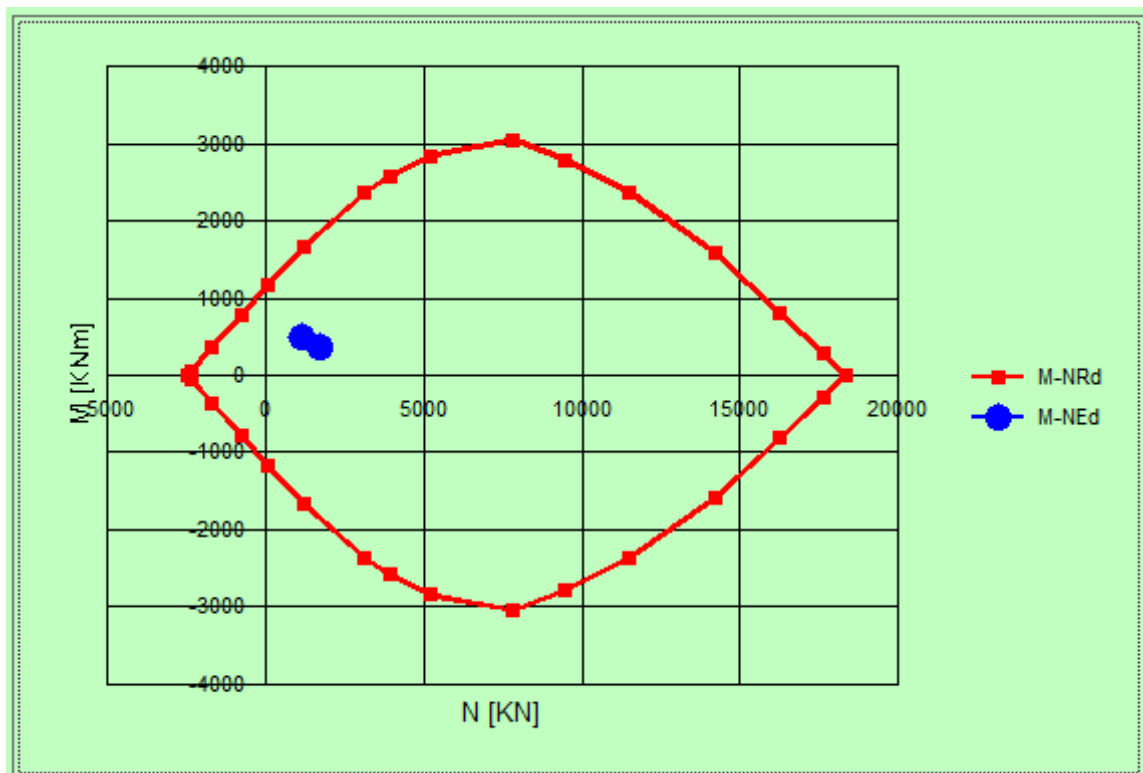
REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Caracteristici		
Materiale		
C 30/37		
fcd	Mpa	17
B450C		
fyd	MPa	391
Secțiune		
b	cm	100
h	cm	100
As	cm <sup>2</sup>	42,47
A's	cm <sup>2</sup>	42,47
c	cm	5
d	cm	95
Tsd	kN*m	536
V <sub>Rd1</sub>	kN	391 < 536
		Necesară armătură de forfecare
ctgθ =		2,5
θ	( ° )	21,8
Ast	cm <sup>2</sup> /m	16,08 (2φ16/25 cm)
V <sub>Rsd</sub>	kN	1345
V <sub>Rcd</sub>	kN	2426
<b>VRdu</b>	<b>kN</b>	<b>1345</b>

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Sectiunea 4

Caracteristici			
Materiale			
C 28/35			
fcd	Mpa	15,87	
B450C			
fyd	MPa	391	
Secțiune			
b	cm	100	
h	cm	100	
As	cm <sup>2</sup>	31,86	6 φ 26
A's	cm <sup>2</sup>	31,86	6 φ 26
c	cm	5	
d	cm	95	
<b>Mrd</b>	<b>kN*m</b>	<b>1366</b>	



REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Caracteristici		
Materiale		
C 25/35		
fcd	Mpa	15,87
B450C		
fyd	MPa	391
Secțiune		
b	cm	100
h	cm	100
As	cm <sup>2</sup>	31,86
A's	cm <sup>2</sup>	31,86
c	cm	5
d	cm	95
Tsd	kN*m	189
V <sub>Rd1</sub>	kN	355 > 189
		Nu este necesară armătură de forfecare

## 6.9 Verificări SLS

Secțiune	B	H	Armătură		M	N	σs
			n.	n.			
1	100	250	7φ26	7φ26	868	706	22,65
2	100	200	7φ26	7φ26	518	890	5,95
3	100	100	8φ26	8φ26	776	993	112
4	100	100	6φ26	6φ26	305	1346	2,31

REABILITAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

Referință 1992-1-1 paragraf 7.3

h	1000	[mm]
b	1000	[mm]
d	950	[mm]
d'	50	[mm]
c	37	[mm]
n <sub>f,1</sub>	8	[-]
φ <sub>f,1</sub>	26	[mm]
A <sub>sf,1</sub>	4247	[mm <sup>2</sup> ]
f <sub>ck</sub>	35	[MPa]
f <sub>ctm</sub>	3,2	[MPa]
E <sub>cm</sub>	34077	[MPa]
f <sub>yk</sub>	450	[MPa]
E <sub>s</sub>	200000	[MPa]
σ <sub>s</sub>	112	[MPa]
x	40,87	[mm]
α <sub>e</sub>	5,87	[-]
A <sub>s</sub>	4247	[mm <sup>2</sup> ]
A <sub>c,eff.1</sub>	125000	[mm <sup>2</sup> ]
A <sub>c,eff.2</sub>	319710	[mm <sup>2</sup> ]
A <sub>c,eff.3</sub>	500000	[mm <sup>2</sup> ]
A <sub>c,eff.min</sub>	125000	[mm <sup>2</sup> ]
ρ <sub>p,eff</sub>	0,03398	[-]
f <sub>ct,eff</sub>	3,2	[MPa]
k <sub>t</sub>	0,4	[-]
[ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>min</sub>	0,000336	[-]
[ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>calc.</sub>	0,000333	[-]
<b>[ε<sub>sm</sub>-ε<sub>cm</sub>]</b>	<b>0,000336</b>	<b>[-]</b>
s	125	[mm]
φ <sub>eq</sub>	26,00	[mm]
s <sub>max,rif</sub>	250	[mm]
k <sub>1</sub>	0,800	[-]
k <sub>2</sub>	1,000	[-]
k <sub>3</sub>	3,400	[-]
k <sub>4</sub>	0,425	[-]
s <sub>r,max.1</sub>	386	[mm]
s <sub>r,max.2</sub>	1247	[mm]
<b>s<sub>r,max</sub></b>	<b>386</b>	<b>[mm]</b>
w <sub>k,lim</sub>	0,30	[mm]
<b>w<sub>k</sub></b>	<b>0,13</b>	<b>[mm]</b>

REABILITATAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

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## **7 CONCLUZII**

În acest raport ne ocupăm cu problemele de proiectare referitoare la implementarea lucrărilor de construcții ale intrărilor de tunel de-a lungul aliniamentului de cale ferată Brașov – Sighișoara ce aparține rețelei de căi ferate ale Coridorului IV Pan European. Evaluările efectuate au confirmat valabilitatea soluțiilor de proiectare adoptate, cu referire atât la structurile temporare cât și la cele permanente. Verificările statice efectuate au arătat solicitări ale materialului mai mici decât valorile permisibile conform regulilor.

REABILITATAREA LINIEI DE CALE FERATĂ BRASOV – SIMERIA, PARTE COMPONENTĂ A CORIDORULUI IV PAN-EUROPEAN PENTRU CIRCULAȚIA TRENURILOR CU VITEZA MAXIMĂ DE 160 KM/H.

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## Anexă





## ELENCO DEI DATI DI INPUT(PARAGEN)

Per il significato dei vari comandi  
si faccia riferimento al manuale di  
input PARAGEN, versione 7.00.

## N. comando

```
1: * Paratie for Windows version 7.0
2: * Filename= <c:\users\tecnico5\desktop\nuova cartella (3)\file
  paratie\str al+m1
3: * project with "run time" parameters
4: * Force=kN Lenght=m
5: *
6: units m kN
7: title History 0 - MURENI
8: delta 0.2
9: option param itemax 20
10: option noprint echo
11: option noprint displ
12: option noprint react
13: option noprint stresses
14:   wall RightWall 0 -30 0
15: *
16: soil DHRight RightWall -30 0 2 0
17: soil UHRight RightWall -30 0 1 180
18: *
19: material Pali 3.2308E+007
20: material Acciaio 2.1E+008
21: *
22: beam Right_wall RightWall -22 0 Pali 0.979439 00 00
23: *
24: wire Wire1 RightWall -0.5 Acciaio 2.87179E-005 150 157.5
25: wire Wire2 RightWall -4 Acciaio 4.30769E-005 150 157.5
26: wire Wire3 RightWall -8 Acciaio 4.30769E-005 300 157.5
27: *
28: * Soil Profile
29: *
30:   ldata           Soil 0
31:     weight        19 9 10
32:     atrest        1 0.5 1
33:     resistance    10 27 0.33 3.701
34:     young         250000 300000
35:   endlayer
36:   ldata           Soil2 -10
37:     weight        19 9 10
38:     atrest        1 0.5 1
```

PARATIE 7.00  
15 NOVEMBRE 2011 17:57:04  
History 0 - MURENI

Ce.A.S. s.r.l. - Milano

PAG. 3

N. comando

```
39:      resistance 10 27 0.33 3.701
40:      young      250000 300000
41:      endlayer
42: *
43: step 1 :
44:      setwall RightWall
45:      geom 0 -0.5
46:      add Wire1
47: endstep
48: *
49: step 2 :
50:      setwall RightWall
51:      geom 0 -4
52:      water -2 2
53: endstep
54: *
55: step 3 :
56:      setwall RightWall
57:      add Wire2
58: endstep
59: *
60: step 4 :
61:      setwall RightWall
62:      geom 0 -8.5
63:      water -2 6.5
64: endstep
65: *
66: step 5 :
67:      setwall RightWall
68:      add Wire3
69: endstep
70: *
71: step 6 :
72:      setwall RightWall
73:      geom 0 -8.95
74:      water -2 6.95
75:      surcharge 23 0 0 0
76: endstep
77: *
78: *
```

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 1

LAYER Soil

natura 1=granulare, 2=argilla	= 1.0000		
quota superiore	= 0.0000	m	
quota inferiore	= -10.000	m	
peso fuori falda	= 19.000	kN/m <sup>3</sup>	
peso efficace in falda	= 9.0000	kN/m <sup>3</sup>	
peso dell'acqua	= 10.000	kN/m <sup>3</sup>	
coesione	= 10.000	kPa	(A MONTE)
angolo di attrito	= 27.000	DEG	(A MONTE)
coeff. spinta attiva ka	= 0.33000		(A MONTE)
coeff. spinta passiva kp	= 3.7010		(A MONTE)
Konc normal consolidato	= 1.0000		
esponente di OCR	= 0.50000		
OCR: grado di sovraconsolidazione	= 1.0000		
modello di rigidezza	= 1.0000		
modulo el. compr. vergine	= 0.25000E+06	kPa	
modulo el. scarico/ricarico	= 0.30000E+06	kPa	
natura 1=granulare, 2=argilla	= 1.0000		(A VALLE)
coesione	= 10.000	kPa	(A VALLE)
angolo di attrito	= 27.000	DEG	(A VALLE)
coeff. spinta attiva ka	= 0.33000		(A VALLE)
coeff. spinta passiva kp	= 3.7010		(A VALLE)

LAYER Soil2

natura 1=granulare, 2=argilla	= 1.0000		
quota superiore	= -10.000	m	
quota inferiore	= -0.10000E+31	m	
peso fuori falda	= 19.000	kN/m <sup>3</sup>	
peso efficace in falda	= 9.0000	kN/m <sup>3</sup>	
peso dell'acqua	= 10.000	kN/m <sup>3</sup>	
coesione	= 10.000	kPa	(A MONTE)
angolo di attrito	= 27.000	DEG	(A MONTE)
coeff. spinta attiva ka	= 0.33000		(A MONTE)
coeff. spinta passiva kp	= 3.7010		(A MONTE)
Konc normal consolidato	= 1.0000		
esponente di OCR	= 0.50000		
OCR: grado di sovraconsolidazione	= 1.0000		
modello di rigidezza	= 1.0000		
modulo el. compr. vergine	= 0.25000E+06	kPa	
modulo el. scarico/ricarico	= 0.30000E+06	kPa	
natura 1=granulare, 2=argilla	= 1.0000		(A VALLE)
coesione	= 10.000	kPa	(A VALLE)

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RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 1

angolo di attrito	=	27.000	DEG	(A VALLE)
coeff. spinta attiva ka	=	0.33000		(A VALLE)
coeff. spinta passiva kp	=	3.7010		(A VALLE)

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 2

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 3

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 4

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 5

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 6

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO DATI RELATIVI ALLA FASE 1

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-0.50000	m
quota della falda	=	-0.99900E+30	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	0.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 2

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-4.0000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	2.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 3

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-4.0000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa

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## RIASSUNTO DATI RELATIVI ALLA FASE 3

quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	2.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.0000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 4

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-8.5000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	6.5000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.0000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 5

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-8.5000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	6.5000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.0000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 6

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WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-8.9500	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	23.000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	6.9500	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	0.0000	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)



RIASSUNTO ELEMENTI

=====

RIASSUNTO ELEMENTI SOIL						
Name	Wall	Z1	Z2	Flag	Angle	
		m	m		deg	
DHRight	RightWall	0.	-30.00	DOWNHILL	0.	
UHRight	RightWall	0.	-30.00	UPHILL	180.0	

RIASSUNTO ELEMENTI BEAM						
Name	Wall	Z1	Z2	Mat	thick	
		m	m		m	
Right_wall	RightWall	0.	-22.00	_	0.9794	

RIASSUNTO ELEMENTI WIRE						
Name	Wall	Zeta	Mat	A/L	Pinit	Angle
		m			kN/m	deg
Wire1	RightWall	-.5000	_	0.2872E-04	150.0	157.5
Wire2	RightWall	-4.000	_	0.4308E-04	150.0	157.5
Wire3	RightWall	-8.000	_	0.4308E-04	300.0	157.5

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RIASSUNTO DATI VARI  
=====

MATERIALI	
Name	YOUNG MODULUS
	kPa
Pali	3.2308E+007
Acci	2.1E+008

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RIASSUNTO ANALISI INCREMENTALE

FASE	N. DI ITERAZIONI	CONVERGENZA
1	4	SI
2	2	SI
3	3	SI
4	5	SI
5	2	SI
6	3	SI

## MASSIMI SPOSTAMENTI LATERALI

\*TUTTI I PASSI\*

\* PARETE RightWall\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

\* NOTA: LE QUOTE ESPRESSE IN m

E GLI SPOSTAMENTI IN m

NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
1	0.0000	0.98913E-03	4
2	-0.20000	0.85128E-03	4
3	-0.40000	0.71341E-03	4
4	-0.50000	0.64446E-03	4
5	-0.70000	0.50654E-03	4
6	-0.90000	0.38531E-03	1
7	-1.1000	0.34993E-03	1
8	-1.3000	-0.35798E-03	6
9	-1.5000	-0.46351E-03	6
10	-1.7000	-0.56778E-03	6
11	-1.9000	-0.67062E-03	6
12	-2.1000	-0.77188E-03	6
13	-2.3000	-0.87144E-03	6
14	-2.5000	-0.96920E-03	6
15	-2.7000	-0.10651E-02	6
16	-2.9000	-0.11591E-02	6
17	-3.1000	-0.12511E-02	6
18	-3.3000	-0.13412E-02	6
19	-3.5000	-0.14293E-02	6
20	-3.7000	-0.15155E-02	6
21	-3.9000	-0.15998E-02	6
22	-4.0000	-0.16412E-02	6
23	-4.2000	-0.17227E-02	6
24	-4.4000	-0.18108E-02	4
25	-4.6000	-0.19158E-02	4
26	-4.8000	-0.20173E-02	4
27	-5.0000	-0.21150E-02	4
28	-5.2000	-0.22085E-02	4
29	-5.4000	-0.22975E-02	4
30	-5.6000	-0.23816E-02	4
31	-5.8000	-0.24605E-02	4
32	-6.0000	-0.25339E-02	4
33	-6.2000	-0.26017E-02	4
34	-6.4000	-0.26636E-02	4
35	-6.6000	-0.27194E-02	4
36	-6.8000	-0.27689E-02	4
37	-7.0000	-0.28122E-02	4
38	-7.2000	-0.28490E-02	4

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
39	-7.4000	-0.28794E-02	4
40	-7.6000	-0.29034E-02	4
41	-7.8000	-0.29211E-02	4
42	-8.0000	-0.29324E-02	4
43	-8.2000	-0.29377E-02	4
44	-8.4000	-0.29369E-02	4
45	-8.6000	-0.29305E-02	4
46	-8.8000	-0.29186E-02	4
47	-9.0000	-0.29016E-02	4
48	-9.2000	-0.28799E-02	4
49	-9.4000	-0.28536E-02	4
50	-9.6000	-0.28233E-02	4
51	-9.8000	-0.27892E-02	4
52	-10.000	-0.27518E-02	4
53	-10.200	-0.27115E-02	4
54	-10.400	-0.26685E-02	4
55	-10.600	-0.26234E-02	4
56	-10.800	-0.26008E-02	6
57	-11.000	-0.25792E-02	6
58	-11.200	-0.25558E-02	6
59	-11.400	-0.25307E-02	6
60	-11.600	-0.25041E-02	6
61	-11.800	-0.24764E-02	6
62	-12.000	-0.24475E-02	6
63	-12.200	-0.24178E-02	6
64	-12.400	-0.23873E-02	6
65	-12.600	-0.23564E-02	6
66	-12.800	-0.23251E-02	6
67	-13.000	-0.22937E-02	6
68	-13.200	-0.22623E-02	6
69	-13.400	-0.22310E-02	6
70	-13.600	-0.22000E-02	6
71	-13.800	-0.21695E-02	6
72	-14.000	-0.21396E-02	6
73	-14.200	-0.21102E-02	6
74	-14.400	-0.20817E-02	6
75	-14.600	-0.20540E-02	6
76	-14.800	-0.20271E-02	6
77	-15.000	-0.20012E-02	6
78	-15.200	-0.19763E-02	6
79	-15.400	-0.19523E-02	6
80	-15.600	-0.19294E-02	6
81	-15.800	-0.19074E-02	6
82	-16.000	-0.18865E-02	6
83	-16.200	-0.18666E-02	6
84	-16.400	-0.18476E-02	6

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
85	-16.600	-0.18297E-02	6
86	-16.800	-0.18126E-02	6
87	-17.000	-0.17965E-02	6
88	-17.200	-0.17812E-02	6
89	-17.400	-0.17667E-02	6
90	-17.600	-0.17531E-02	6
91	-17.800	-0.17401E-02	6
92	-18.000	-0.17279E-02	6
93	-18.200	-0.17163E-02	6
94	-18.400	-0.17053E-02	6
95	-18.600	-0.16949E-02	6
96	-18.800	-0.16849E-02	6
97	-19.000	-0.16755E-02	6
98	-19.200	-0.16664E-02	6
99	-19.400	-0.16577E-02	6
100	-19.600	-0.16494E-02	6
101	-19.800	-0.16413E-02	6
102	-20.000	-0.16335E-02	6
103	-20.200	-0.16259E-02	6
104	-20.400	-0.16185E-02	6
105	-20.600	-0.16112E-02	6
106	-20.800	-0.16041E-02	6
107	-21.000	-0.15970E-02	6
108	-21.200	-0.15900E-02	6
109	-21.400	-0.15830E-02	6
110	-21.600	-0.15760E-02	6
111	-21.800	-0.15691E-02	6
112	-22.000	-0.15622E-02	6
113	-22.200	-0.16526E-02	6
114	-22.400	-0.16501E-02	6
115	-22.600	-0.16475E-02	6
116	-22.800	-0.16450E-02	6
117	-23.000	-0.16425E-02	6
118	-23.200	-0.16400E-02	6
119	-23.400	-0.16376E-02	6
120	-23.600	-0.16351E-02	6
121	-23.800	-0.16327E-02	6
122	-24.000	-0.16303E-02	6
123	-24.200	-0.16279E-02	6
124	-24.400	-0.16255E-02	6
125	-24.600	-0.16232E-02	6
126	-24.800	-0.16208E-02	6
127	-25.000	-0.16185E-02	6
128	-25.200	-0.16161E-02	6
129	-25.400	-0.16138E-02	6
130	-25.600	-0.16115E-02	6

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
131	-25.800	-0.16092E-02	6
132	-26.000	-0.16069E-02	6
133	-26.200	-0.16047E-02	6
134	-26.400	-0.16024E-02	6
135	-26.600	-0.16002E-02	6
136	-26.800	-0.15979E-02	6
137	-27.000	-0.15957E-02	6
138	-27.200	-0.15935E-02	6
139	-27.400	-0.15912E-02	6
140	-27.600	-0.15890E-02	6
141	-27.800	-0.15868E-02	6
142	-28.000	-0.15846E-02	6
143	-28.200	-0.15825E-02	6
144	-28.400	-0.15803E-02	6
145	-28.600	-0.15781E-02	6
146	-28.800	-0.15760E-02	6
147	-29.000	-0.15738E-02	6
148	-29.200	-0.15717E-02	6
149	-29.400	-0.15695E-02	6
150	-29.600	-0.15674E-02	6
151	-29.800	-0.15653E-02	6
152	-30.000	-0.15632E-02	6

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INVILUPPO AZIONI INTERNE NEGLI ELEMENTI DI PARETE  
 (PER UNITA' DI PROFONDITA')

\* PARETE RightWall GRUPPO Right\_wall\*

\*STEP 1 - 6\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

MOMENTO SX = Momento che tende le fibre sulla faccia sinistra [kN\*m/m]

MOMENTO DX = Momento che tende le fibre sulla faccia destra [kN\*m/m]

TAGLIO = forza tagliante (valore assoluto, priva di segno) [kN/m ]

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
1	A	0.	0.2001E-10	0.3456E-10	3.848
	B	-0.2000	0.	0.7695	3.848
2	A	-0.2000	0.	0.7695	14.36
	B	-0.4000	0.	3.641	14.36
3	A	-0.4000	0.	3.641	23.99
	B	-0.5000	0.	6.017	23.99
4	A	-0.5000	0.	6.017	112.8
	B	-0.7000	17.54	0.	112.8
5	A	-0.7000	17.54	0.	103.8
	B	-0.9000	38.31	0.	103.8
6	A	-0.9000	38.31	0.	95.09
	B	-1.100	57.32	0.	95.09
7	A	-1.100	57.32	0.	86.59
	B	-1.300	74.64	0.	86.59
8	A	-1.300	74.64	0.	78.33
	B	-1.500	90.31	0.	78.33
9	A	-1.500	90.31	0.	70.29
	B	-1.700	104.4	0.	70.29
10	A	-1.700	104.4	0.	62.43
	B	-1.900	116.9	0.	62.43
11	A	-1.900	116.9	0.	54.72
	B	-2.100	127.8	0.	54.72
12	A	-2.100	127.8	0.	47.02
	B	-2.300	137.2	0.	47.02
13	A	-2.300	137.2	0.	39.21
	B	-2.500	145.0	0.	39.21
14	A	-2.500	145.0	0.	31.25
	B	-2.700	151.3	0.	31.25
15	A	-2.700	151.3	0.	23.09
	B	-2.900	155.9	0.	23.09
16	A	-2.900	155.9	0.	25.30
	B	-3.100	158.8	0.	25.30
17	A	-3.100	158.8	0.	37.51
	B	-3.300	160.0	0.	37.51



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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
18	A	-3.300	160.0	0.	50.10
	B	-3.500	159.4	0.	50.10
19	A	-3.500	159.4	0.	63.11
	B	-3.700	156.9	0.	63.11
20	A	-3.700	156.9	0.	76.55
	B	-3.900	152.5	0.	76.55
21	A	-3.900	152.5	0.	86.98
	B	-4.000	149.5	0.	86.98
22	A	-4.000	149.5	0.	143.6
	B	-4.200	163.1	0.	143.6
23	A	-4.200	163.1	0.	138.1
	B	-4.400	190.7	0.	138.1
24	A	-4.400	190.7	0.	132.1
	B	-4.600	217.1	0.	132.1
25	A	-4.600	217.1	0.	125.6
	B	-4.800	242.2	0.	125.6
26	A	-4.800	242.2	0.	118.6
	B	-5.000	265.9	0.	118.6
27	A	-5.000	265.9	0.	111.1
	B	-5.200	288.1	0.	111.1
28	A	-5.200	288.1	0.	103.2
	B	-5.400	308.8	0.	103.2
29	A	-5.400	308.8	0.	94.74
	B	-5.600	327.7	0.	94.74
30	A	-5.600	327.7	0.	85.83
	B	-5.800	344.9	0.	85.83
31	A	-5.800	344.9	0.	76.43
	B	-6.000	360.2	0.	76.43
32	A	-6.000	360.2	0.	66.55
	B	-6.200	373.5	0.	66.55
33	A	-6.200	373.5	0.	56.18
	B	-6.400	384.7	0.	56.18
34	A	-6.400	384.7	0.	45.33
	B	-6.600	393.8	0.	45.33
35	A	-6.600	393.8	0.	47.14
	B	-6.800	400.6	0.	47.14
36	A	-6.800	400.6	0.	64.75
	B	-7.000	405.0	0.	64.75
37	A	-7.000	405.0	0.	82.96
	B	-7.200	407.0	0.	82.96
38	A	-7.200	407.0	0.	101.7
	B	-7.400	406.4	0.	101.7
39	A	-7.400	406.4	0.	121.0
	B	-7.600	403.2	0.	121.0
40	A	-7.600	403.2	0.	140.9
	B	-7.800	397.2	0.	140.9

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PAG. 18

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
41	A	-7.800	397.2	0.	161.2
	B	-8.000	388.4	0.	161.2
42	A	-8.000	388.4	0.	108.0
	B	-8.200	376.6	0.	108.0
43	A	-8.200	376.6	0.	87.52
	B	-8.400	361.8	0.	87.52
44	A	-8.400	361.8	0.	89.76
	B	-8.600	343.8	0.	89.76
45	A	-8.600	343.8	0.	97.44
	B	-8.800	324.3	0.	97.44
46	A	-8.800	324.3	0.	104.0
	B	-9.000	303.5	0.9806E-01	104.0
47	A	-9.000	303.5	0.9806E-01	109.5
	B	-9.200	281.6	1.934	109.5
48	A	-9.200	281.6	1.934	113.8
	B	-9.400	258.9	3.507	113.8
49	A	-9.400	258.9	3.507	117.1
	B	-9.600	235.4	4.837	117.1
50	A	-9.600	235.4	4.837	119.2
	B	-9.800	211.6	5.943	119.2
51	A	-9.800	211.6	5.943	120.3
	B	-10.00	187.5	6.844	120.3
52	A	-10.00	187.5	6.844	120.2
	B	-10.20	163.5	7.560	120.2
53	A	-10.20	163.5	7.560	119.0
	B	-10.40	150.2	8.107	119.0
54	A	-10.40	150.2	8.107	116.7
	B	-10.60	139.4	8.503	116.7
55	A	-10.60	139.4	8.503	113.4
	B	-10.80	128.0	8.765	113.4
56	A	-10.80	128.0	8.765	108.9
	B	-11.00	116.2	8.908	108.9
57	A	-11.00	116.2	8.908	103.9
	B	-11.20	104.2	8.947	103.9
58	A	-11.20	104.2	8.947	98.61
	B	-11.40	92.01	8.895	98.61
59	A	-11.40	92.01	8.895	93.15
	B	-11.60	79.79	8.764	93.15
60	A	-11.60	79.79	8.764	87.46
	B	-11.80	67.60	8.567	87.46
61	A	-11.80	67.60	8.567	81.56
	B	-12.00	55.53	21.02	81.56
62	A	-12.00	55.53	21.02	75.43
	B	-12.20	43.64	36.10	75.43
63	A	-12.20	43.64	36.10	69.08
	B	-12.40	32.03	49.92	69.08

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PAG. 19

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
64	A	-12.40	32.03	49.92	62.49
	B	-12.60	20.76	62.42	62.49
65	A	-12.60	20.76	62.42	55.67
	B	-12.80	9.922	73.55	55.67
66	A	-12.80	9.922	73.55	51.70
	B	-13.00	0.	83.27	51.70
67	A	-13.00	0.	83.27	48.81
	B	-13.20	0.	91.52	48.81
68	A	-13.20	0.	91.52	45.54
	B	-13.40	0.	98.26	45.54
69	A	-13.40	0.	98.26	41.88
	B	-13.60	0.	103.6	41.88
70	A	-13.60	0.	103.6	37.84
	B	-13.80	0.	107.6	37.84
71	A	-13.80	0.	107.6	33.40
	B	-14.00	0.	110.5	33.40
72	A	-14.00	0.	110.5	28.56
	B	-14.20	0.	112.3	28.56
73	A	-14.20	0.	112.3	23.66
	B	-14.40	0.	113.1	23.66
74	A	-14.40	0.	113.1	19.14
	B	-14.60	0.	113.1	19.14
75	A	-14.60	0.	113.1	14.97
	B	-14.80	0.	112.3	14.97
76	A	-14.80	0.	112.3	11.14
	B	-15.00	0.	110.8	11.14
77	A	-15.00	0.	110.8	10.40
	B	-15.20	0.	108.8	10.40
78	A	-15.20	0.	108.8	13.02
	B	-15.40	0.	106.2	13.02
79	A	-15.40	0.	106.2	15.28
	B	-15.60	0.	103.1	15.28
80	A	-15.60	0.	103.1	17.21
	B	-15.80	0.	99.66	17.21
81	A	-15.80	0.	99.66	18.82
	B	-16.00	0.	95.90	18.82
82	A	-16.00	0.	95.90	20.14
	B	-16.20	0.	91.87	20.14
83	A	-16.20	0.	91.87	21.19
	B	-16.40	0.	87.63	21.19
84	A	-16.40	0.	87.63	22.01
	B	-16.60	0.	83.23	22.01
85	A	-16.60	0.	83.23	22.59
	B	-16.80	0.	78.71	22.59
86	A	-16.80	0.	78.71	22.97
	B	-17.00	0.	74.12	22.97

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PAG. 20

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
87	A	-17.00	0.	74.12	23.17
	B	-17.20	0.	69.48	23.17
88	A	-17.20	0.	69.48	23.19
	B	-17.40	0.	64.84	23.19
89	A	-17.40	0.	64.84	23.06
	B	-17.60	0.9243E-03	60.23	23.06
90	A	-17.60	0.9243E-03	60.23	22.80
	B	-17.80	0.3377E-01	55.67	22.80
91	A	-17.80	0.3377E-01	55.67	22.41
	B	-18.00	0.6024E-01	51.19	22.41
92	A	-18.00	0.6024E-01	51.19	21.90
	B	-18.20	0.8086E-01	46.81	21.90
93	A	-18.20	0.8086E-01	46.81	21.30
	B	-18.40	0.9617E-01	42.55	21.30
94	A	-18.40	0.9617E-01	42.55	20.61
	B	-18.60	0.1067	38.43	20.61
95	A	-18.60	0.1067	38.43	19.84
	B	-18.80	0.1130	34.46	19.84
96	A	-18.80	0.1130	34.46	19.00
	B	-19.00	0.1155	30.66	19.00
97	A	-19.00	0.1155	30.66	18.10
	B	-19.20	0.1147	27.04	18.10
98	A	-19.20	0.1147	27.04	17.14
	B	-19.40	0.1111	23.61	17.14
99	A	-19.40	0.1111	23.61	16.13
	B	-19.60	0.1069	20.39	16.13
100	A	-19.60	0.1069	20.39	15.08
	B	-19.80	0.1048	17.37	15.08
101	A	-19.80	0.1048	17.37	13.98
	B	-20.00	0.9918E-01	14.57	13.98
102	A	-20.00	0.9918E-01	14.57	12.85
	B	-20.20	0.9073E-01	12.00	12.85
103	A	-20.20	0.9073E-01	12.00	11.69
	B	-20.40	0.8016E-01	9.665	11.69
104	A	-20.40	0.8016E-01	9.665	10.50
	B	-20.60	0.6819E-01	7.565	10.50
105	A	-20.60	0.6819E-01	7.565	9.278
	B	-20.80	0.5548E-01	5.710	9.278
106	A	-20.80	0.5548E-01	5.710	8.030
	B	-21.00	0.4270E-01	4.104	8.030
107	A	-21.00	0.4270E-01	4.104	6.755
	B	-21.20	0.3050E-01	2.753	6.755
108	A	-21.20	0.3050E-01	2.753	5.455
	B	-21.40	0.1951E-01	1.662	5.455
109	A	-21.40	0.1951E-01	1.662	4.129
	B	-21.60	0.1036E-01	0.8360	4.129

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PAG. 21

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
110	A	-21.60	0.1036E-01	0.8360	2.778
	B	-21.80	0.3652E-02	0.2804	2.778
111	A	-21.80	0.3652E-02	0.2804	1.402
	B	-22.00	0.5616E-10	0.1080E-09	1.402

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PAG. 22

FORZE NEGLI ANCORAGGI ATTIVI (PER UNITA' DI PROFONDITA')

TIRANTE	Wire1	1 PARETE RightWall	QUOTA	-0.50000
		FASE 1 FORZA	150.00	kN/m
		FASE 2 FORZA	150.59	kN/m
		FASE 3 FORZA	149.97	kN/m
		FASE 4 FORZA	148.96	kN/m
		FASE 5 FORZA	149.45	kN/m
		FASE 6 FORZA	152.15	kN/m
TIRANTE	Wire2	1 PARETE RightWall	QUOTA	-4.0000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 FORZA	150.00	kN/m
		FASE 4 FORZA	162.02	kN/m
		FASE 5 FORZA	159.01	kN/m
		FASE 6 FORZA	162.43	kN/m
TIRANTE	Wire3	1 PARETE RightWall	QUOTA	-8.0000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 inattivo		
		FASE 4 inattivo		
		FASE 5 FORZA	300.00	kN/m
		FASE 6 FORZA	303.38	kN/m

INVILUPPO RISULTATI NEGLI ELEMENTI TERRENO

\* PARETE RightWall GRUPPO DRight\*

\*STEP 1 - 6\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

SIGMA-H = massimo sforzo orizzontale efficace [kPa ]

TAGLIO = massimo sforzo di taglio [kPa ]

PR. ACQUA =massima pressione interstiziale [kPa ]

GRAD. MAX =massimo gradiente idraulico

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
1	0.	0.	0.	0.	0.
2	-0.2000	0.	0.	0.	0.
3	-0.4000	0.	0.	0.	0.
4	-0.5000	0.	0.	0.	0.
5	-0.7000	0.	1.900	0.	0.
6	-0.9000	0.	3.800	0.	0.
7	-1.100	0.	5.700	0.	0.
8	-1.300	0.	7.600	0.	0.
9	-1.500	0.	9.500	0.	0.
10	-1.700	0.	11.40	0.	0.
11	-1.900	6.496	10.05	0.	0.
12	-2.100	12.99	8.703	0.	0.
13	-2.300	19.34	7.429	0.	0.
14	-2.500	25.54	6.232	0.	0.
15	-2.700	31.57	5.113	0.	0.
16	-2.900	37.45	4.074	0.	0.
17	-3.100	43.17	3.115	0.	0.
18	-3.300	48.73	2.234	0.	0.
19	-3.500	54.14	1.429	0.	0.
20	-3.700	59.40	0.6980	0.	0.
21	-3.900	64.40	0.1016	0.	0.
22	-4.000	66.82	11.96	0.	0.
23	-4.200	71.57	17.33	2.074	0.3704E-01
24	-4.400	76.22	19.60	4.148	0.3704E-01
25	-4.600	80.77	21.35	6.222	0.3704E-01
26	-4.800	85.22	22.81	8.296	0.3704E-01
27	-5.000	89.58	24.07	10.37	0.3704E-01
28	-5.200	93.86	25.18	12.44	0.3704E-01
29	-5.400	98.05	26.17	14.52	0.3704E-01
30	-5.600	102.2	27.06	16.59	0.3704E-01
31	-5.800	106.2	27.87	18.67	0.3704E-01
32	-6.000	110.2	28.60	20.74	0.3704E-01
33	-6.200	114.2	29.28	22.81	0.3704E-01
34	-6.400	118.1	29.90	24.89	0.3704E-01
35	-6.600	122.0	30.47	26.96	0.3704E-01

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
36	-6.800	125.8	31.00	29.04	0.3704E-01
37	-7.000	129.6	31.49	31.11	0.3704E-01
38	-7.200	133.4	31.96	33.19	0.3704E-01
39	-7.400	137.1	32.40	35.26	0.3704E-01
40	-7.600	140.9	32.81	37.33	0.3704E-01
41	-7.800	144.6	33.21	39.41	0.3704E-01
42	-8.000	148.3	33.59	41.48	0.3704E-01
43	-8.200	152.0	33.96	43.56	0.3704E-01
44	-8.400	155.7	34.32	45.63	0.3704E-01
45	-8.600	159.4	34.67	47.70	0.1313
46	-8.800	163.1	35.02	49.78	0.1313
47	-9.000	166.8	35.36	51.85	0.1417
48	-9.200	170.4	35.69	53.93	0.1417
49	-9.400	174.1	36.03	56.00	0.1417
50	-9.600	177.8	36.37	58.07	0.1417
51	-9.800	181.5	36.70	60.15	0.1417
52	-10.00	185.2	37.04	62.22	0.1417
53	-10.20	188.9	37.38	64.30	0.1417
54	-10.40	192.6	38.96	66.37	0.1417
55	-10.60	196.3	41.04	68.44	0.1417
56	-10.80	200.0	43.11	70.52	0.1417
57	-11.00	203.7	45.19	72.59	0.1417
58	-11.20	207.4	47.27	74.67	0.1417
59	-11.40	211.2	49.34	76.74	0.1417
60	-11.60	214.9	51.42	78.81	0.1417
61	-11.80	218.6	53.50	80.89	0.1417
62	-12.00	222.4	55.57	82.96	0.1417
63	-12.20	226.1	57.65	85.04	0.1417
64	-12.40	229.9	59.72	87.11	0.1417
65	-12.60	233.7	61.80	89.19	0.1417
66	-12.80	237.4	63.88	91.26	0.1417
67	-13.00	241.2	65.95	93.33	0.1417
68	-13.20	245.0	68.03	95.41	0.1417
69	-13.40	248.7	67.96	97.48	0.1417
70	-13.60	252.5	67.82	99.56	0.1417
71	-13.80	256.3	68.91	101.6	0.1417
72	-14.00	260.1	70.95	103.7	0.1417
73	-14.20	263.9	72.12	105.8	0.1417
74	-14.40	267.7	72.22	107.9	0.1417
75	-14.60	271.5	72.32	109.9	0.1417
76	-14.80	275.3	72.44	112.0	0.1417
77	-15.00	279.0	72.57	114.1	0.1417
78	-15.20	282.8	72.71	116.1	0.1417
79	-15.40	286.6	72.86	118.2	0.1417
80	-15.60	290.4	73.02	120.3	0.1417
81	-15.80	294.2	73.20	122.4	0.1417



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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
82	-16.00	298.1	73.39	124.4	0.1417
83	-16.20	301.9	73.59	126.5	0.1417
84	-16.40	305.7	73.81	128.6	0.1417
85	-16.60	309.5	74.04	130.7	0.1417
86	-16.80	313.3	74.28	132.7	0.1417
87	-17.00	317.1	74.54	134.8	0.1417
88	-17.20	320.9	74.80	136.9	0.1417
89	-17.40	324.7	75.08	139.0	0.1417
90	-17.60	328.5	75.36	141.0	0.1417
91	-17.80	332.3	75.66	143.1	0.1417
92	-18.00	336.1	75.97	145.2	0.1417
93	-18.20	339.9	76.28	147.3	0.1417
94	-18.40	343.7	76.60	149.3	0.1417
95	-18.60	347.5	76.93	151.4	0.1417
96	-18.80	351.3	77.27	153.5	0.1417
97	-19.00	355.1	77.61	155.6	0.1417
98	-19.20	358.9	77.96	157.6	0.1417
99	-19.40	362.7	78.31	159.7	0.1417
100	-19.60	366.5	78.66	161.8	0.1417
101	-19.80	370.3	79.02	163.9	0.1417
102	-20.00	374.1	79.38	165.9	0.1417
103	-20.20	378.0	79.75	168.0	0.1417
104	-20.40	381.8	80.11	170.1	0.1417
105	-20.60	385.6	80.48	172.1	0.1417
106	-20.80	389.4	80.85	174.2	0.1417
107	-21.00	393.2	81.21	176.3	0.1417
108	-21.20	397.0	81.58	178.4	0.1417
109	-21.40	400.8	81.95	180.4	0.1417
110	-21.60	404.6	82.31	182.5	0.1417
111	-21.80	408.4	82.68	184.6	0.1417
112	-22.00	412.2	83.04	186.7	0.1417
113	-22.20	416.0	84.97	188.7	0.1417
114	-22.40	419.8	85.41	190.8	0.1417
115	-22.60	423.6	85.84	192.9	0.1417
116	-22.80	427.4	86.27	195.0	0.1417
117	-23.00	431.2	86.70	197.0	0.1417
118	-23.20	435.0	87.13	199.1	0.1417
119	-23.40	438.8	87.56	201.2	0.1417
120	-23.60	442.6	87.99	203.3	0.1417
121	-23.80	446.4	88.41	205.3	0.1417
122	-24.00	450.2	88.84	207.4	0.1417
123	-24.20	454.0	89.27	209.5	0.1417
124	-24.40	457.8	89.70	211.6	0.1417
125	-24.60	461.6	90.12	213.6	0.1417
126	-24.80	465.4	90.55	215.7	0.1417
127	-25.00	469.2	90.98	217.8	0.1417

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SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
128	-25.20	473.0	91.40	219.9	0.1417
129	-25.40	476.8	91.83	221.9	0.1417
130	-25.60	480.6	92.25	224.0	0.1417
131	-25.80	484.4	92.68	226.1	0.1417
132	-26.00	488.2	93.10	228.1	0.1417
133	-26.20	492.0	93.53	230.2	0.1417
134	-26.40	495.8	93.95	232.3	0.1417
135	-26.60	499.6	94.37	234.4	0.1417
136	-26.80	503.4	94.80	236.4	0.1417
137	-27.00	507.2	95.22	238.5	0.1417
138	-27.20	511.0	95.64	240.6	0.1417
139	-27.40	514.8	96.07	242.7	0.1417
140	-27.60	518.6	96.49	244.7	0.1417
141	-27.80	522.4	96.91	246.8	0.1417
142	-28.00	526.2	97.33	248.9	0.1417
143	-28.20	530.0	97.76	251.0	0.1417
144	-28.40	533.8	98.18	253.0	0.1417
145	-28.60	537.6	98.60	255.1	0.1417
146	-28.80	541.4	99.02	257.2	0.1417
147	-29.00	545.2	99.44	259.3	0.1417
148	-29.20	549.0	99.86	261.3	0.1417
149	-29.40	552.8	100.3	263.4	0.1417
150	-29.60	556.6	100.7	265.5	0.1417
151	-29.80	560.4	101.1	267.6	0.1417
152	-30.00	564.2	101.5	269.6	0.1417

## INVILUPPO RISULTATI NEGLI ELEMENTI TERRENO

\* PARETE RightWall GRUPPO UHRight\*

\*STEP 1 - 6\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

SIGMA-H = massimo sforzo orizzontale efficace [kPa ]

TAGLIO = massimo sforzo di taglio [kPa ]

PR. ACQUA =massima pressione interstiziale [kPa ]

GRAD. MAX =massimo gradiente idraulico

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
1	0.	38.48	19.24	0.	0.
2	-0.2000	52.54	24.37	0.	0.
3	-0.4000	64.90	28.65	0.	0.
4	-0.5000	62.91	26.71	0.	0.
5	-0.7000	59.55	22.82	0.	0.
6	-0.9000	56.88	19.65	0.	0.
7	-1.100	56.59	17.85	0.	0.
8	-1.300	56.87	16.08	0.	0.
9	-1.500	57.25	14.37	0.	0.
10	-1.700	57.76	12.73	0.	0.
11	-1.900	58.41	11.15	0.	0.
12	-2.100	59.21	12.17	0.9630	0.1417
13	-2.300	60.19	15.35	2.889	0.1417
14	-2.500	61.33	18.44	4.815	0.1417
15	-2.700	62.65	21.44	6.741	0.1417
16	-2.900	64.14	24.35	8.667	0.1417
17	-3.100	65.81	27.16	10.59	0.1417
18	-3.300	67.66	28.49	12.52	0.1417
19	-3.500	69.67	28.94	14.44	0.1417
20	-3.700	71.85	29.38	16.37	0.1417
21	-3.900	74.19	29.83	18.30	0.1417
22	-4.000	75.29	30.06	19.26	0.1417
23	-4.200	77.61	30.52	21.19	0.1417
24	-4.400	80.09	30.98	23.11	0.1417
25	-4.600	82.74	31.45	25.04	0.1417
26	-4.800	85.53	31.68	26.96	0.1417
27	-5.000	88.46	31.75	28.89	0.1417
28	-5.200	91.51	31.84	30.81	0.1417
29	-5.400	94.69	31.96	32.74	0.1417
30	-5.600	97.97	32.10	34.67	0.1417
31	-5.800	101.4	32.27	36.59	0.1417
32	-6.000	104.8	32.48	38.52	0.1417
33	-6.200	108.4	32.99	40.44	0.1417
34	-6.400	112.0	33.68	42.37	0.1417
35	-6.600	115.7	34.37	44.30	0.1417

PARATIE 7.00

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
36	-6.800	119.4	35.06	46.22	0.1417
37	-7.000	123.2	35.75	48.15	0.1417
38	-7.200	127.1	36.44	50.07	0.1417
39	-7.400	130.9	37.13	52.00	0.1417
40	-7.600	134.8	37.82	53.93	0.1417
41	-7.800	138.8	38.51	55.85	0.1417
42	-8.000	142.7	39.20	57.78	0.1417
43	-8.200	146.7	39.89	59.70	0.1417
44	-8.400	150.6	40.59	61.63	0.1417
45	-8.600	154.6	41.28	63.56	0.1417
46	-8.800	158.6	41.97	65.48	0.1417
47	-9.000	162.6	42.66	67.41	0.1417
48	-9.200	166.6	43.56	69.33	0.1417
49	-9.400	170.6	44.78	71.26	0.1417
50	-9.600	174.6	46.02	73.19	0.1417
51	-9.800	178.5	47.28	75.11	0.1417
52	-10.00	182.5	48.55	77.04	0.1417
53	-10.20	186.5	49.83	78.96	0.1417
54	-10.40	190.4	51.12	80.89	0.1417
55	-10.60	194.4	52.40	82.81	0.1417
56	-10.80	198.3	53.67	84.74	0.1417
57	-11.00	202.3	53.43	86.67	0.1417
58	-11.20	206.2	52.49	88.59	0.1417
59	-11.40	210.1	51.52	90.52	0.1417
60	-11.60	214.0	50.52	92.44	0.1417
61	-11.80	217.9	49.49	94.37	0.1417
62	-12.00	221.8	48.45	96.30	0.1417
63	-12.20	225.7	47.38	98.22	0.1417
64	-12.40	229.5	46.30	100.1	0.1417
65	-12.60	233.4	45.22	102.1	0.1417
66	-12.80	237.3	44.12	104.0	0.1417
67	-13.00	241.1	43.03	105.9	0.1417
68	-13.20	245.0	41.94	107.9	0.1417
69	-13.40	248.8	40.86	109.8	0.1417
70	-13.60	252.6	39.78	111.7	0.1417
71	-13.80	256.4	38.72	113.6	0.1417
72	-14.00	260.3	37.67	115.6	0.1417
73	-14.20	264.1	36.64	117.5	0.1417
74	-14.40	267.9	35.62	119.4	0.1417
75	-14.60	271.7	34.63	121.3	0.1417
76	-14.80	275.5	33.66	123.3	0.1417
77	-15.00	279.3	32.70	125.2	0.1417
78	-15.20	283.1	31.78	127.1	0.1417
79	-15.40	286.9	30.87	129.0	0.1417
80	-15.60	290.7	29.99	131.0	0.1417
81	-15.80	294.5	29.13	132.9	0.1417

PARATIE 7.00

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
82	-16.00	298.3	28.29	134.8	0.1417
83	-16.20	302.1	27.48	136.7	0.1417
84	-16.40	305.9	26.69	138.7	0.1417
85	-16.60	309.7	25.92	140.6	0.1417
86	-16.80	313.5	25.17	142.5	0.1417
87	-17.00	317.3	24.44	144.4	0.1417
88	-17.20	321.1	23.73	146.4	0.1417
89	-17.40	324.9	23.04	148.3	0.1417
90	-17.60	328.7	22.36	150.2	0.1417
91	-17.80	332.5	21.71	152.1	0.1417
92	-18.00	336.2	21.07	154.1	0.1417
93	-18.20	340.0	20.44	156.0	0.1417
94	-18.40	343.8	19.82	157.9	0.1417
95	-18.60	347.6	19.22	159.9	0.1417
96	-18.80	351.4	18.63	161.8	0.1417
97	-19.00	355.2	18.05	163.7	0.1417
98	-19.20	359.0	17.48	165.6	0.1417
99	-19.40	362.8	17.83	167.6	0.1417
100	-19.60	366.6	18.24	169.5	0.1417
101	-19.80	370.4	18.65	171.4	0.1417
102	-20.00	374.2	19.07	173.3	0.1417
103	-20.20	378.0	19.48	175.3	0.1417
104	-20.40	381.8	19.89	177.2	0.1417
105	-20.60	385.6	20.30	179.1	0.1417
106	-20.80	389.3	20.71	181.0	0.1417
107	-21.00	393.1	21.12	183.0	0.1417
108	-21.20	396.9	21.53	184.9	0.1417
109	-21.40	400.7	21.94	186.8	0.1417
110	-21.60	404.5	22.35	188.7	0.1417
111	-21.80	408.3	22.76	190.7	0.1417
112	-22.00	412.1	23.17	192.6	0.1417
113	-22.20	416.0	23.56	194.5	0.1417
114	-22.40	419.8	23.98	196.4	0.1417
115	-22.60	423.6	24.39	198.4	0.1417
116	-22.80	427.4	24.80	200.3	0.1417
117	-23.00	431.2	25.21	202.2	0.1417
118	-23.20	435.0	25.62	204.1	0.1417
119	-23.40	438.8	26.04	206.1	0.1417
120	-23.60	442.6	26.45	208.0	0.1417
121	-23.80	446.4	26.86	209.9	0.1417
122	-24.00	450.2	27.27	211.9	0.1417
123	-24.20	454.0	27.68	213.8	0.1417
124	-24.40	457.8	28.09	215.7	0.1417
125	-24.60	461.6	28.51	217.6	0.1417
126	-24.80	465.4	28.92	219.6	0.1417
127	-25.00	469.2	29.33	221.5	0.1417

PARATIE 7.00

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
128	-25.20	473.0	29.74	223.4	0.1417
129	-25.40	476.8	30.15	225.3	0.1417
130	-25.60	480.6	30.56	227.3	0.1417
131	-25.80	484.4	30.98	229.2	0.1417
132	-26.00	488.2	31.39	231.1	0.1417
133	-26.20	492.0	31.80	233.0	0.1417
134	-26.40	495.8	32.21	235.0	0.1417
135	-26.60	499.6	32.62	236.9	0.1417
136	-26.80	503.4	33.03	238.8	0.1417
137	-27.00	507.2	33.44	240.7	0.1417
138	-27.20	511.0	33.85	242.7	0.1417
139	-27.40	514.8	34.26	244.6	0.1417
140	-27.60	518.6	34.68	246.5	0.1417
141	-27.80	522.4	35.09	248.4	0.1417
142	-28.00	526.2	35.50	250.4	0.1417
143	-28.20	530.0	35.91	252.3	0.1417
144	-28.40	533.8	36.32	254.2	0.1417
145	-28.60	537.6	36.73	256.1	0.1417
146	-28.80	541.4	37.14	258.1	0.1417
147	-29.00	545.2	37.55	260.0	0.1417
148	-29.20	549.0	37.96	261.9	0.1417
149	-29.40	552.8	38.37	263.9	0.1417
150	-29.60	556.6	38.78	265.8	0.1417
151	-29.80	560.4	39.19	267.7	0.1417
152	-30.00	564.2	39.60	269.6	0.1417

RIASSUNTO SPINTE NEGLI ELEMENTI TERRENO  
(LE SPINTE SONO CALCOLATE INTEGRANDO GLI SFORZI NEI SINGOLI ELEMENTI MOLLA)

SPINTA EFFICACE VERA = Integrale delle pressioni orizzontali efficaci in tutti gli elementi nel gruppo: unita' di misura kN/m

SPINTA ACQUA = Integrale delle pressioni interstiziali in tutti gli elementi nel gruppo: unita' di misura kN/m

SPINTA TOTALE VERA = Somma della SPINTA EFFICACE e della SPINTA DELL'ACQUA: e' l' azione totale sulla parete: unita' di misura kN/m

SPINTA ATTIVA POSSIBILE = La minima spinta che puo' essere esercitata da questo gruppo di elementi terreno, in questa fase: unita' di misura kN/m

SPINTA PASSIVA POSSIBILE = La massima spinta che puo' essere esercitata da questo gruppo di elementi terreno, in questa fase: unita' di misura kN/m

RAPPORTO PASSIVA/VERA = e' il rapporto tra la massima spinta possibile e la spinta efficace vera: fornisce un'indicazione su quanta spinta passiva venga mobilitata;

SPINTA PASSIVA MOBILITATA = e' l'inverso del rapporto precedente, espresso in unita' percentuale: indica quanta parte della massima spinta possibile e' stata mobilitata;

RAPPORTO VERA/ATTIVA = e' il rapporto tra la spinta efficace vera e la minima spinta possibile: fornisce un'indicazione di quanto questa porzione di terreno sia prossima alla condizione di massimo rilascio.

FASE	1	GRUPPO -->	DHRi	UHRi
SPINTA EFFICACE VERA			8335.7	8474.3
SPINTA ACQUA			0.	0.
SPINTA TOTALE VERA			8335.7	8474.3
SPINTA ATTIVA (POSSIBILE)			2399.8	2487.4
SPINTA PASSIVA (POSSIBILE)			31735.	32798.
RAPPORTO PASSIVA/VERA			3.8071	3.8703
SPINTA PASSIVA MOBILITATA			26.%	26.%
RAPPORTO VERA/ATTIVA			3.4734	3.4069

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History 0 - MURENI

FASE	2	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	5558.2	5427.6
		SPINTA ACQUA	3505.2	3774.9
		SPINTA TOTALE VERA	9063.4	9202.5
		SPINTA ATTIVA (POSSIBILE)	687.02	1241.7
		SPINTA PASSIVA (POSSIBILE)	11797.	18827.
		RAPPORTO PASSIVA/VERA	2.1225	3.4687
		SPINTA PASSIVA MOBILITATA	47.%	29.%
		RAPPORTO VERA/ATTIVA	8.0904	4.3712

FASE	3	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	5523.2	5530.6
		SPINTA ACQUA	3505.2	3774.9
		SPINTA TOTALE VERA	9028.4	9305.5
		SPINTA ATTIVA (POSSIBILE)	687.02	1241.7
		SPINTA PASSIVA (POSSIBILE)	11797.	18827.
		RAPPORTO PASSIVA/VERA	2.1360	3.4041
		SPINTA PASSIVA MOBILITATA	47.%	29.%
		RAPPORTO VERA/ATTIVA	8.0394	4.4542

FASE	4	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4847.2	4344.0
		SPINTA ACQUA	2614.8	3405.3
		SPINTA TOTALE VERA	7462.0	7749.3
		SPINTA ATTIVA (POSSIBILE)	365.30	1363.6
		SPINTA PASSIVA (POSSIBILE)	7402.7	20195.
		RAPPORTO PASSIVA/VERA	1.5272	4.6489
		SPINTA PASSIVA MOBILITATA	65.%	22.%
		RAPPORTO VERA/ATTIVA	13.269	3.1856

FASE	5	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4786.2	4557.9
		SPINTA ACQUA	2614.8	3405.3
		SPINTA TOTALE VERA	7401.0	7963.2
		SPINTA ATTIVA (POSSIBILE)	365.30	1363.6
		SPINTA PASSIVA (POSSIBILE)	7402.7	20195.
		RAPPORTO PASSIVA/VERA	1.5467	4.4307
		SPINTA PASSIVA MOBILITATA	65.%	23.%
		RAPPORTO VERA/ATTIVA	13.102	3.3425



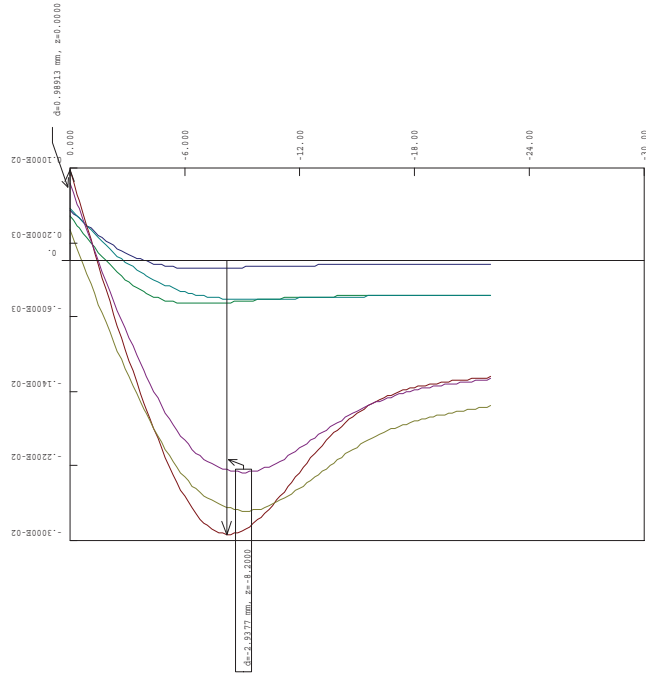
PARATIE 7.00  
15 NOVEMBRE 2011 17:57:04  
History 0 - MURENI

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FASE	6	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4846.0	4581.9
		SPINTA ACQUA	2529.5	3364.6
		SPINTA TOTALE VERA	7375.5	7946.5
		SPINTA ATTIVA (POSSIBILE)	338.95	1595.4
		SPINTA PASSIVA (POSSIBILE)	7029.8	22899.
		RAPPORTO PASSIVA/VERA	1.4506	4.9978
		SPINTA PASSIVA MOBILITATA	69.%	20.%
		RAPPORTO VERA/ATTIVA	14.297	2.8718

OUTPUT PLOTS:



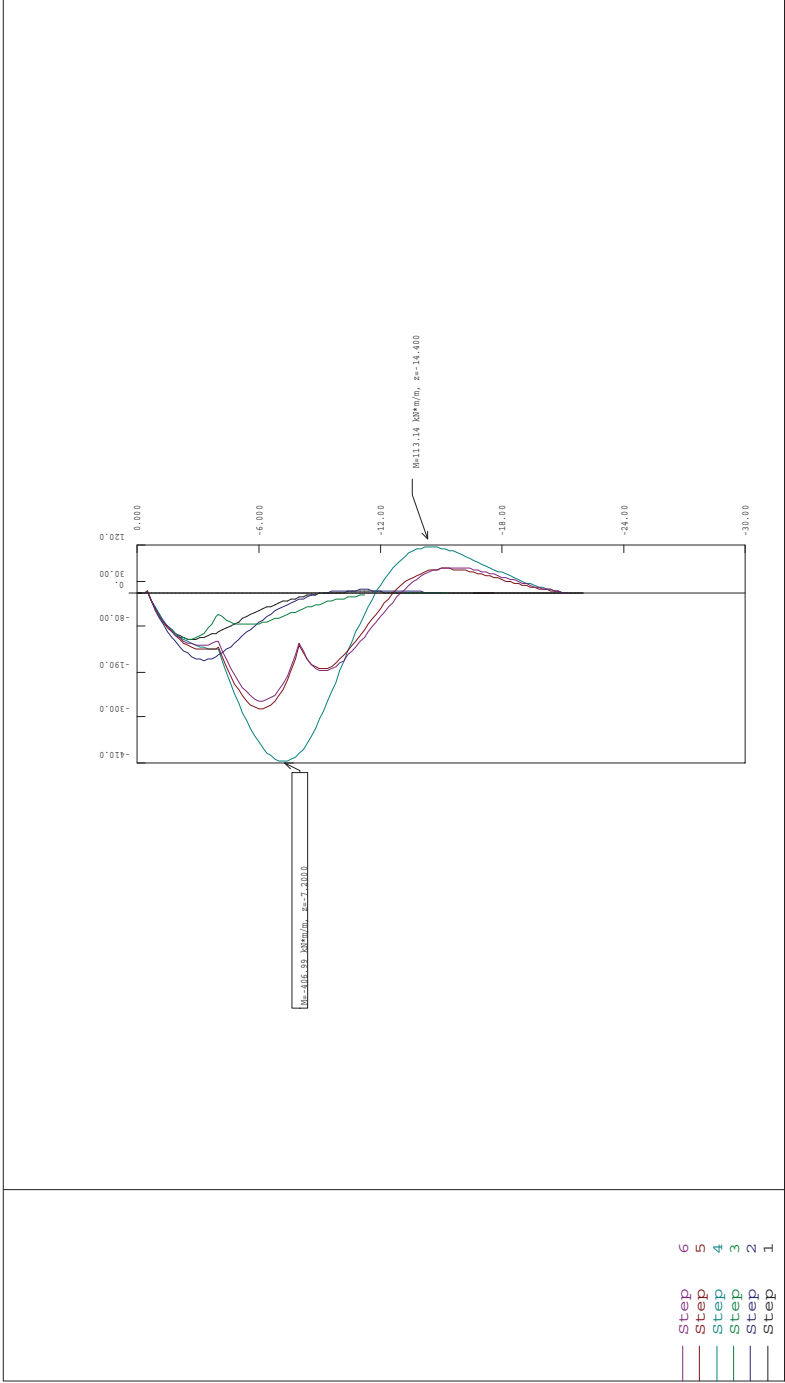
- step 6
- step 5
- step 4
- step 3
- step 2
- step 1

FATTORE SCALA: 2.46 - FATTORE AMPLIF.: 4577.88  
 DEFORMATA PASSI 1 / 6 [m]

Pecece units= KN  
 Length units= M

REPORT 6 - MURINI  
 C:\Users\Bentoni\Desktop\Nuovo\_cantale\_311\11\11 - Baralle\_Murini\_Nodi\_Vantaggi\STEP\_AVALIATEL\_Sm\_DEFORM

\* Ce.A.S. S.r.l. Milano \*  
 www.ceas.it  
 P A R A T I E 7.00  
 15 NOVEMBRE 2011 17:57:04



MOMENTI FLETTENTI [kN\*m/m]  
 INVILUPPO DA 1 A 6 SCALA GEOM. : 2,32

LIB: C:\Users\Bentoni\Documents\Agnone\_casas\1 - CIVILIA - Baralle\_Murmi\_Mod\_Vantocci\STEP\_Agnone\_Lib\_Mur\_Ultimo

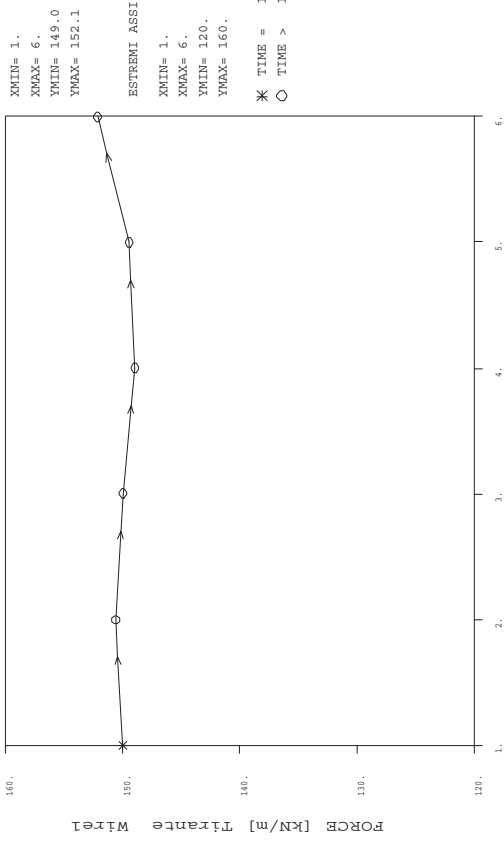
FILE: 0 - MURMI

Perce unitas KN  
 Length unitas M

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 15 NOVEMBRE 2011 17:57:04



Tirante Wire1	
STEP	FORCE [kN/m]
1.	150.
2.	150.6
3.	150.0
4.	149.0
5.	149.4
6.	152.1



STEP

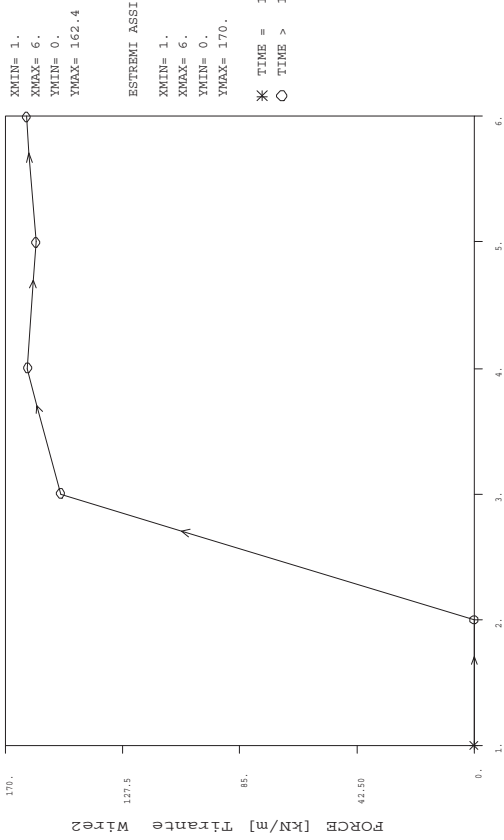
DAL PASSO 1 AL PASSO 6  
DIAGRAMMA VARIABILE X / VARIABILE Y

REPORT 6 - MIBENT  
C:\Users\Bentini\Documents\Anno\_2010\_2011\Bentini\_Bentini\Bentini\_Bentini\Bentini\_Bentini

Force units= kN  
Length units= m

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15 NOVEMBRE 2011 17:57:04

Tirante Wire2	FORCE [kN/m]
1.	0.
2.	0.
3.	150.
4.	162.0
5.	159.0
6.	162.4



STEP

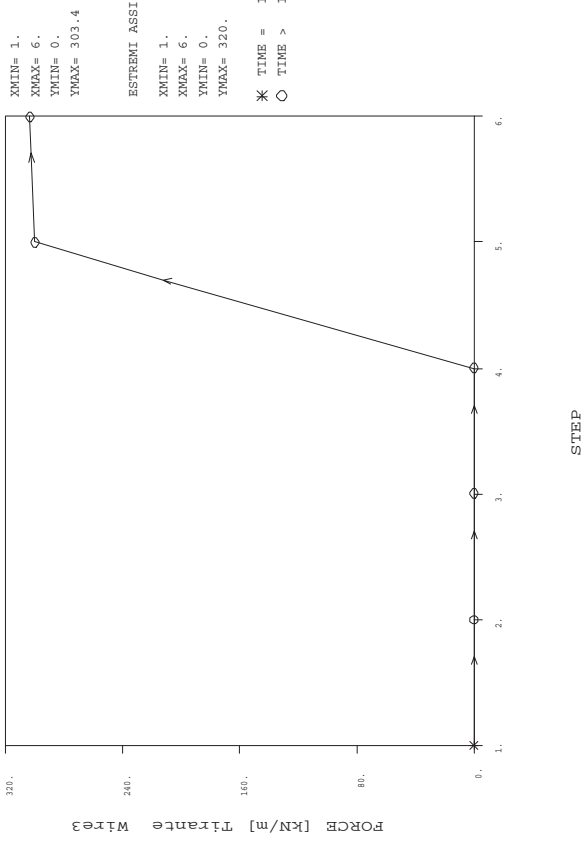
DAL PASSO 1 AL PASSO 6  
 DIAGRAMMA VARIABILE X / VARIABILE Y

REPORT 0 - MIBENT  
 C:\Users\Bentini\Documents\Anno\_2010\_2011\Bentini\_Bentini\Bentini\_Bentini\Bentini\_Bentini

Force units= kN  
 Length units= m

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Tirante Wire3	
STEP	FORCE [kN/m]
1.	0.
2.	0.
3.	0.
4.	0.
5.	300.
6.	303.4



DAL PASSO 1 AL PASSO 6  
 DIAGRAMMA VARIABILE X / VARIABILE Y

REPORT 6 - MIBENT  
 C:\Users\Bentini\Documents\Anno\_2010\_2011\Bentini\_Bentini\Bentini\_Bentini\Bentini\_Bentini

Force units= kN  
 Length units= m

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 15 NOVEMBRE 2011 17:57:04

PARATIE 7.00  
15 NOVEMBRE 2011 17:57:23  
History 0 - MURENI

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PAG. 1

```
*****  
**  
**          P  A  R  A  T  I  E          **  
**  
**          RELEASE 7.00  VERSIONE WIN  **  
**  
**  Ce.A.S. s.r.l. - Viale Giustiniano, 10  **  
**                      20129 MILANO      **  
**  
*****
```

JOBNAME C:\Users\Tecnico5\Desktop\Nuova cartella (3)\File Paratie Mureni No

15 NOVEMBRE 2011 17:57:23



## ELENCO DEI DATI DI INPUT(PARAGEN)

Per il significato dei vari comandi  
si faccia riferimento al manuale di  
input PARAGEN, versione 7.00.

## N. comando

```
1: * Paratie for Windows version 7.0
2: * Filename= <c:\users\tecnico5\desktop\nuova cartella (3)\file
  paratie\str al+m1
3: * project with "run time" parameters
4: * Force=kN Lenght=m
5: *
6: units m kN
7: title History 0 - MURENI
8: delta 0.2
9: option param itemax 20
10: option noprint echo
11: option noprint displ
12: option noprint react
13: option noprint stresses
14:      wall RightWall 0 -30 0
15: *
16: soil DHRight RightWall -30 0 2 0
17: soil UHRight RightWall -30 0 1 180
18: *
19: material Pali 3.2308E+007
20: material Acciaio 2.1E+008
21: *
22: beam Right_wall RightWall -25 0 Pali 0.979439 00 00
23: *
24: wire Wire1 RightWall -0.5 Acciaio 2.87179E-005 150 157.5
25: wire Wire2 RightWall -4 Acciaio 4.30769E-005 150 157.5
26: wire Wire3 RightWall -8 Acciaio 4.30769E-005 300 157.5
27: *
28: * Soil Profile
29: *
30:      ldata          Soil 0
31:          weight      19 9 10
32:          atrest      1 0.5 1
33:          resistance  10 27 0.33 3.701
34:          young        250000 300000
35:      endlayer
36:      ldata          Soil2 -10
37:          weight      19 9 10
38:          atrest      1 0.5 1
```

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N. comando

```
39:      resistance 10 27 0.33 3.701
40:      young      250000 300000
41:      endlayer
42: *
43: step 1 :
44:      setwall RightWall
45:      geom 0 -0.5
46:      add Wire1
47: endstep
48: *
49: step 2 :
50:      setwall RightWall
51:      geom 0 -4
52:      water -2 2
53: endstep
54: *
55: step 3 :
56:      setwall RightWall
57:      add Wire2
58: endstep
59: *
60: step 4 :
61:      setwall RightWall
62:      geom 0 -8.5
63:      water -2 6.5
64: endstep
65: *
66: step 5 :
67:      setwall RightWall
68:      add Wire3
69: endstep
70: *
71: step 6 :
72:      setwall RightWall
73:      geom 0 -11.75
74:      water -2 9.75
75:      surcharge 23 0 0 0
76: endstep
77: *
78: *
```

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 1

LAYER Soil

natura 1=granulare, 2=argilla	= 1.0000		
quota superiore	= 0.0000	m	
quota inferiore	= -10.000	m	
peso fuori falda	= 19.000	kN/m <sup>3</sup>	
peso efficace in falda	= 9.0000	kN/m <sup>3</sup>	
peso dell'acqua	= 10.000	kN/m <sup>3</sup>	
coesione	= 10.000	kPa	(A MONTE)
angolo di attrito	= 27.000	DEG	(A MONTE)
coeff. spinta attiva ka	= 0.33000		(A MONTE)
coeff. spinta passiva kp	= 3.7010		(A MONTE)
Konc normal consolidato	= 1.0000		
esponente di OCR	= 0.50000		
OCR: grado di sovraconsolidazione	= 1.0000		
modello di rigidezza	= 1.0000		
modulo el. compr. vergine	= 0.25000E+06	kPa	
modulo el. scarico/ricarico	= 0.30000E+06	kPa	
natura 1=granulare, 2=argilla	= 1.0000		(A VALLE)
coesione	= 10.000	kPa	(A VALLE)
angolo di attrito	= 27.000	DEG	(A VALLE)
coeff. spinta attiva ka	= 0.33000		(A VALLE)
coeff. spinta passiva kp	= 3.7010		(A VALLE)

LAYER Soil2

natura 1=granulare, 2=argilla	= 1.0000		
quota superiore	= -10.000	m	
quota inferiore	= -0.10000E+31	m	
peso fuori falda	= 19.000	kN/m <sup>3</sup>	
peso efficace in falda	= 9.0000	kN/m <sup>3</sup>	
peso dell'acqua	= 10.000	kN/m <sup>3</sup>	
coesione	= 10.000	kPa	(A MONTE)
angolo di attrito	= 27.000	DEG	(A MONTE)
coeff. spinta attiva ka	= 0.33000		(A MONTE)
coeff. spinta passiva kp	= 3.7010		(A MONTE)
Konc normal consolidato	= 1.0000		
esponente di OCR	= 0.50000		
OCR: grado di sovraconsolidazione	= 1.0000		
modello di rigidezza	= 1.0000		
modulo el. compr. vergine	= 0.25000E+06	kPa	
modulo el. scarico/ricarico	= 0.30000E+06	kPa	
natura 1=granulare, 2=argilla	= 1.0000		(A VALLE)
coesione	= 10.000	kPa	(A VALLE)

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RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 1

angolo di attrito	=	27.000	DEG	(A VALLE)
coeff. spinta attiva ka	=	0.33000		(A VALLE)
coeff. spinta passiva kp	=	3.7010		(A VALLE)

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 2

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 3

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 4

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 5

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 6

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO DATI RELATIVI ALLA FASE 1

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-0.50000	m
quota della falda	=	-0.99900E+30	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	0.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 2

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-4.0000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	2.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 3

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-4.0000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa

## RIASSUNTO DATI RELATIVI ALLA FASE 3

quota del sovraccarico a monte	= 0.0000	m
depressione falda a valle	= 2.0000	m
sovraccarico a valle	= 0.0000	kPa
quota del sovraccarico a valle	= -0.99900E+30	m
quota di taglio	= 0.0000	m
quota di equil. pressioni dell'acqua	= -30.0000	m
indicatore comportamento acqua	= 0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	= 0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 4

## WALL RightWall

coordinata y	= 0.0000	m
quota piano campagna	= 0.0000	m
quota del fondo scavo	= -8.5000	m
quota della falda	= -2.0000	m
sovraccarico a monte	= 0.0000	kPa
quota del sovraccarico a monte	= 0.0000	m
depressione falda a valle	= 6.5000	m
sovraccarico a valle	= 0.0000	kPa
quota del sovraccarico a valle	= -0.99900E+30	m
quota di taglio	= 0.0000	m
quota di equil. pressioni dell'acqua	= -30.0000	m
indicatore comportamento acqua	= 0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	= 0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 5

## WALL RightWall

coordinata y	= 0.0000	m
quota piano campagna	= 0.0000	m
quota del fondo scavo	= -8.5000	m
quota della falda	= -2.0000	m
sovraccarico a monte	= 0.0000	kPa
quota del sovraccarico a monte	= 0.0000	m
depressione falda a valle	= 6.5000	m
sovraccarico a valle	= 0.0000	kPa
quota del sovraccarico a valle	= -0.99900E+30	m
quota di taglio	= 0.0000	m
quota di equil. pressioni dell'acqua	= -30.0000	m
indicatore comportamento acqua	= 0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	= 0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 6

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WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-11.750	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	23.000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	9.7500	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	0.0000	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO ELEMENTI

=====

RIASSUNTO ELEMENTI SOIL						
Name	Wall	Z1	Z2	Flag	Angle	
		m	m		deg	
DHRight	RightWall	0.	-30.00	DOWNHILL	0.	
UHRight	RightWall	0.	-30.00	UPHILL	180.0	

RIASSUNTO ELEMENTI BEAM						
Name	Wall	Z1	Z2	Mat	thick	
		m	m		m	
Right_wall	RightWall	0.	-25.00	_	0.9794	

RIASSUNTO ELEMENTI WIRE						
Name	Wall	Zeta	Mat	A/L	Pinit	Angle
		m			kN/m	deg
Wire1	RightWall	-.5000	_	0.2872E-04	150.0	157.5
Wire2	RightWall	-4.000	_	0.4308E-04	150.0	157.5
Wire3	RightWall	-8.000	_	0.4308E-04	300.0	157.5



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RIASSUNTO DATI VARI  
=====

MATERIALI	
Name	YOUNG MODULUS
	kPa
Pali	3.2308E+007
Acci	2.1E+008

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RIASSUNTO ANALISI INCREMENTALE

FASE	N. DI ITERAZIONI	CONVERGENZA
1	4	SI
2	2	SI
3	3	SI
4	5	SI
5	2	SI
6	6	SI

## MASSIMI SPOSTAMENTI LATERALI

\*TUTTI I PASSI\*

\* PARETE RightWall\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

\* NOTA: LE QUOTE ESPRESSE IN m

E GLI SPOSTAMENTI IN m

NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
1	0.0000	0.12043E-02	6
2	-0.20000	0.89780E-03	6
3	-0.40000	0.71290E-03	4
4	-0.50000	0.64399E-03	4
5	-0.70000	0.50614E-03	4
6	-0.90000	0.38531E-03	1
7	-1.1000	-0.48137E-03	6
8	-1.3000	-0.78685E-03	6
9	-1.5000	-0.10915E-02	6
10	-1.7000	-0.13952E-02	6
11	-1.9000	-0.16978E-02	6
12	-2.1000	-0.19992E-02	6
13	-2.3000	-0.22992E-02	6
14	-2.5000	-0.25978E-02	6
15	-2.7000	-0.28948E-02	6
16	-2.9000	-0.31902E-02	6
17	-3.1000	-0.34838E-02	6
18	-3.3000	-0.37757E-02	6
19	-3.5000	-0.40657E-02	6
20	-3.7000	-0.43538E-02	6
21	-3.9000	-0.46400E-02	6
22	-4.0000	-0.47823E-02	6
23	-4.2000	-0.50656E-02	6
24	-4.4000	-0.53464E-02	6
25	-4.6000	-0.56242E-02	6
26	-4.8000	-0.58986E-02	6
27	-5.0000	-0.61691E-02	6
28	-5.2000	-0.64353E-02	6
29	-5.4000	-0.66968E-02	6
30	-5.6000	-0.69531E-02	6
31	-5.8000	-0.72040E-02	6
32	-6.0000	-0.74492E-02	6
33	-6.2000	-0.76883E-02	6
34	-6.4000	-0.79211E-02	6
35	-6.6000	-0.81474E-02	6
36	-6.8000	-0.83671E-02	6
37	-7.0000	-0.85799E-02	6
38	-7.2000	-0.87858E-02	6

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
39	-7.4000	-0.89848E-02	6
40	-7.6000	-0.91769E-02	6
41	-7.8000	-0.93620E-02	6
42	-8.0000	-0.95402E-02	6
43	-8.2000	-0.97116E-02	6
44	-8.4000	-0.98755E-02	6
45	-8.6000	-0.10031E-01	6
46	-8.8000	-0.10177E-01	6
47	-9.0000	-0.10313E-01	6
48	-9.2000	-0.10439E-01	6
49	-9.4000	-0.10554E-01	6
50	-9.6000	-0.10657E-01	6
51	-9.8000	-0.10748E-01	6
52	-10.000	-0.10826E-01	6
53	-10.200	-0.10891E-01	6
54	-10.400	-0.10943E-01	6
55	-10.600	-0.10981E-01	6
56	-10.800	-0.11006E-01	6
57	-11.000	-0.11017E-01	6
58	-11.200	-0.11014E-01	6
59	-11.400	-0.10997E-01	6
60	-11.600	-0.10967E-01	6
61	-11.800	-0.10923E-01	6
62	-12.000	-0.10866E-01	6
63	-12.200	-0.10796E-01	6
64	-12.400	-0.10714E-01	6
65	-12.600	-0.10619E-01	6
66	-12.800	-0.10513E-01	6
67	-13.000	-0.10395E-01	6
68	-13.200	-0.10267E-01	6
69	-13.400	-0.10129E-01	6
70	-13.600	-0.99815E-02	6
71	-13.800	-0.98249E-02	6
72	-14.000	-0.96600E-02	6
73	-14.200	-0.94875E-02	6
74	-14.400	-0.93080E-02	6
75	-14.600	-0.91222E-02	6
76	-14.800	-0.89308E-02	6
77	-15.000	-0.87344E-02	6
78	-15.200	-0.85339E-02	6
79	-15.400	-0.83298E-02	6
80	-15.600	-0.81229E-02	6
81	-15.800	-0.79138E-02	6
82	-16.000	-0.77032E-02	6
83	-16.200	-0.74918E-02	6
84	-16.400	-0.72802E-02	6

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
85	-16.600	-0.70690E-02	6
86	-16.800	-0.68588E-02	6
87	-17.000	-0.66501E-02	6
88	-17.200	-0.64436E-02	6
89	-17.400	-0.62396E-02	6
90	-17.600	-0.60387E-02	6
91	-17.800	-0.58413E-02	6
92	-18.000	-0.56478E-02	6
93	-18.200	-0.54584E-02	6
94	-18.400	-0.52735E-02	6
95	-18.600	-0.50933E-02	6
96	-18.800	-0.49180E-02	6
97	-19.000	-0.47478E-02	6
98	-19.200	-0.45827E-02	6
99	-19.400	-0.44229E-02	6
100	-19.600	-0.42684E-02	6
101	-19.800	-0.41191E-02	6
102	-20.000	-0.39751E-02	6
103	-20.200	-0.38363E-02	6
104	-20.400	-0.37026E-02	6
105	-20.600	-0.35738E-02	6
106	-20.800	-0.34498E-02	6
107	-21.000	-0.33304E-02	6
108	-21.200	-0.32155E-02	6
109	-21.400	-0.31046E-02	6
110	-21.600	-0.29977E-02	6
111	-21.800	-0.28944E-02	6
112	-22.000	-0.27944E-02	6
113	-22.200	-0.26975E-02	6
114	-22.400	-0.26034E-02	6
115	-22.600	-0.25118E-02	6
116	-22.800	-0.24224E-02	6
117	-23.000	-0.23349E-02	6
118	-23.200	-0.22491E-02	6
119	-23.400	-0.21646E-02	6
120	-23.600	-0.20814E-02	6
121	-23.800	-0.19990E-02	6
122	-24.000	-0.19173E-02	6
123	-24.200	-0.18362E-02	6
124	-24.400	-0.17554E-02	6
125	-24.600	-0.16748E-02	6
126	-24.800	-0.15944E-02	6
127	-25.000	-0.15140E-02	6
128	-25.200	-0.25995E-02	6
129	-25.400	-0.25948E-02	6
130	-25.600	-0.25902E-02	6

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
131	-25.800	-0.25856E-02	6
132	-26.000	-0.25810E-02	6
133	-26.200	-0.25765E-02	6
134	-26.400	-0.25719E-02	6
135	-26.600	-0.25675E-02	6
136	-26.800	-0.25630E-02	6
137	-27.000	-0.25586E-02	6
138	-27.200	-0.25542E-02	6
139	-27.400	-0.25498E-02	6
140	-27.600	-0.25454E-02	6
141	-27.800	-0.25411E-02	6
142	-28.000	-0.25368E-02	6
143	-28.200	-0.25325E-02	6
144	-28.400	-0.25283E-02	6
145	-28.600	-0.25240E-02	6
146	-28.800	-0.25198E-02	6
147	-29.000	-0.25156E-02	6
148	-29.200	-0.25114E-02	6
149	-29.400	-0.25073E-02	6
150	-29.600	-0.25032E-02	6
151	-29.800	-0.24990E-02	6
152	-30.000	-0.24949E-02	6

INVILUPPO AZIONI INTERNE NEGLI ELEMENTI DI PARETE  
 (PER UNITA' DI PROFONDITA')

\* PARETE RightWall GRUPPO Right\_wall\*

\*STEP 1 - 6\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

MOMENTO SX = Momento che tende le fibre sulla faccia sinistra [kN\*m/m]

MOMENTO DX = Momento che tende le fibre sulla faccia destra [kN\*m/m]

TAGLIO = forza tagliante (valore assoluto, priva di segno) [kN/m ]

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
1	A	0.	0.3820E-10	0.4547E-10	6.321
	B	-0.2000	0.	1.264	6.321
2	A	-0.2000	0.	1.264	20.83
	B	-0.4000	0.	5.430	20.83
3	A	-0.4000	0.	5.430	32.99
	B	-0.5000	0.	8.729	32.99
4	A	-0.5000	0.	8.729	112.8
	B	-0.7000	17.54	0.	112.8
5	A	-0.7000	17.54	0.	103.8
	B	-0.9000	38.31	0.	103.8
6	A	-0.9000	38.31	0.	95.09
	B	-1.100	57.32	0.	95.09
7	A	-1.100	57.32	0.	86.59
	B	-1.300	74.64	0.	86.59
8	A	-1.300	74.64	0.	78.33
	B	-1.500	90.31	0.	78.33
9	A	-1.500	90.31	0.	70.29
	B	-1.700	104.4	0.	70.29
10	A	-1.700	104.4	0.	62.43
	B	-1.900	116.9	0.	62.43
11	A	-1.900	116.9	0.	54.72
	B	-2.100	127.8	0.	54.72
12	A	-2.100	127.8	0.	47.02
	B	-2.300	137.2	0.	47.02
13	A	-2.300	137.2	0.	39.21
	B	-2.500	145.0	0.	39.21
14	A	-2.500	145.0	0.	31.25
	B	-2.700	151.3	0.	31.25
15	A	-2.700	151.3	0.	25.57
	B	-2.900	155.9	0.	25.57
16	A	-2.900	155.9	0.	25.30
	B	-3.100	158.8	0.	25.30
17	A	-3.100	158.8	0.	37.51
	B	-3.300	160.0	0.	37.51

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
18	A	-3.300	160.0	0.	50.10
	B	-3.500	159.4	0.	50.10
19	A	-3.500	159.4	0.	63.11
	B	-3.700	156.9	0.	63.11
20	A	-3.700	156.9	0.	76.55
	B	-3.900	152.5	0.	76.55
21	A	-3.900	152.5	0.	86.98
	B	-4.000	149.5	0.	86.98
22	A	-4.000	149.5	0.	166.9
	B	-4.200	163.1	0.	166.9
23	A	-4.200	163.1	0.	160.1
	B	-4.400	190.7	0.	160.1
24	A	-4.400	190.7	0.	152.8
	B	-4.600	217.3	0.	152.8
25	A	-4.600	217.3	0.	145.0
	B	-4.800	246.3	0.	145.0
26	A	-4.800	246.3	0.	136.8
	B	-5.000	273.6	0.	136.8
27	A	-5.000	273.6	0.	128.2
	B	-5.200	299.3	0.	128.2
28	A	-5.200	299.3	0.	119.1
	B	-5.400	323.1	0.	119.1
29	A	-5.400	323.1	0.	109.5
	B	-5.600	345.0	0.	109.5
30	A	-5.600	345.0	0.	99.42
	B	-5.800	364.9	0.	99.42
31	A	-5.800	364.9	0.	88.91
	B	-6.000	382.6	0.	88.91
32	A	-6.000	382.6	0.	77.93
	B	-6.200	398.2	0.	77.93
33	A	-6.200	398.2	0.	66.50
	B	-6.400	411.5	0.	66.50
34	A	-6.400	411.5	0.	54.60
	B	-6.600	422.5	0.	54.60
35	A	-6.600	422.5	0.	47.15
	B	-6.800	430.9	0.	47.15
36	A	-6.800	430.9	0.	64.76
	B	-7.000	436.8	0.	64.76
37	A	-7.000	436.8	0.	82.96
	B	-7.200	440.0	0.	82.96
38	A	-7.200	440.0	0.	101.7
	B	-7.400	440.5	0.	101.7
39	A	-7.400	440.5	0.	121.0
	B	-7.600	438.1	0.	121.0
40	A	-7.600	438.1	0.	140.9
	B	-7.800	432.8	0.	140.9



BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
41	A	-7.800	432.8	0.	161.2
	B	-8.000	424.5	0.	161.2
42	A	-8.000	424.5	0.	276.4
	B	-8.200	479.8	0.	276.4
43	A	-8.200	479.8	0.	260.3
	B	-8.400	531.8	0.	260.3
44	A	-8.400	531.8	0.	243.8
	B	-8.600	580.6	0.	243.8
45	A	-8.600	580.6	0.	226.8
	B	-8.800	626.0	0.	226.8
46	A	-8.800	626.0	0.	209.4
	B	-9.000	667.8	0.1008	209.4
47	A	-9.000	667.8	0.1008	191.5
	B	-9.200	706.1	1.937	191.5
48	A	-9.200	706.1	1.937	173.1
	B	-9.400	740.7	3.510	173.1
49	A	-9.400	740.7	3.510	154.3
	B	-9.600	771.6	4.840	154.3
50	A	-9.600	771.6	4.840	135.0
	B	-9.800	798.6	5.947	135.0
51	A	-9.800	798.6	5.947	120.3
	B	-10.00	821.6	6.848	120.3
52	A	-10.00	821.6	6.848	120.2
	B	-10.20	840.6	7.564	120.2
53	A	-10.20	840.6	7.564	119.0
	B	-10.40	855.5	8.112	119.0
54	A	-10.40	855.5	8.112	116.7
	B	-10.60	866.1	8.509	116.7
55	A	-10.60	866.1	8.509	113.4
	B	-10.80	872.4	8.771	113.4
56	A	-10.80	872.4	8.771	108.9
	B	-11.00	874.3	8.914	108.9
57	A	-11.00	874.3	8.914	103.9
	B	-11.20	871.7	8.953	103.9
58	A	-11.20	871.7	8.953	98.69
	B	-11.40	864.5	8.901	98.69
59	A	-11.40	864.5	8.901	93.26
	B	-11.60	852.6	8.771	93.26
60	A	-11.60	852.6	8.771	87.62
	B	-11.80	835.9	8.575	87.62
61	A	-11.80	835.9	8.575	99.73
	B	-12.00	816.0	21.10	99.73
62	A	-12.00	816.0	21.10	115.0
	B	-12.20	793.0	36.23	115.0
63	A	-12.20	793.0	36.23	129.2
	B	-12.40	767.1	50.10	129.2

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
64	A	-12.40	767.1	50.10	142.4
	B	-12.60	738.6	62.67	142.4
65	A	-12.60	738.6	62.67	154.5
	B	-12.80	707.7	73.87	154.5
66	A	-12.80	707.7	73.87	165.6
	B	-13.00	674.6	83.67	165.6
67	A	-13.00	674.6	83.67	175.7
	B	-13.20	639.5	92.01	175.7
68	A	-13.20	639.5	92.01	184.7
	B	-13.40	602.5	98.85	184.7
69	A	-13.40	602.5	98.85	192.7
	B	-13.60	564.0	104.3	192.7
70	A	-13.60	564.0	104.3	199.6
	B	-13.80	524.0	108.5	199.6
71	A	-13.80	524.0	108.5	205.5
	B	-14.00	482.9	111.5	205.5
72	A	-14.00	482.9	111.5	210.3
	B	-14.20	440.9	113.4	210.3
73	A	-14.20	440.9	113.4	214.2
	B	-14.40	398.0	114.5	214.2
74	A	-14.40	398.0	114.5	216.9
	B	-14.60	354.7	114.6	216.9
75	A	-14.60	354.7	114.6	218.6
	B	-14.80	310.9	114.1	218.6
76	A	-14.80	310.9	114.1	219.3
	B	-15.00	267.1	112.8	219.3
77	A	-15.00	267.1	112.8	218.9
	B	-15.20	223.3	111.0	218.9
78	A	-15.20	223.3	111.0	217.5
	B	-15.40	179.8	108.6	217.5
79	A	-15.40	179.8	108.6	215.1
	B	-15.60	136.8	105.9	215.1
80	A	-15.60	136.8	105.9	211.6
	B	-15.80	94.46	102.7	211.6
81	A	-15.80	94.46	102.7	207.0
	B	-16.00	53.05	99.26	207.0
82	A	-16.00	53.05	99.26	201.5
	B	-16.20	12.75	95.55	201.5
83	A	-16.20	12.75	95.55	194.8
	B	-16.40	0.	91.65	194.8
84	A	-16.40	0.	91.65	187.2
	B	-16.60	0.	87.59	187.2
85	A	-16.60	0.	87.59	178.5
	B	-16.80	0.	99.35	178.5
86	A	-16.80	0.	99.35	168.7
	B	-17.00	0.	133.1	168.7

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
87	A	-17.00	0.	133.1	157.9
	B	-17.20	0.	164.7	157.9
88	A	-17.20	0.	164.7	146.1
	B	-17.40	0.	193.9	146.1
89	A	-17.40	0.	193.9	133.2
	B	-17.60	0.4142E-01	220.5	133.2
90	A	-17.60	0.4142E-01	220.5	119.3
	B	-17.80	0.7906E-01	244.4	119.3
91	A	-17.80	0.7906E-01	244.4	104.4
	B	-18.00	0.1105	265.3	104.4
92	A	-18.00	0.1105	265.3	89.49
	B	-18.20	0.1364	283.2	89.49
93	A	-18.20	0.1364	283.2	75.23
	B	-18.40	0.1571	298.2	75.23
94	A	-18.40	0.1571	298.2	61.54
	B	-18.60	0.1731	310.5	61.54
95	A	-18.60	0.1731	310.5	48.39
	B	-18.80	0.1850	320.2	48.39
96	A	-18.80	0.1850	320.2	35.74
	B	-19.00	0.2050	327.4	35.74
97	A	-19.00	0.2050	327.4	23.57
	B	-19.20	0.2267	332.1	23.57
98	A	-19.20	0.2267	332.1	15.89
	B	-19.40	0.2424	334.4	15.89
99	A	-19.40	0.2424	334.4	15.07
	B	-19.60	0.2526	334.5	15.07
100	A	-19.60	0.2526	334.5	14.25
	B	-19.80	0.2581	332.5	14.25
101	A	-19.80	0.2581	332.5	21.04
	B	-20.00	0.2594	328.3	21.04
102	A	-20.00	0.2594	328.3	31.34
	B	-20.20	0.2571	322.0	31.34
103	A	-20.20	0.2571	322.0	41.37
	B	-20.40	0.2518	313.7	41.37
104	A	-20.40	0.2518	313.7	51.17
	B	-20.60	0.2438	303.5	51.17
105	A	-20.60	0.2438	303.5	60.36
	B	-20.80	0.2337	291.4	60.36
106	A	-20.80	0.2337	291.4	68.27
	B	-21.00	0.2219	277.8	68.27
107	A	-21.00	0.2219	277.8	74.94
	B	-21.20	0.2087	262.8	74.94
108	A	-21.20	0.2087	262.8	80.42
	B	-21.40	0.1945	246.7	80.42
109	A	-21.40	0.1945	246.7	84.74
	B	-21.60	0.1796	229.7	84.74

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History 0 - MURENI

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
110	A	-21.60	0.1796	229.7	87.97
	B	-21.80	0.1642	212.1	87.97
111	A	-21.80	0.1642	212.1	90.12
	B	-22.00	0.1487	194.1	90.12
112	A	-22.00	0.1487	194.1	91.25
	B	-22.20	0.1331	175.9	91.25
113	A	-22.20	0.1331	175.9	91.38
	B	-22.40	0.1179	157.6	91.38
114	A	-22.40	0.1179	157.6	90.55
	B	-22.60	0.1030	139.5	90.55
115	A	-22.60	0.1030	139.5	88.78
	B	-22.80	0.8874E-01	121.7	88.78
116	A	-22.80	0.8874E-01	121.7	86.09
	B	-23.00	0.7518E-01	104.5	86.09
117	A	-23.00	0.7518E-01	104.5	82.50
	B	-23.20	0.6244E-01	88.00	82.50
118	A	-23.20	0.6244E-01	88.00	78.04
	B	-23.40	0.5066E-01	72.40	78.04
119	A	-23.40	0.5066E-01	72.40	72.71
	B	-23.60	0.3991E-01	57.85	72.71
120	A	-23.60	0.3991E-01	57.85	66.53
	B	-23.80	0.3030E-01	44.55	66.53
121	A	-23.80	0.3030E-01	44.55	59.51
	B	-24.00	0.2188E-01	32.64	59.51
122	A	-24.00	0.2188E-01	32.64	51.66
	B	-24.20	0.1474E-01	22.31	51.66
123	A	-24.20	0.1474E-01	22.31	42.98
	B	-24.40	0.8933E-02	13.72	42.98
124	A	-24.40	0.8933E-02	13.72	33.47
	B	-24.60	0.4508E-02	7.023	33.47
125	A	-24.60	0.4508E-02	7.023	23.14
	B	-24.80	0.1516E-02	2.396	23.14
126	A	-24.80	0.1516E-02	2.396	11.98
	B	-25.00	0.2910E-10	0.2387E-10	11.98

## FORZE NEGLI ANCORAGGI ATTIVI (PER UNITA' DI PROFONDITA')

TIRANTE	Wire1	1 PARETE RightWall	QUOTA	-0.50000
		FASE 1 FORZA	150.00	kN/m
		FASE 2 FORZA	150.59	kN/m
		FASE 3 FORZA	149.97	kN/m
		FASE 4 FORZA	148.96	kN/m
		FASE 5 FORZA	149.45	kN/m
		FASE 6 FORZA	150.11	kN/m
TIRANTE	Wire2	1 PARETE RightWall	QUOTA	-4.0000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 FORZA	150.00	kN/m
		FASE 4 FORZA	162.01	kN/m
		FASE 5 FORZA	159.01	kN/m
		FASE 6 FORZA	188.68	kN/m
TIRANTE	Wire3	1 PARETE RightWall	QUOTA	-8.0000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 inattivo		
		FASE 4 inattivo		
		FASE 5 FORZA	300.00	kN/m
		FASE 6 FORZA	361.10	kN/m

## INVILUPPO RISULTATI NEGLI ELEMENTI TERRENO

\* PARETE RightWall GRUPPO DHRight\*

\*STEP 1 - 6\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

SIGMA-H = massimo sforzo orizzontale efficace [kPa ]

TAGLIO = massimo sforzo di taglio [kPa ]

PR. ACQUA =massima pressione interstiziale [kPa ]

GRAD. MAX =massimo gradiente idraulico

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
1	0.	0.	0.	0.	0.
2	-0.2000	0.	0.	0.	0.
3	-0.4000	0.	0.	0.	0.
4	-0.5000	0.	0.	0.	0.
5	-0.7000	0.	1.900	0.	0.
6	-0.9000	0.	3.800	0.	0.
7	-1.100	0.	5.700	0.	0.
8	-1.300	0.	7.600	0.	0.
9	-1.500	0.	9.500	0.	0.
10	-1.700	0.	11.40	0.	0.
11	-1.900	6.496	10.05	0.	0.
12	-2.100	12.99	8.703	0.	0.
13	-2.300	19.34	7.429	0.	0.
14	-2.500	25.54	6.232	0.	0.
15	-2.700	31.57	5.113	0.	0.
16	-2.900	37.45	4.074	0.	0.
17	-3.100	43.17	3.115	0.	0.
18	-3.300	48.73	2.234	0.	0.
19	-3.500	54.14	1.429	0.	0.
20	-3.700	59.40	0.6980	0.	0.
21	-3.900	64.40	0.1016	0.	0.
22	-4.000	66.82	11.96	0.	0.
23	-4.200	71.57	17.33	2.074	0.3704E-01
24	-4.400	76.22	19.60	4.148	0.3704E-01
25	-4.600	80.77	21.35	6.222	0.3704E-01
26	-4.800	85.22	22.81	8.296	0.3704E-01
27	-5.000	89.58	24.07	10.37	0.3704E-01
28	-5.200	93.86	25.18	12.44	0.3704E-01
29	-5.400	98.05	26.17	14.52	0.3704E-01
30	-5.600	102.2	27.06	16.59	0.3704E-01
31	-5.800	106.2	27.87	18.67	0.3704E-01
32	-6.000	110.2	28.60	20.74	0.3704E-01
33	-6.200	114.2	29.28	22.81	0.3704E-01
34	-6.400	118.1	29.90	24.89	0.3704E-01
35	-6.600	122.0	30.47	26.96	0.3704E-01

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SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
36	-6.800	125.8	31.00	29.04	0.3704E-01
37	-7.000	129.6	31.49	31.11	0.3704E-01
38	-7.200	133.4	31.96	33.19	0.3704E-01
39	-7.400	137.1	32.40	35.26	0.3704E-01
40	-7.600	140.9	32.81	37.33	0.3704E-01
41	-7.800	144.6	33.21	39.41	0.3704E-01
42	-8.000	148.3	33.59	41.48	0.3704E-01
43	-8.200	152.0	33.96	43.56	0.3704E-01
44	-8.400	155.7	34.32	45.63	0.3704E-01
45	-8.600	159.4	34.67	47.70	0.1313
46	-8.800	163.1	35.02	49.78	0.1313
47	-9.000	166.8	35.36	51.85	0.1313
48	-9.200	170.4	35.69	53.93	0.1313
49	-9.400	174.1	36.03	56.00	0.1313
50	-9.600	177.8	36.37	58.07	0.1313
51	-9.800	181.5	36.70	60.15	0.1313
52	-10.00	185.2	37.04	62.22	0.1313
53	-10.20	188.9	37.38	64.30	0.1313
54	-10.40	192.6	38.96	66.37	0.1313
55	-10.60	196.3	41.04	68.44	0.1313
56	-10.80	200.0	43.11	70.52	0.1313
57	-11.00	203.7	45.19	72.59	0.1313
58	-11.20	207.4	47.27	74.67	0.1313
59	-11.40	211.2	49.34	76.74	0.1313
60	-11.60	214.9	51.42	78.81	0.1313
61	-11.80	218.6	53.50	80.89	0.2108
62	-12.00	222.4	55.57	82.96	0.2108
63	-12.20	226.1	57.65	85.04	0.2108
64	-12.40	229.9	59.72	87.11	0.2108
65	-12.60	233.7	61.80	89.19	0.2108
66	-12.80	237.4	63.88	91.26	0.2108
67	-13.00	241.2	65.95	93.33	0.2108
68	-13.20	245.0	68.03	95.41	0.2108
69	-13.40	248.7	67.87	97.48	0.2108
70	-13.60	252.5	67.73	99.56	0.2108
71	-13.80	256.3	67.61	101.6	0.2108
72	-14.00	260.1	67.51	103.7	0.2108
73	-14.20	263.9	67.44	105.8	0.2108
74	-14.40	267.7	67.39	107.9	0.2108
75	-14.60	271.5	67.36	109.9	0.2108
76	-14.80	275.3	67.37	112.0	0.2108
77	-15.00	279.1	67.39	114.1	0.2108
78	-15.20	282.8	67.44	116.1	0.2108
79	-15.40	286.6	67.52	118.2	0.2108
80	-15.60	290.4	67.63	120.3	0.2108
81	-15.80	294.3	67.78	122.4	0.2108

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SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
82	-16.00	298.1	68.01	124.4	0.2108
83	-16.20	301.9	68.26	126.5	0.2108
84	-16.40	305.7	68.52	128.6	0.2108
85	-16.60	309.5	68.80	130.7	0.2108
86	-16.80	313.3	69.08	132.7	0.2108
87	-17.00	317.1	69.38	134.8	0.2108
88	-17.20	320.9	69.96	136.9	0.2108
89	-17.40	324.7	71.83	139.0	0.2108
90	-17.60	328.5	73.69	141.0	0.2108
91	-17.80	332.3	75.55	143.1	0.2108
92	-18.00	336.1	77.41	145.2	0.2108
93	-18.20	339.9	79.27	147.3	0.2108
94	-18.40	343.7	81.13	149.3	0.2108
95	-18.60	347.5	82.99	151.4	0.2108
96	-18.80	351.3	84.86	153.5	0.2108
97	-19.00	355.1	86.72	155.6	0.2108
98	-19.20	358.9	88.58	157.6	0.2108
99	-19.40	362.7	90.44	159.7	0.2108
100	-19.60	366.5	92.30	161.8	0.2108
101	-19.80	370.3	94.16	163.9	0.2108
102	-20.00	374.1	96.02	165.9	0.2108
103	-20.20	377.9	97.89	168.0	0.2108
104	-20.40	381.7	99.75	170.1	0.2108
105	-20.60	385.5	100.6	172.1	0.2108
106	-20.80	389.4	99.72	174.2	0.2108
107	-21.00	393.2	98.86	176.3	0.2108
108	-21.20	397.0	98.04	178.4	0.2108
109	-21.40	400.8	97.27	180.4	0.2108
110	-21.60	404.6	96.54	182.5	0.2108
111	-21.80	408.4	95.85	184.6	0.2108
112	-22.00	412.2	95.20	186.7	0.2108
113	-22.20	416.0	94.59	188.7	0.2108
114	-22.40	419.8	94.00	190.8	0.2108
115	-22.60	423.6	93.44	192.9	0.2108
116	-22.80	427.4	92.91	195.0	0.2108
117	-23.00	431.2	92.40	197.0	0.2108
118	-23.20	435.0	91.91	199.1	0.2108
119	-23.40	438.8	91.43	201.2	0.2108
120	-23.60	442.6	90.96	203.3	0.2108
121	-23.80	446.4	90.50	205.3	0.2108
122	-24.00	450.2	90.05	207.4	0.2108
123	-24.20	454.0	89.60	209.5	0.2108
124	-24.40	457.8	89.16	211.6	0.2108
125	-24.60	461.6	88.72	213.6	0.2108
126	-24.80	465.4	88.27	215.7	0.2108
127	-25.00	469.2	87.83	217.8	0.2108



PARATIE 7.00

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
128	-25.20	473.0	101.1	219.9	0.2108
129	-25.40	476.8	101.6	221.9	0.2108
130	-25.60	480.6	102.0	224.0	0.2108
131	-25.80	484.4	102.4	226.1	0.2108
132	-26.00	488.2	102.9	228.1	0.2108
133	-26.20	492.0	103.3	230.2	0.2108
134	-26.40	495.8	103.7	232.3	0.2108
135	-26.60	499.6	104.2	234.4	0.2108
136	-26.80	503.4	104.6	236.4	0.2108
137	-27.00	507.2	105.0	238.5	0.2108
138	-27.20	511.0	105.5	240.6	0.2108
139	-27.40	514.8	105.9	242.7	0.2108
140	-27.60	518.6	106.3	244.7	0.2108
141	-27.80	522.4	106.8	246.8	0.2108
142	-28.00	526.2	107.2	248.9	0.2108
143	-28.20	530.0	107.6	251.0	0.2108
144	-28.40	533.8	108.1	253.0	0.2108
145	-28.60	537.6	108.5	255.1	0.2108
146	-28.80	541.4	108.9	257.2	0.2108
147	-29.00	545.2	109.3	259.3	0.2108
148	-29.20	549.0	109.8	261.3	0.2108
149	-29.40	552.8	110.2	263.4	0.2108
150	-29.60	556.6	110.6	265.5	0.2108
151	-29.80	560.4	111.0	267.6	0.2108
152	-30.00	564.2	111.5	269.6	0.2108

## INVILUPPO RISULTATI NEGLI ELEMENTI TERRENO

\* PARETE RightWall GRUPPO UHRight\*

\*STEP 1 - 6\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

SIGMA-H = massimo sforzo orizzontale efficace [kPa ]

TAGLIO = massimo sforzo di taglio [kPa ]

PR. ACQUA =massima pressione interstiziale [kPa ]

GRAD. MAX =massimo gradiente idraulico

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
1	0.	63.21	20.11	0.	0.
2	-0.2000	72.55	24.37	0.	0.
3	-0.4000	81.04	28.64	0.	0.
4	-0.5000	76.89	26.70	0.	0.
5	-0.7000	68.59	22.82	0.	0.
6	-0.9000	60.32	19.65	0.	0.
7	-1.100	56.59	17.85	0.	0.
8	-1.300	56.87	16.08	0.	0.
9	-1.500	57.25	14.37	0.	0.
10	-1.700	57.76	16.26	0.	0.
11	-1.900	58.41	22.75	0.	0.
12	-2.100	59.21	26.55	0.9630	0.2108
13	-2.300	60.19	27.30	2.889	0.2108
14	-2.500	61.33	28.04	4.815	0.2108
15	-2.700	62.65	28.78	6.741	0.2108
16	-2.900	64.14	29.53	8.667	0.2108
17	-3.100	65.81	30.27	10.59	0.2108
18	-3.300	67.66	31.02	12.52	0.2108
19	-3.500	69.67	31.76	14.44	0.2108
20	-3.700	71.85	32.51	16.37	0.2108
21	-3.900	74.19	33.25	18.30	0.2108
22	-4.000	75.29	33.62	19.26	0.2108
23	-4.200	77.61	34.37	21.19	0.2108
24	-4.400	80.09	35.11	23.11	0.2108
25	-4.600	82.74	35.85	25.04	0.2108
26	-4.800	85.53	36.60	26.96	0.2108
27	-5.000	88.46	37.34	28.89	0.2108
28	-5.200	91.51	38.09	30.81	0.2108
29	-5.400	94.69	38.83	32.74	0.2108
30	-5.600	97.97	39.58	34.67	0.2108
31	-5.800	101.4	40.32	36.59	0.2108
32	-6.000	104.8	41.06	38.52	0.2108
33	-6.200	108.4	41.81	40.44	0.2108
34	-6.400	112.0	42.55	42.37	0.2108
35	-6.600	115.7	43.30	44.30	0.2108

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
36	-6.800	119.4	44.04	46.22	0.2108
37	-7.000	123.2	44.79	48.15	0.2108
38	-7.200	127.1	45.53	50.07	0.2108
39	-7.400	130.9	46.27	52.00	0.2108
40	-7.600	134.8	47.02	53.93	0.2108
41	-7.800	138.8	47.76	55.85	0.2108
42	-8.000	142.7	48.51	57.78	0.2108
43	-8.200	146.7	49.25	59.70	0.2108
44	-8.400	150.6	50.00	61.63	0.2108
45	-8.600	154.6	50.74	63.56	0.2108
46	-8.800	158.6	51.48	65.48	0.2108
47	-9.000	162.6	52.23	67.41	0.2108
48	-9.200	166.6	52.97	69.33	0.2108
49	-9.400	170.6	53.72	71.26	0.2108
50	-9.600	174.6	54.46	73.19	0.2108
51	-9.800	178.5	55.21	75.11	0.2108
52	-10.00	182.5	55.95	77.04	0.2108
53	-10.20	186.5	56.69	78.96	0.2108
54	-10.40	190.4	57.44	80.89	0.2108
55	-10.60	194.4	58.18	82.81	0.2108
56	-10.80	198.3	58.93	84.74	0.2108
57	-11.00	202.3	59.67	86.67	0.2108
58	-11.20	206.2	60.41	88.59	0.2108
59	-11.40	210.1	61.16	90.52	0.2108
60	-11.60	214.0	61.90	92.44	0.2108
61	-11.80	217.9	62.65	94.37	0.2108
62	-12.00	221.8	63.39	96.30	0.2108
63	-12.20	225.7	64.14	98.22	0.2108
64	-12.40	229.5	64.88	100.1	0.2108
65	-12.60	233.4	65.62	102.1	0.2108
66	-12.80	237.3	66.37	104.0	0.2108
67	-13.00	241.1	67.11	105.9	0.2108
68	-13.20	245.0	67.86	107.9	0.2108
69	-13.40	248.8	68.60	109.8	0.2108
70	-13.60	252.6	69.35	111.7	0.2108
71	-13.80	256.4	70.09	113.6	0.2108
72	-14.00	260.3	70.83	115.6	0.2108
73	-14.20	264.1	71.58	117.5	0.2108
74	-14.40	267.9	72.32	119.4	0.2108
75	-14.60	271.7	73.07	121.3	0.2108
76	-14.80	275.5	73.81	123.3	0.2108
77	-15.00	279.3	74.56	125.2	0.2108
78	-15.20	283.1	75.30	127.1	0.2108
79	-15.40	286.9	76.04	129.0	0.2108
80	-15.60	290.7	76.79	131.0	0.2108
81	-15.80	294.5	77.53	132.9	0.2108

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
82	-16.00	298.3	78.28	134.8	0.2108
83	-16.20	302.1	79.02	136.7	0.2108
84	-16.40	305.9	79.77	138.7	0.2108
85	-16.60	309.7	80.51	140.6	0.2108
86	-16.80	313.5	81.25	142.5	0.2108
87	-17.00	317.3	82.00	144.4	0.2108
88	-17.20	321.1	82.74	146.4	0.2108
89	-17.40	324.9	83.49	148.3	0.2108
90	-17.60	328.7	84.23	150.2	0.2108
91	-17.80	332.5	84.97	152.1	0.2108
92	-18.00	336.2	82.87	154.1	0.2108
93	-18.20	340.0	79.51	156.0	0.2108
94	-18.40	343.8	76.22	157.9	0.2108
95	-18.60	347.6	73.01	159.9	0.2108
96	-18.80	351.4	69.88	161.8	0.2108
97	-19.00	355.2	66.83	163.7	0.2108
98	-19.20	359.0	63.87	165.6	0.2108
99	-19.40	362.8	60.99	167.6	0.2108
100	-19.60	366.6	58.20	169.5	0.2108
101	-19.80	370.4	55.49	171.4	0.2108
102	-20.00	374.2	52.86	173.3	0.2108
103	-20.20	378.0	50.32	175.3	0.2108
104	-20.40	381.8	47.86	177.2	0.2108
105	-20.60	385.6	45.48	179.1	0.2108
106	-20.80	389.4	43.17	181.0	0.2108
107	-21.00	393.2	40.94	183.0	0.2108
108	-21.20	397.0	38.78	184.9	0.2108
109	-21.40	400.8	36.68	186.8	0.2108
110	-21.60	404.6	34.65	188.7	0.2108
111	-21.80	408.4	32.67	190.7	0.2108
112	-22.00	412.2	30.74	192.6	0.2108
113	-22.20	416.0	28.87	194.5	0.2108
114	-22.40	419.8	27.04	196.4	0.2108
115	-22.60	423.5	25.25	198.4	0.2108
116	-22.80	427.3	24.81	200.3	0.2108
117	-23.00	431.1	25.22	202.2	0.2108
118	-23.20	434.9	25.63	204.1	0.2108
119	-23.40	438.7	26.04	206.1	0.2108
120	-23.60	442.5	26.45	208.0	0.2108
121	-23.80	446.3	26.86	209.9	0.2108
122	-24.00	450.1	27.27	211.9	0.2108
123	-24.20	453.9	27.68	213.8	0.2108
124	-24.40	457.7	28.09	215.7	0.2108
125	-24.60	461.5	28.50	217.6	0.2108
126	-24.80	465.3	28.91	219.6	0.2108
127	-25.00	469.1	29.32	221.5	0.2108

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
128	-25.20	473.0	29.74	223.4	0.2108
129	-25.40	476.8	30.15	225.3	0.2108
130	-25.60	480.6	30.56	227.3	0.2108
131	-25.80	484.4	30.98	229.2	0.2108
132	-26.00	488.2	31.39	231.1	0.2108
133	-26.20	492.0	31.80	233.0	0.2108
134	-26.40	495.8	32.21	235.0	0.2108
135	-26.60	499.6	32.62	236.9	0.2108
136	-26.80	503.4	33.03	238.8	0.2108
137	-27.00	507.2	33.44	240.7	0.2108
138	-27.20	511.0	33.85	242.7	0.2108
139	-27.40	514.8	34.26	244.6	0.2108
140	-27.60	518.6	34.68	246.5	0.2108
141	-27.80	522.4	35.09	248.4	0.2108
142	-28.00	526.2	35.50	250.4	0.2108
143	-28.20	530.0	35.91	252.3	0.2108
144	-28.40	533.8	36.32	254.2	0.2108
145	-28.60	537.6	36.73	256.1	0.2108
146	-28.80	541.4	37.14	258.1	0.2108
147	-29.00	545.2	37.55	260.0	0.2108
148	-29.20	549.0	37.96	261.9	0.2108
149	-29.40	552.8	38.37	263.9	0.2108
150	-29.60	556.6	38.78	265.8	0.2108
151	-29.80	560.4	39.19	267.7	0.2108
152	-30.00	564.2	39.60	269.6	0.2108

RIASSUNTO SPINTE NEGLI ELEMENTI TERRENO  
(LE SPINTE SONO CALCOLATE INTEGRANDO GLI SFORZI NEI SINGOLI ELEMENTI MOLLA)

SPINTA EFFICACE VERA = Integrale delle pressioni orizzontali efficaci in tutti gli elementi nel gruppo: unita' di misura kN/m

SPINTA ACQUA = Integrale delle pressioni interstiziali in tutti gli elementi nel gruppo: unita' di misura kN/m

SPINTA TOTALE VERA = Somma della SPINTA EFFICACE e della SPINTA DELL'ACQUA: e' l' azione totale sulla parete: unita' di misura kN/m

SPINTA ATTIVA POSSIBILE = La minima spinta che puo' essere esercitata da questo gruppo di elementi terreno, in questa fase: unita' di misura kN/m

SPINTA PASSIVA POSSIBILE = La massima spinta che puo' essere esercitata da questo gruppo di elementi terreno, in questa fase: unita' di misura kN/m

RAPPORTO PASSIVA/VERA = e' il rapporto tra la massima spinta possibile e la spinta efficace vera: fornisce un'indicazione su quanta spinta passiva venga mobilitata;

SPINTA PASSIVA MOBILITATA = e' l'inverso del rapporto precedente, espresso in unita' percentuale: indica quanta parte della massima spinta possibile e' stata mobilitata;

RAPPORTO VERA/ATTIVA = e' il rapporto tra la spinta efficace vera e la minima spinta possibile: fornisce un'indicazione di quanto questa porzione di terreno sia prossima alla condizione di massimo rilascio.

FASE	1	GRUPPO -->	DHRi	UHRi
SPINTA EFFICACE VERA			8335.7	8474.3
SPINTA ACQUA			0.	0.
SPINTA TOTALE VERA			8335.7	8474.3
SPINTA ATTIVA (POSSIBILE)			2399.8	2487.4
SPINTA PASSIVA (POSSIBILE)			31735.	32798.
RAPPORTO PASSIVA/VERA			3.8071	3.8703
SPINTA PASSIVA MOBILITATA			26.%	26.%
RAPPORTO VERA/ATTIVA			3.4734	3.4069

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History 0 - MURENI

FASE	2	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	5558.2	5427.6
		SPINTA ACQUA	3505.2	3774.9
		SPINTA TOTALE VERA	9063.4	9202.5
		SPINTA ATTIVA (POSSIBILE)	687.02	1241.7
		SPINTA PASSIVA (POSSIBILE)	11797.	18827.
		RAPPORTO PASSIVA/VERA	2.1225	3.4687
		SPINTA PASSIVA MOBILITATA	47.%	29.%
		RAPPORTO VERA/ATTIVA	8.0904	4.3712

FASE	3	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	5523.2	5530.6
		SPINTA ACQUA	3505.2	3774.9
		SPINTA TOTALE VERA	9028.4	9305.5
		SPINTA ATTIVA (POSSIBILE)	687.02	1241.7
		SPINTA PASSIVA (POSSIBILE)	11797.	18827.
		RAPPORTO PASSIVA/VERA	2.1360	3.4041
		SPINTA PASSIVA MOBILITATA	47.%	29.%
		RAPPORTO VERA/ATTIVA	8.0394	4.4542

FASE	4	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4847.4	4344.3
		SPINTA ACQUA	2614.8	3405.3
		SPINTA TOTALE VERA	7462.2	7749.6
		SPINTA ATTIVA (POSSIBILE)	365.30	1363.6
		SPINTA PASSIVA (POSSIBILE)	7402.7	20195.
		RAPPORTO PASSIVA/VERA	1.5271	4.6486
		SPINTA PASSIVA MOBILITATA	65.%	22.%
		RAPPORTO VERA/ATTIVA	13.270	3.1858

FASE	5	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4786.5	4558.1
		SPINTA ACQUA	2614.8	3405.3
		SPINTA TOTALE VERA	7401.3	7963.4
		SPINTA ATTIVA (POSSIBILE)	365.30	1363.6
		SPINTA PASSIVA (POSSIBILE)	7402.7	20195.
		RAPPORTO PASSIVA/VERA	1.5466	4.4305
		SPINTA PASSIVA MOBILITATA	65.%	23.%
		RAPPORTO VERA/ATTIVA	13.103	3.3426

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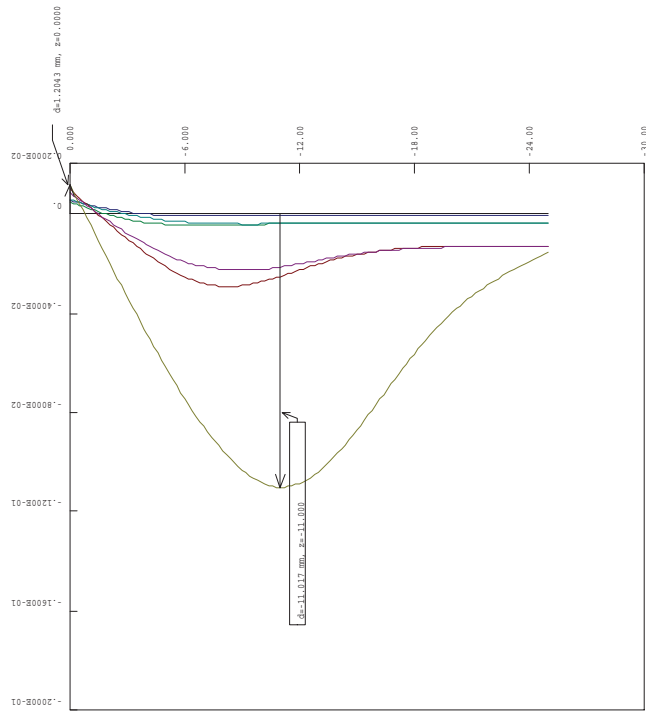
15 NOVEMBRE 2011 17:57:23

History 0 - MURENI

FASE	6	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4098.9	3668.3
		SPINTA ACQUA	2016.4	3093.7
		SPINTA TOTALE VERA	6115.4	6762.0
		SPINTA ATTIVA (POSSIBILE)	198.09	1684.9
		SPINTA PASSIVA (POSSIBILE)	4951.9	23902.
		RAPPORTO PASSIVA/VERA	1.2081	6.5158
		SPINTA PASSIVA MOBILITATA	83.%	15.%
		RAPPORTO VERA/ATTIVA	20.692	2.1772

OUTPUT PLOTS:





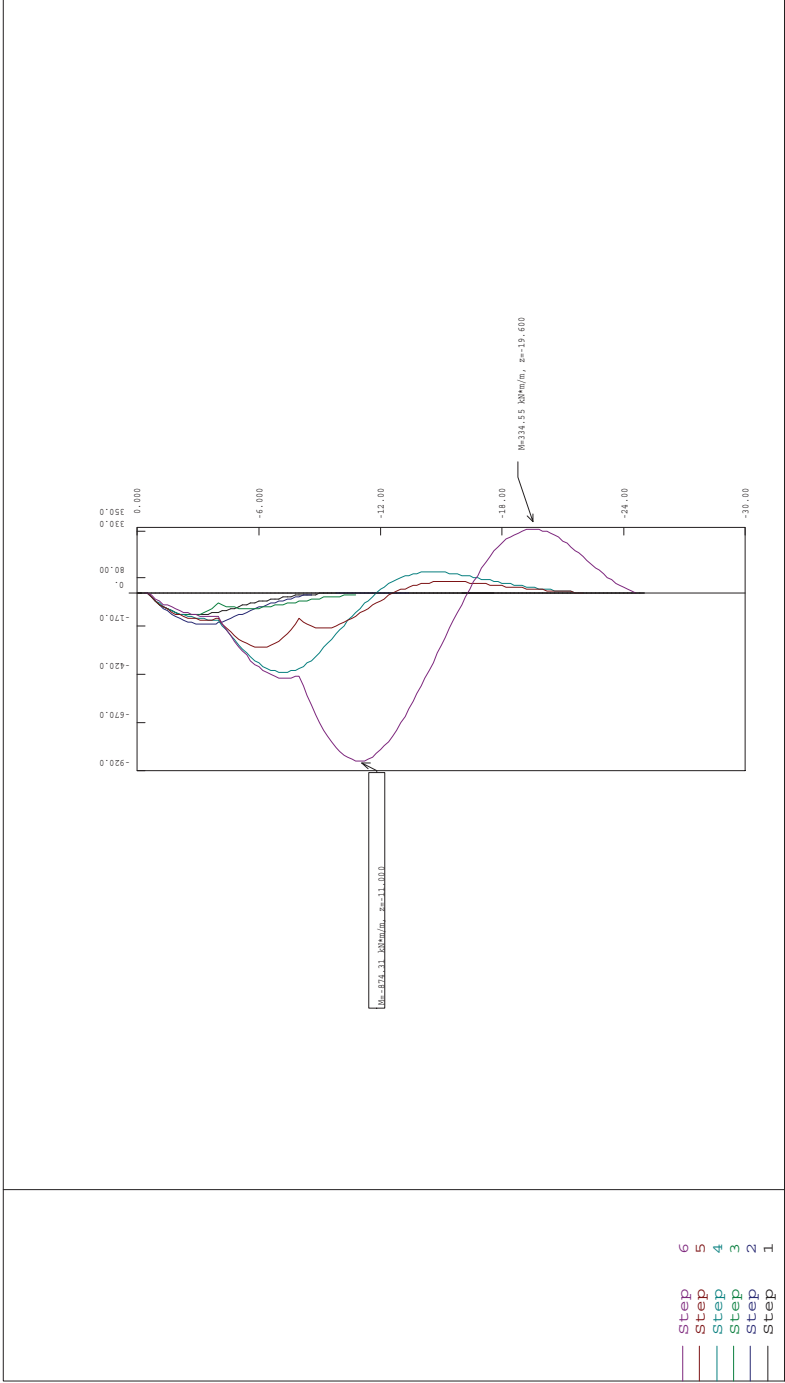
- step 6
- step 5
- step 4
- step 3
- step 2
- step 1

FATTORE SCALIA: 2.46 - FATTORE AMPLIF.: 1220.70  
 DEFORMATA PASSI 1 / 6 [m]

Perce units= MN  
 Length units= M

LIB: C:\Users\TomLoc\Documents\Bologna\cassa111\111.La\_Basilia\_Basilia\_Nord\_Vantaggi\STEP\_A1\111\_12m\_H2C10

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MOMENTI FLETTENTI [kN\*m/m]  
 INVILUPPO DA 1 A 6 SCALA GEOM. : 2,32

LIB: C:\Users\Aldo\Documents\Borsa\_cassa\1-11\11.La\_Borsa\Mod\_Verifica\STEP\_A1\A1\_1\_2m\_H200

File: Step 0 - MOMENT

Perce unita= KN  
 Length unita= M

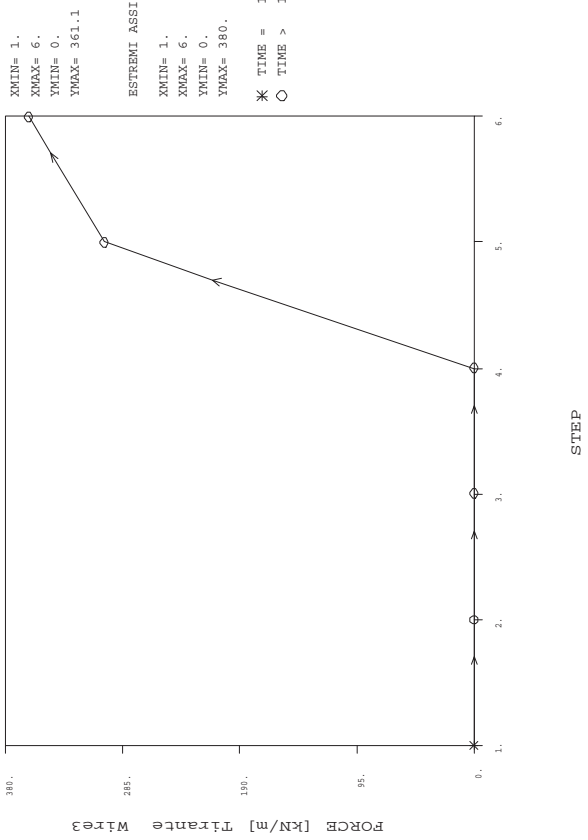
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 www.ceas.it  
 P A R A T I E 7.00  
 15 NOVEMBRE 2011 17:57:23







Tirante Wire3	
STEP	FORCE [kN/m]
1.	0.
2.	0.
3.	0.
4.	0.
5.	300.
6.	361.1



DAL PASSO 1 AL PASSO 6  
 DIAGRAMMA VARIABILE X / VARIABILE Y

History 0 - WDRN1  
 C:\Users\Toni\OneDrive\Documents\Borsa\_cassa\11\_11\_11\La\_Borsa\_La\_Borsa\_Nord\_Markets\STEP\_A1\MARK1\_2m\_HISTO0

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Piece units= KN  
 Length units= M

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History 0 - MURENI

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PAG. 1

```
*****  
**                                     **  
**           P   A   R   A   T   I   E           **  
**                                     **  
**           RELEASE 7.00   VERSIONE WIN           **  
**                                     **  
**   Ce.A.S. s.r.l. - Viale Giustiniano, 10       **  
**                                     **  
**                                     **  
**           20129 MILANO                           **  
**                                     **  
**                                     **  
*****
```

JOBNAME C:\Users\Tecnico5\Desktop\Nuova cartella (3)\File Paratie Mureni No

15 NOVEMBRE 2011 17:57:42

## ELENCO DEI DATI DI INPUT(PARAGEN)

Per il significato dei vari comandi  
si faccia riferimento al manuale di  
input PARAGEN, versione 7.00.

## N. comando

```
1: * Paratie for Windows version 7.0
2: * Filename= <c:\users\tecnico5\desktop\nuova cartella (3)\file
  paratie\str al+m1
3: * project with "run time" parameters
4: * Force=kN Lenght=m
5: *
6: units m kN
7: title History 0 - MURENI
8: delta 0.2
9: option param itemax 20
10: option noprint echo
11: option noprint displ
12: option noprint react
13: option noprint stresses
14:   wall RightWall 0 -30 0
15: *
16: soil DHRight RightWall -30 0 2 0
17: soil UHRight RightWall -30 0 1 180
18: *
19: prescribe RightWall -15 1 0 REL 9 9
20: *
21: material Pali 3.2308E+007
22: material Acciaio 2.1E+008
23: *
24: beam Right_wall RightWall -28 0 Pali 0.979439 00 00
25: *
26: wire Wire01 RightWall -0.5 Acciaio 2.87179E-005 150 157.5
27: wire Wire2 RightWall -4 Acciaio 4.30769E-005 150 157.5
28: wire Wire3 RightWall -8 Acciaio 4.30769E-005 300 157.5
29: wire Wire4 RightWall -12 Acciaio 4.30769E-005 300 157.5
30: *
31: * Soil Profile
32: *
33:   ldata      Soil 0
34:     weight    19 9 10
35:     atrest    1 0.5 1
36:     resistance 10 27 0.33 3.701
37:     young     250000 300000
38:   endlayer
```



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History 0 - MURENI

N. comando

```
39:      ldata          Soil2 -10
40:          weight      19 9 10
41:          atrest      1 0.5 1
42:          resistance  10 27 0.33 3.701
43:          young       250000 300000
44:      endlayer
45: *
46: step 1 :
47:      setwall RightWall
48:          geom 0 -0.5
49:          add Wire01
50: endstep
51: *
52: step 2 :
53:      setwall RightWall
54:          geom 0 -4
55:          water -2 2
56: endstep
57: *
58: step 3 :
59:      setwall RightWall
60:          add Wire2
61: endstep
62: *
63: step 4 :
64:      setwall RightWall
65:          geom 0 -8.5
66:          water -2 6.5
67: endstep
68: *
69: step 5 :
70:      setwall RightWall
71:          add Wire3
72: endstep
73: *
74: step 6 :
75:      setwall RightWall
76:          geom 0 -12.5
77:          water -2 10
78: endstep
79: *
80: step 7 :
81:      setwall RightWall
82:          geom 0 -12
83:          water -2 10.5
84:          add Wire4
```

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PAG. 4

N. comando

```
85: endstep
86: *
87: step 8 :
88:     setwall RightWall
89:         geom 0 -15.5
90:         water -2 13.5
91: endstep
92: *
93: step 9 :
94:     setwall RightWall
95:         geom 0 -15.5
96:         surcharge 23 0 0 0
97: endstep
98: *
99: *
```

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 1

LAYER Soil			
natura 1=granulare, 2=argilla	=	1.0000	
quota superiore	=	0.0000	m
quota inferiore	=	-10.0000	m
peso fuori falda	=	19.0000	kN/m <sup>3</sup>
peso efficace in falda	=	9.0000	kN/m <sup>3</sup>
peso dell'acqua	=	10.0000	kN/m <sup>3</sup>
coesione	=	10.0000	kPa (A MONTE)
angolo di attrito	=	27.0000	DEG (A MONTE)
coeff. spinta attiva ka	=	0.330000	(A MONTE)
coeff. spinta passiva kp	=	3.7010	(A MONTE)
Konc normal consolidato	=	1.0000	
esponente di OCR	=	0.500000	
OCR: grado di sovraconsolidazione	=	1.0000	
modello di rigidezza	=	1.0000	
modulo el. compr. vergine	=	0.25000E+06	kPa
modulo el. scarico/ricarico	=	0.30000E+06	kPa
natura 1=granulare, 2=argilla	=	1.0000	(A VALLE)
coesione	=	10.0000	kPa (A VALLE)
angolo di attrito	=	27.0000	DEG (A VALLE)
coeff. spinta attiva ka	=	0.330000	(A VALLE)
coeff. spinta passiva kp	=	3.7010	(A VALLE)
LAYER Soil2			
natura 1=granulare, 2=argilla	=	1.0000	
quota superiore	=	-10.0000	m
quota inferiore	=	-0.10000E+31	m
peso fuori falda	=	19.0000	kN/m <sup>3</sup>
peso efficace in falda	=	9.0000	kN/m <sup>3</sup>
peso dell'acqua	=	10.0000	kN/m <sup>3</sup>
coesione	=	10.0000	kPa (A MONTE)
angolo di attrito	=	27.0000	DEG (A MONTE)
coeff. spinta attiva ka	=	0.330000	(A MONTE)
coeff. spinta passiva kp	=	3.7010	(A MONTE)
Konc normal consolidato	=	1.0000	
esponente di OCR	=	0.500000	
OCR: grado di sovraconsolidazione	=	1.0000	
modello di rigidezza	=	1.0000	
modulo el. compr. vergine	=	0.25000E+06	kPa
modulo el. scarico/ricarico	=	0.30000E+06	kPa
natura 1=granulare, 2=argilla	=	1.0000	(A VALLE)
coesione	=	10.0000	kPa (A VALLE)

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RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 1

angolo di attrito	=	27.000	DEG	(A VALLE)
coeff. spinta attiva ka	=	0.33000		(A VALLE)
coeff. spinta passiva kp	=	3.7010		(A VALLE)

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 2

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 3

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 4

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 5

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 6

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 7

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 8

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

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RIASSUNTO PARAMETRI GEOTECNICI PER LA FASE 9

(SOLO I PARAMETRI CHE POSSONO VARIARE)

NESSUN CAMBIAMENTO RISPETTO AL PASSO PRECEDENTE

RIASSUNTO DATI RELATIVI ALLA FASE 1

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-0.50000	m
quota della falda	=	-0.99900E+30	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	0.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 2

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-4.0000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	2.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 3

WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-4.0000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa

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## RIASSUNTO DATI RELATIVI ALLA FASE 3

quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	2.0000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 4

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-8.5000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	6.5000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 5

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-8.5000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	6.5000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 6

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-12.500	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	10.000	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 7

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-12.000	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	10.500	m
sovraccarico a valle	=	0.0000	kPa
quota del sovraccarico a valle	=	-0.99900E+30	m
quota di taglio	=	0.0000	m
quota di equil. pressioni dell'acqua	=	-30.000	m
indicatore comportamento acqua	=	0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	=	0.0000	(1=NO UPD)

RIASSUNTO DATI RELATIVI ALLA FASE 8

## WALL RightWall

coordinata y	=	0.0000	m
quota piano campagna	=	0.0000	m
quota del fondo scavo	=	-15.500	m
quota della falda	=	-2.0000	m
sovraccarico a monte	=	0.0000	kPa
quota del sovraccarico a monte	=	0.0000	m
depressione falda a valle	=	13.500	m
sovraccarico a valle	=	0.0000	kPa



## RIASSUNTO DATI RELATIVI ALLA FASE 8

quota del sovraccarico a valle	= -0.99900E+30	m
quota di taglio	= 0.0000	m
quota di equil. pressioni dell'acqua	= -30.000	m
indicatore comportamento acqua	= 0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	= 0.0000	(1=NO UPD)

## RIASSUNTO DATI RELATIVI ALLA FASE 9

## WALL RightWall

coordinata y	= 0.0000	m
quota piano campagna	= 0.0000	m
quota del fondo scavo	= -15.500	m
quota della falda	= -2.0000	m
sovraccarico a monte	= 23.000	kPa
quota del sovraccarico a monte	= 0.0000	m
depressione falda a valle	= 13.500	m
sovraccarico a valle	= 0.0000	kPa
quota del sovraccarico a valle	= 0.0000	m
quota di taglio	= 0.0000	m
quota di equil. pressioni dell'acqua	= -30.000	m
indicatore comportamento acqua	= 0.0000	(1=REMOVE)
opzione aggiornamento pressioni acqua	= 0.0000	(1=NO UPD)

RIASSUNTO ELEMENTI

=====

RIASSUNTO ELEMENTI SOIL						
Name	Wall	Z1	Z2	Flag	Angle	
		m	m		deg	
DHRight	RightWall	0.	-30.00	DOWNHILL	0.	
UHRight	RightWall	0.	-30.00	UPHILL	180.0	

RIASSUNTO ELEMENTI BEAM						
Name	Wall	Z1	Z2	Mat	thick	
		m	m		m	
Right_wall	RightWall	0.	-28.00	_	0.9794	

RIASSUNTO ELEMENTI WIRE						
Name	Wall	Zeta	Mat	A/L	Pinit	Angle
		m			kN/m	deg
Wire01	RightWall	-.5000	_	0.2872E-04	150.0	157.5
Wire2	RightWall	-4.000	_	0.4308E-04	150.0	157.5
Wire3	RightWall	-8.000	_	0.4308E-04	300.0	157.5
Wire4	RightWall	-12.00	_	0.4308E-04	300.0	157.5

RIASSUNTO DATI VARI  
=====

MATERIALI	
Name	YOUNG MODULUS
	kPa
Pali	3.2308E+007
Acci	2.1E+008

SPOSTAMENTI IMPRESSI							
Wall	Zeta	Dir.	type	value	units	from	to
						step	step
Righ	-15	ydispl	REL	0	m	9	9

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RIASSUNTO ANALISI INCREMENTALE

FASE	N. DI ITERAZIONI	CONVERGENZA
1	4	SI
2	2	SI
3	3	SI
4	5	SI
5	2	SI
6	6	SI
7	3	SI
8	7	SI
9	5	SI

## MASSIMI SPOSTAMENTI LATERALI

\*TUTTI I PASSI\*

\* PARETE RightWall\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

\* NOTA: LE QUOTE ESPRESSE IN m

E GLI SPOSTAMENTI IN m

NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
1	0.0000	0.60922E-02	8
2	-0.20000	0.54723E-02	8
3	-0.40000	0.48524E-02	8
4	-0.50000	0.45424E-02	8
5	-0.70000	0.39225E-02	8
6	-0.90000	0.33027E-02	8
7	-1.1000	0.26833E-02	8
8	-1.3000	0.20644E-02	8
9	-1.5000	0.14462E-02	8
10	-1.7000	0.82860E-03	8
11	-1.9000	-0.96790E-03	9
12	-2.1000	-0.15848E-02	9
13	-2.3000	-0.22007E-02	9
14	-2.5000	-0.28158E-02	9
15	-2.7000	-0.34301E-02	9
16	-2.9000	-0.40435E-02	9
17	-3.1000	-0.46562E-02	9
18	-3.3000	-0.52682E-02	9
19	-3.5000	-0.58796E-02	9
20	-3.7000	-0.64906E-02	9
21	-3.9000	-0.71011E-02	9
22	-4.0000	-0.74063E-02	9
23	-4.2000	-0.80164E-02	9
24	-4.4000	-0.86259E-02	9
25	-4.6000	-0.92343E-02	9
26	-4.8000	-0.98413E-02	9
27	-5.0000	-0.10446E-01	9
28	-5.2000	-0.11049E-01	9
29	-5.4000	-0.11649E-01	9
30	-5.6000	-0.12247E-01	9
31	-5.8000	-0.12841E-01	9
32	-6.0000	-0.13431E-01	9
33	-6.2000	-0.14018E-01	9
34	-6.4000	-0.14601E-01	9
35	-6.6000	-0.15180E-01	9
36	-6.8000	-0.15755E-01	9
37	-7.0000	-0.16326E-01	9
38	-7.2000	-0.16893E-01	9

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
39	-7.4000	-0.17455E-01	9
40	-7.6000	-0.18013E-01	9
41	-7.8000	-0.18567E-01	9
42	-8.0000	-0.19116E-01	9
43	-8.2000	-0.19662E-01	9
44	-8.4000	-0.20203E-01	9
45	-8.6000	-0.20738E-01	9
46	-8.8000	-0.21265E-01	9
47	-9.0000	-0.21785E-01	9
48	-9.2000	-0.22296E-01	9
49	-9.4000	-0.22798E-01	9
50	-9.6000	-0.23289E-01	9
51	-9.8000	-0.23770E-01	9
52	-10.000	-0.24238E-01	9
53	-10.200	-0.24694E-01	9
54	-10.400	-0.25138E-01	9
55	-10.600	-0.25568E-01	9
56	-10.800	-0.25984E-01	9
57	-11.000	-0.26386E-01	9
58	-11.200	-0.26774E-01	9
59	-11.400	-0.27148E-01	9
60	-11.600	-0.27506E-01	9
61	-11.800	-0.27850E-01	9
62	-12.000	-0.28180E-01	9
63	-12.200	-0.28494E-01	9
64	-12.400	-0.28792E-01	9
65	-12.600	-0.29074E-01	9
66	-12.800	-0.29337E-01	9
67	-13.000	-0.29582E-01	9
68	-13.200	-0.29807E-01	9
69	-13.400	-0.30012E-01	9
70	-13.600	-0.30195E-01	9
71	-13.800	-0.30357E-01	9
72	-14.000	-0.30497E-01	9
73	-14.200	-0.30614E-01	9
74	-14.400	-0.30708E-01	9
75	-14.600	-0.30779E-01	9
76	-14.800	-0.30826E-01	9
77	-15.000	-0.30850E-01	9
78	-15.200	-0.30853E-01	8
79	-15.400	-0.30829E-01	8
80	-15.600	-0.30781E-01	9
81	-15.800	-0.30711E-01	9
82	-16.000	-0.30616E-01	9
83	-16.200	-0.30498E-01	9
84	-16.400	-0.30356E-01	9

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NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
85	-16.600	-0.30191E-01	9
86	-16.800	-0.30002E-01	9
87	-17.000	-0.29790E-01	9
88	-17.200	-0.29555E-01	9
89	-17.400	-0.29299E-01	9
90	-17.600	-0.29020E-01	9
91	-17.800	-0.28721E-01	9
92	-18.000	-0.28401E-01	9
93	-18.200	-0.28061E-01	9
94	-18.400	-0.27701E-01	9
95	-18.600	-0.27323E-01	9
96	-18.800	-0.26927E-01	9
97	-19.000	-0.26513E-01	9
98	-19.200	-0.26084E-01	9
99	-19.400	-0.25638E-01	9
100	-19.600	-0.25178E-01	9
101	-19.800	-0.24703E-01	9
102	-20.000	-0.24215E-01	9
103	-20.200	-0.23715E-01	9
104	-20.400	-0.23203E-01	9
105	-20.600	-0.22680E-01	9
106	-20.800	-0.22148E-01	9
107	-21.000	-0.21606E-01	9
108	-21.200	-0.21056E-01	9
109	-21.400	-0.20499E-01	9
110	-21.600	-0.19935E-01	9
111	-21.800	-0.19365E-01	9
112	-22.000	-0.18791E-01	9
113	-22.200	-0.18212E-01	9
114	-22.400	-0.17629E-01	9
115	-22.600	-0.17044E-01	9
116	-22.800	-0.16456E-01	9
117	-23.000	-0.15867E-01	9
118	-23.200	-0.15277E-01	9
119	-23.400	-0.14687E-01	9
120	-23.600	-0.14097E-01	9
121	-23.800	-0.13507E-01	9
122	-24.000	-0.12919E-01	9
123	-24.200	-0.12332E-01	9
124	-24.400	-0.11746E-01	9
125	-24.600	-0.11163E-01	9
126	-24.800	-0.10582E-01	9
127	-25.000	-0.10003E-01	9
128	-25.200	-0.94269E-02	9
129	-25.400	-0.88531E-02	9
130	-25.600	-0.82817E-02	9

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History 0 - MURENI

NODO	QUOTA ZETA	SPOSTAMENTO MASSIMO	FASE PARETE RightWall
131	-25.800	-0.77126E-02	9
132	-26.000	-0.71456E-02	9
133	-26.200	-0.65806E-02	9
134	-26.400	-0.60175E-02	9
135	-26.600	-0.54558E-02	9
136	-26.800	-0.48955E-02	9
137	-27.000	-0.43363E-02	9
138	-27.200	-0.37780E-02	9
139	-27.400	-0.32202E-02	9
140	-27.600	-0.26629E-02	9
141	-27.800	-0.21058E-02	9
142	-28.000	-0.18531E-02	6
143	-28.200	-0.42169E-02	9
144	-28.400	-0.42082E-02	9
145	-28.600	-0.41995E-02	9
146	-28.800	-0.41909E-02	9
147	-29.000	-0.41824E-02	9
148	-29.200	-0.41739E-02	9
149	-29.400	-0.41655E-02	9
150	-29.600	-0.41572E-02	9
151	-29.800	-0.41489E-02	9
152	-30.000	-0.41407E-02	9



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PAG. 19

STEP DI CARICO NO. 9

NOD	Y-REACT [kN/m]	X-MOM-R [kN*m/m]
77	0.14184094E+03	0.00000000E+00

INVILUPPO AZIONI INTERNE NEGLI ELEMENTI DI PARETE  
(PER UNITA' DI PROFONDITA')

\* PARETE RightWall GRUPPO Right\_wall\*

\*STEP 1 - 9\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

MOMENTO SX = Momento che tende le fibre sulla faccia sinistra [kN\*m/m]

MOMENTO DX = Momento che tende le fibre sulla faccia destra [kN\*m/m]

TAGLIO = forza tagliante (valore assoluto, priva di segno) [kN/m ]

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
1	A	0.	0.2328E-09	0.1601E-09	3.848
	B	-0.2000	0.	0.7695	3.848
2	A	-0.2000	0.	0.7695	14.36
	B	-0.4000	0.	3.641	14.36
3	A	-0.4000	0.	3.641	23.98
	B	-0.5000	0.	6.016	23.98
4	A	-0.5000	0.	6.016	112.8
	B	-0.7000	17.54	0.	112.8
5	A	-0.7000	17.54	0.	103.8
	B	-0.9000	38.31	0.	103.8
6	A	-0.9000	38.31	0.	95.09
	B	-1.100	57.32	0.	95.09
7	A	-1.100	57.32	0.	86.59
	B	-1.300	74.64	0.	86.59
8	A	-1.300	74.64	0.	78.33
	B	-1.500	90.31	0.	78.33
9	A	-1.500	90.31	0.	70.29
	B	-1.700	104.4	0.	70.29
10	A	-1.700	104.4	0.	62.43
	B	-1.900	116.9	0.	62.43
11	A	-1.900	116.9	0.	54.72
	B	-2.100	127.8	0.	54.72
12	A	-2.100	127.8	0.	47.02
	B	-2.300	137.2	0.	47.02
13	A	-2.300	137.2	0.	39.21
	B	-2.500	145.0	0.	39.21
14	A	-2.500	145.0	0.	32.33
	B	-2.700	151.3	0.	32.33
15	A	-2.700	151.3	0.	34.06
	B	-2.900	155.9	0.	34.06
16	A	-2.900	155.9	0.	36.22
	B	-3.100	158.8	0.	36.22
17	A	-3.100	158.8	0.	38.82
	B	-3.300	160.0	4.393	38.82

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
18	A	-3.300	160.0	4.393	50.10
	B	-3.500	159.4	12.76	50.10
19	A	-3.500	159.4	12.76	63.11
	B	-3.700	156.9	21.82	63.11
20	A	-3.700	156.9	21.82	76.55
	B	-3.900	152.5	31.67	76.55
21	A	-3.900	152.5	31.67	86.98
	B	-4.000	149.5	36.91	86.98
22	A	-4.000	149.5	36.91	166.8
	B	-4.200	163.1	10.96	166.8
23	A	-4.200	163.1	10.96	160.9
	B	-4.400	193.4	0.	160.9
24	A	-4.400	193.4	0.	154.5
	B	-4.600	224.3	0.	154.5
25	A	-4.600	224.3	0.	147.5
	B	-4.800	253.8	0.	147.5
26	A	-4.800	253.8	0.	139.9
	B	-5.000	281.8	0.	139.9
27	A	-5.000	281.8	0.	131.8
	B	-5.200	308.2	0.	131.8
28	A	-5.200	308.2	0.	123.0
	B	-5.400	332.8	0.	123.0
29	A	-5.400	332.8	0.	113.7
	B	-5.600	355.5	0.	113.7
30	A	-5.600	355.5	0.	103.7
	B	-5.800	376.3	0.	103.7
31	A	-5.800	376.3	0.	93.26
	B	-6.000	394.9	0.	93.26
32	A	-6.000	394.9	0.	83.85
	B	-6.200	411.3	0.	83.85
33	A	-6.200	411.3	0.	73.98
	B	-6.400	425.3	0.	73.98
34	A	-6.400	425.3	0.	63.65
	B	-6.600	436.9	0.	63.65
35	A	-6.600	436.9	0.	52.87
	B	-6.800	445.9	0.	52.87
36	A	-6.800	445.9	0.	64.76
	B	-7.000	452.1	0.	64.76
37	A	-7.000	452.1	0.	82.96
	B	-7.200	455.5	0.	82.96
38	A	-7.200	455.5	0.	101.7
	B	-7.400	455.9	0.	101.7
39	A	-7.400	455.9	0.	121.0
	B	-7.600	453.2	0.	121.0
40	A	-7.600	453.2	0.	140.9
	B	-7.800	447.2	0.	140.9

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
41	A	-7.800	447.2	0.	161.2
	B	-8.000	437.9	0.	161.2
42	A	-8.000	437.9	0.	348.6
	B	-8.200	491.2	0.	348.6
43	A	-8.200	491.2	0.	334.9
	B	-8.400	540.9	0.	334.9
44	A	-8.400	540.9	0.	320.8
	B	-8.600	588.0	0.	320.8
45	A	-8.600	588.0	0.	306.3
	B	-8.800	639.0	0.	306.3
46	A	-8.800	639.0	0.	291.4
	B	-9.000	686.7	0.1008	291.4
47	A	-9.000	686.7	0.1008	276.0
	B	-9.200	731.2	1.937	276.0
48	A	-9.200	731.2	1.937	260.2
	B	-9.400	772.4	3.510	260.2
49	A	-9.400	772.4	3.510	243.9
	B	-9.600	810.1	4.840	243.9
50	A	-9.600	810.1	4.840	227.2
	B	-9.800	844.3	5.947	227.2
51	A	-9.800	844.3	5.947	210.1
	B	-10.00	874.8	6.849	210.1
52	A	-10.00	874.8	6.849	192.5
	B	-10.20	901.6	7.564	192.5
53	A	-10.20	901.6	7.564	174.5
	B	-10.40	924.7	8.112	174.5
54	A	-10.40	924.7	8.112	156.1
	B	-10.60	943.8	8.509	156.1
55	A	-10.60	943.8	8.509	137.3
	B	-10.80	958.9	8.772	137.3
56	A	-10.80	958.9	8.772	118.0
	B	-11.00	969.9	8.915	118.0
57	A	-11.00	969.9	8.915	103.9
	B	-11.20	976.7	8.954	103.9
58	A	-11.20	976.7	8.954	99.95
	B	-11.40	979.3	8.902	99.95
59	A	-11.40	979.3	8.902	127.9
	B	-11.60	977.5	8.772	127.9
60	A	-11.60	977.5	8.772	156.5
	B	-11.80	971.2	8.575	156.5
61	A	-11.80	971.2	8.575	185.5
	B	-12.00	970.6	21.16	185.5
62	A	-12.00	970.6	21.16	401.3
	B	-12.20	1051.	36.29	401.3
63	A	-12.20	1051.	36.29	378.9
	B	-12.40	1127.	50.16	378.9

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
64	A	-12.40	1127.	50.16	356.2
	B	-12.60	1198.	62.72	356.2
65	A	-12.60	1198.	62.72	333.0
	B	-12.80	1264.	73.93	333.0
66	A	-12.80	1264.	73.93	309.4
	B	-13.00	1326.	83.73	309.4
67	A	-13.00	1326.	83.73	285.3
	B	-13.20	1383.	92.08	285.3
68	A	-13.20	1383.	92.08	260.8
	B	-13.40	1436.	98.91	260.8
69	A	-13.40	1436.	98.91	235.9
	B	-13.60	1483.	104.4	235.9
70	A	-13.60	1483.	104.4	210.5
	B	-13.80	1525.	108.5	210.5
71	A	-13.80	1525.	108.5	208.1
	B	-14.00	1562.	111.5	208.1
72	A	-14.00	1562.	111.5	216.0
	B	-14.20	1593.	113.5	216.0
73	A	-14.20	1593.	113.5	222.8
	B	-14.40	1620.	114.5	222.8
74	A	-14.40	1620.	114.5	228.7
	B	-14.60	1641.	114.7	228.7
75	A	-14.60	1641.	114.7	233.5
	B	-14.80	1656.	114.1	233.5
76	A	-14.80	1656.	114.1	237.2
	B	-15.00	1666.	112.9	237.2
77	A	-15.00	1666.	112.9	239.9
	B	-15.20	1670.	111.0	239.9
78	A	-15.20	1670.	111.0	241.6
	B	-15.40	1669.	108.7	241.6
79	A	-15.40	1669.	108.7	242.3
	B	-15.60	1661.	105.9	242.3
80	A	-15.60	1661.	105.9	241.9
	B	-15.80	1649.	102.7	241.9
81	A	-15.80	1649.	102.7	240.5
	B	-16.00	1634.	99.28	240.5
82	A	-16.00	1634.	99.28	238.0
	B	-16.20	1614.	95.56	238.0
83	A	-16.20	1614.	95.56	234.5
	B	-16.40	1591.	91.65	234.5
84	A	-16.40	1591.	91.65	230.0
	B	-16.60	1564.	87.58	230.0
85	A	-16.60	1564.	87.58	224.5
	B	-16.80	1534.	83.40	224.5
86	A	-16.80	1534.	83.40	217.9
	B	-17.00	1500.	79.16	217.9

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
87	A	-17.00	1500.	79.16	210.2
	B	-17.20	1464.	86.36	210.2
88	A	-17.20	1464.	86.36	201.6
	B	-17.40	1425.	126.7	201.6
89	A	-17.40	1425.	126.7	207.4
	B	-17.60	1384.	165.0	207.4
90	A	-17.60	1384.	165.0	219.1
	B	-17.80	1340.	201.3	219.1
91	A	-17.80	1340.	201.3	229.9
	B	-18.00	1294.	235.2	229.9
92	A	-18.00	1294.	235.2	239.8
	B	-18.20	1246.	266.5	239.8
93	A	-18.20	1246.	266.5	248.7
	B	-18.40	1196.	295.0	248.7
94	A	-18.40	1196.	295.0	256.6
	B	-18.60	1145.	320.6	256.6
95	A	-18.60	1145.	320.6	263.6
	B	-18.80	1092.	343.2	263.6
96	A	-18.80	1092.	343.2	269.6
	B	-19.00	1043.	362.9	269.6
97	A	-19.00	1043.	362.9	274.7
	B	-19.20	993.4	379.9	274.7
98	A	-19.20	993.4	379.9	278.8
	B	-19.40	942.9	394.3	278.8
99	A	-19.40	942.9	394.3	281.9
	B	-19.60	891.5	406.2	281.9
100	A	-19.60	891.5	406.2	284.1
	B	-19.80	839.3	415.7	284.1
101	A	-19.80	839.3	415.7	285.4
	B	-20.00	786.5	422.8	285.4
102	A	-20.00	786.5	422.8	285.7
	B	-20.20	733.4	427.7	285.7
103	A	-20.20	733.4	427.7	285.0
	B	-20.40	680.1	430.5	285.0
104	A	-20.40	680.1	430.5	283.4
	B	-20.60	626.8	431.1	283.4
105	A	-20.60	626.8	431.1	280.8
	B	-20.80	573.7	429.7	280.8
106	A	-20.80	573.7	429.7	277.3
	B	-21.00	521.0	426.4	277.3
107	A	-21.00	521.0	426.4	272.8
	B	-21.20	468.9	421.1	272.8
108	A	-21.20	468.9	421.1	267.3
	B	-21.40	417.6	413.9	267.3
109	A	-21.40	417.6	413.9	260.9
	B	-21.60	367.2	404.8	260.9

BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
110	A	-21.60	367.2	404.8	253.6
	B	-21.80	318.1	394.1	253.6
111	A	-21.80	318.1	394.1	245.3
	B	-22.00	270.2	381.9	245.3
112	A	-22.00	270.2	381.9	236.0
	B	-22.20	223.9	368.4	236.0
113	A	-22.20	223.9	368.4	225.8
	B	-22.40	179.4	354.0	225.8
114	A	-22.40	179.4	354.0	214.6
	B	-22.60	136.8	338.6	214.6
115	A	-22.60	136.8	338.6	202.5
	B	-22.80	96.25	322.5	202.5
116	A	-22.80	96.25	322.5	191.0
	B	-23.00	58.05	305.9	191.0
117	A	-23.00	58.05	305.9	178.5
	B	-23.20	22.36	288.8	178.5
118	A	-23.20	22.36	288.8	165.0
	B	-23.40	0.3541	271.4	165.0
119	A	-23.40	0.3541	271.4	150.6
	B	-23.60	0.7443	253.9	150.6
120	A	-23.60	0.7443	253.9	135.2
	B	-23.80	1.059	236.4	135.2
121	A	-23.80	1.059	236.4	118.9
	B	-24.00	1.304	218.9	118.9
122	A	-24.00	1.304	218.9	101.6
	B	-24.20	1.486	201.6	101.6
123	A	-24.20	1.486	201.6	85.30
	B	-24.40	1.610	184.5	85.30
124	A	-24.40	1.610	184.5	83.58
	B	-24.60	1.682	184.6	83.58
125	A	-24.60	1.682	184.6	81.44
	B	-24.80	1.707	190.3	81.44
126	A	-24.80	1.707	190.3	78.93
	B	-25.00	1.693	191.6	78.93
127	A	-25.00	1.693	191.6	76.07
	B	-25.20	1.642	188.8	76.07
128	A	-25.20	1.642	188.8	72.87
	B	-25.40	1.562	182.6	72.87
129	A	-25.40	1.562	182.6	69.35
	B	-25.60	1.457	173.3	69.35
130	A	-25.60	1.457	173.3	65.54
	B	-25.80	1.332	161.3	65.54
131	A	-25.80	1.332	161.3	70.18
	B	-26.00	1.192	147.3	70.18
132	A	-26.00	1.192	147.3	78.52
	B	-26.20	1.042	131.6	78.52

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BEAM EL.	ESTREMO	QUOTA	MOMENTO SX	MOMENTO DX	TAGLIO
133	A	-26.20	1.042	131.6	84.57
	B	-26.40	0.8865	114.7	84.57
134	A	-26.40	0.8865	114.7	88.35
	B	-26.60	0.7305	97.02	88.35
135	A	-26.60	0.7305	97.02	89.86
	B	-26.80	0.5785	79.05	89.86
136	A	-26.80	0.5785	79.05	89.12
	B	-27.00	0.4350	61.22	89.12
137	A	-27.00	0.4350	61.22	86.13
	B	-27.20	0.3044	44.00	86.13
138	A	-27.20	0.3044	44.00	78.45
	B	-27.40	0.1913	28.31	78.45
139	A	-27.40	0.1913	28.31	66.00
	B	-27.60	0.9996E-01	15.11	66.00
140	A	-27.60	0.9996E-01	15.11	48.77
	B	-27.80	0.3475E-01	5.355	48.77
141	A	-27.80	0.3475E-01	5.355	26.77
	B	-28.00	0.3820E-10	0.3385E-10	26.77



PARATIE 7.00  
15 NOVEMBRE 2011 17:57:42  
History 0 - MURENI

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PAG. 27

FORZE NEGLI ANCORAGGI ATTIVI (PER UNITA' DI PROFONDITA')

TIRANTE	Wire01	1 PARETE RightWall	QUOTA	-0.50000
		FASE 1 FORZA	150.00	kN/m
		FASE 2 FORZA	150.59	kN/m
		FASE 3 FORZA	149.97	kN/m
		FASE 4 FORZA	148.96	kN/m
		FASE 5 FORZA	149.45	kN/m
		FASE 6 FORZA	141.96	kN/m
		FASE 7 FORZA	143.02	kN/m
		FASE 8 FORZA	127.24	kN/m
		FASE 9 FORZA	133.76	kN/m
TIRANTE	Wire2	1 PARETE RightWall	QUOTA	-4.0000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 FORZA	150.00	kN/m
		FASE 4 FORZA	162.01	kN/m
		FASE 5 FORZA	159.01	kN/m
		FASE 6 FORZA	182.31	kN/m
		FASE 7 FORZA	181.66	kN/m
		FASE 8 FORZA	200.91	kN/m
		FASE 9 FORZA	210.61	kN/m
TIRANTE	Wire3	1 PARETE RightWall	QUOTA	-8.0000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 inattivo		
		FASE 4 inattivo		
		FASE 5 FORZA	300.00	kN/m
		FASE 6 FORZA	362.61	kN/m
		FASE 7 FORZA	357.81	kN/m
		FASE 8 FORZA	433.87	kN/m
		FASE 9 FORZA	441.14	kN/m
TIRANTE	Wire4	1 PARETE RightWall	QUOTA	-12.000
		FASE 1 inattivo		
		FASE 2 inattivo		
		FASE 3 inattivo		
		FASE 4 inattivo		
		FASE 5 inattivo		
		FASE 6 inattivo		
		FASE 7 FORZA	300.00	kN/m
		FASE 8 FORZA	441.79	kN/m
		FASE 9 FORZA	444.20	kN/m

## INVILUPPO RISULTATI NEGLI ELEMENTI TERRENO

\* PARETE RightWall GRUPPO DHRight\*

\*STEP 1 - 9\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

SIGMA-H = massimo sforzo orizzontale efficace [kPa ]

TAGLIO = massimo sforzo di taglio [kPa ]

PR. ACQUA =massima pressione interstiziale [kPa ]

GRAD. MAX =massimo gradiente idraulico

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
1	0.	0.	0.	0.	0.
2	-0.2000	0.	0.	0.	0.
3	-0.4000	0.	0.	0.	0.
4	-0.5000	0.	0.	0.	0.
5	-0.7000	0.	1.900	0.	0.
6	-0.9000	0.	3.800	0.	0.
7	-1.100	0.	5.700	0.	0.
8	-1.300	0.	7.600	0.	0.
9	-1.500	0.	9.500	0.	0.
10	-1.700	0.	11.40	0.	0.
11	-1.900	6.496	10.05	0.	0.
12	-2.100	12.99	8.703	0.	0.
13	-2.300	19.34	7.429	0.	0.
14	-2.500	25.54	6.232	0.	0.
15	-2.700	31.57	5.113	0.	0.
16	-2.900	37.45	4.074	0.	0.
17	-3.100	43.17	3.115	0.	0.
18	-3.300	48.73	2.234	0.	0.
19	-3.500	54.14	1.429	0.	0.
20	-3.700	59.40	0.6980	0.	0.
21	-3.900	64.40	0.1016	0.	0.
22	-4.000	66.82	11.96	0.	0.
23	-4.200	71.57	17.33	2.074	0.3704E-01
24	-4.400	76.22	19.60	4.148	0.3704E-01
25	-4.600	80.77	21.35	6.222	0.3704E-01
26	-4.800	85.22	22.81	8.296	0.3704E-01
27	-5.000	89.58	24.07	10.37	0.3704E-01
28	-5.200	93.86	25.18	12.44	0.3704E-01
29	-5.400	98.05	26.17	14.52	0.3704E-01
30	-5.600	102.2	27.06	16.59	0.3704E-01
31	-5.800	106.2	27.87	18.67	0.3704E-01
32	-6.000	110.2	28.60	20.74	0.3704E-01
33	-6.200	114.2	29.28	22.81	0.3704E-01
34	-6.400	118.1	29.90	24.89	0.3704E-01
35	-6.600	122.0	30.47	26.96	0.3704E-01

PARATIE 7.00

Ce.A.S. s.r.l. - Milano

PAG. 29

15 NOVEMBRE 2011 17:57:42

History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
36	-6.800	125.8	31.00	29.04	0.3704E-01
37	-7.000	129.6	31.49	31.11	0.3704E-01
38	-7.200	133.4	31.96	33.19	0.3704E-01
39	-7.400	137.1	32.40	35.26	0.3704E-01
40	-7.600	140.9	32.81	37.33	0.3704E-01
41	-7.800	144.6	33.21	39.41	0.3704E-01
42	-8.000	148.3	33.59	41.48	0.3704E-01
43	-8.200	152.0	33.96	43.56	0.3704E-01
44	-8.400	155.7	34.32	45.63	0.3704E-01
45	-8.600	159.4	34.67	47.70	0.1313
46	-8.800	163.1	35.02	49.78	0.1313
47	-9.000	166.8	35.36	51.85	0.1313
48	-9.200	170.4	35.69	53.93	0.1313
49	-9.400	174.1	36.03	56.00	0.1313
50	-9.600	177.8	36.37	58.07	0.1313
51	-9.800	181.5	36.70	60.15	0.1313
52	-10.00	185.2	37.04	62.22	0.1313
53	-10.20	188.9	37.38	64.30	0.1313
54	-10.40	192.6	38.96	66.37	0.1313
55	-10.60	196.3	41.04	68.44	0.1313
56	-10.80	200.0	43.11	70.52	0.1313
57	-11.00	203.7	45.19	72.59	0.1313
58	-11.20	207.4	47.27	74.67	0.1313
59	-11.40	211.2	49.34	76.74	0.1313
60	-11.60	214.9	51.42	78.81	0.1313
61	-11.80	218.6	53.50	80.89	0.1313
62	-12.00	222.4	55.57	82.96	0.1313
63	-12.20	226.1	57.65	85.04	0.2198
64	-12.40	229.9	59.72	87.11	0.2198
65	-12.60	233.7	61.80	89.19	0.2308
66	-12.80	237.4	63.88	91.26	0.2308
67	-13.00	241.2	65.95	93.33	0.2308
68	-13.20	245.0	68.03	95.41	0.2308
69	-13.40	248.7	67.87	97.48	0.2308
70	-13.60	252.5	67.73	99.56	0.2308
71	-13.80	256.3	67.61	101.6	0.2308
72	-14.00	260.1	67.51	103.7	0.2308
73	-14.20	263.9	67.44	105.8	0.2308
74	-14.40	267.7	67.39	107.9	0.2308
75	-14.60	271.5	67.37	109.9	0.2308
76	-14.80	275.3	67.37	112.0	0.2308
77	-15.00	279.1	67.40	114.1	0.2308
78	-15.20	282.8	67.45	116.1	0.2308
79	-15.40	286.6	67.53	118.2	0.2308
80	-15.60	290.5	67.63	120.3	0.3176
81	-15.80	294.3	67.77	122.4	0.3176

PARATIE 7.00

Ce.A.S. s.r.l. - Milano

PAG. 30

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
82	-16.00	298.1	68.01	124.4	0.3176
83	-16.20	301.9	68.26	126.5	0.3176
84	-16.40	305.7	68.52	128.6	0.3176
85	-16.60	309.5	68.79	130.7	0.3176
86	-16.80	313.3	69.08	132.7	0.3176
87	-17.00	317.1	69.38	134.8	0.3176
88	-17.20	320.9	69.69	136.9	0.3176
89	-17.40	324.7	70.01	139.0	0.3176
90	-17.60	328.5	70.34	141.0	0.3176
91	-17.80	332.3	70.69	143.1	0.3176
92	-18.00	336.1	71.04	145.2	0.3176
93	-18.20	339.9	71.60	147.3	0.3176
94	-18.40	343.7	73.44	149.3	0.3176
95	-18.60	347.5	75.27	151.4	0.3176
96	-18.80	351.3	77.11	153.5	0.3176
97	-19.00	355.1	78.95	155.6	0.3176
98	-19.20	358.9	80.79	157.6	0.3176
99	-19.40	362.7	82.62	159.7	0.3176
100	-19.60	366.5	84.46	161.8	0.3176
101	-19.80	370.3	86.30	163.9	0.3176
102	-20.00	374.1	88.14	165.9	0.3176
103	-20.20	377.9	89.97	168.0	0.3176
104	-20.40	381.7	91.81	170.1	0.3176
105	-20.60	385.5	93.65	172.1	0.3176
106	-20.80	389.4	95.48	174.2	0.3176
107	-21.00	393.2	97.32	176.3	0.3176
108	-21.20	397.0	99.16	178.4	0.3176
109	-21.40	400.8	101.0	180.4	0.3176
110	-21.60	404.6	100.3	182.5	0.3176
111	-21.80	408.4	99.67	184.6	0.3176
112	-22.00	412.2	99.06	186.7	0.3176
113	-22.20	416.0	98.51	188.7	0.3176
114	-22.40	419.8	98.02	190.8	0.3176
115	-22.60	423.6	97.59	192.9	0.3176
116	-22.80	427.4	97.22	195.0	0.3176
117	-23.00	431.2	96.91	197.0	0.3176
118	-23.20	435.0	96.64	199.1	0.3176
119	-23.40	438.8	96.43	201.2	0.3176
120	-23.60	442.6	96.26	203.3	0.3176
121	-23.80	446.4	96.13	205.3	0.3176
122	-24.00	450.2	96.04	207.4	0.3176
123	-24.20	454.0	95.98	209.5	0.3176
124	-24.40	457.8	95.96	211.6	0.3176
125	-24.60	461.6	95.98	213.6	0.3176
126	-24.80	465.4	96.01	215.7	0.3176
127	-25.00	469.2	96.08	217.8	0.3176

PARATIE 7.00

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History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
128	-25.20	473.0	96.16	219.9	0.3176
129	-25.40	476.8	97.10	221.9	0.3176
130	-25.60	480.6	98.67	224.0	0.3176
131	-25.80	484.4	100.2	226.1	0.3176
132	-26.00	488.2	101.8	228.1	0.3176
133	-26.20	492.0	103.4	230.2	0.3176
134	-26.40	495.8	105.0	232.3	0.3176
135	-26.60	499.6	106.5	234.4	0.3176
136	-26.80	503.4	108.1	236.4	0.3176
137	-27.00	507.2	109.7	238.5	0.3176
138	-27.20	511.0	111.1	240.6	0.3176
139	-27.40	514.8	106.3	242.7	0.3176
140	-27.60	518.6	101.5	244.7	0.3176
141	-27.80	522.4	98.29	246.8	0.3176
142	-28.00	526.2	98.47	248.9	0.3176
143	-28.20	530.0	118.7	251.0	0.3176
144	-28.40	533.8	119.1	253.0	0.3176
145	-28.60	537.6	119.6	255.1	0.3176
146	-28.80	541.4	120.0	257.2	0.3176
147	-29.00	545.2	120.5	259.3	0.3176
148	-29.20	549.0	120.9	261.3	0.3176
149	-29.40	552.8	121.4	263.4	0.3176
150	-29.60	556.6	121.8	265.5	0.3176
151	-29.80	560.4	122.2	267.6	0.3176
152	-30.00	564.2	122.7	269.6	0.3176

## INVILUPPO RISULTATI NEGLI ELEMENTI TERRENO

\* PARETE RightWall GRUPPO UHRight\*

\*STEP 1 - 9\*

\* I PASSI NON EQUILIBRATI SONO ESCLUSI \*

Nella tabella si stampano i seguenti risultati:

SIGMA-H = massimo sforzo orizzontale efficace [kPa ]

TAGLIO = massimo sforzo di taglio [kPa ]

PR. ACQUA =massima pressione interstiziale [kPa ]

GRAD. MAX =massimo gradiente idraulico

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
1	0.	38.48	19.24	0.	0.
2	-0.2000	52.54	24.37	0.	0.
3	-0.4000	64.88	28.64	0.	0.
4	-0.5000	68.38	29.44	0.	0.
5	-0.7000	79.83	33.26	0.	0.
6	-0.9000	91.96	37.43	0.	0.
7	-1.100	101.2	40.15	0.	0.
8	-1.300	86.82	31.06	0.	0.
9	-1.500	72.52	22.01	0.	0.
10	-1.700	58.35	13.02	0.	0.
11	-1.900	58.41	11.15	0.	0.
12	-2.100	59.21	19.95	0.9630	0.3176
13	-2.300	60.19	27.39	2.889	0.3176
14	-2.500	61.33	28.21	4.815	0.3176
15	-2.700	62.65	29.02	6.741	0.3176
16	-2.900	64.14	29.84	8.667	0.3176
17	-3.100	65.81	30.65	10.59	0.3176
18	-3.300	67.66	31.47	12.52	0.3176
19	-3.500	69.67	32.28	14.44	0.3176
20	-3.700	71.85	33.10	16.37	0.3176
21	-3.900	74.19	33.91	18.30	0.3176
22	-4.000	75.29	34.32	19.26	0.3176
23	-4.200	77.61	35.13	21.19	0.3176
24	-4.400	80.09	35.95	23.11	0.3176
25	-4.600	82.74	36.76	25.04	0.3176
26	-4.800	85.53	37.58	26.96	0.3176
27	-5.000	88.46	38.39	28.89	0.3176
28	-5.200	91.51	39.21	30.81	0.3176
29	-5.400	94.69	40.02	32.74	0.3176
30	-5.600	97.97	40.84	34.67	0.3176
31	-5.800	101.4	41.65	36.59	0.3176
32	-6.000	104.8	42.47	38.52	0.3176
33	-6.200	108.4	43.28	40.44	0.3176
34	-6.400	112.0	44.10	42.37	0.3176
35	-6.600	115.7	44.91	44.30	0.3176

PARATIE 7.00

Ce.A.S. s.r.l. - Milano

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15 NOVEMBRE 2011 17:57:42

History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
36	-6.800	119.4	45.73	46.22	0.3176
37	-7.000	123.2	46.54	48.15	0.3176
38	-7.200	127.1	47.36	50.07	0.3176
39	-7.400	130.9	48.17	52.00	0.3176
40	-7.600	134.8	48.99	53.93	0.3176
41	-7.800	138.8	49.81	55.85	0.3176
42	-8.000	142.7	50.62	57.78	0.3176
43	-8.200	146.7	51.44	59.70	0.3176
44	-8.400	150.6	52.25	61.63	0.3176
45	-8.600	154.6	53.07	63.56	0.3176
46	-8.800	158.6	53.88	65.48	0.3176
47	-9.000	162.6	54.70	67.41	0.3176
48	-9.200	166.6	55.51	69.33	0.3176
49	-9.400	170.6	56.33	71.26	0.3176
50	-9.600	174.6	57.15	73.19	0.3176
51	-9.800	178.5	57.96	75.11	0.3176
52	-10.00	182.5	58.78	77.04	0.3176
53	-10.20	186.5	59.59	78.96	0.3176
54	-10.40	190.4	60.41	80.89	0.3176
55	-10.60	194.4	61.23	82.81	0.3176
56	-10.80	198.3	62.04	84.74	0.3176
57	-11.00	202.3	62.86	86.67	0.3176
58	-11.20	206.2	63.68	88.59	0.3176
59	-11.40	210.1	64.49	90.52	0.3176
60	-11.60	214.0	65.31	92.44	0.3176
61	-11.80	217.9	66.13	94.37	0.3176
62	-12.00	221.8	66.94	96.30	0.3176
63	-12.20	225.7	67.76	98.22	0.3176
64	-12.40	229.5	68.58	100.1	0.3176
65	-12.60	233.4	69.06	102.1	0.3176
66	-12.80	237.3	69.55	104.0	0.3176
67	-13.00	241.1	70.05	105.9	0.3176
68	-13.20	245.0	70.57	107.9	0.3176
69	-13.40	248.8	71.11	109.8	0.3176
70	-13.60	252.6	71.66	111.7	0.3176
71	-13.80	256.4	72.24	113.6	0.3176
72	-14.00	260.3	72.84	115.6	0.3176
73	-14.20	264.1	73.47	117.5	0.3176
74	-14.40	267.9	74.12	119.4	0.3176
75	-14.60	271.7	74.80	121.3	0.3176
76	-14.80	275.5	75.52	123.3	0.3176
77	-15.00	279.3	76.27	125.2	0.3176
78	-15.20	283.1	77.05	127.1	0.3176
79	-15.40	286.9	77.87	129.0	0.3176
80	-15.60	290.7	78.72	131.0	0.3176
81	-15.80	294.5	79.60	132.9	0.3176

PARATIE 7.00

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PAG. 34

15 NOVEMBRE 2011 17:57:42

History 0 - MURENI

SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
82	-16.00	298.3	80.51	134.8	0.3176
83	-16.20	302.1	81.44	136.7	0.3176
84	-16.40	305.9	82.40	138.7	0.3176
85	-16.60	309.7	83.37	140.6	0.3176
86	-16.80	313.5	84.36	142.5	0.3176
87	-17.00	317.3	85.36	144.4	0.3176
88	-17.20	321.1	86.38	146.4	0.3176
89	-17.40	324.9	87.41	148.3	0.3176
90	-17.60	328.7	88.46	150.2	0.3176
91	-17.80	332.5	89.51	152.1	0.3176
92	-18.00	336.2	90.56	154.1	0.3176
93	-18.20	340.0	91.63	156.0	0.3176
94	-18.40	343.8	92.69	157.9	0.3176
95	-18.60	347.6	93.76	159.9	0.3176
96	-18.80	351.4	94.64	161.8	0.3176
97	-19.00	355.2	95.46	163.7	0.3176
98	-19.20	359.0	96.28	165.6	0.3176
99	-19.40	362.8	97.09	167.6	0.3176
100	-19.60	366.6	97.91	169.5	0.3176
101	-19.80	370.4	98.73	171.4	0.3176
102	-20.00	374.2	99.55	173.3	0.3176
103	-20.20	378.0	100.4	175.3	0.3176
104	-20.40	381.8	101.2	177.2	0.3176
105	-20.60	385.6	102.0	179.1	0.3176
106	-20.80	389.4	102.8	181.0	0.3176
107	-21.00	393.2	103.6	183.0	0.3176
108	-21.20	397.0	104.5	184.9	0.3176
109	-21.40	400.8	105.3	186.8	0.3176
110	-21.60	404.6	106.1	188.7	0.3176
111	-21.80	408.4	106.9	190.7	0.3176
112	-22.00	412.2	107.7	192.6	0.3176
113	-22.20	416.0	108.5	194.5	0.3176
114	-22.40	419.8	109.4	196.4	0.3176
115	-22.60	423.6	110.2	198.4	0.3176
116	-22.80	427.4	111.0	200.3	0.3176
117	-23.00	431.1	111.8	202.2	0.3176
118	-23.20	434.9	112.6	204.1	0.3176
119	-23.40	438.7	113.5	206.1	0.3176
120	-23.60	442.5	114.3	208.0	0.3176
121	-23.80	446.3	115.1	209.9	0.3176
122	-24.00	450.1	115.9	211.9	0.3176
123	-24.20	453.9	116.7	213.8	0.3176
124	-24.40	457.7	117.5	215.7	0.3176
125	-24.60	461.6	118.4	217.6	0.3176
126	-24.80	465.4	119.2	219.6	0.3176
127	-25.00	469.2	115.7	221.5	0.3176



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SOIL EL.	QUOTA	SIGMA-H	TAGLIO	PR. ACQUA	GRAD. MAX
128	-25.20	473.0	108.2	223.4	0.3176
129	-25.40	476.8	100.8	225.3	0.3176
130	-25.60	480.6	93.35	227.3	0.3176
131	-25.80	484.4	85.98	229.2	0.3176
132	-26.00	488.2	78.64	231.1	0.3176
133	-26.20	492.0	71.33	233.0	0.3176
134	-26.40	495.8	64.04	235.0	0.3176
135	-26.60	499.6	56.78	236.9	0.3176
136	-26.80	503.4	49.53	238.8	0.3176
137	-27.00	507.2	42.29	240.7	0.3176
138	-27.20	511.0	35.07	242.7	0.3176
139	-27.40	514.8	34.26	244.6	0.3176
140	-27.60	518.6	34.68	246.5	0.3176
141	-27.80	522.4	35.09	248.4	0.3176
142	-28.00	526.2	35.50	250.4	0.3176
143	-28.20	530.0	40.05	252.3	0.3176
144	-28.40	533.8	39.60	254.2	0.3176
145	-28.60	537.6	39.16	256.1	0.3176
146	-28.80	541.4	38.72	258.1	0.3176
147	-29.00	545.2	38.28	260.0	0.3176
148	-29.20	549.0	37.96	261.9	0.3176
149	-29.40	552.8	38.37	263.9	0.3176
150	-29.60	556.6	38.78	265.8	0.3176
151	-29.80	560.4	39.19	267.7	0.3176
152	-30.00	564.2	39.60	269.6	0.3176

RIASSUNTO SPINTE NEGLI ELEMENTI TERRENO  
(LE SPINTE SONO CALCOLATE INTEGRANDO GLI SFORZI NEI SINGOLI ELEMENTI MOLLA)

SPINTA EFFICACE VERA = Integrale delle pressioni orizzontali efficaci in tutti gli elementi nel gruppo: unita' di misura kN/m

SPINTA ACQUA = Integrale delle pressioni interstiziali in tutti gli elementi nel gruppo: unita' di misura kN/m

SPINTA TOTALE VERA = Somma della SPINTA EFFICACE e della SPINTA DELL'ACQUA: e' l' azione totale sulla parete: unita' di misura kN/m

SPINTA ATTIVA POSSIBILE = La minima spinta che puo' essere esercitata da questo gruppo di elementi terreno, in questa fase: unita' di misura kN/m

SPINTA PASSIVA POSSIBILE = La massima spinta che puo' essere esercitata da questo gruppo di elementi terreno, in questa fase: unita' di misura kN/m

RAPPORTO PASSIVA/VERA = e' il rapporto tra la massima spinta possibile e la spinta efficace vera: fornisce un'indicazione su quanta spinta passiva venga mobilitata;

SPINTA PASSIVA MOBILITATA = e' l'inverso del rapporto precedente, espresso in unita' percentuale: indica quanta parte della massima spinta possibile e' stata mobilitata;

RAPPORTO VERA/ATTIVA = e' il rapporto tra la spinta efficace vera e la minima spinta possibile: fornisce un'indicazione di quanto questa porzione di terreno sia prossima alla condizione di massimo rilascio.

FASE	1	GRUPPO -->	DHRi	UHRi
SPINTA EFFICACE VERA			8335.7	8474.3
SPINTA ACQUA			0.	0.
SPINTA TOTALE VERA			8335.7	8474.3
SPINTA ATTIVA (POSSIBILE)			2399.8	2487.4
SPINTA PASSIVA (POSSIBILE)			31735.	32798.
RAPPORTO PASSIVA/VERA			3.8071	3.8703
SPINTA PASSIVA MOBILITATA			26.%	26.%
RAPPORTO VERA/ATTIVA			3.4734	3.4069

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FASE	2	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	5558.2	5427.6
		SPINTA ACQUA	3505.2	3774.9
		SPINTA TOTALE VERA	9063.4	9202.5
		SPINTA ATTIVA (POSSIBILE)	687.02	1241.7
		SPINTA PASSIVA (POSSIBILE)	11797.	18827.
		RAPPORTO PASSIVA/VERA	2.1225	3.4687
		SPINTA PASSIVA MOBILITATA	47.%	29.%
		RAPPORTO VERA/ATTIVA	8.0904	4.3712

FASE	3	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	5523.2	5530.6
		SPINTA ACQUA	3505.2	3774.9
		SPINTA TOTALE VERA	9028.4	9305.5
		SPINTA ATTIVA (POSSIBILE)	687.02	1241.7
		SPINTA PASSIVA (POSSIBILE)	11797.	18827.
		RAPPORTO PASSIVA/VERA	2.1360	3.4041
		SPINTA PASSIVA MOBILITATA	47.%	29.%
		RAPPORTO VERA/ATTIVA	8.0394	4.4542

FASE	4	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4847.4	4344.3
		SPINTA ACQUA	2614.8	3405.3
		SPINTA TOTALE VERA	7462.3	7749.6
		SPINTA ATTIVA (POSSIBILE)	365.30	1363.6
		SPINTA PASSIVA (POSSIBILE)	7402.7	20195.
		RAPPORTO PASSIVA/VERA	1.5271	4.6486
		SPINTA PASSIVA MOBILITATA	65.%	22.%
		RAPPORTO VERA/ATTIVA	13.270	3.1858

FASE	5	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	4786.5	4558.1
		SPINTA ACQUA	2614.8	3405.3
		SPINTA TOTALE VERA	7401.3	7963.4
		SPINTA ATTIVA (POSSIBILE)	365.30	1363.6
		SPINTA PASSIVA (POSSIBILE)	7402.7	20195.
		RAPPORTO PASSIVA/VERA	1.5466	4.4305
		SPINTA PASSIVA MOBILITATA	65.%	23.%
		RAPPORTO VERA/ATTIVA	13.103	3.3426

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History 0 - MURENI

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FASE	6	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	3825.3	3357.9
		SPINTA ACQUA	1956.5	3058.5
		SPINTA TOTALE VERA	5781.8	6416.4
		SPINTA ATTIVA (POSSIBILE)	172.07	1478.1
		SPINTA PASSIVA (POSSIBILE)	4528.4	21478.
		RAPPORTO PASSIVA/VERA	1.1838	6.3963
		SPINTA PASSIVA MOBILITATA	84.%	16.%
		RAPPORTO VERA/ATTIVA	22.231	2.2718

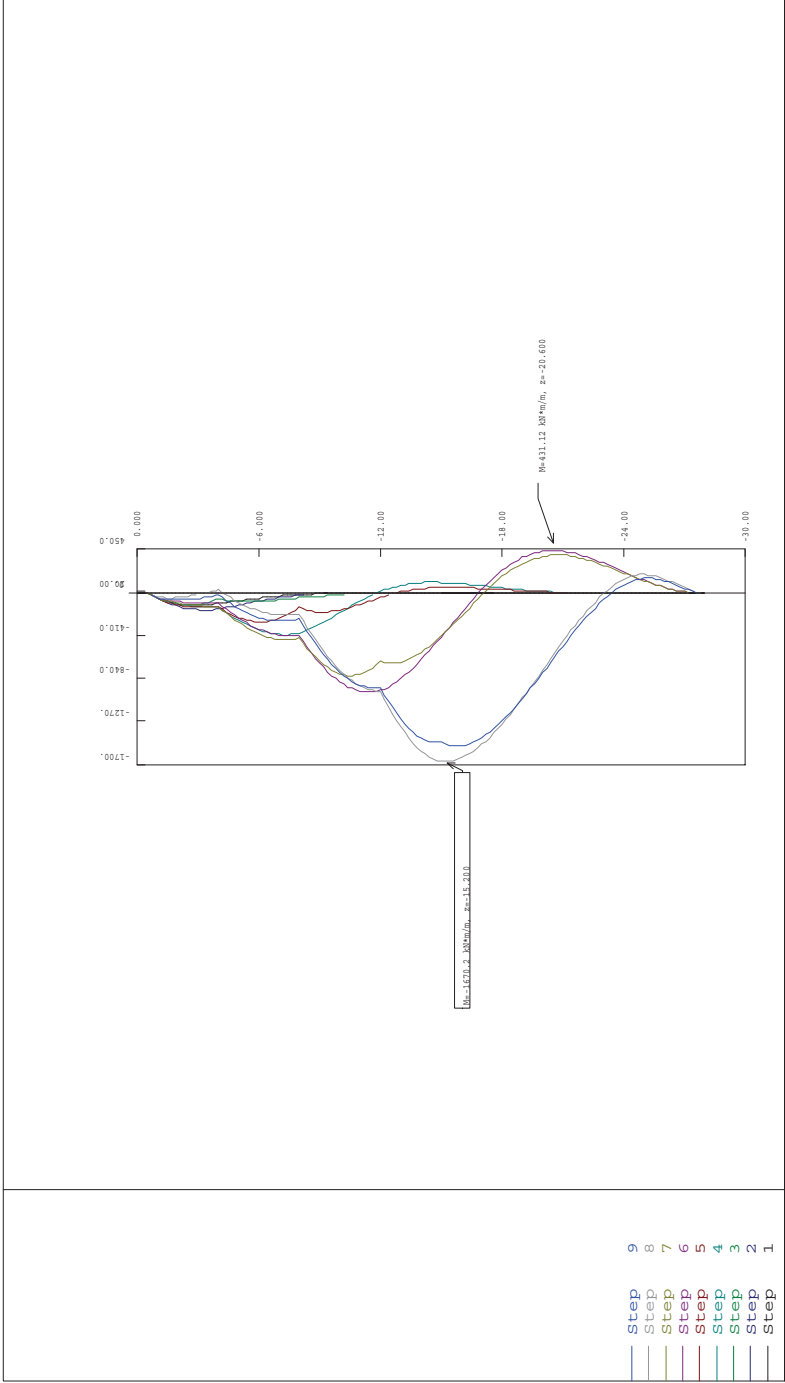
FASE	7	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	3919.5	3696.4
		SPINTA ACQUA	1884.7	3015.4
		SPINTA TOTALE VERA	5804.2	6711.9
		SPINTA ATTIVA (POSSIBILE)	207.79	1492.3
		SPINTA PASSIVA (POSSIBILE)	5112.9	21638.
		RAPPORTO PASSIVA/VERA	1.3045	5.8537
		SPINTA PASSIVA MOBILITATA	77.%	17.%
		RAPPORTO VERA/ATTIVA	18.863	2.4770

FASE	8	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	2754.8	2577.3
		SPINTA ACQUA	1385.2	2674.9
		SPINTA TOTALE VERA	4140.0	5252.2
		SPINTA ATTIVA (POSSIBILE)	69.786	1604.7
		SPINTA PASSIVA (POSSIBILE)	2823.8	22898.
		RAPPORTO PASSIVA/VERA	1.0250	8.8845
		SPINTA PASSIVA MOBILITATA	98.%	11.%
		RAPPORTO VERA/ATTIVA	39.475	1.6061

FASE	9	GRUPPO -->	DHRi	UHRi
		SPINTA EFFICACE VERA	2777.1	2766.0
		SPINTA ACQUA	1385.2	2674.9
		SPINTA TOTALE VERA	4162.3	5440.9
		SPINTA ATTIVA (POSSIBILE)	69.786	1823.1
		SPINTA PASSIVA (POSSIBILE)	2823.8	25452.
		RAPPORTO PASSIVA/VERA	1.0168	9.2016
		SPINTA PASSIVA MOBILITATA	98.%	11.%
		RAPPORTO VERA/ATTIVA	39.795	1.5172

OUTPUT PLOTS:





MOMENTI FLETTENTI [kN\*m/m]  
 INVILUPPO DA 1 A 9 SCALA GEOM. : 2,32

LIB: C:\Users\Toni\OneDrive\Documents\cassa11\_11\11\_La\_Basata\_La\_Basata\_Nord\Workset\STEP\_A1\01A1\_Inv\_MOMI0

History 0 - MOMENT  
 Piece units= KN  
 Length units= M

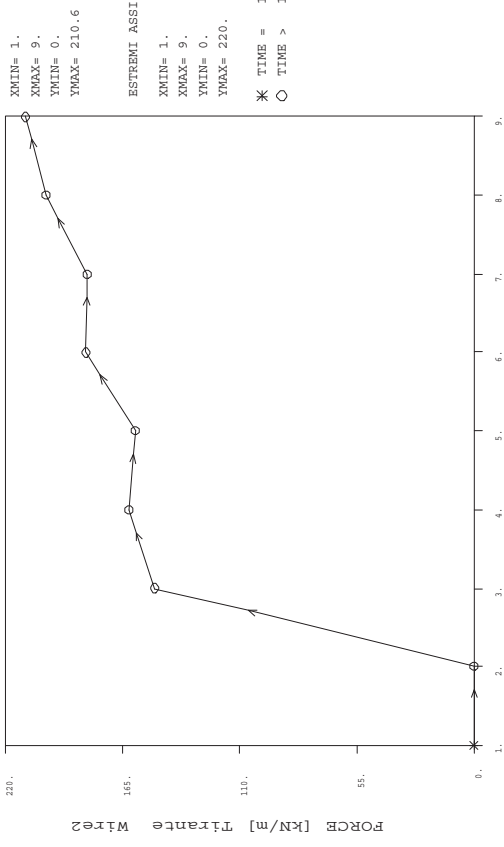
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Tirante Wire2	FORCE [kN/m]
1.	0.
2.	0.
3.	150.
4.	162.0
5.	159.0
6.	182.3
7.	181.7
8.	200.9
9.	210.6



STEP

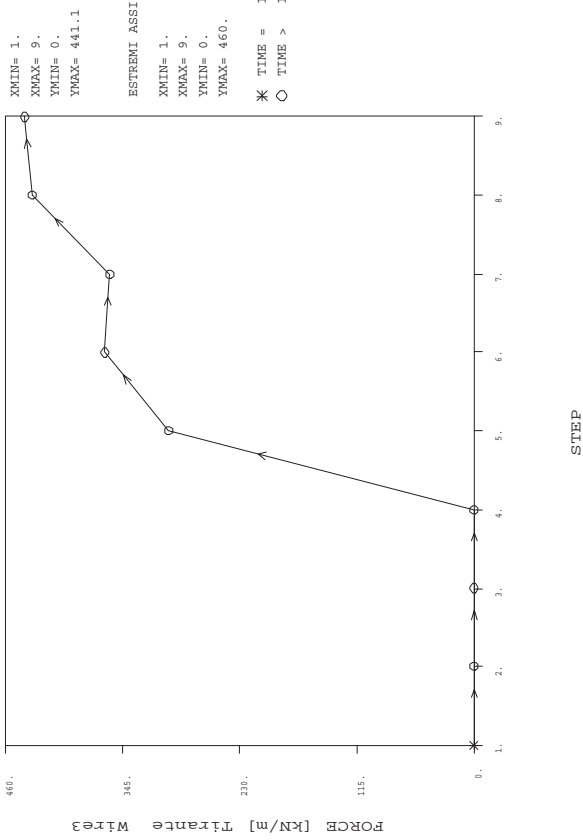
DAL PASSO 1 AL PASSO 9  
DIAGRAMMA VARIABILE X / VARIABILE Y

History 0 - WORK1  
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Force units= kN  
Length units= m

STEP	FORCE [KN/m]
1.	0.
2.	0.
3.	0.
4.	0.
5.	300.
6.	362.6
7.	357.8
8.	433.9
9.	441.1



DAL PASSO 1 AL PASSO 9  
 DIAGRAMMA VARIABILE X / VARIABILE Y

History 0 - W09EN  
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Force units= KN  
 Length units= M

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**Table: Combination Definitions, Part 1 of 3**

**Table: Combination Definitions, Part 1 of 3**

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
USL1	Linear Add	No	Linear Static	EARTH	1,350000	None
USL1			Linear Static	EARTH_PRESSURE DX	1,350000	
USL1			Linear Static	EARTH_PRESSURE SX	1,350000	
USL1			Linear Static	HYDROSTATIC	1,350000	
USL1			Linear Static	DEAD	1,350000	
ULS2	Linear Add	No	Linear Static	DEAD	1,350000	None
ULS2			Linear Static	EARTH	1,350000	
ULS2			Linear Static	EARTH_PRESSURE DX	1,350000	
ULS2			Linear Static	EARTH_PRESSURE SX	1,350000	
ENVELOPE_ULS	Envelope	No	Response Combo	ULS2	1,000000	None
ENVELOPE_ULS			Response Combo	USL1	1,000000	
SLS	Linear Add	No	Linear Static	DEAD	1,000000	None
SLS			Linear Static	EARTH	1,000000	
SLS			Linear Static	EARTH_PRESSURE DX	1,000000	
SLS			Linear Static	EARTH_PRESSURE SX	1,000000	
SLS			Linear Static	HYDROSTATIC	1,000000	

**Table: Combination Definitions, Part 2 of 3**

**Table: Combination Definitions, Part 2 of 3**

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
USL1	EARTH	None	None	None
USL1	EARTH_PRESSURE DX			
USL1	EARTH_PRESSURE SX			
USL1	HYDROSTATIC			
USL1	DEAD			
ULS2	DEAD	None	None	None
ULS2	EARTH			
ULS2	EARTH_PRESSURE DX			
ULS2	EARTH_PRESSURE SX			
ENVELOPE_ULS	ULS2	None	None	None
ENVELOPE_ULS	USL1			
SLS	DEAD	None	None	None
SLS	EARTH			
SLS	EARTH_PRESSURE DX			
SLS	EARTH_PRESSURE SX			
SLS	HYDROSTATIC			

### Table: Combination Definitions, Part 3 of 3

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
USL1	EARTH		
USL1	EARTH_PRESSURE DX		
USL1	EARTH_PRESSURE SX		
USL1	HYDROSTATIC		
USL1	DEAD		
ULS2	DEAD		
ULS2	EARTH		
ULS2	EARTH_PRESSURE DX		
ULS2	EARTH_PRESSURE SX		
ENVELOPE_ULS	ULS2		
ENVELOPE_ULS	USL1		
SLS	DEAD		
SLS	EARTH		
SLS	EARTH_PRESSURE DX		
SLS	EARTH_PRESSURE SX		
SLS	HYDROSTATIC		

### Table: Element Forces - Frames, Part 1 of 2

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
1	0,00000	USL1	Combination		-1817,913	54,136	1,283E-13	1,156E-13
1	0,49060	USL1	Combination		-1817,913	118,007	1,264E-13	1,156E-13
1	0,98121	USL1	Combination		-1817,913	181,879	1,245E-13	1,156E-13
1	0,00000	ULS2	Combination		-1127,190	109,127	1,324E-14	-4,345E-15
1	0,49060	ULS2	Combination		-1127,190	93,521	1,133E-14	-4,345E-15
1	0,98121	ULS2	Combination		-1127,190	77,915	9,417E-15	-4,345E-15
1	0,00000	ENVELOPE_ ULS	Combination	Max	-1127,190	109,127	1,283E-13	1,156E-13
1	0,49060	ENVELOPE_ ULS	Combination	Max	-1127,190	118,007	1,264E-13	1,156E-13
1	0,98121	ENVELOPE_ ULS	Combination	Max	-1127,190	181,879	1,245E-13	1,156E-13
1	0,00000	ENVELOPE_ ULS	Combination	Min	-1817,913	54,136	1,324E-14	-4,345E-15
1	0,49060	ENVELOPE_ ULS	Combination	Min	-1817,913	93,521	1,133E-14	-4,345E-15
1	0,98121	ENVELOPE_ ULS	Combination	Min	-1817,913	77,915	9,417E-15	-4,345E-15
1	0,00000	SLS	Combination		-1346,602	40,101	9,507E-14	8,560E-14
1	0,49060	SLS	Combination		-1346,602	87,413	9,366E-14	8,560E-14
1	0,98121	SLS	Combination		-1346,602	134,725	9,224E-14	8,560E-14
2	0,00000	USL1	Combination		-1838,250	-71,448	1,043E-13	1,097E-13
2	0,67593	USL1	Combination		-1747,258	33,373	1,038E-13	1,097E-13
2	1,35185	USL1	Combination		-1656,266	137,145	1,033E-13	1,097E-13
2	0,00000	ULS2	Combination		-1162,065	69,824	8,426E-15	-4,241E-15
2	0,67593	ULS2	Combination		-1071,074	65,670	7,918E-15	-4,241E-15
2	1,35185	ULS2	Combination		-980,082	61,516	7,409E-15	-4,241E-15
2	0,00000	ENVELOPE_ ULS	Combination	Max	-1162,065	69,824	1,043E-13	1,097E-13
2	0,67593	ENVELOPE_ ULS	Combination	Max	-1071,074	65,670	1,038E-13	1,097E-13

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
2	1,35185	ENVELOPE_ ULS	Combination	Max	-980,082	137,145	1,033E-13	1,097E-13
2	0,00000	ENVELOPE_ ULS	Combination	Min	-1838,250	-71,448	8,426E-15	-4,241E-15
2	0,67593	ENVELOPE_ ULS	Combination	Min	-1747,258	33,373	7,918E-15	-4,241E-15
2	1,35185	ENVELOPE_ ULS	Combination	Min	-1656,266	61,516	7,409E-15	-4,241E-15
2	0,00000	SLS	Combination		-1361,666	-52,925	7,730E-14	8,124E-14
2	0,67593	SLS	Combination		-1294,265	24,721	7,692E-14	8,124E-14
2	1,35185	SLS	Combination		-1226,864	101,589	7,654E-14	8,124E-14
3	0,00000	USL1	Combination		-1692,144	-28,195	5,166E-14	8,352E-14
3	0,67593	USL1	Combination		-1602,030	88,254	5,288E-14	8,352E-14
3	1,35185	USL1	Combination		-1512,730	202,535	5,407E-14	8,352E-14
3	0,00000	ULS2	Combination		-1051,361	109,551	1,329E-14	-4,013E-15
3	0,67593	ULS2	Combination		-961,246	119,534	1,451E-14	-4,013E-15
3	1,35185	ULS2	Combination		-871,947	129,220	1,570E-14	-4,013E-15
3	0,00000	ENVELOPE_ ULS	Combination	Max	-1051,361	109,551	5,166E-14	8,352E-14
3	0,67593	ENVELOPE_ ULS	Combination	Max	-961,246	119,534	5,288E-14	8,352E-14
3	1,35185	ENVELOPE_ ULS	Combination	Max	-871,947	202,535	5,407E-14	8,352E-14
3	0,00000	ENVELOPE_ ULS	Combination	Min	-1692,144	-28,195	1,329E-14	-4,013E-15
3	0,67593	ENVELOPE_ ULS	Combination	Min	-1602,030	88,254	1,451E-14	-4,013E-15
3	1,35185	ENVELOPE_ ULS	Combination	Min	-1512,730	129,220	1,570E-14	-4,013E-15
3	0,00000	SLS	Combination		-1253,440	-20,885	3,827E-14	6,186E-14
3	0,67593	SLS	Combination		-1186,689	65,373	3,917E-14	6,186E-14
3	1,35185	SLS	Combination		-1120,541	150,026	4,005E-14	6,186E-14
4	0,00000	USL1	Combination		-1575,792	-69,342	3,180E-14	1,094E-14
4	0,67384	USL1	Combination		-1492,486	62,185	3,541E-14	1,094E-14
4	1,34768	USL1	Combination		-1410,469	190,220	3,892E-14	1,094E-14
4	0,00000	ULS2	Combination		-998,628	104,040	1,262E-14	-3,449E-15
4	0,67384	ULS2	Combination		-915,322	133,546	1,623E-14	-3,449E-15
4	1,34768	ULS2	Combination		-833,305	162,197	1,974E-14	-3,449E-15
4	0,00000	ENVELOPE_ ULS	Combination	Max	-998,628	104,040	3,180E-14	1,094E-14
4	0,67384	ENVELOPE_ ULS	Combination	Max	-915,322	133,546	3,541E-14	1,094E-14
4	1,34768	ENVELOPE_ ULS	Combination	Max	-833,305	190,220	3,892E-14	1,094E-14
4	0,00000	ENVELOPE_ ULS	Combination	Min	-1575,792	-69,342	1,262E-14	-3,449E-15
4	0,67384	ENVELOPE_ ULS	Combination	Min	-1492,486	62,185	1,623E-14	-3,449E-15
4	1,34768	ENVELOPE_ ULS	Combination	Min	-1410,469	162,197	1,974E-14	-3,449E-15
4	0,00000	SLS	Combination		-1167,253	-51,364	2,356E-14	8,103E-15
4	0,67384	SLS	Combination		-1105,545	46,063	2,623E-14	8,103E-15
4	1,34768	SLS	Combination		-1044,792	140,903	2,883E-14	8,103E-15
5	0,00000	USL1	Combination		-1469,669	279,526	-1,519E-14	1,454E-14
5	0,67384	USL1	Combination		-1389,226	403,515	-1,181E-14	1,454E-14
5	1,34768	USL1	Combination		-1310,640	522,907	-8,576E-15	1,454E-14
5	0,00000	ULS2	Combination		-955,787	346,967	4,237E-14	-3,449E-15
5	0,67384	ULS2	Combination		-875,343	374,575	4,575E-14	-3,449E-15
5	1,34768	ULS2	Combination		-796,757	400,952	4,898E-14	-3,449E-15
5	0,00000	ENVELOPE_ ULS	Combination	Max	-955,787	346,967	4,237E-14	1,454E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
5	0,67384	ENVELOPE_ ULS	Combination	Max	-875,343	403,515	4,575E-14	1,454E-14
5	1,34768	ENVELOPE_ ULS	Combination	Max	-796,757	522,907	4,898E-14	1,454E-14
5	0,00000	ENVELOPE_ ULS	Combination	Min	-1469,669	279,526	-1,519E-14	-3,449E-15
5	0,67384	ENVELOPE_ ULS	Combination	Min	-1389,226	374,575	-1,181E-14	-3,449E-15
5	1,34768	ENVELOPE_ ULS	Combination	Min	-1310,640	400,952	-8,576E-15	-3,449E-15
5	0,00000	SLS	Combination		-1088,644	207,056	-1,125E-14	1,077E-14
5	0,67384	SLS	Combination		-1029,056	298,900	-8,745E-15	1,077E-14
5	1,34768	SLS	Combination		-970,844	387,339	-6,353E-15	1,077E-14
6	0,00000	USL1	Combination		-1477,305	277,079	-1,398E-14	-4,398E-14
6	0,67923	USL1	Combination		-1408,222	409,628	-8,775E-15	-4,398E-14
6	1,35845	USL1	Combination		-1341,043	536,048	-3,818E-15	-4,398E-14
6	0,00000	ULS2	Combination		-1033,132	356,802	4,357E-14	-2,615E-15
6	0,67923	ULS2	Combination		-964,048	399,328	4,878E-14	-2,615E-15
6	1,35845	ULS2	Combination		-896,869	439,807	5,374E-14	-2,615E-15
6	0,00000	ENVELOPE_ ULS	Combination	Max	-1033,132	356,802	4,357E-14	-2,615E-15
6	0,67923	ENVELOPE_ ULS	Combination	Max	-964,048	409,628	4,878E-14	-2,615E-15
6	1,35845	ENVELOPE_ ULS	Combination	Max	-896,869	536,048	5,374E-14	-2,615E-15
6	0,00000	ENVELOPE_ ULS	Combination	Min	-1477,305	277,079	-1,398E-14	-4,398E-14
6	0,67923	ENVELOPE_ ULS	Combination	Min	-1408,222	399,328	-8,775E-15	-4,398E-14
6	1,35845	ENVELOPE_ ULS	Combination	Min	-1341,043	439,807	-3,818E-15	-4,398E-14
6	0,00000	SLS	Combination		-1094,300	205,244	-1,036E-14	-3,258E-14
6	0,67923	SLS	Combination		-1043,127	303,428	-6,500E-15	-3,258E-14
6	1,35845	SLS	Combination		-993,365	397,073	-2,828E-15	-3,258E-14
9	0,00000	USL1	Combination		-843,387	-35,199	5,743E-14	6,162E-14
9	0,49037	USL1	Combination		-836,606	30,260	5,743E-14	6,162E-14
9	0,98074	USL1	Combination		-827,822	93,540	5,743E-14	6,162E-14
9	0,00000	ULS2	Combination		-516,224	-84,534	-1,246E-16	5,262E-15
9	0,49037	ULS2	Combination		-509,442	-36,602	-1,246E-16	5,262E-15
9	0,98074	ULS2	Combination		-500,659	10,376	-1,246E-16	5,262E-15
9	0,00000	ENVELOPE_ ULS	Combination	Max	-516,224	-35,199	5,743E-14	6,162E-14
9	0,49037	ENVELOPE_ ULS	Combination	Max	-509,442	30,260	5,743E-14	6,162E-14
9	0,98074	ENVELOPE_ ULS	Combination	Max	-500,659	93,540	5,743E-14	6,162E-14
9	0,00000	ENVELOPE_ ULS	Combination	Min	-843,387	-84,534	-1,246E-16	5,262E-15
9	0,49037	ENVELOPE_ ULS	Combination	Min	-836,606	-36,602	-1,246E-16	5,262E-15
9	0,98074	ENVELOPE_ ULS	Combination	Min	-827,822	10,376	-1,246E-16	5,262E-15
9	0,00000	SLS	Combination		-624,731	-26,073	4,254E-14	4,564E-14
9	0,49037	SLS	Combination		-619,708	22,415	4,254E-14	4,564E-14
9	0,98074	SLS	Combination		-613,201	69,289	4,254E-14	4,564E-14
10	0,00000	USL1	Combination		-832,263	-37,112	3,824E-14	1,111E-13
10	0,49037	USL1	Combination		-829,935	24,191	3,824E-14	1,111E-13
10	0,98074	USL1	Combination		-826,940	84,469	3,824E-14	1,111E-13
10	0,00000	ULS2	Combination		-496,118	-68,072	-1,246E-16	5,541E-15
10	0,49037	ULS2	Combination		-493,790	-22,044	-1,246E-16	5,541E-15
10	0,98074	ULS2	Combination		-490,795	23,785	-1,246E-16	5,541E-15

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
10	0,00000	ENVELOPE_	Combination	Max	-496,118	-37,112	3,824E-14	1,111E-13
		ULS						
10	0,49037	ENVELOPE_	Combination	Max	-493,790	24,191	3,824E-14	1,111E-13
		ULS						
10	0,98074	ENVELOPE_	Combination	Max	-490,795	84,469	3,824E-14	1,111E-13
		ULS						
10	0,00000	ENVELOPE_	Combination	Min	-832,263	-68,072	-1,246E-16	5,541E-15
		ULS						
10	0,49037	ENVELOPE_	Combination	Min	-829,935	-22,044	-1,246E-16	5,541E-15
		ULS						
10	0,98074	ENVELOPE_	Combination	Min	-826,940	23,785	-1,246E-16	5,541E-15
		ULS						
10	0,00000	SLS	Combination		-616,491	-27,490	2,833E-14	8,226E-14
10	0,49037	SLS	Combination		-614,767	17,919	2,833E-14	8,226E-14
10	0,98074	SLS	Combination		-612,548	62,569	2,833E-14	8,226E-14
11	0,00000	USL1	Combination		-828,398	-68,713	5,743E-14	1,328E-13
11	0,66133	USL1	Combination		-835,276	9,509	5,743E-14	1,328E-13
11	1,32265	USL1	Combination		-841,709	87,149	5,743E-14	1,328E-13
11	0,00000	ULS2	Combination		-486,826	-66,682	-1,246E-16	5,717E-15
11	0,66133	ULS2	Combination		-493,703	-7,119	-1,246E-16	5,717E-15
11	1,32265	ULS2	Combination		-500,136	52,397	-1,246E-16	5,717E-15
11	0,00000	ENVELOPE_	Combination	Max	-486,826	-66,682	5,743E-14	1,328E-13
		ULS						
11	0,66133	ENVELOPE_	Combination	Max	-493,703	9,509	5,743E-14	1,328E-13
		ULS						
11	1,32265	ENVELOPE_	Combination	Max	-500,136	87,149	5,743E-14	1,328E-13
		ULS						
11	0,00000	ENVELOPE_	Combination	Min	-828,398	-68,713	-1,246E-16	5,717E-15
		ULS						
11	0,66133	ENVELOPE_	Combination	Min	-835,276	-7,119	-1,246E-16	5,717E-15
		ULS						
11	1,32265	ENVELOPE_	Combination	Min	-841,709	52,397	-1,246E-16	5,717E-15
		ULS						
11	0,00000	SLS	Combination		-613,628	-50,899	4,254E-14	9,838E-14
11	0,66133	SLS	Combination		-618,723	7,044	4,254E-14	9,838E-14
11	1,32265	SLS	Combination		-623,488	64,555	4,254E-14	9,838E-14
12	0,00000	USL1	Combination		-1817,913	45,523	8,930E-14	1,144E-13
12	0,49060	USL1	Combination		-1817,913	109,395	8,739E-14	1,144E-13
12	0,98121	USL1	Combination		-1817,913	173,267	8,548E-14	1,144E-13
12	0,00000	ULS2	Combination		-1127,190	103,589	1,256E-14	-4,345E-15
12	0,49060	ULS2	Combination		-1127,190	87,983	1,065E-14	-4,345E-15
12	0,98121	ULS2	Combination		-1127,190	72,377	8,739E-15	-4,345E-15
12	0,00000	ENVELOPE_	Combination	Max	-1127,190	103,589	8,930E-14	1,144E-13
		ULS						
12	0,49060	ENVELOPE_	Combination	Max	-1127,190	109,395	8,739E-14	1,144E-13
		ULS						
12	0,98121	ENVELOPE_	Combination	Max	-1127,190	173,267	8,548E-14	1,144E-13
		ULS						
12	0,00000	ENVELOPE_	Combination	Min	-1817,913	45,523	1,256E-14	-4,345E-15
		ULS						
12	0,49060	ENVELOPE_	Combination	Min	-1817,913	87,983	1,065E-14	-4,345E-15
		ULS						
12	0,98121	ENVELOPE_	Combination	Min	-1817,913	72,377	8,739E-15	-4,345E-15
		ULS						
12	0,00000	SLS	Combination		-1346,602	33,721	6,615E-14	8,471E-14
12	0,49060	SLS	Combination		-1346,602	81,033	6,473E-14	8,471E-14
12	0,98121	SLS	Combination		-1346,602	128,346	6,332E-14	8,471E-14
13	0,00000	USL1	Combination		-1836,647	-79,665	8,453E-14	7,490E-14
13	0,67593	USL1	Combination		-1744,938	25,296	8,404E-14	7,490E-14
13	1,35185	USL1	Combination		-1653,230	129,208	8,354E-14	7,490E-14
13	0,00000	ULS2	Combination		-1161,050	64,621	7,789E-15	-4,242E-15
13	0,67593	ULS2	Combination		-1069,342	60,606	7,298E-15	-4,242E-15



Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
13	1,35185	ULS2	Combination		-977,634	56,592	6,806E-15	-4,242E-15
13	0,00000	ENVELOPE_ ULS	Combination	Max	-1161,050	64,621	8,453E-14	7,490E-14
13	0,67593	ENVELOPE_ ULS	Combination	Max	-1069,342	60,606	8,404E-14	7,490E-14
13	1,35185	ENVELOPE_ ULS	Combination	Max	-977,634	129,208	8,354E-14	7,490E-14
13	0,00000	ENVELOPE_ ULS	Combination	Min	-1836,647	-79,665	7,789E-15	-4,242E-15
13	0,67593	ENVELOPE_ ULS	Combination	Min	-1744,938	25,296	7,298E-15	-4,242E-15
13	1,35185	ENVELOPE_ ULS	Combination	Min	-1653,230	56,592	6,806E-15	-4,242E-15
13	0,00000	SLS	Combination		-1360,479	-59,011	6,261E-14	5,548E-14
13	0,67593	SLS	Combination		-1292,547	18,738	6,225E-14	5,548E-14
13	1,35185	SLS	Combination		-1224,615	95,709	6,188E-14	5,548E-14
14	0,00000	USL1	Combination		-1688,108	-34,998	3,199E-14	2,236E-14
14	0,67593	USL1	Combination		-1597,480	81,638	3,324E-14	2,236E-14
14	1,35185	USL1	Combination		-1508,009	195,982	3,443E-14	2,236E-14
14	0,00000	ULS2	Combination		-1048,369	105,611	1,281E-14	-4,014E-15
14	0,67593	ULS2	Combination		-957,741	115,781	1,405E-14	-4,014E-15
14	1,35185	ULS2	Combination		-868,270	125,530	1,525E-14	-4,014E-15
14	0,00000	ENVELOPE_ ULS	Combination	Max	-1048,369	105,611	3,199E-14	2,236E-14
14	0,67593	ENVELOPE_ ULS	Combination	Max	-957,741	115,781	3,324E-14	2,236E-14
14	1,35185	ENVELOPE_ ULS	Combination	Max	-868,270	195,982	3,443E-14	2,236E-14
14	0,00000	ENVELOPE_ ULS	Combination	Min	-1688,108	-34,998	1,281E-14	-4,014E-15
14	0,67593	ENVELOPE_ ULS	Combination	Min	-1597,480	81,638	1,405E-14	-4,014E-15
14	1,35185	ENVELOPE_ ULS	Combination	Min	-1508,009	125,530	1,525E-14	-4,014E-15
14	0,00000	SLS	Combination		-1250,450	-25,925	2,370E-14	1,657E-14
14	0,67593	SLS	Combination		-1183,318	60,473	2,462E-14	1,657E-14
14	1,35185	SLS	Combination		-1117,043	145,172	2,551E-14	1,657E-14
15	0,00000	USL1	Combination		-1571,178	49,659	-1,647E-14	-2,345E-14
15	0,67593	USL1	Combination		-1485,550	174,945	-1,366E-14	-2,345E-14
15	1,35185	USL1	Combination		-1401,278	296,832	-1,094E-14	-2,345E-14
15	0,00000	ULS2	Combination		-983,637	179,829	2,190E-14	-3,662E-15
15	0,67593	ULS2	Combination		-898,009	202,779	2,471E-14	-3,662E-15
15	1,35185	ULS2	Combination		-813,738	224,975	2,743E-14	-3,662E-15
15	0,00000	ENVELOPE_ ULS	Combination	Max	-983,637	179,829	2,190E-14	-3,662E-15
15	0,67593	ENVELOPE_ ULS	Combination	Max	-898,009	202,779	2,471E-14	-3,662E-15
15	1,35185	ENVELOPE_ ULS	Combination	Max	-813,738	296,832	2,743E-14	-3,662E-15
15	0,00000	ENVELOPE_ ULS	Combination	Min	-1571,178	49,659	-1,647E-14	-2,345E-14
15	0,67593	ENVELOPE_ ULS	Combination	Min	-1485,550	174,945	-1,366E-14	-2,345E-14
15	1,35185	ENVELOPE_ ULS	Combination	Min	-1401,278	224,975	-1,094E-14	-2,345E-14
15	0,00000	SLS	Combination		-1163,836	36,785	-1,220E-14	-1,737E-14
15	0,67593	SLS	Combination		-1100,407	129,589	-1,012E-14	-1,737E-14
15	1,35185	SLS	Combination		-1037,984	219,875	-8,106E-15	-1,737E-14
16	0,00000	USL1	Combination		-1497,468	159,611	-6,290E-14	-6,374E-14
16	0,67593	USL1	Combination		-1419,197	290,229	-5,874E-14	-6,374E-14
16	1,35185	USL1	Combination		-1342,687	416,094	-5,476E-14	-6,374E-14
16	0,00000	ULS2	Combination		-976,433	270,674	3,302E-14	-3,193E-15

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
16	0,67593	ULS2	Combination		-898,162	304,613	3,718E-14	-3,193E-15
16	1,35185	ULS2	Combination		-821,652	337,175	4,117E-14	-3,193E-15
16	0,00000	ENVELOPE_ ULS	Combination	Max	-976,433	270,674	3,302E-14	-3,193E-15
16	0,67593	ENVELOPE_ ULS	Combination	Max	-898,162	304,613	3,718E-14	-3,193E-15
16	1,35185	ENVELOPE_ ULS	Combination	Max	-821,652	416,094	4,117E-14	-3,193E-15
16	0,00000	ENVELOPE_ ULS	Combination	Min	-1497,468	159,611	-6,290E-14	-6,374E-14
16	0,67593	ENVELOPE_ ULS	Combination	Min	-1419,197	290,229	-5,874E-14	-6,374E-14
16	1,35185	ENVELOPE_ ULS	Combination	Min	-1342,687	337,175	-5,476E-14	-6,374E-14
16	0,00000	SLS	Combination		-1109,235	118,230	-4,659E-14	-4,722E-14
16	0,67593	SLS	Combination		-1051,257	214,985	-4,351E-14	-4,722E-14
16	1,35185	SLS	Combination		-994,583	308,218	-4,056E-14	-4,722E-14
17	0,00000	USL1	Combination		-1465,785	313,359	-1,047E-15	-8,485E-14
17	0,66163	USL1	Combination		-1397,475	440,775	3,818E-15	-8,485E-14
17	1,32325	USL1	Combination		-1331,071	562,269	8,445E-15	-8,485E-14
17	0,00000	ULS2	Combination		-1020,850	384,108	4,692E-14	-2,714E-15
17	0,66163	ULS2	Combination		-952,540	423,834	5,178E-14	-2,714E-15
17	1,32325	ULS2	Combination		-886,135	461,613	5,641E-14	-2,714E-15
17	0,00000	ENVELOPE_ ULS	Combination	Max	-1020,850	384,108	4,692E-14	-2,714E-15
17	0,66163	ENVELOPE_ ULS	Combination	Max	-952,540	440,775	5,178E-14	-2,714E-15
17	1,32325	ENVELOPE_ ULS	Combination	Max	-886,135	562,269	5,641E-14	-2,714E-15
17	0,00000	ENVELOPE_ ULS	Combination	Min	-1465,785	313,359	-1,047E-15	-8,485E-14
17	0,66163	ENVELOPE_ ULS	Combination	Min	-1397,475	423,834	3,818E-15	-8,485E-14
17	1,32325	ENVELOPE_ ULS	Combination	Min	-1331,071	461,613	8,445E-15	-8,485E-14
17	0,00000	SLS	Combination		-1085,767	232,118	-7,753E-16	-6,285E-14
17	0,66163	SLS	Combination		-1035,167	326,500	2,828E-15	-6,285E-14
17	1,32325	SLS	Combination		-985,978	416,495	6,256E-15	-6,285E-14
20	0,00000	USL1	Combination		-841,970	-31,249	-1,246E-16	8,560E-14
20	0,49037	USL1	Combination		-835,322	34,274	-1,246E-16	8,560E-14
20	0,98074	USL1	Combination		-826,584	97,576	-1,246E-16	8,560E-14
20	0,00000	ULS2	Combination		-515,795	-82,657	-1,246E-16	5,261E-15
20	0,49037	ULS2	Combination		-509,147	-34,660	-1,246E-16	5,261E-15
20	0,98074	ULS2	Combination		-500,409	12,340	-1,246E-16	5,261E-15
20	0,00000	ENVELOPE_ ULS	Combination	Max	-515,795	-31,249	-1,246E-16	8,560E-14
20	0,49037	ENVELOPE_ ULS	Combination	Max	-509,147	34,274	-1,246E-16	8,560E-14
20	0,98074	ENVELOPE_ ULS	Combination	Max	-500,409	97,576	-1,246E-16	8,560E-14
20	0,00000	ENVELOPE_ ULS	Combination	Min	-841,970	-82,657	-1,246E-16	5,261E-15
20	0,49037	ENVELOPE_ ULS	Combination	Min	-835,322	-34,660	-1,246E-16	5,261E-15
20	0,98074	ENVELOPE_ ULS	Combination	Min	-826,584	12,340	-1,246E-16	5,261E-15
20	0,00000	SLS	Combination		-623,681	-23,147	-9,231E-17	6,340E-14
20	0,49037	SLS	Combination		-618,757	25,388	-9,231E-17	6,340E-14
20	0,98074	SLS	Combination		-612,284	72,278	-9,231E-17	6,340E-14
21	0,00000	USL1	Combination		-831,671	-32,932	3,824E-14	1,206E-13
21	0,49037	USL1	Combination		-829,343	28,371	3,824E-14	1,206E-13
21	0,98074	USL1	Combination		-826,349	88,649	3,824E-14	1,206E-13

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
21	0,00000	ULS2	Combination		-496,178	-66,093	-1,246E-16	5,540E-15
21	0,49037	ULS2	Combination		-493,850	-20,066	-1,246E-16	5,540E-15
21	0,98074	ULS2	Combination		-490,856	25,763	-1,246E-16	5,540E-15
21	0,00000	ENVELOPE_ ULS	Combination	Max	-496,178	-32,932	3,824E-14	1,206E-13
21	0,49037	ENVELOPE_ ULS	Combination	Max	-493,850	28,371	3,824E-14	1,206E-13
21	0,98074	ENVELOPE_ ULS	Combination	Max	-490,856	88,649	3,824E-14	1,206E-13
21	0,00000	ENVELOPE_ ULS	Combination	Min	-831,671	-66,093	-1,246E-16	5,540E-15
21	0,49037	ENVELOPE_ ULS	Combination	Min	-829,343	-20,066	-1,246E-16	5,540E-15
21	0,98074	ENVELOPE_ ULS	Combination	Min	-826,349	25,763	-1,246E-16	5,540E-15
21	0,00000	SLS	Combination		-616,053	-24,394	2,833E-14	8,937E-14
21	0,49037	SLS	Combination		-614,328	21,015	2,833E-14	8,937E-14
21	0,98074	SLS	Combination		-612,110	65,666	2,833E-14	8,937E-14
22	0,00000	USL1	Combination		-828,747	-62,356	7,661E-14	1,376E-13
22	0,64528	USL1	Combination		-835,308	13,985	7,661E-14	1,376E-13
22	1,29056	USL1	Combination		-841,435	89,757	7,661E-14	1,376E-13
22	0,00000	ULS2	Combination		-487,414	-63,490	-1,246E-16	5,715E-15
22	0,64528	ULS2	Combination		-493,974	-5,356	-1,246E-16	5,715E-15
22	1,29056	ULS2	Combination		-500,101	52,732	-1,246E-16	5,715E-15
22	0,00000	ENVELOPE_ ULS	Combination	Max	-487,414	-62,356	7,661E-14	1,376E-13
22	0,64528	ENVELOPE_ ULS	Combination	Max	-493,974	13,985	7,661E-14	1,376E-13
22	1,29056	ENVELOPE_ ULS	Combination	Max	-500,101	89,757	7,661E-14	1,376E-13
22	0,00000	ENVELOPE_ ULS	Combination	Min	-828,747	-63,490	-1,246E-16	5,715E-15
22	0,64528	ENVELOPE_ ULS	Combination	Min	-835,308	-5,356	-1,246E-16	5,715E-15
22	1,29056	ENVELOPE_ ULS	Combination	Min	-841,435	52,732	-1,246E-16	5,715E-15
22	0,00000	SLS	Combination		-613,887	-46,190	5,675E-14	1,019E-13
22	0,64528	SLS	Combination		-618,746	10,359	5,675E-14	1,019E-13
22	1,29056	SLS	Combination		-623,285	66,486	5,675E-14	1,019E-13
23	0,00000	USL1	Combination		-1458,592	-502,431	-7,078E-14	-1,502E-13
23	0,63892	USL1	Combination		-1411,847	-357,956	-6,246E-14	-1,502E-13
23	1,27783	USL1	Combination		-1365,102	-221,589	-5,452E-14	-1,502E-13
23	0,00000	ULS2	Combination		-1182,550	-263,672	-3,242E-14	8,427E-16
23	0,63892	ULS2	Combination		-1135,805	-195,661	-2,409E-14	8,427E-16
23	1,27783	ULS2	Combination		-1089,060	-130,841	-1,615E-14	8,427E-16
23	0,00000	ENVELOPE_ ULS	Combination	Max	-1182,550	-263,672	-3,242E-14	8,427E-16
23	0,63892	ENVELOPE_ ULS	Combination	Max	-1135,805	-195,661	-2,409E-14	8,427E-16
23	1,27783	ENVELOPE_ ULS	Combination	Max	-1089,060	-130,841	-1,615E-14	8,427E-16
23	0,00000	ENVELOPE_ ULS	Combination	Min	-1458,592	-502,431	-7,078E-14	-1,502E-13
23	0,63892	ENVELOPE_ ULS	Combination	Min	-1411,847	-357,956	-6,246E-14	-1,502E-13
23	1,27783	ENVELOPE_ ULS	Combination	Min	-1365,102	-221,589	-5,452E-14	-1,502E-13
23	0,00000	SLS	Combination		-1080,439	-372,171	-5,243E-14	-1,113E-13
23	0,63892	SLS	Combination		-1045,813	-265,153	-4,626E-14	-1,113E-13
23	1,27783	SLS	Combination		-1011,187	-164,140	-4,038E-14	-1,113E-13
24	0,00000	USL1	Combination		-1365,102	-204,980	-3,246E-14	-1,514E-13
24	0,64000	USL1	Combination		-1324,385	-76,935	-2,496E-14	-1,514E-13

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
24	1,28000	USL1	Combination		-1283,668	42,124	-1,796E-14	-1,514E-13
24	0,00000	ULS2	Combination		-1089,060	-107,410	-1,328E-14	8,427E-16
24	0,64000	ULS2	Combination		-1048,343	-46,131	-5,774E-15	8,427E-16
24	1,28000	ULS2	Combination		-1007,625	11,045	1,228E-15	8,427E-16
24	0,00000	ENVELOPE_ ULS	Combination	Max	-1089,060	-107,410	-1,328E-14	8,427E-16
24	0,64000	ENVELOPE_ ULS	Combination	Max	-1048,343	-46,131	-5,774E-15	8,427E-16
24	1,28000	ENVELOPE_ ULS	Combination	Max	-1007,625	42,124	1,228E-15	8,427E-16
24	0,00000	ENVELOPE_ ULS	Combination	Min	-1365,102	-204,980	-3,246E-14	-1,514E-13
24	0,64000	ENVELOPE_ ULS	Combination	Min	-1324,385	-76,935	-2,496E-14	-1,514E-13
24	1,28000	ENVELOPE_ ULS	Combination	Min	-1283,668	11,045	-1,796E-14	-1,514E-13
24	0,00000	SLS	Combination		-1011,187	-151,837	-2,405E-14	-1,122E-13
24	0,64000	SLS	Combination		-981,026	-56,989	-1,849E-14	-1,122E-13
24	1,28000	SLS	Combination		-950,865	31,203	-1,330E-14	-1,122E-13
25	0,00000	USL1	Combination		-1283,668	56,116	-2,024E-14	-1,514E-13
25	0,64000	USL1	Combination		-1242,951	166,190	-1,374E-14	-1,514E-13
25	1,28000	USL1	Combination		-1202,234	267,278	-7,732E-15	-1,514E-13
25	0,00000	ULS2	Combination		-1007,625	31,578	3,743E-15	8,427E-16
25	0,64000	ULS2	Combination		-966,908	84,671	1,024E-14	8,427E-16
25	1,28000	ULS2	Combination		-926,191	133,703	1,625E-14	8,427E-16
25	0,00000	ENVELOPE_ ULS	Combination	Max	-1007,625	56,116	3,743E-15	8,427E-16
25	0,64000	ENVELOPE_ ULS	Combination	Max	-966,908	166,190	1,024E-14	8,427E-16
25	1,28000	ENVELOPE_ ULS	Combination	Max	-926,191	267,278	1,625E-14	8,427E-16
25	0,00000	ENVELOPE_ ULS	Combination	Min	-1283,668	31,578	-2,024E-14	-1,514E-13
25	0,64000	ENVELOPE_ ULS	Combination	Min	-1242,951	84,671	-1,374E-14	-1,514E-13
25	1,28000	ENVELOPE_ ULS	Combination	Min	-1202,234	133,703	-7,732E-15	-1,514E-13
25	0,00000	SLS	Combination		-950,865	41,568	-1,499E-14	-1,122E-13
25	0,64000	SLS	Combination		-920,704	123,104	-1,017E-14	-1,122E-13
25	1,28000	SLS	Combination		-890,543	197,984	-5,727E-15	-1,122E-13
26	0,00000	USL1	Combination		-1202,234	278,073	-1,051E-14	-1,484E-13
26	0,64000	USL1	Combination		-1155,409	370,154	-5,006E-15	-1,484E-13
26	1,28000	USL1	Combination		-1108,584	453,206	-4,186E-18	-1,484E-13
26	0,00000	ULS2	Combination		-926,191	150,170	1,827E-14	8,427E-16
26	0,64000	ULS2	Combination		-879,367	195,120	2,377E-14	8,427E-16
26	1,28000	ULS2	Combination		-832,542	235,965	2,877E-14	8,427E-16
26	0,00000	ENVELOPE_ ULS	Combination	Max	-926,191	278,073	1,827E-14	8,427E-16
26	0,64000	ENVELOPE_ ULS	Combination	Max	-879,367	370,154	2,377E-14	8,427E-16
26	1,28000	ENVELOPE_ ULS	Combination	Max	-832,542	453,206	2,877E-14	8,427E-16
26	0,00000	ENVELOPE_ ULS	Combination	Min	-1202,234	150,170	-1,051E-14	-1,484E-13
26	0,64000	ENVELOPE_ ULS	Combination	Min	-1155,409	195,120	-5,006E-15	-1,484E-13
26	1,28000	ENVELOPE_ ULS	Combination	Min	-1108,584	235,965	-4,186E-18	-1,484E-13
26	0,00000	SLS	Combination		-890,543	205,980	-7,786E-15	-1,100E-13
26	0,64000	SLS	Combination		-855,858	274,188	-3,708E-15	-1,100E-13
26	1,28000	SLS	Combination		-821,174	335,708	-3,101E-18	-1,100E-13
27	0,00000	USL1	Combination		-1457,976	-512,671	-1,246E-16	-1,059E-13

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
27	0,66324	USL1	Combination		-1409,451	-362,696	-1,246E-16	-1,059E-13
27	1,32648	USL1	Combination		-1360,926	-221,137	-1,246E-16	-1,059E-13
27	0,00000	ULS2	Combination		-1184,230	-267,499	-1,246E-16	8,397E-16
27	0,66324	ULS2	Combination		-1135,705	-196,898	-1,246E-16	8,397E-16
27	1,32648	ULS2	Combination		-1087,180	-129,611	-1,246E-16	8,397E-16
27	0,00000	ENVELOPE_ ULS	Combination	Max	-1184,230	-267,499	-1,246E-16	8,397E-16
27	0,66324	ENVELOPE_ ULS	Combination	Max	-1135,705	-196,898	-1,246E-16	8,397E-16
27	1,32648	ENVELOPE_ ULS	Combination	Max	-1087,180	-129,611	-1,246E-16	8,397E-16
27	0,00000	ENVELOPE_ ULS	Combination	Min	-1457,976	-512,671	-1,246E-16	-1,059E-13
27	0,66324	ENVELOPE_ ULS	Combination	Min	-1409,451	-362,696	-1,246E-16	-1,059E-13
27	1,32648	ENVELOPE_ ULS	Combination	Min	-1360,926	-221,137	-1,246E-16	-1,059E-13
27	0,00000	SLS	Combination		-1079,982	-379,756	-9,231E-17	-7,843E-14
27	0,66324	SLS	Combination		-1044,038	-268,664	-9,231E-17	-7,843E-14
27	1,32648	SLS	Combination		-1008,093	-163,805	-9,231E-17	-7,843E-14
28	0,00000	USL1	Combination		-1360,926	-206,131	-1,691E-14	-1,059E-13
28	0,64000	USL1	Combination		-1320,209	-78,086	-1,691E-14	-1,059E-13
28	1,28000	USL1	Combination		-1279,492	40,973	-1,691E-14	-1,059E-13
28	0,00000	ULS2	Combination		-1087,180	-108,230	-1,246E-16	8,397E-16
28	0,64000	ULS2	Combination		-1046,463	-46,951	-1,246E-16	8,397E-16
28	1,28000	ULS2	Combination		-1005,746	10,225	-1,246E-16	8,397E-16
28	0,00000	ENVELOPE_ ULS	Combination	Max	-1087,180	-108,230	-1,246E-16	8,397E-16
28	0,64000	ENVELOPE_ ULS	Combination	Max	-1046,463	-46,951	-1,246E-16	8,397E-16
28	1,28000	ENVELOPE_ ULS	Combination	Max	-1005,746	40,973	-1,246E-16	8,397E-16
28	0,00000	ENVELOPE_ ULS	Combination	Min	-1360,926	-206,131	-1,691E-14	-1,059E-13
28	0,64000	ENVELOPE_ ULS	Combination	Min	-1320,209	-78,086	-1,691E-14	-1,059E-13
28	1,28000	ENVELOPE_ ULS	Combination	Min	-1279,492	10,225	-1,691E-14	-1,059E-13
28	0,00000	SLS	Combination		-1008,093	-152,689	-1,253E-14	-7,843E-14
28	0,64000	SLS	Combination		-977,933	-57,841	-1,253E-14	-7,843E-14
28	1,28000	SLS	Combination		-947,772	30,351	-1,253E-14	-7,843E-14
29	0,00000	USL1	Combination		-1279,492	54,218	-9,717E-15	-1,059E-13
29	0,64000	USL1	Combination		-1238,775	164,400	-9,717E-15	-1,059E-13
29	1,28000	USL1	Combination		-1198,058	265,812	-9,717E-15	-1,059E-13
29	0,00000	ULS2	Combination		-1005,746	29,749	-1,246E-16	8,397E-16
29	0,64000	ULS2	Combination		-965,029	82,950	-1,246E-16	8,397E-16
29	1,28000	ULS2	Combination		-924,312	132,306	-1,246E-16	8,397E-16
29	0,00000	ENVELOPE_ ULS	Combination	Max	-1005,746	54,218	-1,246E-16	8,397E-16
29	0,64000	ENVELOPE_ ULS	Combination	Max	-965,029	164,400	-1,246E-16	8,397E-16
29	1,28000	ENVELOPE_ ULS	Combination	Max	-924,312	265,812	-1,246E-16	8,397E-16
29	0,00000	ENVELOPE_ ULS	Combination	Min	-1279,492	29,749	-9,717E-15	-1,059E-13
29	0,64000	ENVELOPE_ ULS	Combination	Min	-1238,775	82,950	-9,717E-15	-1,059E-13
29	1,28000	ENVELOPE_ ULS	Combination	Min	-1198,058	132,306	-9,717E-15	-1,059E-13
29	0,00000	SLS	Combination		-947,772	40,162	-7,198E-15	-7,843E-14
29	0,64000	SLS	Combination		-917,611	121,778	-7,198E-15	-7,843E-14
29	1,28000	SLS	Combination		-887,450	196,898	-7,198E-15	-7,843E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
30	0,00000	USL1	Combination		-1198,058	276,759	-1,931E-14	-1,089E-13
30	0,64000	USL1	Combination		-1151,233	369,163	-1,931E-14	-1,089E-13
30	1,28000	USL1	Combination		-1104,408	452,323	-1,931E-14	-1,089E-13
30	0,00000	ULS2	Combination		-924,312	148,822	-1,246E-16	8,397E-16
30	0,64000	ULS2	Combination		-877,487	194,096	-1,246E-16	8,397E-16
30	1,28000	ULS2	Combination		-830,662	235,049	-1,246E-16	8,397E-16
30	0,00000	ENVELOPE_ ULS	Combination	Max	-924,312	276,759	-1,246E-16	8,397E-16
30	0,64000	ENVELOPE_ ULS	Combination	Max	-877,487	369,163	-1,246E-16	8,397E-16
30	1,28000	ENVELOPE_ ULS	Combination	Max	-830,662	452,323	-1,246E-16	8,397E-16
30	0,00000	ENVELOPE_ ULS	Combination	Min	-1198,058	148,822	-1,931E-14	-1,089E-13
30	0,64000	ENVELOPE_ ULS	Combination	Min	-1151,233	194,096	-1,931E-14	-1,089E-13
30	1,28000	ENVELOPE_ ULS	Combination	Min	-1104,408	235,049	-1,931E-14	-1,089E-13
30	0,00000	SLS	Combination		-887,450	205,006	-1,430E-14	-8,065E-14
30	0,64000	SLS	Combination		-852,765	273,454	-1,430E-14	-8,065E-14
30	1,28000	SLS	Combination		-818,080	335,054	-1,430E-14	-8,065E-14
33	0,00000	USL1	Combination		-888,209	-293,143	-1,931E-14	2,906E-14
33	0,52323	USL1	Combination		-877,139	-205,594	-1,931E-14	2,906E-14
33	1,04645	USL1	Combination		-864,876	-120,358	-1,931E-14	2,906E-14
33	0,00000	ULS2	Combination		-565,925	-277,370	-1,246E-16	5,083E-15
33	0,52323	ULS2	Combination		-554,855	-214,932	-1,246E-16	5,083E-15
33	1,04645	ULS2	Combination		-542,592	-153,182	-1,246E-16	5,083E-15
33	0,00000	ENVELOPE_ ULS	Combination	Max	-565,925	-277,370	-1,246E-16	2,906E-14
33	0,52323	ENVELOPE_ ULS	Combination	Max	-554,855	-205,594	-1,246E-16	2,906E-14
33	1,04645	ENVELOPE_ ULS	Combination	Max	-542,592	-120,358	-1,246E-16	2,906E-14
33	0,00000	ENVELOPE_ ULS	Combination	Min	-888,209	-293,143	-1,931E-14	5,083E-15
33	0,52323	ENVELOPE_ ULS	Combination	Min	-877,139	-214,932	-1,931E-14	5,083E-15
33	1,04645	ENVELOPE_ ULS	Combination	Min	-864,876	-153,182	-1,931E-14	5,083E-15
33	0,00000	SLS	Combination		-657,932	-217,143	-1,430E-14	2,153E-14
33	0,52323	SLS	Combination		-649,732	-152,292	-1,430E-14	2,153E-14
33	1,04645	SLS	Combination		-640,649	-89,154	-1,430E-14	2,153E-14
34	0,00000	USL1	Combination		-864,876	-120,358	1,906E-14	3,146E-14
34	0,52323	USL1	Combination		-854,840	-43,447	1,906E-14	3,146E-14
34	1,04645	USL1	Combination		-843,549	31,081	1,906E-14	3,146E-14
34	0,00000	ULS2	Combination		-542,592	-153,182	-1,246E-16	5,083E-15
34	0,52323	ULS2	Combination		-532,555	-98,115	-1,246E-16	5,083E-15
34	1,04645	ULS2	Combination		-521,265	-43,771	-1,246E-16	5,083E-15
34	0,00000	ENVELOPE_ ULS	Combination	Max	-542,592	-120,358	1,906E-14	3,146E-14
34	0,52323	ENVELOPE_ ULS	Combination	Max	-532,555	-43,447	1,906E-14	3,146E-14
34	1,04645	ENVELOPE_ ULS	Combination	Max	-521,265	31,081	1,906E-14	3,146E-14
34	0,00000	ENVELOPE_ ULS	Combination	Min	-864,876	-153,182	-1,246E-16	5,083E-15
34	0,52323	ENVELOPE_ ULS	Combination	Min	-854,840	-98,115	-1,246E-16	5,083E-15
34	1,04645	ENVELOPE_ ULS	Combination	Min	-843,549	-43,771	-1,246E-16	5,083E-15
34	0,00000	SLS	Combination		-640,649	-89,154	1,412E-14	2,330E-14
34	0,52323	SLS	Combination		-633,214	-32,183	1,412E-14	2,330E-14



Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
34	1,04645	SLS	Combination		-624,851	23,023	1,412E-14	2,330E-14
35	0,00000	USL1	Combination		-952,665	-730,061	-5,768E-14	1,467E-14
35	0,52323	USL1	Combination		-937,049	-611,223	-5,768E-14	1,467E-14
35	1,04645	USL1	Combination		-918,558	-495,669	-5,768E-14	1,467E-14
35	0,00000	ULS2	Combination		-630,381	-597,386	-1,246E-16	5,083E-15
35	0,52323	ULS2	Combination		-614,765	-510,228	-1,246E-16	5,083E-15
35	1,04645	ULS2	Combination		-596,274	-424,729	-1,246E-16	5,083E-15
35	0,00000	ENVELOPE_ ULS	Combination	Max	-630,381	-597,386	-1,246E-16	1,467E-14
35	0,52323	ENVELOPE_ ULS	Combination	Max	-614,765	-510,228	-1,246E-16	1,467E-14
35	1,04645	ENVELOPE_ ULS	Combination	Max	-596,274	-424,729	-1,246E-16	1,467E-14
35	0,00000	ENVELOPE_ ULS	Combination	Min	-952,665	-730,061	-5,768E-14	5,083E-15
35	0,52323	ENVELOPE_ ULS	Combination	Min	-937,049	-611,223	-5,768E-14	5,083E-15
35	1,04645	ENVELOPE_ ULS	Combination	Min	-918,558	-495,669	-5,768E-14	5,083E-15
35	0,00000	SLS	Combination		-705,678	-540,786	-4,272E-14	1,087E-14
35	0,52323	SLS	Combination		-694,110	-452,758	-4,272E-14	1,087E-14
35	1,04645	SLS	Combination		-680,413	-367,162	-4,272E-14	1,087E-14
36	0,00000	USL1	Combination		-918,558	-495,669	-1,246E-16	2,427E-14
36	0,52323	USL1	Combination		-903,980	-393,232	-1,246E-16	2,427E-14
36	1,04645	USL1	Combination		-888,209	-293,143	-1,246E-16	2,427E-14
36	0,00000	ULS2	Combination		-596,274	-424,729	-1,246E-16	5,083E-15
36	0,52323	ULS2	Combination		-581,696	-350,705	-1,246E-16	5,083E-15
36	1,04645	ULS2	Combination		-565,925	-277,370	-1,246E-16	5,083E-15
36	0,00000	ENVELOPE_ ULS	Combination	Max	-596,274	-424,729	-1,246E-16	2,427E-14
36	0,52323	ENVELOPE_ ULS	Combination	Max	-581,696	-350,705	-1,246E-16	2,427E-14
36	1,04645	ENVELOPE_ ULS	Combination	Max	-565,925	-277,370	-1,246E-16	2,427E-14
36	0,00000	ENVELOPE_ ULS	Combination	Min	-918,558	-495,669	-1,246E-16	5,083E-15
36	0,52323	ENVELOPE_ ULS	Combination	Min	-903,980	-393,232	-1,246E-16	5,083E-15
36	1,04645	ENVELOPE_ ULS	Combination	Min	-888,209	-293,143	-1,246E-16	5,083E-15
36	0,00000	SLS	Combination		-680,413	-367,162	-9,231E-17	1,798E-14
36	0,52323	SLS	Combination		-669,615	-291,283	-9,231E-17	1,798E-14
36	1,04645	SLS	Combination		-657,932	-217,143	-9,231E-17	1,798E-14
39	0,00000	USL1	Combination		-886,302	-289,422	-1,246E-16	6,983E-14
39	0,52323	USL1	Combination		-875,232	-201,873	-1,246E-16	6,983E-14
39	1,04645	USL1	Combination		-862,969	-116,637	-1,246E-16	6,983E-14
39	0,00000	ULS2	Combination		-565,166	-275,638	-1,246E-16	5,081E-15
39	0,52323	ULS2	Combination		-554,096	-213,199	-1,246E-16	5,081E-15
39	1,04645	ULS2	Combination		-541,833	-151,450	-1,246E-16	5,081E-15
39	0,00000	ENVELOPE_ ULS	Combination	Max	-565,166	-275,638	-1,246E-16	6,983E-14
39	0,52323	ENVELOPE_ ULS	Combination	Max	-554,096	-201,873	-1,246E-16	6,983E-14
39	1,04645	ENVELOPE_ ULS	Combination	Max	-541,833	-116,637	-1,246E-16	6,983E-14
39	0,00000	ENVELOPE_ ULS	Combination	Min	-886,302	-289,422	-1,246E-16	5,081E-15
39	0,52323	ENVELOPE_ ULS	Combination	Min	-875,232	-213,199	-1,246E-16	5,081E-15
39	1,04645	ENVELOPE_ ULS	Combination	Min	-862,969	-151,450	-1,246E-16	5,081E-15
39	0,00000	SLS	Combination		-656,520	-214,387	-9,231E-17	5,173E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
39	0,52323	SLS	Combination		-648,320	-149,536	-9,231E-17	5,173E-14
39	1,04645	SLS	Combination		-639,236	-86,398	-9,231E-17	5,173E-14
40	0,00000	USL1	Combination		-862,969	-116,637	3,824E-14	6,983E-14
40	0,52323	USL1	Combination		-852,979	-39,699	3,824E-14	6,983E-14
40	1,04645	USL1	Combination		-841,826	34,908	3,824E-14	6,983E-14
40	0,00000	ULS2	Combination		-541,833	-151,450	-1,246E-16	5,081E-15
40	0,52323	ULS2	Combination		-531,843	-96,356	-1,246E-16	5,081E-15
40	1,04645	ULS2	Combination		-520,690	-41,933	-1,246E-16	5,081E-15
40	0,00000	ENVELOPE_ ULS	Combination	Max	-541,833	-116,637	3,824E-14	6,983E-14
40	0,52323	ENVELOPE_ ULS	Combination	Max	-531,843	-39,699	3,824E-14	6,983E-14
40	1,04645	ENVELOPE_ ULS	Combination	Max	-520,690	34,908	3,824E-14	6,983E-14
40	0,00000	ENVELOPE_ ULS	Combination	Min	-862,969	-151,450	-1,246E-16	5,081E-15
40	0,52323	ENVELOPE_ ULS	Combination	Min	-852,979	-96,356	-1,246E-16	5,081E-15
40	1,04645	ENVELOPE_ ULS	Combination	Min	-841,826	-41,933	-1,246E-16	5,081E-15
40	0,00000	SLS	Combination		-639,236	-86,398	2,833E-14	5,173E-14
40	0,52323	SLS	Combination		-631,836	-29,407	2,833E-14	5,173E-14
40	1,04645	SLS	Combination		-623,575	25,858	2,833E-14	5,173E-14
41	0,00000	USL1	Combination		-950,758	-726,341	3,824E-14	5,784E-14
41	0,52323	USL1	Combination		-935,142	-607,502	3,824E-14	5,784E-14
41	1,04645	USL1	Combination		-916,651	-491,948	3,824E-14	5,784E-14
41	0,00000	ULS2	Combination		-629,622	-595,654	-1,246E-16	5,081E-15
41	0,52323	ULS2	Combination		-614,006	-508,495	-1,246E-16	5,081E-15
41	1,04645	ULS2	Combination		-595,515	-422,997	-1,246E-16	5,081E-15
41	0,00000	ENVELOPE_ ULS	Combination	Max	-629,622	-595,654	3,824E-14	5,784E-14
41	0,52323	ENVELOPE_ ULS	Combination	Max	-614,006	-508,495	3,824E-14	5,784E-14
41	1,04645	ENVELOPE_ ULS	Combination	Max	-595,515	-422,997	3,824E-14	5,784E-14
41	0,00000	ENVELOPE_ ULS	Combination	Min	-950,758	-726,341	-1,246E-16	5,081E-15
41	0,52323	ENVELOPE_ ULS	Combination	Min	-935,142	-607,502	-1,246E-16	5,081E-15
41	1,04645	ENVELOPE_ ULS	Combination	Min	-916,651	-491,948	-1,246E-16	5,081E-15
41	0,00000	SLS	Combination		-704,265	-538,030	2,833E-14	4,284E-14
41	0,52323	SLS	Combination		-692,698	-450,002	2,833E-14	4,284E-14
41	1,04645	SLS	Combination		-679,001	-364,406	2,833E-14	4,284E-14
42	0,00000	USL1	Combination		-916,651	-491,948	-1,246E-16	7,223E-14
42	0,52323	USL1	Combination		-902,073	-389,511	-1,246E-16	7,223E-14
42	1,04645	USL1	Combination		-886,302	-289,422	-1,246E-16	7,223E-14
42	0,00000	ULS2	Combination		-595,515	-422,997	-1,246E-16	5,081E-15
42	0,52323	ULS2	Combination		-580,937	-348,973	-1,246E-16	5,081E-15
42	1,04645	ULS2	Combination		-565,166	-275,638	-1,246E-16	5,081E-15
42	0,00000	ENVELOPE_ ULS	Combination	Max	-595,515	-422,997	-1,246E-16	7,223E-14
42	0,52323	ENVELOPE_ ULS	Combination	Max	-580,937	-348,973	-1,246E-16	7,223E-14
42	1,04645	ENVELOPE_ ULS	Combination	Max	-565,166	-275,638	-1,246E-16	7,223E-14
42	0,00000	ENVELOPE_ ULS	Combination	Min	-916,651	-491,948	-1,246E-16	5,081E-15
42	0,52323	ENVELOPE_ ULS	Combination	Min	-902,073	-389,511	-1,246E-16	5,081E-15
42	1,04645	ENVELOPE_ ULS	Combination	Min	-886,302	-289,422	-1,246E-16	5,081E-15



Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
42	0,00000	SLS	Combination		-679,001	-364,406	-9,231E-17	5,350E-14
42	0,52323	SLS	Combination		-668,202	-288,527	-9,231E-17	5,350E-14
42	1,04645	SLS	Combination		-656,520	-214,387	-9,231E-17	5,350E-14

Table: Element Forces - Frames, Part 2 of 2

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
1	0,00000	USL1		1,576E-13	412,4008	1-1	0,00000
1	0,49060	USL1		9,506E-14	370,1739	1-1	0,49060
1	0,98121	USL1		3,350E-14	296,6113	1-1	0,98121
1	0,00000	ULS2		6,163E-14	503,2722	1-1	0,00000
1	0,49060	ULS2		5,561E-14	453,5624	1-1	0,49060
1	0,98121	ULS2		5,052E-14	411,5090	1-1	0,98121
1	0,00000	ENVELOPE_ ULS	Max	1,576E-13	503,2722	1-1	0,00000
1	0,49060	ENVELOPE_ ULS	Max	9,506E-14	453,5624	1-1	0,49060
1	0,98121	ENVELOPE_ ULS	Max	5,052E-14	411,5090	1-1	0,98121
1	0,00000	ENVELOPE_ ULS	Min	6,163E-14	412,4008	1-1	0,00000
1	0,49060	ENVELOPE_ ULS	Min	5,561E-14	370,1739	1-1	0,49060
1	0,98121	ENVELOPE_ ULS	Min	3,350E-14	296,6113	1-1	0,98121
1	0,00000	SLS		1,167E-13	305,4821	1-1	0,00000
1	0,49060	SLS		7,041E-14	274,2029	1-1	0,49060
1	0,98121	SLS		2,481E-14	219,7121	1-1	0,98121
2	0,00000	USL1		-2,539E-14	296,6113	2-1	0,00000
2	0,67593	USL1		-9,575E-14	309,4202	2-1	0,67593
2	1,35185	USL1		-1,658E-13	251,7325	2-1	1,35185
2	0,00000	ULS2		5,135E-14	411,5090	2-1	0,00000
2	0,67593	ULS2		4,583E-14	365,7169	2-1	0,67593
2	1,35185	ULS2		4,065E-14	322,7326	2-1	1,35185
2	0,00000	ENVELOPE_ ULS	Max	5,135E-14	411,5090	2-1	0,00000
2	0,67593	ENVELOPE_ ULS	Max	4,583E-14	365,7169	2-1	0,67593
2	1,35185	ENVELOPE_ ULS	Max	4,065E-14	322,7326	2-1	1,35185
2	0,00000	ENVELOPE_ ULS	Min	-2,539E-14	296,6113	2-1	0,00000
2	0,67593	ENVELOPE_ ULS	Min	-9,575E-14	309,4202	2-1	0,67593
2	1,35185	ENVELOPE_ ULS	Min	-1,658E-13	251,7325	2-1	1,35185
2	0,00000	SLS		-1,881E-14	219,7121	2-1	0,00000
2	0,67593	SLS		-7,093E-14	229,2002	2-1	0,67593
2	1,35185	SLS		-1,228E-13	186,4685	2-1	1,35185
3	0,00000	USL1		-1,697E-13	251,7325	3-1	0,00000
3	0,67593	USL1		-2,051E-13	231,3129	3-1	0,67593
3	1,35185	USL1		-2,412E-13	132,9153	3-1	1,35185
3	0,00000	ULS2		4,129E-14	322,7326	3-1	0,00000
3	0,67593	ULS2		3,190E-14	245,2938	3-1	0,67593
3	1,35185	ULS2		2,168E-14	161,2077	3-1	1,35185
3	0,00000	ENVELOPE_ ULS	Max	4,129E-14	322,7326	3-1	0,00000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
3	0,67593	ENVELOPE_ ULS	Max	3,190E-14	245,2938	3-1	0,67593
3	1,35185	ENVELOPE_ ULS	Max	2,168E-14	161,2077	3-1	1,35185
3	0,00000	ENVELOPE_ ULS	Min	-1,697E-13	251,7325	3-1	0,00000
3	0,67593	ENVELOPE_ ULS	Min	-2,051E-13	231,3129	3-1	0,67593
3	1,35185	ENVELOPE_ ULS	Min	-2,412E-13	132,9153	3-1	1,35185
3	0,00000	SLS		-1,257E-13	186,4685	3-1	0,00000
3	0,67593	SLS		-1,519E-13	171,3429	3-1	0,67593
3	1,35185	SLS		-1,787E-13	98,4558	3-1	1,35185
4	0,00000	USL1		-2,652E-13	132,9153	4-1	0,00000
4	0,67384	USL1		-2,879E-13	135,1303	4-1	0,67384
4	1,34768	USL1		-3,129E-13	49,8938	4-1	1,34768
4	0,00000	ULS2		2,257E-14	161,2077	4-1	0,00000
4	0,67384	ULS2		1,284E-14	81,1119	4-1	0,67384
4	1,34768	ULS2		7,162E-16	-18,5781	4-1	1,34768
4	0,00000	ENVELOPE_ ULS	Max	2,257E-14	161,2077	4-1	0,00000
4	0,67384	ENVELOPE_ ULS	Max	1,284E-14	135,1303	4-1	0,67384
4	1,34768	ENVELOPE_ ULS	Max	7,162E-16	49,8938	4-1	1,34768
4	0,00000	ENVELOPE_ ULS	Min	-2,652E-13	132,9153	4-1	0,00000
4	0,67384	ENVELOPE_ ULS	Min	-2,879E-13	81,1119	4-1	0,67384
4	1,34768	ENVELOPE_ ULS	Min	-3,129E-13	-18,5781	4-1	1,34768
4	0,00000	SLS		-1,964E-13	98,4558	4-1	0,00000
4	0,67384	SLS		-2,132E-13	100,0965	4-1	0,67384
4	1,34768	SLS		-2,318E-13	36,9584	4-1	1,34768
5	0,00000	USL1		-2,966E-13	49,8938	5-1	0,00000
5	0,67384	USL1		-2,876E-13	-180,4950	5-1	0,67384
5	1,34768	USL1		-2,807E-13	-492,8840	5-1	1,34768
5	0,00000	ULS2		7,162E-16	-18,5781	5-1	0,00000
5	0,67384	ULS2		-2,898E-14	-261,7495	5-1	0,67384
5	1,34768	ULS2		-6,090E-14	-523,1095	5-1	1,34768
5	0,00000	ENVELOPE_ ULS	Max	7,162E-16	49,8938	5-1	0,00000
5	0,67384	ENVELOPE_ ULS	Max	-2,898E-14	-180,4950	5-1	0,67384
5	1,34768	ENVELOPE_ ULS	Max	-6,090E-14	-492,8840	5-1	1,34768
5	0,00000	ENVELOPE_ ULS	Min	-2,966E-13	-18,5781	5-1	0,00000
5	0,67384	ENVELOPE_ ULS	Min	-2,876E-13	-261,7495	5-1	0,67384
5	1,34768	ENVELOPE_ ULS	Min	-2,807E-13	-523,1095	5-1	1,34768
5	0,00000	SLS		-2,197E-13	36,9584	5-1	0,00000
5	0,67384	SLS		-2,130E-13	-133,7000	5-1	0,67384
5	1,34768	SLS		-2,079E-13	-365,0993	5-1	1,34768
6	0,00000	USL1		-2,904E-13	-492,8840	6-1	0,00000
6	0,67923	USL1		-2,827E-13	-726,4458	6-1	0,67923
6	1,35845	USL1		-2,784E-13	-1047,9567	6-1	1,35845
6	0,00000	ULS2		-6,018E-14	-523,1095	6-1	0,00000
6	0,67923	ULS2		-9,156E-14	-780,0174	6-1	0,67923
6	1,35845	ULS2		-1,264E-13	-1065,1148	6-1	1,35845

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
6	0,00000	ENVELOPE_ ULS	Max	-6,018E-14	-492,8840	6-1	0,00000
6	0,67923	ENVELOPE_ ULS	Max	-9,156E-14	-726,4458	6-1	0,67923
6	1,35845	ENVELOPE_ ULS	Max	-1,264E-13	-1047,9567	6-1	1,35845
6	0,00000	ENVELOPE_ ULS	Min	-2,904E-13	-523,1095	6-1	0,00000
6	0,67923	ENVELOPE_ ULS	Min	-2,827E-13	-780,0174	6-1	0,67923
6	1,35845	ENVELOPE_ ULS	Min	-2,784E-13	-1065,1148	6-1	1,35845
6	0,00000	SLS		-2,151E-13	-365,0993	6-1	0,00000
6	0,67923	SLS		-2,094E-13	-538,1080	6-1	0,67923
6	1,35845	SLS		-2,062E-13	-776,2642	6-1	1,35845
9	0,00000	USL1		2,707E-13	142,4204	9-1	0,00000
9	0,49037	USL1		2,425E-13	143,5423	9-1	0,49037
9	0,98074	USL1		2,143E-13	113,0994	9-1	0,98074
9	0,00000	ULS2		2,077E-15	118,2887	9-1	0,00000
9	0,49037	ULS2		2,138E-15	147,9503	9-1	0,49037
9	0,98074	ULS2		2,199E-15	154,3413	9-1	0,98074
9	0,00000	ENVELOPE_ ULS	Max	2,707E-13	142,4204	9-1	0,00000
9	0,49037	ENVELOPE_ ULS	Max	2,425E-13	147,9503	9-1	0,49037
9	0,98074	ENVELOPE_ ULS	Max	2,143E-13	154,3413	9-1	0,98074
9	0,00000	ENVELOPE_ ULS	Min	2,077E-15	118,2887	9-1	0,00000
9	0,49037	ENVELOPE_ ULS	Min	2,138E-15	143,5423	9-1	0,49037
9	0,98074	ENVELOPE_ ULS	Min	2,199E-15	113,0994	9-1	0,98074
9	0,00000	SLS		2,005E-13	105,4966	9-1	0,00000
9	0,49037	SLS		1,796E-13	106,3276	9-1	0,49037
9	0,98074	SLS		1,588E-13	83,7773	9-1	0,98074
10	0,00000	USL1		2,124E-13	113,0994	10-1	0,00000
10	0,49037	USL1		1,936E-13	116,2255	10-1	0,49037
10	0,98074	USL1		1,749E-13	89,5419	10-1	0,98074
10	0,00000	ULS2		1,349E-15	154,3413	10-1	0,00000
10	0,49037	ULS2		1,410E-15	176,4283	10-1	0,49037
10	0,98074	ULS2		1,471E-15	175,9934	10-1	0,98074
10	0,00000	ENVELOPE_ ULS	Max	2,124E-13	154,3413	10-1	0,00000
10	0,49037	ENVELOPE_ ULS	Max	1,936E-13	176,4283	10-1	0,49037
10	0,98074	ENVELOPE_ ULS	Max	1,749E-13	175,9934	10-1	0,98074
10	0,00000	ENVELOPE_ ULS	Min	1,349E-15	113,0994	10-1	0,00000
10	0,49037	ENVELOPE_ ULS	Min	1,410E-15	116,2255	10-1	0,49037
10	0,98074	ENVELOPE_ ULS	Min	1,471E-15	89,5419	10-1	0,98074
10	0,00000	SLS		1,573E-13	83,7773	10-1	0,00000
10	0,49037	SLS		1,434E-13	86,0929	10-1	0,49037
10	0,98074	SLS		1,295E-13	66,3273	10-1	0,98074
11	0,00000	USL1		1,251E-13	89,5419	11-1	0,00000
11	0,66133	USL1		8,715E-14	109,0865	11-1	0,66133
11	1,32265	USL1		4,917E-14	77,0932	11-1	1,32265
11	0,00000	ULS2		4,291E-16	175,9934	11-1	0,00000
11	0,66133	ULS2		5,115E-16	200,3943	11-1	0,66133

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
11	1,32265	ULS2		5,939E-16	185,4201	11-1	1,32265
11	0,00000	ENVELOPE_ ULS	Max	1,251E-13	175,9934	11-1	0,00000
11	0,66133	ENVELOPE_ ULS	Max	8,715E-14	200,3943	11-1	0,66133
11	1,32265	ENVELOPE_ ULS	Max	4,917E-14	185,4201	11-1	1,32265
11	0,00000	ENVELOPE_ ULS	Min	4,291E-16	89,5419	11-1	0,00000
11	0,66133	ENVELOPE_ ULS	Min	5,115E-16	109,0865	11-1	0,66133
11	1,32265	ENVELOPE_ ULS	Min	5,939E-16	77,0932	11-1	1,32265
11	0,00000	SLS		9,269E-14	66,3273	11-1	0,00000
11	0,66133	SLS		6,456E-14	80,8048	11-1	0,66133
11	1,32265	SLS		3,642E-14	57,1061	11-1	1,32265
12	0,00000	USL1		-5,348E-14	412,4008	12-1	0,00000
12	0,49060	USL1		-9,682E-14	374,3990	12-1	0,49060
12	0,98121	USL1		-1,392E-13	305,0617	12-1	0,98121
12	0,00000	ULS2		6,163E-14	503,2722	12-1	0,00000
12	0,49060	ULS2		5,594E-14	456,2792	12-1	0,49060
12	0,98121	ULS2		5,118E-14	416,9425	12-1	0,98121
12	0,00000	ENVELOPE_ ULS	Max	6,163E-14	503,2722	12-1	0,00000
12	0,49060	ENVELOPE_ ULS	Max	5,594E-14	456,2792	12-1	0,49060
12	0,98121	ENVELOPE_ ULS	Max	5,118E-14	416,9425	12-1	0,98121
12	0,00000	ENVELOPE_ ULS	Min	-5,348E-14	412,4008	12-1	0,00000
12	0,49060	ENVELOPE_ ULS	Min	-9,682E-14	374,3990	12-1	0,49060
12	0,98121	ENVELOPE_ ULS	Min	-1,392E-13	305,0617	12-1	0,98121
12	0,00000	SLS		-3,961E-14	305,4821	12-1	0,00000
12	0,49060	SLS		-7,172E-14	277,3326	12-1	0,49060
12	0,98121	SLS		-1,031E-13	225,9716	12-1	0,98121
13	0,00000	USL1		-1,782E-13	305,0617	13-1	0,00000
13	0,67593	USL1		-2,352E-13	323,3773	13-1	0,67593
13	1,35185	USL1		-2,918E-13	271,1019	13-1	1,35185
13	0,00000	ULS2		5,201E-14	416,9425	13-1	0,00000
13	0,67593	ULS2		4,691E-14	374,6206	13-1	0,67593
13	1,35185	ULS2		4,215E-14	335,0118	13-1	1,35185
13	0,00000	ENVELOPE_ ULS	Max	5,201E-14	416,9425	13-1	0,00000
13	0,67593	ENVELOPE_ ULS	Max	4,691E-14	374,6206	13-1	0,67593
13	1,35185	ENVELOPE_ ULS	Max	4,215E-14	335,0118	13-1	1,35185
13	0,00000	ENVELOPE_ ULS	Min	-1,782E-13	305,0617	13-1	0,00000
13	0,67593	ENVELOPE_ ULS	Min	-2,352E-13	323,3773	13-1	0,67593
13	1,35185	ENVELOPE_ ULS	Min	-2,918E-13	271,1019	13-1	1,35185
13	0,00000	SLS		-1,320E-13	225,9716	13-1	0,00000
13	0,67593	SLS		-1,742E-13	239,5388	13-1	0,67593
13	1,35185	SLS		-2,162E-13	200,8162	13-1	1,35185
14	0,00000	USL1		-2,546E-13	271,1019	14-1	0,00000
14	0,67593	USL1		-2,766E-13	255,2102	14-1	0,67593
14	1,35185	USL1		-2,995E-13	161,2559	14-1	1,35185
14	0,00000	ULS2		4,280E-14	335,0118	14-1	0,00000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
14	0,67593	ULS2		3,371E-14	260,1657	14-1	0,67593
14	1,35185	ULS2		2,381E-14	178,5878	14-1	1,35185
14	0,00000	ENVELOPE_ ULS	Max	4,280E-14	335,0118	14-1	0,00000
14	0,67593	ENVELOPE_ ULS	Max	3,371E-14	260,1657	14-1	0,67593
14	1,35185	ENVELOPE_ ULS	Max	2,381E-14	178,5878	14-1	1,35185
14	0,00000	ENVELOPE_ ULS	Min	-2,546E-13	271,1019	14-1	0,00000
14	0,67593	ENVELOPE_ ULS	Min	-2,766E-13	255,2102	14-1	0,67593
14	1,35185	ENVELOPE_ ULS	Min	-2,995E-13	161,2559	14-1	1,35185
14	0,00000	SLS		-1,886E-13	200,8162	14-1	0,00000
14	0,67593	SLS		-2,049E-13	189,0446	14-1	0,67593
14	1,35185	SLS		-2,218E-13	119,4488	14-1	1,35185
15	0,00000	USL1		-3,113E-13	161,2559	15-1	0,00000
15	0,67593	USL1		-3,011E-13	85,1567	15-1	0,67593
15	1,35185	USL1		-2,928E-13	-74,4777	15-1	1,35185
15	0,00000	ULS2		2,441E-14	178,5878	15-1	0,00000
15	0,67593	ULS2		8,656E-15	49,2381	15-1	0,67593
15	1,35185	ULS2		-8,969E-15	-95,3690	15-1	1,35185
15	0,00000	ENVELOPE_ ULS	Max	2,441E-14	178,5878	15-1	0,00000
15	0,67593	ENVELOPE_ ULS	Max	8,656E-15	85,1567	15-1	0,67593
15	1,35185	ENVELOPE_ ULS	Max	-8,969E-15	-74,4777	15-1	1,35185
15	0,00000	ENVELOPE_ ULS	Min	-3,113E-13	161,2559	15-1	0,00000
15	0,67593	ENVELOPE_ ULS	Min	-3,011E-13	49,2381	15-1	0,67593
15	1,35185	ENVELOPE_ ULS	Min	-2,928E-13	-95,3690	15-1	1,35185
15	0,00000	SLS		-2,306E-13	119,4488	15-1	0,00000
15	0,67593	SLS		-2,231E-13	63,0790	15-1	0,67593
15	1,35185	SLS		-2,169E-13	-55,1687	15-1	1,35185
16	0,00000	USL1		-2,770E-13	-74,4777	16-1	0,00000
16	0,67593	USL1		-2,359E-13	-226,7747	16-1	0,67593
16	1,35185	USL1		-1,976E-13	-465,7534	16-1	1,35185
16	0,00000	ULS2		-8,430E-15	-95,3690	16-1	0,00000
16	0,67593	ULS2		-3,217E-14	-289,8719	16-1	0,67593
16	1,35185	ULS2		-5,865E-14	-506,8497	16-1	1,35185
16	0,00000	ENVELOPE_ ULS	Max	-8,430E-15	-74,4777	16-1	0,00000
16	0,67593	ENVELOPE_ ULS	Max	-3,217E-14	-226,7747	16-1	0,67593
16	1,35185	ENVELOPE_ ULS	Max	-5,865E-14	-465,7534	16-1	1,35185
16	0,00000	ENVELOPE_ ULS	Min	-2,770E-13	-95,3690	16-1	0,00000
16	0,67593	ENVELOPE_ ULS	Min	-2,359E-13	-289,8719	16-1	0,67593
16	1,35185	ENVELOPE_ ULS	Min	-1,976E-13	-506,8497	16-1	1,35185
16	0,00000	SLS		-2,052E-13	-55,1687	16-1	0,00000
16	0,67593	SLS		-1,748E-13	-167,9813	16-1	0,67593
16	1,35185	SLS		-1,463E-13	-345,0025	16-1	1,35185
17	0,00000	USL1		-1,830E-13	-465,7534	17-1	0,00000
17	0,66163	USL1		-1,839E-13	-715,5577	17-1	0,66163
17	1,32325	USL1		-1,880E-13	-1047,7047	17-1	1,32325

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
17	0,00000	ULS2		-5,826E-14	-506,8497	17-1	0,00000
17	0,66163	ULS2		-9,092E-14	-774,2351	17-1	0,66163
17	1,32325	ULS2		-1,267E-13	-1067,2603	17-1	1,32325
17	0,00000	ENVELOPE_ ULS	Max	-5,826E-14	-465,7534	17-1	0,00000
17	0,66163	ENVELOPE_ ULS	Max	-9,092E-14	-715,5577	17-1	0,66163
17	1,32325	ENVELOPE_ ULS	Max	-1,267E-13	-1047,7047	17-1	1,32325
17	0,00000	ENVELOPE_ ULS	Min	-1,830E-13	-506,8497	17-1	0,00000
17	0,66163	ENVELOPE_ ULS	Min	-1,839E-13	-774,2351	17-1	0,66163
17	1,32325	ENVELOPE_ ULS	Min	-1,880E-13	-1067,2603	17-1	1,32325
17	0,00000	SLS		-1,355E-13	-345,0025	17-1	0,00000
17	0,66163	SLS		-1,362E-13	-530,0428	17-1	0,66163
17	1,32325	SLS		-1,392E-13	-776,0776	17-1	1,32325
20	0,00000	USL1		1,747E-13	155,9268	20-1	0,00000
20	0,49037	USL1		1,748E-13	155,0941	20-1	0,49037
20	0,98074	USL1		1,749E-13	122,6757	20-1	0,98074
20	0,00000	ULS2		2,079E-15	124,6309	20-1	0,00000
20	0,49037	ULS2		2,140E-15	153,3542	20-1	0,49037
20	0,98074	ULS2		2,202E-15	158,7860	20-1	0,98074
20	0,00000	ENVELOPE_ ULS	Max	1,747E-13	155,9268	20-1	0,00000
20	0,49037	ENVELOPE_ ULS	Max	1,748E-13	155,0941	20-1	0,49037
20	0,98074	ENVELOPE_ ULS	Max	1,749E-13	158,7860	20-1	0,98074
20	0,00000	ENVELOPE_ ULS	Min	2,079E-15	124,6309	20-1	0,00000
20	0,49037	ENVELOPE_ ULS	Min	2,140E-15	153,3542	20-1	0,49037
20	0,98074	ENVELOPE_ ULS	Min	2,202E-15	122,6757	20-1	0,98074
20	0,00000	SLS		1,294E-13	115,5013	20-1	0,00000
20	0,49037	SLS		1,295E-13	114,8845	20-1	0,49037
20	0,98074	SLS		1,295E-13	90,8709	20-1	0,98074
21	0,00000	USL1		1,356E-13	122,6757	21-1	0,00000
21	0,49037	USL1		1,169E-13	123,7522	21-1	0,49037
21	0,98074	USL1		9,814E-14	95,0189	21-1	0,98074
21	0,00000	ULS2		1,352E-15	158,7860	21-1	0,00000
21	0,49037	ULS2		1,413E-15	179,9030	21-1	0,49037
21	0,98074	ULS2		1,474E-15	178,4981	21-1	0,98074
21	0,00000	ENVELOPE_ ULS	Max	1,356E-13	158,7860	21-1	0,00000
21	0,49037	ENVELOPE_ ULS	Max	1,169E-13	179,9030	21-1	0,49037
21	0,98074	ENVELOPE_ ULS	Max	9,814E-14	178,4981	21-1	0,98074
21	0,00000	ENVELOPE_ ULS	Min	1,352E-15	122,6757	21-1	0,00000
21	0,49037	ENVELOPE_ ULS	Min	1,413E-15	123,7522	21-1	0,49037
21	0,98074	ENVELOPE_ ULS	Min	1,474E-15	95,0189	21-1	0,98074
21	0,00000	SLS		1,005E-13	90,8709	21-1	0,00000
21	0,49037	SLS		8,659E-14	91,6683	21-1	0,49037
21	0,98074	SLS		7,269E-14	70,3844	21-1	0,98074
22	0,00000	USL1		7,719E-14	95,0189	22-1	0,00000
22	0,64528	USL1		2,775E-14	110,5948	22-1	0,64528

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
22	1,29056	USL1		-2,169E-14	77,0932	22-1	1,29056
22	0,00000	ULS2		4,468E-16	178,4981	22-1	0,00000
22	0,64528	ULS2		5,272E-16	200,7080	22-1	0,64528
22	1,29056	ULS2		6,077E-16	185,4201	22-1	1,29056
22	0,00000	ENVELOPE_ ULS	Max	7,719E-14	178,4981	22-1	0,00000
22	0,64528	ENVELOPE_ ULS	Max	2,775E-14	200,7080	22-1	0,64528
22	1,29056	ENVELOPE_ ULS	Max	6,077E-16	185,4201	22-1	1,29056
22	0,00000	ENVELOPE_ ULS	Min	4,468E-16	95,0189	22-1	0,00000
22	0,64528	ENVELOPE_ ULS	Min	5,272E-16	110,5948	22-1	0,64528
22	1,29056	ENVELOPE_ ULS	Min	-2,169E-14	77,0932	22-1	1,29056
22	0,00000	SLS		5,717E-14	70,3844	22-1	0,00000
22	0,64528	SLS		2,055E-14	81,9221	22-1	0,64528
22	1,29056	SLS		-1,607E-14	57,1061	22-1	1,29056
23	0,00000	USL1		-2,024E-13	-1047,9567	23-1	0,00000
23	0,63892	USL1		-1,599E-13	-773,5311	23-1	0,63892
23	1,27783	USL1		-1,225E-13	-588,8226	23-1	1,27783
23	0,00000	ULS2		-1,257E-13	-1065,1148	23-1	0,00000
23	0,63892	ULS2		-1,077E-13	-918,5473	23-1	0,63892
23	1,27783	ULS2		-9,483E-14	-814,4136	23-1	1,27783
23	0,00000	ENVELOPE_ ULS	Max	-1,257E-13	-1047,9567	23-1	0,00000
23	0,63892	ENVELOPE_ ULS	Max	-1,077E-13	-773,5311	23-1	0,63892
23	1,27783	ENVELOPE_ ULS	Max	-9,483E-14	-588,8226	23-1	1,27783
23	0,00000	ENVELOPE_ ULS	Min	-2,024E-13	-1065,1148	23-1	0,00000
23	0,63892	ENVELOPE_ ULS	Min	-1,599E-13	-918,5473	23-1	0,63892
23	1,27783	ENVELOPE_ ULS	Min	-1,225E-13	-814,4136	23-1	1,27783
23	0,00000	SLS		-1,500E-13	-776,2642	23-1	0,00000
23	0,63892	SLS		-1,184E-13	-572,9860	23-1	0,63892
23	1,27783	SLS		-9,077E-14	-436,1649	23-1	1,27783
24	0,00000	USL1		-9,483E-14	-588,8226	24-1	0,00000
24	0,64000	USL1		-7,648E-14	-499,0890	24-1	0,64000
24	1,28000	USL1		-6,278E-14	-488,4288	24-1	1,28000
24	0,00000	ULS2		-9,483E-14	-814,4136	24-1	0,00000
24	0,64000	ULS2		-8,876E-14	-765,4996	24-1	0,64000
24	1,28000	ULS2		-8,734E-14	-754,4910	24-1	1,28000
24	0,00000	ENVELOPE_ ULS	Max	-9,483E-14	-588,8226	24-1	0,00000
24	0,64000	ENVELOPE_ ULS	Max	-7,648E-14	-499,0890	24-1	0,64000
24	1,28000	ENVELOPE_ ULS	Max	-6,278E-14	-488,4288	24-1	1,28000
24	0,00000	ENVELOPE_ ULS	Min	-9,483E-14	-814,4136	24-1	0,00000
24	0,64000	ENVELOPE_ ULS	Min	-8,876E-14	-765,4996	24-1	0,64000
24	1,28000	ENVELOPE_ ULS	Min	-8,734E-14	-754,4910	24-1	1,28000
24	0,00000	SLS		-7,025E-14	-436,1649	24-1	0,00000
24	0,64000	SLS		-5,666E-14	-369,6956	24-1	0,64000
24	1,28000	SLS		-4,650E-14	-361,7991	24-1	1,28000
25	0,00000	USL1		-7,295E-14	-488,4288	25-1	0,00000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
25	0,64000	USL1		-6,210E-14	-560,0460	25-1	0,64000
25	1,28000	USL1		-5,526E-14	-699,2349	25-1	1,28000
25	0,00000	ULS2		-8,734E-14	-754,4910	25-1	0,00000
25	0,64000	ULS2		-9,184E-14	-791,9074	25-1	0,64000
25	1,28000	ULS2		-1,003E-13	-862,0038	25-1	1,28000
25	0,00000	ENVELOPE_ ULS	Max	-7,295E-14	-488,4288	25-1	0,00000
25	0,64000	ENVELOPE_ ULS	Max	-6,210E-14	-560,0460	25-1	0,64000
25	1,28000	ENVELOPE_ ULS	Max	-5,526E-14	-699,2349	25-1	1,28000
25	0,00000	ENVELOPE_ ULS	Min	-8,734E-14	-754,4910	25-1	0,00000
25	0,64000	ENVELOPE_ ULS	Min	-9,184E-14	-791,9074	25-1	0,64000
25	1,28000	ENVELOPE_ ULS	Min	-1,003E-13	-862,0038	25-1	1,28000
25	0,00000	SLS		-5,403E-14	-361,7991	25-1	0,00000
25	0,64000	SLS		-4,600E-14	-414,8489	25-1	0,64000
25	1,28000	SLS		-4,093E-14	-517,9518	25-1	1,28000
26	0,00000	USL1		-4,758E-14	-699,2349	26-1	0,00000
26	0,64000	USL1		-4,265E-14	-907,1491	26-1	0,64000
26	1,28000	USL1		-4,107E-14	-1171,1057	26-1	1,28000
26	0,00000	ULS2		-1,003E-13	-862,0038	26-1	0,00000
26	0,64000	ULS2		-1,138E-13	-972,7155	26-1	0,64000
26	1,28000	ULS2		-1,307E-13	-1110,8816	26-1	1,28000
26	0,00000	ENVELOPE_ ULS	Max	-4,758E-14	-699,2349	26-1	0,00000
26	0,64000	ENVELOPE_ ULS	Max	-4,265E-14	-907,1491	26-1	0,64000
26	1,28000	ENVELOPE_ ULS	Max	-4,107E-14	-1110,8816	26-1	1,28000
26	0,00000	ENVELOPE_ ULS	Min	-1,003E-13	-862,0038	26-1	0,00000
26	0,64000	ENVELOPE_ ULS	Min	-1,138E-13	-972,7155	26-1	0,64000
26	1,28000	ENVELOPE_ ULS	Min	-1,307E-13	-1171,1057	26-1	1,28000
26	0,00000	SLS		-3,525E-14	-517,9518	26-1	0,00000
26	0,64000	SLS		-3,159E-14	-671,9623	26-1	0,64000
26	1,28000	SLS		-3,042E-14	-867,4857	26-1	1,28000
27	0,00000	USL1		-9,650E-15	-1047,7047	27-1	0,00000
27	0,66324	USL1		-9,567E-15	-757,8815	27-1	0,66324
27	1,32648	USL1		-9,485E-15	-564,7362	27-1	1,32648
27	0,00000	ULS2		4,739E-15	-1067,2603	27-1	0,00000
27	0,66324	ULS2		4,821E-15	-913,4404	27-1	0,66324
27	1,32648	ULS2		4,904E-15	-805,3465	27-1	1,32648
27	0,00000	ENVELOPE_ ULS	Max	4,739E-15	-1047,7047	27-1	0,00000
27	0,66324	ENVELOPE_ ULS	Max	4,821E-15	-757,8815	27-1	0,66324
27	1,32648	ENVELOPE_ ULS	Max	4,904E-15	-564,7362	27-1	1,32648
27	0,00000	ENVELOPE_ ULS	Min	-9,650E-15	-1067,2603	27-1	0,00000
27	0,66324	ENVELOPE_ ULS	Min	-9,567E-15	-913,4404	27-1	0,66324
27	1,32648	ENVELOPE_ ULS	Min	-9,485E-15	-805,3465	27-1	1,32648
27	0,00000	SLS		-7,148E-15	-776,0776	27-1	0,00000
27	0,66324	SLS		-7,087E-15	-561,3937	27-1	0,66324
27	1,32648	SLS		-7,026E-15	-418,3231	27-1	1,32648



Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			KN-m	KN-m		m
28	0,00000	USL1		2,049E-14	-564,7362	28-1	0,00000
28	0,64000	USL1		3,131E-14	-474,2662	28-1	0,64000
28	1,28000	USL1		4,214E-14	-462,8695	28-1	1,28000
28	0,00000	ULS2		4,904E-15	-805,3465	28-1	0,00000
28	0,64000	ULS2		4,984E-15	-755,9077	28-1	0,64000
28	1,28000	ULS2		5,063E-15	-744,3743	28-1	1,28000
28	0,00000	ENVELOPE_	Max	2,049E-14	-564,7362	28-1	0,00000
		ULS					
28	0,64000	ENVELOPE_	Max	3,131E-14	-474,2662	28-1	0,64000
		ULS					
28	1,28000	ENVELOPE_	Max	4,214E-14	-462,8695	28-1	1,28000
		ULS					
28	0,00000	ENVELOPE_	Min	4,904E-15	-805,3465	28-1	0,00000
		ULS					
28	0,64000	ENVELOPE_	Min	4,984E-15	-755,9077	28-1	0,64000
		ULS					
28	1,28000	ENVELOPE_	Min	5,063E-15	-744,3743	28-1	1,28000
		ULS					
28	0,00000	SLS		1,518E-14	-418,3231	28-1	0,00000
28	0,64000	SLS		2,320E-14	-351,3083	28-1	0,64000
28	1,28000	SLS		3,121E-14	-342,8663	28-1	1,28000
29	0,00000	USL1		6,262E-14	-462,8695	29-1	0,00000
29	0,64000	USL1		6,884E-14	-533,2950	29-1	0,64000
29	1,28000	USL1		7,506E-14	-671,4304	29-1	1,28000
29	0,00000	ULS2		5,063E-15	-744,3743	29-1	0,00000
29	0,64000	ULS2		5,143E-15	-780,6432	29-1	0,64000
29	1,28000	ULS2		5,223E-15	-849,7303	29-1	1,28000
29	0,00000	ENVELOPE_	Max	6,262E-14	-462,8695	29-1	0,00000
		ULS					
29	0,64000	ENVELOPE_	Max	6,884E-14	-533,2950	29-1	0,64000
		ULS					
29	1,28000	ENVELOPE_	Max	7,506E-14	-671,4304	29-1	1,28000
		ULS					
29	0,00000	ENVELOPE_	Min	5,063E-15	-744,3743	29-1	0,00000
		ULS					
29	0,64000	ENVELOPE_	Min	5,143E-15	-780,6432	29-1	0,64000
		ULS					
29	1,28000	ENVELOPE_	Min	5,223E-15	-849,7303	29-1	1,28000
		ULS					
29	0,00000	SLS		4,638E-14	-342,8663	29-1	0,00000
29	0,64000	SLS		5,099E-14	-395,0333	29-1	0,64000
29	1,28000	SLS		5,560E-14	-497,3558	29-1	1,28000
30	0,00000	USL1		1,203E-13	-671,4304	30-1	0,00000
30	0,64000	USL1		1,327E-13	-878,6185	30-1	0,64000
30	1,28000	USL1		1,450E-13	-1141,9874	30-1	1,28000
30	0,00000	ULS2		5,223E-15	-849,7303	30-1	0,00000
30	0,64000	ULS2		5,303E-15	-959,6944	30-1	0,64000
30	1,28000	ULS2		5,382E-15	-1097,2512	30-1	1,28000
30	0,00000	ENVELOPE_	Max	1,203E-13	-671,4304	30-1	0,00000
		ULS					
30	0,64000	ENVELOPE_	Max	1,327E-13	-878,6185	30-1	0,64000
		ULS					
30	1,28000	ENVELOPE_	Max	1,450E-13	-1097,2512	30-1	1,28000
		ULS					
30	0,00000	ENVELOPE_	Min	5,223E-15	-849,7303	30-1	0,00000
		ULS					
30	0,64000	ENVELOPE_	Min	5,303E-15	-959,6944	30-1	0,64000
		ULS					
30	1,28000	ENVELOPE_	Min	5,382E-15	-1141,9874	30-1	1,28000
		ULS					
30	0,00000	SLS		8,913E-14	-497,3558	30-1	0,00000
30	0,64000	SLS		9,829E-14	-650,8285	30-1	0,64000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			KN-m	KN-m		m
30	1,28000	SLS		1,074E-13	-845,9166	30-1	1,28000
33	0,00000	USL1		2,420E-13	-119,0083	33-1	0,00000
33	0,52323	USL1		2,521E-13	11,3671	33-1	0,52323
33	1,04645	USL1		2,622E-13	96,5397	33-1	1,04645
33	0,00000	ULS2		2,222E-15	-209,5459	33-1	0,00000
33	0,52323	ULS2		2,287E-15	-80,7833	33-1	0,52323
33	1,04645	ULS2		2,353E-15	15,4901	33-1	1,04645
33	0,00000	ENVELOPE_	Max	2,420E-13	-119,0083	33-1	0,00000
		ULS					
33	0,52323	ENVELOPE_	Max	2,521E-13	11,3671	33-1	0,52323
		ULS					
33	1,04645	ENVELOPE_	Max	2,622E-13	96,5397	33-1	1,04645
		ULS					
33	0,00000	ENVELOPE_	Min	2,222E-15	-209,5459	33-1	0,00000
		ULS					
33	0,52323	ENVELOPE_	Min	2,287E-15	-80,7833	33-1	0,52323
		ULS					
33	1,04645	ENVELOPE_	Min	2,353E-15	15,4901	33-1	1,04645
		ULS					
33	0,00000	SLS		1,793E-13	-88,1543	33-1	0,00000
33	0,52323	SLS		1,868E-13	8,4201	33-1	0,52323
33	1,04645	SLS		1,942E-13	71,5109	33-1	1,04645
34	0,00000	USL1		2,613E-13	96,5397	34-1	0,00000
34	0,52323	USL1		2,514E-13	139,2892	34-1	0,52323
34	1,04645	USL1		2,414E-13	142,4204	34-1	1,04645
34	0,00000	ULS2		2,353E-15	15,4901	34-1	0,00000
34	0,52323	ULS2		2,418E-15	81,2010	34-1	0,52323
34	1,04645	ULS2		2,483E-15	118,2887	34-1	1,04645
34	0,00000	ENVELOPE_	Max	2,613E-13	96,5397	34-1	0,00000
		ULS					
34	0,52323	ENVELOPE_	Max	2,514E-13	139,2892	34-1	0,52323
		ULS					
34	1,04645	ENVELOPE_	Max	2,414E-13	142,4204	34-1	1,04645
		ULS					
34	0,00000	ENVELOPE_	Min	2,353E-15	15,4901	34-1	0,00000
		ULS					
34	0,52323	ENVELOPE_	Min	2,418E-15	81,2010	34-1	0,52323
		ULS					
34	1,04645	ENVELOPE_	Min	2,483E-15	118,2887	34-1	1,04645
		ULS					
34	0,00000	SLS		1,936E-13	71,5109	34-1	0,00000
34	0,52323	SLS		1,862E-13	103,1772	34-1	0,52323
34	1,04645	SLS		1,788E-13	105,4966	34-1	1,04645
35	0,00000	USL1		1,746E-13	-1171,1057	35-1	0,00000
35	0,52323	USL1		2,048E-13	-820,3511	35-1	0,52323
35	1,04645	USL1		2,350E-13	-530,9167	35-1	1,04645
35	0,00000	ULS2		1,961E-15	-1110,8816	35-1	0,00000
35	0,52323	ULS2		2,027E-15	-821,1874	35-1	0,52323
35	1,04645	ULS2		2,092E-15	-576,6626	35-1	1,04645
35	0,00000	ENVELOPE_	Max	1,746E-13	-1110,8816	35-1	0,00000
		ULS					
35	0,52323	ENVELOPE_	Max	2,048E-13	-820,3511	35-1	0,52323
		ULS					
35	1,04645	ENVELOPE_	Max	2,350E-13	-530,9167	35-1	1,04645
		ULS					
35	0,00000	ENVELOPE_	Min	1,961E-15	-1171,1057	35-1	0,00000
		ULS					
35	0,52323	ENVELOPE_	Min	2,027E-15	-821,1874	35-1	0,52323
		ULS					
35	1,04645	ENVELOPE_	Min	2,092E-15	-576,6626	35-1	1,04645
		ULS					
35	0,00000	SLS		1,294E-13	-867,4857	35-1	0,00000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
35	0,52323	SLS		1,517E-13	-607,6675	35-1	0,52323
35	1,04645	SLS		1,741E-13	-393,2716	35-1	1,04645
36	0,00000	USL1		2,323E-13	-530,9167	36-1	0,00000
36	0,52323	USL1		2,324E-13	-298,4708	36-1	0,52323
36	1,04645	USL1		2,324E-13	-119,0083	36-1	1,04645
36	0,00000	ULS2		2,092E-15	-576,6626	36-1	0,00000
36	0,52323	ULS2		2,157E-15	-373,8287	36-1	0,52323
36	1,04645	ULS2		2,222E-15	-209,5459	36-1	1,04645
36	0,00000	ENVELOPE_ ULS	Max	2,323E-13	-530,9167	36-1	0,00000
36	0,52323	ENVELOPE_ ULS	Max	2,324E-13	-298,4708	36-1	0,52323
36	1,04645	ENVELOPE_ ULS	Max	2,324E-13	-119,0083	36-1	1,04645
36	0,00000	ENVELOPE_ ULS	Min	2,092E-15	-576,6626	36-1	0,00000
36	0,52323	ENVELOPE_ ULS	Min	2,157E-15	-373,8287	36-1	0,52323
36	1,04645	ENVELOPE_ ULS	Min	2,222E-15	-209,5459	36-1	1,04645
36	0,00000	SLS		1,721E-13	-393,2716	36-1	0,00000
36	0,52323	SLS		1,721E-13	-221,0895	36-1	0,52323
36	1,04645	SLS		1,722E-13	-88,1543	36-1	1,04645
39	0,00000	USL1		1,557E-13	-97,6775	39-1	0,00000
39	0,52323	USL1		1,558E-13	30,7511	39-1	0,52323
39	1,04645	USL1		1,558E-13	113,9768	39-1	1,04645
39	0,00000	ULS2		2,225E-15	-199,5411	39-1	0,00000
39	0,52323	ULS2		2,290E-15	-71,6850	39-1	0,52323
39	1,04645	ULS2		2,355E-15	23,6820	39-1	1,04645
39	0,00000	ENVELOPE_ ULS	Max	1,557E-13	-97,6775	39-1	0,00000
39	0,52323	ENVELOPE_ ULS	Max	1,558E-13	30,7511	39-1	0,52323
39	1,04645	ENVELOPE_ ULS	Max	1,558E-13	113,9768	39-1	1,04645
39	0,00000	ENVELOPE_ ULS	Min	2,225E-15	-199,5411	39-1	0,00000
39	0,52323	ENVELOPE_ ULS	Min	2,290E-15	-71,6850	39-1	0,52323
39	1,04645	ENVELOPE_ ULS	Min	2,355E-15	23,6820	39-1	1,04645
39	0,00000	SLS		1,153E-13	-72,3537	39-1	0,00000
39	0,52323	SLS		1,154E-13	22,7786	39-1	0,52323
39	1,04645	SLS		1,154E-13	84,4273	39-1	1,04645
40	0,00000	USL1		2,134E-13	113,9768	40-1	0,00000
40	0,52323	USL1		1,934E-13	154,7749	40-1	0,52323
40	1,04645	USL1		1,734E-13	155,9268	40-1	1,04645
40	0,00000	ULS2		2,355E-15	23,6820	40-1	0,00000
40	0,52323	ULS2		2,420E-15	88,4819	40-1	0,52323
40	1,04645	ULS2		2,486E-15	124,6309	40-1	1,04645
40	0,00000	ENVELOPE_ ULS	Max	2,134E-13	113,9768	40-1	0,00000
40	0,52323	ENVELOPE_ ULS	Max	1,934E-13	154,7749	40-1	0,52323
40	1,04645	ENVELOPE_ ULS	Max	1,734E-13	155,9268	40-1	1,04645
40	0,00000	ENVELOPE_ ULS	Min	2,355E-15	23,6820	40-1	0,00000
40	0,52323	ENVELOPE_ ULS	Min	2,420E-15	88,4819	40-1	0,52323
40	1,04645	ENVELOPE_ ULS	Min	2,486E-15	124,6309	40-1	1,04645

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
40	0,00000	SLS		1,581E-13	84,4273	40-1	0,00000
40	0,52323	SLS		1,432E-13	114,6480	40-1	0,52323
40	1,04645	SLS		1,284E-13	115,5013	40-1	1,04645
41	0,00000	USL1		1,746E-13	-1141,9874	41-1	0,00000
41	0,52323	USL1		1,546E-13	-793,1796	41-1	0,52323
41	1,04645	USL1		1,346E-13	-505,6921	41-1	1,04645
41	0,00000	ULS2		1,964E-15	-1097,2512	41-1	0,00000
41	0,52323	ULS2		2,029E-15	-808,4635	41-1	0,52323
41	1,04645	ULS2		2,094E-15	-564,8451	41-1	1,04645
41	0,00000	ENVELOPE_ ULS	Max	1,746E-13	-1097,2512	41-1	0,00000
41	0,52323	ENVELOPE_ ULS	Max	1,546E-13	-793,1796	41-1	0,52323
41	1,04645	ENVELOPE_ ULS	Max	1,346E-13	-505,6921	41-1	1,04645
41	0,00000	ENVELOPE_ ULS	Min	1,964E-15	-1141,9874	41-1	0,00000
41	0,52323	ENVELOPE_ ULS	Min	2,029E-15	-808,4635	41-1	0,52323
41	1,04645	ENVELOPE_ ULS	Min	2,094E-15	-564,8451	41-1	1,04645
41	0,00000	SLS		1,294E-13	-845,9166	41-1	0,00000
41	0,52323	SLS		1,145E-13	-587,5405	41-1	0,52323
41	1,04645	SLS		9,971E-14	-374,5867	41-1	1,04645
42	0,00000	USL1		1,556E-13	-505,6921	42-1	0,00000
42	0,52323	USL1		1,556E-13	-275,1930	42-1	0,52323
42	1,04645	USL1		1,557E-13	-97,6775	42-1	1,04645
42	0,00000	ULS2		2,094E-15	-564,8451	42-1	0,00000
42	0,52323	ULS2		2,160E-15	-362,9175	42-1	0,52323
42	1,04645	ULS2		2,225E-15	-199,5411	42-1	1,04645
42	0,00000	ENVELOPE_ ULS	Max	1,556E-13	-505,6921	42-1	0,00000
42	0,52323	ENVELOPE_ ULS	Max	1,556E-13	-275,1930	42-1	0,52323
42	1,04645	ENVELOPE_ ULS	Max	1,557E-13	-97,6775	42-1	1,04645
42	0,00000	ENVELOPE_ ULS	Min	2,094E-15	-564,8451	42-1	0,00000
42	0,52323	ENVELOPE_ ULS	Min	2,160E-15	-362,9175	42-1	0,52323
42	1,04645	ENVELOPE_ ULS	Min	2,225E-15	-199,5411	42-1	1,04645
42	0,00000	SLS		1,152E-13	-374,5867	42-1	0,00000
42	0,52323	SLS		1,153E-13	-203,8467	42-1	0,52323
42	1,04645	SLS		1,153E-13	-72,3537	42-1	1,04645

Table: Element Joint Forces - Frames, Part 1 of 2

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
1	17	USL1	Combination		-1817,913	1,643E-13	54,136	1,168E-13
1	16	USL1	Combination		1817,913	-1,448E-13	-181,879	-1,168E-13
1	17	ULS2	Combination		-1127,190	-1,246E-16	109,127	-4,345E-15
1	16	ULS2	Combination		1127,190	1,246E-16	-77,915	4,345E-15
1	17	ENVELOPE_ ULS	Combination	Max	-1127,190	1,643E-13	109,127	1,168E-13
1	16	ENVELOPE_ ULS	Combination	Max	1817,913	1,246E-16	-77,915	4,345E-15
1	17	ENVELOPE_ ULS	Combination	Min	-1817,913	-1,246E-16	54,136	-4,345E-15

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
1	16	ENVELOPE_	Combination	Min	1127,190	-1,448E-13	-181,879	-1,168E-13
		ULS						
1	17	SLS	Combination		-1346,602	1,217E-13	40,101	8,649E-14
1	16	SLS	Combination		1346,602	-1,073E-13	-134,725	-8,649E-14
2	16	USL1	Combination		-1817,913	1,379E-13	281,885	1,178E-13
2	15	USL1	Combination		1599,353	-1,113E-13	-451,770	-1,439E-13
2	16	ULS2	Combination		-1127,190	-1,246E-16	291,059	-4,345E-15
2	15	ULS2	Combination		950,165	1,246E-16	-248,056	4,377E-15
2	16	ENVELOPE_	Combination	Max	-1127,190	1,379E-13	291,059	1,178E-13
		ULS						
2	15	ENVELOPE_	Combination	Max	1599,353	1,246E-16	-248,056	4,377E-15
		ULS						
2	16	ENVELOPE_	Combination	Min	-1817,913	-1,246E-16	281,885	-4,345E-15
		ULS						
2	15	ENVELOPE_	Combination	Min	950,165	-1,113E-13	-451,770	-1,439E-13
		ULS						
2	16	SLS	Combination		-1346,602	1,022E-13	208,804	8,728E-14
2	15	SLS	Combination		1184,706	-8,247E-14	-334,644	-1,066E-13
3	15	USL1	Combination		-1599,353	6,564E-14	553,366	1,555E-13
3	14	USL1	Combination		1351,737	-3,979E-14	-708,646	-1,616E-13
3	15	ULS2	Combination		-950,165	-1,246E-16	463,193	-4,377E-15
3	14	ULS2	Combination		774,874	1,246E-16	-420,190	4,435E-15
3	15	ENVELOPE_	Combination	Max	-950,165	6,564E-14	553,366	1,555E-13
		ULS						
3	14	ENVELOPE_	Combination	Max	1351,737	1,246E-16	-420,190	4,435E-15
		ULS						
3	15	ENVELOPE_	Combination	Min	-1599,353	-1,246E-16	463,193	-4,377E-15
		ULS						
3	14	ENVELOPE_	Combination	Min	774,874	-3,979E-14	-708,646	-1,616E-13
		ULS						
3	15	SLS	Combination		-1184,706	4,862E-14	409,901	1,152E-13
3	14	SLS	Combination		1001,287	-2,948E-14	-524,923	-1,197E-13
4	14	USL1	Combination		-1351,737	9,027E-15	812,856	1,661E-13
4	13	USL1	Combination		1070,528	1,564E-14	-937,857	-1,801E-13
4	14	ULS2	Combination		-774,874	-1,246E-16	638,478	-4,435E-15
4	13	ULS2	Combination		604,944	1,246E-16	-595,607	4,528E-15
4	14	ENVELOPE_	Combination	Max	-774,874	9,027E-15	812,856	1,661E-13
		ULS						
4	13	ENVELOPE_	Combination	Max	1070,528	1,564E-14	-595,607	4,528E-15
		ULS						
4	14	ENVELOPE_	Combination	Min	-1351,737	-1,246E-16	638,478	-4,435E-15
		ULS						
4	13	ENVELOPE_	Combination	Min	604,944	1,246E-16	-937,857	-1,801E-13
		ULS						
4	14	SLS	Combination		-1001,287	6,686E-15	602,116	1,230E-13
4	13	SLS	Combination		792,984	1,158E-14	-694,709	-1,334E-13
5	13	USL1	Combination		-1070,528	-2,945E-14	1045,003	1,737E-13
5	12	USL1	Combination		803,504	5,264E-14	-1159,995	-1,519E-13
5	13	ULS2	Combination		-604,944	-1,246E-16	817,286	-4,528E-15
5	12	ULS2	Combination		442,565	1,246E-16	-774,416	4,621E-15
5	13	ENVELOPE_	Combination	Max	-604,944	-1,246E-16	1045,003	1,737E-13
		ULS						
5	12	ENVELOPE_	Combination	Max	803,504	5,264E-14	-774,416	4,621E-15
		ULS						
5	13	ENVELOPE_	Combination	Min	-1070,528	-2,945E-14	817,286	-4,528E-15
		ULS						
5	12	ENVELOPE_	Combination	Min	442,565	1,246E-16	-1159,995	-1,519E-13
		ULS						
5	13	SLS	Combination		-792,984	-2,181E-14	774,076	1,287E-13
5	12	SLS	Combination		595,188	3,899E-14	-859,256	-1,125E-13
6	12	USL1	Combination		-803,504	-6,201E-14	1270,270	1,552E-13
6	3	USL1	Combination		521,093	8,356E-14	-1346,925	-8,041E-14

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
6	12	ULS2	Combination		-442,565	-1,246E-16	999,402	-4,621E-15
6	3	ULS2	Combination		288,975	1,246E-16	-956,189	4,745E-15
6	12	ENVELOPE_ ULS	Combination	Max	-442,565	-1,246E-16	1270,270	1,552E-13
6	3	ENVELOPE_ ULS	Combination	Max	521,093	8,356E-14	-956,189	4,745E-15
6	12	ENVELOPE_ ULS	Combination	Min	-803,504	-6,201E-14	999,402	-4,621E-15
6	3	ENVELOPE_ ULS	Combination	Min	288,975	1,246E-16	-1346,925	-8,041E-14
6	12	SLS	Combination		-595,188	-4,593E-14	940,941	1,150E-13
6	3	SLS	Combination		385,995	6,190E-14	-997,722	-5,956E-14
9	5	USL1	Combination		746,075	5,803E-14	394,858	-1,673E-13
9	6	USL1	Combination		-787,450	-5,803E-14	-271,959	1,442E-13
9	5	ULS2	Combination		429,543	-1,246E-16	298,540	-5,643E-15
9	6	ULS2	Combination		-456,354	1,246E-16	-206,173	5,696E-15
9	5	ENVELOPE_ ULS	Combination	Max	746,075	5,803E-14	394,858	-5,643E-15
9	6	ENVELOPE_ ULS	Combination	Max	-456,354	1,246E-16	-206,173	1,442E-13
9	5	ENVELOPE_ ULS	Combination	Min	429,543	-1,246E-16	298,540	-1,673E-13
9	6	ENVELOPE_ ULS	Combination	Min	-787,450	-5,803E-14	-271,959	5,696E-15
9	5	SLS	Combination		552,649	4,298E-14	292,487	-1,239E-13
9	6	SLS	Combination		-583,296	-4,298E-14	-201,451	1,068E-13
10	6	USL1	Combination		787,450	3,794E-14	271,959	-1,686E-13
10	7	USL1	Combination		-816,877	-3,794E-14	-153,873	1,483E-13
10	6	ULS2	Combination		456,354	-1,246E-16	206,173	-5,696E-15
10	7	ULS2	Combination		-477,340	1,246E-16	-116,588	5,731E-15
10	6	ENVELOPE_ ULS	Combination	Max	787,450	3,794E-14	271,959	-5,696E-15
10	7	ENVELOPE_ ULS	Combination	Max	-477,340	1,246E-16	-116,588	1,483E-13
10	6	ENVELOPE_ ULS	Combination	Min	456,354	-1,246E-16	206,173	-1,686E-13
10	7	ENVELOPE_ ULS	Combination	Min	-816,877	-3,794E-14	-153,873	5,731E-15
10	6	SLS	Combination		583,296	2,811E-14	201,451	-1,249E-13
10	7	SLS	Combination		-605,094	-2,811E-14	-113,980	1,098E-13
11	7	USL1	Combination		816,877	8,321E-14	153,873	-1,485E-13
11	11	USL1	Combination		-846,209	-8,321E-14	-0,219	1,361E-13
11	7	ULS2	Combination		477,340	-1,246E-16	116,588	-5,731E-15
11	11	ULS2	Combination		-502,873	1,246E-16	0,481	5,748E-15
11	7	ENVELOPE_ ULS	Combination	Max	816,877	8,321E-14	153,873	-5,731E-15
11	11	ENVELOPE_ ULS	Combination	Max	-502,873	1,246E-16	0,481	1,361E-13
11	7	ENVELOPE_ ULS	Combination	Min	477,340	-1,246E-16	116,588	-1,485E-13
11	11	ENVELOPE_ ULS	Combination	Min	-846,209	-8,321E-14	-0,219	5,748E-15
11	7	SLS	Combination		605,094	6,164E-14	113,980	-1,100E-13
11	11	SLS	Combination		-626,821	-6,164E-14	-0,162	1,008E-13
12	17	USL1	Combination		1817,913	-4,228E-14	45,523	-1,151E-13
12	18	USL1	Combination		-1817,913	2,282E-14	-173,267	1,153E-13
12	17	ULS2	Combination		1127,190	1,246E-16	103,589	4,345E-15
12	18	ULS2	Combination		-1127,190	-1,246E-16	-72,377	-4,345E-15
12	17	ENVELOPE_ ULS	Combination	Max	1817,913	1,246E-16	103,589	4,345E-15
12	18	ENVELOPE_ ULS	Combination	Max	-1127,190	2,282E-14	-72,377	1,153E-13

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
12	17	ENVELOPE_	Combination	Min	1127,190	-4,228E-14	45,523	-1,151E-13
		ULS						
12	18	ENVELOPE_	Combination	Min	-1817,913	-1,246E-16	-173,267	-4,345E-15
		ULS						
12	17	SLS	Combination		1346,602	-3,132E-14	33,721	-8,524E-14
12	18	SLS	Combination		-1346,602	1,690E-14	-128,346	8,538E-14
13	18	USL1	Combination		1817,913	-8,305E-14	273,513	-1,166E-13
13	19	USL1	Combination		-1597,893	5,648E-14	-443,398	1,286E-13
13	18	ULS2	Combination		1127,190	1,246E-16	285,757	4,345E-15
13	19	ULS2	Combination		-948,705	-1,246E-16	-242,755	-4,377E-15
13	18	ENVELOPE_	Combination	Max	1817,913	1,246E-16	285,757	4,345E-15
		ULS						
13	19	ENVELOPE_	Combination	Max	-948,705	5,648E-14	-242,755	1,286E-13
		ULS						
13	18	ENVELOPE_	Combination	Min	1127,190	-8,305E-14	273,513	-1,166E-13
		ULS						
13	19	ENVELOPE_	Combination	Min	-1597,893	-1,246E-16	-443,398	-4,377E-15
		ULS						
13	18	SLS	Combination		1346,602	-6,152E-14	202,602	-8,634E-14
13	19	SLS	Combination		-1183,625	4,184E-14	-328,443	9,523E-14
14	19	USL1	Combination		1597,893	-4,705E-14	545,592	-1,261E-13
14	20	USL1	Combination		-1349,547	2,121E-14	-700,872	1,422E-13
14	19	ULS2	Combination		948,705	1,246E-16	458,466	4,377E-15
14	20	ULS2	Combination		-772,684	-1,246E-16	-415,463	-4,435E-15
14	19	ENVELOPE_	Combination	Max	1597,893	1,246E-16	545,592	4,377E-15
		ULS						
14	20	ENVELOPE_	Combination	Max	-772,684	2,121E-14	-415,463	1,422E-13
		ULS						
14	19	ENVELOPE_	Combination	Min	948,705	-4,705E-14	458,466	-1,261E-13
		ULS						
14	20	ENVELOPE_	Combination	Min	-1349,547	-1,246E-16	-700,872	-4,435E-15
		ULS						
14	19	SLS	Combination		1183,625	-3,485E-14	404,143	-9,338E-14
14	20	SLS	Combination		-999,664	1,571E-14	-519,164	1,053E-13
15	20	USL1	Combination		1349,547	3,890E-14	806,095	-1,385E-13
15	21	USL1	Combination		-1081,024	-6,364E-14	-939,721	1,142E-13
15	20	ULS2	Combination		772,684	1,246E-16	634,697	4,435E-15
15	21	ULS2	Combination		-602,229	-1,246E-16	-591,695	-4,517E-15
15	20	ENVELOPE_	Combination	Max	1349,547	3,890E-14	806,095	4,435E-15
		ULS						
15	21	ENVELOPE_	Combination	Max	-602,229	-1,246E-16	-591,695	1,142E-13
		ULS						
15	20	ENVELOPE_	Combination	Min	772,684	1,246E-16	634,697	-1,385E-13
		ULS						
15	21	ENVELOPE_	Combination	Min	-1081,024	-6,364E-14	-939,721	-4,517E-15
		ULS						
15	20	SLS	Combination		999,664	2,881E-14	597,107	-1,026E-13
15	21	SLS	Combination		-800,759	-4,714E-14	-696,090	8,458E-14
16	21	USL1	Combination		1081,024	8,367E-14	1048,461	-1,028E-13
16	22	USL1	Combination		-801,074	-1,069E-13	-1155,085	3,843E-14
16	21	ULS2	Combination		602,229	1,246E-16	814,866	4,517E-15
16	22	ULS2	Combination		-439,348	-1,246E-16	-771,863	-4,621E-15
16	21	ENVELOPE_	Combination	Max	1081,024	8,367E-14	1048,461	4,517E-15
		ULS						
16	22	ENVELOPE_	Combination	Max	-439,348	-1,246E-16	-771,863	3,843E-14
		ULS						
16	21	ENVELOPE_	Combination	Min	602,229	1,246E-16	814,866	-1,028E-13
		ULS						
16	22	ENVELOPE_	Combination	Min	-801,074	-1,069E-13	-1155,085	-4,621E-15
		ULS						
16	21	SLS	Combination		800,759	6,198E-14	776,638	-7,611E-14
16	22	SLS	Combination		-593,388	-7,921E-14	-855,619	2,847E-14



Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
17	22	USL1	Combination		801,074	3,921E-14	1266,886	-2,819E-14
17	4	USL1	Combination		-528,944	-6,021E-14	-1344,661	-1,388E-14
17	22	ULS2	Combination		439,348	1,246E-16	998,322	4,621E-15
17	4	ULS2	Combination		-289,737	-1,246E-16	-956,229	-4,739E-15
17	22	ENVELOPE_ ULS	Combination	Max	801,074	3,921E-14	1266,886	4,621E-15
17	4	ENVELOPE_ ULS	Combination	Max	-289,737	-1,246E-16	-956,229	-4,739E-15
17	22	ENVELOPE_ ULS	Combination	Min	439,348	1,246E-16	998,322	-2,819E-14
17	4	ENVELOPE_ ULS	Combination	Min	-528,944	-6,021E-14	-1344,661	-1,388E-14
17	22	SLS	Combination		593,388	2,905E-14	938,434	-2,088E-14
17	4	SLS	Combination		-391,810	-4,460E-14	-996,045	-1,028E-14
20	8	USL1	Combination		-746,497	-2,895E-14	390,682	1,492E-13
20	9	USL1	Combination		788,069	2,895E-14	-267,783	-1,692E-13
20	8	ULS2	Combination		-429,964	1,246E-16	296,660	5,643E-15
20	9	ULS2	Combination		456,974	-1,246E-16	-204,294	-5,696E-15
20	8	ENVELOPE_ ULS	Combination	Max	-429,964	1,246E-16	390,682	1,492E-13
20	9	ENVELOPE_ ULS	Combination	Max	788,069	2,895E-14	-204,294	-5,696E-15
20	8	ENVELOPE_ ULS	Combination	Min	-746,497	-2,895E-14	296,660	5,643E-15
20	9	ENVELOPE_ ULS	Combination	Min	456,974	-1,246E-16	-267,783	-1,692E-13
20	8	SLS	Combination		-552,960	-2,145E-14	289,394	1,105E-13
20	9	SLS	Combination		583,755	2,145E-14	-198,358	-1,253E-13
21	9	USL1	Combination		-788,069	9,117E-15	267,783	1,562E-13
21	10	USL1	Combination		817,497	-9,117E-15	-149,698	-1,467E-13
21	9	ULS2	Combination		-456,974	1,246E-16	204,294	5,696E-15
21	10	ULS2	Combination		477,959	-1,246E-16	-114,708	-5,731E-15
21	9	ENVELOPE_ ULS	Combination	Max	-456,974	9,117E-15	267,783	1,562E-13
21	10	ENVELOPE_ ULS	Combination	Max	817,497	-1,246E-16	-114,708	-5,731E-15
21	9	ENVELOPE_ ULS	Combination	Min	-788,069	1,246E-16	204,294	5,696E-15
21	10	ENVELOPE_ ULS	Combination	Min	477,959	-9,117E-15	-149,698	-1,467E-13
21	9	SLS	Combination		-583,755	6,754E-15	198,358	1,157E-13
21	10	SLS	Combination		605,553	-6,754E-15	-110,887	-1,087E-13
22	10	USL1	Combination		-817,497	-8,111E-14	149,698	1,456E-13
22	11	USL1	Combination		846,209	8,111E-14	0,219	-1,366E-13
22	10	ULS2	Combination		-477,959	1,246E-16	114,708	5,731E-15
22	11	ULS2	Combination		502,873	-1,246E-16	-0,481	-5,748E-15
22	10	ENVELOPE_ ULS	Combination	Max	-477,959	1,246E-16	149,698	1,456E-13
22	11	ENVELOPE_ ULS	Combination	Max	846,209	8,111E-14	0,219	-5,748E-15
22	10	ENVELOPE_ ULS	Combination	Min	-817,497	-8,111E-14	114,708	5,731E-15
22	11	ENVELOPE_ ULS	Combination	Min	502,873	-1,246E-16	-0,481	-1,366E-13
22	10	SLS	Combination		-605,553	-6,008E-14	110,887	1,078E-13
22	11	SLS	Combination		626,821	6,008E-14	0,162	-1,012E-13
23	3	USL1	Combination		-502,431	2,115E-14	1458,592	5,415E-14
23	28	USL1	Combination		221,589	-3,023E-15	-1365,102	-6,656E-14
23	3	ULS2	Combination		-263,672	-1,246E-16	1182,550	-4,745E-15
23	28	ULS2	Combination		130,841	1,246E-16	-1089,060	4,904E-15
23	3	ENVELOPE_ ULS	Combination	Max	-263,672	2,115E-14	1458,592	5,415E-14



Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
23	28	ENVELOPE_	Combination	Max	221,589	1,246E-16	-1089,060	4,904E-15
		ULS						
23	3	ENVELOPE_	Combination	Min	-502,431	-1,246E-16	1182,550	-4,745E-15
		ULS						
23	28	ENVELOPE_	Combination	Min	130,841	-3,023E-15	-1365,102	-6,656E-14
		ULS						
23	3	SLS	Combination		-372,171	1,567E-14	1080,439	4,011E-14
23	28	SLS	Combination		164,140	-2,240E-15	-1011,187	-4,930E-14
24	28	USL1	Combination		-204,980	-5,042E-15	1365,102	2,917E-14
24	26	USL1	Combination		-42,124	2,080E-14	-1283,668	-1,685E-14
24	28	ULS2	Combination		-107,410	-1,246E-16	1089,060	-4,904E-15
24	26	ULS2	Combination		-11,045	1,246E-16	-1007,625	5,063E-15
24	28	ENVELOPE_	Combination	Max	-107,410	-1,246E-16	1365,102	2,917E-14
		ULS						
24	26	ENVELOPE_	Combination	Max	-11,045	2,080E-14	-1007,625	5,063E-15
		ULS						
24	28	ENVELOPE_	Combination	Min	-204,980	-5,042E-15	1089,060	-4,904E-15
		ULS						
24	26	ENVELOPE_	Combination	Min	-42,124	1,246E-16	-1283,668	-1,685E-14
		ULS						
24	28	SLS	Combination		-151,837	-3,734E-15	1011,187	2,161E-14
24	26	SLS	Combination		-31,203	1,540E-14	-950,865	-1,249E-14
25	26	USL1	Combination		56,116	-2,583E-14	1283,668	1,065E-14
25	24	USL1	Combination		-267,278	3,918E-14	-1202,234	3,142E-14
25	26	ULS2	Combination		31,578	-1,246E-16	1007,625	-5,063E-15
25	24	ULS2	Combination		-133,703	1,246E-16	-926,191	5,223E-15
25	26	ENVELOPE_	Combination	Max	56,116	-1,246E-16	1283,668	1,065E-14
		ULS						
25	24	ENVELOPE_	Combination	Max	-133,703	3,918E-14	-926,191	3,142E-14
		ULS						
25	26	ENVELOPE_	Combination	Min	31,578	-2,583E-14	1007,625	-5,063E-15
		ULS						
25	24	ENVELOPE_	Combination	Min	-267,278	1,246E-16	-1202,234	5,223E-15
		ULS						
25	26	SLS	Combination		41,568	-1,913E-14	950,865	7,889E-15
25	24	SLS	Combination		-197,984	2,902E-14	-890,543	2,327E-14
26	24	USL1	Combination		278,073	-3,744E-14	1202,234	-3,448E-14
26	1	USL1	Combination		-453,206	4,838E-14	-1108,584	9,123E-14
26	24	ULS2	Combination		150,170	-1,246E-16	926,191	-5,223E-15
26	1	ULS2	Combination		-235,965	1,246E-16	-832,542	5,382E-15
26	24	ENVELOPE_	Combination	Max	278,073	-1,246E-16	1202,234	-5,223E-15
		ULS						
26	1	ENVELOPE_	Combination	Max	-235,965	4,838E-14	-832,542	9,123E-14
		ULS						
26	24	ENVELOPE_	Combination	Min	150,170	-3,744E-14	926,191	-3,448E-14
		ULS						
26	1	ENVELOPE_	Combination	Min	-453,206	1,246E-16	-1108,584	5,382E-15
		ULS						
26	24	SLS	Combination		205,980	-2,773E-14	890,543	-2,554E-14
26	1	SLS	Combination		-335,708	3,584E-14	-821,174	6,758E-14
27	4	USL1	Combination		512,671	4,921E-15	1457,976	-8,451E-15
27	29	USL1	Combination		-221,137	-4,921E-15	-1360,926	-1,450E-14
27	4	ULS2	Combination		267,499	1,246E-16	1184,230	4,739E-15
27	29	ULS2	Combination		-129,611	-1,246E-16	-1087,180	-4,904E-15
27	4	ENVELOPE_	Combination	Max	512,671	4,921E-15	1457,976	4,739E-15
		ULS						
27	29	ENVELOPE_	Combination	Max	-129,611	-1,246E-16	-1087,180	-4,904E-15
		ULS						
27	4	ENVELOPE_	Combination	Min	267,499	1,246E-16	1184,230	-8,451E-15
		ULS						
27	29	ENVELOPE_	Combination	Min	-221,137	-4,921E-15	-1360,926	-1,450E-14
		ULS						

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
27	4	SLS	Combination		379,756	3,645E-15	1079,982	-6,260E-15
27	29	SLS	Combination		-163,805	-3,645E-15	-1008,093	-1,074E-14
28	29	USL1	Combination		206,131	1,931E-14	1360,926	2,049E-14
28	27	USL1	Combination		40,973	-1,931E-14	-1279,492	-5,782E-14
28	29	ULS2	Combination		108,230	1,246E-16	1087,180	4,904E-15
28	27	ULS2	Combination		10,225	-1,246E-16	-1005,746	-5,063E-15
28	29	ENVELOPE_ ULS	Combination	Max	206,131	1,931E-14	1360,926	2,049E-14
28	27	ENVELOPE_ ULS	Combination	Max	40,973	-1,246E-16	-1005,746	-5,063E-15
28	29	ENVELOPE_ ULS	Combination	Min	108,230	1,246E-16	1087,180	4,904E-15
28	27	ENVELOPE_ ULS	Combination	Min	10,225	-1,931E-14	-1279,492	-5,782E-14
28	29	SLS	Combination		152,689	1,430E-14	1008,093	1,518E-14
28	27	SLS	Combination		30,351	-1,430E-14	-947,772	-4,283E-14
29	27	USL1	Combination		-54,218	9,717E-15	1279,492	6,412E-14
29	25	USL1	Combination		265,812	-9,717E-15	-1198,058	-1,011E-13
29	27	ULS2	Combination		-29,749	1,246E-16	1005,746	5,063E-15
29	25	ULS2	Combination		132,306	-1,246E-16	-924,312	-5,223E-15
29	27	ENVELOPE_ ULS	Combination	Max	-29,749	9,717E-15	1279,492	6,412E-14
29	25	ENVELOPE_ ULS	Combination	Max	265,812	-1,246E-16	-924,312	-5,223E-15
29	27	ENVELOPE_ ULS	Combination	Min	-54,218	1,246E-16	1005,746	5,063E-15
29	25	ENVELOPE_ ULS	Combination	Min	132,306	-9,717E-15	-1198,058	-1,011E-13
29	27	SLS	Combination		-40,162	7,198E-15	947,772	4,749E-14
29	25	SLS	Combination		196,898	-7,198E-15	-887,450	-7,492E-14
30	25	USL1	Combination		-276,759	1,451E-14	1198,058	1,149E-13
30	2	USL1	Combination		452,323	-1,451E-14	-1104,408	-1,301E-13
30	25	ULS2	Combination		-148,822	1,246E-16	924,312	5,223E-15
30	2	ULS2	Combination		235,049	-1,246E-16	-830,662	-5,382E-15
30	25	ENVELOPE_ ULS	Combination	Max	-148,822	1,451E-14	1198,058	1,149E-13
30	2	ENVELOPE_ ULS	Combination	Max	452,323	-1,246E-16	-830,662	-5,382E-15
30	25	ENVELOPE_ ULS	Combination	Min	-276,759	1,246E-16	924,312	5,223E-15
30	2	ENVELOPE_ ULS	Combination	Min	235,049	-1,451E-14	-1104,408	-1,301E-13
30	25	SLS	Combination		-205,006	1,075E-14	887,450	8,514E-14
30	2	SLS	Combination		335,054	-1,075E-14	-818,080	-9,636E-14
33	30	USL1	Combination		622,640	-2,830E-14	697,974	-1,476E-13
33	31	USL1	Combination		-688,825	2,830E-14	-536,671	1,520E-13
33	30	ULS2	Combination		351,420	-1,246E-16	523,172	-5,513E-15
33	31	ULS2	Combination		-393,307	1,246E-16	-403,955	5,578E-15
33	30	ENVELOPE_ ULS	Combination	Max	622,640	-1,246E-16	697,974	-5,513E-15
33	31	ENVELOPE_ ULS	Combination	Max	-393,307	2,830E-14	-403,955	1,520E-13
33	30	ENVELOPE_ ULS	Combination	Min	351,420	-2,830E-14	523,172	-1,476E-13
33	31	ENVELOPE_ ULS	Combination	Min	-688,825	1,246E-16	-536,671	5,578E-15
33	30	SLS	Combination		461,215	-2,096E-14	517,018	-1,093E-13
33	31	SLS	Combination		-510,241	2,096E-14	-397,534	1,126E-13
34	31	USL1	Combination		688,825	1,097E-14	536,671	-1,666E-13
34	5	USL1	Combination		-746,075	-1,097E-14	-394,858	1,692E-13
34	31	ULS2	Combination		393,307	-1,246E-16	403,955	-5,578E-15
34	5	ULS2	Combination		-429,543	1,246E-16	-298,540	5,643E-15

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
34	31	ENVELOPE_ ULS	Combination	Max	688,825	1,097E-14	536,671	-5,578E-15
34	5	ENVELOPE_ ULS	Combination	Max	-429,543	1,246E-16	-298,540	1,692E-13
34	31	ENVELOPE_ ULS	Combination	Min	393,307	-1,246E-16	403,955	-1,666E-13
34	5	ENVELOPE_ ULS	Combination	Min	-746,075	-1,097E-14	-394,858	5,643E-15
34	31	SLS	Combination		510,241	8,123E-15	397,534	-1,234E-13
34	5	SLS	Combination		-552,649	-8,123E-15	-292,487	1,253E-13
35	1	USL1	Combination		460,001	-6,487E-14	1108,584	-1,118E-13
35	32	USL1	Combination		-547,660	6,487E-14	-888,541	1,315E-13
35	1	ULS2	Combination		247,233	-1,246E-16	832,542	-5,382E-15
35	32	ULS2	Combination		-304,024	1,246E-16	-665,963	5,448E-15
35	1	ENVELOPE_ ULS	Combination	Max	460,001	-1,246E-16	1108,584	-5,382E-15
35	32	ENVELOPE_ ULS	Combination	Max	-304,024	6,487E-14	-665,963	1,315E-13
35	1	ENVELOPE_ ULS	Combination	Min	247,233	-6,487E-14	832,542	-1,118E-13
35	32	ENVELOPE_ ULS	Combination	Min	-547,660	1,246E-16	-888,541	5,448E-15
35	1	SLS	Combination		340,742	-4,805E-14	821,174	-8,281E-14
35	32	SLS	Combination		-405,674	4,805E-14	-658,179	9,741E-14
36	32	USL1	Combination		547,660	2,026E-14	888,541	-1,447E-13
36	30	USL1	Combination		-622,640	-2,026E-14	-697,974	1,413E-13
36	32	ULS2	Combination		304,024	-1,246E-16	665,963	-5,448E-15
36	30	ULS2	Combination		-351,420	1,246E-16	-523,172	5,513E-15
36	32	ENVELOPE_ ULS	Combination	Max	547,660	2,026E-14	888,541	-5,448E-15
36	30	ENVELOPE_ ULS	Combination	Max	-351,420	1,246E-16	-523,172	1,413E-13
36	32	ENVELOPE_ ULS	Combination	Min	304,024	-1,246E-16	665,963	-1,447E-13
36	30	ENVELOPE_ ULS	Combination	Min	-622,640	-2,026E-14	-697,974	5,513E-15
36	32	SLS	Combination		405,674	1,501E-14	658,179	-1,072E-13
36	30	SLS	Combination		-461,215	-1,501E-14	-517,018	1,047E-13
39	33	USL1	Combination		-622,849	1,631E-14	693,798	1,404E-13
39	34	USL1	Combination		689,035	-1,631E-14	-532,495	-1,441E-13
39	33	ULS2	Combination		-351,629	1,246E-16	521,292	5,513E-15
39	34	ULS2	Combination		393,516	-1,246E-16	-402,076	-5,578E-15
39	33	ENVELOPE_ ULS	Combination	Max	-351,629	1,631E-14	693,798	1,404E-13
39	34	ENVELOPE_ ULS	Combination	Max	689,035	-1,246E-16	-402,076	-5,578E-15
39	33	ENVELOPE_ ULS	Combination	Min	-622,849	1,246E-16	521,292	5,513E-15
39	34	ENVELOPE_ ULS	Combination	Min	393,516	-1,631E-14	-532,495	-1,441E-13
39	33	SLS	Combination		-461,370	1,208E-14	513,925	1,040E-13
39	34	SLS	Combination		510,396	-1,208E-14	-394,441	-1,067E-13
40	34	USL1	Combination		-689,035	-3,195E-14	532,495	1,582E-13
40	8	USL1	Combination		746,497	3,195E-14	-390,682	-1,495E-13
40	34	ULS2	Combination		-393,516	1,246E-16	402,076	5,578E-15
40	8	ULS2	Combination		429,964	-1,246E-16	-296,660	-5,643E-15
40	34	ENVELOPE_ ULS	Combination	Max	-393,516	1,246E-16	532,495	1,582E-13
40	8	ENVELOPE_ ULS	Combination	Max	746,497	3,195E-14	-296,660	-5,643E-15
40	34	ENVELOPE_ ULS	Combination	Min	-689,035	-3,195E-14	402,076	5,578E-15

**Table: Element Joint Forces - Frames, Part 1 of 2**

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
40	8	ENVELOPE_ ULS	Combination	Min	429,964	-1,246E-16	-390,682	-1,495E-13
40	34	SLS	Combination		-510,396	-2,367E-14	394,441	1,172E-13
40	8	SLS	Combination		552,960	2,367E-14	-289,394	-1,108E-13
41	2	USL1	Combination		-460,211	-5,503E-14	1104,408	1,601E-13
41	35	USL1	Combination		547,869	5,503E-14	-884,365	-1,161E-13
41	2	ULS2	Combination		-247,442	1,246E-16	830,662	5,382E-15
41	35	ULS2	Combination		304,233	-1,246E-16	-664,084	-5,448E-15
41	2	ENVELOPE_ ULS	Combination	Max	-247,442	1,246E-16	1104,408	1,601E-13
41	35	ENVELOPE_ ULS	Combination	Max	547,869	5,503E-14	-664,084	-5,448E-15
41	2	ENVELOPE_ ULS	Combination	Min	-460,211	-5,503E-14	830,662	5,382E-15
41	35	ENVELOPE_ ULS	Combination	Min	304,233	-1,246E-16	-884,365	-1,161E-13
41	2	SLS	Combination		-340,897	-4,076E-14	818,080	1,186E-13
41	35	SLS	Combination		405,829	4,076E-14	-655,085	-8,597E-14
42	35	USL1	Combination		-547,869	-1,674E-15	884,365	1,195E-13
42	33	USL1	Combination		622,849	1,674E-15	-693,798	-1,320E-13
42	35	ULS2	Combination		-304,233	1,246E-16	664,084	5,448E-15
42	33	ULS2	Combination		351,629	-1,246E-16	-521,292	-5,513E-15
42	35	ENVELOPE_ ULS	Combination	Max	-304,233	1,246E-16	884,365	1,195E-13
42	33	ENVELOPE_ ULS	Combination	Max	622,849	1,674E-15	-521,292	-5,513E-15
42	35	ENVELOPE_ ULS	Combination	Min	-547,869	-1,674E-15	664,084	5,448E-15
42	33	ENVELOPE_ ULS	Combination	Min	351,629	-1,246E-16	-693,798	-1,320E-13
42	35	SLS	Combination		-405,829	-1,240E-15	655,085	8,852E-14
42	33	SLS	Combination		461,370	1,240E-15	-513,925	-9,779E-14

**Table: Element Joint Forces - Frames, Part 2 of 2**

**Table: Element Joint Forces - Frames, Part 2 of 2**

Frame	Joint	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem
1	17	USL1		412,4008	-9,946E-14	1-1
1	16	USL1		-296,6113	-4,325E-14	1-1
1	17	ULS2		503,2722	-1,491E-18	1-1
1	16	ULS2		-411,5090	1,238E-16	1-1
1	17	ENVELOPE_ ULS	Max	503,2722	-1,491E-18	1-1
1	16	ENVELOPE_ ULS	Max	-296,6113	1,238E-16	1-1
1	17	ENVELOPE_ ULS	Min	412,4008	-9,946E-14	1-1
1	16	ENVELOPE_ ULS	Min	-411,5090	-4,325E-14	1-1
1	17	SLS		305,4821	-7,368E-14	1-1
1	16	SLS		-219,7121	-3,204E-14	1-1
2	16	USL1		296,6113	6,698E-15	2-1
2	15	USL1		-251,7325	-1,787E-13	2-1
2	16	ULS2		411,5090	-1,238E-16	2-1
2	15	ULS2		-322,7326	2,891E-16	2-1
2	16	ENVELOPE_ ULS	Max	411,5090	6,698E-15	2-1
2	15	ENVELOPE_ ULS	Max	-251,7325	2,891E-16	2-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
2	16	ENVELOPE_ ULS	Min	296,6113	-1,238E-16	2-1
2	15	ENVELOPE_ ULS	Min	-322,7326	-1,787E-13	2-1
2	16	SLS		219,7121	4,961E-15	2-1
2	15	SLS		-186,4685	-1,324E-13	2-1
3	15	USL1		251,7325	1,646E-13	3-1
3	14	USL1		-132,9153	-2,138E-13	3-1
3	15	ULS2		322,7326	-2,891E-16	3-1
3	14	ULS2		-161,2077	4,474E-16	3-1
3	15	ENVELOPE_ ULS	Max	322,7326	1,646E-13	3-1
3	14	ENVELOPE_ ULS	Max	-132,9153	4,474E-16	3-1
3	15	ENVELOPE_ ULS	Min	251,7325	-2,891E-16	3-1
3	14	ENVELOPE_ ULS	Min	-161,2077	-2,138E-13	3-1
3	15	SLS		186,4685	1,219E-13	3-1
3	14	SLS		-98,4558	-1,584E-13	3-1
4	14	USL1		132,9153	2,428E-13	4-1
4	13	USL1		-49,8938	-2,420E-13	4-1
4	14	ULS2		161,2077	-4,474E-16	4-1
4	13	ULS2		18,5781	5,874E-16	4-1
4	14	ENVELOPE_ ULS	Max	161,2077	2,428E-13	4-1
4	13	ENVELOPE_ ULS	Max	18,5781	5,874E-16	4-1
4	14	ENVELOPE_ ULS	Min	132,9153	-4,474E-16	4-1
4	13	ENVELOPE_ ULS	Min	-49,8938	-2,420E-13	4-1
4	14	SLS		98,4558	1,799E-13	4-1
4	13	SLS		-36,9584	-1,793E-13	4-1
5	13	USL1		49,8938	2,379E-13	5-1
5	12	USL1		492,8840	-2,027E-13	5-1
5	13	ULS2		-18,5781	-5,874E-16	5-1
5	12	ULS2		523,1095	7,274E-16	5-1
5	13	ENVELOPE_ ULS	Max	49,8938	2,379E-13	5-1
5	12	ENVELOPE_ ULS	Max	523,1095	7,274E-16	5-1
5	13	ENVELOPE_ ULS	Min	-18,5781	-5,874E-16	5-1
5	12	ENVELOPE_ ULS	Min	492,8840	-2,027E-13	5-1
5	13	SLS		36,9584	1,762E-13	5-1
5	12	SLS		365,0993	-1,502E-13	5-1
6	12	USL1		-492,8840	2,010E-13	6-1
6	3	USL1		1047,9567	-1,432E-13	6-1
6	12	ULS2		-523,1095	-7,274E-16	6-1
6	3	ULS2		1065,1148	8,427E-16	6-1
6	12	ENVELOPE_ ULS	Max	-492,8840	2,010E-13	6-1
6	3	ENVELOPE_ ULS	Max	1065,1148	8,427E-16	6-1
6	12	ENVELOPE_ ULS	Min	-523,1095	-7,274E-16	6-1
6	3	ENVELOPE_ ULS	Min	1047,9567	-1,432E-13	6-1
6	12	SLS		-365,0993	1,489E-13	6-1
6	3	SLS		776,2642	-1,061E-13	6-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
9	5	USL1		142,4204	2,118E-13	9-1
9	6	USL1		-113,0994	-1,586E-13	9-1
9	5	ULS2		118,2887	-3,909E-16	9-1
9	6	ULS2		-154,3413	2,806E-16	9-1
9	5	ENVELOPE_ ULS	Max	142,4204	2,118E-13	9-1
9	6	ENVELOPE_ ULS	Max	-113,0994	2,806E-16	9-1
9	5	ENVELOPE_ ULS	Min	118,2887	-3,909E-16	9-1
9	6	ENVELOPE_ ULS	Min	-154,3413	-1,586E-13	9-1
9	5	SLS		105,4966	1,569E-13	9-1
9	6	SLS		-83,7773	-1,175E-13	9-1
10	6	USL1		113,0994	1,824E-13	10-1
10	7	USL1		-89,5419	-1,089E-13	10-1
10	6	ULS2		154,3413	-2,806E-16	10-1
10	7	ULS2		-175,9934	1,634E-16	10-1
10	6	ENVELOPE_ ULS	Max	154,3413	1,824E-13	10-1
10	7	ENVELOPE_ ULS	Max	-89,5419	1,634E-16	10-1
10	6	ENVELOPE_ ULS	Min	113,0994	-2,806E-16	10-1
10	7	ENVELOPE_ ULS	Min	-175,9934	-1,089E-13	10-1
10	6	SLS		83,7773	1,351E-13	10-1
10	7	SLS		-66,3273	-8,070E-14	10-1
11	7	USL1		89,5419	1,153E-13	11-1
11	11	USL1		-77,0932	-5,396E-15	11-1
11	7	ULS2		175,9934	-1,634E-16	11-1
11	11	ULS2		-185,4201	-5,205E-19	11-1
11	7	ENVELOPE_ ULS	Max	175,9934	1,153E-13	11-1
11	11	ENVELOPE_ ULS	Max	-77,0932	-5,205E-19	11-1
11	7	ENVELOPE_ ULS	Min	89,5419	-1,634E-16	11-1
11	11	ENVELOPE_ ULS	Min	-185,4201	-5,396E-15	11-1
11	7	SLS		66,3273	8,542E-14	11-1
11	11	SLS		-57,1061	-3,997E-15	11-1
12	17	USL1		-412,4008	1,011E-13	12-1
12	18	USL1		305,0617	-1,781E-13	12-1
12	17	ULS2		-503,2722	1,491E-18	12-1
12	18	ULS2		416,9425	1,208E-16	12-1
12	17	ENVELOPE_ ULS	Max	-412,4008	1,011E-13	12-1
12	18	ENVELOPE_ ULS	Max	416,9425	1,208E-16	12-1
12	17	ENVELOPE_ ULS	Min	-503,2722	1,491E-18	12-1
12	18	ENVELOPE_ ULS	Min	305,0617	-1,781E-13	12-1
12	17	SLS		-305,4821	7,487E-14	12-1
12	18	SLS		225,9716	-1,320E-13	12-1
13	18	USL1		-305,0617	2,084E-13	13-1
13	19	USL1		271,1019	-2,860E-13	13-1
13	18	ULS2		-416,9425	-1,208E-16	13-1
13	19	ULS2		335,0118	2,861E-16	13-1
13	18	ENVELOPE_ ULS	Max	-305,0617	2,084E-13	13-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
13	19	ENVELOPE_ ULS	Max	335,0118	2,861E-16	13-1
13	18	ENVELOPE_ ULS	Min	-416,9425	-1,208E-16	13-1
13	19	ENVELOPE_ ULS	Min	271,1019	-2,860E-13	13-1
13	18	SLS		-225,9716	1,544E-13	13-1
13	19	SLS		200,8162	-2,119E-13	13-1
14	19	USL1		-271,1019	2,819E-13	14-1
14	20	USL1		161,2559	-3,134E-13	14-1
14	19	ULS2		-335,0118	-2,861E-16	14-1
14	20	ULS2		178,5878	4,444E-16	14-1
14	19	ENVELOPE_ ULS	Max	-271,1019	2,819E-13	14-1
14	20	ENVELOPE_ ULS	Max	178,5878	4,444E-16	14-1
14	19	ENVELOPE_ ULS	Min	-335,0118	-2,861E-16	14-1
14	20	ENVELOPE_ ULS	Min	161,2559	-3,134E-13	14-1
14	19	SLS		-200,8162	2,088E-13	14-1
14	20	SLS		119,4488	-2,321E-13	14-1
15	20	USL1		-161,2559	2,931E-13	15-1
15	21	USL1		-74,4777	-2,452E-13	15-1
15	20	ULS2		-178,5878	-4,444E-16	15-1
15	21	ULS2		-95,3690	5,917E-16	15-1
15	20	ENVELOPE_ ULS	Max	-161,2559	2,931E-13	15-1
15	21	ENVELOPE_ ULS	Max	-74,4777	5,917E-16	15-1
15	20	ENVELOPE_ ULS	Min	-178,5878	-4,444E-16	15-1
15	21	ENVELOPE_ ULS	Min	-95,3690	-2,452E-13	15-1
15	20	SLS		-119,4488	2,171E-13	15-1
15	21	SLS		-55,1687	-1,816E-13	15-1
16	21	USL1		74,4777	2,393E-13	16-1
16	22	USL1		-465,7534	-1,525E-13	16-1
16	21	ULS2		95,3690	-5,917E-16	16-1
16	22	ULS2		-506,8497	7,244E-16	16-1
16	21	ENVELOPE_ ULS	Max	95,3690	2,393E-13	16-1
16	22	ENVELOPE_ ULS	Max	-465,7534	7,244E-16	16-1
16	21	ENVELOPE_ ULS	Min	74,4777	-5,917E-16	16-1
16	22	ENVELOPE_ ULS	Min	-506,8497	-1,525E-13	16-1
16	21	SLS		55,1687	1,772E-13	16-1
16	22	SLS		-345,0025	-1,130E-13	16-1
17	22	USL1		465,7534	1,480E-13	17-1
17	4	USL1		-1047,7047	-1,058E-13	17-1
17	22	ULS2		506,8497	-7,244E-16	17-1
17	4	ULS2		-1067,2603	8,397E-16	17-1
17	22	ENVELOPE_ ULS	Max	506,8497	1,480E-13	17-1
17	4	ENVELOPE_ ULS	Max	-1047,7047	8,397E-16	17-1
17	22	ENVELOPE_ ULS	Min	465,7534	-7,244E-16	17-1
17	4	ENVELOPE_ ULS	Min	-1067,2603	-1,058E-13	17-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
17	22	SLS		345,0025	1,096E-13	17-1
17	4	SLS		-776,0776	-7,834E-14	17-1
20	8	USL1		-155,9268	1,152E-13	20-1
20	9	USL1		122,6757	-1,433E-13	20-1
20	8	ULS2		-124,6309	-3,880E-16	20-1
20	9	ULS2		158,7860	2,776E-16	20-1
20	8	ENVELOPE_ ULS	Max	-124,6309	1,152E-13	20-1
20	9	ENVELOPE_ ULS	Max	158,7860	2,776E-16	20-1
20	8	ENVELOPE_ ULS	Min	-155,9268	-3,880E-16	20-1
20	9	ENVELOPE_ ULS	Min	122,6757	-1,433E-13	20-1
20	8	SLS		-115,5013	8,537E-14	20-1
20	9	SLS		90,8709	-1,062E-13	20-1
21	9	USL1		-122,6757	1,007E-13	21-1
21	10	USL1		95,0189	-6,579E-14	21-1
21	9	ULS2		-158,7860	-2,776E-16	21-1
21	10	ULS2		178,4981	1,605E-16	21-1
21	9	ENVELOPE_ ULS	Max	-122,6757	1,007E-13	21-1
21	10	ENVELOPE_ ULS	Max	178,4981	1,605E-16	21-1
21	9	ENVELOPE_ ULS	Min	-158,7860	-2,776E-16	21-1
21	10	ENVELOPE_ ULS	Min	95,0189	-6,579E-14	21-1
21	9	SLS		-90,8709	7,457E-14	21-1
21	10	SLS		70,3844	-4,873E-14	21-1
22	10	USL1		-95,0189	7,025E-14	22-1
22	11	USL1		77,0932	2,038E-14	22-1
22	10	ULS2		-178,4981	-1,605E-16	22-1
22	11	ULS2		185,4201	5,205E-19	22-1
22	10	ENVELOPE_ ULS	Max	-95,0189	7,025E-14	22-1
22	11	ENVELOPE_ ULS	Max	185,4201	2,038E-14	22-1
22	10	ENVELOPE_ ULS	Min	-178,4981	-1,605E-16	22-1
22	11	ENVELOPE_ ULS	Min	77,0932	5,205E-19	22-1
22	10	SLS		-70,3844	5,203E-14	22-1
22	11	SLS		57,1061	1,510E-14	22-1
23	3	USL1		-1047,9567	1,502E-13	23-1
23	28	USL1		588,8226	-1,496E-13	23-1
23	3	ULS2		-1065,1148	-8,427E-16	23-1
23	28	ULS2		814,4136	8,427E-16	23-1
23	3	ENVELOPE_ ULS	Max	-1047,9567	1,502E-13	23-1
23	28	ENVELOPE_ ULS	Max	814,4136	8,427E-16	23-1
23	3	ENVELOPE_ ULS	Min	-1065,1148	-8,427E-16	23-1
23	28	ENVELOPE_ ULS	Min	588,8226	-1,496E-13	23-1
23	3	SLS		-776,2642	1,113E-13	23-1
23	28	SLS		436,1649	-1,108E-13	23-1
24	28	USL1		-588,8226	1,514E-13	24-1
24	26	USL1		488,4288	-1,514E-13	24-1
24	28	ULS2		-814,4136	-8,427E-16	24-1
24	26	ULS2		754,4910	8,427E-16	24-1



Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
24	28	ENVELOPE_ ULS	Max	-588,8226	1,514E-13	24-1
24	26	ENVELOPE_ ULS	Max	754,4910	8,427E-16	24-1
24	28	ENVELOPE_ ULS	Min	-814,4136	-8,427E-16	24-1
24	26	ENVELOPE_ ULS	Min	488,4288	-1,514E-13	24-1
24	28	SLS		-436,1649	1,122E-13	24-1
24	26	SLS		361,7991	-1,122E-13	24-1
25	26	USL1		-488,4288	1,514E-13	25-1
25	24	USL1		699,2349	-1,514E-13	25-1
25	26	ULS2		-754,4910	-8,427E-16	25-1
25	24	ULS2		862,0038	8,427E-16	25-1
25	26	ENVELOPE_ ULS	Max	-488,4288	1,514E-13	25-1
25	24	ENVELOPE_ ULS	Max	862,0038	8,427E-16	25-1
25	26	ENVELOPE_ ULS	Min	-754,4910	-8,427E-16	25-1
25	24	ENVELOPE_ ULS	Min	699,2349	-1,514E-13	25-1
25	26	SLS		-361,7991	1,122E-13	25-1
25	24	SLS		517,9518	-1,122E-13	25-1
26	24	USL1		-699,2349	1,484E-13	26-1
26	1	USL1		1171,1057	-1,484E-13	26-1
26	24	ULS2		-862,0038	-8,427E-16	26-1
26	1	ULS2		1110,8816	8,427E-16	26-1
26	24	ENVELOPE_ ULS	Max	-699,2349	1,484E-13	26-1
26	1	ENVELOPE_ ULS	Max	1171,1057	8,427E-16	26-1
26	24	ENVELOPE_ ULS	Min	-862,0038	-8,427E-16	26-1
26	1	ENVELOPE_ ULS	Min	1110,8816	-1,484E-13	26-1
26	24	SLS		-517,9518	1,100E-13	26-1
26	1	SLS		867,4857	-1,100E-13	26-1
27	4	USL1		1047,7047	1,059E-13	27-1
27	29	USL1		-564,7362	-1,059E-13	27-1
27	4	ULS2		1067,2603	-8,397E-16	27-1
27	29	ULS2		-805,3465	8,397E-16	27-1
27	4	ENVELOPE_ ULS	Max	1067,2603	1,059E-13	27-1
27	29	ENVELOPE_ ULS	Max	-564,7362	8,397E-16	27-1
27	4	ENVELOPE_ ULS	Min	1047,7047	-8,397E-16	27-1
27	29	ENVELOPE_ ULS	Min	-805,3465	-1,059E-13	27-1
27	4	SLS		776,0776	7,843E-14	27-1
27	29	SLS		-418,3231	-7,843E-14	27-1
28	29	USL1		564,7362	1,059E-13	28-1
28	27	USL1		-462,8695	-1,059E-13	28-1
28	29	ULS2		805,3465	-8,397E-16	28-1
28	27	ULS2		-744,3743	8,397E-16	28-1
28	29	ENVELOPE_ ULS	Max	805,3465	1,059E-13	28-1
28	27	ENVELOPE_ ULS	Max	-462,8695	8,397E-16	28-1
28	29	ENVELOPE_ ULS	Min	564,7362	-8,397E-16	28-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
28	27	ENVELOPE_ ULS	Min	-744,3743	-1,059E-13	28-1
28	29	SLS		418,3231	7,843E-14	28-1
28	27	SLS		-342,8663	-7,843E-14	28-1
29	27	USL1		462,8695	1,059E-13	29-1
29	25	USL1		-671,4304	-1,059E-13	29-1
29	27	ULS2		744,3743	-8,397E-16	29-1
29	25	ULS2		-849,7303	8,397E-16	29-1
29	27	ENVELOPE_ ULS	Max	744,3743	1,059E-13	29-1
29	25	ENVELOPE_ ULS	Max	-671,4304	8,397E-16	29-1
29	27	ENVELOPE_ ULS	Min	462,8695	-8,397E-16	29-1
29	25	ENVELOPE_ ULS	Min	-849,7303	-1,059E-13	29-1
29	27	SLS		342,8663	7,843E-14	29-1
29	25	SLS		-497,3558	-7,843E-14	29-1
30	25	USL1		671,4304	1,089E-13	30-1
30	2	USL1		-1141,9874	-1,089E-13	30-1
30	25	ULS2		849,7303	-8,397E-16	30-1
30	2	ULS2		-1097,2512	8,397E-16	30-1
30	25	ENVELOPE_ ULS	Max	849,7303	1,089E-13	30-1
30	2	ENVELOPE_ ULS	Max	-1097,2512	8,397E-16	30-1
30	25	ENVELOPE_ ULS	Min	671,4304	-8,397E-16	30-1
30	2	ENVELOPE_ ULS	Min	-1141,9874	-1,089E-13	30-1
30	25	SLS		497,3558	8,065E-14	30-1
30	2	SLS		-845,9166	-8,065E-14	30-1
33	30	USL1		-119,0083	1,927E-13	33-1
33	31	USL1		-96,5397	-2,207E-13	33-1
33	30	ULS2		-209,5459	-6,168E-16	33-1
33	31	ULS2		-15,4901	5,039E-16	33-1
33	30	ENVELOPE_ ULS	Max	-119,0083	1,927E-13	33-1
33	31	ENVELOPE_ ULS	Max	-15,4901	5,039E-16	33-1
33	30	ENVELOPE_ ULS	Min	-209,5459	-6,168E-16	33-1
33	31	ENVELOPE_ ULS	Min	-96,5397	-2,207E-13	33-1
33	30	SLS		-88,1543	1,428E-13	33-1
33	31	SLS		-71,5109	-1,635E-13	33-1
34	31	USL1		96,5397	2,142E-13	34-1
34	5	USL1		-142,4204	-2,298E-13	34-1
34	31	ULS2		15,4901	-5,039E-16	34-1
34	5	ULS2		-118,2887	3,909E-16	34-1
34	31	ENVELOPE_ ULS	Max	96,5397	2,142E-13	34-1
34	5	ENVELOPE_ ULS	Max	-118,2887	3,909E-16	34-1
34	31	ENVELOPE_ ULS	Min	15,4901	-5,039E-16	34-1
34	5	ENVELOPE_ ULS	Min	-142,4204	-2,298E-13	34-1
34	31	SLS		71,5109	1,587E-13	34-1
34	5	SLS		-105,4966	-1,702E-13	34-1
35	1	USL1		-1171,1057	1,535E-13	35-1
35	32	USL1		530,9167	-1,923E-13	35-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
35	1	ULS2		-1110,8816	-8,427E-16	35-1
35	32	ULS2		576,6626	7,298E-16	35-1
35	1	ENVELOPE_ ULS	Max	-1110,8816	1,535E-13	35-1
35	32	ENVELOPE_ ULS	Max	576,6626	7,298E-16	35-1
35	1	ENVELOPE_ ULS	Min	-1171,1057	-8,427E-16	35-1
35	32	ENVELOPE_ ULS	Min	530,9167	-1,923E-13	35-1
35	1	SLS		-867,4857	1,137E-13	35-1
35	32	SLS		393,2716	-1,425E-13	35-1
36	32	USL1		-530,9167	1,907E-13	36-1
36	30	USL1		119,0083	-2,056E-13	36-1
36	32	ULS2		-576,6626	-7,298E-16	36-1
36	30	ULS2		209,5459	6,168E-16	36-1
36	32	ENVELOPE_ ULS	Max	-530,9167	1,907E-13	36-1
36	30	ENVELOPE_ ULS	Max	209,5459	6,168E-16	36-1
36	32	ENVELOPE_ ULS	Min	-576,6626	-7,298E-16	36-1
36	30	ENVELOPE_ ULS	Min	119,0083	-2,056E-13	36-1
36	32	SLS		-393,2716	1,412E-13	36-1
36	30	SLS		88,1543	-1,523E-13	36-1
39	33	USL1		97,6775	1,181E-13	39-1
39	34	USL1		113,9768	-1,188E-13	39-1
39	33	ULS2		199,5411	-6,138E-16	39-1
39	34	ULS2		23,6820	5,009E-16	39-1
39	33	ENVELOPE_ ULS	Max	199,5411	1,181E-13	39-1
39	34	ENVELOPE_ ULS	Max	113,9768	5,009E-16	39-1
39	33	ENVELOPE_ ULS	Min	97,6775	-6,138E-16	39-1
39	34	ENVELOPE_ ULS	Min	23,6820	-1,188E-13	39-1
39	33	SLS		72,3537	8,747E-14	39-1
39	34	SLS		84,4273	-8,800E-14	39-1
40	34	USL1		-113,9768	1,350E-13	40-1
40	8	USL1		155,9268	-1,213E-13	40-1
40	34	ULS2		-23,6820	-5,009E-16	40-1
40	8	ULS2		124,6309	3,880E-16	40-1
40	34	ENVELOPE_ ULS	Max	-23,6820	1,350E-13	40-1
40	8	ENVELOPE_ ULS	Max	155,9268	3,880E-16	40-1
40	34	ENVELOPE_ ULS	Min	-113,9768	-5,009E-16	40-1
40	8	ENVELOPE_ ULS	Min	124,6309	-1,213E-13	40-1
40	34	SLS		-84,4273	9,999E-14	40-1
40	8	SLS		115,5013	-8,986E-14	40-1
41	2	USL1		1141,9874	1,185E-13	41-1
41	35	USL1		-505,6921	-1,108E-13	41-1
41	2	ULS2		1097,2512	-8,397E-16	41-1
41	35	ULS2		-564,8451	7,268E-16	41-1
41	2	ENVELOPE_ ULS	Max	1141,9874	1,185E-13	41-1
41	35	ENVELOPE_ ULS	Max	-505,6921	7,268E-16	41-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
41	2	ENVELOPE_	Min	1097,2512	-8,397E-16	41-1
		ULS				
41	35	ENVELOPE_	Min	-564,8451	-1,108E-13	41-1
		ULS				
41	2	SLS		845,9166	8,775E-14	41-1
41	35	SLS		-374,5867	-8,206E-14	41-1
42	35	USL1		505,6921	9,999E-14	42-1
42	33	USL1		-97,6775	-8,632E-14	42-1
42	35	ULS2		564,8451	-7,268E-16	42-1
42	33	ULS2		-199,5411	6,138E-16	42-1
42	35	ENVELOPE_	Max	564,8451	9,999E-14	42-1
		ULS				
42	33	ENVELOPE_	Max	-97,6775	6,138E-16	42-1
		ULS				
42	35	ENVELOPE_	Min	505,6921	-7,268E-16	42-1
		ULS				
42	33	ENVELOPE_	Min	-199,5411	-8,632E-14	42-1
		ULS				
42	35	SLS		374,5867	7,407E-14	42-1
42	33	SLS		-72,3537	-6,394E-14	42-1

Table: Frame Loads - Distributed, Part 1 of 3

Table: Frame Loads - Distributed, Part 1 of 3

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
1	HYDROSTATIC	Local	Force	2	RelDist	0,0000
2	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
2	HYDROSTATIC	Local	Force	2	RelDist	0,0000
3	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
3	HYDROSTATIC	Local	Force	2	RelDist	0,0000
4	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
4	HYDROSTATIC	Local	Force	2	RelDist	0,0000
5	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
5	HYDROSTATIC	Local	Force	2	RelDist	0,0000
6	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
6	HYDROSTATIC	Local	Force	2	RelDist	0,0000
9	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
9	HYDROSTATIC	Local	Force	2	RelDist	0,0000
9	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
10	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
10	HYDROSTATIC	Local	Force	2	RelDist	0,0000
10	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
11	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
11	HYDROSTATIC	Local	Force	2	RelDist	0,0000
11	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	SX					
12	HYDROSTATIC	Local	Force	2	RelDist	0,0000
13	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	DX					
13	HYDROSTATIC	Local	Force	2	RelDist	0,0000
14	EARTH_PRESSURE	GLOBAL	Force	X	RelDist	0,0000
	DX					
14	HYDROSTATIC	Local	Force	2	RelDist	0,0000

Table: Frame Loads - Distributed, Part 1 of 3

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
15	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
15	HYDROSTATIC	Local	Force	2	RelDist	0,0000
16	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
16	HYDROSTATIC	Local	Force	2	RelDist	0,0000
17	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
17	HYDROSTATIC	Local	Force	2	RelDist	0,0000
20	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
20	HYDROSTATIC	Local	Force	2	RelDist	0,0000
20	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
21	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
21	HYDROSTATIC	Local	Force	2	RelDist	0,0000
21	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
22	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
22	HYDROSTATIC	Local	Force	2	RelDist	0,0000
22	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
23	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
23	HYDROSTATIC	Local	Force	2	RelDist	0,0000
24	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
24	HYDROSTATIC	Local	Force	2	RelDist	0,0000
25	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
25	HYDROSTATIC	Local	Force	2	RelDist	0,0000
26	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
26	HYDROSTATIC	Local	Force	2	RelDist	0,0000
27	HYDROSTATIC	Local	Force	2	RelDist	0,0000
27	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
28	HYDROSTATIC	Local	Force	2	RelDist	0,0000
28	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
29	HYDROSTATIC	Local	Force	2	RelDist	0,0000
29	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
30	HYDROSTATIC	Local	Force	2	RelDist	0,0000
30	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
33	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
33	HYDROSTATIC	Local	Force	2	RelDist	0,0000
33	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
34	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
34	HYDROSTATIC	Local	Force	2	RelDist	0,0000
34	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
35	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
35	HYDROSTATIC	Local	Force	2	RelDist	0,0000
35	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
36	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
36	HYDROSTATIC	Local	Force	2	RelDist	0,0000
36	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
39	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000

**Table: Frame Loads - Distributed, Part 1 of 3**

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
39	HYDROSTATIC	Local	Force	2	RelDist	0,0000
39	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
40	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
40	HYDROSTATIC	Local	Force	2	RelDist	0,0000
40	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
41	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
41	HYDROSTATIC	Local	Force	2	RelDist	0,0000
41	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
42	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
42	HYDROSTATIC	Local	Force	2	RelDist	0,0000
42	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000

**Table: Frame Loads - Distributed, Part 2 of 3**

**Table: Frame Loads - Distributed, Part 2 of 3**

Frame	LoadPat	RelDistB	AbsDistA m	AbsDistB m	FOverLA KN/m	FOverLB KN/m
1	HYDROSTATIC	1,0000	0,00000	0,98121	-120,00	-120,00
2	EARTH_PRESSURE SX	1,0000	0,00000	1,35185	97,00	97,00
2	HYDROSTATIC	1,0000	0,00000	1,35185	-120,00	-117,70
3	EARTH_PRESSURE SX	1,0000	0,00000	1,35185	97,00	95,10
3	HYDROSTATIC	1,0000	0,00000	1,35185	-117,70	-113,60
4	EARTH_PRESSURE SX	1,0000	0,00000	1,34768	95,10	91,70
4	HYDROSTATIC	1,0000	0,00000	1,34768	-113,60	-107,80
5	EARTH_PRESSURE SX	1,0000	0,00000	1,34768	91,70	86,80
5	HYDROSTATIC	1,0000	0,00000	1,34768	-107,80	-100,40
6	EARTH_PRESSURE SX	1,0000	0,00000	1,35845	86,80	80,70
6	HYDROSTATIC	1,0000	0,00000	1,35845	-100,40	-91,50
9	EARTH	1,0000	0,00000	0,98074	92,40	92,40
9	HYDROSTATIC	1,0000	0,00000	0,98074	-27,40	-23,70
9	EARTH_PRESSURE SX	1,0000	0,00000	0,98074	23,60	16,90
10	EARTH	1,0000	0,00000	0,98074	88,20	88,20
10	HYDROSTATIC	1,0000	0,00000	0,98074	-23,70	-21,20
10	EARTH_PRESSURE SX	1,0000	0,00000	0,98074	16,90	14,80
11	EARTH	1,0000	0,00000	1,32265	84,00	84,00
11	HYDROSTATIC	1,0000	0,00000	1,32265	-21,20	-20,00
11	EARTH_PRESSURE SX	1,0000	0,00000	1,32265	14,80	13,80
12	HYDROSTATIC	1,0000	0,00000	0,98121	-120,00	-120,00
13	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-97,80	-97,80
13	HYDROSTATIC	1,0000	0,00000	1,35185	-120,00	-117,70
14	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-97,80	-95,10
14	HYDROSTATIC	1,0000	0,00000	1,35185	-117,70	-113,60
15	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-95,10	-91,70
15	HYDROSTATIC	1,0000	0,00000	1,35185	-113,60	-107,80
16	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-91,70	-86,80

Table: Frame Loads - Distributed, Part 2 of 3

Frame	LoadPat	RelDistB	AbsDistA	AbsDistB	FOverLA	FOverLB
			m	m	KN/m	KN/m
16	HYDROSTATIC	1,0000	0,00000	1,35185	-107,80	-100,40
17	EARTH_PRESSURE DX	1,0000	0,00000	1,32325	-86,80	-80,70
17	HYDROSTATIC	1,0000	0,00000	1,32325	-100,40	-91,50
20	EARTH	1,0000	0,00000	0,98074	92,40	92,40
20	HYDROSTATIC	1,0000	0,00000	0,98074	-27,40	-23,70
20	EARTH_PRESSURE DX	1,0000	0,00000	0,98074	-23,90	-16,90
21	EARTH	1,0000	0,00000	0,98074	88,20	88,20
21	HYDROSTATIC	1,0000	0,00000	0,98074	-23,70	-21,20
21	EARTH_PRESSURE DX	1,0000	0,00000	0,98074	-16,90	-14,80
22	EARTH	1,0000	0,00000	1,29056	84,00	84,00
22	HYDROSTATIC	1,0000	0,00000	1,29056	-21,20	-20,00
22	EARTH_PRESSURE DX	1,0000	0,00000	1,29056	-14,80	-13,80
23	EARTH_PRESSURE SX	1,0000	0,00000	1,27783	80,70	73,30
23	HYDROSTATIC	1,0000	0,00000	1,27783	-91,50	-80,10
24	EARTH_PRESSURE SX	1,0000	0,00000	1,28000	73,30	63,80
24	HYDROSTATIC	1,0000	0,00000	1,28000	-80,10	-68,80
25	EARTH_PRESSURE SX	1,0000	0,00000	1,28000	63,80	54,40
25	HYDROSTATIC	1,0000	0,00000	1,28000	-68,80	-57,40
26	EARTH_PRESSURE SX	1,0000	0,00000	1,28000	54,40	44,90
26	HYDROSTATIC	1,0000	0,00000	1,28000	-57,40	-46,00
27	HYDROSTATIC	1,0000	0,00000	1,32648	-91,50	-80,10
27	EARTH_PRESSURE DX	1,0000	0,00000	1,32648	-80,70	-73,30
28	HYDROSTATIC	1,0000	0,00000	1,28000	-80,10	-68,80
28	EARTH_PRESSURE DX	1,0000	0,00000	1,28000	-73,30	-63,80
29	HYDROSTATIC	1,0000	0,00000	1,28000	-68,80	-57,40
29	EARTH_PRESSURE DX	1,0000	0,00000	1,28000	-63,80	-54,90
30	HYDROSTATIC	1,0000	0,00000	1,28000	-57,40	-46,00
30	EARTH_PRESSURE DX	1,0000	0,00000	1,28000	-54,90	-44,90
33	EARTH	1,0000	0,00000	1,04645	102,80	102,80
33	HYDROSTATIC	1,0000	0,00000	1,04645	-36,70	-32,10
33	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	31,60	27,70
34	EARTH	1,0000	0,00000	1,04645	97,40	97,40
34	HYDROSTATIC	1,0000	0,00000	1,04645	-32,10	-27,40
34	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	27,70	23,60
35	EARTH	1,0000	0,00000	1,04645	113,30	113,30
35	HYDROSTATIC	1,0000	0,00000	1,04645	-46,00	-41,40
35	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	44,90	35,50
36	EARTH	1,0000	0,00000	1,04645	107,90	107,90
36	HYDROSTATIC	1,0000	0,00000	1,04645	-41,40	-36,70
36	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	35,50	31,60
39	EARTH	1,0000	0,00000	1,04645	102,80	102,80
39	HYDROSTATIC	1,0000	0,00000	1,04645	-36,70	-32,10
39	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-31,60	-27,70
40	EARTH	1,0000	0,00000	1,04645	97,40	97,40
40	HYDROSTATIC	1,0000	0,00000	1,04645	-32,10	-27,40

**Table: Frame Loads - Distributed, Part 2 of 3**

Frame	LoadPat	RelDistB	AbsDistA m	AbsDistB m	FOverLA KN/m	FOverLB KN/m
40	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-27,70	-23,90
41	EARTH	1,0000	0,00000	1,04645	113,30	113,30
41	HYDROSTATIC	1,0000	0,00000	1,04645	-46,00	-41,40
41	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-44,90	-35,50
42	EARTH	1,0000	0,00000	1,04645	107,90	107,90
42	HYDROSTATIC	1,0000	0,00000	1,04645	-41,40	-36,70
42	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-35,50	-31,60

**Table: Frame Loads - Distributed, Part 3 of 3**

**Table: Frame Loads - Distributed, Part 3 of 3**

Frame	LoadPat	GUID
1	HYDROSTATIC	
2	EARTH_PRESSURE SX	
2	HYDROSTATIC	
3	EARTH_PRESSURE SX	
3	HYDROSTATIC	
4	EARTH_PRESSURE SX	
4	HYDROSTATIC	
5	EARTH_PRESSURE SX	
5	HYDROSTATIC	
6	EARTH_PRESSURE SX	
6	HYDROSTATIC	
9	EARTH	
9	HYDROSTATIC	
9	EARTH_PRESSURE SX	
10	EARTH	
10	HYDROSTATIC	
10	EARTH_PRESSURE SX	
11	EARTH	
11	HYDROSTATIC	
11	EARTH_PRESSURE SX	
12	HYDROSTATIC	
13	EARTH_PRESSURE DX	
13	HYDROSTATIC	
14	EARTH_PRESSURE DX	
14	HYDROSTATIC	
15	EARTH_PRESSURE DX	
15	HYDROSTATIC	
16	EARTH_PRESSURE DX	
16	HYDROSTATIC	
17	EARTH_PRESSURE DX	
17	HYDROSTATIC	
20	EARTH	



**Table: Frame Loads - Distributed, Part 3 of 3**

Frame	LoadPat	GUID
20	HYDROSTATIC	
20	EARTH_PRESSURE DX	
21	EARTH	
21	HYDROSTATIC	
21	EARTH_PRESSURE DX	
22	EARTH	
22	HYDROSTATIC	
22	EARTH_PRESSURE DX	
23	EARTH_PRESSURE SX	
23	HYDROSTATIC	
24	EARTH_PRESSURE SX	
24	HYDROSTATIC	
25	EARTH_PRESSURE SX	
25	HYDROSTATIC	
26	EARTH_PRESSURE SX	
26	HYDROSTATIC	
27	HYDROSTATIC	
27	EARTH_PRESSURE DX	
28	HYDROSTATIC	
28	EARTH_PRESSURE DX	
29	HYDROSTATIC	
29	EARTH_PRESSURE DX	
30	HYDROSTATIC	
30	EARTH_PRESSURE DX	
33	EARTH	
33	HYDROSTATIC	
33	EARTH_PRESSURE SX	
34	EARTH	
34	HYDROSTATIC	
34	EARTH_PRESSURE SX	
35	EARTH	
35	HYDROSTATIC	
35	EARTH_PRESSURE SX	
36	EARTH	
36	HYDROSTATIC	
36	EARTH_PRESSURE SX	
39	EARTH	
39	HYDROSTATIC	
39	EARTH_PRESSURE DX	
40	EARTH	
40	HYDROSTATIC	
40	EARTH_PRESSURE DX	
41	EARTH	
41	HYDROSTATIC	

**Table: Frame Loads - Distributed, Part 3 of 3**

Frame	LoadPat	GUID
41	EARTH_PRESSURE DX	
42	EARTH	
42	HYDROSTATIC	
42	EARTH_PRESSURE DX	

**Table: Joint Spring Assignments 1 - Uncoupled**

**Table: Joint Spring Assignments 1 - Uncoupled**

Joint	CoordSys	U1	U2	U3	R1	R2	R3
		KN/m	KN/m	KN/m	KN-m/rad	KN-m/rad	KN-m/rad
1	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
2	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
3	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
3	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
4	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
4	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
12	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
13	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
14	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
15	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
16	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
17	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
18	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
19	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
20	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
21	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
22	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
24	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
25	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
26	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
27	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
28	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
29	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000

**Table: Load Pattern Definitions**

**Table: Load Pattern Definitions**

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
DEAD	DEAD	1,000000			
EARTH	DEAD	0,000000			
EARTH_PRESSURE DX	DEAD	0,000000			
EARTH_PRESSURE SX	DEAD	0,000000			
HYDROSTATIC	DEAD	0,000000			

**Table: Combination Definitions, Part 1 of 3**

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
USL1	Linear Add	No	Linear Static	EARTH	1,000000	None
USL1			Linear Static	EARTH_PRESSURE DX	1,000000	
USL1			Linear Static	HYDROSTATIC	1,000000	
USL1			Linear Static	DEAD	1,000000	
USL1			Linear Static	DINAMIC EARTH PRESSURE	1,000000	
USL1			Linear Static	INERTIA	1,000000	
ULS2	Linear Add	No	Linear Static	DEAD	1,000000	None
ULS2			Linear Static	EARTH	1,000000	
ULS2			Linear Static	EARTH_PRESSURE DX	1,000000	
ULS2			Linear Static	DINAMIC EARTH PRESSURE	1,000000	
ULS2			Linear Static	INERTIA	1,000000	
ENVELOPE_ULS	Envelope	No	Response Combo	ULS2	1,000000	None
ENVELOPE_ULS			Response Combo	USL1	1,000000	

**Table: Combination Definitions, Part 2 of 3**

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
USL1	EARTH	None	None	None
USL1	EARTH_PRESSURE DX			
USL1	HYDROSTATIC			
USL1	DEAD			
USL1	DINAMIC EARTH PRESSURE			
USL1	INERTIA			
ULS2	DEAD	None	None	None
ULS2	EARTH			
ULS2	EARTH_PRESSURE DX			
ULS2	DINAMIC EARTH PRESSURE			
ULS2	INERTIA			
ENVELOPE_ULS	ULS2	None	None	None
ENVELOPE_ULS	USL1			

**Table: Combination Definitions, Part 3 of 3**

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
USL1	EARTH		
USL1	EARTH_PRESSURE DX		
USL1	HYDROSTATIC		
USL1	DEAD		
USL1	DINAMIC EARTH PRESSURE		
USL1	INERTIA		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
ULS2	DEAD		
ULS2	EARTH		
ULS2	EARTH_PRESSURE DX		
ULS2	DINAMIC EARTH PRESSURE		
ULS2	INERTIA		
ENVELOPE_ULS	ULS2		
ENVELOPE_ULS	USL1		

Table: Element Forces - Frames, Part 1 of 2

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
1	0,00000	USL1	Combination		-1731,057	171,189	1,682E-13	9,747E-14
1	0,49060	USL1	Combination		-1731,057	218,501	1,668E-13	9,747E-14
1	0,98121	USL1	Combination		-1731,057	265,814	1,654E-13	9,747E-14
1	0,00000	ULS2	Combination		-1208,574	211,684	2,612E-14	6,871E-15
1	0,49060	ULS2	Combination		-1208,574	200,124	2,471E-14	6,871E-15
1	0,98121	ULS2	Combination		-1208,574	188,564	2,329E-14	6,871E-15
1	0,00000	ENVELOPE_ ULS	Combination	Max	-1208,574	211,684	1,682E-13	9,747E-14
1	0,49060	ENVELOPE_ ULS	Combination	Max	-1208,574	218,501	1,668E-13	9,747E-14
1	0,98121	ENVELOPE_ ULS	Combination	Max	-1208,574	265,814	1,654E-13	9,747E-14
1	0,00000	ENVELOPE_ ULS	Combination	Min	-1731,057	171,189	2,612E-14	6,871E-15
1	0,49060	ENVELOPE_ ULS	Combination	Min	-1731,057	200,124	2,471E-14	6,871E-15
1	0,98121	ENVELOPE_ ULS	Combination	Min	-1731,057	188,564	2,329E-14	6,871E-15
2	0,00000	USL1	Combination		-1774,901	3,641	9,893E-14	9,020E-14
2	0,67593	USL1	Combination		-1771,851	68,732	9,702E-14	9,020E-14
2	1,35185	USL1	Combination		-1768,801	133,044	9,510E-14	9,020E-14
2	0,00000	ULS2	Combination		-1263,314	109,986	1,367E-14	6,707E-15
2	0,67593	ULS2	Combination		-1260,264	94,354	1,175E-14	6,707E-15
2	1,35185	ULS2	Combination		-1257,214	78,721	9,838E-15	6,707E-15
2	0,00000	ENVELOPE_ ULS	Combination	Max	-1263,314	109,986	9,893E-14	9,020E-14
2	0,67593	ENVELOPE_ ULS	Combination	Max	-1260,264	94,354	9,702E-14	9,020E-14
2	1,35185	ENVELOPE_ ULS	Combination	Max	-1257,214	133,044	9,510E-14	9,020E-14
2	0,00000	ENVELOPE_ ULS	Combination	Min	-1774,901	3,641	1,367E-14	6,707E-15
2	0,67593	ENVELOPE_ ULS	Combination	Min	-1771,851	68,732	1,175E-14	6,707E-15
2	1,35185	ENVELOPE_ ULS	Combination	Min	-1768,801	78,721	9,838E-15	6,707E-15
3	0,00000	USL1	Combination		-1802,028	-81,617	1,731E-14	6,852E-14
3	0,67593	USL1	Combination		-1796,570	-17,716	1,548E-14	6,852E-14
3	1,35185	USL1	Combination		-1791,112	44,799	1,365E-14	6,852E-14
3	0,00000	ULS2	Combination		-1317,036	23,700	3,100E-15	6,346E-15
3	0,67593	ULS2	Combination		-1311,578	8,737	1,267E-15	6,346E-15
3	1,35185	ULS2	Combination		-1306,121	-6,225	-5,652E-16	6,346E-15
3	0,00000	ENVELOPE_ ULS	Combination	Max	-1317,036	23,700	1,731E-14	6,852E-14
3	0,67593	ENVELOPE_ ULS	Combination	Max	-1311,578	8,737	1,548E-14	6,852E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
3	1,35185	ENVELOPE_	Combination	Max	-1306,121	44,799	1,365E-14	6,852E-14
		ULS						
3	0,00000	ENVELOPE_	Combination	Min	-1802,028	-81,617	3,100E-15	6,346E-15
		ULS						
3	0,67593	ENVELOPE_	Combination	Min	-1796,570	-17,716	1,267E-15	6,346E-15
		ULS						
3	1,35185	ENVELOPE_	Combination	Min	-1791,112	-6,225	-5,652E-16	6,346E-15
		ULS						
4	0,00000	USL1	Combination		-1796,067	-326,853	-2,341E-14	1,789E-14
4	0,67384	USL1	Combination		-1787,295	-264,516	-2,503E-14	1,789E-14
4	1,34768	USL1	Combination		-1778,522	-204,133	-2,665E-14	1,789E-14
4	0,00000	ULS2	Combination		-1359,268	-192,795	-2,341E-14	5,455E-15
4	0,67384	ULS2	Combination		-1350,495	-206,029	-2,503E-14	5,455E-15
4	1,34768	ULS2	Combination		-1341,722	-219,263	-2,665E-14	5,455E-15
4	0,00000	ENVELOPE_	Combination	Max	-1359,268	-192,795	-2,341E-14	1,789E-14
		ULS						
4	0,67384	ENVELOPE_	Combination	Max	-1350,495	-206,029	-2,503E-14	1,789E-14
		ULS						
4	1,34768	ENVELOPE_	Combination	Max	-1341,722	-204,133	-2,665E-14	1,789E-14
		ULS						
4	0,00000	ENVELOPE_	Combination	Min	-1796,067	-326,853	-2,341E-14	5,455E-15
		ULS						
4	0,67384	ENVELOPE_	Combination	Min	-1787,295	-264,516	-2,503E-14	5,455E-15
		ULS						
4	1,34768	ENVELOPE_	Combination	Min	-1778,522	-219,263	-2,665E-14	5,455E-15
		ULS						
5	0,00000	USL1	Combination		-1818,146	-163,000	-4,137E-14	1,789E-14
5	0,67384	USL1	Combination		-1809,373	-104,840	-4,299E-14	1,789E-14
5	1,34768	USL1	Combination		-1800,601	-49,174	-4,461E-14	1,789E-14
5	0,00000	ULS2	Combination		-1428,293	-107,308	-1,294E-14	5,455E-15
5	0,67384	ULS2	Combination		-1419,521	-120,542	-1,456E-14	5,455E-15
5	1,34768	ULS2	Combination		-1410,748	-133,776	-1,619E-14	5,455E-15
5	0,00000	ENVELOPE_	Combination	Max	-1428,293	-107,308	-1,294E-14	1,789E-14
		ULS						
5	0,67384	ENVELOPE_	Combination	Max	-1419,521	-104,840	-1,456E-14	1,789E-14
		ULS						
5	1,34768	ENVELOPE_	Combination	Max	-1410,748	-49,174	-1,619E-14	1,789E-14
		ULS						
5	0,00000	ENVELOPE_	Combination	Min	-1818,146	-163,000	-4,137E-14	5,455E-15
		ULS						
5	0,67384	ENVELOPE_	Combination	Min	-1809,373	-120,542	-4,299E-14	5,455E-15
		ULS						
5	1,34768	ENVELOPE_	Combination	Min	-1800,601	-133,776	-4,461E-14	5,455E-15
		ULS						
6	0,00000	USL1	Combination		-1781,359	-443,658	-1,028E-13	-2,740E-14
6	0,67923	USL1	Combination		-1769,642	-387,877	-1,041E-13	-2,740E-14
6	1,35845	USL1	Combination		-1757,925	-335,119	-1,055E-13	-2,740E-14
6	0,00000	ULS2	Combination		-1444,902	-376,724	-4,594E-14	4,135E-15
6	0,67923	ULS2	Combination		-1433,185	-387,626	-4,727E-14	4,135E-15
6	1,35845	ULS2	Combination		-1421,468	-398,529	-4,861E-14	4,135E-15
6	0,00000	ENVELOPE_	Combination	Max	-1444,902	-376,724	-4,594E-14	4,135E-15
		ULS						
6	0,67923	ENVELOPE_	Combination	Max	-1433,185	-387,626	-4,727E-14	4,135E-15
		ULS						
6	1,35845	ENVELOPE_	Combination	Max	-1421,468	-335,119	-4,861E-14	4,135E-15
		ULS						
6	0,00000	ENVELOPE_	Combination	Min	-1781,359	-443,658	-1,028E-13	-2,740E-14
		ULS						
6	0,67923	ENVELOPE_	Combination	Min	-1769,642	-387,877	-1,041E-13	-2,740E-14
		ULS						
6	1,35845	ENVELOPE_	Combination	Min	-1757,925	-398,529	-1,055E-13	-2,740E-14
		ULS						
9	0,00000	USL1	Combination		-1221,485	236,546	2,862E-14	3,431E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
9	0,49037	USL1	Combination		-1206,757	280,406	2,862E-14	3,431E-14
9	0,98074	USL1	Combination		-1192,029	323,359	2,862E-14	3,431E-14
9	0,00000	ULS2	Combination		-969,820	195,343	1,972E-16	-8,323E-15
9	0,49037	ULS2	Combination		-955,092	226,221	1,972E-16	-8,323E-15
9	0,98074	ULS2	Combination		-940,365	257,098	1,972E-16	-8,323E-15
9	0,00000	ENVELOPE_ ULS	Combination	Max	-969,820	236,546	2,862E-14	3,431E-14
9	0,49037	ENVELOPE_ ULS	Combination	Max	-955,092	280,406	2,862E-14	3,431E-14
9	0,98074	ENVELOPE_ ULS	Combination	Max	-940,365	323,359	2,862E-14	3,431E-14
9	0,00000	ENVELOPE_ ULS	Combination	Min	-1221,485	195,343	1,972E-16	-8,323E-15
9	0,49037	ENVELOPE_ ULS	Combination	Min	-1206,757	226,221	1,972E-16	-8,323E-15
9	0,98074	ENVELOPE_ ULS	Combination	Min	-1192,029	257,098	1,972E-16	-8,323E-15
10	0,00000	USL1	Combination		-1205,406	126,229	2,862E-14	6,673E-14
10	0,49037	USL1	Combination		-1195,982	169,357	2,862E-14	6,673E-14
10	0,98074	USL1	Combination		-1186,559	211,873	2,862E-14	6,673E-14
10	0,00000	ULS2	Combination		-946,474	100,153	1,972E-16	-8,764E-15
10	0,49037	ULS2	Combination		-937,050	131,966	1,972E-16	-8,764E-15
10	0,98074	ULS2	Combination		-927,627	163,780	1,972E-16	-8,764E-15
10	0,00000	ENVELOPE_ ULS	Combination	Max	-946,474	126,229	2,862E-14	6,673E-14
10	0,49037	ENVELOPE_ ULS	Combination	Max	-937,050	169,357	2,862E-14	6,673E-14
10	0,98074	ENVELOPE_ ULS	Combination	Max	-927,627	211,873	2,862E-14	6,673E-14
10	0,00000	ENVELOPE_ ULS	Combination	Min	-1205,406	100,153	1,972E-16	-8,764E-15
10	0,49037	ENVELOPE_ ULS	Combination	Min	-1195,982	131,966	1,972E-16	-8,764E-15
10	0,98074	ENVELOPE_ ULS	Combination	Min	-1186,559	163,780	1,972E-16	-8,764E-15
11	0,00000	USL1	Combination		-1181,915	-11,890	5,704E-14	8,599E-14
11	0,66133	USL1	Combination		-1177,438	45,059	5,704E-14	8,599E-14
11	1,32265	USL1	Combination		-1172,962	101,611	5,704E-14	8,599E-14
11	0,00000	ULS2	Combination		-918,554	-11,652	1,972E-16	-9,042E-15
11	0,66133	ULS2	Combination		-914,078	31,475	1,972E-16	-9,042E-15
11	1,32265	ULS2	Combination		-909,601	74,602	1,972E-16	-9,042E-15
11	0,00000	ENVELOPE_ ULS	Combination	Max	-918,554	-11,652	5,704E-14	8,599E-14
11	0,66133	ENVELOPE_ ULS	Combination	Max	-914,078	45,059	5,704E-14	8,599E-14
11	1,32265	ENVELOPE_ ULS	Combination	Max	-909,601	101,611	5,704E-14	8,599E-14
11	0,00000	ENVELOPE_ ULS	Combination	Min	-1181,915	-11,890	1,972E-16	-9,042E-15
11	0,66133	ENVELOPE_ ULS	Combination	Min	-1177,438	31,475	1,972E-16	-9,042E-15
11	1,32265	ENVELOPE_ ULS	Combination	Min	-1172,962	74,602	1,972E-16	-9,042E-15
12	0,00000	USL1	Combination		-1720,757	-89,938	7,972E-14	9,480E-14
12	0,49060	USL1	Combination		-1704,077	-42,625	7,831E-14	9,480E-14
12	0,98121	USL1	Combination		-1687,396	4,687	7,689E-14	9,480E-14
12	0,00000	ULS2	Combination		-1198,274	-46,857	-5,541E-15	6,871E-15
12	0,49060	ULS2	Combination		-1181,593	-58,417	-6,957E-15	6,871E-15
12	0,98121	ULS2	Combination		-1164,913	-69,977	-8,372E-15	6,871E-15
12	0,00000	ENVELOPE_ ULS	Combination	Max	-1198,274	-46,857	7,972E-14	9,480E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
12	0,49060	ENVELOPE_ ULS	Combination	Max	-1181,593	-42,625	7,831E-14	9,480E-14
12	0,98121	ENVELOPE_ ULS	Combination	Max	-1164,913	4,687	7,689E-14	9,480E-14
12	0,00000	ENVELOPE_ ULS	Combination	Min	-1720,757	-89,938	-5,541E-15	6,871E-15
12	0,49060	ENVELOPE_ ULS	Combination	Min	-1704,077	-58,417	-6,957E-15	6,871E-15
12	0,98121	ENVELOPE_ ULS	Combination	Min	-1687,396	-69,977	-8,372E-15	6,871E-15
13	0,00000	USL1	Combination		-1663,151	-233,549	2,756E-14	6,444E-14
13	0,67593	USL1	Combination		-1572,663	-151,400	2,773E-14	6,444E-14
13	1,35185	USL1	Combination		-1482,175	-70,027	2,791E-14	6,444E-14
13	0,00000	ULS2	Combination		-1152,054	-124,696	-1,507E-14	6,708E-15
13	0,67593	ULS2	Combination		-1061,566	-123,269	-1,490E-14	6,708E-15
13	1,35185	ULS2	Combination		-971,078	-121,841	-1,472E-14	6,708E-15
13	0,00000	ENVELOPE_ ULS	Combination	Max	-1152,054	-124,696	2,756E-14	6,444E-14
13	0,67593	ENVELOPE_ ULS	Combination	Max	-1061,566	-123,269	2,773E-14	6,444E-14
13	1,35185	ENVELOPE_ ULS	Combination	Max	-971,078	-70,027	2,791E-14	6,444E-14
13	0,00000	ENVELOPE_ ULS	Combination	Min	-1663,151	-233,549	-1,507E-14	6,708E-15
13	0,67593	ENVELOPE_ ULS	Combination	Min	-1572,663	-151,400	-1,490E-14	6,708E-15
13	1,35185	ENVELOPE_ ULS	Combination	Min	-1482,175	-121,841	-1,472E-14	6,708E-15
14	0,00000	USL1	Combination		-1473,727	-214,072	-1,284E-14	2,944E-14
14	0,67593	USL1	Combination		-1385,005	-119,799	-1,095E-14	2,944E-14
14	1,35185	USL1	Combination		-1297,140	-27,225	-9,101E-15	2,944E-14
14	0,00000	ULS2	Combination		-989,584	-106,427	-1,284E-14	6,348E-15
14	0,67593	ULS2	Combination		-900,862	-91,018	-1,095E-14	6,348E-15
14	1,35185	ULS2	Combination		-812,997	-75,922	-9,101E-15	6,348E-15
14	0,00000	ENVELOPE_ ULS	Combination	Max	-989,584	-106,427	-1,284E-14	2,944E-14
14	0,67593	ENVELOPE_ ULS	Combination	Max	-900,862	-91,018	-1,095E-14	2,944E-14
14	1,35185	ENVELOPE_ ULS	Combination	Max	-812,997	-27,225	-9,101E-15	2,944E-14
14	0,00000	ENVELOPE_ ULS	Combination	Min	-1473,727	-214,072	-1,284E-14	6,348E-15
14	0,67593	ENVELOPE_ ULS	Combination	Min	-1385,005	-119,799	-1,095E-14	6,348E-15
14	1,35185	ENVELOPE_ ULS	Combination	Min	-1297,140	-75,922	-9,101E-15	6,348E-15
15	0,00000	USL1	Combination		-1313,194	-143,240	-6,177E-14	-6,644E-15
15	0,67593	USL1	Combination		-1229,673	-39,280	-5,832E-14	-6,644E-15
15	1,35185	USL1	Combination		-1147,157	62,162	-5,494E-14	-6,644E-15
15	0,00000	ULS2	Combination		-868,353	-41,828	-4,925E-15	5,791E-15
15	0,67593	ULS2	Combination		-784,833	-13,673	-1,477E-15	5,791E-15
15	1,35185	ULS2	Combination		-702,317	13,924	1,902E-15	5,791E-15
15	0,00000	ENVELOPE_ ULS	Combination	Max	-868,353	-41,828	-4,925E-15	5,791E-15
15	0,67593	ENVELOPE_ ULS	Combination	Max	-784,833	-13,673	-1,477E-15	5,791E-15
15	1,35185	ENVELOPE_ ULS	Combination	Max	-702,317	62,162	1,902E-15	5,791E-15
15	0,00000	ENVELOPE_ ULS	Combination	Min	-1313,194	-143,240	-6,177E-14	-6,644E-15
15	0,67593	ENVELOPE_ ULS	Combination	Min	-1229,673	-39,280	-5,832E-14	-6,644E-15

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
15	1,35185	ENVELOPE_	Combination	Min	-1147,157	13,924	-5,494E-14	-6,644E-15
		ULS						
16	0,00000	USL1	Combination		-1195,313	-34,172	-7,839E-14	-4,025E-14
16	0,67593	USL1	Combination		-1119,235	76,744	-7,358E-14	-4,025E-14
16	1,35185	USL1	Combination		-1044,461	184,138	-6,889E-14	-4,025E-14
16	0,00000	ULS2	Combination		-800,635	54,529	6,875E-15	5,049E-15
16	0,67593	ULS2	Combination		-724,557	93,831	1,169E-14	5,049E-15
16	1,35185	ULS2	Combination		-649,783	132,112	1,638E-14	5,049E-15
16	0,00000	ENVELOPE_	Combination	Max	-800,635	54,529	6,875E-15	5,049E-15
		ULS						
16	0,67593	ENVELOPE_	Combination	Max	-724,557	93,831	1,169E-14	5,049E-15
		ULS						
16	1,35185	ENVELOPE_	Combination	Max	-649,783	184,138	1,638E-14	5,049E-15
		ULS						
16	0,00000	ENVELOPE_	Combination	Min	-1195,313	-34,172	-7,839E-14	-4,025E-14
		ULS						
16	0,67593	ENVELOPE_	Combination	Min	-1119,235	76,744	-7,358E-14	-4,025E-14
		ULS						
16	1,35185	ENVELOPE_	Combination	Min	-1044,461	132,112	-6,889E-14	-4,025E-14
		ULS						
17	0,00000	USL1	Combination		-1126,870	124,818	-1,981E-14	-5,833E-14
17	0,66163	USL1	Combination		-1060,538	235,280	-1,423E-14	-5,833E-14
17	1,32325	USL1	Combination		-995,618	341,355	-8,836E-15	-5,833E-14
17	0,00000	ULS2	Combination		-789,525	184,790	2,283E-14	4,291E-15
17	0,66163	ULS2	Combination		-723,194	230,296	2,840E-14	4,291E-15
17	1,32325	ULS2	Combination		-658,273	274,360	3,380E-14	4,291E-15
17	0,00000	ENVELOPE_	Combination	Max	-789,525	184,790	2,283E-14	4,291E-15
		ULS						
17	0,66163	ENVELOPE_	Combination	Max	-723,194	235,280	2,840E-14	4,291E-15
		ULS						
17	1,32325	ENVELOPE_	Combination	Max	-658,273	341,355	3,380E-14	4,291E-15
		ULS						
17	0,00000	ENVELOPE_	Combination	Min	-1126,870	124,818	-1,981E-14	-5,833E-14
		ULS						
17	0,66163	ENVELOPE_	Combination	Min	-1060,538	230,296	-1,423E-14	-5,833E-14
		ULS						
17	1,32325	ENVELOPE_	Combination	Min	-995,618	274,360	-8,836E-15	-5,833E-14
		ULS						
20	0,00000	USL1	Combination		-948,445	153,774	1,972E-16	5,119E-14
20	0,49037	USL1	Combination		-958,570	209,488	1,972E-16	5,119E-14
20	0,98074	USL1	Combination		-967,145	263,555	1,972E-16	5,119E-14
20	0,00000	ULS2	Combination		-697,348	111,382	1,972E-16	-8,321E-15
20	0,49037	ULS2	Combination		-707,472	154,113	1,972E-16	-8,321E-15
20	0,98074	ULS2	Combination		-716,047	196,105	1,972E-16	-8,321E-15
20	0,00000	ENVELOPE_	Combination	Max	-697,348	153,774	1,972E-16	5,119E-14
		ULS						
20	0,49037	ENVELOPE_	Combination	Max	-707,472	209,488	1,972E-16	5,119E-14
		ULS						
20	0,98074	ENVELOPE_	Combination	Max	-716,047	263,555	1,972E-16	5,119E-14
		ULS						
20	0,00000	ENVELOPE_	Combination	Min	-948,445	111,382	1,972E-16	-8,321E-15
		ULS						
20	0,49037	ENVELOPE_	Combination	Min	-958,570	154,113	1,972E-16	-8,321E-15
		ULS						
20	0,98074	ENVELOPE_	Combination	Min	-967,145	196,105	1,972E-16	-8,321E-15
		ULS						
21	0,00000	USL1	Combination		-1018,999	115,690	2,862E-14	7,561E-14
21	0,49037	USL1	Combination		-1033,261	165,835	2,862E-14	7,561E-14
21	0,98074	USL1	Combination		-1047,028	215,220	2,862E-14	7,561E-14
21	0,00000	ULS2	Combination		-760,441	88,350	1,972E-16	-8,763E-15
21	0,49037	ULS2	Combination		-774,703	127,180	1,972E-16	-8,763E-15
21	0,98074	ULS2	Combination		-788,471	165,863	1,972E-16	-8,763E-15



Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
21	0,00000	ENVELOPE_	Combination	Max	-760,441	115,690	2,862E-14	7,561E-14
		ULS						
21	0,49037	ENVELOPE_	Combination	Max	-774,703	165,835	2,862E-14	7,561E-14
		ULS						
21	0,98074	ENVELOPE_	Combination	Max	-788,471	215,220	2,862E-14	7,561E-14
		ULS						
21	0,00000	ENVELOPE_	Combination	Min	-1018,999	88,350	1,972E-16	-8,763E-15
		ULS						
21	0,49037	ENVELOPE_	Combination	Min	-1033,261	127,180	1,972E-16	-8,763E-15
		ULS						
21	0,98074	ENVELOPE_	Combination	Min	-1047,028	165,863	1,972E-16	-8,763E-15
		ULS						
22	0,00000	USL1	Combination		-1092,057	24,677	5,704E-14	8,866E-14
22	0,64528	USL1	Combination		-1118,733	83,547	5,704E-14	8,866E-14
22	1,29056	USL1	Combination		-1145,088	141,996	5,704E-14	8,866E-14
22	0,00000	ULS2	Combination		-828,836	22,925	1,972E-16	-9,040E-15
22	0,64528	ULS2	Combination		-855,512	68,308	1,972E-16	-9,040E-15
22	1,29056	ULS2	Combination		-881,867	113,658	1,972E-16	-9,040E-15
22	0,00000	ENVELOPE_	Combination	Max	-828,836	24,677	5,704E-14	8,866E-14
		ULS						
22	0,64528	ENVELOPE_	Combination	Max	-855,512	83,547	5,704E-14	8,866E-14
		ULS						
22	1,29056	ENVELOPE_	Combination	Max	-881,867	141,996	5,704E-14	8,866E-14
		ULS						
22	0,00000	ENVELOPE_	Combination	Min	-1092,057	22,925	1,972E-16	-9,040E-15
		ULS						
22	0,64528	ENVELOPE_	Combination	Min	-1118,733	68,308	1,972E-16	-9,040E-15
		ULS						
22	1,29056	ENVELOPE_	Combination	Min	-1145,088	113,658	1,972E-16	-9,040E-15
		ULS						
23	0,00000	USL1	Combination		-1100,311	-920,151	-1,185E-13	-1,115E-13
23	0,63892	USL1	Combination		-1065,685	-863,511	-1,185E-13	-1,115E-13
23	1,27783	USL1	Combination		-1031,059	-810,513	-1,185E-13	-1,115E-13
23	0,00000	ULS2	Combination		-896,027	-736,798	-9,003E-14	-1,334E-15
23	0,63892	ULS2	Combination		-861,401	-736,798	-9,003E-14	-1,334E-15
23	1,27783	ULS2	Combination		-826,775	-736,798	-9,003E-14	-1,334E-15
23	0,00000	ENVELOPE_	Combination	Max	-896,027	-736,798	-9,003E-14	-1,334E-15
		ULS						
23	0,63892	ENVELOPE_	Combination	Max	-861,401	-736,798	-9,003E-14	-1,334E-15
		ULS						
23	1,27783	ENVELOPE_	Combination	Max	-826,775	-736,798	-9,003E-14	-1,334E-15
		ULS						
23	0,00000	ENVELOPE_	Combination	Min	-1100,311	-920,151	-1,185E-13	-1,115E-13
		ULS						
23	0,63892	ENVELOPE_	Combination	Min	-1065,685	-863,511	-1,185E-13	-1,115E-13
		ULS						
23	1,27783	ENVELOPE_	Combination	Min	-1031,059	-810,513	-1,185E-13	-1,115E-13
		ULS						
24	0,00000	USL1	Combination		-1031,059	-319,850	-5,827E-14	-1,128E-13
24	0,64000	USL1	Combination		-1000,898	-270,394	-5,827E-14	-1,128E-13
24	1,28000	USL1	Combination		-970,737	-224,554	-5,827E-14	-1,128E-13
24	0,00000	ULS2	Combination		-826,775	-245,326	-2,985E-14	-1,334E-15
24	0,64000	ULS2	Combination		-796,614	-245,326	-2,985E-14	-1,334E-15
24	1,28000	ULS2	Combination		-766,453	-245,326	-2,985E-14	-1,334E-15
24	0,00000	ENVELOPE_	Combination	Max	-826,775	-245,326	-2,985E-14	-1,334E-15
		ULS						
24	0,64000	ENVELOPE_	Combination	Max	-796,614	-245,326	-2,985E-14	-1,334E-15
		ULS						
24	1,28000	ENVELOPE_	Combination	Max	-766,453	-224,554	-2,985E-14	-1,334E-15
		ULS						
24	0,00000	ENVELOPE_	Combination	Min	-1031,059	-319,850	-5,827E-14	-1,128E-13
		ULS						

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
24	0,64000	ENVELOPE_ ULS	Combination	Min	-1000,898	-270,394	-5,827E-14	-1,128E-13
24	1,28000	ENVELOPE_ ULS	Combination	Min	-970,737	-245,326	-5,827E-14	-1,128E-13
25	0,00000	USL1	Combination		-970,737	236,981	5,438E-15	-1,128E-13
25	0,64000	USL1	Combination		-940,576	279,189	5,438E-15	-1,128E-13
25	1,28000	USL1	Combination		-910,416	317,749	5,438E-15	-1,128E-13
25	0,00000	ULS2	Combination		-766,453	216,858	2,675E-14	-1,334E-15
25	0,64000	ULS2	Combination		-736,292	216,858	2,675E-14	-1,334E-15
25	1,28000	ULS2	Combination		-706,131	216,858	2,675E-14	-1,334E-15
25	0,00000	ENVELOPE_ ULS	Combination	Max	-766,453	236,981	2,675E-14	-1,334E-15
25	0,64000	ENVELOPE_ ULS	Combination	Max	-736,292	279,189	2,675E-14	-1,334E-15
25	1,28000	ENVELOPE_ ULS	Combination	Max	-706,131	317,749	2,675E-14	-1,334E-15
25	0,00000	ENVELOPE_ ULS	Combination	Min	-970,737	216,858	5,438E-15	-1,128E-13
25	0,64000	ENVELOPE_ ULS	Combination	Min	-940,576	216,858	5,438E-15	-1,128E-13
25	1,28000	ENVELOPE_ ULS	Combination	Min	-910,416	216,858	5,438E-15	-1,128E-13
26	0,00000	USL1	Combination		-910,416	754,219	5,534E-14	-1,088E-13
26	0,64000	USL1	Combination		-875,731	789,131	5,534E-14	-1,088E-13
26	1,28000	USL1	Combination		-841,046	820,395	5,534E-14	-1,088E-13
26	0,00000	ULS2	Combination		-706,131	653,322	8,021E-14	-1,334E-15
26	0,64000	ULS2	Combination		-671,446	653,322	8,021E-14	-1,334E-15
26	1,28000	ULS2	Combination		-636,762	653,322	8,021E-14	-1,334E-15
26	0,00000	ENVELOPE_ ULS	Combination	Max	-706,131	754,219	8,021E-14	-1,334E-15
26	0,64000	ENVELOPE_ ULS	Combination	Max	-671,446	789,131	8,021E-14	-1,334E-15
26	1,28000	ENVELOPE_ ULS	Combination	Max	-636,762	820,395	8,021E-14	-1,334E-15
26	0,00000	ENVELOPE_ ULS	Combination	Min	-910,416	653,322	5,534E-14	-1,088E-13
26	0,64000	ENVELOPE_ ULS	Combination	Min	-875,731	653,322	5,534E-14	-1,088E-13
26	1,28000	ENVELOPE_ ULS	Combination	Min	-841,046	653,322	5,534E-14	-1,088E-13
27	0,00000	USL1	Combination		-1060,110	-441,962	-1,401E-14	-8,038E-14
27	0,66324	USL1	Combination		-1024,166	-308,319	-1,401E-14	-8,038E-14
27	1,32648	USL1	Combination		-988,221	-180,911	-1,401E-14	-8,038E-14
27	0,00000	ULS2	Combination		-857,144	-253,935	1,972E-16	-1,329E-15
27	0,66324	ULS2	Combination		-821,199	-179,089	1,972E-16	-1,329E-15
27	1,32648	ULS2	Combination		-785,255	-106,696	1,972E-16	-1,329E-15
27	0,00000	ENVELOPE_ ULS	Combination	Max	-857,144	-253,935	1,972E-16	-1,329E-15
27	0,66324	ENVELOPE_ ULS	Combination	Max	-821,199	-179,089	1,972E-16	-1,329E-15
27	1,32648	ENVELOPE_ ULS	Combination	Max	-785,255	-106,696	1,972E-16	-1,329E-15
27	0,00000	ENVELOPE_ ULS	Combination	Min	-1060,110	-441,962	-1,401E-14	-8,038E-14
27	0,66324	ENVELOPE_ ULS	Combination	Min	-1024,166	-308,319	-1,401E-14	-8,038E-14
27	1,32648	ENVELOPE_ ULS	Combination	Min	-988,221	-180,911	-1,401E-14	-8,038E-14
28	0,00000	USL1	Combination		-988,221	-170,611	-1,757E-14	-8,038E-14
28	0,64000	USL1	Combination		-958,060	-54,003	-1,757E-14	-8,038E-14
28	1,28000	USL1	Combination		-927,900	55,949	-1,757E-14	-8,038E-14
28	0,00000	ULS2	Combination		-785,255	-96,396	1,972E-16	-1,329E-15

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
28	0,64000	ULS2	Combination		-755,094	-29,244	1,972E-16	-1,329E-15
28	1,28000	ULS2	Combination		-724,933	34,868	1,972E-16	-1,329E-15
28	0,00000	ENVELOPE_ ULS	Combination	Max	-785,255	-96,396	1,972E-16	-1,329E-15
28	0,64000	ENVELOPE_ ULS	Combination	Max	-755,094	-29,244	1,972E-16	-1,329E-15
28	1,28000	ENVELOPE_ ULS	Combination	Max	-724,933	55,949	1,972E-16	-1,329E-15
28	0,00000	ENVELOPE_ ULS	Combination	Min	-988,221	-170,611	-1,757E-14	-8,038E-14
28	0,64000	ENVELOPE_ ULS	Combination	Min	-958,060	-54,003	-1,757E-14	-8,038E-14
28	1,28000	ENVELOPE_ ULS	Combination	Min	-927,900	34,868	-1,757E-14	-8,038E-14
29	0,00000	USL1	Combination		-927,900	66,249	-1,401E-14	-8,082E-14
29	0,64000	USL1	Combination		-897,739	169,625	-1,401E-14	-8,082E-14
29	1,28000	USL1	Combination		-867,578	266,505	-1,401E-14	-8,082E-14
29	0,00000	ULS2	Combination		-724,933	45,168	1,972E-16	-1,329E-15
29	0,64000	ULS2	Combination		-694,772	106,336	1,972E-16	-1,329E-15
29	1,28000	ULS2	Combination		-664,612	164,656	1,972E-16	-1,329E-15
29	0,00000	ENVELOPE_ ULS	Combination	Max	-724,933	66,249	1,972E-16	-1,329E-15
29	0,64000	ENVELOPE_ ULS	Combination	Max	-694,772	169,625	1,972E-16	-1,329E-15
29	1,28000	ENVELOPE_ ULS	Combination	Max	-664,612	266,505	1,972E-16	-1,329E-15
29	0,00000	ENVELOPE_ ULS	Combination	Min	-927,900	45,168	-1,401E-14	-8,082E-14
29	0,64000	ENVELOPE_ ULS	Combination	Min	-897,739	106,336	-1,401E-14	-8,082E-14
29	1,28000	ENVELOPE_ ULS	Combination	Min	-867,578	164,656	-1,401E-14	-8,082E-14
30	0,00000	USL1	Combination		-867,578	276,805	1,972E-16	-8,171E-14
30	0,64000	USL1	Combination		-832,893	367,013	1,972E-16	-8,171E-14
30	1,28000	USL1	Combination		-798,208	450,373	1,972E-16	-8,171E-14
30	0,00000	ULS2	Combination		-664,612	174,956	1,972E-16	-1,329E-15
30	0,64000	ULS2	Combination		-629,927	230,252	1,972E-16	-1,329E-15
30	1,28000	ULS2	Combination		-595,242	282,348	1,972E-16	-1,329E-15
30	0,00000	ENVELOPE_ ULS	Combination	Max	-664,612	276,805	1,972E-16	-1,329E-15
30	0,64000	ENVELOPE_ ULS	Combination	Max	-629,927	367,013	1,972E-16	-1,329E-15
30	1,28000	ENVELOPE_ ULS	Combination	Max	-595,242	450,373	1,972E-16	-1,329E-15
30	0,00000	ENVELOPE_ ULS	Combination	Min	-867,578	174,956	1,972E-16	-8,171E-14
30	0,64000	ENVELOPE_ ULS	Combination	Min	-832,893	230,252	1,972E-16	-8,171E-14
30	1,28000	ENVELOPE_ ULS	Combination	Min	-798,208	282,348	1,972E-16	-8,171E-14
33	0,00000	USL1	Combination		-1323,060	143,922	-1,401E-14	6,172E-15
33	0,52323	USL1	Combination		-1300,983	200,762	-1,401E-14	6,172E-15
33	1,04645	USL1	Combination		-1278,906	256,398	-1,401E-14	6,172E-15
33	0,00000	ULS2	Combination		-1075,404	150,231	1,972E-16	-8,039E-15
33	0,52323	ULS2	Combination		-1053,327	188,470	1,972E-16	-8,039E-15
33	1,04645	ULS2	Combination		-1031,250	226,708	1,972E-16	-8,039E-15
33	0,00000	ENVELOPE_ ULS	Combination	Max	-1075,404	150,231	1,972E-16	6,172E-15
33	0,52323	ENVELOPE_ ULS	Combination	Max	-1053,327	200,762	1,972E-16	6,172E-15
33	1,04645	ENVELOPE_ ULS	Combination	Max	-1031,250	256,398	1,972E-16	6,172E-15

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
33	0,00000	ENVELOPE_	Combination	Min	-1323,060	143,922	-1,401E-14	-8,039E-15
		ULS						
33	0,52323	ENVELOPE_	Combination	Min	-1300,983	188,470	-1,401E-14	-8,039E-15
		ULS						
33	1,04645	ENVELOPE_	Combination	Min	-1278,906	226,708	-1,401E-14	-8,039E-15
		ULS						
34	0,00000	USL1	Combination		-1258,555	244,648	-1,401E-14	1,239E-14
34	0,52323	USL1	Combination		-1239,033	294,640	-1,401E-14	1,239E-14
34	1,04645	USL1	Combination		-1219,512	343,404	-1,401E-14	1,239E-14
34	0,00000	ULS2	Combination		-1010,898	214,958	1,972E-16	-8,039E-15
34	0,52323	ULS2	Combination		-991,377	248,770	1,972E-16	-8,039E-15
34	1,04645	ULS2	Combination		-971,855	282,582	1,972E-16	-8,039E-15
34	0,00000	ENVELOPE_	Combination	Max	-1010,898	244,648	1,972E-16	1,239E-14
		ULS						
34	0,52323	ENVELOPE_	Combination	Max	-991,377	294,640	1,972E-16	1,239E-14
		ULS						
34	1,04645	ENVELOPE_	Combination	Max	-971,855	343,404	1,972E-16	1,239E-14
		ULS						
34	0,00000	ENVELOPE_	Combination	Min	-1258,555	214,958	-1,401E-14	-8,039E-15
		ULS						
34	0,52323	ENVELOPE_	Combination	Min	-1239,033	248,770	-1,401E-14	-8,039E-15
		ULS						
34	1,04645	ENVELOPE_	Combination	Min	-1219,512	282,582	-1,401E-14	-8,039E-15
		ULS						
35	0,00000	USL1	Combination		-1478,345	-117,633	-4,244E-14	-9,338E-16
35	0,52323	USL1	Combination		-1447,497	-40,736	-4,244E-14	-9,338E-16
35	1,04645	USL1	Combination		-1416,649	34,957	-4,244E-14	-9,338E-16
35	0,00000	ULS2	Combination		-1230,689	-24,730	1,972E-16	-8,039E-15
35	0,52323	ULS2	Combination		-1199,841	28,700	1,972E-16	-8,039E-15
35	1,04645	ULS2	Combination		-1168,993	82,130	1,972E-16	-8,039E-15
35	0,00000	ENVELOPE_	Combination	Max	-1230,689	-24,730	1,972E-16	-9,338E-16
		ULS						
35	0,52323	ENVELOPE_	Combination	Max	-1199,841	28,700	1,972E-16	-9,338E-16
		ULS						
35	1,04645	ENVELOPE_	Combination	Max	-1168,993	82,130	1,972E-16	-9,338E-16
		ULS						
35	0,00000	ENVELOPE_	Combination	Min	-1478,345	-117,633	-4,244E-14	-8,039E-15
		ULS						
35	0,52323	ENVELOPE_	Combination	Min	-1447,497	-40,736	-4,244E-14	-8,039E-15
		ULS						
35	1,04645	ENVELOPE_	Combination	Min	-1416,649	34,957	-4,244E-14	-8,039E-15
		ULS						
36	0,00000	USL1	Combination		-1396,298	23,207	-1,401E-14	-2,710E-15
36	0,52323	USL1	Combination		-1369,855	90,055	-1,401E-14	-2,710E-15
36	1,04645	USL1	Combination		-1343,412	155,672	-1,401E-14	-2,710E-15
36	0,00000	ULS2	Combination		-1148,642	70,380	1,972E-16	-8,039E-15
36	0,52323	ULS2	Combination		-1122,199	116,180	1,972E-16	-8,039E-15
36	1,04645	ULS2	Combination		-1095,756	161,981	1,972E-16	-8,039E-15
36	0,00000	ENVELOPE_	Combination	Max	-1148,642	70,380	1,972E-16	-2,710E-15
		ULS						
36	0,52323	ENVELOPE_	Combination	Max	-1122,199	116,180	1,972E-16	-2,710E-15
		ULS						
36	1,04645	ENVELOPE_	Combination	Max	-1095,756	161,981	1,972E-16	-2,710E-15
		ULS						
36	0,00000	ENVELOPE_	Combination	Min	-1396,298	23,207	-1,401E-14	-8,039E-15
		ULS						
36	0,52323	ENVELOPE_	Combination	Min	-1369,855	90,055	-1,401E-14	-8,039E-15
		ULS						
36	1,04645	ENVELOPE_	Combination	Min	-1343,412	155,672	-1,401E-14	-8,039E-15
		ULS						
39	0,00000	USL1	Combination		-864,073	-71,610	1,972E-16	3,815E-14
39	0,52323	USL1	Combination		-871,280	2,137	1,972E-16	3,815E-14
39	1,04645	USL1	Combination		-877,602	74,169	1,972E-16	3,815E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
39	0,00000	ULS2	Combination		-617,076	-66,442	1,972E-16	-8,037E-15
39	0,52323	ULS2	Combination		-624,282	-11,297	1,972E-16	-8,037E-15
39	1,04645	ULS2	Combination		-630,605	43,338	1,972E-16	-8,037E-15
39	0,00000	ENVELOPE_ ULS	Combination	Max	-617,076	-66,442	1,972E-16	3,815E-14
39	0,52323	ENVELOPE_ ULS	Combination	Max	-624,282	2,137	1,972E-16	3,815E-14
39	1,04645	ENVELOPE_ ULS	Combination	Max	-630,605	74,169	1,972E-16	3,815E-14
39	0,00000	ENVELOPE_ ULS	Combination	Min	-864,073	-71,610	1,972E-16	-8,037E-15
39	0,52323	ENVELOPE_ ULS	Combination	Min	-871,280	-11,297	1,972E-16	-8,037E-15
39	1,04645	ENVELOPE_ ULS	Combination	Min	-877,602	43,338	1,972E-16	-8,037E-15
40	0,00000	USL1	Combination		-897,954	85,919	1,972E-16	4,170E-14
40	0,52323	USL1	Combination		-905,960	151,805	1,972E-16	4,170E-14
40	1,04645	USL1	Combination		-913,105	215,964	1,972E-16	4,170E-14
40	0,00000	ULS2	Combination		-650,956	55,088	1,972E-16	-8,037E-15
40	0,52323	ULS2	Combination		-658,963	104,794	1,972E-16	-8,037E-15
40	1,04645	ULS2	Combination		-666,108	154,002	1,972E-16	-8,037E-15
40	0,00000	ENVELOPE_ ULS	Combination	Max	-650,956	85,919	1,972E-16	4,170E-14
40	0,52323	ENVELOPE_ ULS	Combination	Max	-658,963	151,805	1,972E-16	4,170E-14
40	1,04645	ENVELOPE_ ULS	Combination	Max	-666,108	215,964	1,972E-16	4,170E-14
40	0,00000	ENVELOPE_ ULS	Combination	Min	-897,954	55,088	1,972E-16	-8,037E-15
40	0,52323	ENVELOPE_ ULS	Combination	Min	-905,960	104,794	1,972E-16	-8,037E-15
40	1,04645	ENVELOPE_ ULS	Combination	Min	-913,105	154,002	1,972E-16	-8,037E-15
41	0,00000	USL1	Combination		-809,490	-454,332	1,972E-16	3,815E-14
41	0,52323	USL1	Combination		-813,329	-357,409	1,972E-16	3,815E-14
41	1,04645	USL1	Combination		-815,038	-262,918	1,972E-16	3,815E-14
41	0,00000	ULS2	Combination		-562,493	-362,571	1,972E-16	-8,037E-15
41	0,52323	ULS2	Combination		-566,332	-289,114	1,972E-16	-8,037E-15
41	1,04645	ULS2	Combination		-568,041	-216,887	1,972E-16	-8,037E-15
41	0,00000	ENVELOPE_ ULS	Combination	Max	-562,493	-362,571	1,972E-16	3,815E-14
41	0,52323	ENVELOPE_ ULS	Combination	Max	-566,332	-289,114	1,972E-16	3,815E-14
41	1,04645	ENVELOPE_ ULS	Combination	Max	-568,041	-216,887	1,972E-16	3,815E-14
41	0,00000	ENVELOPE_ ULS	Combination	Min	-809,490	-454,332	1,972E-16	-8,037E-15
41	0,52323	ENVELOPE_ ULS	Combination	Min	-813,329	-357,409	1,972E-16	-8,037E-15
41	1,04645	ENVELOPE_ ULS	Combination	Min	-815,038	-262,918	1,972E-16	-8,037E-15
42	0,00000	USL1	Combination		-835,390	-251,168	-2,822E-14	3,815E-14
42	0,52323	USL1	Combination		-839,998	-166,394	-2,822E-14	3,815E-14
42	1,04645	USL1	Combination		-843,722	-83,360	-2,822E-14	3,815E-14
42	0,00000	ULS2	Combination		-588,393	-205,137	1,972E-16	-8,037E-15
42	0,52323	ULS2	Combination		-593,000	-141,410	1,972E-16	-8,037E-15
42	1,04645	ULS2	Combination		-596,724	-78,192	1,972E-16	-8,037E-15
42	0,00000	ENVELOPE_ ULS	Combination	Max	-588,393	-205,137	1,972E-16	3,815E-14
42	0,52323	ENVELOPE_ ULS	Combination	Max	-593,000	-141,410	1,972E-16	3,815E-14
42	1,04645	ENVELOPE_ ULS	Combination	Max	-596,724	-78,192	1,972E-16	3,815E-14

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	StepType	P KN	V2 KN	V3 KN	T KN-m
42	0,00000	ENVELOPE_ ULS	Combination	Min	-835,390	-251,168	-2,822E-14	-8,037E-15
42	0,52323	ENVELOPE_ ULS	Combination	Min	-839,998	-166,394	-2,822E-14	-8,037E-15
42	1,04645	ENVELOPE_ ULS	Combination	Min	-843,722	-83,360	-2,822E-14	-8,037E-15

Table: Element Forces - Frames, Part 2 of 2

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
1	0,00000	USL1		6,089E-14	-161,3146	1-1	0,00000
1	0,49060	USL1		-2,130E-14	-256,9063	1-1	0,49060
1	0,98121	USL1		-1,028E-13	-375,7095	1-1	0,98121
1	0,00000	ULS2		-1,016E-14	-82,9759	1-1	0,00000
1	0,49060	ULS2		-2,263E-14	-183,9932	1-1	0,49060
1	0,98121	ULS2		-3,441E-14	-279,3390	1-1	0,98121
1	0,00000	ENVELOPE_ ULS	Max	6,089E-14	-82,9759	1-1	0,00000
1	0,49060	ENVELOPE_ ULS	Max	-2,130E-14	-183,9932	1-1	0,49060
1	0,98121	ENVELOPE_ ULS	Max	-3,441E-14	-279,3390	1-1	0,98121
1	0,00000	ENVELOPE_ ULS	Min	-1,016E-14	-161,3146	1-1	0,00000
1	0,49060	ENVELOPE_ ULS	Min	-2,263E-14	-256,9063	1-1	0,49060
1	0,98121	ENVELOPE_ ULS	Min	-1,028E-13	-375,7095	1-1	0,98121
2	0,00000	USL1		-7,835E-14	-375,7095	2-1	0,00000
2	0,67593	USL1		-1,446E-13	-400,2126	2-1	0,67593
2	1,35185	USL1		-2,095E-13	-468,4492	2-1	1,35185
2	0,00000	ULS2		-3,572E-14	-279,3390	2-1	0,00000
2	0,67593	ULS2		-4,431E-14	-348,3980	2-1	0,67593
2	1,35185	ULS2		-5,160E-14	-406,8908	2-1	1,35185
2	0,00000	ENVELOPE_ ULS	Max	-3,572E-14	-279,3390	2-1	0,00000
2	0,67593	ENVELOPE_ ULS	Max	-4,431E-14	-348,3980	2-1	0,67593
2	1,35185	ENVELOPE_ ULS	Max	-5,160E-14	-406,8908	2-1	1,35185
2	0,00000	ENVELOPE_ ULS	Min	-7,835E-14	-375,7095	2-1	0,00000
2	0,67593	ENVELOPE_ ULS	Min	-1,446E-13	-400,2126	2-1	0,67593
2	1,35185	ENVELOPE_ ULS	Min	-2,095E-13	-468,4492	2-1	1,35185
3	0,00000	USL1		-2,232E-13	-468,4492	3-1	0,00000
3	0,67593	USL1		-2,342E-13	-434,9565	3-1	0,67593
3	1,35185	USL1		-2,441E-13	-444,1877	3-1	1,35185
3	0,00000	ULS2		-5,263E-14	-406,8908	3-1	0,00000
3	0,67593	ULS2		-5,411E-14	-417,8534	3-1	0,67593
3	1,35185	ULS2		-5,434E-14	-418,7023	3-1	1,35185
3	0,00000	ENVELOPE_ ULS	Max	-5,263E-14	-406,8908	3-1	0,00000
3	0,67593	ENVELOPE_ ULS	Max	-5,411E-14	-417,8534	3-1	0,67593
3	1,35185	ENVELOPE_ ULS	Max	-5,434E-14	-418,7023	3-1	1,35185

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
3	0,00000	ENVELOPE_ ULS	Min	-2,232E-13	-468,4492	3-1	0,00000
3	0,67593	ENVELOPE_ ULS	Min	-2,342E-13	-434,9565	3-1	0,67593
3	1,35185	ENVELOPE_ ULS	Min	-2,441E-13	-444,1877	3-1	1,35185
4	0,00000	USL1		-2,689E-13	-444,1877	4-1	0,00000
4	0,67384	USL1		-2,526E-13	-245,0531	4-1	0,67384
4	1,34768	USL1		-2,352E-13	-87,2654	4-1	1,34768
4	0,00000	ULS2		-5,574E-14	-418,7023	4-1	0,00000
4	0,67384	ULS2		-3,942E-14	-284,3305	4-1	0,67384
4	1,34768	ULS2		-2,200E-14	-141,0409	4-1	1,34768
4	0,00000	ENVELOPE_ ULS	Max	-5,574E-14	-418,7023	4-1	0,00000
4	0,67384	ENVELOPE_ ULS	Max	-3,942E-14	-245,0531	4-1	0,67384
4	1,34768	ENVELOPE_ ULS	Max	-2,200E-14	-87,2654	4-1	1,34768
4	0,00000	ENVELOPE_ ULS	Min	-2,689E-13	-444,1877	4-1	0,00000
4	0,67384	ENVELOPE_ ULS	Min	-2,526E-13	-284,3305	4-1	0,67384
4	1,34768	ENVELOPE_ ULS	Min	-2,352E-13	-141,0409	4-1	1,34768
5	0,00000	USL1		-2,352E-13	-87,2654	5-1	0,00000
5	0,67384	USL1		-2,067E-13	2,8354	5-1	0,67384
5	1,34768	USL1		-1,772E-13	54,5861	5-1	1,34768
5	0,00000	ULS2		-2,200E-14	-141,0409	5-1	0,00000
5	0,67384	ULS2		-1,274E-14	-64,2736	5-1	0,67384
5	1,34768	ULS2		-2,375E-15	21,4114	5-1	1,34768
5	0,00000	ENVELOPE_ ULS	Max	-2,200E-14	-87,2654	5-1	0,00000
5	0,67384	ENVELOPE_ ULS	Max	-1,274E-14	2,8354	5-1	0,67384
5	1,34768	ENVELOPE_ ULS	Max	-2,375E-15	54,5861	5-1	1,34768
5	0,00000	ENVELOPE_ ULS	Min	-2,352E-13	-141,0409	5-1	0,00000
5	0,67384	ENVELOPE_ ULS	Min	-2,067E-13	-64,2736	5-1	0,67384
5	1,34768	ENVELOPE_ ULS	Min	-1,772E-13	21,4114	5-1	1,34768
6	0,00000	USL1		-1,883E-13	54,5861	6-1	0,00000
6	0,67923	USL1		-1,180E-13	336,8151	6-1	0,67923
6	1,35845	USL1		-4,682E-14	582,1830	6-1	1,35845
6	0,00000	ULS2		-3,512E-15	21,4114	6-1	0,00000
6	0,67923	ULS2		2,814E-14	280,9948	6-1	0,67923
6	1,35845	ULS2		6,071E-14	547,9834	6-1	1,35845
6	0,00000	ENVELOPE_ ULS	Max	-3,512E-15	54,5861	6-1	0,00000
6	0,67923	ENVELOPE_ ULS	Max	2,814E-14	336,8151	6-1	0,67923
6	1,35845	ENVELOPE_ ULS	Max	6,071E-14	582,1830	6-1	1,35845
6	0,00000	ENVELOPE_ ULS	Min	-1,883E-13	21,4114	6-1	0,00000
6	0,67923	ENVELOPE_ ULS	Min	-1,180E-13	280,9948	6-1	0,67923
6	1,35845	ENVELOPE_ ULS	Min	-4,682E-14	547,9834	6-1	1,35845
9	0,00000	USL1		1,744E-13	98,1870	9-1	0,00000
9	0,49037	USL1		1,603E-13	-28,5988	9-1	0,49037
9	0,98074	USL1		1,463E-13	-176,6697	9-1	0,98074



Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2	M3	FrameElem	ElemStation m
				KN-m	KN-m		
9	0,00000	ULS2		-3,284E-15	80,5129	9-1	0,00000
9	0,49037	ULS2		-3,381E-15	-22,8482	9-1	0,49037
9	0,98074	ULS2		-3,478E-15	-141,3504	9-1	0,98074
9	0,00000	ENVELOPE_ ULS	Max	1,744E-13	98,1870	9-1	0,00000
9	0,49037	ENVELOPE_ ULS	Max	1,603E-13	-22,8482	9-1	0,49037
9	0,98074	ENVELOPE_ ULS	Max	1,463E-13	-141,3504	9-1	0,98074
9	0,00000	ENVELOPE_ ULS	Min	-3,284E-15	80,5129	9-1	0,00000
9	0,49037	ENVELOPE_ ULS	Min	-3,381E-15	-28,5988	9-1	0,49037
9	0,98074	ENVELOPE_ ULS	Min	-3,478E-15	-176,6697	9-1	0,98074
10	0,00000	USL1		1,542E-13	-176,6697	10-1	0,00000
10	0,49037	USL1		1,402E-13	-249,1680	10-1	0,49037
10	0,98074	USL1		1,261E-13	-342,6650	10-1	0,98074
10	0,00000	ULS2		-2,133E-15	-141,3504	10-1	0,00000
10	0,49037	ULS2		-2,230E-15	-198,2624	10-1	0,49037
10	0,98074	ULS2		-2,326E-15	-270,7748	10-1	0,98074
10	0,00000	ENVELOPE_ ULS	Max	1,542E-13	-141,3504	10-1	0,00000
10	0,49037	ENVELOPE_ ULS	Max	1,402E-13	-198,2624	10-1	0,49037
10	0,98074	ENVELOPE_ ULS	Max	1,261E-13	-270,7748	10-1	0,98074
10	0,00000	ENVELOPE_ ULS	Min	-2,133E-15	-176,6697	10-1	0,00000
10	0,49037	ENVELOPE_ ULS	Min	-2,230E-15	-249,1680	10-1	0,49037
10	0,98074	ENVELOPE_ ULS	Min	-2,326E-15	-342,6650	10-1	0,98074
11	0,00000	USL1		9,880E-14	-342,6650	11-1	0,00000
11	0,66133	USL1		6,107E-14	-353,6546	11-1	0,66133
11	1,32265	USL1		2,335E-14	-402,1747	11-1	1,32265
11	0,00000	ULS2		-6,785E-16	-270,7748	11-1	0,00000
11	0,66133	ULS2		-8,090E-16	-277,3299	11-1	0,66133
11	1,32265	ULS2		-9,394E-16	-312,4059	11-1	1,32265
11	0,00000	ENVELOPE_ ULS	Max	9,880E-14	-270,7748	11-1	0,00000
11	0,66133	ENVELOPE_ ULS	Max	6,107E-14	-277,3299	11-1	0,66133
11	1,32265	ENVELOPE_ ULS	Max	2,335E-14	-312,4059	11-1	1,32265
11	0,00000	ENVELOPE_ ULS	Min	-6,785E-16	-342,6650	11-1	0,00000
11	0,66133	ENVELOPE_ ULS	Min	-8,090E-16	-353,6546	11-1	0,66133
11	1,32265	ENVELOPE_ ULS	Min	-9,394E-16	-402,1747	11-1	1,32265
12	0,00000	USL1		-6,700E-14	-161,3146	12-1	0,00000
12	0,49060	USL1		-1,058E-13	-128,7967	12-1	0,49060
12	0,98121	USL1		-1,438E-13	-119,4904	12-1	0,98121
12	0,00000	ULS2		-1,016E-14	-82,9759	12-1	0,00000
12	0,49060	ULS2		-7,094E-15	-57,1522	12-1	0,49060
12	0,98121	ULS2		-3,333E-15	-25,6570	12-1	0,98121
12	0,00000	ENVELOPE_ ULS	Max	-1,016E-14	-82,9759	12-1	0,00000
12	0,49060	ENVELOPE_ ULS	Max	-7,094E-15	-57,1522	12-1	0,49060
12	0,98121	ENVELOPE_ ULS	Max	-3,333E-15	-25,6570	12-1	0,98121



Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
12	0,00000	ENVELOPE_ ULS	Min	-6,700E-14	-161,3146	12-1	0,00000
12	0,49060	ENVELOPE_ ULS	Min	-1,058E-13	-128,7967	12-1	0,49060
12	0,98121	ENVELOPE_ ULS	Min	-1,438E-13	-119,4904	12-1	0,98121
13	0,00000	USL1		-1,894E-13	-119,4904	13-1	0,00000
13	0,67593	USL1		-2,081E-13	10,5641	13-1	0,67593
13	1,35185	USL1		-2,269E-13	85,3544	13-1	1,35185
13	0,00000	ULS2		-4,646E-15	-25,6570	13-1	0,00000
13	0,67593	ULS2		5,484E-15	58,1457	13-1	0,67593
13	1,35185	ULS2		1,550E-14	140,9837	13-1	1,35185
13	0,00000	ENVELOPE_ ULS	Max	-4,646E-15	-25,6570	13-1	0,00000
13	0,67593	ENVELOPE_ ULS	Max	5,484E-15	58,1457	13-1	0,67593
13	1,35185	ENVELOPE_ ULS	Max	1,550E-14	140,9837	13-1	1,35185
13	0,00000	ENVELOPE_ ULS	Min	-1,894E-13	-119,4904	13-1	0,00000
13	0,67593	ENVELOPE_ ULS	Min	-2,081E-13	10,5641	13-1	0,67593
13	1,35185	ENVELOPE_ ULS	Min	-2,269E-13	85,3544	13-1	1,35185
14	0,00000	USL1		-2,200E-13	85,3544	14-1	0,00000
14	0,67593	USL1		-2,120E-13	198,0946	14-1	0,67593
14	1,35185	USL1		-2,052E-13	247,6876	14-1	1,35185
14	0,00000	ULS2		1,447E-14	140,9837	14-1	0,00000
14	0,67593	ULS2		2,250E-14	207,6952	14-1	0,67593
14	1,35185	ULS2		2,928E-14	264,0971	14-1	1,35185
14	0,00000	ENVELOPE_ ULS	Max	1,447E-14	140,9837	14-1	0,00000
14	0,67593	ENVELOPE_ ULS	Max	2,250E-14	207,6952	14-1	0,67593
14	1,35185	ENVELOPE_ ULS	Max	2,928E-14	264,0971	14-1	1,35185
14	0,00000	ENVELOPE_ ULS	Min	-2,200E-13	85,3544	14-1	0,00000
14	0,67593	ENVELOPE_ ULS	Min	-2,120E-13	198,0946	14-1	0,67593
14	1,35185	ENVELOPE_ ULS	Min	-2,052E-13	247,6876	14-1	1,35185
15	0,00000	USL1		-2,275E-13	247,6876	15-1	0,00000
15	0,67593	USL1		-1,869E-13	309,2305	15-1	0,67593
15	1,35185	USL1		-1,486E-13	301,3552	15-1	1,35185
15	0,00000	ULS2		2,832E-14	264,0971	15-1	0,00000
15	0,67593	ULS2		3,048E-14	282,8233	15-1	0,67593
15	1,35185	ULS2		3,034E-14	282,7072	15-1	1,35185
15	0,00000	ENVELOPE_ ULS	Max	2,832E-14	264,0971	15-1	0,00000
15	0,67593	ENVELOPE_ ULS	Max	3,048E-14	309,2305	15-1	0,67593
15	1,35185	ENVELOPE_ ULS	Max	3,034E-14	301,3552	15-1	1,35185
15	0,00000	ENVELOPE_ ULS	Min	-2,275E-13	247,6876	15-1	0,00000
15	0,67593	ENVELOPE_ ULS	Min	-1,869E-13	282,8233	15-1	0,67593
15	1,35185	ENVELOPE_ ULS	Min	-1,486E-13	282,7072	15-1	1,35185
16	0,00000	USL1		-1,624E-13	301,3552	16-1	0,00000
16	0,67593	USL1		-1,110E-13	286,7692	16-1	0,67593
16	1,35185	USL1		-6,287E-14	198,4025	16-1	1,35185

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2	M3	FrameElem	ElemStation m
				KN-m	KN-m		
16	0,00000	ULS2		2,948E-14	282,7072	16-1	0,00000
16	0,67593	ULS2		2,320E-14	232,5098	16-1	0,67593
16	1,35185	ULS2		1,371E-14	156,0923	16-1	1,35185
16	0,00000	ENVELOPE_ ULS	Max	2,948E-14	301,3552	16-1	0,00000
16	0,67593	ENVELOPE_ ULS	Max	2,320E-14	286,7692	16-1	0,67593
16	1,35185	ENVELOPE_ ULS	Max	1,371E-14	198,4025	16-1	1,35185
16	0,00000	ENVELOPE_ ULS	Min	-1,624E-13	282,7072	16-1	0,00000
16	0,67593	ENVELOPE_ ULS	Min	-1,110E-13	232,5098	16-1	0,67593
16	1,35185	ENVELOPE_ ULS	Min	-6,287E-14	156,0923	16-1	1,35185
17	0,00000	USL1		-8,283E-14	198,4025	17-1	0,00000
17	0,66163	USL1		-7,158E-14	79,0352	17-1	0,66163
17	1,32325	USL1		-6,396E-14	-111,9654	17-1	1,32325
17	0,00000	ULS2		1,309E-14	156,0923	17-1	0,00000
17	0,66163	ULS2		-3,866E-15	18,6967	17-1	0,66163
17	1,32325	ULS2		-2,445E-14	-148,3302	17-1	1,32325
17	0,00000	ENVELOPE_ ULS	Max	1,309E-14	198,4025	17-1	0,00000
17	0,66163	ENVELOPE_ ULS	Max	-3,866E-15	79,0352	17-1	0,66163
17	1,32325	ENVELOPE_ ULS	Max	-2,445E-14	-111,9654	17-1	1,32325
17	0,00000	ENVELOPE_ ULS	Min	-8,283E-14	156,0923	17-1	0,00000
17	0,66163	ENVELOPE_ ULS	Min	-7,158E-14	18,6967	17-1	0,66163
17	1,32325	ENVELOPE_ ULS	Min	-6,396E-14	-148,3302	17-1	1,32325
20	0,00000	USL1		1,246E-13	73,2563	20-1	0,00000
20	0,49037	USL1		1,245E-13	-15,8772	20-1	0,49037
20	0,98074	USL1		1,244E-13	-131,9273	20-1	0,98074
20	0,00000	ULS2		-3,288E-15	51,4720	20-1	0,00000
20	0,49037	ULS2		-3,385E-15	-13,6533	20-1	0,49037
20	0,98074	ULS2		-3,482E-15	-99,5515	20-1	0,98074
20	0,00000	ENVELOPE_ ULS	Max	1,246E-13	73,2563	20-1	0,00000
20	0,49037	ENVELOPE_ ULS	Max	1,245E-13	-13,6533	20-1	0,49037
20	0,98074	ENVELOPE_ ULS	Max	1,244E-13	-99,5515	20-1	0,98074
20	0,00000	ENVELOPE_ ULS	Min	-3,288E-15	51,4720	20-1	0,00000
20	0,49037	ENVELOPE_ ULS	Min	-3,385E-15	-15,8772	20-1	0,49037
20	0,98074	ENVELOPE_ ULS	Min	-3,482E-15	-131,9273	20-1	0,98074
21	0,00000	USL1		1,115E-13	-131,9273	21-1	0,00000
21	0,49037	USL1		9,752E-14	-200,9837	21-1	0,49037
21	0,98074	USL1		8,348E-14	-294,4435	21-1	0,98074
21	0,00000	ULS2		-2,137E-15	-99,5515	21-1	0,00000
21	0,49037	ULS2		-2,234E-15	-152,4021	21-1	0,49037
21	0,98074	ULS2		-2,331E-15	-224,2576	21-1	0,98074
21	0,00000	ENVELOPE_ ULS	Max	1,115E-13	-99,5515	21-1	0,00000
21	0,49037	ENVELOPE_ ULS	Max	9,752E-14	-152,4021	21-1	0,49037
21	0,98074	ENVELOPE_ ULS	Max	8,348E-14	-224,2576	21-1	0,98074

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
21	0,00000	ENVELOPE_ ULS	Min	-2,137E-15	-131,9273	21-1	0,00000
21	0,49037	ENVELOPE_ ULS	Min	-2,234E-15	-200,9837	21-1	0,49037
21	0,98074	ENVELOPE_ ULS	Min	-2,331E-15	-294,4435	21-1	0,98074
22	0,00000	USL1		6,324E-14	-294,4435	22-1	0,00000
22	0,64528	USL1		2,644E-14	-329,3833	22-1	0,64528
22	1,29056	USL1		-1,037E-14	-402,1747	22-1	1,29056
22	0,00000	ULS2		-7,066E-16	-224,2576	22-1	0,00000
22	0,64528	ULS2		-8,338E-16	-253,6947	22-1	0,64528
22	1,29056	ULS2		-9,611E-16	-312,4059	22-1	1,29056
22	0,00000	ENVELOPE_ ULS	Max	6,324E-14	-224,2576	22-1	0,00000
22	0,64528	ENVELOPE_ ULS	Max	2,644E-14	-253,6947	22-1	0,64528
22	1,29056	ENVELOPE_ ULS	Max	-9,611E-16	-312,4059	22-1	1,29056
22	0,00000	ENVELOPE_ ULS	Min	-7,066E-16	-294,4435	22-1	0,00000
22	0,64528	ENVELOPE_ ULS	Min	-8,338E-16	-329,3833	22-1	0,64528
22	1,29056	ENVELOPE_ ULS	Min	-1,037E-14	-402,1747	22-1	1,29056
23	0,00000	USL1		2,762E-15	582,1830	23-1	0,00000
23	0,63892	USL1		7,845E-14	1151,7940	23-1	0,63892
23	1,27783	USL1		1,541E-13	1686,3802	23-1	1,27783
23	0,00000	ULS2		5,961E-14	547,9834	23-1	0,00000
23	0,63892	ULS2		1,171E-13	1018,7351	23-1	0,63892
23	1,27783	ULS2		1,747E-13	1489,4867	23-1	1,27783
23	0,00000	ENVELOPE_ ULS	Max	5,961E-14	582,1830	23-1	0,00000
23	0,63892	ENVELOPE_ ULS	Max	1,171E-13	1151,7940	23-1	0,63892
23	1,27783	ENVELOPE_ ULS	Max	1,747E-13	1686,3802	23-1	1,27783
23	0,00000	ENVELOPE_ ULS	Min	2,762E-15	547,9834	23-1	0,00000
23	0,63892	ENVELOPE_ ULS	Min	7,845E-14	1018,7351	23-1	0,63892
23	1,27783	ENVELOPE_ ULS	Min	1,541E-13	1489,4867	23-1	1,27783
24	0,00000	USL1		1,747E-13	1686,3802	24-1	0,00000
24	0,64000	USL1		2,119E-13	1875,0652	24-1	0,64000
24	1,28000	USL1		2,492E-13	2033,2554	24-1	1,28000
24	0,00000	ULS2		1,747E-13	1489,4867	24-1	0,00000
24	0,64000	ULS2		1,938E-13	1646,4956	24-1	0,64000
24	1,28000	ULS2		2,129E-13	1803,5045	24-1	1,28000
24	0,00000	ENVELOPE_ ULS	Max	1,747E-13	1686,3802	24-1	0,00000
24	0,64000	ENVELOPE_ ULS	Max	2,119E-13	1875,0652	24-1	0,64000
24	1,28000	ENVELOPE_ ULS	Max	2,492E-13	2033,2554	24-1	1,28000
24	0,00000	ENVELOPE_ ULS	Min	1,747E-13	1489,4867	24-1	0,00000
24	0,64000	ENVELOPE_ ULS	Min	1,938E-13	1646,4956	24-1	0,64000
24	1,28000	ENVELOPE_ ULS	Min	2,129E-13	1803,5045	24-1	1,28000
25	0,00000	USL1		2,209E-13	2033,2554	25-1	0,00000
25	0,64000	USL1		2,174E-13	1867,8865	25-1	0,64000
25	1,28000	USL1		2,139E-13	1676,6717	25-1	1,28000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
25	0,00000	ULS2		2,129E-13	1803,5045	25-1	0,00000
25	0,64000	ULS2		1,957E-13	1664,7154	25-1	0,64000
25	1,28000	ULS2		1,786E-13	1525,9263	25-1	1,28000
25	0,00000	ENVELOPE_ ULS	Max	2,209E-13	2033,2554	25-1	0,00000
25	0,64000	ENVELOPE_ ULS	Max	2,174E-13	1867,8865	25-1	0,64000
25	1,28000	ENVELOPE_ ULS	Max	2,139E-13	1676,6717	25-1	1,28000
25	0,00000	ENVELOPE_ ULS	Min	2,129E-13	1803,5045	25-1	0,00000
25	0,64000	ENVELOPE_ ULS	Min	1,957E-13	1664,7154	25-1	0,64000
25	1,28000	ENVELOPE_ ULS	Min	1,786E-13	1525,9263	25-1	1,28000
26	0,00000	USL1		2,177E-13	1676,6717	26-1	0,00000
26	0,64000	USL1		1,823E-13	1182,6054	26-1	0,64000
26	1,28000	USL1		1,469E-13	667,3628	26-1	1,28000
26	0,00000	ULS2		1,786E-13	1525,9263	26-1	0,00000
26	0,64000	ULS2		1,273E-13	1107,8004	26-1	0,64000
26	1,28000	ULS2		7,595E-14	689,6744	26-1	1,28000
26	0,00000	ENVELOPE_ ULS	Max	2,177E-13	1676,6717	26-1	0,00000
26	0,64000	ENVELOPE_ ULS	Max	1,823E-13	1182,6054	26-1	0,64000
26	1,28000	ENVELOPE_ ULS	Max	1,469E-13	689,6744	26-1	1,28000
26	0,00000	ENVELOPE_ ULS	Min	1,786E-13	1525,9263	26-1	0,00000
26	0,64000	ENVELOPE_ ULS	Min	1,273E-13	1107,8004	26-1	0,64000
26	1,28000	ENVELOPE_ ULS	Min	7,595E-14	667,3628	26-1	1,28000
27	0,00000	USL1		-7,494E-15	-111,9654	27-1	0,00000
27	0,66324	USL1		1,800E-15	136,4978	27-1	0,66324
27	1,32648	USL1		1,109E-14	298,3915	27-1	1,32648
27	0,00000	ULS2		-7,494E-15	-148,3302	27-1	0,00000
27	0,66324	ULS2		-7,625E-15	-4,8665	27-1	0,66324
27	1,32648	ULS2		-7,756E-15	89,7698	27-1	1,32648
27	0,00000	ENVELOPE_ ULS	Max	-7,494E-15	-111,9654	27-1	0,00000
27	0,66324	ENVELOPE_ ULS	Max	1,800E-15	136,4978	27-1	0,66324
27	1,32648	ENVELOPE_ ULS	Max	1,109E-14	298,3915	27-1	1,32648
27	0,00000	ENVELOPE_ ULS	Min	-7,494E-15	-148,3302	27-1	0,00000
27	0,66324	ENVELOPE_ ULS	Min	-7,625E-15	-4,8665	27-1	0,66324
27	1,32648	ENVELOPE_ ULS	Min	-7,756E-15	89,7698	27-1	1,32648
28	0,00000	USL1		4,679E-15	298,3915	28-1	0,00000
28	0,64000	USL1		1,592E-14	369,9131	28-1	0,64000
28	1,28000	USL1		2,716E-14	368,9355	28-1	1,28000
28	0,00000	ULS2		-7,756E-15	89,7698	28-1	0,00000
28	0,64000	ULS2		-7,882E-15	129,8127	28-1	0,64000
28	1,28000	ULS2		-8,008E-15	127,8512	28-1	1,28000
28	0,00000	ENVELOPE_ ULS	Max	4,679E-15	298,3915	28-1	0,00000
28	0,64000	ENVELOPE_ ULS	Max	1,592E-14	369,9131	28-1	0,64000
28	1,28000	ENVELOPE_ ULS	Max	2,716E-14	368,9355	28-1	1,28000

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
28	0,00000	ENVELOPE_ ULS	Min	-7,756E-15	89,7698	28-1	0,00000
28	0,64000	ENVELOPE_ ULS	Min	-7,882E-15	129,8127	28-1	0,64000
28	1,28000	ENVELOPE_ ULS	Min	-8,008E-15	127,8512	28-1	1,28000
29	0,00000	USL1		2,752E-14	368,9355	29-1	0,00000
29	0,64000	USL1		3,649E-14	293,1095	29-1	0,64000
29	1,28000	USL1		4,546E-14	153,2015	29-1	1,28000
29	0,00000	ULS2		-8,008E-15	127,8512	29-1	0,00000
29	0,64000	ULS2		-8,134E-15	79,2183	29-1	0,64000
29	1,28000	ULS2		-8,260E-15	-7,6508	29-1	1,28000
29	0,00000	ENVELOPE_ ULS	Max	2,752E-14	368,9355	29-1	0,00000
29	0,64000	ENVELOPE_ ULS	Max	3,649E-14	293,1095	29-1	0,64000
29	1,28000	ENVELOPE_ ULS	Max	4,546E-14	153,2015	29-1	1,28000
29	0,00000	ENVELOPE_ ULS	Min	-8,008E-15	127,8512	29-1	0,00000
29	0,64000	ENVELOPE_ ULS	Min	-8,134E-15	79,2183	29-1	0,64000
29	1,28000	ENVELOPE_ ULS	Min	-8,260E-15	-7,6508	29-1	1,28000
30	0,00000	USL1		9,122E-14	153,2015	30-1	0,00000
30	0,64000	USL1		9,109E-14	-53,1854	30-1	0,64000
30	1,28000	USL1		9,096E-14	-315,1141	30-1	1,28000
30	0,00000	ULS2		-8,260E-15	-7,6508	30-1	0,00000
30	0,64000	ULS2		-8,387E-15	-137,4877	30-1	0,64000
30	1,28000	ULS2		-8,513E-15	-301,6901	30-1	1,28000
30	0,00000	ENVELOPE_ ULS	Max	9,122E-14	153,2015	30-1	0,00000
30	0,64000	ENVELOPE_ ULS	Max	9,109E-14	-53,1854	30-1	0,64000
30	1,28000	ENVELOPE_ ULS	Max	9,096E-14	-301,6901	30-1	1,28000
30	0,00000	ENVELOPE_ ULS	Min	-8,260E-15	-7,6508	30-1	0,00000
30	0,64000	ENVELOPE_ ULS	Min	-8,387E-15	-137,4877	30-1	0,64000
30	1,28000	ENVELOPE_ ULS	Min	-8,513E-15	-315,1141	30-1	1,28000
33	0,00000	USL1		1,670E-13	616,1777	33-1	0,00000
33	0,52323	USL1		1,743E-13	525,9514	33-1	0,52323
33	1,04645	USL1		1,817E-13	406,3000	33-1	1,04645
33	0,00000	ULS2		-3,514E-15	538,0640	33-1	0,00000
33	0,52323	ULS2		-3,617E-15	449,4554	33-1	0,52323
33	1,04645	ULS2		-3,721E-15	340,8394	33-1	1,04645
33	0,00000	ENVELOPE_ ULS	Max	1,670E-13	616,1777	33-1	0,00000
33	0,52323	ENVELOPE_ ULS	Max	1,743E-13	525,9514	33-1	0,52323
33	1,04645	ENVELOPE_ ULS	Max	1,817E-13	406,3000	33-1	1,04645
33	0,00000	ENVELOPE_ ULS	Min	-3,514E-15	538,0640	33-1	0,00000
33	0,52323	ENVELOPE_ ULS	Min	-3,617E-15	449,4554	33-1	0,52323
33	1,04645	ENVELOPE_ ULS	Min	-3,721E-15	340,8394	33-1	1,04645
34	0,00000	USL1		1,952E-13	406,3000	34-1	0,00000
34	0,52323	USL1		2,026E-13	265,1615	34-1	0,52323
34	1,04645	USL1		2,099E-13	98,1870	34-1	1,04645

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
34	0,00000	ULS2		-3,721E-15	340,8394	34-1	0,00000
34	0,52323	ULS2		-3,824E-15	219,5218	34-1	0,52323
34	1,04645	ULS2		-3,927E-15	80,5129	34-1	1,04645
34	0,00000	ENVELOPE_ ULS	Max	1,952E-13	406,3000	34-1	0,00000
34	0,52323	ENVELOPE_ ULS	Max	2,026E-13	265,1615	34-1	0,52323
34	1,04645	ENVELOPE_ ULS	Max	2,099E-13	98,1870	34-1	1,04645
34	0,00000	ENVELOPE_ ULS	Min	-3,721E-15	340,8394	34-1	0,00000
34	0,52323	ENVELOPE_ ULS	Min	-3,824E-15	219,5218	34-1	0,52323
34	1,04645	ENVELOPE_ ULS	Min	-3,927E-15	80,5129	34-1	1,04645
35	0,00000	USL1		1,390E-13	667,3628	35-1	0,00000
35	0,52323	USL1		1,612E-13	708,7418	35-1	0,52323
35	1,04645	USL1		1,834E-13	710,2011	35-1	1,04645
35	0,00000	ULS2		-3,102E-15	689,6744	35-1	0,00000
35	0,52323	ULS2		-3,205E-15	688,6359	35-1	0,52323
35	1,04645	ULS2		-3,308E-15	659,6413	35-1	1,04645
35	0,00000	ENVELOPE_ ULS	Max	1,390E-13	689,6744	35-1	0,00000
35	0,52323	ENVELOPE_ ULS	Max	1,612E-13	708,7418	35-1	0,52323
35	1,04645	ENVELOPE_ ULS	Max	1,834E-13	710,2011	35-1	1,04645
35	0,00000	ENVELOPE_ ULS	Min	-3,102E-15	667,3628	35-1	0,00000
35	0,52323	ENVELOPE_ ULS	Min	-3,205E-15	688,6359	35-1	0,52323
35	1,04645	ENVELOPE_ ULS	Min	-3,308E-15	659,6413	35-1	1,04645
36	0,00000	USL1		1,672E-13	710,2011	36-1	0,00000
36	0,52323	USL1		1,746E-13	680,5167	36-1	0,52323
36	1,04645	USL1		1,819E-13	616,1777	36-1	1,04645
36	0,00000	ULS2		-3,308E-15	659,6413	36-1	0,00000
36	0,52323	ULS2		-3,411E-15	610,8346	36-1	0,52323
36	1,04645	ULS2		-3,514E-15	538,0640	36-1	1,04645
36	0,00000	ENVELOPE_ ULS	Max	1,672E-13	710,2011	36-1	0,00000
36	0,52323	ENVELOPE_ ULS	Max	1,746E-13	680,5167	36-1	0,52323
36	1,04645	ENVELOPE_ ULS	Max	1,819E-13	616,1777	36-1	1,04645
36	0,00000	ENVELOPE_ ULS	Min	-3,308E-15	659,6413	36-1	0,00000
36	0,52323	ENVELOPE_ ULS	Min	-3,411E-15	610,8346	36-1	0,52323
36	1,04645	ENVELOPE_ ULS	Min	-3,514E-15	538,0640	36-1	1,04645
39	0,00000	USL1		1,244E-13	233,7489	39-1	0,00000
39	0,52323	USL1		1,243E-13	251,8493	39-1	0,52323
39	1,04645	USL1		1,242E-13	231,8120	39-1	1,04645
39	0,00000	ULS2		-3,518E-15	149,1363	39-1	0,00000
39	0,52323	ULS2		-3,622E-15	169,4516	39-1	0,52323
39	1,04645	ULS2		-3,725E-15	161,0469	39-1	1,04645
39	0,00000	ENVELOPE_ ULS	Max	1,244E-13	233,7489	39-1	0,00000
39	0,52323	ENVELOPE_ ULS	Max	1,243E-13	251,8493	39-1	0,52323
39	1,04645	ENVELOPE_ ULS	Max	1,242E-13	231,8120	39-1	1,04645

Table: Element Forces - Frames, Part 2 of 2

Frame	Station m	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem	ElemStation m
39	0,00000	ENVELOPE_ ULS	Min	-3,518E-15	149,1363	39-1	0,00000
39	0,52323	ENVELOPE_ ULS	Min	-3,622E-15	169,4516	39-1	0,52323
39	1,04645	ENVELOPE_ ULS	Min	-3,725E-15	161,0469	39-1	1,04645
40	0,00000	USL1		1,384E-13	231,8120	40-1	0,00000
40	0,52323	USL1		1,383E-13	169,5449	40-1	0,52323
40	1,04645	USL1		1,382E-13	73,2563	40-1	1,04645
40	0,00000	ULS2		-3,725E-15	161,0469	40-1	0,00000
40	0,52323	ULS2		-3,828E-15	119,1979	40-1	0,52323
40	1,04645	ULS2		-3,931E-15	51,4720	40-1	1,04645
40	0,00000	ENVELOPE_ ULS	Max	1,384E-13	231,8120	40-1	0,00000
40	0,52323	ENVELOPE_ ULS	Max	1,383E-13	169,5449	40-1	0,52323
40	1,04645	ENVELOPE_ ULS	Max	1,382E-13	73,2563	40-1	1,04645
40	0,00000	ENVELOPE_ ULS	Min	-3,725E-15	161,0469	40-1	0,00000
40	0,52323	ENVELOPE_ ULS	Min	-3,828E-15	119,1979	40-1	0,52323
40	1,04645	ENVELOPE_ ULS	Min	-3,931E-15	51,4720	40-1	1,04645
41	0,00000	USL1		1,106E-13	-315,1141	41-1	0,00000
41	0,52323	USL1		1,105E-13	-102,8580	41-1	0,52323
41	1,04645	USL1		1,104E-13	59,3218	41-1	1,04645
41	0,00000	ULS2		-3,106E-15	-301,6901	41-1	0,00000
41	0,52323	ULS2		-3,209E-15	-131,2543	41-1	0,52323
41	1,04645	ULS2		-3,312E-15	1,0687	41-1	1,04645
41	0,00000	ENVELOPE_ ULS	Max	1,106E-13	-301,6901	41-1	0,00000
41	0,52323	ENVELOPE_ ULS	Max	1,105E-13	-102,8580	41-1	0,52323
41	1,04645	ENVELOPE_ ULS	Max	1,104E-13	59,3218	41-1	1,04645
41	0,00000	ENVELOPE_ ULS	Min	-3,106E-15	-315,1141	41-1	0,00000
41	0,52323	ENVELOPE_ ULS	Min	-3,209E-15	-131,2543	41-1	0,52323
41	1,04645	ENVELOPE_ ULS	Min	-3,312E-15	1,0687	41-1	1,04645
42	0,00000	USL1		1,104E-13	59,3218	42-1	0,00000
42	0,52323	USL1		1,251E-13	168,4859	42-1	0,52323
42	1,04645	USL1		1,399E-13	233,7489	42-1	1,04645
42	0,00000	ULS2		-3,312E-15	1,0687	42-1	0,00000
42	0,52323	ULS2		-3,415E-15	91,7077	42-1	0,52323
42	1,04645	ULS2		-3,518E-15	149,1363	42-1	1,04645
42	0,00000	ENVELOPE_ ULS	Max	1,104E-13	59,3218	42-1	0,00000
42	0,52323	ENVELOPE_ ULS	Max	1,251E-13	168,4859	42-1	0,52323
42	1,04645	ENVELOPE_ ULS	Max	1,399E-13	233,7489	42-1	1,04645
42	0,00000	ENVELOPE_ ULS	Min	-3,312E-15	1,0687	42-1	0,00000
42	0,52323	ENVELOPE_ ULS	Min	-3,415E-15	91,7077	42-1	0,52323
42	1,04645	ENVELOPE_ ULS	Min	-3,518E-15	149,1363	42-1	1,04645

**Table: Element Joint Forces - Frames, Part 1 of 2**

**Table: Element Joint Forces - Frames, Part 1 of 2**

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
1	17	USL1	Combination		-1731,057	1,329E-13	171,189	9,747E-14
1	16	USL1	Combination		1731,057	-1,184E-13	-265,814	-9,747E-14
1	17	ULS2	Combination		-1208,574	1,972E-16	211,684	6,871E-15
1	16	ULS2	Combination		1208,574	-1,972E-16	-188,564	-6,871E-15
1	17	ENVELOPE_ ULS	Combination	Max	-1208,574	1,329E-13	211,684	9,747E-14
1	16	ENVELOPE_ ULS	Combination	Max	1731,057	-1,972E-16	-188,564	-6,871E-15
1	17	ENVELOPE_ ULS	Combination	Min	-1731,057	1,972E-16	171,189	6,871E-15
1	16	ENVELOPE_ ULS	Combination	Min	1208,574	-1,184E-13	-265,814	-9,747E-14
2	16	USL1	Combination		-1741,357	9,600E-14	343,454	9,732E-14
2	15	USL1	Combination		1710,591	-7,632E-14	-469,295	-1,154E-13
2	16	ULS2	Combination		-1218,874	1,972E-16	349,866	6,871E-15
2	15	ULS2	Combination		1218,874	-1,972E-16	-318,012	-6,922E-15
2	16	ENVELOPE_ ULS	Combination	Max	-1218,874	9,600E-14	349,866	9,732E-14
2	15	ENVELOPE_ ULS	Combination	Max	1710,591	-1,972E-16	-318,012	-6,922E-15
2	16	ENVELOPE_ ULS	Combination	Min	-1741,357	1,972E-16	343,454	6,871E-15
2	15	ENVELOPE_ ULS	Combination	Min	1218,874	-7,632E-14	-469,295	-1,154E-13
3	15	USL1	Combination		-1720,891	3,159E-14	540,834	1,243E-13
3	14	USL1	Combination		1667,316	-1,245E-14	-655,856	-1,314E-13
3	15	ULS2	Combination		-1229,174	1,972E-16	473,580	6,922E-15
3	14	ULS2	Combination		1229,174	-1,972E-16	-441,726	-7,014E-15
3	15	ENVELOPE_ ULS	Combination	Max	-1229,174	3,159E-14	540,834	1,243E-13
3	14	ENVELOPE_ ULS	Combination	Max	1667,316	-1,972E-16	-441,726	-7,014E-15
3	15	ENVELOPE_ ULS	Combination	Min	-1720,891	1,972E-16	473,580	6,922E-15
3	14	ENVELOPE_ ULS	Combination	Min	1229,174	-1,245E-14	-655,856	-1,314E-13
4	14	USL1	Combination		-1677,616	3,867E-15	719,927	1,367E-13
4	13	USL1	Combination		1595,187	1,440E-14	-812,520	-1,448E-13
4	14	ULS2	Combination		-1239,474	1,972E-16	590,325	7,014E-15
4	13	ULS2	Combination		1239,474	-1,972E-16	-558,569	-7,161E-15
4	14	ENVELOPE_ ULS	Combination	Max	-1239,474	3,867E-15	719,927	1,367E-13
4	13	ENVELOPE_ ULS	Combination	Max	1595,187	1,440E-14	-558,569	-7,161E-15
4	14	ENVELOPE_ ULS	Combination	Min	-1677,616	1,972E-16	590,325	7,014E-15
4	13	ENVELOPE_ ULS	Combination	Min	1239,474	-1,972E-16	-812,520	-1,448E-13
5	13	USL1	Combination		-1605,487	-3,573E-14	868,697	1,426E-13
5	12	USL1	Combination		1527,972	5,291E-14	-953,877	-1,203E-13
5	13	ULS2	Combination		-1249,774	1,972E-16	699,716	7,161E-15
5	12	ULS2	Combination		1249,774	-1,972E-16	-667,960	-7,307E-15
5	13	ENVELOPE_ ULS	Combination	Max	-1249,774	1,972E-16	868,697	1,426E-13
5	12	ENVELOPE_ ULS	Combination	Max	1527,972	5,291E-14	-667,960	-7,307E-15
5	13	ENVELOPE_ ULS	Combination	Min	-1605,487	-3,573E-14	699,716	7,161E-15
5	12	ENVELOPE_ ULS	Combination	Min	1249,774	-1,972E-16	-953,877	-1,203E-13
6	12	USL1	Combination		-1538,272	-5,186E-14	1001,893	1,241E-13



Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
6	3	USL1	Combination		1442,849	6,783E-14	-1058,674	-7,180E-14
6	12	ULS2	Combination		-1260,074	1,972E-16	801,172	7,307E-15
6	3	ULS2	Combination		1260,074	-1,972E-16	-769,162	-7,504E-15
6	12	ENVELOPE_ ULS	Combination	Max	-1260,074	1,972E-16	1001,893	1,241E-13
6	3	ENVELOPE_ ULS	Combination	Max	1442,849	6,783E-14	-769,162	-7,504E-15
6	12	ENVELOPE_ ULS	Combination	Min	-1538,272	-5,186E-14	801,172	7,307E-15
6	3	ENVELOPE_ ULS	Combination	Min	1260,074	-1,972E-16	-1058,674	-7,180E-14
9	5	USL1	Combination		1204,330	8,857E-15	312,359	-1,108E-13
9	6	USL1	Combination		-1215,118	-8,857E-15	-221,323	1,002E-13
9	5	ULS2	Combination		959,443	1,972E-16	241,204	8,926E-15
9	6	ULS2	Combination		-959,443	-1,972E-16	-172,785	-9,009E-15
9	5	ENVELOPE_ ULS	Combination	Max	1204,330	8,857E-15	312,359	8,926E-15
9	6	ENVELOPE_ ULS	Combination	Max	-959,443	-1,972E-16	-172,785	1,002E-13
9	5	ENVELOPE_ ULS	Combination	Min	959,443	1,972E-16	241,204	-1,108E-13
9	6	ENVELOPE_ ULS	Combination	Min	-1215,118	-8,857E-15	-221,323	-9,009E-15
10	6	USL1	Combination		1191,618	4,172E-14	221,323	-1,055E-13
10	7	USL1	Combination		-1197,871	-4,172E-14	-133,852	9,624E-14
10	6	ULS2	Combination		935,943	1,972E-16	172,785	9,009E-15
10	7	ULS2	Combination		-935,943	-1,972E-16	-106,425	-9,064E-15
10	6	ENVELOPE_ ULS	Combination	Max	1191,618	4,172E-14	221,323	9,009E-15
10	7	ENVELOPE_ ULS	Combination	Max	-935,943	-1,972E-16	-106,425	9,624E-14
10	6	ENVELOPE_ ULS	Combination	Min	935,943	1,972E-16	172,785	-1,055E-13
10	7	ENVELOPE_ ULS	Combination	Min	-1197,871	-4,172E-14	-133,852	-9,064E-15
11	7	USL1	Combination		1174,371	6,681E-14	133,852	-9,599E-14
11	11	USL1	Combination		-1177,184	-6,681E-14	-20,034	8,889E-14
11	7	ULS2	Combination		912,443	1,972E-16	106,425	9,064E-15
11	11	ULS2	Combination		-912,443	-1,972E-16	-19,708	-9,091E-15
11	7	ENVELOPE_ ULS	Combination	Max	1174,371	6,681E-14	133,852	9,064E-15
11	11	ENVELOPE_ ULS	Combination	Max	-912,443	-1,972E-16	-19,708	8,889E-14
11	7	ENVELOPE_ ULS	Combination	Min	912,443	1,972E-16	106,425	-9,599E-14
11	11	ENVELOPE_ ULS	Combination	Min	-1177,184	-6,681E-14	-20,034	-9,091E-15
12	17	USL1	Combination		1720,757	-7,957E-14	-89,938	-9,444E-14
12	18	USL1	Combination		-1687,396	6,515E-14	-4,687	9,458E-14
12	17	ULS2	Combination		1198,274	-1,972E-16	-46,857	-6,871E-15
12	18	ULS2	Combination		-1164,913	1,972E-16	69,977	6,871E-15
12	17	ENVELOPE_ ULS	Combination	Max	1720,757	-1,972E-16	-46,857	-6,871E-15
12	18	ENVELOPE_ ULS	Combination	Max	-1164,913	6,515E-14	69,977	9,458E-14
12	17	ENVELOPE_ ULS	Combination	Min	1198,274	-7,957E-14	-89,938	-9,444E-14
12	18	ENVELOPE_ ULS	Combination	Min	-1687,396	1,972E-16	-4,687	6,871E-15
13	18	USL1	Combination		1677,096	-4,693E-14	89,254	-9,635E-14
13	19	USL1	Combination		-1468,156	2,725E-14	-215,094	1,064E-13
13	18	ULS2	Combination		1154,613	-1,972E-16	98,222	-6,871E-15

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
13	19	ULS2	Combination		-976,439	1,972E-16	-66,368	6,922E-15
13	18	ENVELOPE_ ULS	Combination	Max	1677,096	-1,972E-16	98,222	-6,871E-15
13	19	ENVELOPE_ ULS	Combination	Max	-976,439	2,725E-14	-66,368	1,064E-13
13	18	ENVELOPE_ ULS	Combination	Min	1154,613	-4,693E-14	89,254	-9,635E-14
13	19	ENVELOPE_ ULS	Combination	Min	-1468,156	1,972E-16	-215,094	6,922E-15
14	19	USL1	Combination		1457,856	-3,004E-14	303,898	-1,034E-13
14	20	USL1	Combination		-1227,933	1,089E-14	-418,920	1,242E-13
14	19	ULS2	Combination		966,139	-1,972E-16	239,122	-6,922E-15
14	20	ULS2	Combination		-789,790	1,972E-16	-207,268	7,014E-15
14	19	ENVELOPE_ ULS	Combination	Max	1457,856	-1,972E-16	303,898	-6,922E-15
14	20	ENVELOPE_ ULS	Combination	Max	-789,790	1,089E-14	-207,268	1,242E-13
14	19	ENVELOPE_ ULS	Combination	Min	966,139	-3,004E-14	239,122	-1,034E-13
14	20	ENVELOPE_ ULS	Combination	Min	-1227,933	1,972E-16	-418,920	7,014E-15
15	20	USL1	Combination		1217,633	2,408E-14	512,217	-1,117E-13
15	21	USL1	Combination		-972,764	-4,241E-14	-611,199	9,096E-14
15	20	ULS2	Combination		779,490	-1,972E-16	384,945	-7,014E-15
15	21	ULS2	Combination		-607,264	1,972E-16	-353,091	7,143E-15
15	20	ENVELOPE_ ULS	Combination	Max	1217,633	2,408E-14	512,217	-7,014E-15
15	21	ENVELOPE_ ULS	Combination	Max	-607,264	1,972E-16	-353,091	9,096E-14
15	20	ENVELOPE_ ULS	Combination	Min	779,490	-1,972E-16	384,945	-1,117E-13
15	21	ENVELOPE_ ULS	Combination	Min	-972,764	-4,241E-14	-611,199	7,143E-15
16	21	USL1	Combination		962,464	5,569E-14	709,651	-8,566E-14
16	22	USL1	Combination		-709,131	-7,292E-14	-788,632	4,186E-14
16	21	ULS2	Combination		596,964	-1,972E-16	536,305	-7,143E-15
16	22	ULS2	Combination		-430,349	1,972E-16	-504,452	7,307E-15
16	21	ENVELOPE_ ULS	Combination	Max	962,464	5,569E-14	709,651	-7,143E-15
16	22	ENVELOPE_ ULS	Combination	Max	-430,349	1,972E-16	-504,452	4,186E-14
16	21	ENVELOPE_ ULS	Combination	Min	596,964	-1,972E-16	536,305	-8,566E-14
16	22	ENVELOPE_ ULS	Combination	Min	-709,131	-7,292E-14	-788,632	7,307E-15
17	22	USL1	Combination		698,831	4,164E-14	892,777	-4,344E-14
17	4	USL1	Combination		-452,262	-5,719E-14	-950,388	-1,049E-14
17	22	ULS2	Combination		420,049	-1,972E-16	693,582	-7,307E-15
17	4	ULS2	Combination		-264,235	1,972E-16	-662,402	7,494E-15
17	22	ENVELOPE_ ULS	Combination	Max	698,831	4,164E-14	892,777	-7,307E-15
17	4	ENVELOPE_ ULS	Combination	Max	-264,235	1,972E-16	-662,402	7,494E-15
17	22	ENVELOPE_ ULS	Combination	Min	420,049	-1,972E-16	693,582	-4,344E-14
17	4	ENVELOPE_ ULS	Combination	Min	-452,262	-5,719E-14	-950,388	-1,049E-14
20	8	USL1	Combination		-922,254	-2,817E-14	269,522	9,921E-14
20	9	USL1	Combination		986,394	2,817E-14	-178,486	-1,046E-13
20	8	ULS2	Combination		-677,367	-1,972E-16	199,684	-8,926E-15
20	9	ULS2	Combination		730,719	1,972E-16	-131,265	9,009E-15
20	8	ENVELOPE_ ULS	Combination	Max	-677,367	-1,972E-16	269,522	9,921E-14

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
20	9	ENVELOPE_ ULS	Combination	Max	986,394	2,817E-14	-131,265	9,009E-15
20	8	ENVELOPE_ ULS	Combination	Min	-922,254	-2,817E-14	199,684	-8,926E-15
20	9	ENVELOPE_ ULS	Combination	Min	730,719	1,972E-16	-178,486	-1,046E-13
21	9	USL1	Combination		-1009,894	-1,707E-14	178,486	1,040E-13
21	10	USL1	Combination		1065,037	1,707E-14	-91,015	-9,680E-14
21	9	ULS2	Combination		-754,219	-1,972E-16	131,265	-9,009E-15
21	10	ULS2	Combination		803,109	1,972E-16	-64,905	9,064E-15
21	9	ENVELOPE_ ULS	Combination	Max	-754,219	-1,972E-16	178,486	1,040E-13
21	10	ENVELOPE_ ULS	Combination	Max	1065,037	1,707E-14	-64,905	9,064E-15
21	9	ENVELOPE_ ULS	Combination	Min	-1009,894	-1,707E-14	131,265	-9,009E-15
21	10	ENVELOPE_ ULS	Combination	Min	803,109	1,972E-16	-91,015	-9,680E-14
22	10	USL1	Combination		-1088,537	-6,437E-14	91,015	9,476E-14
22	11	USL1	Combination		1153,684	6,437E-14	20,034	-8,655E-14
22	10	ULS2	Combination		-826,609	-1,972E-16	64,905	-9,064E-15
22	11	ULS2	Combination		888,943	1,972E-16	19,708	9,091E-15
22	10	ENVELOPE_ ULS	Combination	Max	-826,609	-1,972E-16	91,015	9,476E-14
22	11	ENVELOPE_ ULS	Combination	Max	1153,684	6,437E-14	20,034	9,091E-15
22	10	ENVELOPE_ ULS	Combination	Min	-1088,537	-6,437E-14	64,905	-9,064E-15
22	11	ENVELOPE_ ULS	Combination	Min	888,943	1,972E-16	19,708	-8,655E-14
23	3	USL1	Combination		-920,151	-2,860E-15	1100,311	7,338E-14
23	28	USL1	Combination		810,513	1,629E-14	-1031,059	-3,230E-14
23	3	ULS2	Combination		-736,798	1,972E-16	896,027	7,504E-15
23	28	ULS2	Combination		736,798	-1,972E-16	-826,775	-7,756E-15
23	3	ENVELOPE_ ULS	Combination	Max	-736,798	1,972E-16	1100,311	7,338E-14
23	28	ENVELOPE_ ULS	Combination	Max	810,513	1,629E-14	-826,775	-7,756E-15
23	3	ENVELOPE_ ULS	Combination	Min	-920,151	-2,860E-15	896,027	7,504E-15
23	28	ENVELOPE_ ULS	Combination	Min	736,798	-1,972E-16	-1031,059	-3,230E-14
24	28	USL1	Combination		-319,850	-1,787E-14	1031,059	3,923E-14
24	26	USL1	Combination		224,554	2,954E-14	-970,737	-2,309E-14
24	28	ULS2	Combination		-245,326	1,972E-16	826,775	7,756E-15
24	26	ULS2	Combination		245,326	-1,972E-16	-766,453	-8,008E-15
24	28	ENVELOPE_ ULS	Combination	Max	-245,326	1,972E-16	1031,059	3,923E-14
24	26	ENVELOPE_ ULS	Combination	Max	245,326	2,954E-14	-766,453	-8,008E-15
24	28	ENVELOPE_ ULS	Combination	Min	-319,850	-1,787E-14	826,775	7,756E-15
24	26	ENVELOPE_ ULS	Combination	Min	224,554	-1,972E-16	-970,737	-2,309E-14
25	26	USL1	Combination		236,981	-1,845E-14	970,737	1,904E-14
25	24	USL1	Combination		-317,749	2,834E-14	-910,416	1,913E-15
25	26	ULS2	Combination		216,858	1,972E-16	766,453	8,008E-15
25	24	ULS2	Combination		-216,858	-1,972E-16	-706,131	-8,260E-15
25	26	ENVELOPE_ ULS	Combination	Max	236,981	1,972E-16	970,737	1,904E-14
25	24	ENVELOPE_ ULS	Combination	Max	-216,858	2,834E-14	-706,131	1,913E-15

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
25	26	ENVELOPE_	Combination	Min	216,858	-1,845E-14	766,453	8,008E-15
		ULS						
25	24	ENVELOPE_	Combination	Min	-317,749	-1,972E-16	-910,416	-8,260E-15
		ULS						
26	24	USL1	Combination		754,219	-3,716E-14	910,416	-8,108E-15
26	1	USL1	Combination		-820,395	4,527E-14	-841,046	6,301E-14
26	24	ULS2	Combination		653,322	1,972E-16	706,131	8,260E-15
26	1	ULS2	Combination		-653,322	-1,972E-16	-636,762	-8,513E-15
26	24	ENVELOPE_	Combination	Max	754,219	1,972E-16	910,416	8,260E-15
		ULS						
26	1	ENVELOPE_	Combination	Max	-653,322	4,527E-14	-636,762	6,301E-14
		ULS						
26	24	ENVELOPE_	Combination	Min	653,322	-3,716E-14	706,131	-8,108E-15
		ULS						
26	1	ENVELOPE_	Combination	Min	-820,395	-1,972E-16	-841,046	-8,513E-15
		ULS						
27	4	USL1	Combination		441,962	1,401E-14	1060,110	-7,938E-15
27	29	USL1	Combination		-180,911	-1,401E-14	-988,221	7,756E-15
27	4	ULS2	Combination		253,935	-1,972E-16	857,144	-7,494E-15
27	29	ULS2	Combination		-106,696	1,972E-16	-785,255	7,756E-15
27	4	ENVELOPE_	Combination	Max	441,962	1,401E-14	1060,110	-7,494E-15
		ULS						
27	29	ENVELOPE_	Combination	Max	-106,696	1,972E-16	-785,255	7,756E-15
		ULS						
27	4	ENVELOPE_	Combination	Min	253,935	-1,972E-16	857,144	-7,938E-15
		ULS						
27	29	ENVELOPE_	Combination	Min	-180,911	-1,401E-14	-988,221	7,756E-15
		ULS						
28	29	USL1	Combination		170,611	1,757E-14	988,221	4,901E-15
28	27	USL1	Combination		55,949	-1,757E-14	-927,900	-3,462E-14
28	29	ULS2	Combination		96,396	-1,972E-16	785,255	-7,756E-15
28	27	ULS2	Combination		34,868	1,972E-16	-724,933	8,008E-15
28	29	ENVELOPE_	Combination	Max	170,611	1,757E-14	988,221	4,901E-15
		ULS						
28	27	ENVELOPE_	Combination	Max	55,949	1,972E-16	-724,933	8,008E-15
		ULS						
28	29	ENVELOPE_	Combination	Min	96,396	-1,972E-16	785,255	-7,756E-15
		ULS						
28	27	ENVELOPE_	Combination	Min	34,868	-1,757E-14	-927,900	-3,462E-14
		ULS						
29	27	USL1	Combination		-66,249	1,401E-14	927,900	2,841E-14
29	25	USL1	Combination		266,505	-1,401E-14	-867,578	-5,924E-14
29	27	ULS2	Combination		-45,168	-1,972E-16	724,933	-8,008E-15
29	25	ULS2	Combination		164,656	1,972E-16	-664,612	8,260E-15
29	27	ENVELOPE_	Combination	Max	-45,168	1,401E-14	927,900	2,841E-14
		ULS						
29	25	ENVELOPE_	Combination	Max	266,505	1,972E-16	-664,612	8,260E-15
		ULS						
29	27	ENVELOPE_	Combination	Min	-66,249	-1,972E-16	724,933	-8,008E-15
		ULS						
29	25	ENVELOPE_	Combination	Min	164,656	-1,401E-14	-867,578	-5,924E-14
		ULS						
30	25	USL1	Combination		-276,805	-3,750E-15	867,578	8,722E-14
30	2	USL1	Combination		450,373	3,750E-15	-798,208	-7,675E-14
30	25	ULS2	Combination		-174,956	-1,972E-16	664,612	-8,260E-15
30	2	ULS2	Combination		282,348	1,972E-16	-595,242	8,513E-15
30	25	ENVELOPE_	Combination	Max	-174,956	-1,972E-16	664,612	8,722E-14
		ULS						
30	2	ENVELOPE_	Combination	Max	450,373	3,750E-15	-595,242	8,513E-15
		ULS						
30	25	ENVELOPE_	Combination	Min	-276,805	-3,750E-15	664,612	-8,260E-15
		ULS						

Table: Element Joint Forces - Frames, Part 1 of 2

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
30	2	ENVELOPE_	Combination	Min	282,348	1,972E-16	-798,208	-7,675E-14
		ULS						
33	30	USL1	Combination		1217,765	-1,446E-14	536,890	-8,965E-14
33	31	USL1	Combination		-1235,764	1,446E-14	-417,406	9,942E-14
33	30	ULS2	Combination		1006,443	1,972E-16	407,598	8,719E-15
33	31	ULS2	Combination		-1006,443	-1,972E-16	-319,290	-8,823E-15
33	30	ENVELOPE_	Combination	Max	1217,765	1,972E-16	536,890	8,719E-15
		ULS						
33	31	ENVELOPE_	Combination	Max	-1006,443	1,446E-14	-319,290	9,942E-14
		ULS						
33	30	ENVELOPE_	Combination	Min	1006,443	-1,446E-14	407,598	-8,965E-14
		ULS						
33	31	ENVELOPE_	Combination	Min	-1235,764	-1,972E-16	-417,406	-8,823E-15
		ULS						
34	31	USL1	Combination		1212,264	-6,908E-15	417,406	-1,085E-13
34	5	USL1	Combination		-1227,830	6,908E-15	-312,359	1,075E-13
34	31	ULS2	Combination		982,943	1,972E-16	319,290	8,823E-15
34	5	ULS2	Combination		-982,943	-1,972E-16	-241,204	-8,926E-15
34	31	ENVELOPE_	Combination	Max	1212,264	1,972E-16	417,406	8,823E-15
		ULS						
34	5	ENVELOPE_	Combination	Max	-982,943	6,908E-15	-241,204	1,075E-13
		ULS						
34	31	ENVELOPE_	Combination	Min	982,943	-6,908E-15	319,290	-1,085E-13
		ULS						
34	5	ENVELOPE_	Combination	Min	-1227,830	-1,972E-16	-312,359	-8,926E-15
		ULS						
35	1	USL1	Combination		1221,468	-3,711E-14	841,046	-6,454E-14
35	32	USL1	Combination		-1244,333	3,711E-14	-678,051	7,865E-14
35	1	ULS2	Combination		1053,443	1,972E-16	636,762	8,513E-15
35	32	ULS2	Combination		-1053,443	-1,972E-16	-513,370	-8,616E-15
35	1	ENVELOPE_	Combination	Max	1221,468	1,972E-16	841,046	8,513E-15
		ULS						
35	32	ENVELOPE_	Combination	Max	-1053,443	3,711E-14	-513,370	7,865E-14
		ULS						
35	1	ENVELOPE_	Combination	Min	1053,443	-3,711E-14	636,762	-6,454E-14
		ULS						
35	32	ENVELOPE_	Combination	Min	-1244,333	-1,972E-16	-678,051	-8,616E-15
		ULS						
36	32	USL1	Combination		1220,833	-2,156E-14	678,051	-8,509E-14
36	30	USL1	Combination		-1241,265	2,156E-14	-536,890	8,743E-14
36	32	ULS2	Combination		1029,943	1,972E-16	513,370	8,616E-15
36	30	ULS2	Combination		-1029,943	-1,972E-16	-407,598	-8,719E-15
36	32	ENVELOPE_	Combination	Max	1220,833	1,972E-16	678,051	8,616E-15
		ULS						
36	30	ENVELOPE_	Combination	Max	-1029,943	2,156E-14	-407,598	8,743E-14
		ULS						
36	32	ENVELOPE_	Combination	Min	1029,943	-2,156E-14	513,370	-8,509E-14
		ULS						
36	30	ENVELOPE_	Combination	Min	-1241,265	-1,972E-16	-536,890	-8,719E-15
		ULS						
39	33	USL1	Combination		-712,505	-1,796E-14	494,052	9,375E-14
39	34	USL1	Combination		797,110	1,796E-14	-374,569	-9,465E-14
39	33	ULS2	Combination		-501,182	-1,972E-16	366,079	-8,719E-15
39	34	ULS2	Combination		567,789	1,972E-16	-277,770	8,823E-15
39	33	ENVELOPE_	Combination	Max	-501,182	-1,972E-16	494,052	9,375E-14
		ULS						
39	34	ENVELOPE_	Combination	Max	797,110	1,796E-14	-277,770	8,823E-15
		ULS						
39	33	ENVELOPE_	Combination	Min	-712,505	-1,796E-14	366,079	-8,719E-15
		ULS						
39	34	ENVELOPE_	Combination	Min	567,789	1,972E-16	-374,569	-9,465E-14
		ULS						
40	34	USL1	Combination		-820,610	-4,193E-16	374,569	1,061E-13

**Table: Element Joint Forces - Frames, Part 1 of 2**

Frame	Joint	OutputCase	CaseType	StepType	F1 KN	F2 KN	F3 KN	M1 KN-m
40	8	USL1	Combination		898,754	4,193E-16	-269,522	-1,082E-13
40	34	ULS2	Combination		-591,289	-1,972E-16	277,770	-8,823E-15
40	8	ULS2	Combination		653,867	1,972E-16	-199,684	8,926E-15
40	34	ENVELOPE_ ULS	Combination	Max	-591,289	-1,972E-16	374,569	1,061E-13
40	8	ENVELOPE_ ULS	Combination	Max	898,754	4,193E-16	-199,684	8,926E-15
40	34	ENVELOPE_ ULS	Combination	Min	-820,610	-4,193E-16	277,770	-8,823E-15
40	8	ENVELOPE_ ULS	Combination	Min	653,867	1,972E-16	-269,522	-1,082E-13
41	2	USL1	Combination		-473,873	7,796E-15	798,208	9,341E-14
41	35	USL1	Combination		574,385	-7,796E-15	-635,213	-9,197E-14
41	2	ULS2	Combination		-305,848	-1,972E-16	595,242	-8,513E-15
41	35	ULS2	Combination		383,494	1,972E-16	-471,850	8,616E-15
41	2	ENVELOPE_ ULS	Combination	Max	-305,848	7,796E-15	798,208	9,341E-14
41	35	ENVELOPE_ ULS	Combination	Max	574,385	1,972E-16	-471,850	8,616E-15
41	2	ENVELOPE_ ULS	Combination	Min	-473,873	-1,972E-16	595,242	-8,513E-15
41	35	ENVELOPE_ ULS	Combination	Min	383,494	-7,796E-15	-635,213	-9,197E-14
42	35	USL1	Combination		-597,885	2,334E-14	635,213	9,042E-14
42	33	USL1	Combination		689,005	-2,334E-14	-494,052	-9,053E-14
42	35	ULS2	Combination		-406,994	-1,972E-16	471,850	-8,616E-15
42	33	ULS2	Combination		477,682	1,972E-16	-366,079	8,719E-15
42	35	ENVELOPE_ ULS	Combination	Max	-406,994	2,334E-14	635,213	9,042E-14
42	33	ENVELOPE_ ULS	Combination	Max	689,005	1,972E-16	-366,079	8,719E-15
42	35	ENVELOPE_ ULS	Combination	Min	-597,885	-1,972E-16	471,850	-8,616E-15
42	33	ENVELOPE_ ULS	Combination	Min	477,682	-2,334E-14	-494,052	-9,053E-14

**Table: Element Joint Forces - Frames, Part 2 of 2**

**Table: Element Joint Forces - Frames, Part 2 of 2**

Frame	Joint	OutputCase	StepType	M2 KN-m	M3 KN-m	FrameElem
1	17	USL1		-161,3146	-6,229E-14	1-1
1	16	USL1		375,7095	-2,655E-14	1-1
1	17	ULS2		-82,9759	2,357E-18	1-1
1	16	ULS2		279,3390	-1,959E-16	1-1
1	17	ENVELOPE_ ULS	Max	-82,9759	2,357E-18	1-1
1	16	ENVELOPE_ ULS	Max	375,7095	-1,959E-16	1-1
1	17	ENVELOPE_ ULS	Min	-161,3146	-6,229E-14	1-1
1	16	ENVELOPE_ ULS	Min	279,3390	-2,655E-14	1-1
2	16	USL1		-375,7095	1,904E-14	2-1
2	15	USL1		468,4492	-1,379E-13	2-1
2	16	ULS2		-279,3390	1,959E-16	2-1
2	15	ULS2		406,8908	-4,576E-16	2-1
2	16	ENVELOPE_ ULS	Max	-279,3390	1,904E-14	2-1
2	15	ENVELOPE_ ULS	Max	468,4492	-4,576E-16	2-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
2	16	ENVELOPE_ ULS	Min	-375,7095	1,959E-16	2-1
2	15	ENVELOPE_ ULS	Min	406,8908	-1,379E-13	2-1
3	15	USL1		-468,4492	1,505E-13	3-1
3	14	USL1		444,1877	-1,554E-13	3-1
3	15	ULS2		-406,8908	4,576E-16	3-1
3	14	ULS2		418,7023	-7,080E-16	3-1
3	15	ENVELOPE_ ULS	Max	-406,8908	1,505E-13	3-1
3	14	ENVELOPE_ ULS	Max	444,1877	-7,080E-16	3-1
3	15	ENVELOPE_ ULS	Min	-468,4492	4,576E-16	3-1
3	14	ENVELOPE_ ULS	Min	418,7023	-1,554E-13	3-1
4	14	USL1		-444,1877	1,719E-13	4-1
4	13	USL1		87,2654	-1,813E-13	4-1
4	14	ULS2		-418,7023	7,080E-16	4-1
4	13	ULS2		141,0409	-9,296E-16	4-1
4	14	ENVELOPE_ ULS	Max	-418,7023	1,719E-13	4-1
4	13	ENVELOPE_ ULS	Max	141,0409	-9,296E-16	4-1
4	14	ENVELOPE_ ULS	Min	-444,1877	7,080E-16	4-1
4	13	ENVELOPE_ ULS	Min	87,2654	-1,813E-13	4-1
5	13	USL1		-87,2654	1,893E-13	5-1
5	12	USL1		-54,5861	-1,501E-13	5-1
5	13	ULS2		-141,0409	9,296E-16	5-1
5	12	ULS2		-21,4114	-1,151E-15	5-1
5	13	ENVELOPE_ ULS	Max	-87,2654	1,893E-13	5-1
5	12	ENVELOPE_ ULS	Max	-21,4114	-1,151E-15	5-1
5	13	ENVELOPE_ ULS	Min	-141,0409	9,296E-16	5-1
5	12	ENVELOPE_ ULS	Min	-54,5861	-1,501E-13	5-1
6	12	USL1		54,5861	1,548E-13	6-1
6	3	USL1		-582,1830	-1,122E-13	6-1
6	12	ULS2		21,4114	1,151E-15	6-1
6	3	ULS2		-547,9834	-1,334E-15	6-1
6	12	ENVELOPE_ ULS	Max	54,5861	1,548E-13	6-1
6	3	ENVELOPE_ ULS	Max	-547,9834	-1,334E-15	6-1
6	12	ENVELOPE_ ULS	Min	21,4114	1,151E-15	6-1
6	3	ENVELOPE_ ULS	Min	-582,1830	-1,122E-13	6-1
9	5	USL1		98,1870	1,562E-13	9-1
9	6	USL1		176,6697	-1,159E-13	9-1
9	5	ULS2		80,5129	6,187E-16	9-1
9	6	ULS2		141,3504	-4,441E-16	9-1
9	5	ENVELOPE_ ULS	Max	98,1870	1,562E-13	9-1
9	6	ENVELOPE_ ULS	Max	176,6697	-4,441E-16	9-1
9	5	ENVELOPE_ ULS	Min	80,5129	6,187E-16	9-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
9	6	ENVELOPE_ ULS	Min	141,3504	-1,159E-13	9-1
10	6	USL1		-176,6697	1,273E-13	10-1
10	7	USL1		342,6650	-8,908E-14	10-1
10	6	ULS2		-141,3504	4,441E-16	10-1
10	7	ULS2		270,7748	-2,586E-16	10-1
10	6	ENVELOPE_ ULS	Max	-141,3504	1,273E-13	10-1
10	7	ENVELOPE_ ULS	Max	342,6650	-2,586E-16	10-1
10	6	ENVELOPE_ ULS	Min	-176,6697	4,441E-16	10-1
10	7	ENVELOPE_ ULS	Min	270,7748	-8,908E-14	10-1
11	7	USL1		-342,6650	9,346E-14	11-1
11	11	USL1		402,1747	-1,221E-14	11-1
11	7	ULS2		-270,7748	2,586E-16	11-1
11	11	ULS2		312,4059	8,255E-19	11-1
11	7	ENVELOPE_ ULS	Max	-270,7748	9,346E-14	11-1
11	11	ENVELOPE_ ULS	Max	402,1747	8,255E-19	11-1
11	7	ENVELOPE_ ULS	Min	-342,6650	2,586E-16	11-1
11	11	ENVELOPE_ ULS	Min	312,4059	-1,221E-14	11-1
12	17	USL1		161,3146	5,921E-14	12-1
12	18	USL1		-119,4904	-1,504E-13	12-1
12	17	ULS2		82,9759	-2,357E-18	12-1
12	18	ULS2		-25,6570	-1,912E-16	12-1
12	17	ENVELOPE_ ULS	Max	161,3146	5,921E-14	12-1
12	18	ENVELOPE_ ULS	Max	-25,6570	-1,912E-16	12-1
12	17	ENVELOPE_ ULS	Min	82,9759	-2,357E-18	12-1
12	18	ENVELOPE_ ULS	Min	-119,4904	-1,504E-13	12-1
13	18	USL1		119,4904	1,553E-13	13-1
13	19	USL1		85,3544	-2,121E-13	13-1
13	18	ULS2		25,6570	1,912E-16	13-1
13	19	ULS2		140,9837	-4,528E-16	13-1
13	18	ENVELOPE_ ULS	Max	119,4904	1,553E-13	13-1
13	19	ENVELOPE_ ULS	Max	140,9837	-4,528E-16	13-1
13	18	ENVELOPE_ ULS	Min	25,6570	1,912E-16	13-1
13	19	ENVELOPE_ ULS	Min	85,3544	-2,121E-13	13-1
14	19	USL1		-85,3544	2,029E-13	14-1
14	20	USL1		247,6876	-2,340E-13	14-1
14	19	ULS2		-140,9837	4,528E-16	14-1
14	20	ULS2		264,0971	-7,033E-16	14-1
14	19	ENVELOPE_ ULS	Max	-85,3544	2,029E-13	14-1
14	20	ENVELOPE_ ULS	Max	264,0971	-7,033E-16	14-1
14	19	ENVELOPE_ ULS	Min	-140,9837	4,528E-16	14-1
14	20	ENVELOPE_ ULS	Min	247,6876	-2,340E-13	14-1
15	20	USL1		-247,6876	2,179E-13	15-1



Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
15	21	USL1		301,3552	-1,712E-13	15-1
15	20	ULS2		-264,0971	7,033E-16	15-1
15	21	ULS2		282,7072	-9,364E-16	15-1
15	20	ENVELOPE_ ULS	Max	-247,6876	2,179E-13	15-1
15	21	ENVELOPE_ ULS	Max	301,3552	-9,364E-16	15-1
15	20	ENVELOPE_ ULS	Min	-264,0971	7,033E-16	15-1
15	21	ENVELOPE_ ULS	Min	282,7072	-1,712E-13	15-1
16	21	USL1		-301,3552	1,776E-13	16-1
16	22	USL1		198,4025	-1,189E-13	16-1
16	21	ULS2		-282,7072	9,364E-16	16-1
16	22	ULS2		156,0923	-1,146E-15	16-1
16	21	ENVELOPE_ ULS	Max	-282,7072	1,776E-13	16-1
16	22	ENVELOPE_ ULS	Max	198,4025	-1,146E-15	16-1
16	21	ENVELOPE_ ULS	Min	-301,3552	9,364E-16	16-1
16	22	ENVELOPE_ ULS	Min	156,0923	-1,189E-13	16-1
17	22	USL1		-198,4025	1,178E-13	17-1
17	4	USL1		-111,9654	-7,474E-14	17-1
17	22	ULS2		-156,0923	1,146E-15	17-1
17	4	ULS2		-148,3302	-1,329E-15	17-1
17	22	ENVELOPE_ ULS	Max	-156,0923	1,178E-13	17-1
17	4	ENVELOPE_ ULS	Max	-111,9654	-1,329E-15	17-1
17	22	ENVELOPE_ ULS	Min	-198,4025	1,146E-15	17-1
17	4	ENVELOPE_ ULS	Min	-148,3302	-7,474E-14	17-1
20	8	USL1		-73,2563	9,848E-14	20-1
20	9	USL1		-131,9273	-1,064E-13	20-1
20	8	ULS2		-51,4720	6,140E-16	20-1
20	9	ULS2		-99,5515	-4,394E-16	20-1
20	8	ENVELOPE_ ULS	Max	-51,4720	9,848E-14	20-1
20	9	ENVELOPE_ ULS	Max	-99,5515	-4,394E-16	20-1
20	8	ENVELOPE_ ULS	Min	-73,2563	6,140E-16	20-1
20	9	ENVELOPE_ ULS	Min	-131,9273	-1,064E-13	20-1
21	9	USL1		131,9273	7,532E-14	21-1
21	10	USL1		-294,4435	-6,776E-14	21-1
21	9	ULS2		99,5515	4,394E-16	21-1
21	10	ULS2		-224,2576	-2,539E-16	21-1
21	9	ENVELOPE_ ULS	Max	131,9273	7,532E-14	21-1
21	10	ENVELOPE_ ULS	Max	-224,2576	-2,539E-16	21-1
21	9	ENVELOPE_ ULS	Min	99,5515	4,394E-16	21-1
21	10	ENVELOPE_ ULS	Min	-294,4435	-6,776E-14	21-1
22	10	USL1		294,4435	5,243E-14	22-1
22	11	USL1		-402,1747	2,731E-14	22-1
22	10	ULS2		224,2576	2,539E-16	22-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
22	11	ULS2		-312,4059	-8,255E-19	22-1
22	10	ENVELOPE_ ULS	Max	294,4435	5,243E-14	22-1
22	11	ENVELOPE_ ULS	Max	-312,4059	2,731E-14	22-1
22	10	ENVELOPE_ ULS	Min	224,2576	2,539E-16	22-1
22	11	ENVELOPE_ ULS	Min	-402,1747	-8,255E-19	22-1
23	3	USL1		582,1830	1,119E-13	23-1
23	28	USL1		-1686,3802	-1,115E-13	23-1
23	3	ULS2		547,9834	1,334E-15	23-1
23	28	ULS2		-1489,4867	-1,334E-15	23-1
23	3	ENVELOPE_ ULS	Max	582,1830	1,119E-13	23-1
23	28	ENVELOPE_ ULS	Max	-1489,4867	-1,334E-15	23-1
23	3	ENVELOPE_ ULS	Min	547,9834	1,334E-15	23-1
23	28	ENVELOPE_ ULS	Min	-1686,3802	-1,115E-13	23-1
24	28	USL1		1686,3802	1,128E-13	24-1
24	26	USL1		-2033,2554	-1,128E-13	24-1
24	28	ULS2		1489,4867	1,334E-15	24-1
24	26	ULS2		-1803,5045	-1,334E-15	24-1
24	28	ENVELOPE_ ULS	Max	1686,3802	1,128E-13	24-1
24	26	ENVELOPE_ ULS	Max	-1803,5045	-1,334E-15	24-1
24	28	ENVELOPE_ ULS	Min	1489,4867	1,334E-15	24-1
24	26	ENVELOPE_ ULS	Min	-2033,2554	-1,128E-13	24-1
25	26	USL1		2033,2554	1,128E-13	25-1
25	24	USL1		-1676,6717	-1,128E-13	25-1
25	26	ULS2		1803,5045	1,334E-15	25-1
25	24	ULS2		-1525,9263	-1,334E-15	25-1
25	26	ENVELOPE_ ULS	Max	2033,2554	1,128E-13	25-1
25	24	ENVELOPE_ ULS	Max	-1525,9263	-1,334E-15	25-1
25	26	ENVELOPE_ ULS	Min	1803,5045	1,334E-15	25-1
25	24	ENVELOPE_ ULS	Min	-1676,6717	-1,128E-13	25-1
26	24	USL1		1676,6717	1,088E-13	26-1
26	1	USL1		-667,3628	-1,088E-13	26-1
26	24	ULS2		1525,9263	1,334E-15	26-1
26	1	ULS2		-689,6744	-1,334E-15	26-1
26	24	ENVELOPE_ ULS	Max	1676,6717	1,088E-13	26-1
26	1	ENVELOPE_ ULS	Max	-667,3628	-1,334E-15	26-1
26	24	ENVELOPE_ ULS	Min	1525,9263	1,334E-15	26-1
26	1	ENVELOPE_ ULS	Min	-689,6744	-1,088E-13	26-1
27	4	USL1		111,9654	8,038E-14	27-1
27	29	USL1		298,3915	-8,038E-14	27-1
27	4	ULS2		148,3302	1,329E-15	27-1
27	29	ULS2		89,7698	-1,329E-15	27-1
27	4	ENVELOPE_ ULS	Max	148,3302	8,038E-14	27-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
27	29	ENVELOPE_ ULS	Max	298,3915	-1,329E-15	27-1
27	4	ENVELOPE_ ULS	Min	111,9654	1,329E-15	27-1
27	29	ENVELOPE_ ULS	Min	89,7698	-8,038E-14	27-1
28	29	USL1		-298,3915	8,038E-14	28-1
28	27	USL1		368,9355	-8,038E-14	28-1
28	29	ULS2		-89,7698	1,329E-15	28-1
28	27	ULS2		127,8512	-1,329E-15	28-1
28	29	ENVELOPE_ ULS	Max	-89,7698	8,038E-14	28-1
28	27	ENVELOPE_ ULS	Max	368,9355	-1,329E-15	28-1
28	29	ENVELOPE_ ULS	Min	-298,3915	1,329E-15	28-1
28	27	ENVELOPE_ ULS	Min	127,8512	-8,038E-14	28-1
29	27	USL1		-368,9355	8,082E-14	29-1
29	25	USL1		153,2015	-8,082E-14	29-1
29	27	ULS2		-127,8512	1,329E-15	29-1
29	25	ULS2		-7,6508	-1,329E-15	29-1
29	27	ENVELOPE_ ULS	Max	-127,8512	8,082E-14	29-1
29	25	ENVELOPE_ ULS	Max	153,2015	-1,329E-15	29-1
29	27	ENVELOPE_ ULS	Min	-368,9355	1,329E-15	29-1
29	25	ENVELOPE_ ULS	Min	-7,6508	-8,082E-14	29-1
30	25	USL1		-153,2015	8,171E-14	30-1
30	2	USL1		-315,1141	-8,171E-14	30-1
30	25	ULS2		7,6508	1,329E-15	30-1
30	2	ULS2		-301,6901	-1,329E-15	30-1
30	25	ENVELOPE_ ULS	Max	7,6508	8,171E-14	30-1
30	2	ENVELOPE_ ULS	Max	-301,6901	-1,329E-15	30-1
30	25	ENVELOPE_ ULS	Min	-153,2015	1,329E-15	30-1
30	2	ENVELOPE_ ULS	Min	-315,1141	-8,171E-14	30-1
33	30	USL1		616,1777	1,453E-13	33-1
33	31	USL1		-406,3000	-1,478E-13	33-1
33	30	ULS2		538,0640	9,761E-16	33-1
33	31	ULS2		-340,8394	-7,974E-16	33-1
33	30	ENVELOPE_ ULS	Max	616,1777	1,453E-13	33-1
33	31	ENVELOPE_ ULS	Max	-340,8394	-7,974E-16	33-1
33	30	ENVELOPE_ ULS	Min	538,0640	9,761E-16	33-1
33	31	ENVELOPE_ ULS	Min	-406,3000	-1,478E-13	33-1
34	31	USL1		406,3000	1,592E-13	34-1
34	5	USL1		-98,1870	-1,587E-13	34-1
34	31	ULS2		340,8394	7,974E-16	34-1
34	5	ULS2		-80,5129	-6,187E-16	34-1
34	31	ENVELOPE_ ULS	Max	406,3000	1,592E-13	34-1
34	5	ENVELOPE_ ULS	Max	-80,5129	-6,187E-16	34-1

Table: Element Joint Forces - Frames, Part 2 of 2

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
34	31	ENVELOPE_ ULS	Min	340,8394	7,974E-16	34-1
34	5	ENVELOPE_ ULS	Min	-98,1870	-1,587E-13	34-1
35	1	USL1		667,3628	1,235E-13	35-1
35	32	USL1		-710,2011	-1,424E-13	35-1
35	1	ULS2		689,6744	1,334E-15	35-1
35	32	ULS2		-659,6413	-1,155E-15	35-1
35	1	ENVELOPE_ ULS	Max	689,6744	1,235E-13	35-1
35	32	ENVELOPE_ ULS	Max	-659,6413	-1,155E-15	35-1
35	1	ENVELOPE_ ULS	Min	667,3628	1,334E-15	35-1
35	32	ENVELOPE_ ULS	Min	-710,2011	-1,424E-13	35-1
36	32	USL1		710,2011	1,506E-13	36-1
36	30	USL1		-616,1777	-1,542E-13	36-1
36	32	ULS2		659,6413	1,155E-15	36-1
36	30	ULS2		-538,0640	-9,761E-16	36-1
36	32	ENVELOPE_ ULS	Max	710,2011	1,506E-13	36-1
36	30	ENVELOPE_ ULS	Max	-538,0640	-9,761E-16	36-1
36	32	ENVELOPE_ ULS	Min	659,6413	1,155E-15	36-1
36	30	ENVELOPE_ ULS	Min	-616,1777	-1,542E-13	36-1
39	33	USL1		-233,7489	8,757E-14	39-1
39	34	USL1		231,8120	-8,650E-14	39-1
39	33	ULS2		-149,1363	9,714E-16	39-1
39	34	ULS2		161,0469	-7,927E-16	39-1
39	33	ENVELOPE_ ULS	Max	-149,1363	8,757E-14	39-1
39	34	ENVELOPE_ ULS	Max	231,8120	-7,927E-16	39-1
39	33	ENVELOPE_ ULS	Min	-233,7489	9,714E-16	39-1
39	34	ENVELOPE_ ULS	Min	161,0469	-8,650E-14	39-1
40	34	USL1		-231,8120	9,228E-14	40-1
40	8	USL1		73,2563	-9,920E-14	40-1
40	34	ULS2		-161,0469	7,927E-16	40-1
40	8	ULS2		51,4720	-6,140E-16	40-1
40	34	ENVELOPE_ ULS	Max	-161,0469	9,228E-14	40-1
40	8	ENVELOPE_ ULS	Max	73,2563	-6,140E-16	40-1
40	34	ENVELOPE_ ULS	Min	-231,8120	7,927E-16	40-1
40	8	ENVELOPE_ ULS	Min	51,4720	-9,920E-14	40-1
41	2	USL1		315,1141	9,370E-14	41-1
41	35	USL1		59,3218	-8,109E-14	41-1
41	2	ULS2		301,6901	1,329E-15	41-1
41	35	ULS2		1,0687	-1,150E-15	41-1
41	2	ENVELOPE_ ULS	Max	315,1141	9,370E-14	41-1
41	35	ENVELOPE_ ULS	Max	59,3218	-1,150E-15	41-1
41	2	ENVELOPE_ ULS	Min	301,6901	1,329E-15	41-1

**Table: Element Joint Forces - Frames, Part 2 of 2**

Frame	Joint	OutputCase	StepType	M2	M3	FrameElem
				KN-m	KN-m	
41	35	ENVELOPE_ ULS	Min	1,0687	-8,109E-14	41-1
42	35	USL1		-59,3218	7,010E-14	42-1
42	33	USL1		233,7489	-5,870E-14	42-1
42	35	ULS2		-1,0687	1,150E-15	42-1
42	33	ULS2		149,1363	-9,714E-16	42-1
42	35	ENVELOPE_ ULS	Max	-1,0687	7,010E-14	42-1
42	33	ENVELOPE_ ULS	Max	233,7489	-9,714E-16	42-1
42	35	ENVELOPE_ ULS	Min	-59,3218	1,150E-15	42-1
42	33	ENVELOPE_ ULS	Min	149,1363	-5,870E-14	42-1

**Table: Frame Loads - Distributed, Part 1 of 3**

**Table: Frame Loads - Distributed, Part 1 of 3**

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
1	HYDROSTATIC	Local	Force	2	RelDist	0,0000
2	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
2	HYDROSTATIC	Local	Force	2	RelDist	0,0000
3	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
3	HYDROSTATIC	Local	Force	2	RelDist	0,0000
4	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
4	HYDROSTATIC	Local	Force	2	RelDist	0,0000
5	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
5	HYDROSTATIC	Local	Force	2	RelDist	0,0000
6	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
6	HYDROSTATIC	Local	Force	2	RelDist	0,0000
9	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
9	HYDROSTATIC	Local	Force	2	RelDist	0,0000
9	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
10	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
10	HYDROSTATIC	Local	Force	2	RelDist	0,0000
10	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
11	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
11	HYDROSTATIC	Local	Force	2	RelDist	0,0000
11	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
12	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
12	HYDROSTATIC	Local	Force	2	RelDist	0,0000
13	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
13	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
13	HYDROSTATIC	Local	Force	2	RelDist	0,0000
14	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
14	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
14	HYDROSTATIC	Local	Force	2	RelDist	0,0000

Table: Frame Loads - Distributed, Part 1 of 3

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
15	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
15	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
15	HYDROSTATIC	Local	Force	2	RelDist	0,0000
16	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
16	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
16	HYDROSTATIC	Local	Force	2	RelDist	0,0000
17	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
17	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
17	HYDROSTATIC	Local	Force	2	RelDist	0,0000
20	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
20	HYDROSTATIC	Local	Force	2	RelDist	0,0000
20	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
20	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
21	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
21	HYDROSTATIC	Local	Force	2	RelDist	0,0000
21	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
21	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
22	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
22	HYDROSTATIC	Local	Force	2	RelDist	0,0000
22	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
22	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
23	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
23	HYDROSTATIC	Local	Force	2	RelDist	0,0000
24	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
24	HYDROSTATIC	Local	Force	2	RelDist	0,0000
25	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
25	HYDROSTATIC	Local	Force	2	RelDist	0,0000
26	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
26	HYDROSTATIC	Local	Force	2	RelDist	0,0000
27	HYDROSTATIC	Local	Force	2	RelDist	0,0000
27	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
27	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
28	HYDROSTATIC	Local	Force	2	RelDist	0,0000
28	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
28	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
29	HYDROSTATIC	Local	Force	2	RelDist	0,0000
29	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
29	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
30	HYDROSTATIC	Local	Force	2	RelDist	0,0000
30	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000

**Table: Frame Loads - Distributed, Part 1 of 3**

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
30	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
33	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
33	HYDROSTATIC	Local	Force	2	RelDist	0,0000
33	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
34	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
34	HYDROSTATIC	Local	Force	2	RelDist	0,0000
34	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
35	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
35	HYDROSTATIC	Local	Force	2	RelDist	0,0000
35	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
36	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
36	HYDROSTATIC	Local	Force	2	RelDist	0,0000
36	EARTH_PRESSURE SX	GLOBAL	Force	X	RelDist	0,0000
39	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
39	HYDROSTATIC	Local	Force	2	RelDist	0,0000
39	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
39	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
40	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
40	HYDROSTATIC	Local	Force	2	RelDist	0,0000
40	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
40	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
41	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
41	HYDROSTATIC	Local	Force	2	RelDist	0,0000
41	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
41	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000
42	EARTH	GLOBAL	Force	Gravity	RelDist	0,0000
42	HYDROSTATIC	Local	Force	2	RelDist	0,0000
42	EARTH_PRESSURE DX	GLOBAL	Force	X	RelDist	0,0000
42	DINAMIC EARTH PRESSURE	GLOBAL	Force	X	RelDist	0,0000

**Table: Frame Loads - Distributed, Part 2 of 3**

**Table: Frame Loads - Distributed, Part 2 of 3**

Frame	LoadPat	RelDistB	AbsDistA m	AbsDistB m	FOverLA KN/m	FOverLB KN/m
1	HYDROSTATIC	1,0000	0,00000	0,98121	-120,00	-120,00
2	EARTH_PRESSURE SX	1,0000	0,00000	1,35185	97,00	97,00
2	HYDROSTATIC	1,0000	0,00000	1,35185	-120,00	-117,70
3	EARTH_PRESSURE SX	1,0000	0,00000	1,35185	97,00	95,10
3	HYDROSTATIC	1,0000	0,00000	1,35185	-117,70	-113,60
4	EARTH_PRESSURE SX	1,0000	0,00000	1,34768	95,10	91,70
4	HYDROSTATIC	1,0000	0,00000	1,34768	-113,60	-107,80
5	EARTH_PRESSURE SX	1,0000	0,00000	1,34768	91,70	86,80
5	HYDROSTATIC	1,0000	0,00000	1,34768	-107,80	-100,40

Table: Frame Loads - Distributed, Part 2 of 3

Frame	LoadPat	RelDistB	AbsDistA m	AbsDistB m	FOverLA KN/m	FOverLB KN/m
6	EARTH_PRESSURE SX	1,0000	0,00000	1,35845	86,80	80,70
6	HYDROSTATIC	1,0000	0,00000	1,35845	-100,40	-91,50
9	EARTH	1,0000	0,00000	0,98074	92,40	92,40
9	HYDROSTATIC	1,0000	0,00000	0,98074	-27,40	-23,70
9	EARTH_PRESSURE SX	1,0000	0,00000	0,98074	23,60	16,90
10	EARTH	1,0000	0,00000	0,98074	88,20	88,20
10	HYDROSTATIC	1,0000	0,00000	0,98074	-23,70	-21,20
10	EARTH_PRESSURE SX	1,0000	0,00000	0,98074	16,90	14,80
11	EARTH	1,0000	0,00000	1,32265	84,00	84,00
11	HYDROSTATIC	1,0000	0,00000	1,32265	-21,20	-20,00
11	EARTH_PRESSURE SX	1,0000	0,00000	1,32265	14,80	13,80
12	DINAMIC EARTH PRESSURE	1,0000	0,00000	0,98121	-34,00	-34,00
12	HYDROSTATIC	1,0000	0,00000	0,98121	-120,00	-120,00
13	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-97,80	-97,80
13	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,35185	-34,00	-34,00
13	HYDROSTATIC	1,0000	0,00000	1,35185	-120,00	-117,70
14	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-97,80	-95,10
14	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,35185	-34,00	-34,00
14	HYDROSTATIC	1,0000	0,00000	1,35185	-117,70	-113,60
15	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-95,10	-91,70
15	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,35185	-34,00	-34,00
15	HYDROSTATIC	1,0000	0,00000	1,35185	-113,60	-107,80
16	EARTH_PRESSURE DX	1,0000	0,00000	1,35185	-91,70	-86,80
16	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,35185	-34,00	-34,00
16	HYDROSTATIC	1,0000	0,00000	1,35185	-107,80	-100,40
17	EARTH_PRESSURE DX	1,0000	0,00000	1,32325	-86,80	-80,70
17	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,32325	-34,00	-34,00
17	HYDROSTATIC	1,0000	0,00000	1,32325	-100,40	-91,50
20	EARTH	1,0000	0,00000	0,98074	92,40	92,40
20	HYDROSTATIC	1,0000	0,00000	0,98074	-27,40	-23,70
20	EARTH_PRESSURE DX	1,0000	0,00000	0,98074	-23,90	-16,90
20	DINAMIC EARTH PRESSURE	1,0000	0,00000	0,98074	-34,00	-34,00
21	EARTH	1,0000	0,00000	0,98074	88,20	88,20
21	HYDROSTATIC	1,0000	0,00000	0,98074	-23,70	-21,20
21	EARTH_PRESSURE DX	1,0000	0,00000	0,98074	-16,90	-14,80
21	DINAMIC EARTH PRESSURE	1,0000	0,00000	0,98074	-34,00	-34,00
22	EARTH	1,0000	0,00000	1,29056	84,00	84,00
22	HYDROSTATIC	1,0000	0,00000	1,29056	-21,20	-20,00
22	EARTH_PRESSURE DX	1,0000	0,00000	1,29056	-14,80	-13,80
22	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,29056	-34,00	-34,00
23	EARTH_PRESSURE SX	1,0000	0,00000	1,27783	80,70	73,30



Table: Frame Loads - Distributed, Part 2 of 3

Frame	LoadPat	RelDistB	AbsDistA	AbsDistB	FOverLA	FOverLB
			m	m	KN/m	KN/m
23	HYDROSTATIC	1,0000	0,00000	1,27783	-91,50	-80,10
24	EARTH_PRESSURE SX	1,0000	0,00000	1,28000	73,30	63,80
24	HYDROSTATIC	1,0000	0,00000	1,28000	-80,10	-68,80
25	EARTH_PRESSURE SX	1,0000	0,00000	1,28000	63,80	54,40
25	HYDROSTATIC	1,0000	0,00000	1,28000	-68,80	-57,40
26	EARTH_PRESSURE SX	1,0000	0,00000	1,28000	54,40	44,90
26	HYDROSTATIC	1,0000	0,00000	1,28000	-57,40	-46,00
27	HYDROSTATIC	1,0000	0,00000	1,32648	-91,50	-80,10
27	EARTH_PRESSURE DX	1,0000	0,00000	1,32648	-80,70	-73,30
27	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,32648	-34,00	-34,00
28	HYDROSTATIC	1,0000	0,00000	1,28000	-80,10	-68,80
28	EARTH_PRESSURE DX	1,0000	0,00000	1,28000	-73,30	-63,80
28	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,28000	-34,00	-34,00
29	HYDROSTATIC	1,0000	0,00000	1,28000	-68,80	-57,40
29	EARTH_PRESSURE DX	1,0000	0,00000	1,28000	-63,80	-54,90
29	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,28000	-34,00	-34,00
30	HYDROSTATIC	1,0000	0,00000	1,28000	-57,40	-46,00
30	EARTH_PRESSURE DX	1,0000	0,00000	1,28000	-54,90	-44,90
30	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,28000	-34,00	-34,00
33	EARTH	1,0000	0,00000	1,04645	102,80	102,80
33	HYDROSTATIC	1,0000	0,00000	1,04645	-36,70	-32,10
33	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	31,60	27,70
34	EARTH	1,0000	0,00000	1,04645	97,40	97,40
34	HYDROSTATIC	1,0000	0,00000	1,04645	-32,10	-27,40
34	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	27,70	23,60
35	EARTH	1,0000	0,00000	1,04645	113,30	113,30
35	HYDROSTATIC	1,0000	0,00000	1,04645	-46,00	-41,40
35	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	44,90	35,50
36	EARTH	1,0000	0,00000	1,04645	107,90	107,90
36	HYDROSTATIC	1,0000	0,00000	1,04645	-41,40	-36,70
36	EARTH_PRESSURE SX	1,0000	0,00000	1,04645	35,50	31,60
39	EARTH	1,0000	0,00000	1,04645	102,80	102,80
39	HYDROSTATIC	1,0000	0,00000	1,04645	-36,70	-32,10
39	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-31,60	-27,70
39	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,04645	-34,00	-34,00
40	EARTH	1,0000	0,00000	1,04645	97,40	97,40
40	HYDROSTATIC	1,0000	0,00000	1,04645	-32,10	-27,40
40	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-27,70	-23,90
40	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,04645	-34,00	-34,00
41	EARTH	1,0000	0,00000	1,04645	113,30	113,30
41	HYDROSTATIC	1,0000	0,00000	1,04645	-46,00	-41,40
41	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-44,90	-35,50

**Table: Frame Loads - Distributed, Part 2 of 3**

Frame	LoadPat	RelDistB	AbsDistA m	AbsDistB m	FOverLA KN/m	FOverLB KN/m
41	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,04645	-34,00	-34,00
42	EARTH	1,0000	0,00000	1,04645	107,90	107,90
42	HYDROSTATIC	1,0000	0,00000	1,04645	-41,40	-36,70
42	EARTH_PRESSURE DX	1,0000	0,00000	1,04645	-35,50	-31,60
42	DINAMIC EARTH PRESSURE	1,0000	0,00000	1,04645	-34,00	-34,00

**Table: Frame Loads - Distributed, Part 3 of 3**

**Table: Frame Loads - Distributed, Part 3 of 3**

Frame	LoadPat	GUID
1	HYDROSTATIC	
2	EARTH_PRESSURE SX	
2	HYDROSTATIC	
3	EARTH_PRESSURE SX	
3	HYDROSTATIC	
4	EARTH_PRESSURE SX	
4	HYDROSTATIC	
5	EARTH_PRESSURE SX	
5	HYDROSTATIC	
6	EARTH_PRESSURE SX	
6	HYDROSTATIC	
9	EARTH	
9	HYDROSTATIC	
9	EARTH_PRESSURE SX	
10	EARTH	
10	HYDROSTATIC	
10	EARTH_PRESSURE SX	
11	EARTH	
11	HYDROSTATIC	
11	EARTH_PRESSURE SX	
12	DINAMIC EARTH PRESSURE	
12	HYDROSTATIC	
13	EARTH_PRESSURE DX	
13	DINAMIC EARTH PRESSURE	
13	HYDROSTATIC	
14	EARTH_PRESSURE DX	
14	DINAMIC EARTH PRESSURE	
14	HYDROSTATIC	
15	EARTH_PRESSURE DX	
15	DINAMIC EARTH PRESSURE	
15	HYDROSTATIC	

**Table: Frame Loads - Distributed, Part 3 of 3**

Frame	LoadPat	GUID
16	EARTH_PRESSURE DX	
16	DINAMIC EARTH PRESSURE	
16	HYDROSTATIC	
17	EARTH_PRESSURE DX	
17	DINAMIC EARTH PRESSURE	
17	HYDROSTATIC	
20	EARTH	
20	HYDROSTATIC	
20	EARTH_PRESSURE DX	
20	DINAMIC EARTH PRESSURE	
21	EARTH	
21	HYDROSTATIC	
21	EARTH_PRESSURE DX	
21	DINAMIC EARTH PRESSURE	
22	EARTH	
22	HYDROSTATIC	
22	EARTH_PRESSURE DX	
22	DINAMIC EARTH PRESSURE	
23	EARTH_PRESSURE SX	
23	HYDROSTATIC	
24	EARTH_PRESSURE SX	
24	HYDROSTATIC	
25	EARTH_PRESSURE SX	
25	HYDROSTATIC	
26	EARTH_PRESSURE SX	
26	HYDROSTATIC	
27	HYDROSTATIC	
27	EARTH_PRESSURE DX	
27	DINAMIC EARTH PRESSURE	
28	HYDROSTATIC	
28	EARTH_PRESSURE DX	
28	DINAMIC EARTH PRESSURE	
29	HYDROSTATIC	
29	EARTH_PRESSURE DX	
29	DINAMIC EARTH PRESSURE	
30	HYDROSTATIC	
30	EARTH_PRESSURE DX	
30	DINAMIC EARTH PRESSURE	
33	EARTH	
33	HYDROSTATIC	

**Table: Frame Loads - Distributed, Part 3 of 3**

Frame	LoadPat	GUID
33	EARTH_PRESSURE SX	
34	EARTH	
34	HYDROSTATIC	
34	EARTH_PRESSURE SX	
35	EARTH	
35	HYDROSTATIC	
35	EARTH_PRESSURE SX	
36	EARTH	
36	HYDROSTATIC	
36	EARTH_PRESSURE SX	
39	EARTH	
39	HYDROSTATIC	
39	EARTH_PRESSURE DX	
39	DINAMIC EARTH PRESSURE	
40	EARTH	
40	HYDROSTATIC	
40	EARTH_PRESSURE DX	
40	DINAMIC EARTH PRESSURE	
41	EARTH	
41	HYDROSTATIC	
41	EARTH_PRESSURE DX	
41	DINAMIC EARTH PRESSURE	
42	EARTH	
42	HYDROSTATIC	
42	EARTH_PRESSURE DX	
42	DINAMIC EARTH PRESSURE	

**Table: Joint Spring Assignments 1 - Uncoupled**

**Table: Joint Spring Assignments 1 - Uncoupled**

Joint	CoordSys	U1	U2	U3	R1	R2	R3
		KN/m	KN/m	KN/m	KN-m/rad	KN-m/rad	KN-m/rad
1	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
2	Local	0,00	0,00	0,00	0,0000	0,0000	0,0000
3	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
3	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
4	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
12	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
13	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
14	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
15	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
16	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
17	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
18	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
19	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
20	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
21	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000
22	Local	0,00	0,00	4558,00	0,0000	0,0000	0,0000

**Table: Joint Spring Assignments 1 - Uncoupled**

Joint	CoordSys	U1 KN/m	U2 KN/m	U3 KN/m	R1 KN-m/rad	R2 KN-m/rad	R3 KN-m/rad
24	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
25	Local	0,00	0,00	0,00	0,0000	0,0000	0,0000
26	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
27	Local	0,00	0,00	0,00	0,0000	0,0000	0,0000
28	Local	17582,00	0,00	0,00	0,0000	0,0000	0,0000
29	Local	0,00	0,00	0,00	0,0000	0,0000	0,0000

**Table: Load Pattern Definitions****Table: Load Pattern Definitions**

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
DEAD	DEAD	1,000000			
EARTH	DEAD	0,000000			
EARTH_PRESSURE DX	DEAD	0,000000			
EARTH_PRESSURE SX	DEAD	0,000000			
HYDROSTATIC	DEAD	0,000000			
INERTIA	DEAD	0,000000			
DINAMIC EARTH PRESSURE	DEAD	0,000000			