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PARTIE COMMUNE FRANCO-ITALIENNE - PARTE COMUNE ITALO-FRANCESE
CUP C11J05000030001 - LOTTO COSTRUTTIVO 1

Chantier Opérationnel 010 / Cantiere Operativo 010

CIG ZDB1F80CC0

PARTIE CONCEPTION MOE RACCORD FERROVIAIRE DE LA ZONE TECHNIQUE DE TORRAZZA - PROGETTO ESECUTIVO DELL'AREA TECNICA DI TORRAZZA

SOVRAPPASSO STRADALE
Relazione tecnica e di calcolo

Indice	Date / Data	Modifications / Modifiche	Etabli par / Concepito da	Vérifié par / Controllato da	Autorisé par / Autorizzato da
0	11/07/2019	Prima emissione a seguito commenti Telt Première diffusion après commentaires Telt	P. Forgione (AI)	G. Chiellino (AI)	G. Chiellino (AI)
A	11/09/2019	Revisione a seguito commenti Telt Révision aprés commentaires Telt	P. Forgione (AI)	G. Chiellino (AI)	G. Chiellino (AI)

ORDINE INGEGNERI DELLA PROVINCIA DI TORINO
Dott. Ing. GABRIELE CHIELLINO
n° 8088

L. Cost. / L. Const.	Cantiere Operativo / Chantier Opérationnel	Contratto / Contrat	Opera / Ouvrage	Tratto / Tronçon	Parte / Partie
4	100	C1819	0ST11	O	0

Fase / Phase	Tipo documento / Type de document	Oggetto / Objet	Numero documento / Numéro de document	Indice / Index
E	RES	T	0801	A

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Ce projet est cofinancé par l'Union européenne (DG-TREN)
Questo progetto è cofinanziato dall'Unione europea (TEN-T)

SOMMAIRE / INDICE

1 Resume/riassunto

Le présent rapport constitue la note de calcul de la vérification structurelle du passage supérieure routier sur le raccord ferroviaire au km 0+717 du raccord.
L'ouvrage est constituée de deux parois et une dalle en béton armé et une fondation sur semelles.
Le dimensionnement a été vérifié à l'ELU et à l'ELS sur la base des normes en vigueur au moment de l'élaboration du projet de reference.
Les vérifications ont permis de confirmer la solution prévue.

La presente relazione costituisce una nota di calcolo della verifica strutturale del sovrappasso stradale a una luce sul raccordo ferroviario al km 0+717 del raccordo.
La struttura è costituita da fondazioni a platea, muri e una soletta in calcestruzzo armato.
Il dimensionamento è stato verificato agli Stati Limite Ultimi e agli Stati Limite d'Esercizio sulla base della normativa vigente al momento della redazione del progetto definitivo.
Le verifiche hanno permesso di confermare la soluzione prevista.

2 Documents de référence / Documenti di riferimento

4100C18190ST11O0EREGE0302_A GEOLOGIA, GEOTECNICA E IDROLOGIA – Relazione geotecnica, idrogeologica e sismica
4100C18190ST11O0EPLST0802_A SOVRAPPASSO STRADALE - Disegno d'insieme - pianta impalcato, sezioni
4100C18190ST11O3ECAST0803_A SOVRAPPASSO STRADALE - Fondazioni: carpenterie e armature
4100C18190ST11O4ECAST0804_A SOVRAPPASSO STRADALE - Spalle: carpenterie e armature
4100C18190ST11O7ECAST0805_A SOVRAPPASSO STRADALE - Impalcato: carpenteria e armatura
4100C18190ST11O7EPLST0806_A SOVRAPPASSO STRADALE - Fasi esecutive: piante e sezioni

3 Normative

Decreto del Presidente della Repubblica 6 giugno 2001, n. 380

Testo unico delle disposizioni legislative e regolamentari in materia edilizia Circ. n.11651 del 14/02/1974

DM 17/01/2018, "Aggiornamento delle «Norme tecniche per le costruzioni»"

L'articolo 2 "Ambito di applicazione e disposizioni transitorie" comma 1 consente di continuare ad applicare le previgenti norme tecniche per le costruzioni, coerentemente con il progetto definitivo, fino all'ultimazione dei lavori ed al collaudo statico degli stessi.

DM 14/01/2008, "Norme Tecniche per le Costruzioni"

Normativa tecnica di riferimento. Essendo un documento generale di carattere prestazionale per la definizione di parametri specifici e per le regole di dettaglio, come previsto dal Decreto stesso, ci si è riferiti alle seguenti normative:

Ministero delle infrastrutture e dei Trasporti, circolare n. 617 del 2 febbraio

2009

ISTRUZIONI per l'applicazione delle "Norme tecniche per le costruzioni" di cui al D.M. 14 Gennaio 2008.

UNI EN 1990:2006

Eurocodice – Criteri generali di progettazione strutturale

UNI EN 1991-1-1:2004

Eurocodice 1 – Azioni sulle strutture – Parte 1-1: Azioni in Generale – Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.

UNI EN 1992-1-1:2005

Eurocodice 2 – Progettazione delle strutture di calcestruzzo – Parte 1-1: Regole generali e regole per gli edifici.

UNI EN 1993-1-1:2005

Eurocodice 3 - Progettazione delle strutture di acciaio – Parte 1-1: Regole generali e regole per gli edifici.

UNI EN 1994-1-1:2005

Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo – Parte 1-1:Regole generali e regole per gli edifici.

UNI EN 1998-1:2005

Eurocodice 8 - Progettazione delle strutture per la resistenza sismica – Parte 1: Regole generali, azioni sismiche e regole per gli edifici.

UNI EN 206-1:2006

Calcestruzzo – Parte 1: Specificazione, prestazione e conformità.

UNI 11104:2004

Calcestruzzo: Specificazione, prestazione e conformità. Istruzioni complementari per l'applicazione della EN 206-1

Circ. Min. LL.PP. 14.02.1974, n.11951 "Applicazione della legge 05.11.1971, n. 1086".

Circ. Min. LL.PP. 31.07.1979, n.19581 "Legge 05.11.1971, n. 1086, art. 7- Collaudo Statico".

Circ. Min. LL.PP. 23.10.1979, n.19777 "Competenza amministrativa: Legge 05.11.1971, n. 1086 02.02.1974, n.64".

Circ. Min. LL.PP. 09.01.1980, n.20049 "Istruzioni relative ai controlli sul conglomerato cementizio adoperato per le strutture in cemento armato".

Circ. Min. LL.PP. 01.09.1987, n.29010 "Legge 05.11.1971, n. 1086 DM 27.07.1985, Controllo dei materiali in genere e degli acciai per cemento armato normale in particolare".

Legislazione regionale di riferimento

D.G.R. del 21/05/2014, n° 65-7656

Individuazione dell'ufficio tecnico regionale ai sensi del D.P.R. 6 giugno 2001, n. 380 e ulteriori modifiche e integrazioni alle procedure attuative di gestione e controllo delle attivita' urbanistico-edilizie ai fini della prevenzione del rischio sismico approvate con D.G.R. 12 dicembre 2011, n. 4-3084.

D.G.R. del 03/02/2012, n° 7-3340

Modifiche e integrazioni alle procedure di controllo e gestione delle attività urbanistico edilizie ai fini della prevenzione del rischio sismico approvate con D.G.R. n. 4-3084 del 12/12/2011.

D.G.R. del 12/12/2011, n° 4-3084

D.G.R. n. 11-13058 del 19/01/2010. Approvazione delle procedure di controllo e gestione delle attività urbanistico-edilizie ai fini della prevenzione del rischio sismico attuative della nuova classificazione sismica del territorio piemontese.

D.G.R. del 01/03/2010, n° 28-13422

Differimento del termine di entrata in vigore della nuova classificazione sismica del territorio piemontese approvata con d.g.r. n. 11-13058 del 19/01/2010 e ulteriori disposizioni.

D.G.R. del 19/01/2010, n° 11-13058

Aggiornamento e adeguamento dell'elenco delle zone sismiche (O.P.C.M. n. 3274/2003 e O.P.C.M. 3519/2006).

Circolare del Presidente della Giunta Regionale 27/04/2004 n. 1/DOP

D.G.R. 61-11017 del 17/11/03 (Prime disposizioni in applicazione dell'ordinanza del P.C.M. n. 3274 del 20/02/2003 recante primi elementi in materia di criteri generali per classificazione sismica del territorio e di normative tecniche per costruzioni in zona sismica) – Indicazioni procedurali

D.G.R. del 23/12/03, n° 64-11402

Ordinanza del Presidente del Consiglio dei Ministri 20 marzo 2003, n. 3274 ("Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica") - Disposizioni attuative dell'articolo 2

D.G.R. del 17/11/03, n° 61-11017

Prime disposizioni in applicazione dell'ordinanza del P.C.M. n. 3274 del 20/02/2003 recante primi elementi in materia di criteri generali per classificazione sismica del territorio e di normative tecniche per costruzioni in zona sismica

L.R. 12 MARZO 1985, n° 19

Snellimento delle procedure di cui alla legge 2 febbraio 1974, n. 64, in attuazione della legge 10 dicembre 1981, n. 741.

4 Criteri di progetto e Livelli prestazionali

L'analisi strutturale è stata effettuata in base alle normative vigenti al momento della redazione del progetto definitivo.
In particolare per la definizione dei carichi, le analisi e le verifiche si è fatto riferimento al quadro normativo delineato del D.M. 14/01/08 (Norme Tecniche per le Costruzioni).
Per quanto non riportato sul Decreto si sono seguite le indicazioni degli Eurocodici e della Circolare applicativa delle NTC medesime.

4.1 SICUREZZA E PRESTAZIONI ATTESE

Le opere e le componenti strutturali sono progettate, saranno eseguite, collaudate e soggette a manutenzione in modo tale da consentirne la prevista utilizzazione, in forma economicamente sostenibile e con il livello di sicurezza previsto dalle presenti norme.
La sicurezza e le prestazioni di un'opera o di una parte di essa sono state valutate in relazione agli stati limite che si possono verificare durante la vita nominale. Stato limite è la condizione superata la quale l'opera non soddisfa più le esigenze per le quali è stata progettata.
In particolare, secondo quanto stabilito dalle NTC, le opere e le varie tipologie strutturali oggetto della presente relazione possiedono i seguenti requisiti:

- *sicurezza nei confronti di stati limite ultimi (SLU):* capacità di evitare crolli, perdite di equilibrio e dissesti gravi, totali o parziali, che possano compromettere l'incolumità delle persone ovvero comportare la perdita di beni, ovvero provocare gravi danni ambientali e sociali, ovvero mettere fuori servizio l'opera;
- *sicurezza nei confronti di stati limite di esercizio (SLE)*: capacità di garantire le prestazioni previste per le condizioni di esercizio;
- *robustezza nei confronti di azioni eccezionali*: capacità di evitare danni sproporzionati rispetto all'entità delle cause innescanti quali incendio, esplosioni, urti.

4.2 METODO DI VERIFICA

Le verifiche degli elementi sono state svolte seguendo il metodo degli Stati Limite.
Conformemente al parere espresso dalla Sezione Prima del Consiglio Superiore dei Lavori Pubblici nell'adunanza del 14 dicembre 2010 (Protocollo 155/2010), l'autorimessa e l'edificio sono progettati come strutture non dissipative, adottando un fattore di struttura unitario (q=1), insieme con l'utilizzo del livello di azione corrispondente allo Stato Limite Ultimo (SLU). Si ottempera alle prescrizioni contenute nel Capitolo 4 delle NTC 2008 che garantiscono un livello significativo di duttilità, mentre non sono utilizzati accorgimenti quali la gerarchia delle resistenze, il cui effetto può esplicarsi solo al superamento del comportamento elastico della struttura.

5 Origine e caratteristiche del codice di calcolo

Informazioni sul codice di calcolo

Titolo: PRO_SAP PROfessional Structural Analysis Program
Versione: PROFESSIONAL (build 2018-03-180)
Produttore-Distributore: 2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Codice Licenza: Licenza dsi3829

DICHIARAZIONE DI AFFIDABILITÀ

Dichiarazione del produttore-distributore di PRO_SAP PROfessional SAP riguardante l'affidabilità del codice (NTC 2018 - Paragrafo 10.2)

Origine e caratteristiche dei codici di calcolo
Titolo: PRO_SAP PROfessional Structural Analysis Program
Autore-Produttore: 2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara

Affidabilità dei codici

- Inquadramento teorico della metodologia
L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo si basa sulla schematizzazione della struttura in elementi connessi in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensiodeformativo indotto da carichi statici.
L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensiodeformativo indotto da carichi dinamici (tra i quali quelli di tipo sismico).
Gli elementi, lineari e non lineari, utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

Elemento TRUSS (asta)
Elemento BEAM (trave)
Elemento MEMBRANE (membrana)
Elemento PLATE (piastra-guscio)
Elemento BRICK (solido)
Elemento CINGHIA
Elemento BOUNDARY (molla)
Elemento STIFFNESS (matrice di rigidezza)

- Casi prova che consentano un riscontro dell'affidabilità
2S.I. ha verificato, in collaborazione con il DISTART dell'Università di Bologna e con il Dipartimento di Ingegneria dell'Università di Ferrara, l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche.
E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link: *http://www.2si.it/affidabilita.php*

- Filtri di autodiagnostica
Il programma prevede una serie di controlli automatici (check) che consentono l'individuazione di errori di modellazione.
Al termine dell'analisi un controllo automatico identifica la presenza di spostamenti o rotazioni abnormi.

Garanzia di qualità
Dal 1 dicembre 1999 2S.I. ha prodotto un manuale di qualità in funzione dei requisiti della norma di riferimento UNI EN ISO 9001.
Tutte le attività dell'azienda sono regolate dalla documentazione e dalle procedure in esso contenute.
In relazione alla attività di validazione dei prodotti software si dichiara inoltre quanto segue:
- la fase di progetto degli algoritmi è preceduta dalla ricerca di risultati di confronto reperibili in bibliografia o riproducibili con calcoli manuali;
- la fase di implementazione degli algoritmi è continuamente validata con strumenti automatici (tools di sviluppo) e attraverso confronti;
- il software che implementa gli algoritmi è testato, confrontato e controllato anche da tecnici qualificati che non sono intervenuti nelle precedenti fasi.
Nella produzione del solutore FEM 2S.I. implementa componenti sviluppati da CM2 - Computing Objects SARL spin-off dell'École Centrale Paris, France. E' disponibile la documentazione di affidabilità di tali componenti all'indirizzo web:
http://www.2si.it/software/download/manuali/pro_sap quaderni/Affidabilita/benchmarks_e_sap.zip

Rev. del 15/03/2018

6 Inquadramento geotecnico

Sulla base delle risultanze delle indagini geognostiche e geofisiche eseguite, il terreno presente in situ è classificato come A1 – A1a Ghiaia 62%, sabbia 25% ed occasionali lenti limo-argillose 13%, da piano campagna fino alla profondità di 20m.
I valori dei parametri geotecnici utilizzati per il calcolo sono:

- angolo di attrito ϕ' =25°
- coesione efficace c'=0 kPa
- peso di volume unitario γ=19 kN/m^3

La falda, con soggiacenza minima pari a circa a 6m dal piano campagna, non interferisce con il piano di posa delle fondazioni.
Per il reinterro sono invece stati utilizzati i seguenti parametri:

- angolo di attrito ϕ' =35°
- coesione efficace c'=0 kPa
- peso di volume unitario γ=20 kN/m^3

7 Materiali

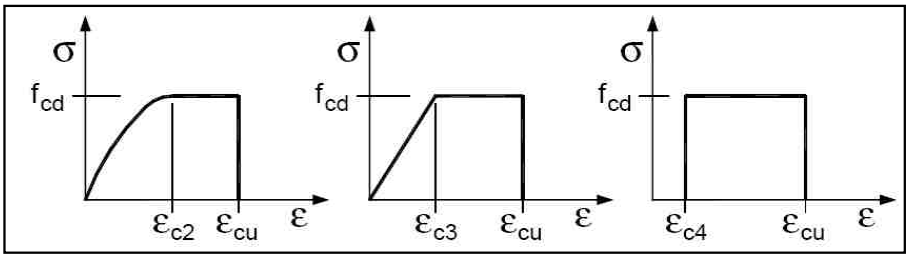
7.1 Calcestruzzo

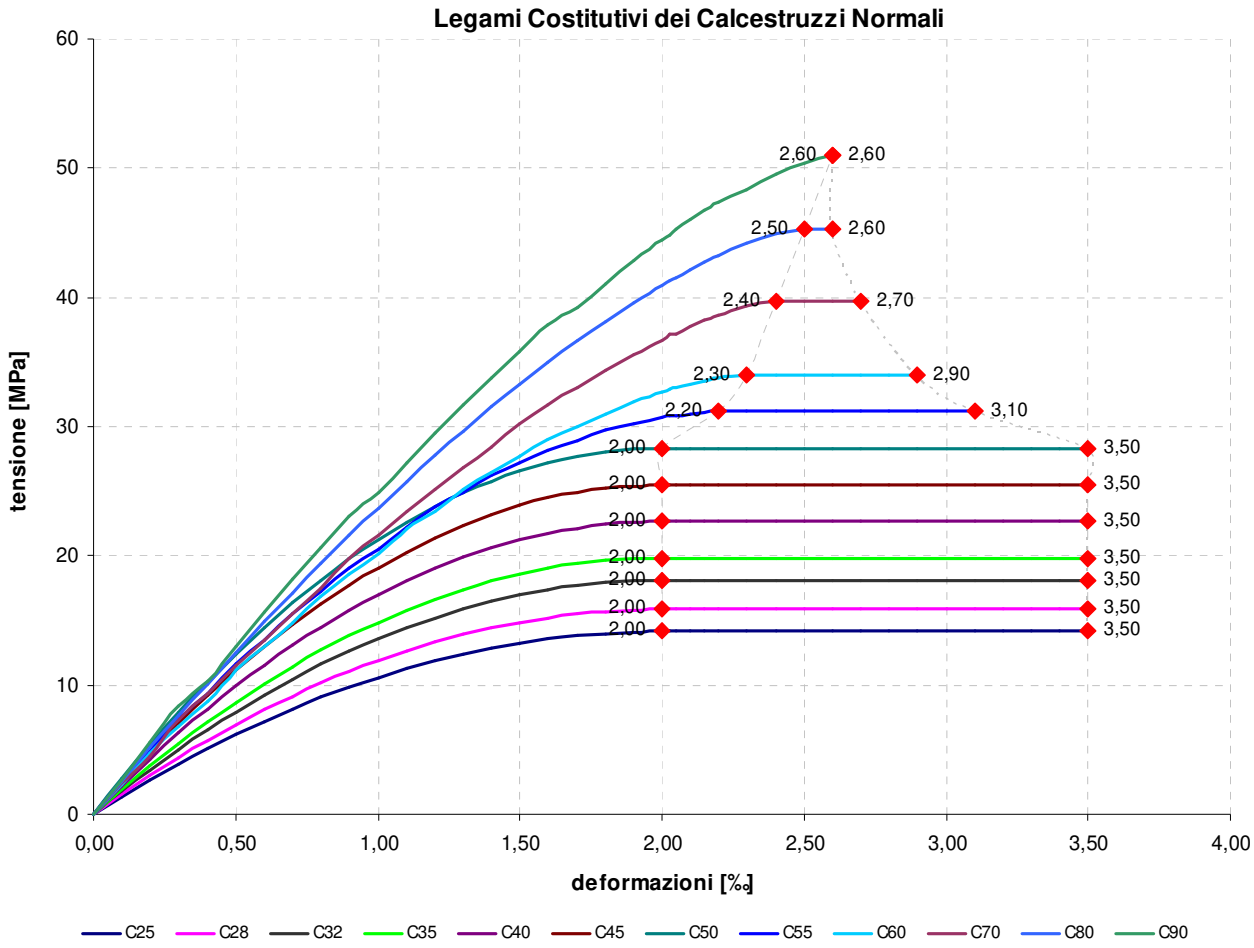
Classe di esposizione	XC4-XF4
Classe minima di resistenza	C32/40
Massimo rapporto a/c	0.45
Cemento kg/m^3	360
Contenuto minimo d'aria	3%
Aggregati conformi alla UNI EN 12620 di adeguata resistenza a gelo/disgelo	sì

Calcestruzzo C32/40 f_{cd} $=\alpha_{cc}*0.83*R_{ck}/\gamma_c=0.85*0.83*40/1.5=$ 18.81MPa

f_{ctm} = 3.0 MPa

CLASSI DI RESISTENZA DEI CALCESTRUZZI NORMALI (UNI EN 1992-1-1:2005)																
f_{ck} (MPa)	**8**	**12**	**16**	**20**	**25**	**28**	**32**	**35**	**40**	**45**	**50**	**55**	**60**	**70**	**80**	**90**
$f_{ck,cube}$ (MPa)	10	15	20	25	30	35	40	45	50	55	60	67	76	85	95	105
f_{cm} (MPa)	16	20	24	28	33	36	40	43	48	53	58	63	68	78	88	98
f_{ctm} (MPa)	1,2	1,6	1,9	2,2	2,6	2,8	3,0	3,2	3,5	3,8	4,1	4,2	4,4	4,6	4,8	5,0
$f_{ctk,0.05}$ (MPa)	0,8	1,1	1,3	1,5	1,8	1,9	2,1	2,2	2,5	2,7	2,9	3,0	3,0	3,2	3,4	3,5
$f_{ctk,0.95}$ (MPa)	1,6	2,0	2,5	2,9	3,3	3,6	3,9	4,2	4,6	4,9	5,3	5,5	5,7	6,0	6,3	6,6
E_{cm} (GPa)	25	27	29	30	31	32	33	34	35	36	37	38	39	41	42	44
n	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	1,80	1,60	1,45	1,45	1,40
γ_C (da LG CSLLPP)	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50
ε_{c2} (‰)	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,20	2,30	2,40	2,50	2,60
ε_{c3} (‰)	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,82	1,89	2,03	2,16	2,30
ε_{c4} (‰)	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,62	0,58	0,54	0,52	0,52
ε_{cu} (‰)	3,50	3,50	3,50	3,50	3,50	3,50	3,50	3,50	3,50	3,50	3,50	3,10	2,90	2,70	2,60	2,60





7.2 Acciaio da armatura

CARATTERISTICHE	REQUISITI	FRATTILE (%)
Tensione caratteristica di snervamento f_{yk}	$\geq f_{y\,nom}$	5.0
Tensione caratteristica di rottura f_{tk}	$\geq f_{t\,nom}$	5.0
$(f_t/f_y)_k$	$\geq 1{,}15$ $< 1{,}35$	10.0
$(f_y/f_{ynom})_k$	$\leq 1{,}25$	10.0
Allungamento $(A_{gt})_k$:	$\geq 7{,}5\ \%$	10.0
Diametro del mandrino per prove di piegamento a 90 ° e successivo raddrizzamento senza cricche: $\phi < 12$ mm $12 \leq \phi \leq 16$ mm per $16 < \phi \leq 25$ mm per $25 < \phi \leq 40$ mm	 4ϕ 5ϕ 8ϕ 10ϕ	

Acciaio per getti ad aderenza migliorata B450C per getti f_{yd} 391.3 MPa

7.3 Condizioni ambientali

Le condizioni ambientali, ai fini della protezione contro la corrosione delle armature metalliche, possono essere suddivise in ordinarie, aggressive e molto aggressive in relazione a quanto indicato nella Tab. 4.1.III con riferimento alle classi di esposizione definite nella norma UNI 11104, UNI EN 206 e nelle Linee Guida per il calcestruzzo strutturale emesse dal Servizio Tecnico Centrale del Consiglio Superiore dei Lavori Pubblici.

Tabella 4.1.III – *Descrizione delle condizioni ambientali*

CONDIZIONI AMBIENTALI	CLASSE DI ESPOSIZIONE
Ordinarie	X0, XC1, XC2, XC3, XF1
Aggressive	XC4, XD1, XS1, XA1, XA2, XF2, XF3
Molto aggressive	XD2, XD3, XS2, XS3, XA3, XF4

L'opera in oggetto risulta essere in condizioni ambientali molto aggressive (classe di esposizione XF4)

Le armature si distinguono in due gruppi: armature sensibili (acciai da precompresso) e armature poco sensibili (acciai ordinari).

7.3.1 Stati limite di fessurazione

Nella Tab. 4.1.IV sono indicati i criteri di scelta dello stato limite di fessurazione con riferimento alle esigenze sopra riportate.

Tabella 4.1.IV – *Criteri di scelta dello stato limite di fessurazione*

Gruppi di esigenze	Condizioni ambientali	Combinazione di azioni	Armatura			
			Sensibile		Poco sensibile	
			Stato limite	w_d	Stato limite	w_d
a	Ordinarie	frequente	ap. fessure	$\leq w_2$	ap. fessure	$\leq w_3$
		quasi permanente	ap. fessure	$\leq w_1$	ap. fessure	$\leq w_2$
b	Aggressive	frequente	ap. fessure	$\leq w_1$	ap. fessure	$\leq w_2$
		quasi permanente	decompressione	-	ap. fessure	$\leq w_1$
c	Molto aggressive	frequente	formazione fessure	-	ap. fessure	$\leq w_1$
		quasi permanente	decompressione	-	ap. fessure	$\leq w_1$

Essendo w_1 =0.2 mm, w_2 = 0.3 mm, w_3 = 0.4 mm.

Per l'opera in oggetto, in cui sono presenti solo armature poco sensibili, sarà condotta la verifica a stato limite di apertura delle fessure con la limitazione di 0.2mm in combinazione frequente e quasi permanente.

7.3.2 Copriferro

Con riferimento al par.4.1.6.1.3 delle NTC'08, al fine della protezione delle armature dalla corrosione il valore minimo dello strato di ricoprimento di calcestruzzo (copriferro) deve rispettare quanto indicato in Tabella C4.1.IV della Circolare alle NTC'08, nella quale sono distinte le tre condizioni ambientali di Tabella 4.1.III delle NTC'08. I valori sono espressi in mm e sono distinti in funzione dell'armatura, barre da c.a. o cavi aderenti da c.a.p. (fili, trecce e trefoli), e del tipo di elemento, a piastra (solette, pareti, …) o monodimensionale (travi, pilastri, …).
A tali valori di tabella vanno aggiunte le tolleranze di posa, pari a 10 mm.

Per classi di resistenza inferiori a C_{min} i valori della tabella sono da aumentare di 5 mm. Per produzioni di elementi sottoposte a controllo di qualità che preveda anche la verifica dei copriferri, i valori della tabella possono essere ridotti di 5 mm.

Tabella C4.1.IV *Copriferri minimi in mm*

			barre da c.a. elementi a piastra		barre da c.a. altri elementi		cavi da c.a.p. elementi a piastra		cavi da c.a.p. altri elementi	
C_{min}	C_o	ambiente	$C \geq C_o$	$C_{min} \leq C < C_o$	$C \geq C_o$	$C_{min} \leq C < C_o$	$C \geq C_o$	$C_{min} \leq C < C_o$	$C \geq C_o$	$C_{min} \leq C < C_o$
C25/30	C35/45	ordinario	15	20	20	25	25	30	30	35
C28/35	C40/50	aggressivo	25	30	30	35	35	40	40	45
C35/45	C45/55	molto ag.	35	40	40	45	45	50	50	50

Nel caso in esame sio ha:

- ambiente molto aggressivo;
- barre da c.a. in elementi a piastra →c=40mm;
- C_{min} >C32/40 →Δc=+5mm;
- Tolleranza di posa →Δc=+10mm;
- Controllo di qualità →Δc=-5mm.

Copriferro in progetto $c_{progetto}$=40+5+10-5=50mm

8 Analisi dei carichi

8.1 Pesi propri

I pesi propri degli elementi strutturali sono calcolati automaticamente dal programma di calcolo considerando il peso specifico del c.a.: $\gamma_{c.a.}$=25kN/m^3

8.2 Permanenti

Massicciata stradale spessore 30cm γ=20kN/m^3

8.3 ritiro e viscosità

Il calcestruzzo è soggetto a due fenomeni di lungo periodo: ritiro e viscosità.
Entrambi dipendono dall'umidità dell'ambiente (fattore RH), dalle dimensioni dell'elemento (fattore h_0) e dalla composizione del calcestruzzo (f_{ck}). La viscosità è inoltre influenzata dalla maturazione del calcestruzzo al momento della prima applicazione del carico (tempo t_0).

8.3.1 Dati di base

Una ricerca sulla umidità relativa all'area oggetto d'intervento indica come valore medio mensile un intervallo che varia tra 67% e 80%.
Per i calcoli, a favore di sicurezza, si assume il valore medio pari all'70% costante.

TORINO-CASELLE

PAESE	LAT	LON	ALT	REGIONE	PROVINCIA	ZONA
ITALIA	45.22 N	7.65 E	287 m	Piemonte	Torino	Nord

PREVISIONE OSSERVAZIONI BOLLETTINO METEOMAR

UMIDITA' RELATIVA	%
GENNAIO	75
FEBBRAIO	75
MARZO	67
APRILE	72
MAGGIO	75
GIUGNO	74
LUGLIO	72
AGOSTO	73
SETTEMBRE	75
OTTOBRE	79
NOVEMBRE	80
DICEMBRE	80

Il fattore dimensionale h_0 è convenzionalmente pari al rapporto tra il doppio dell'area A della sezione trasversale di calcestruzzo e il perimetro u della parte esposta ad essiccamento.
La normativa seguita per il calcolo è l'Eurocodice 2 (paragrafo 3.1.4 e appendice B.1).

8.3.2 Ritiro

Nelle tabelle che seguono si effettua il calcolo dell'accorciamento per ritiro a tempo infinito del calcestruzzo.

LEGENDA

- $\varepsilon_{cd,0}$ è la deformazione da ritiro per essiccamento

prospetto 3.2 **Valori nominali del ritiro (in ‰) per essiccamento non contrastato $\varepsilon_{cd,0}$ del calcestruzzo con cemento CEM classe N**

$f_{ck}/f_{ck,cube}$ (MPa)	Umidità relativa (in %)					
	20	40	60	80	90	100
20/25	0,62	0,58	0,49	0,30	0,17	0,00
40/50	0,48	0,46	0,38	0,24	0,13	0,00
60/75	0,38	0,36	0,30	0,19	0,10	0,00
80/95	0,30	0,28	0,24	0,15	0,08	0,00
90/105	0,27	0,25	0,21	0,13	0,07	0,00

- $\varepsilon_{cd}(\infty\text{-}t)$ è la deformazione da ritiro per essiccamento dal tempo t a tempo infinito, calcolata in base allo sviluppo del ritiro per essiccamento nel tempo secondo la formula:

$$\varepsilon_{cd}(t) = \beta_{ds}(t,t_s)\cdot k_h \varepsilon_{cd,0}$$

$$\beta_{ds}(t,t_s) = \frac{(t-t_s)}{(t-t_s)+0.04\sqrt{h_0^3}}$$

$$\varepsilon_{cd}(\infty - t) = [1-\beta_{ds}(t,t_s)]\cdot k_h \varepsilon_{cd,0}$$

- $\varepsilon_{ca,}(\infty)$ è la deformazione da ritiro autogeno:

$$\varepsilon_{ca}(\infty) = 2.5(f_{ck}-10)10^{-6}$$

- $\varepsilon_{ca}(\infty\text{-}t)$ è la deformazione da ritiro autogeno dal tempo t a tempo infinito:

$$\varepsilon_{ca}(\infty) = 2.5(f_{ck}-10)10^{-6}$$

$$\beta_{as}(t) = 1-e^{-0.2\sqrt{t}}$$

$$\varepsilon_{ca}(\infty - t) = [1-\beta_{as}(t)]\varepsilon_{ca}(\infty)$$

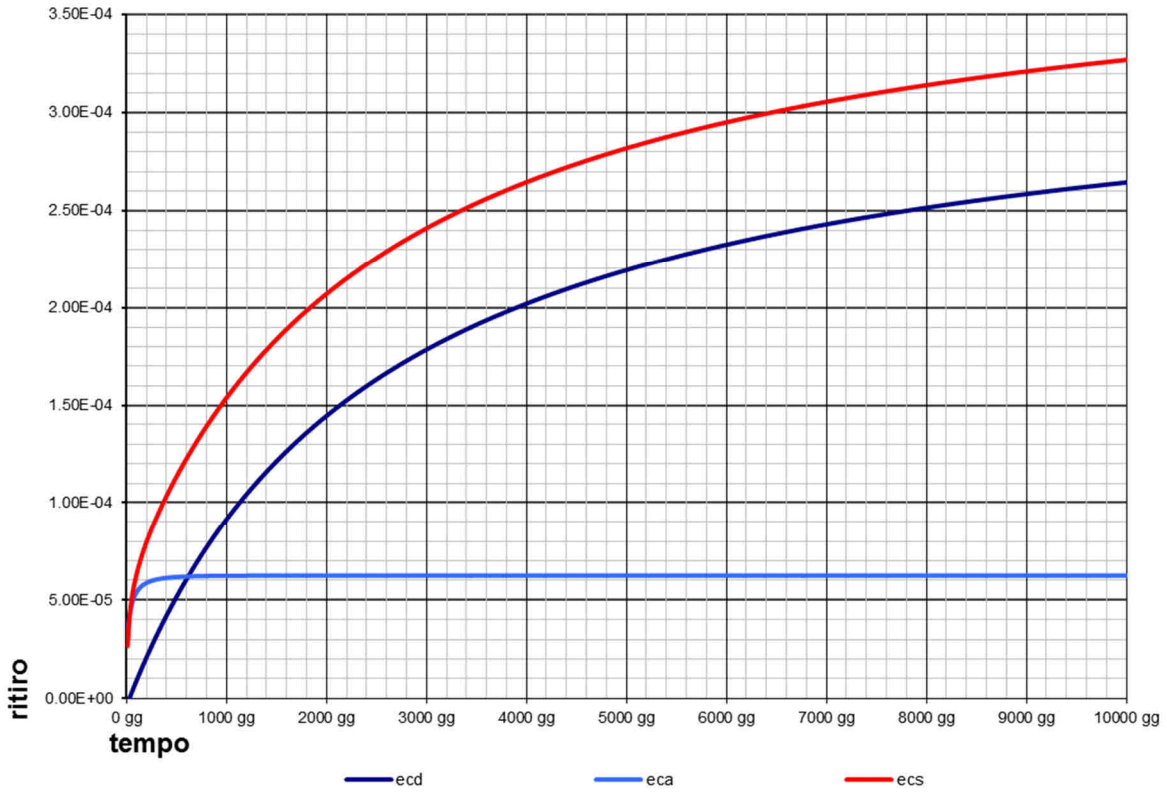
- $\varepsilon_{cs}(\infty\text{-}t)$ è la deformazione da ritiro (somma della componente per essiccamento e della componente autogena) dal tempo t a tempo infinito per il singolo concio in cui il calcestruzzo può essere suddiviso.

Per calcolare l'azione nel comportamento globale che vede la collaborazione tra l'armatura metallica e il cls, si sconta il ritiro per tener conto della presenza delle armature che in parte assorbono gli effetti di ritiro: pertanto l'azione sulla struttura in c.a. risulta inferiore.
Viene prescritto l'impiego di un additivo antiritiro tipo Sika Control -40, che garantisca una riduzione di circa il 60% del ritiro immediato e autogeno che si sviluppa nei primi giorni e del 30% del ritiro per essiccamento che si sviluppa in tempi maggiori.
Si assume il coefficiente di omogeneizzazione a tempo infinito pari al rapporto fra i moduli elastici dell'acciaio e del calcestruzzo: $n = E_f/E_{c;oo} = 205000/14421 = 14.2$.

RITIRO CALCESTRUZZO - EC2 UNI EN 1992-1-1:2005

Cavalcavia Torrazza Piemonte - Definizione azione di ritiro del calcestruzzo

Calcestruzzo		f_{ck}	**35 MPa**
		Area trasversale A_c	**13160000 mm2**
		Perimetro bagnato u	**16450 mm**
		$h_o=2A_c/u$	**1600 mm**
		maturazione t_s	**28 gg**
		tempo di valutazione ritiro t	**10000 gg**
	EC2-B.11	$\varepsilon_{cd0}=0,85[(220+110\alpha_{ds1})*\exp(-\alpha_{ds2}*f_{cm}/f_{cmo})]10^{-6}\beta_{RH}$	**4.7465E-04**
		Tipo di cemento (S; N; R)	R
	EC2-3.12(6)	α_{ds1}	6
		α_{ds2}	0.11
		f_{cm}	43 MPa
		f_{cmo}	10 MPa
		$\beta_{RH} = 1,55[1-(RH/RH_0)^3]$	1.018
		RH	**70%**
		RH_0	100%
	EC2-prosp.3.3	k_h	0.7
		$\beta_{ds} = (t-t_s)/[(t-t_s)+0,04*h_0^{3/2}]$	0.796
Ritiro per essiccamento	EC2-3.9	$\varepsilon_{cd}=\beta_{ds}(t,t_s)*k_h*\varepsilon_{cd0}$	**2.6439E-04**
	EC2-3.12	$\varepsilon_{ca}(t_{00})=2,5*(f_{ck}-10)10^{-6}$	**6.2500E-05**
		$\beta_{as}(t) = 1-\exp(-0,2t^{0,5})$	1.000
Ritiro autogeno	EC2-3.11	$\varepsilon_{ca}(t)=\beta_{as}(t)*\varepsilon_{ca}(t_{00})$	**6.2500E-05**
Ritiro calcestruzzo	EC2-3.8	$\varepsilon_{cs}(t)=\varepsilon_{cd}(t)+\varepsilon_{ca}(t)$	**3.2689E-04**
Percentuale armatura nella soletta		ρ	**0.71%**
Armatura nella soletta		Af	**93436 mm2**
Coefficiente di omogeneizzazione		n	**14**
Ritiro da applicare al modello di calcolo		$\varepsilon_{cs}(t)=\varepsilon_{cs}(t)*Ac/(Ac+nAf)$	**2.9733E-04**



8.3.3 Viscosità

La viscosità del cls viene schematizzata facendo variare il modulo elastico del calcestruzzo e di conseguenza il rapporto tra il contributo delle armature e dell'acciaio da carpenteria rispetto al cls.

LEGENDA

- $\alpha_1 = \left[\frac{35}{f_{cm}}\right]^{0.7}$, $\alpha_2 = \left[\frac{35}{f_{cm}}\right]^{0.2}$, $\alpha_3 = \left[\frac{35}{f_{cm}}\right]^{0.5}$ influenza della resistenza del calcestruzzo
- $\phi_{RH} = 1 + \frac{1 - RH/100}{0.1 \cdot \sqrt[3]{h_0}}$ ➔ effetto dell'umidità relativa
- $\beta(f_{cm}) = \frac{16.8}{\sqrt{f_{cm}}}$ effetto della resistenza del calcestruzzo sul coefficiente nominale di viscosità
- $\beta(t_0) = \frac{1}{(0.1 + t_0^{0.2})}$ età del calcestruzzo al momento di applicazione del carico
- ϕ_0 è il coefficiente nominale di viscosità:

$$\phi_0 = \phi_{RH} \cdot \beta(f_{cm}) \cdot \beta(t_0)$$

- β_H è un coefficiente dipendente dall'umidità relativa (RH in %) e dalla dimensione fittizia dell'elemento (h_0 in millimetri):

$$\beta_H = 1.5[1 + (0.012RH)^{18}]h_0 + 250\alpha_3 \le 1500\alpha_3$$

- $\beta_c(t,t_0)$ è un coefficiente atto a descrivere l'evoluzione della viscosità nel tempo dopo l'applicazione del carico:

$$\beta_c(t,t_0) = \left[\frac{(t - t_0)}{(\beta_H + t - t_0)}\right]^{0.3}$$

- $\phi(\infty\text{-}t)$ è la deformazione viscosa dal tempo t a tempo infinito per il singolo concio di nucleo

$$\phi(\infty - t) = [1 - \beta_c(t,t_0)]\phi_0$$

- Modulo elastico del calcestruzzo

$$E_{cm}=22(f_{cm}/10)^{0.3}=32000MPa$$

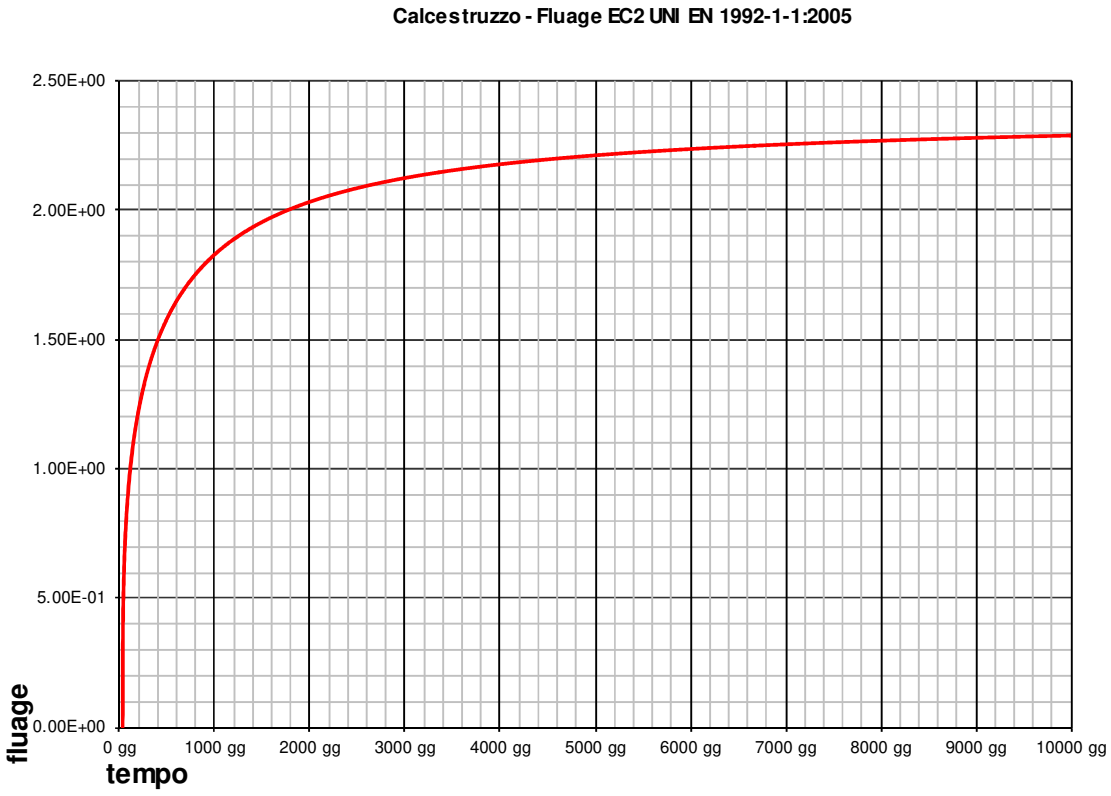
- Modulo elastico del calcestruzzo a tempo infinito risulta:

$$E_{cm\infty}= E_{cm} / \phi =32000/2.289=13980Mpa$$

L'influenza del fluage è quindi relativa alla deformabilità, determinando uno spostamento anche della sollecitazione dal calcestruzzo verso l'armatura metallica.

Cavalcavia Torrazza Piemonte - Definizione del fluage del calcestruzzo

Calcestruzzo		f_{ck}	**35 MPa**
		$E_{cm} = 22(f_{cm}/10)^{0,3}$	**32000 MPa**
		Modulo tangente $E_c = 1,05E_{cm}$	**33600 MPa**
		Area trasversale A_c	**13160000 mm2**
		Perimetro bagnato u	**16450 mm**
		$h_o = 2A_c/u$	**1600 mm**
		applicazione carico $t_{0,T}$	**28 gg**
		variazione in funzione del cemento t_0	**32 gg**
		tempo di valutazione fluage t	**10000 gg**
		Tipo di cemento (S; N; R)	R
	EC2-B.2	$\varphi_0 = \varphi_{RH} * \beta(f_{cm}) * \beta(t_0)$	**2.378**
	EC2-3.1.2(6)	α_1	0.866
		α_2	0.960
		α_3	0.902
		f_{cm}	43 MPa
	EC2-B.4	$\beta(f_{cm})$	2.562
	EC2-B.5	$\beta(t_0)$	0.475
	EC2-B.8	β_H	1353.291
		RH	**70%**
	EC2-B3	φ_{RH}	1.955
	EC2-B7	$\beta_c(t-t_0) = [(t-t_s)/(\beta_H + t - t_s)]^{0,3}$	0.963
Fluage	EC2-B.1	$\varphi(t,t_0) = \varphi_0 * \beta_c(t,t_0)$	**2.2891E+00**



8.3.4 Effetto combinato del ritiro e della viscosità

Sia il ritiro che il fluage manifestano un comportamento che è funzione del tempo. In particolare la riduzione del modulo elastico del calcestruzzo mitiga l'effetto della coazione dovuta al ritiro. Nella modellazione si introduce un valore di ritiro corrispondente a:
$\Delta T_{ritiro+fluage}=\Delta T_{ritiro}/(1+\phi_{\infty})=30/(1+2.289)=9.1°$

8.4 Variazioni termiche

In termini di variazioni termiche, ai sensi del §5.2.2.5.2 delle NTC 2008 si considera una variazione uniforme di temperatura pari a ± 15°C.

8.5 Sovraccarico Neve

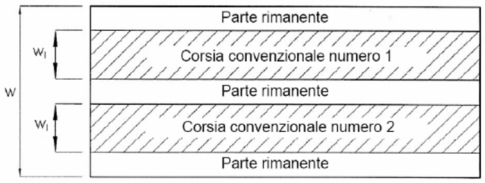
Il carico neve è trascurabile in confronto ai carichi da traffico e dunque non viene tenuto in conto.

8.6 Carichi Mobili

Si fa riferimento al D.M. 14.01.08 – norme tecniche, di cui si riporta una breve sintesi.

8.6.1 Definizione delle corsie convenzionali

Le larghezze wl delle corsie convenzionali su una carreggiata ed il massimo numero (intero) possibile di tali corsie su di essa sono indicati nel prospetto seguente



Se non diversamente specificato, qualora la carreggiata di un impalcato da ponte sia divisa in due parti separate da una zona spartitraffico centrale, si distinguono i casi seguenti:

a) se le parti sono separate da una barriera di sicurezza fissa, ciascuna parte, incluse tutte le corsie di emergenza e le banchine, è autonomamente divisa in corsie convenzionali.

b) se le parti sono separate da barriere di sicurezza mobili o da altro dispositivo di ritenuta, l'intera carreggiata, inclusa la zona spartitraffico centrale, è divisa in corsie convenzionali.

Larghezza di carreggiata "w"	Numero di corsie convenzionali	Larghezza di una corsia convenzionale [m]	Larghezza della zona rimanente [m]
$w < 5{,}40$ m	$n_l = 1$	3,00	(w-3,00)
$5{,}4 \le w < 6{,}0$ m	$n_l = 2$	w/2	0
$6{,}0$ m $\le w$	$n_l = \mathrm{Int}(w/3)$	3,00	w - (3,00 x n_l)

La disposizione e la numerazione delle corsie va determinata in modo da indurre le più sfavorevoli condizioni di progetto. Per ogni singola verifica il numero di corsie da considerare caricate, la loro disposizione sulla carreggiata e la loro numerazione vanno scelte in modo che gli effetti della disposizione dei carichi risultino i più sfavorevoli. La corsia che, caricata,

dà l'effetto più sfavorevole è numerata come corsia Numero 1; la corsia che dà il successivo effetto più sfavorevole è numerata come corsia Numero 2, ecc.

Quando la carreggiata è costituita da due parti separate portate da uno stesso impalcato, le corsie sono numerate considerando l'intera carreggiata, cosicché vi è solo una corsia 1, solo una corsia 2 ecc, che possono appartenere alternativamente ad una delle due parti.

Quando la carreggiata consiste di due parti separate portate da due impalcati indipendenti, per il progetto di ciascun impalcato si adottano numerazioni indipendenti. Quando, invece, gli impalcati indipendenti sono portati da una singola pila o da una singola spalla, per il progetto della pila o della spalla si adotta un'unica numerazione per le due parti.

Per ciascuna singola verifica e per ciascuna corsia convenzionale, si applicano gli Schemi di Carico definiti nel seguito per una lunghezza e per una disposizione longitudinale, tali da ottenere l'effetto più sfavorevole.

8.6.2 Schemi di Carico

Le azioni variabili del traffico, comprensive degli effetti dinamici, sono definite dai seguenti Schemi di Carico:

Schema di Carico 1: è costituito da carichi concentrati su due assi in tandem, applicati su impronte di pneumatico di forma quadrata e lato 0,40 m, e da carichi uniformemente distribuiti come mostrato in Fig. 5.1.2 delle NTC'08. Questo schema è da assumere a riferimento sia per le verifiche globali, sia per le verifiche locali, considerando un solo carico tandem per corsia, disposto in asse alla corsia stessa. Il carico tandem, se presente, va considerato per intero.

Schema di Carico 2: è costituito da un singolo asse applicato su specifiche impronte di pneumatico di forma rettangolare, di larghezza 0,60 m ed altezza 0,35 m. Questo schema va considerato autonomamente con asse longitudinale nella posizione più gravosa ed è da assumere a riferimento solo per verifiche locali. Qualora sia più gravoso si considererà il peso di una singola ruota di 200 kN.

Schema di Carico 3: è costituito da un carico isolato da 150kN con impronta quadrata di lato 0,40m. Si utilizza per verifiche locali su marciapiedi non protetti da sicurvia.

Schema di Carico 4: è costituito da un carico isolato da 10 kN con impronta quadrata di lato 0,10m. Si utilizza per verifiche locali su marciapiedi protetti da sicurvia e sulle passerelle pedonali.

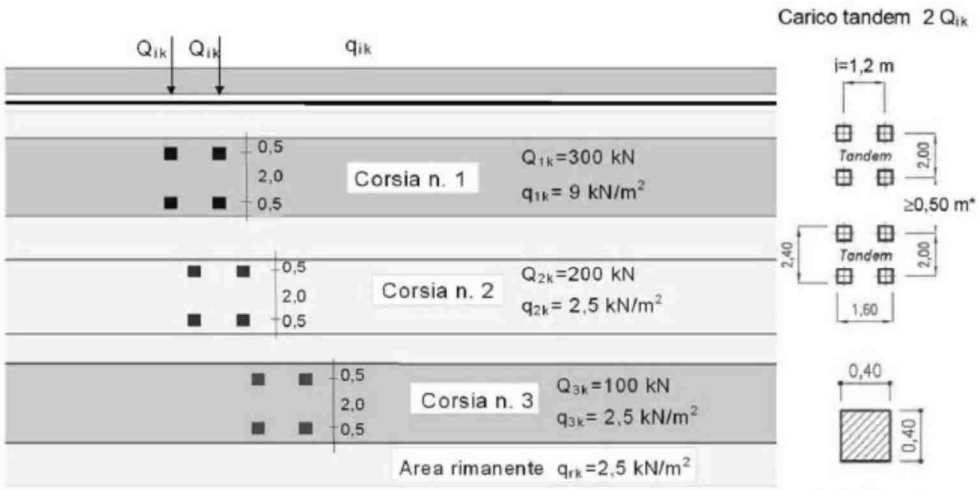
Schema di Carico 5: costituito dalla folla compatta, agente con intensità nominale, comprensiva degli effetti dinamici, di 5 kN/m^2. Il valore di combinazione è invece di 2,5 kN/m^2. Il carico folla deve essere applicato su tutte le zone significative della superficie di influenza, inclusa l'area dello spartitraffico centrale, ove rilevante.

8.6.3 Categorie Stradali

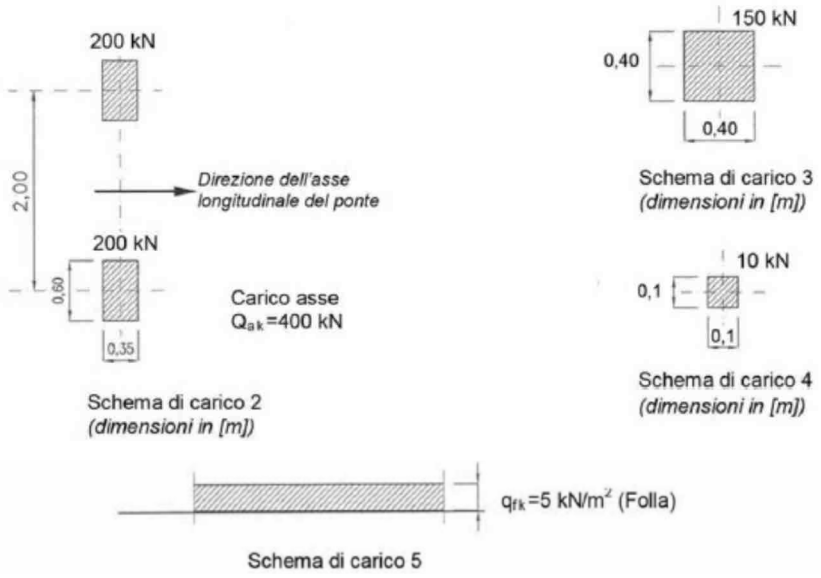
L'impalcato viene considerato di **2a Categoria**: ponti per il transito dei carichi mobili considerando sulla corsia n.°1 carichi ridotti del 20% rispetto ad un ponte di 1a categoria (un carico asse Q_{1k}=240kN ed un carico distribuito q_{1k}=7.2kN/m^2) mentre sulle altre corsie valgono i carichi sopra indicati con il loro intero valore.

8.6.4 Disposizione dei carichi mobili

Il numero delle colonne di carichi mobili da considerare nel calcolo dei ponti di 1a e 2a Categoria è quello massimo compatibile con la larghezza della carreggiata, comprese le eventuali banchine di rispetto e per sosta di emergenza, nonché gli eventuali marciapiedi non protetti e di altezza inferiore a 20 cm, tenuto conto che la larghezza di ingombro convenzionale è stabilita per ciascuna colonna in 3,00 m.



Schema di carico 1 *(dimensioni in [m])*



In ogni caso il numero delle colonne non deve essere inferiore a 2, a meno che la larghezza della sede stradale sia inferiore a 5,40 m. La disposizione dei carichi ed il numero delle colonne sulla carreggiata saranno volta per volta quelli che determinano le condizioni più sfavorevoli di sollecitazione per la struttura, membratura o sezione considerata. Per i ponti di 1a Categoria si devono considerare, compatibilmente con le larghezze precedentemente definite, le seguenti intensità dei carichi:

Intensità dei carichi Q_{ik} *e* q_{ik} *per le diverse corsie*

Posizione	Carico asse Q_{ik} [kN]	q_{ik} [kN/m^2]
Corsia Numero 1	300	9,00
Corsia Numero 2	200	2,50
Corsia Numero 3	100	2,50
Altre corsie	0,00	2,50

8.6.5 Modellazione dei carichi mobili

Poiché l'impalcato ha larghezza 16m, si considerano 5 corsie convenzionali da 3m di larghezza ed una zona rimanente da 1m di larghezza.
Sulla corsia n.°1 si considera un carico asse tandem Q_{1k}=240kN ed un carico distribuito q_{1k}=7.2kN/m^2.

Sulla corsia n.°2 si considera un carico asse tandem Q_{1k}=200kN ed un carico distribuito q_{1k}=2.5kN/m^2.

Sulla corsia n.°3 si considera un carico asse tandem Q_{1k}=100kN ed un carico distribuito q_{1k}=2.5kN/m^2.

Sulle restanti 2 corsie si considera un carico distribuito q_{1k}=2.5kN/m^2.

Sulla zona rimanente si considera un carico distribuito q_{1k}=2.5kN/m^2.

Per massimizzare le sollecitazioni, la corsia n.°1 sarà sempre posta al limite dell'impalcato, accanto ad essa la corsia n.°2, seguita dalla n.°3 e poi dalle restanti.

Il carico tandem, proprio delle prime tre corsie, sarà posto:

- in prossimità della spalla per massimizzare l'azione tagliante;
- in mezzeria della luce d'impalcato per massimizzare il momento flettente positivo;
- in punta all'impalcato a sbalzo per massimizzare il momento flettente negativo.

Considerando la ripartizione del carico a 45° nella pavimentazione stradale e nell'impalcato (fino a metà spessore), come indicato dalle NTC'08 nella figura 5.1.3°,

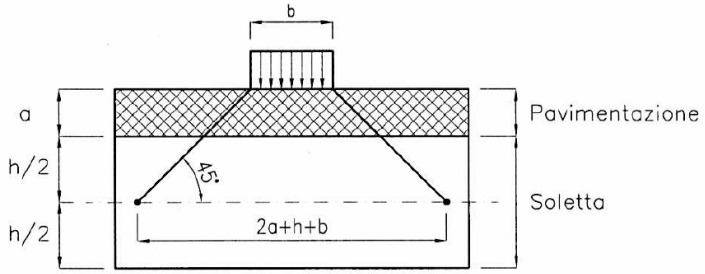


Figura 5.1.3a – *Diffusione dei carichi concentrati nelle solette*

l'impronta 40x40cm si allarga in tutte le direzioni di (30+80/2)=70cm. Le quattro impronte del carico tandem si sfiorano al centro in senso trasversale alla direzione di marcia e sugli esterni sforano la larghezza della corsia, mentre si sovrappongono parzialmente in direzione parallela al senso di marcia. Si considera, dunque, per ogni corsia, un'impronta di 3mx3m su cui grava, uniformemente distribuito, il complessivo del carico tandem $2xQ_{1k}$ (oltre al carico distribuito q_{1k}).

8.7 Vento

Zona vento = 1
(Vb.o = 25 m/s; Ao = 1000 m; Ka = 0.010 1/s)

Classe di rugosità del terreno: D
[Aree prive di ostacoli o con al di più rari ostacoli isolati (aperta campagna, aeroporti, aree agricole, zone paludose o sabbiose, superfici innevate o ghiacciate, mare, laghi,..)]

Categoria esposizione: tipo II
(Kr = 0.19; Zo = 0.05 m; Zmin = 4 m)

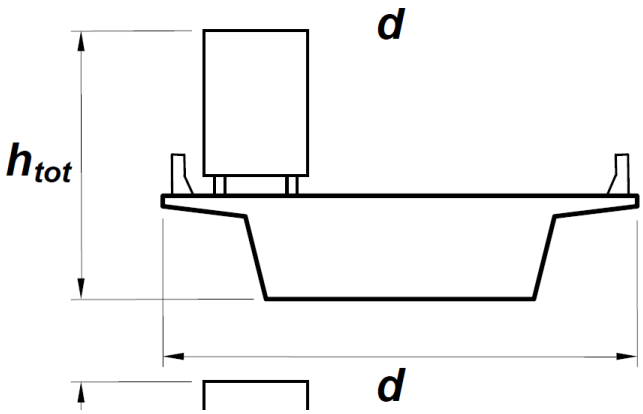
Velocità di riferimento = 25.00 m/s
Pressione cinetica di riferimento (qb) = 39 daN/mq

Coefficiente dinamico (Cd) = 1.00
Coefficiente di esposizione (Ce) = 2.29
Coefficiente di esposizione topografica (Ct) = 1.00
Altezza dell'edificio = 9.00 m

Pressione del vento (p = qb Ce Cd) = 89 daN/mq

IMPALCATO

I coefficienti di forma c_p trasversale e verticale per vento trasversale all'impalcato sono calcolati con le formule fornite da CNR DT 207/2008 r1:



$$c_{fX} = \begin{cases} \dfrac{1,85}{d/h_{tot}} - 0,10 & 2 \le d/h_{tot} \le 5 \\ \dfrac{1,35}{d/h_{tot}} & d/h_{tot} > 5 \end{cases}$$

$$c_{fY} = \begin{cases} \pm\left(0,7 + 0,1\dfrac{d}{h_{tot}}\right) & 0 \le d/h_{tot} \le 5 \\ \mp 1,2 & d/h_{tot} > 5 \end{cases}$$

Essendo d=16m e h_{tot}=0.8+0.3+3=4.1m, d/h_{tot}=16/4.1=3.9

c_{fx}=1.85/ (d/h_{tot}) – 0.1=1.85/3.9 -0.1=0.37

c_{fy}=±[0.7+0.1 (d/h_{tot})]=±1.09

Il carico lineare trasversale da applicare all'impalcato è

q_{ventox}=p* c_{fx} *htot=89*0.37*4.1=135daN/m.

Il carico verticale (agente nel verso della gravità) da applicare all'impalcato è:

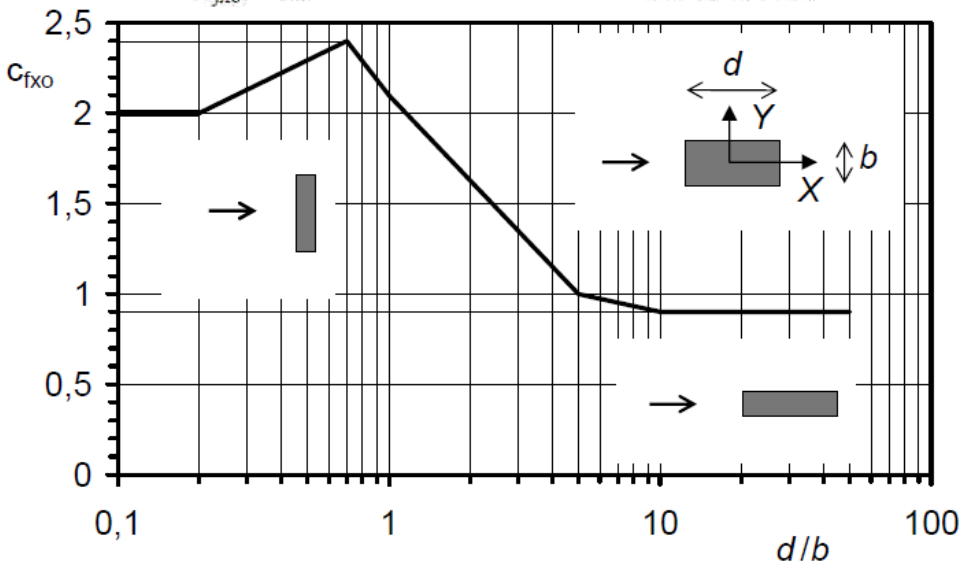
p_{ventoz}=p* c_{fy} =89*1.09=97daN/mq.

PILA

Il coefficiente di forma c_p per vento trasversale all'impalcato sulla pila è calcolati con le formule fornite da CNR DT 207/2008 r1:

Per le sezioni con spigoli vivi il coefficiente di forza nella direzione del vento dipende dal rapporto *d/b* di allungamento della sezione (Figura G.49), e solo marginalmente dal numero di Reynolds e dalla scabrezza della superficie. Esso è fornito dalla relazione (Figura G.49):

$$\begin{aligned} c_{fX0} &= 2,0 && 0,1 \le d/b \le 0,2 \\ c_{fX0} &= 0,73 \cdot \log_{10}(d/b) + 2,51 && 0,2 \le d/b \le 0,7 \\ c_{fX0} &= -1,64 \cdot \log_{10}(d/b) + 2,15 && 0,7 \le d/b \le 5 \\ c_{fX0} &= -0,33 \cdot \log_{10}(d/b) + 1,23 && 5 \le d/b \le 10 \\ c_{fX0} &= 0,9 && 10 \le d/b \le 50 \end{aligned} \qquad \text{(G.21)}$$



d=16m, b=0.8m, d/b=20 e c_{fxo}=0.9

Il carico lineare trasversale da applicare alla pila è

$q_{ventox}=p^* c_{fxo} *b=89*0.9*0.8=64.1daN/m.$

8.8 urti da traffico ferroviario

All'occorrenza di un deragliamento può verificarsi il rischio di collisione fra i veicoli deragliati e le strutture adiacenti la ferrovia. Queste ultime dovranno essere progettate in modo da resistere alle azioni conseguenti ad una tale evenienza.
In mancanza di specifiche analisi di rischio si assumono le seguenti azioni statiche equivalenti, considerando che la distanza d degli elementi esposti dall'asse del binario è inferiore a 5m:

- 4000 kN in direzione parallela alla direzione di marcia dei convogli ferroviari;
- 1500 kN in direzione perpendicolare alla direzione di marcia dei convogli ferroviari;

Queste forze sono applicate a 1,80 m dal piano del ferro e non sono considerate agenti simultaneamente.

8.9 Spinta delle terre

La spinta che la terra produce su un muro di contenimento è strettamente legata alla deformabilità di quest'ultimo. Una struttura rigida, incapace di subire deformazioni anche di piccola entità subirà una pressione pari ai carichi verticali moltiplicati per il coefficiente di spinta a riposo K_0. Se essa invece è in grado di ruotare, traslare o deformarsi, la pressione sarà legata al coefficiente di spinta attiva K_a.

Nel nostro caso per il calcolo del muro di spalla si andrà a considerare la spinta a riposo, per i muri andatori ai lati della spalla si considera la spinta attiva.

- rinterro a monte spalla con angolo di attrito assunto pari a 35° e γ = 20 kN/m^3:

  spinta a riposo K_0 = 0.47;

- rinterro a monte muri andatori con angolo di attrito assunto pari a 35° e γ = 20 kN/m^3:

  spinta attiva K_a = 0.32;

- spinta del terreno per sovraccarico permanente sulla spalla (massicciata stradale γ = 20 kN/m^3 e spessore 30cm) 0.3*20*0,47 = 2.82 kN/mq (costante lungo tutto il muro)

- spinta del terreno all'estradosso fondazione spalla

  8.93*20*0,47 = 83.94 kN/mq (triangolare lungo tutto il muro)

- sovraccarico variabile a tergo della spalla q= 20 kN/mq

  20*0,47 = 9.4 kN/mq (costante lungo tutto il muro)

9 Analisi del rischio sismico

9.1 Rischio sismico

L'Italia è uno dei Paesi a maggiore rischio sismico del Mediterraneo per la frequenza dei terremoti che hanno storicamente interessato il suo territorio e per l'intensità che alcuni di essi hanno raggiunto determinando un impatto sociale ed economico rilevante.
La sismicità (frequenza e forza con cui si manifestano i terremoti) è una caratteristica fisica del territorio al pari del clima, dei rilievi montuosi e dei corsi d'acqua. Conoscendo la frequenza e l'energia (magnitudo) associate ai terremoti che caratterizzano un territorio ed attribuendo un valore di probabilità al verificarsi di un evento sismico di una certa magnitudo in un certo intervallo di tempo, si può definire la sua pericolosità sismica. Un territorio avrà una pericolosità sismica tanto più elevata quanto più probabile sarà, a parità di intervallo di tempo considerato, il verificarsi di un terremoto di una certa magnitudo.
Il rischio sismico è determinato da una combinazione della pericolosità, della vulnerabilità e dell'esposizione ed è la misura dei danni che, in base al tipo di sismicità, di resistenza delle costruzioni e di antropizzazione (natura, qualità e quantità dei beni esposti), ci si può attendere in un dato intervallo di tempo.
La pericolosità sismica di un territorio è rappresentata dalla frequenza e dalla forza dei terremoti che lo interessano, ovvero dalla sua sismicità.
La pericolosità sismica viene definita come la probabilità che in una data area ed in un certo intervallo di tempo si verifichi un terremoto che superi una soglia di intensità, magnitudo o accelerazione di picco (PGA) di nostro interesse.
Negli ultimi 30 anni è emersa una maggiore richiesta di conoscenze del livello di pericolosità sismica da parte di Enti e amministrazioni locali, che ha favorito lo sviluppo di metodi di studio e calcolo di tale parametro.
Soprattutto negli ultimi anni, studi di pericolosità sismica sono stati impiegati nelle analisi territoriali e regionali finalizzate a zonazioni (classificazione sismica) o micro zonazioni. In quest'ultimo caso, la valutazione della pericolosità comporta l'individuazione delle aree che, in occasione di una scossa sismica, possono essere soggette a fenomeni di amplificazione. Infatti, il terremoto determina effetti diversi in funzione delle condizioni geologiche e geomorfologiche locali, fornendo utili indicazioni per la pianificazione urbanistica.

9.2 Classificazione sismica del comune di Torrazza piemonte

Ai sensi dell'Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003, recante "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" (G.U. n. 105 del 8.5.2003), allegato 1, con Deliberazione della Giunta Regionale 17 novembre 2003 n. 61-11017 il territorio comunale di Torrazza Piemonte è classificato in zona 4, definita come un'area con accelerazione orizzontale ag/g, con probabilità di superamento pari al 10% in 50 anni, inferiore a 0.05g.
La classificazione del comune di Torrazza Piemonte in zona 4 è confermata dalla delibera DGR 19 gennaio 2010, n. 11-13058 e viene confermata anche nelle successive delibere (DGR 12 dicembre 2011, n. 4-3084 e DGR 21 maggio 2014, n. 65-7656).

9.3 Vita nominale

Con riferimento alla tabella 2.4.I delle NTC'08, il cavalcavia è un'opera infrastrutturale di dimensioni contenute e di importanza normale e come tale classificata come tipo di costruzione 2.

Tabella 2.4.I – *Vita nominale V_N per diversi tipi di opere*

	TIPI DI COSTRUZIONE	Vita Nominale V_N (in anni)
1	Opere provvisorie – Opere provvisionali - Strutture in fase costruttiva[1]	≤ 10
2	Opere ordinarie, ponti, opere infrastrutturali e dighe di dimensioni contenute o di importanza normale	≥ 50
3	Grandi opere, ponti, opere infrastrutturali e dighe di grandi dimensioni o di importanza strategica	≥ 100

9.4 Classe d'uso

Con riferimento al paragrafo 2.4.2 delle NTC'08, coerentemente con la relazione geotecnica e sismica del progetto definitivo a firma dell'ing. Marco Russo (codice elaborato PD2_C3A_5502_30-03-00_10-02), la tipologia di costruzione in progetto rientra nella classe IE (Cu = 1), nella quale sono comprese "…Ponti, opere infrastrutturali, reti viarie non ricadenti in Classe d'uso III o in Classe d'uso IV, reti ferroviarie la cui interruzione non provochi situazioni di emergenza…".

9.5 Periodo di riferimento per l'azione sismica

Le azioni sismiche sulla costruzione vengono valutate in relazione al periodo di riferimento V_R che si ricava moltiplicando la vita nominale V_N per il coefficiente d'uso C_U, definito dalle NTC'08 nella tabella 2.4.II.

Tab. 2.4.II – *Valori del coefficiente d'uso C_U*

CLASSE D'USO	I	II	III	IV
COEFFICIENTE C_U	0,7	1,0	1,5	2,0

Nel caso in esame, coerentemente con la relazione geotecnica e sismica del progetto definitivo a firma dell'ing. Marco Russo (codice elaborato PD2_C3A_5502_30-03-00_10-02), la vita di riferimento è $V_R=V_N*C_U=50*1=50$ anni.

9.6 Categoria di sottosuolo

Per la caratterizzazione del sito dal punto di vista sismico ci si basa sulla relazione geotecnica e sismica del progetto definitivo a firma dell'ing. Marco Russo (codice elaborato PD2_C3A_5502_30-03-00_10-02).
Le indagini svolte consentono di definire, cautelativamente, la **categoria E** di sottosuolo di fondazione, conformemente alla tabella 3.2.II delle NTC'18.

Tabella 3.2.II – *Categorie di sottosuolo*

Categoria	Descrizione
A	*Ammassi rocciosi affioranti o terreni molto rigidi* caratterizzati da valori di $V_{s,30}$ superiori a 800 m/s, eventualmente comprendenti in superficie uno strato di alterazione, con spessore massimo pari a 3 m.
B	*Rocce tenere e depositi di terreni a grana grossa molto addensati o terreni a grana fina molto consistenti* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ compresi tra 360 m/s e 800 m/s (ovvero $N_{SPT,30} > 50$ nei terreni a grana grossa e $c_{u,30} > 250$ kPa nei terreni a grana fina).
C	*Depositi di terreni a grana grossa mediamente addensati o terreni a grana fina mediamente consistenti* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ compresi tra 180 m/s e 360 m/s (ovvero $15 < N_{SPT,30} < 50$ nei terreni a grana grossa e $70 < c_{u,30} < 250$ kPa nei terreni a grana fina).
D	*Depositi di terreni a grana grossa scarsamente addensati o di terreni a grana fina scarsamente consistenti,* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ inferiori a 180 m/s (ovvero $N_{SPT,30} < 15$ nei terreni a grana grossa e $c_{u,30} < 70$ kPa nei terreni a grana fina).
E	*Terreni dei sottosuoli di tipo C o D per spessore non superiore a 20 m,* posti sul substrato di riferimento (con $V_s > 800$ m/s).

10 Azione sismica

La struttura viene trattata seguendo quanto specificato ai capitoli 3.2, 7.3 e 7.4 del DM2008; si conduce un'analisi lineare statica della struttura, che consiste fondamentalmente nell'applicazione di forze statiche equivalenti alle forze di inerzia indotte dall'azione sismica.

10.1 Valutazione dell' azione sismica

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito http://esse1.mi.ingv.it/. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

L' azione sismica viene definita in relazione ad un periodo di riferimento Vr che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento Vr e la probabilità di superamento Pver associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno Tr e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;

Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura					
Classe d'uso	Vita Vn [anni]	Coeff. Uso	Periodo Vr [anni]	Tipo di suolo	Categoria topografica
II	50.0	1.0	50.0	E	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente S = Ss*St (3.2.3)

Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale

Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	7.988	45.220	
13131	7.957	45.208	2.752
13132	8.028	45.211	3.268
12910	8.024	45.261	5.363
12909	7.953	45.258	5.043

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	30.0	0.017	2.610	0.160
SLD	63.0	50.0	0.020	2.590	0.170
SLV	10.0	475.0	0.040	2.660	0.270
SLC	5.0	975.0	0.047	2.680	0.290

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.017	1.600	2.610	0.457	0.128	0.383	1.667
SLD	0.020	1.600	2.590	0.499	0.132	0.397	1.682
SLV	0.040	1.600	2.660	0.716	0.175	0.524	1.759
SLC	0.047	1.600	2.680	0.786	0.182	0.547	1.789

10.2 Spinta delle terre

Come specificato sia dalla normativa italiana che da quella europea, l'analisi sismica di un'opera di contenimento deve considerare tutte le masse d'inerzia incluse all'interno del cuneo di spinta. Queste inducono una sovrapressione funzione di un coefficiente di spinta sismico orizzontale.
L'entità di tale spinta è strettamente legata alla deformabilità della struttura.
Per la valutazione delle spinte si farà riferimento all'analisi pseudo-statica descritta sia nel capitolo 7.3.2 dell'Eurocodice 8-5 che nel capitolo 7.11.6.2 dell'NTC2008.
Si ha così che i coefficienti di spinta assumono i seguenti valori:

$$k_h = \beta_m \cdot \frac{a_{\max}}{g} \qquad k_v = \pm 0.5 \cdot k_h$$

Dove l'accelerazione massima vale:
a_{max}=0.064g per SLV
a_{max}=0.032g per SLD
Per le spalle, il cui movimento è impedito, il coefficiente β_m vale 1.
Per i muri andatori il coefficiente β_m vale 0.18.
Nel caso di strutture rigide, in condizioni sismiche si sviluppano spinte maggiori rispetto a a quella attiva; è pertanto più appropriato ipotizzare il terreno in stato di riposo, applicando, come definito dall' EC8-5 appendice E punto 9, la seguente relazione per la valutazione delle sovraspinte legate al sisma:

$$\Delta P_d = k_h \cdot \gamma \cdot H^2$$

Tale spinta dovrà essere applicata a metà altezza del muro.
Analogo discorso dovrà essere fatto per i sovraccarichi permanenti che insistono a monte delle spalle all'interno del cuneo di spinta. Visti i coefficienti di combinazione per i carichi variabili da traffico (Ψ_2=0), essi non saranno considerati nel calcolo delle masse sismiche.
Si avranno quindi queste pressioni uniformi dovute al sisma SLV:

- sulla spalla $\Delta p_d = k_h * \gamma * H = 1 * 0.064 * 20 * 9.23 = 11.814 kN/m^2$

- sui muri andatori $\Delta p_d = k_h * \gamma * H = 0.18 * 0.064 * 20 * 9.23 = 2.06 kN/m^2$

Mentre si avranno queste altre pressioni uniformi dovute al sisma SLD:

- sulla spalla $\Delta p_d = k_h * \gamma * H = 1 * 0.032 * 20 * 9.23 = 5.907 kN/m^2$
- sui muri andatori $\Delta p_d = k_h * \gamma * H = 0.18 * 0.032 * 20 * 9.23 = 1.03 kN/m^2$

11 Combinazioni delle azioni

I carichi agenti vengono combinati secondo quanto prescritto dalle norme tecniche ed in particolare:

- Combinazione fondamentale, generalmente impiegata per gli stati limite ultimi (SLU):

$$\gamma_{G1}\cdot G_1 + \gamma_{G2}\cdot G_2 + \gamma_P\cdot P + \gamma_{Q1}\cdot Q_{k1} + \gamma_{Q2}\cdot\psi_{02}\cdot Q_{k2} + \gamma_{Q3}\cdot\psi_{03}\cdot Q_{k3} + \ldots \quad (2.5.1)$$

- Combinazione caratteristica (rara), generalmente impiegata per gli stati limite di esercizio (SLE) irreversibili, da utilizzarsi nelle verifiche alle tensioni ammissibili di cui al § 2.7:

$$G_1 + G_2 + P + Q_{k1} + \psi_{02}\cdot Q_{k2} + \psi_{03}\cdot Q_{k3} + \ldots \quad (2.5.2)$$

- Combinazione frequente, generalmente impiegata per gli stati limite di esercizio (SLE) reversibili:

$$G_1 + G_2 + P + \psi_{11}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \psi_{23}\cdot Q_{k3} + \ldots \quad (2.5.3)$$

- Combinazione quasi permanente (SLE), generalmente impiegata per gli effetti a lungo termine:

$$G_1 + G_2 + P + \psi_{21}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \psi_{23}\cdot Q_{k3} + \ldots \quad (2.5.4)$$

- Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E (v. § 3.2):

$$E + G_1 + G_2 + P + \psi_{21}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \ldots \quad (2.5.5)$$

- Combinazione eccezionale, impiegata per gli stati limite ultimi connessi alle azioni eccezionali di progetto A_d (v. § 3.6):

$$G_1 + G_2 + P + A_d + \psi_{21}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \ldots \quad (2.5.6)$$

11.1 coefficienti di combinazione dei carichi

I coefficienti di combinazioni adottati sono i seguenti:
Ai fini delle verifiche degli stati limite vengono prese in considerazione le seguenti combinazioni delle azioni:

Valori caratteristici delle azioni dovute al traffico

	Carichi sulla carreggiata					***Carichi su marciapiedi e piste ciclabili***
	Carichi verticali			**Carichi orizzontali**		**Carichi verticali**
Gruppo di azioni	Modello principale (Schemi di carico 1, 2, 3, 4, 6)	Veicoli speciali	Folla (Schema di carico 5)	Frenatura q_3	Forza centrifuga q_4	Carico uniformemente. distribuito
1	Valore caratteristico					Schema di carico 5 con valore di combinazione 2,5 kN/m^2
2 a	Valore frequente			Valore caratteristico		
2 b	Valore frequente				Valore caratteristico	
3 (*)						Schema di carico 5 con valore caratteristico 5,0 kN/m^2
4 (**)			Schema di carico 5 con valore caratteristico 5,0 kN/m^2			Schema di carico 5 con valore caratteristico 5,0 kN/m^2
5 (***)	Da definirsi per il singolo progetto	Valore caratteristico o nominale				

(*) Ponti di 3ª categoria
(**) Da considerare solo se richiesto dal particolare progetto (ad es. ponti in zona urbana)
(***) Da considerare solo se si considerano veicoli speciali

La tabella 5.1.V delle NTC'08 fornisce i valori dei coefficienti parziali delle azioni da assumere nell'analisi per la determinazione degli effetti delle azioni nelle verifiche agli stati limite ultimi.

Tabella 5.1.V – *Coefficienti parziali di sicurezza per le combinazioni di carico agli SLU*

		Coefficiente	EQU[1]	A1 STR	A2 GEO
Carichi permanenti	favorevoli sfavorevoli	γ_{G1}	0,90 1,10	1,00 1,35	1,00 1,00
Carichi permanenti non strutturali[2]	favorevoli sfavorevoli	γ_{G2}	0,00 1,50	0,00 1,50	0,00 1,30
Carichi variabili da traffico	favorevoli sfavorevoli	γ_{Q}	0,00 1,35	0,00 1,35	0,00 1,15
Carichi variabili	favorevoli sfavorevoli	γ_{Qi}	0,00 1,50	0,00 1,50	0,00 1,30
Distorsioni e presollecitazioni di progetto	favorevoli sfavorevoli	$\gamma_{\varepsilon 1}$	0,90 1,00[3]	1,00 1,00[4]	1,00 1,00
Ritiro e viscosità, Variazioni termiche, Cedimenti vincolari	favorevoli sfavorevoli	$\gamma_{\varepsilon 2}$, $\gamma_{\varepsilon 3}$, $\gamma_{\varepsilon 4}$	0,00 1,20	0,00 1,20	0,00 1,00

[1] Equilibrio che non coinvolga i parametri di deformabilità e resistenza del terreno; altrimenti si applicano i valori di GEO.
[2] Nel caso in cui i carichi permanenti non strutturali (ad es. carichi permanenti portati) siano compiutamente definiti si potranno adottare gli stessi coefficienti validi per le azioni permanenti.
[3] 1,30 per instabilità in strutture con precompressione esterna
[4] 1,20 per effetti locali

Il significato dei simboli è il seguente:

γ_{G1} coefficiente parziale del peso proprio della struttura, del terreno e dell'acqua, quando pertinente;
γ_{G2} coefficiente parziale dei pesi propri degli elementi non strutturali;
γ_{Q} coefficiente parziale delle azioni variabili da traffico;
γ_{Qi} coefficiente parziale delle azioni variabili.

I valori dei coefficienti ψ_{0j}, ψ_{1j} e ψ_{2j} per le diverse categorie di azioni sono riportati nella Tab. 5.1.VI delle NTC'08.

Tabella 5.1.VI - *Coefficienti ψ per le azioni variabili per ponti stradali e pedonali*

Azioni	*Gruppo di azioni (Tabella 5.1.IV)*	*Coefficiente ψ_0 di combinazione*	*Coefficiente ψ_1 (valori frequenti)*	*Coefficiente ψ_2 (valori quasi permanenti)*
Azioni da traffico (Tabella 5.1.IV)	Schema 1 (Carichi tandem) Schemi 1, 5 e 6 (Carichi distribuiti Schemi 3 e 4 (carichi concentrati) Schema 2	0,75 0,40 0,40 0,0	0,75 0,40 0,40 0,75	0,0 0,0 0,0 0,0
	2	0,0	0,0	0,0
	3	0,0	0,0	0,0
	4 (folla)	----	0,75	0,0
	5	0,0	0,0	0,0
Vento q_5	Vento a ponte scarico SLU e SLE Esecuzione	 0,6 0,8	 0,2 ----	 0,0 0,0
	Vento a ponte carico	0,6		
Neve q_5	SLU e SLE	0,0	0,0	0,0
	esecuzione	0,8	0,6	0,5
Temperatura	T_k	0,6	0,6	0,5

11.2 Combinazioni a SLU

	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLUa 1	1	1.35	0	0	0	0	0	0	1.35	0	1.5	1.0125	0	0	0	0	0	0	0	0.72
SLUa 2	2	1.35	0	0	0	0	0	0	1.35	0	1.5	0	1.0125	0	0	0	0	0	0	0.72
SLUa 3	3	1.35	0	0	0	0	0	0	1.35	0	1.5	0	0	1.0125	0	0	0	0	0	0.72
SLUa 4	4	1.35	0	0	0	0	0	0	1.35	0	1.5	0	0	0	1.0125	0	0	0	0	0.72
SLUa 5	5	1.35	0	0	0	0	0	0	1.35	0	1.5	0	0	0	0	0	0	0	0	0.72
SLUa 6	6	1.35	0	0	0	0	0	0	1.35	0	1.5	0	0	0	0	0	0	0	0	0
SLUa 7	7	1.35	0	0	0	0	0	0	1.35	0	0.9	1.0125	0	0	0	0	0	0	0	1.2
SLUa 8	8	1.35	0	0	0	0	0	0	1.35	0	0.9	0	1.0125	0	0	0	0	0	0	1.2
SLUa 9	9	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	1.0125	0	0	0	0	0	1.2
SLUa 10	10	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	0	1.0125	0	0	0	0	1.2
SLUa 11	11	1.35	0	0	0	0	0	0	1.35	0	0	1.0125	0	0	0	0	0	0	0	1.2
SLUa 12	12	1.35	0	0	0	0	0	0	1.35	0	0	0	1.0125	0	0	0	0	0	0	1.2
SLUa 13	13	1.35	0	0	0	0	0	0	1.35	0	0	0	0	1.0125	0	0	0	0	0	1.2
SLUa 14	14	1.35	0	0	0	0	0	0	1.35	0	0	0	0	0	1.0125	0	0	0	0	1.2
SLUa 15	15	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	0	0	0	0	0	0	1.2
SLUa 16	16	1.35	0	0	0	0	0	0	1.35	0	0.9	1.35	0	0	0	0	0	0	0	0.72
SLUa 17	17	1.35	0	0	0	0	0	0	1.35	0	0.9	0	1.35	0	0	0	0	0	0	0.72
SLUa 18	18	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	1.35	0	0	0	0	0	0.72
SLUa 19	19	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	0	1.35	0	0	0	0	0.72
SLUa 20	20	1.35	0	0	0	0	0	0	1.35	0	0	1.35	0	0	0	0	0	0	0	0.72
SLUa 21	21	1.35	0	0	0	0	0	0	1.35	0	0	0	1.35	0	0	0	0	0	0	0.72
SLUa 22	22	1.35	0	0	0	0	0	0	1.35	0	0	0	0	1.35	0	0	0	0	0	0.72
SLUa 23	23	1.35	0	0	0	0	0	0	1.35	0	0	0	0	0	1.35	0	0	0	0	0.72
SLUa 24	24	1.35	0	0	0	0	0	0	1.35	0	0.9	1.35	0	0	0	0	0	0	0	0
SLUa 25	25	1.35	0	0	0	0	0	0	1.35	0	0.9	0	1.35	0	0	0	0	0	0	0
SLUa 26	26	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	1.35	0	0	0	0	0	0
SLUa 27	27	1.35	0	0	0	0	0	0	1.35	0	0.9	0	0	0	1.35	0	0	0	0	0
SLUa 28	28	1.35	0	0	0	0	0	0	1.35	0	0	1.35	0	0	0	0	0	0	0	0
SLUa 29	29	1.35	0	0	0	0	0	0	1.35	0	0	0	1.35	0	0	0	0	0	0	0
SLUa 30	30	1.35	0	0	0	0	0	0	1.35	0	0	0	0	1.35	0	0	0	0	0	0
SLUa 31	31	1.35	0	0	0	0	0	0	1.35	0	0	0	0	0	1.35	0	0	0	0	0
SLUa 32	32	1.35	0	0	0	0	0	0	1.35	1.2	1.5	1.0125	0	0	0	0	0	0	0	-0.72
SLUa 33	33	1.35	0	0	0	0	0	0	1.35	1.2	1.5	0	1.0125	0	0	0	0	0	0	-0.72
SLUa 34	34	1.35	0	0	0	0	0	0	1.35	1.2	1.5	0	0	1.0125	0	0	0	0	0	-0.72
SLUa 35	35	1.35	0	0	0	0	0	0	1.35	1.2	1.5	0	0	0	1.0125	0	0	0	0	-0.72
SLUa 36	36	1.35	0	0	0	0	0	0	1.35	1.2	1.5	0	0	0	0	0	0	0	0	-0.72
SLUa 37	37	1.35	0	0	0	0	0	0	1.35	1.2	1.5	0	0	0	0	0	0	0	0	0
SLUa 38	38	1.35	0	0	0	0	0	0	1.35	1.2	0.9	1.0125	0	0	0	0	0	0	0	-1.2
SLUa 39	39	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	1.0125	0	0	0	0	0	0	-1.2
SLUa 40	40	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	1.0125	0	0	0	0	0	-1.2
SLUa 41	41	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	1.0125	0	0	0	0	-1.2
SLUa 42	42	1.35	0	0	0	0	0	0	1.35	1.2	0	1.0125	0	0	0	0	0	0	0	-1.2
SLUa 43	43	1.35	0	0	0	0	0	0	1.35	1.2	0	0	1.0125	0	0	0	0	0	0	-1.2
SLUa 44	44	1.35	0	0	0	0	0	0	1.35	1.2	0	0	0	1.0125	0	0	0	0	0	-1.2
SLUa 45	45	1.35	0	0	0	0	0	0	1.35	1.2	0	0	0	0	1.0125	0	0	0	0	-1.2
SLUa 46	46	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	0	0	0	0	0	-1.2
SLUa 47	47	1.35	0	0	0	0	0	0	1.35	1.2	0.9	1.35	0	0	0	0	0	0	0	-0.72
SLUa 48	48	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	1.35	0	0	0	0	0	0	-0.72
SLUa 49	49	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	1.35	0	0	0	0	0	-0.72
SLUa 50	50	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	1.35	0	0	0	0	-0.72
SLUa 51	51	1.35	0	0	0	0	0	0	1.35	1.2	0	1.35	0	0	0	0	0	0	0	-0.72
SLUa 52	52	1.35	0	0	0	0	0	0	1.35	1.2	0	0	1.35	0	0	0	0	0	0	-0.72
SLUa 53	53	1.35	0	0	0	0	0	0	1.35	1.2	0	0	0	1.35	0	0	0	0	0	-0.72
SLUa 54	54	1.35	0	0	0	0	0	0	1.35	1.2	0	0	0	0	1.35	0	0	0	0	-0.72
SLUa 55	55	1.35	0	0	0	0	0	0	1.35	1.2	0.9	1.35	0	0	0	0	0	0	0	0
SLUa 56	56	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	1.35	0	0	0	0	0	0	0
SLUa 57	57	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	1.35	0	0	0	0	0	0
SLUa 58	58	1.35	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	1.35	0	0	0	0	0
SLUa 59	59	1.35	0	0	0	0	0	0	1.35	1.2	0	1.35	0	0	0	0	0	0	0	0
SLUa 60	60	1.35	0	0	0	0	0	0	1.35	1.2	0	0	1.35	0	0	0	0	0	0	0
SLUa 61	61	1.35	0	0	0	0	0	0	1.35	1.2	0	0	0	1.35	0	0	0	0	0	0
SLUa 62	62	1.35	0	0	0	0	0	0	1.35	1.2	0	0	0	0	1.35	0	0	0	0	0
SLUb 1	63	1	0	0	0	0	0	0	1	0	1.5	1.0125	0	0	0	0	0	0	0	0.72
SLUb 2	64	1	0	0	0	0	0	0	1	0	1.5	0	1.0125	0	0	0	0	0	0	0.72
SLUb 3	65	1	0	0	0	0	0	0	1	0	1.5	0	0	1.0125	0	0	0	0	0	0.72
SLUb 4	66	1	0	0	0	0	0	0	1	0	1.5	0	0	0	1.0125	0	0	0	0	0.72
SLUb 5	67	1	0	0	0	0	0	0	1	0	1.5	0	0	0	0	0	0	0	0	0.72
SLUb 6	68	1	0	0	0	0	0	0	1	0	1.5	0	0	0	0	0	0	0	0	0
SLUb 7	69	1	0	0	0	0	0	0	1	0	0.9	1.0125	0	0	0	0	0	0	0	1.2
SLUb 8	70	1	0	0	0	0	0	0	1	0	0.9	0	1.0125	0	0	0	0	0	0	1.2
SLUb 9	71	1	0	0	0	0	0	0	1	0	0.9	0	0	1.0125	0	0	0	0	0	1.2
SLUb 10	72	1	0	0	0	0	0	0	1	0	0.9	0	0	0	1.0125	0	0	0	0	1.2
SLUb 11	73	1	0	0	0	0	0	0	1	0	0	1.0125	0	0	0	0	0	0	0	1.2
SLUb 12	74	1	0	0	0	0	0	0	1	0	0	0	1.0125	0	0	0	0	0	0	1.2
SLUb 13	75	1	0	0	0	0	0	0	1	0	0	0	0	1.0125	0	0	0	0	0	1.2
SLUb 14	76	1	0	0	0	0	0	0	1	0	0	0	0	0	1.0125	0	0	0	0	1.2
SLUb 15	77	1	0	0	0	0	0	0	1	0	0.9	0	0	0	0	0	0	0	0	1.2
SLUb 16	78	1	0	0	0	0	0	0	1	0	0.9	1.35	0	0	0	0	0	0	0	0.72
SLUb 17	79	1	0	0	0	0	0	0	1	0	0.9	0	1.35	0	0	0	0	0	0	0.72
SLUb 18	80	1	0	0	0	0	0	0	1	0	0.9	0	0	1.35	0	0	0	0	0	0.72
SLUb 19	81	1	0	0	0	0	0	0	1	0	0.9	0	0	0	1.35	0	0	0	0	0.72
SLUb 20	82	1	0	0	0	0	0	0	1	0	0	1.35	0	0	0	0	0	0	0	0.72
SLUb 21	83	1	0	0	0	0	0	0	1	0	0	0	1.35	0	0	0	0	0	0	0.72
SLUb 22	84	1	0	0	0	0	0	0	1	0	0	0	0	1.35	0	0	0	0	0	0.72
SLUb 23	85	1	0	0	0	0	0	0	1	0	0	0	0	0	1.35	0	0	0	0	0.72
SLUb 24	86	1	0	0	0	0	0	0	1	0	0.9	1.35	0	0	0	0	0	0	0	0
SLUb 25	87	1	0	0	0	0	0	0	1	0	0.9	0	1.35	0	0	0	0	0	0	0
SLUb 26	88	1	0	0	0	0	0	0	1	0	0.9	0	0	1.35	0	0	0	0	0	0
SLUb 27	89	1	0	0	0	0	0	0	1	0	0.9	0	0	0	1.35	0	0	0	0	0
SLUb 28	90	1	0	0	0	0	0	0	1	0	0	1.35	0	0	0	0	0	0	0	0
SLUb 29	91	1	0	0	0	0	0	0	1	0	0	0	1.35	0	0	0	0	0	0	0
SLUb 30	92	1	0	0	0	0	0	0	1	0	0	0	0	1.35	0	0	0	0	0	0
SLUb 31	93	1	0	0	0	0	0	0	1	0	0	0	0	0	1.35	0	0	0	0	0

	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLUb 32	94	1	0	0	0	0	0	0	1	1.2	1.5	1.0125	0	0	0	0	0	0	0	-0.72
SLUb 33	95	1	0	0	0	0	0	0	1	1.2	1.5	0	1.0125	0	0	0	0	0	0	-0.72
SLUb 34	96	1	0	0	0	0	0	0	1	1.2	1.5	0	0	1.0125	0	0	0	0	0	-0.72
SLUb 35	97	1	0	0	0	0	0	0	1	1.2	1.5	0	0	0	1.0125	0	0	0	0	-0.72
SLUb 36	98	1	0	0	0	0	0	0	1	1.2	1.5	0	0	0	0	0	0	0	0	-0.72
SLUb 37	99	1	0	0	0	0	0	0	1	1.2	1.5	0	0	0	0	0	0	0	0	0
SLUb 38	100	1	0	0	0	0	0	0	1	1.2	0.9	1.0125	0	0	0	0	0	0	0	-1.2
SLUb 39	101	1	0	0	0	0	0	0	1	1.2	0.9	0	1.0125	0	0	0	0	0	0	-1.2
SLUb 40	102	1	0	0	0	0	0	0	1	1.2	0.9	0	0	1.0125	0	0	0	0	0	-1.2
SLUb 41	103	1	0	0	0	0	0	0	1	1.2	0.9	0	0	0	1.0125	0	0	0	0	-1.2
SLUb 42	104	1	0	0	0	0	0	0	1	1.2	0	1.0125	0	0	0	0	0	0	0	-1.2
SLUb 43	105	1	0	0	0	0	0	0	1	1.2	0	0	1.0125	0	0	0	0	0	0	-1.2
SLUb 44	106	1	0	0	0	0	0	0	1	1.2	0	0	0	1.0125	0	0	0	0	0	-1.2
SLUb 45	107	1	0	0	0	0	0	0	1	1.2	0	0	0	0	1.0125	0	0	0	0	-1.2
SLUb 46	108	1	0	0	0	0	0	0	1	1.2	0.9	0	0	0	0	0	0	0	0	-1.2
SLUb 47	109	1	0	0	0	0	0	0	1	1.2	0.9	1.35	0	0	0	0	0	0	0	-0.72
SLUb 48	110	1	0	0	0	0	0	0	1	1.2	0.9	0	1.35	0	0	0	0	0	0	-0.72
SLUb 49	111	1	0	0	0	0	0	0	1	1.2	0.9	0	0	1.35	0	0	0	0	0	-0.72
SLUb 50	112	1	0	0	0	0	0	0	1	1.2	0.9	0	0	0	1.35	0	0	0	0	-0.72
SLUb 51	113	1	0	0	0	0	0	0	1	1.2	0	1.35	0	0	0	0	0	0	0	-0.72
SLUb 52	114	1	0	0	0	0	0	0	1	1.2	0	0	1.35	0	0	0	0	0	0	-0.72
SLUb 53	115	1	0	0	0	0	0	0	1	1.2	0	0	0	1.35	0	0	0	0	0	-0.72
SLUb 54	116	1	0	0	0	0	0	0	1	1.2	0	0	0	0	1.35	0	0	0	0	-0.72
SLUb 55	117	1	0	0	0	0	0	0	1	1.2	0.9	1.35	0	0	0	0	0	0	0	0
SLUb 56	118	1	0	0	0	0	0	0	1	1.2	0.9	0	1.35	0	0	0	0	0	0	0
SLUb 57	119	1	0	0	0	0	0	0	1	1.2	0.9	0	0	1.35	0	0	0	0	0	0
SLUb 58	120	1	0	0	0	0	0	0	1	1.2	0.9	0	0	0	1.35	0	0	0	0	0
SLUb 59	121	1	0	0	0	0	0	0	1	1.2	0	1.35	0	0	0	0	0	0	0	0
SLUb 60	122	1	0	0	0	0	0	0	1	1.2	0	0	1.35	0	0	0	0	0	0	0
SLUb 61	123	1	0	0	0	0	0	0	1	1.2	0	0	0	1.35	0	0	0	0	0	0
SLUb 62	124	1	0	0	0	0	0	0	1	1.2	0	0	0	0	1.35	0	0	0	0	0
SLUc 1	125	1	0	0	0	0	0	0	1.35	0	1.5	1.0125	0	0	0	0	0	0	0	0.72
SLUc 2	126	1	0	0	0	0	0	0	1.35	0	1.5	0	1.0125	0	0	0	0	0	0	0.72
SLUc 3	127	1	0	0	0	0	0	0	1.35	0	1.5	0	0	1.0125	0	0	0	0	0	0.72
SLUc 4	128	1	0	0	0	0	0	0	1.35	0	1.5	0	0	0	1.0125	0	0	0	0	0.72
SLUc 5	129	1	0	0	0	0	0	0	1.35	0	1.5	0	0	0	0	0	0	0	0	0.72
SLUc 6	130	1	0	0	0	0	0	0	1.35	0	1.5	0	0	0	0	0	0	0	0	0
SLUc 7	131	1	0	0	0	0	0	0	1.35	0	0.9	1.0125	0	0	0	0	0	0	0	1.2
SLUc 8	132	1	0	0	0	0	0	0	1.35	0	0.9	0	1.0125	0	0	0	0	0	0	1.2
SLUc 9	133	1	0	0	0	0	0	0	1.35	0	0.9	0	0	1.0125	0	0	0	0	0	1.2
SLUc 10	134	1	0	0	0	0	0	0	1.35	0	0.9	0	0	0	1.0125	0	0	0	0	1.2
SLUc 11	135	1	0	0	0	0	0	0	1.35	0	0	1.0125	0	0	0	0	0	0	0	1.2
SLUc 12	136	1	0	0	0	0	0	0	1.35	0	0	0	1.0125	0	0	0	0	0	0	1.2
SLUc 13	137	1	0	0	0	0	0	0	1.35	0	0	0	0	1.0125	0	0	0	0	0	1.2
SLUc 14	138	1	0	0	0	0	0	0	1.35	0	0	0	0	0	1.0125	0	0	0	0	1.2
SLUc 15	139	1	0	0	0	0	0	0	1.35	0	0.9	0	0	0	0	0	0	0	0	1.2
SLUc 16	140	1	0	0	0	0	0	0	1.35	0	0.9	1.35	0	0	0	0	0	0	0	0.72
SLUc 17	141	1	0	0	0	0	0	0	1.35	0	0.9	0	1.35	0	0	0	0	0	0	0.72
SLUc 18	142	1	0	0	0	0	0	0	1.35	0	0.9	0	0	1.35	0	0	0	0	0	0.72
SLUc 19	143	1	0	0	0	0	0	0	1.35	0	0.9	0	0	0	1.35	0	0	0	0	0.72
SLUc 20	144	1	0	0	0	0	0	0	1.35	0	0	1.35	0	0	0	0	0	0	0	0.72
SLUc 21	145	1	0	0	0	0	0	0	1.35	0	0	0	1.35	0	0	0	0	0	0	0.72
SLUc 22	146	1	0	0	0	0	0	0	1.35	0	0	0	0	1.35	0	0	0	0	0	0.72
SLUc 23	147	1	0	0	0	0	0	0	1.35	0	0	0	0	0	1.35	0	0	0	0	0.72
SLUc 24	148	1	0	0	0	0	0	0	1.35	0	0.9	1.35	0	0	0	0	0	0	0	0
SLUc 25	149	1	0	0	0	0	0	0	1.35	0	0.9	0	1.35	0	0	0	0	0	0	0
SLUc 26	150	1	0	0	0	0	0	0	1.35	0	0.9	0	0	1.35	0	0	0	0	0	0
SLUc 27	151	1	0	0	0	0	0	0	1.35	0	0.9	0	0	0	1.35	0	0	0	0	0
SLUc 28	152	1	0	0	0	0	0	0	1.35	0	0	1.35	0	0	0	0	0	0	0	0
SLUc 29	153	1	0	0	0	0	0	0	1.35	0	0	0	1.35	0	0	0	0	0	0	0
SLUc 30	154	1	0	0	0	0	0	0	1.35	0	0	0	0	1.35	0	0	0	0	0	0
SLUc 31	155	1	0	0	0	0	0	0	1.35	0	0	0	0	0	1.35	0	0	0	0	0
SLUc 32	156	1	0	0	0	0	0	0	1.35	1.2	1.5	1.0125	0	0	0	0	0	0	0	-0.72
SLUc 33	157	1	0	0	0	0	0	0	1.35	1.2	1.5	0	1.0125	0	0	0	0	0	0	-0.72
SLUc 34	158	1	0	0	0	0	0	0	1.35	1.2	1.5	0	0	1.0125	0	0	0	0	0	-0.72
SLUc 35	159	1	0	0	0	0	0	0	1.35	1.2	1.5	0	0	0	1.0125	0	0	0	0	-0.72
SLUc 36	160	1	0	0	0	0	0	0	1.35	1.2	1.5	0	0	0	0	0	0	0	0	-0.72
SLUc 37	161	1	0	0	0	0	0	0	1.35	1.2	1.5	0	0	0	0	0	0	0	0	0
SLUc 38	162	1	0	0	0	0	0	0	1.35	1.2	0.9	1.0125	0	0	0	0	0	0	0	-1.2
SLUc 39	163	1	0	0	0	0	0	0	1.35	1.2	0.9	0	1.0125	0	0	0	0	0	0	-1.2
SLUc 40	164	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	1.0125	0	0	0	0	0	-1.2
SLUc 41	165	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	1.0125	0	0	0	0	-1.2
SLUc 42	166	1	0	0	0	0	0	0	1.35	1.2	0	1.0125	0	0	0	0	0	0	0	-1.2
SLUc 43	167	1	0	0	0	0	0	0	1.35	1.2	0	0	1.0125	0	0	0	0	0	0	-1.2
SLUc 44	168	1	0	0	0	0	0	0	1.35	1.2	0	0	0	1.0125	0	0	0	0	0	-1.2
SLUc 45	169	1	0	0	0	0	0	0	1.35	1.2	0	0	0	0	1.0125	0	0	0	0	-1.2
SLUc 46	170	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	0	0	0	0	0	-1.2
SLUc 47	171	1	0	0	0	0	0	0	1.35	1.2	0.9	1.35	0	0	0	0	0	0	0	-0.72
SLUc 48	172	1	0	0	0	0	0	0	1.35	1.2	0.9	0	1.35	0	0	0	0	0	0	-0.72
SLUc 49	173	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	1.35	0	0	0	0	0	-0.72
SLUc 50	174	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	1.35	0	0	0	0	-0.72
SLUc 51	175	1	0	0	0	0	0	0	1.35	1.2	0	1.35	0	0	0	0	0	0	0	-0.72
SLUc 52	176	1	0	0	0	0	0	0	1.35	1.2	0	0	1.35	0	0	0	0	0	0	-0.72
SLUc 53	177	1	0	0	0	0	0	0	1.35	1.2	0	0	0	1.35	0	0	0	0	0	-0.72
SLUc 54	178	1	0	0	0	0	0	0	1.35	1.2	0	0	0	0	1.35	0	0	0	0	-0.72
SLUc 55	179	1	0	0	0	0	0	0	1.35	1.2	0.9	1.35	0	0	0	0	0	0	0	0
SLUc 56	180	1	0	0	0	0	0	0	1.35	1.2	0.9	0	1.35	0	0	0	0	0	0	0
SLUc 57	181	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	1.35	0	0	0	0	0	0
SLUc 58	182	1	0	0	0	0	0	0	1.35	1.2	0.9	0	0	0	1.35	0	0	0	0	0
SLUc 59	183	1	0	0	0	0	0	0	1.35	1.2	0	1.35	0	0	0	0	0	0	0	0
SLUc 60	184	1	0	0	0	0	0	0	1.35	1.2	0	0	1.35	0	0	0	0	0	0	0
SLUc 61	185	1	0	0	0	0	0	0	1.35	1.2	0	0	0	1.35	0	0	0	0	0	0
SLUc 62	186	1	0	0	0	0	0	0	1.35	1.2	0	0	0	0	1.35	0	0	0	0	0

11.3 Combinazioni a SLU per azioni eccezionali

	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLUecc 1	187	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	-0.5
SLUecc 2	188	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0.5
SLUecc 3	189	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	-0.5
SLUecc 4	190	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0.5
SLUecc 5	191	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	-0.5
SLUecc 6	192	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0.5
SLUecc 7	193	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	-0.5
SLUecc 8	194	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.5

11.4 Combinazioni a SLV

	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLV 1	195	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 2	196	1	1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 3	197	1	1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 4	198	1	-1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 5	199	1	-1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 6	200	1	-1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 7	201	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 8	202	1	0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 9	203	1	-0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 10	204	1	0	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 11	205	1	0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 12	206	1	-0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLV 13	207	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 14	208	1	1	0.3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 15	209	1	1	-0.3	0.3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 16	210	1	-1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 17	211	1	-1	0.3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 18	212	1	-1	-0.3	0.3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 19	213	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 20	214	1	0.3	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 21	215	1	-0.3	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 22	216	1	0	-1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 23	217	1	0.3	-1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 24	218	1	-0.3	-1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLV 25	219	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 26	220	1	1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 27	221	1	1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 28	222	1	-1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 29	223	1	-1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 30	224	1	-1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 31	225	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 32	226	1	0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 33	227	1	-0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 34	228	1	0	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 35	229	1	0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLV 36	230	1	-0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5

11.5 Combinazioni a SLD

	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLD 1	231	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 2	232	1	1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 3	233	1	1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 4	234	1	-1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 5	235	1	-1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 6	236	1	-1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 7	237	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 8	238	1	0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 9	239	1	-0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 10	240	1	0	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 11	241	1	0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 12	242	1	-0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SLD 13	243	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 14	244	1	1	0.3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 15	245	1	1	-0.3	0.3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 16	246	1	-1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 17	247	1	-1	0.3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 18	248	1	-1	-0.3	0.3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 19	249	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 20	250	1	0.3	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 21	251	1	-0.3	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 22	252	1	0	-1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 23	253	1	0.3	-1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 24	254	1	-0.3	-1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLD 25	255	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 26	256	1	1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 27	257	1	1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 28	258	1	-1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 29	259	1	-1	0.3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 30	260	1	-1	-0.3	0.3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 31	261	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 32	262	1	0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 33	263	1	-0.3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 34	264	1	0	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 35	265	1	0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLD 36	266	1	-0.3	-1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5

11.6 Combinazioni a SLE rare

	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLEr 1	267	1	0	0	0	0	0	0	1	0	1	0.75	0	0	0	0	0	0	0	0.6
SLEr 2	268	1	0	0	0	0	0	0	1	0	1	0	0.75	0	0	0	0	0	0	0.6
SLEr 3	269	1	0	0	0	0	0	0	1	0	1	0	0	0.75	0	0	0	0	0	0.6
SLEr 4	270	1	0	0	0	0	0	0	1	0	1	0	0	0	0.75	0	0	0	0	0.6
SLEr 5	271	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.6
SLEr 6	272	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
SLEr 7	273	1	0	0	0	0	0	0	1	0	0.6	0.75	0	0	0	0	0	0	0	1
SLEr 8	274	1	0	0	0	0	0	0	1	0	0.6	0	0.75	0	0	0	0	0	0	1
SLEr 9	275	1	0	0	0	0	0	0	1	0	0.6	0	0	0.75	0	0	0	0	0	1
SLEr 10	276	1	0	0	0	0	0	0	1	0	0.6	0	0	0	0.75	0	0	0	0	1
SLEr 11	277	1	0	0	0	0	0	0	1	0	0	0.75	0	0	0	0	0	0	0	1
SLEr 12	278	1	0	0	0	0	0	0	1	0	0	0	0.75	0	0	0	0	0	0	1
SLEr 13	279	1	0	0	0	0	0	0	1	0	0	0	0	0.75	0	0	0	0	0	1
SLEr 14	280	1	0	0	0	0	0	0	1	0	0	0	0	0	0.75	0	0	0	0	1
SLEr 15	281	1	0	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0	1
SLEr 16	282	1	0	0	0	0	0	0	1	0	0.6	1	0	0	0	0	0	0	0	0.6
SLEr 17	283	1	0	0	0	0	0	0	1	0	0.6	0	1	0	0	0	0	0	0	0.6
SLEr 18	284	1	0	0	0	0	0	0	1	0	0.6	0	0	1	0	0	0	0	0	0.6
SLEr 19	285	1	0	0	0	0	0	0	1	0	0.6	0	0	0	1	0	0	0	0	0.6
SLEr 20	286	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0.6
SLEr 21	287	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0.6
SLEr 22	288	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0.6
SLEr 23	289	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0.6
SLEr 24	290	1	0	0	0	0	0	0	1	0	0.6	1	0	0	0	0	0	0	0	0
SLEr 25	291	1	0	0	0	0	0	0	1	0	0.6	0	1	0	0	0	0	0	0	0
SLEr 26	292	1	0	0	0	0	0	0	1	0	0.6	0	0	1	0	0	0	0	0	0
SLEr 27	293	1	0	0	0	0	0	0	1	0	0.6	0	0	0	1	0	0	0	0	0
SLEr 28	294	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
SLEr 29	295	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
SLEr 30	296	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
SLEr 31	297	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
SLEr 32	298	1	0	0	0	0	0	0	1	1	1	0.75	0	0	0	0	0	0	0	-0.6
SLEr 33	299	1	0	0	0	0	0	0	1	1	1	0	0.75	0	0	0	0	0	0	-0.6
SLEr 34	300	1	0	0	0	0	0	0	1	1	1	0	0	0.75	0	0	0	0	0	-0.6
SLEr 35	301	1	0	0	0	0	0	0	1	1	1	0	0	0	0.75	0	0	0	0	-0.6
SLEr 36	302	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	-0.6
SLEr 37	303	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
SLEr 38	304	1	0	0	0	0	0	0	1	1	0.6	0.75	0	0	0	0	0	0	0	-1
SLEr 39	305	1	0	0	0	0	0	0	1	1	0.6	0	0.75	0	0	0	0	0	0	-1
SLEr 40	306	1	0	0	0	0	0	0	1	1	0.6	0	0	0.75	0	0	0	0	0	-1
SLEr 41	307	1	0	0	0	0	0	0	1	1	0.6	0	0	0	0.75	0	0	0	0	-1
SLEr 42	308	1	0	0	0	0	0	0	1	1	0	0.75	0	0	0	0	0	0	0	-1
SLEr 43	309	1	0	0	0	0	0	0	1	1	0	0	0.75	0	0	0	0	0	0	-1
SLEr 44	310	1	0	0	0	0	0	0	1	1	0	0	0	0.75	0	0	0	0	0	-1
SLEr 45	311	1	0	0	0	0	0	0	1	1	0	0	0	0	0.75	0	0	0	0	-1
SLEr 46	312	1	0	0	0	0	0	0	1	1	0.6	0	0	0	0	0	0	0	0	-1
SLEr 47	313	1	0	0	0	0	0	0	1	1	0.6	1	0	0	0	0	0	0	0	-0.6
SLEr 48	314	1	0	0	0	0	0	0	1	1	0.6	0	1	0	0	0	0	0	0	-0.6
SLEr 49	315	1	0	0	0	0	0	0	1	1	0.6	0	0	1	0	0	0	0	0	-0.6
SLEr 50	316	1	0	0	0	0	0	0	1	1	0.6	0	0	0	1	0	0	0	0	-0.6
SLEr 51	317	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	-0.6
SLEr 52	318	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	-0.6
SLEr 53	319	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	-0.6
SLEr 54	320	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	-0.6
SLEr 55	321	1	0	0	0	0	0	0	1	1	0.6	1	0	0	0	0	0	0	0	0
SLEr 56	322	1	0	0	0	0	0	0	1	1	0.6	0	1	0	0	0	0	0	0	0
SLEr 57	323	1	0	0	0	0	0	0	1	1	0.6	0	0	1	0	0	0	0	0	0
SLEr 58	324	1	0	0	0	0	0	0	1	1	0.6	0	0	0	1	0	0	0	0	0
SLEr 59	325	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0
SLEr 60	326	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0
SLEr 61	327	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0
SLEr 62	328	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0

11.7 Combinazioni a SLE frequenti

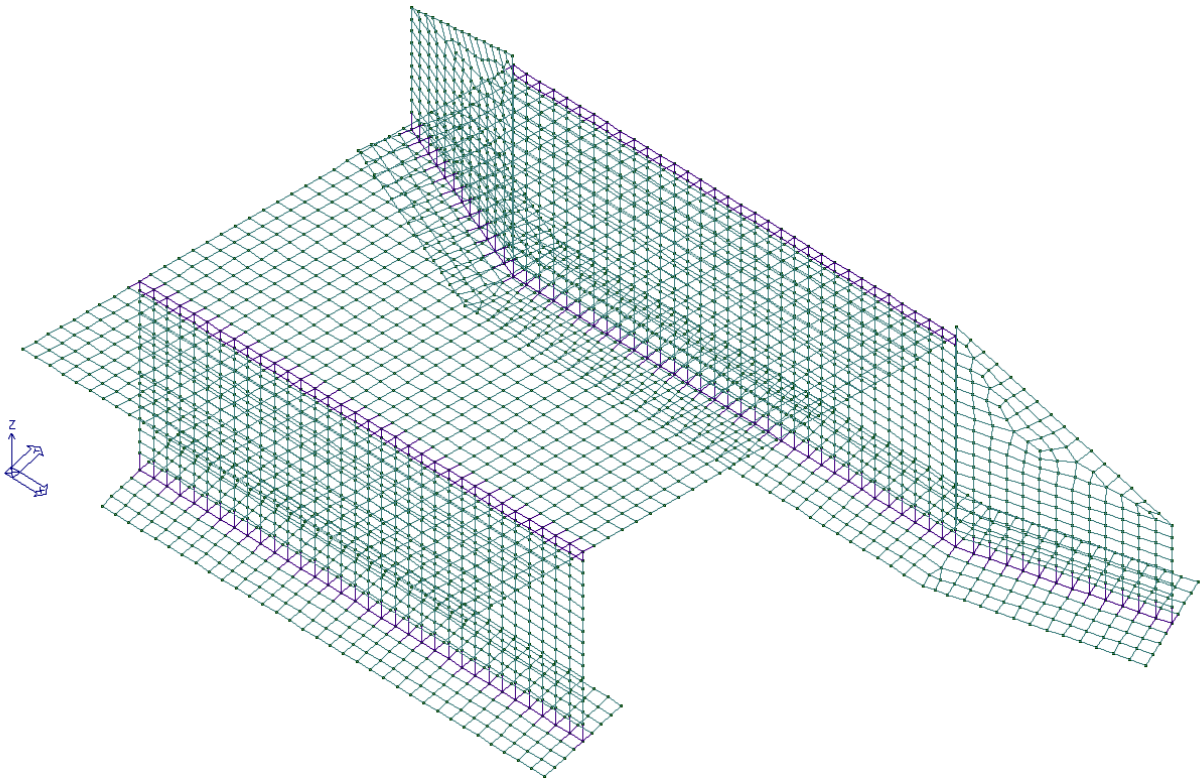
	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLEf 1	329	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.6
SLEf 2	330	1	0	0	0	0	0	0	1	0	0	0.75	0	0	0	0	0	0	0	0.5
SLEf 3	331	1	0	0	0	0	0	0	1	0	0	0	0.75	0	0	0	0	0	0	0.5
SLEf 4	332	1	0	0	0	0	0	0	1	0	0	0	0	0.75	0	0	0	0	0	0.5
SLEf 5	333	1	0	0	0	0	0	0	1	0	0	0	0	0	0.75	0	0	0	0	0.5
SLEf 6	334	1	0	0	0	0	0	0	1	0	0	0.75	0	0	0	0	0	0	0	0
SLEf 7	335	1	0	0	0	0	0	0	1	0	0	0	0.75	0	0	0	0	0	0	0
SLEf 8	336	1	0	0	0	0	0	0	1	0	0	0	0	0.75	0	0	0	0	0	0
SLEf 9	337	1	0	0	0	0	0	0	1	0	0	0	0	0	0.75	0	0	0	0	0
SLEf 10	338	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.6
SLEf 11	339	1	0	0	0	0	0	0	1	1	0	0.75	0	0	0	0	0	0	0	-0.5
SLEf 12	340	1	0	0	0	0	0	0	1	1	0	0	0.75	0	0	0	0	0	0	-0.5
SLEf 13	341	1	0	0	0	0	0	0	1	1	0	0	0	0.75	0	0	0	0	0	-0.5
SLEf 14	342	1	0	0	0	0	0	0	1	1	0	0	0	0	0.75	0	0	0	0	-0.5
SLEf 15	343	1	0	0	0	0	0	0	1	1	0	0.75	0	0	0	0	0	0	0	0
SLEf 16	344	1	0	0	0	0	0	0	1	1	0	0	0.75	0	0	0	0	0	0	0
SLEf 17	345	1	0	0	0	0	0	0	1	1	0	0	0	0.75	0	0	0	0	0	0
SLEf 18	346	1	0	0	0	0	0	0	1	1	0	0	0	0	0.75	0	0	0	0	0

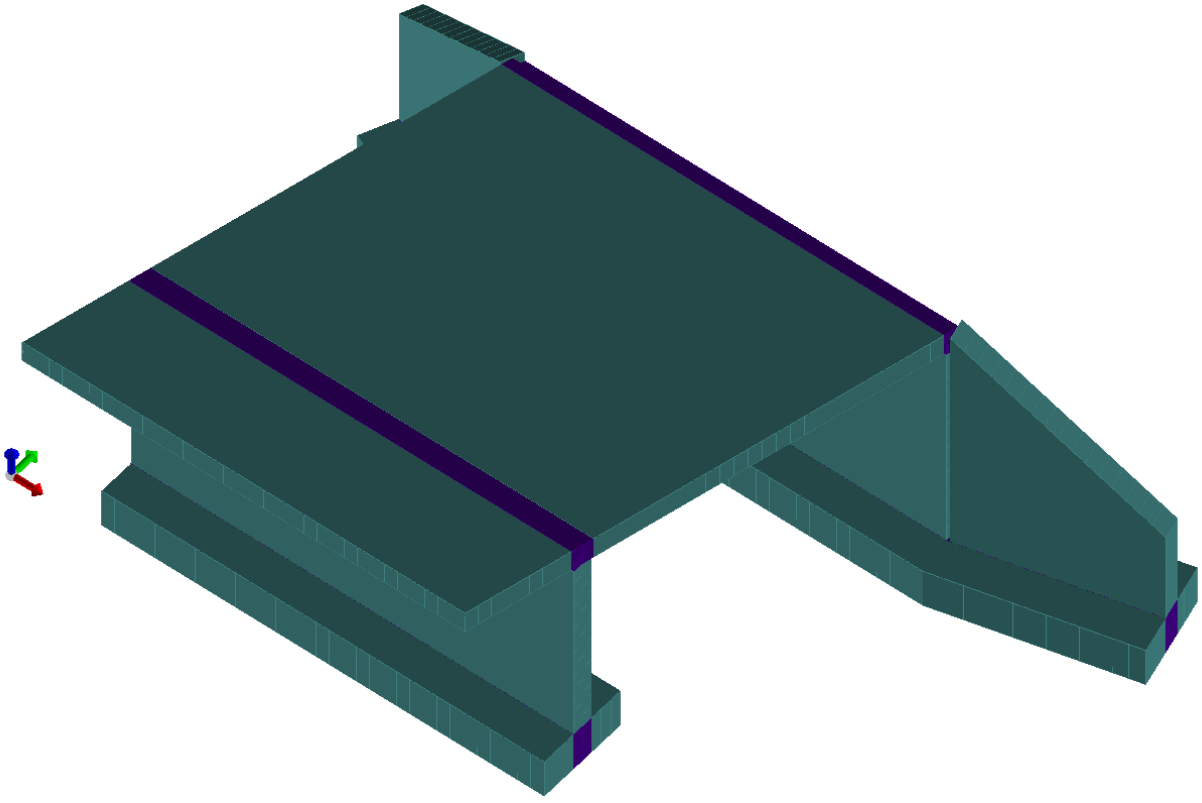
11.8 Combinazioni a SLE quasi permanenti

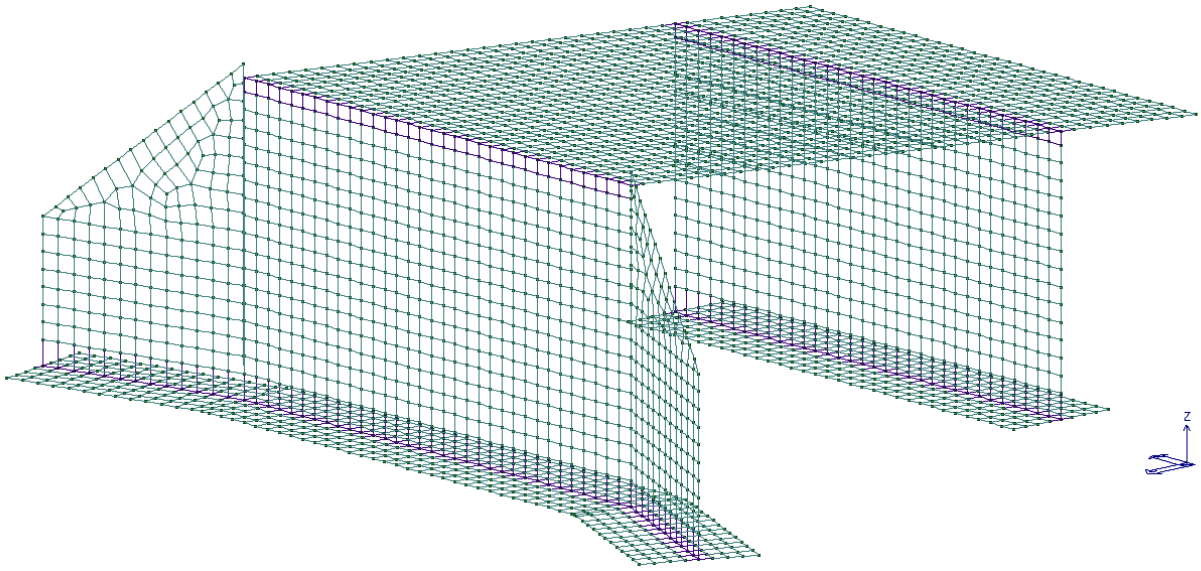
	n.°	PP	Sis V 0°	Sis V 90°	sis V terr -90	Sis D 0°	Sis D 90°	sis D terr -90	perm	ritiro	vento	var 1	var 2	var 3	var spalla	urto 1	urto 2	urto 3	urto 4	delta T
SLEq 1	347	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5
SLEq 2	348	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	-0.5
SLEq 3	349	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
SLEq 4	350	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

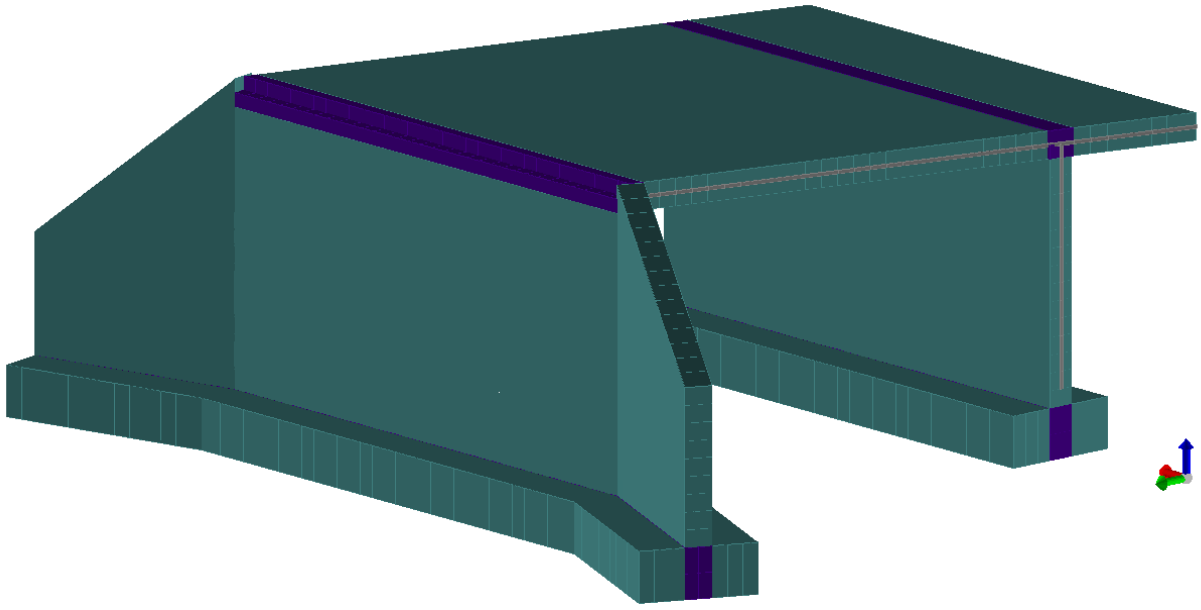
12 Modellazione elementi finiti

Il programma impiegato nella modellazione è il PROSAP vers. 2018-03-180 che implementa i calcoli e le verifiche secondo il DM2008. Il programma costituisce l'interfaccia input ed output del solutore e SAP. La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:
K * u = F dove K = matrice di rigidezza; u = vettore spostamenti nodali; F = vettore forze nodali
Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso. Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto.
Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:
Elemento tipo TRUSS (biella) Elemento tipo BEAM (trave)
Elemento tipo MEMBRANE (membrana) Elemento tipo PLATE (piastra-guscio)
Elemento tipo BOUNDARY (molla) Elemento tipo STIFFNESS (matrice di rigidezza)
La modellazione è stata condotta utilizzando elementi D2 BEAM fittizi al bordo impalcato per il carico lineare del vento, elementi D3 SHELL per fondazioni, setti ed impalcato.

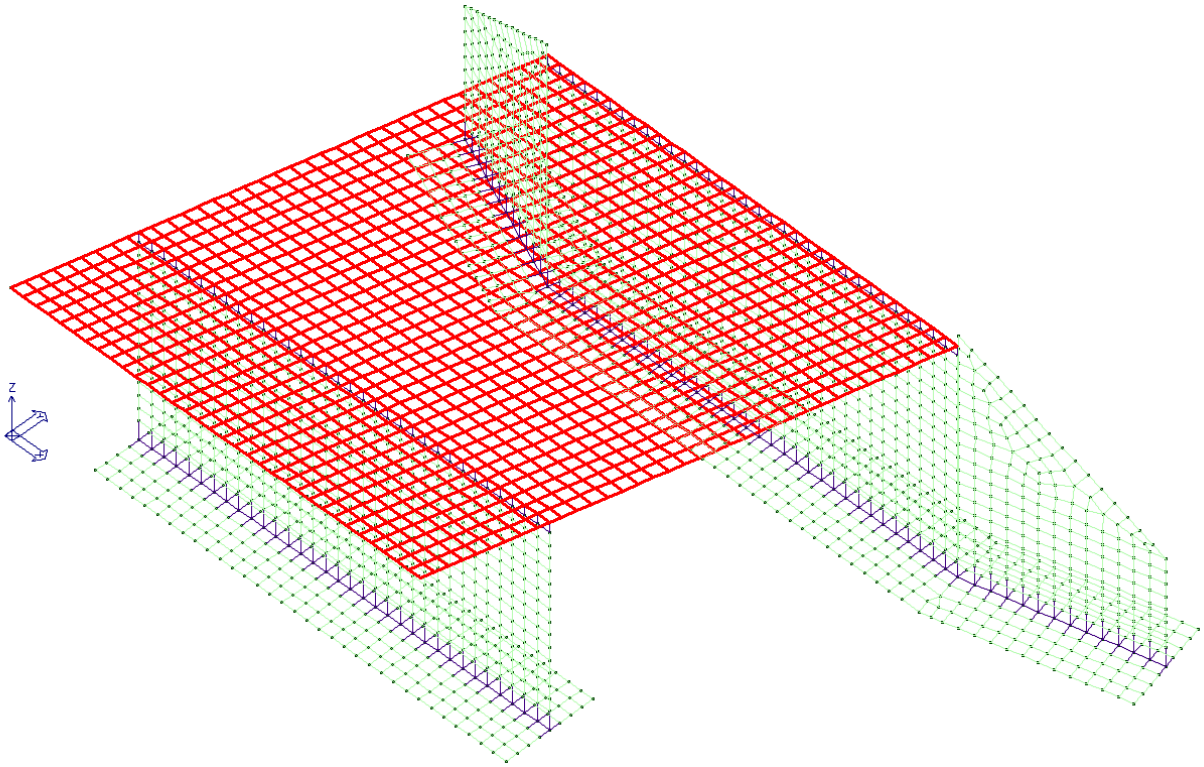

Z




Z



12.1 Modellazione impalcato

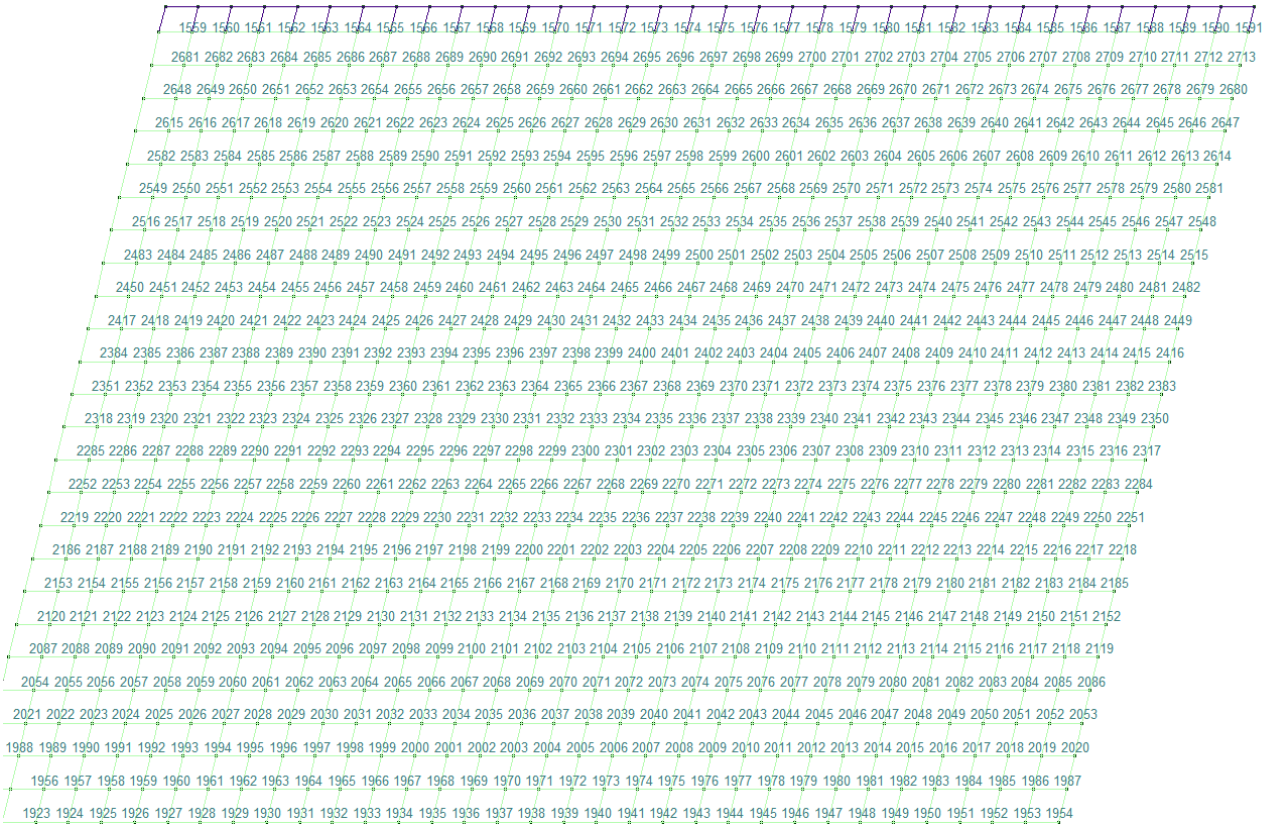


Generalità	
Elemento tipo	Shell
Spessore	80.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[1] Criterio di progetto NTC2008 im...
Layer	[3] IMPALCATO
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	0.0 [daN/cm3]
K terr. oriz.	0.0 [daN/cm3]

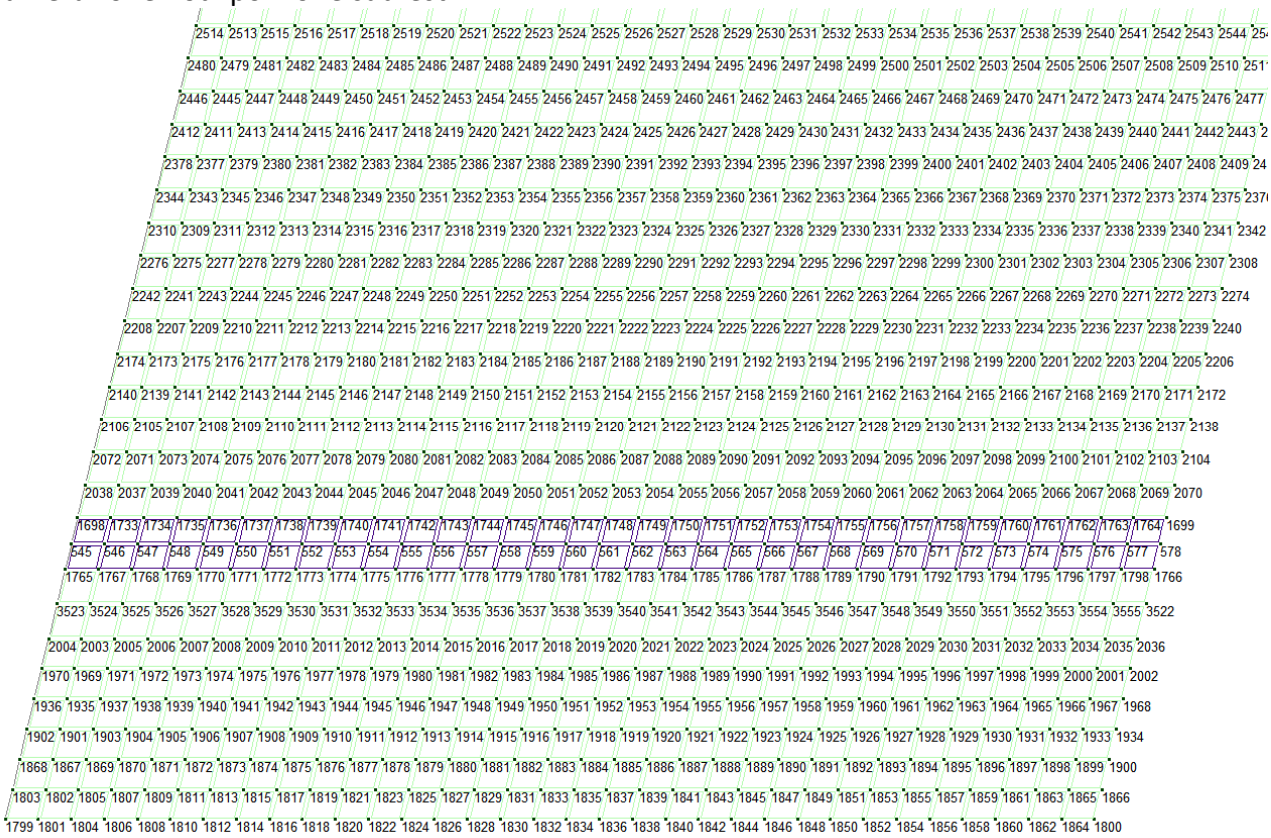
Scheda elementi shell

Numerazione nodi porzione nord-ovest:

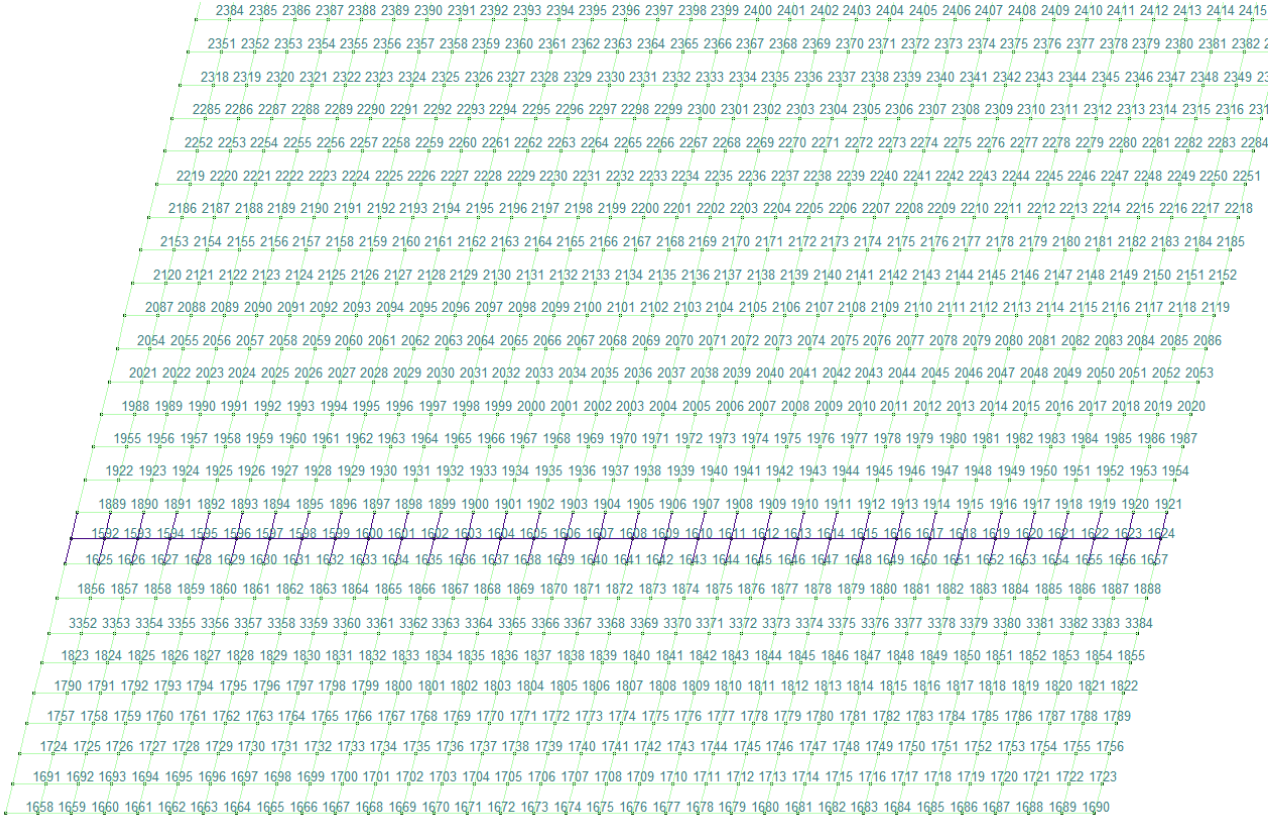
Numerazione shell porzione nord-ovest:



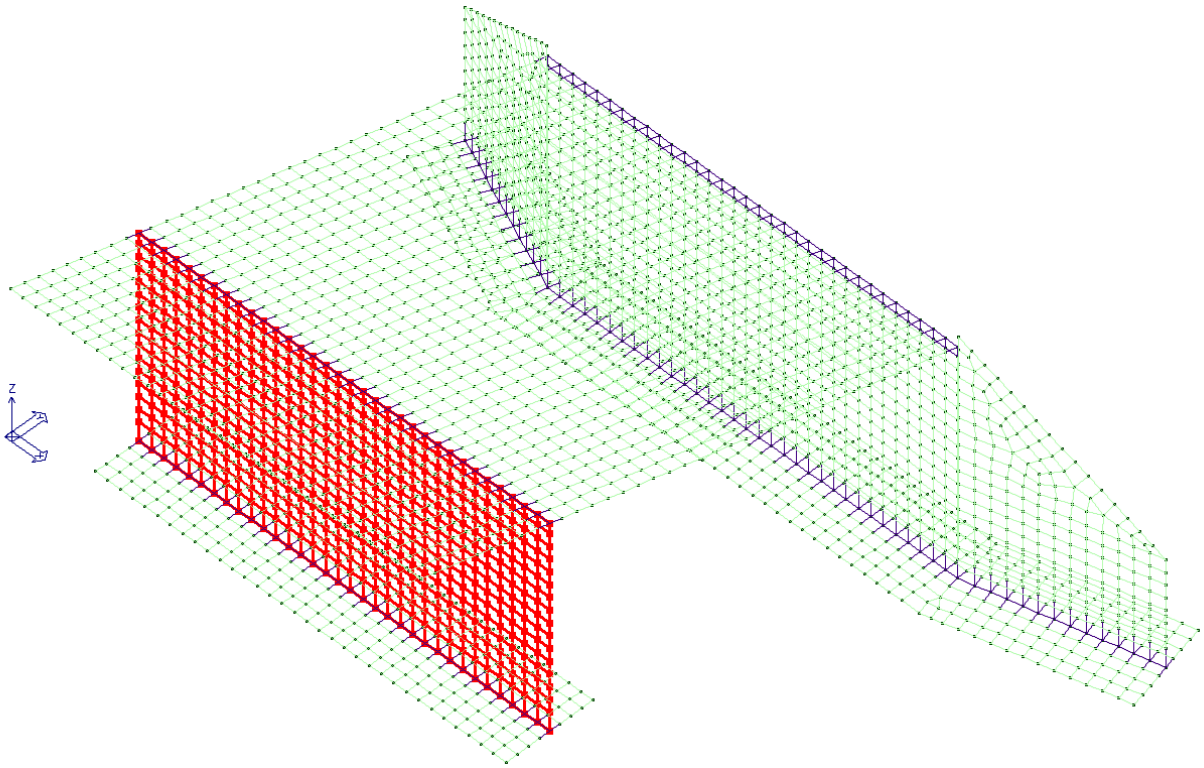
Numerazione nodi porzione sud-est:



Numerazione shell porzione sud-est:



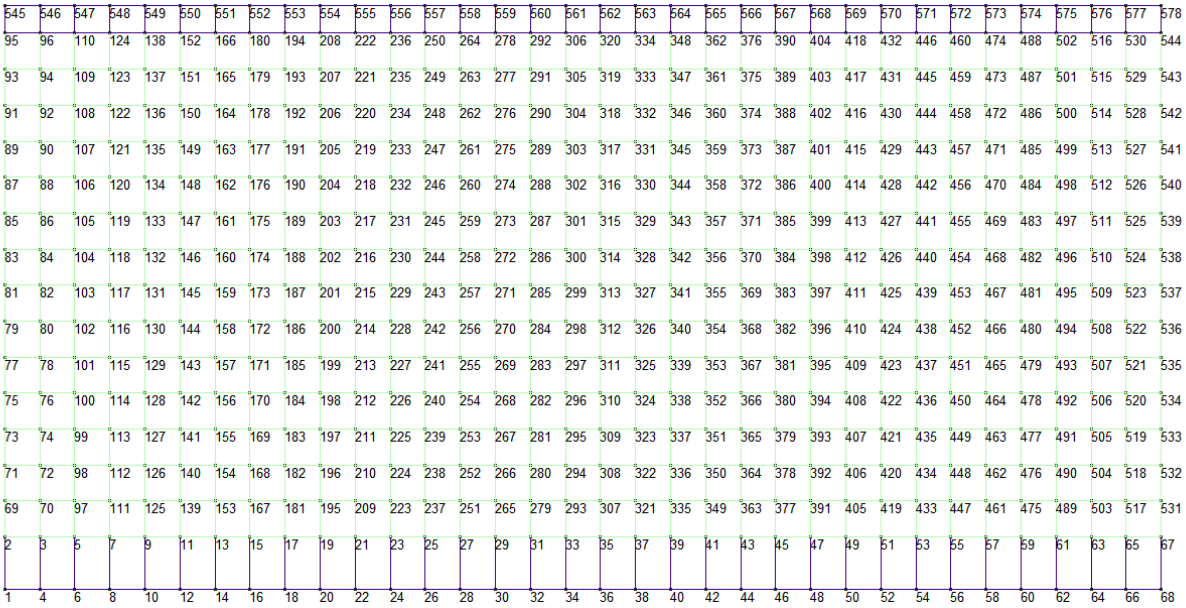
12.2 Modellazione setto



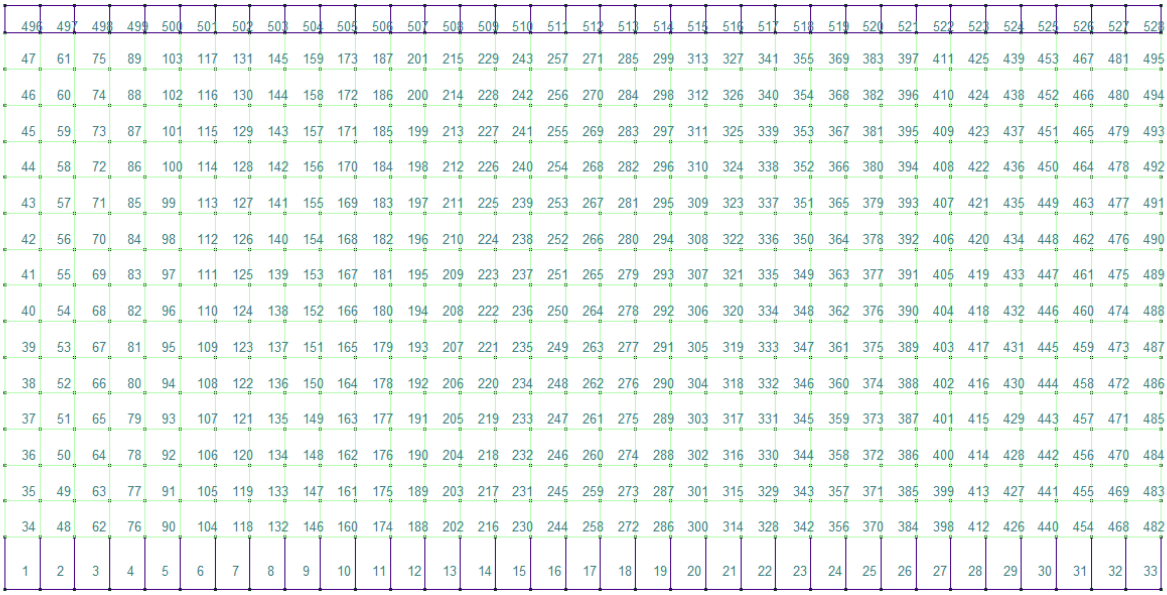
Generalità	
Elemento tipo	Shell
Spessore	80.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[5] Criterio di progetto muri
Layer	[1] MURI
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	0.0 [daN/cm3]
K terr. oriz.	0.0 [daN/cm3]

Scheda elementi shell

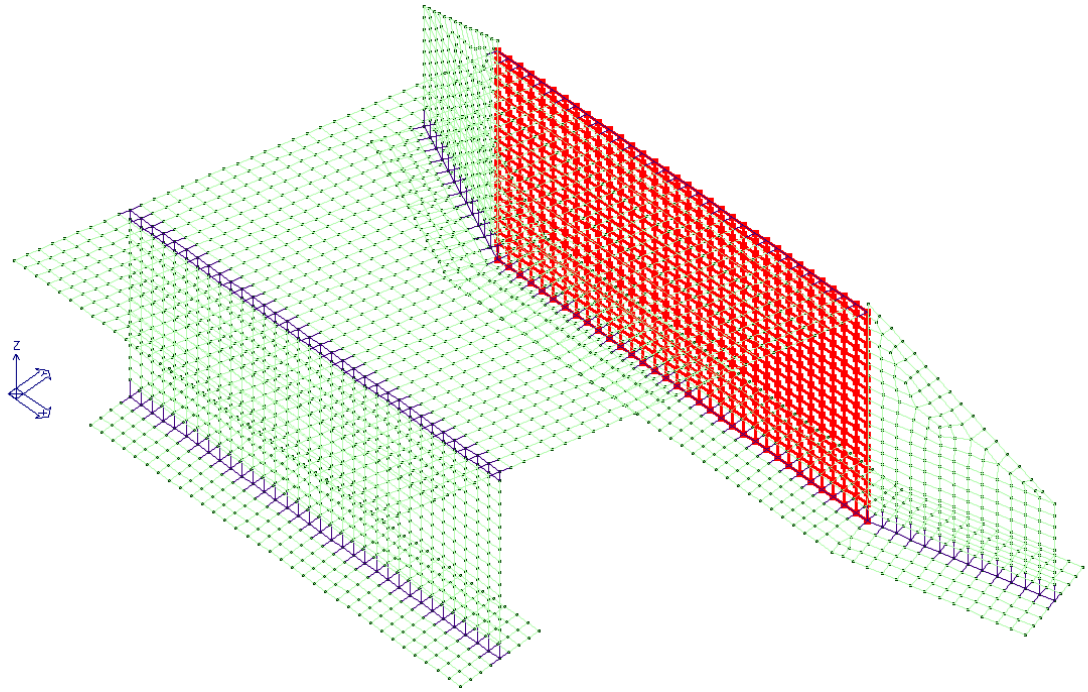
Numerazione nodi:



Numerazione shell:



12.3 Modellazione sPALLA

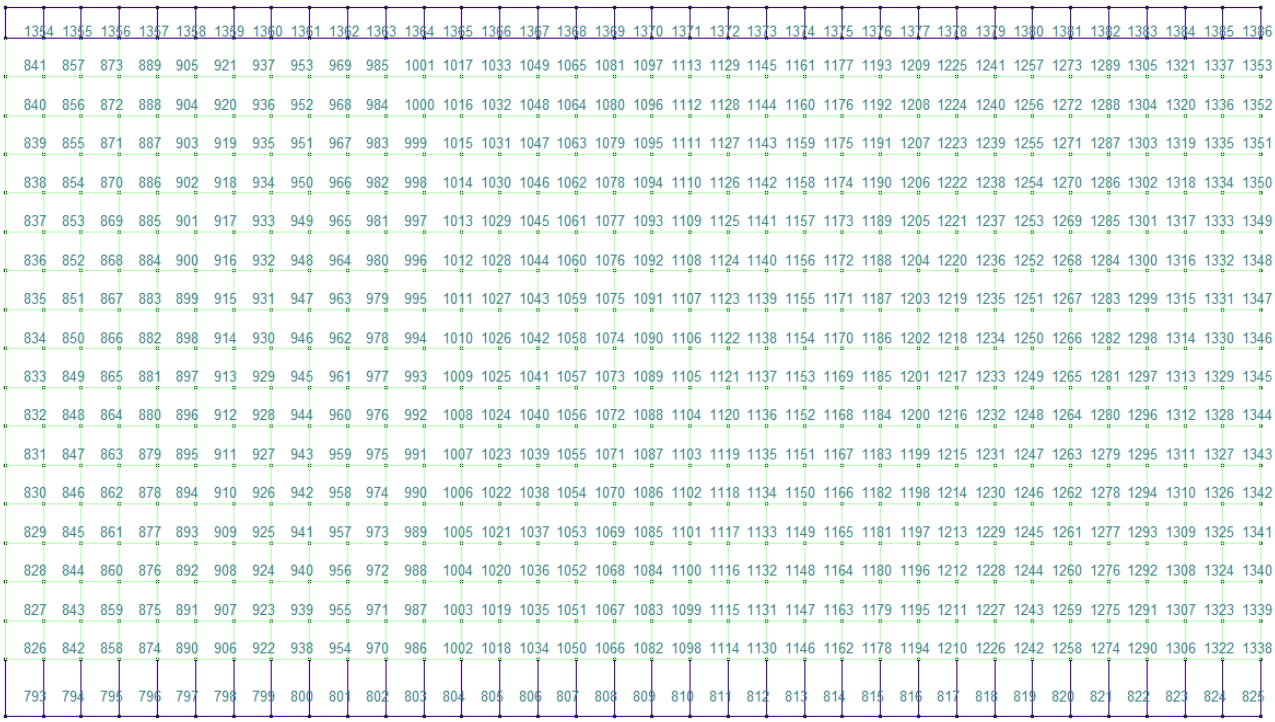


Generalità	
Elemento tipo	Shell
Spessore	80.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[5] Criterio di progetto muri
Layer	[1] MURI
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	0.0 [daN/cm3]
K terr. oriz.	0.0 [daN/cm3]

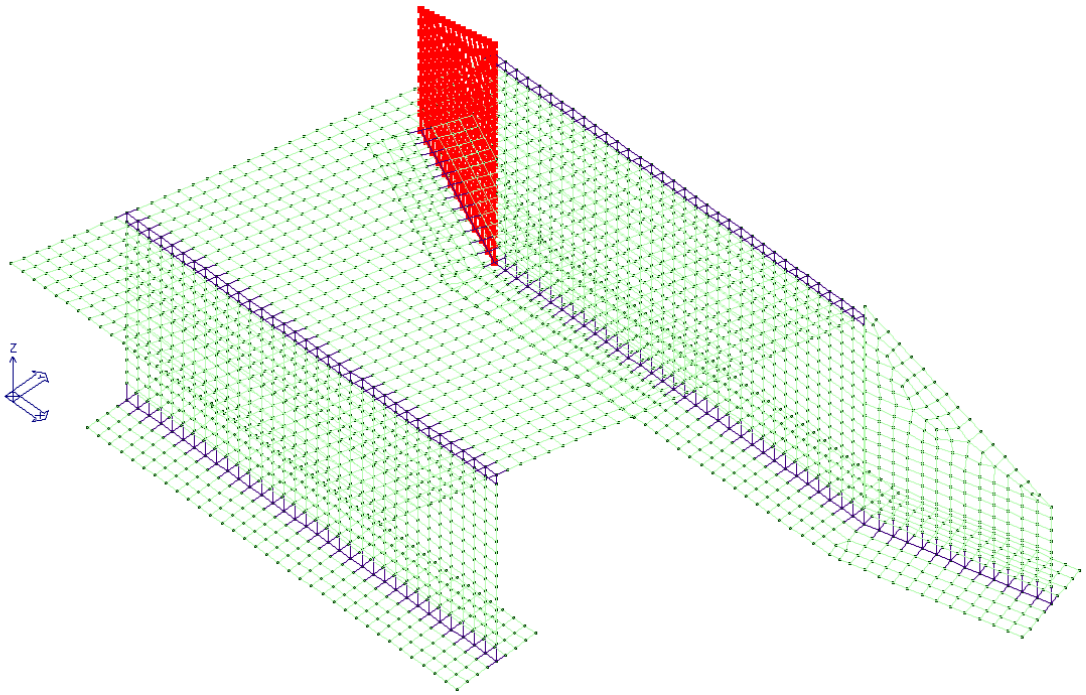
Scheda elementi shell

Numerazione nodi:

Numerazione shell:



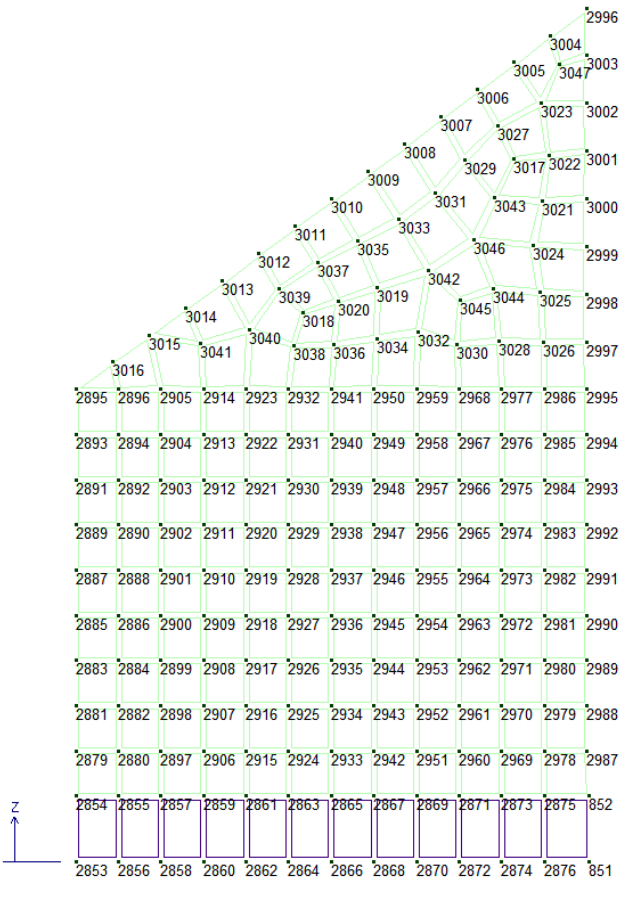
12.4 Modellazione muro andatore sud-ovest



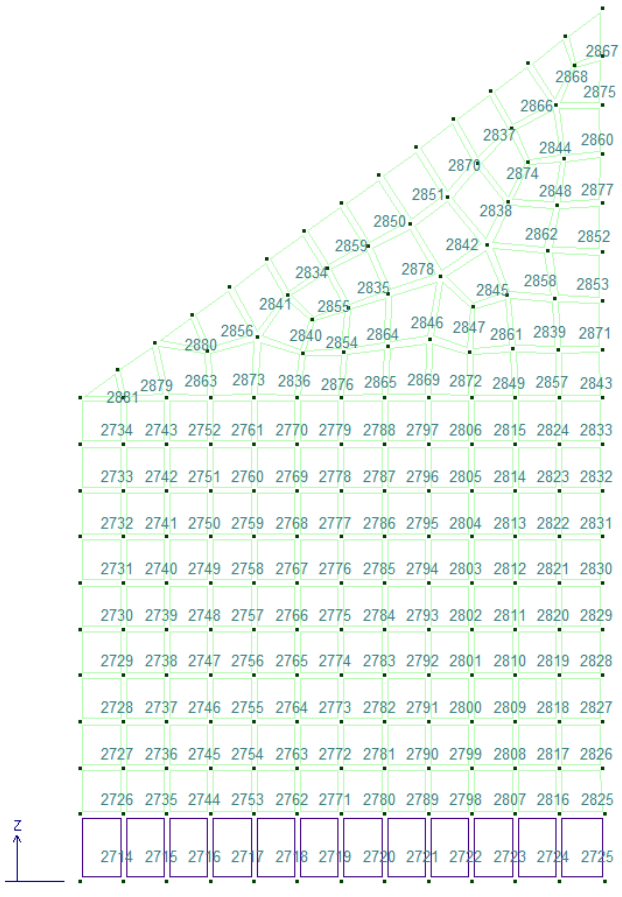
Generalità	
Elemento tipo	Shell
Spessore	80.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[5] Criterio di progetto muri
Layer	[1] MURI
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	0.0 [daN/cm3]
K terr. oriz.	0.0 [daN/cm3]

Scheda elementi shell

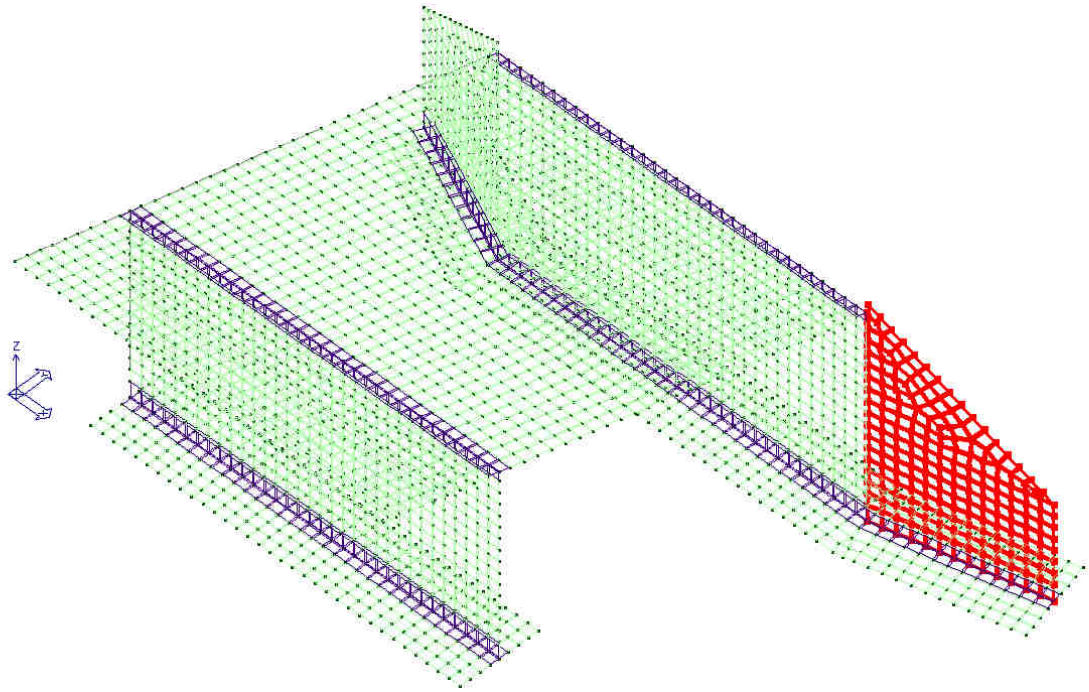
Numerazione nodi:



Numerazione shell:



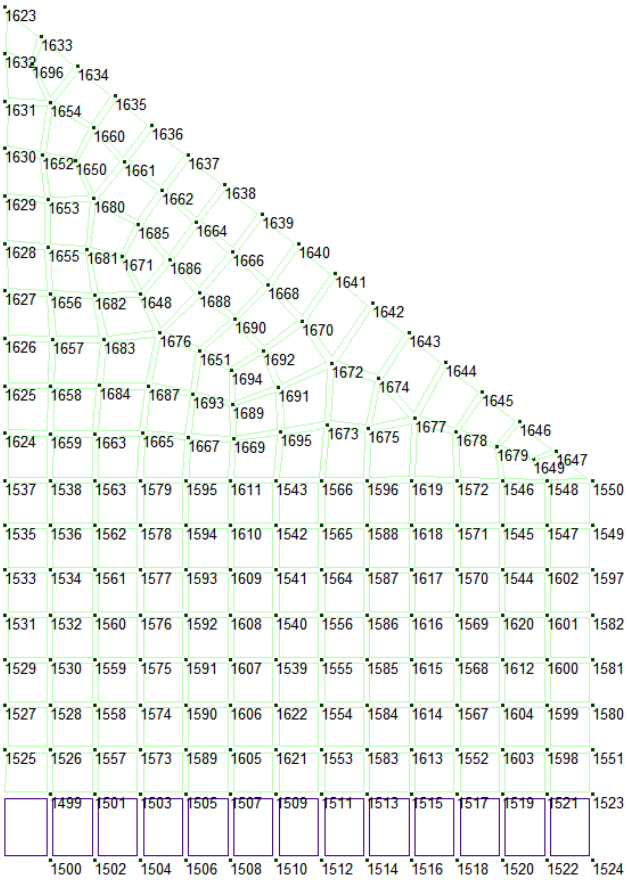
12.5 Modellazione muro andatore nord-est



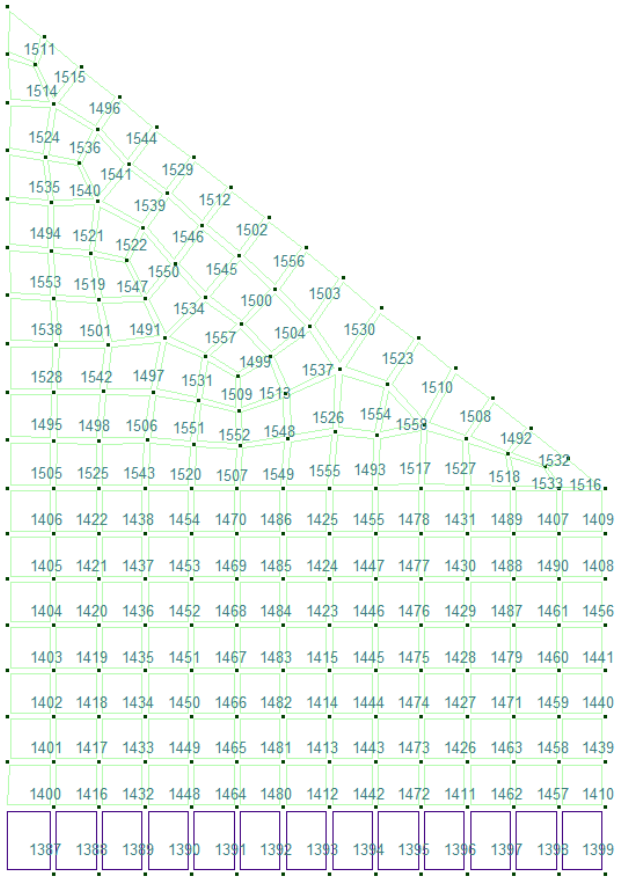
Generalità	
Elemento tipo	Shell
Spessore	80.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[5] Criterio di progetto muri
Layer	[1] MURI
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	0.0 [daN/cm3]
K terr. oriz.	0.0 [daN/cm3]

Scheda elementi shell

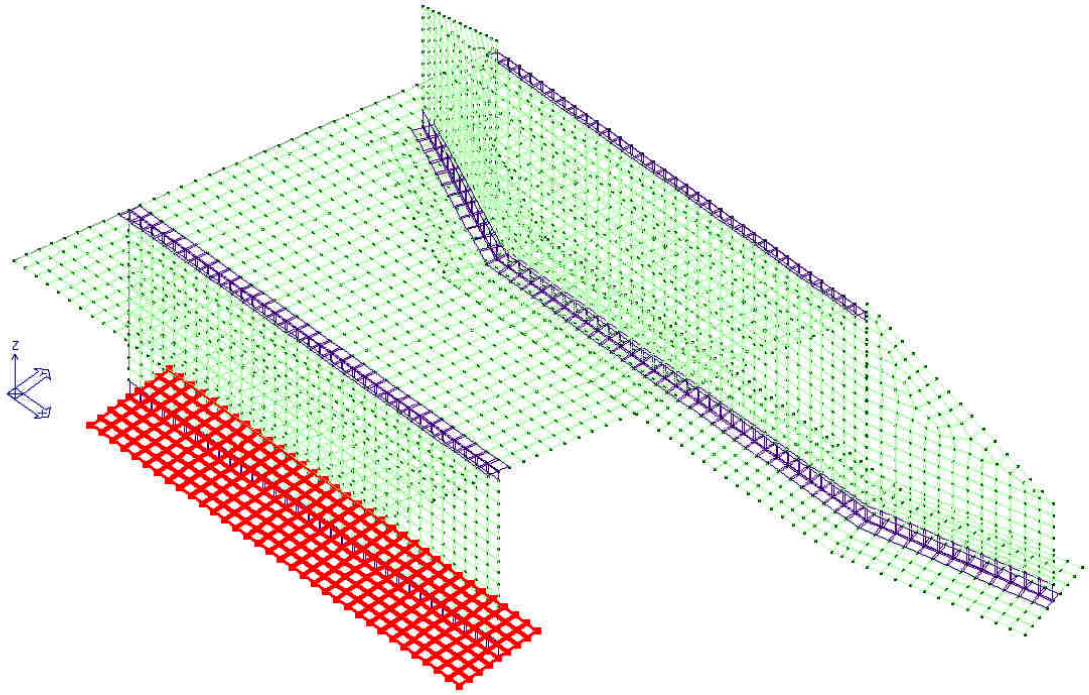
Numerazione nodi:



Numerazione shell:



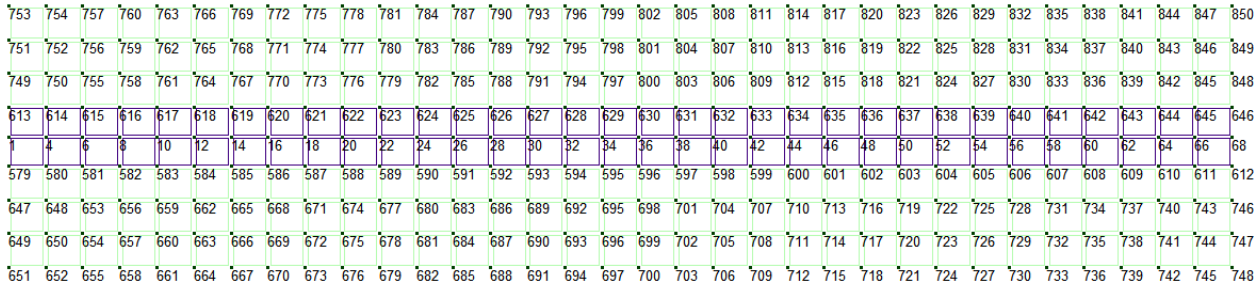
12.6 Modellazione fondazione setto



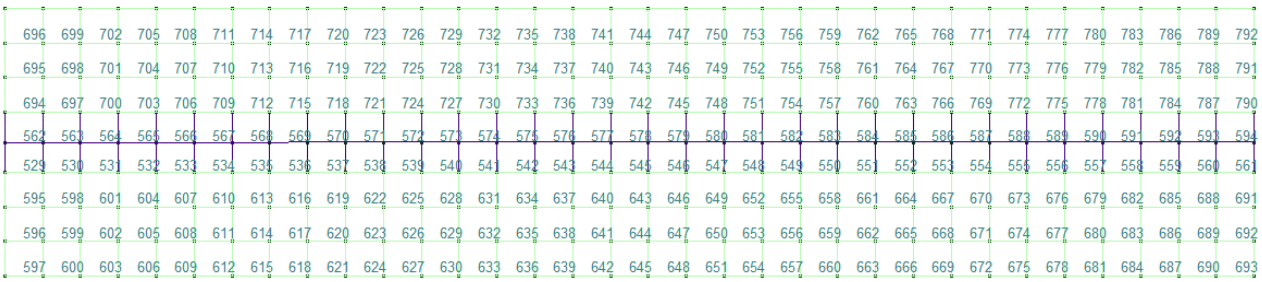
Generalità	
Elemento tipo	Shell
Spessore	150.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[2] Criterio di progetto NTC2018 fo...
Layer	[2] FONDAZIONI
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	1.5 [daN/cm3]
K terr. oriz.	0.3 [daN/cm3]

Scheda elementi shell

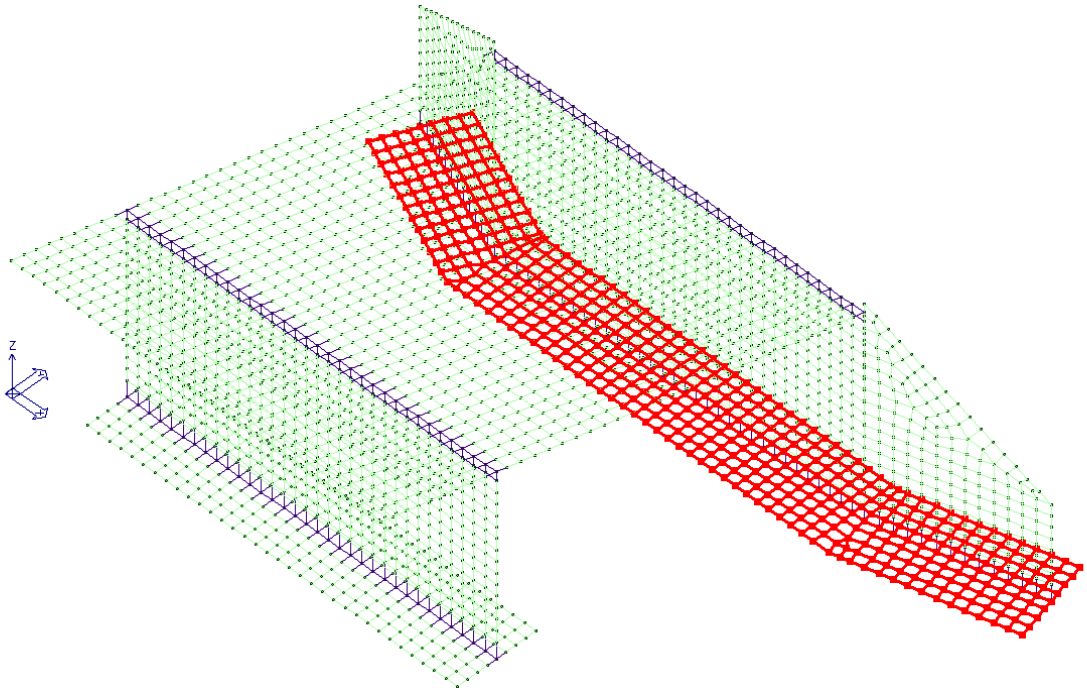
Numerazione nodi:



Numerazione shell:



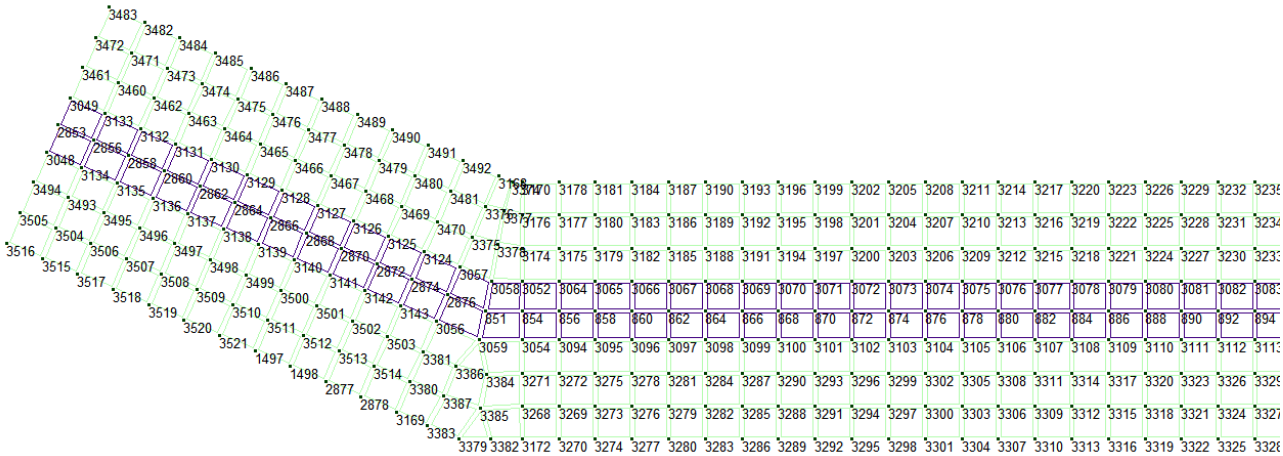
12.7 Modellazione fondazione spalla



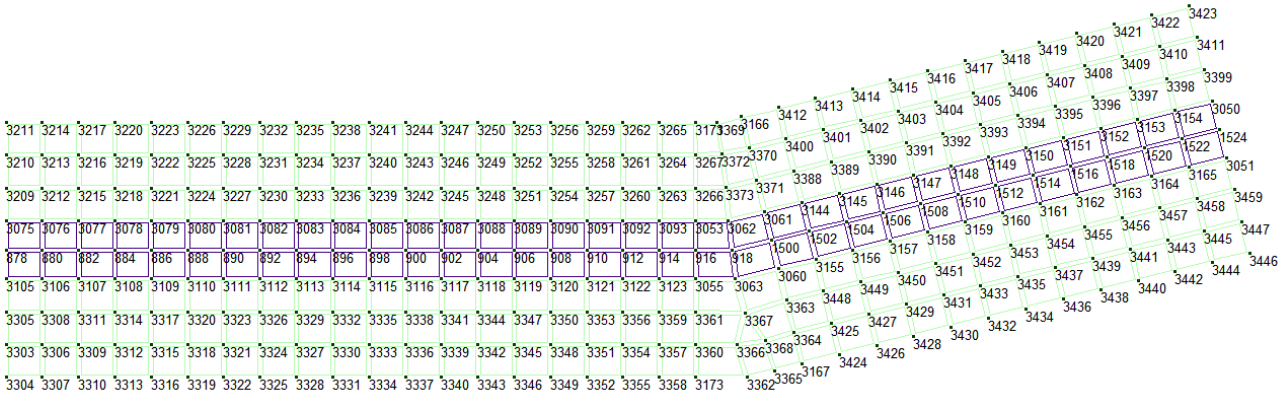
Generalità	
Elemento tipo	Shell
Spessore	150.0 [cm]
Materiale	[4] Calcestruzzo Classe C32/40
Criterio di progetto	[2] Criterio di progetto NTC2018 fo...
Layer	[2] FONDAZIONI
Svincolo	Non previsto
Filo fisso	elemento in asse
Pretensione	0.0 [daN/cm2]
Interazione terreno	
Fondazione (faccia inferiore)	
K terr. vert.	1.5 [daN/cm3]
K terr. oriz.	0.3 [daN/cm3]

Scheda elementi shell

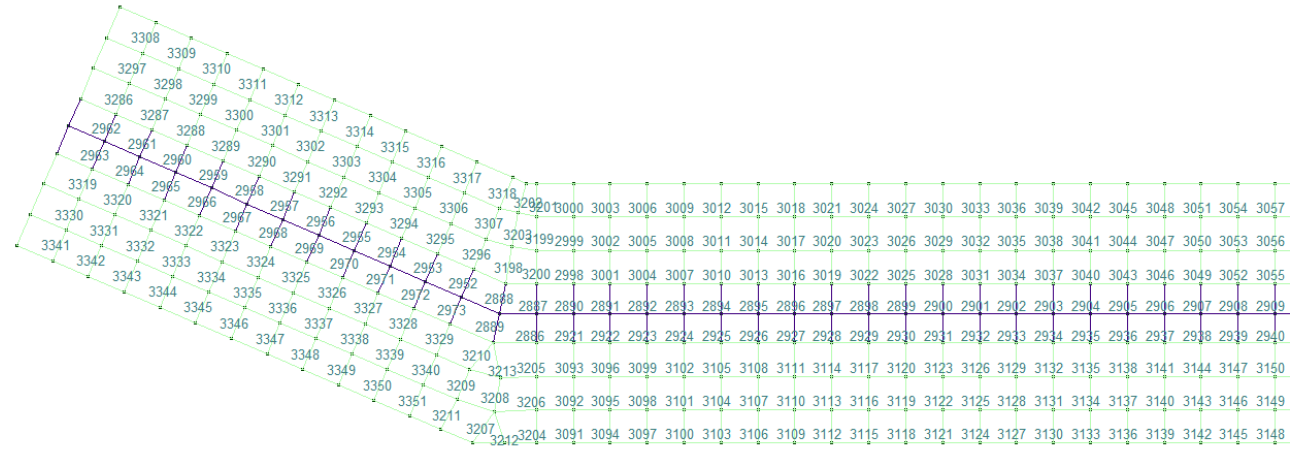
Numerazione nodi porzione sud-ovest:



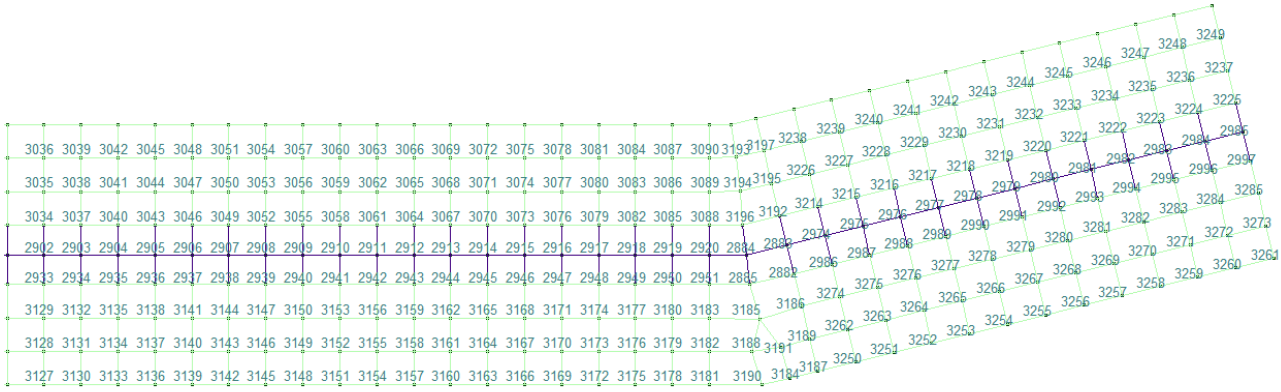
Numerazione nodi porzione nord-est:



Numerazione shell porzione sud-ovest:



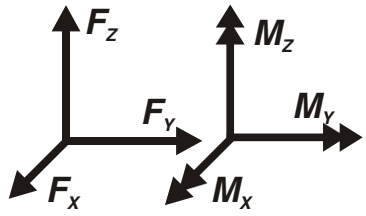
Numerazione shell porzione nord-est:



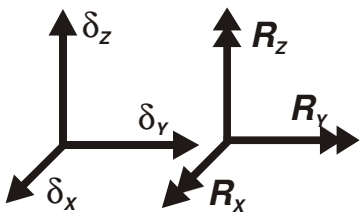
12.8 MODELLAZIONE DELLE AZIONI

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

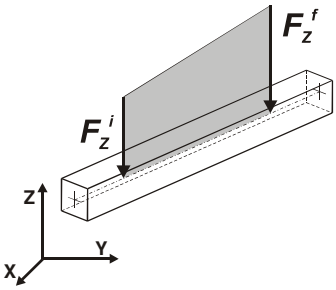
1	**carico concentrato nodale** 6 dati (forza Fx, Fy, Fz, momento Mx, My, Mz)
2	**spostamento nodale impresso** 6 dati (spostamento Tx,Ty,Tz, rotazione Rx,Ry,Rz)
3	**carico distribuito globale su elemento tipo trave** 7 dati (fx,fy,fz,mx,my,mz,ascissa di inizio carico) 7 dati (fx,fy,fz,mx,my,mz,ascissa di fine carico)
4	**carico distribuito locale su elemento tipo trave** 7 dati (f1,f2,f3,m1,m2,m3,ascissa di inizio carico) 7 dati (f1,f2,f3,m1,m2,m3,ascissa di fine carico)
5	**carico concentrato globale su elemento tipo trave** 7 dati (Fx,Fy,Fz,Mx,My,Mz,ascissa di carico)
6	**carico concentrato locale su elemento tipo trave** 7 dati (F1, F2, F3, M1, M2, M3, ascissa di carico)
7	**variazione termica applicata ad elemento tipo trave** 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	**carico di pressione uniforme su elemento tipo piastra** 1 dato (pressione)
9	**carico di pressione variabile su elemento tipo piastra** 4 dati (pressione, quota, pressione, quota)
10	**variazione termica applicata ad elemento tipo piastra** 2 dati (variazioni termiche: media e differenza nello spessore)
11	**carico variabile generale su elementi tipo trave e piastra** 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	**gruppo di carichi con impronta su piastra** 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell' impronta, interasse tra i carichi



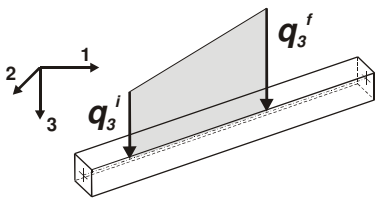
Carico concentrato nodale



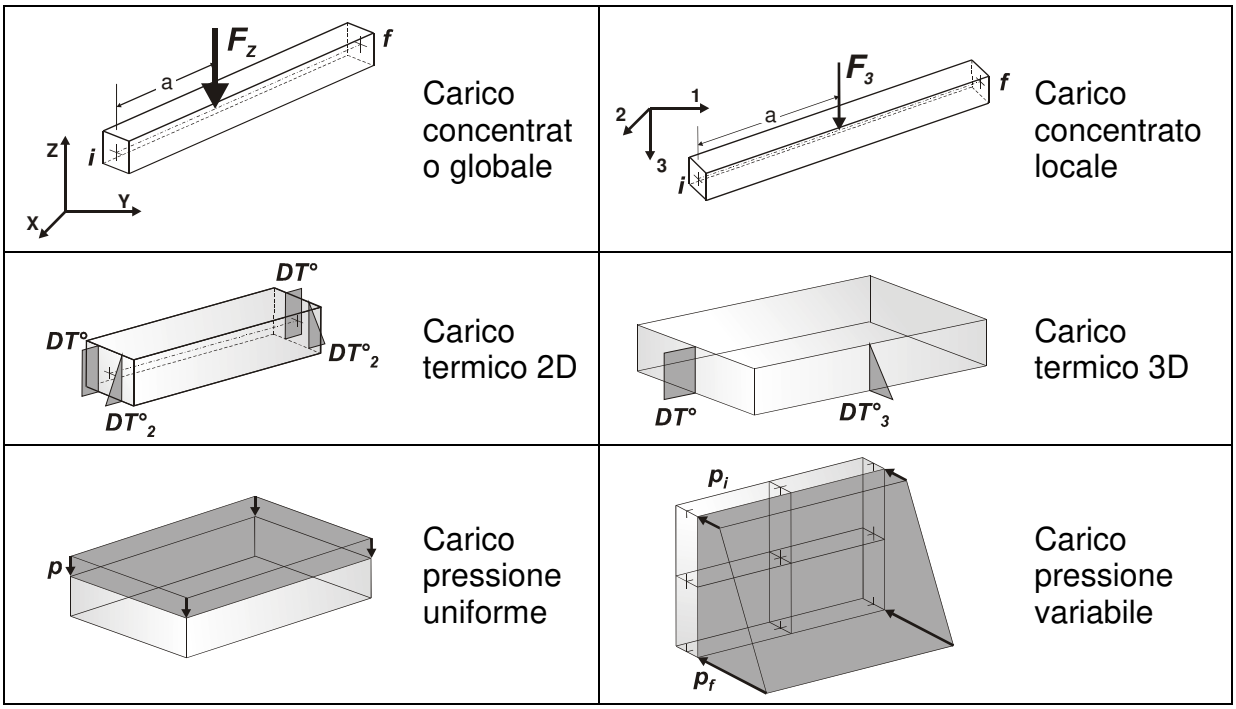
Spostamento impresso



Carico distribuito globale



Carico distribuito locale



Tipo	carico concentrato nodale						
Id	Tipo	Fx	Fy	Fz	Mx	My	Mz
		daN	daN	daN	daN cm	daN cm	daN cm
5	forza urto dir. parallela	4.000e+05	0.0	0.0	0.0	0.0	0.0
6	forza urto dir. ortogonale	0.0	1.500e+05	0.0	0.0	0.0	0.0
7	forza urto dir. ortogonale-	0.0	-1.500e+05	0.0	0.0	0.0	0.0

Tipo	carico distribuito globale su trave							
Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
		cm	daN/cm	daN/cm	daN/cm	daN	daN	daN
1	vento trasversale impalcato	0.0	1.35	0.0	0.0	0.0	0.0	0.0
		0.0	1.35	0.0	0.0	0.0	0.0	0.0
3	vento trasversale pila	0.0	0.64	0.0	0.0	0.0	0.0	0.0
		0.0	0.64	0.0	0.0	0.0	0.0	0.0

Tipo	carico di pressione uniforme su piastra	
Id	Tipo	pressione
		daN/cm2
2	pressione verticale vento	-9.70e-03
16	tandem prima corsia	-0.53
17	tandem seconda corsia	-0.44
18	tandem terza corsia	-0.22
19	carico distribuito 1a corsia	-0.07
20	carico distribuito altre corsie	-0.03

Tipo	carico di pressione variabile su piastra				
Id	Tipo	pressione	quota	pressione	quota
		daN/cm2	cm	daN/cm2	cm
11	spinta terra+massicciata stradale	-0.03	928.00	-0.87	75.00
12	spinta traffico stradale a monte	-0.09	928.00	-0.09	75.00
13	spinta terra su andatore 1	0.0	967.50	-0.57	75.00
14	spinta terra su andatore 2	0.0	750.00	-0.43	75.00
21	spinta terra SLV spalla	-0.12	928.00	-0.12	75.00
22	spinta terra SLV muri andatori	-0.02	928.00	-0.02	75.00
23	spinta terra SLD spalla	-0.06	928.00	-0.06	75.00
24	spinta terra SLD muri andatori	-0.01	928.00	-0.01	75.00

Tipo	variazione termica applicata a piastra		
Id	Tipo	DT uniforme	DT 3-3
		C	C
15	ritiro -9.1°	-9.10	0.0

Tipo	carico variabile generale				
Id	Tipo	ascissa	valore	ascissa	valore
		cm	daN/cm2	cm	daN/cm2
4	permanente 600 daN/mq				
	X - X Qz Area L2=0.0	-1.000e+05	-0.06	1.000e+05	-0.06
8	perm massicciata ferroviaria 40cm				
	X - X Qz Area L2=0.0	-1.000e+05	-0.08	1.000e+05	-0.08
9	perm terreno su suola a monte				
	X - X Qz Area L2=0.0	-1.000e+05	-1.79	1.000e+05	-1.79
10	var traffico su suola monte				
	X - X Qz Area L2=0.0	-1.000e+05	-0.20	1.000e+05	-0.20

12.9 SCHEMATIZZAZIONE DEI CASI DI CARICO

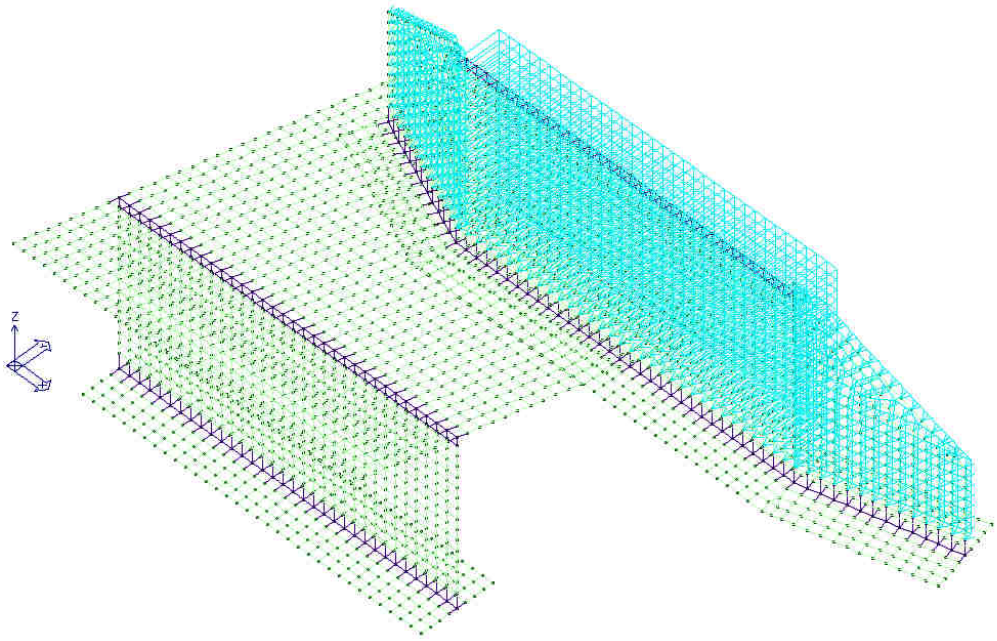
Il programma consente l'applicazione di diverse tipologie di casi di carico.
Sono previsti i seguenti 11 tipi di casi di carico:

	Sigla	***Tipo***	***Descrizione***
1	**Ggk**	A	caso di carico comprensivo del peso proprio struttura
2	**Gk**	NA	caso di carico con azioni permanenti
3	**Qk**	NA	caso di carico con azioni variabili
4	**Gsk**	A	caso di carico comprensivo dei carichi permanenti sui solai e sulle coperture
5	**Qsk**	A	caso di carico comprensivo dei carichi variabili sui solai
6	**Qnk**	A	caso di carico comprensivo dei carichi di neve sulle coperture
7	**Qtk**	SA	caso di carico comprensivo di una variazione termica agente sulla struttura
8	**Qvk**	NA	caso di carico comprensivo di azioni da vento sulla struttura
9	**Esk**	SA	caso di carico sismico con analisi statica equivalente
10	**Edk**	SA	caso di carico sismico con analisi dinamica
11	**Etk**	NA	caso di carico comprensivo di azioni derivanti dall' incremento di spinta delle terre in condizione sismica
12	**Pk**	NA	caso di carico comprensivo di azioni derivanti da coazioni, cedimenti e precompressioni

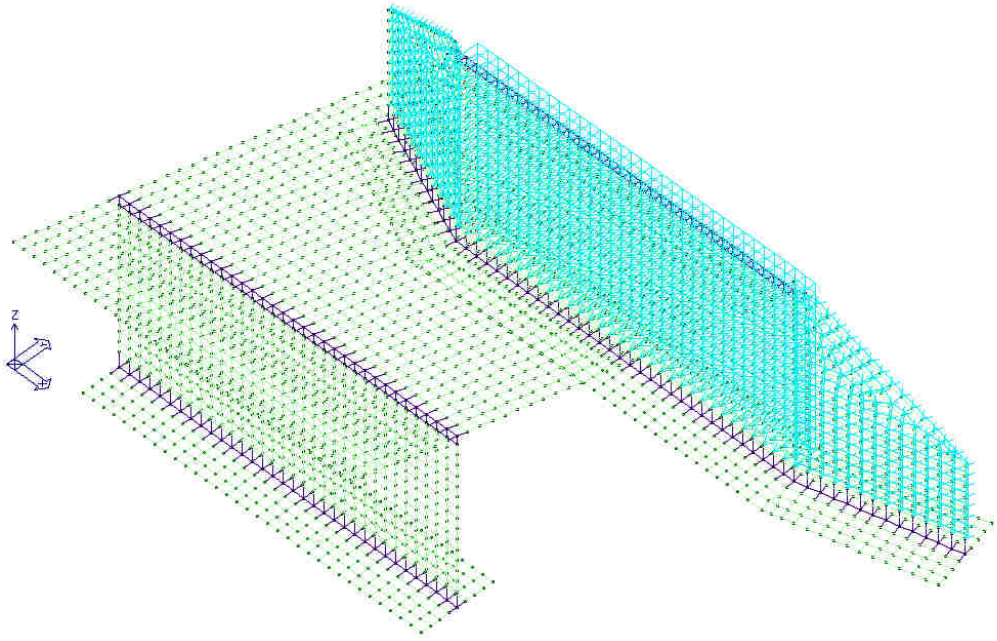
Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.
Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:
7-Qtk, in quanto richiede solo il valore della variazione termica;
9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.
Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.
Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:
Numero Tipo e *Sigla identificativa*, *Valore di riferimento* del caso di carico (se previsto).
In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.
Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-

Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Esk	CDC=Es (statico SLU) alfa=0.0 (ecc. R)	partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura)
			partecipazione:1.00 per 8 CDC=G1k (permanente generico)
3	Esk	CDC=Es (statico SLU) alfa=90.00 (ecc. R)	come precedente CDC sismico
4	Etk	CDC=Etk (inc. sp. terreno) SLV dir - alfa=90.00	D3 :da 826 a 1353 Azione : spinta terra SLV spalla
			D3 :da 1400 a 1558 Azione : spinta terra SLV muri andatori
			D3 :da 2726 a 2881 Azione : spinta terra SLV muri andatori

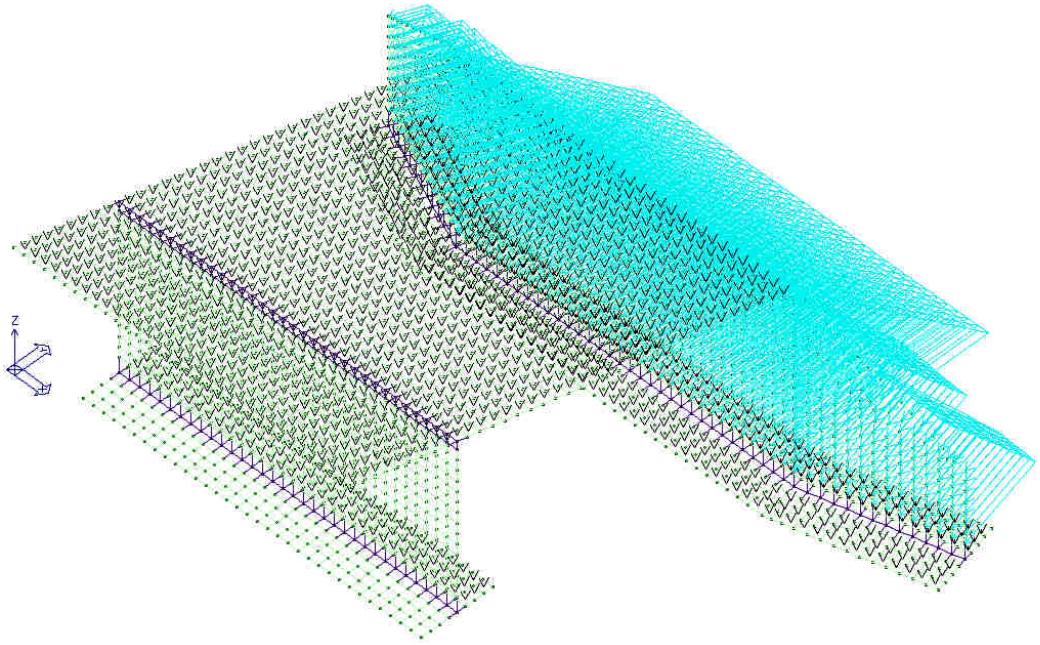


5	Esk	CDC=Es (statico SLD) alfa=0.0 (ecc. R)	come precedente CDC sismico
6	Esk	CDC=Es (statico SLD) alfa=90.00 (ecc. R)	come precedente CDC sismico
7	Etk	CDC=Etk (inc. sp. terreno) SLD dir - alfa=90.00	D3 :da 826 a 1353 Azione : spinta terra SLD spalla
			D3 :da 1400 a 1558 Azione : spinta terra SLD muri andatori
			D3 :da 2726 a 2881 Azione : spinta terra SLD muri andatori

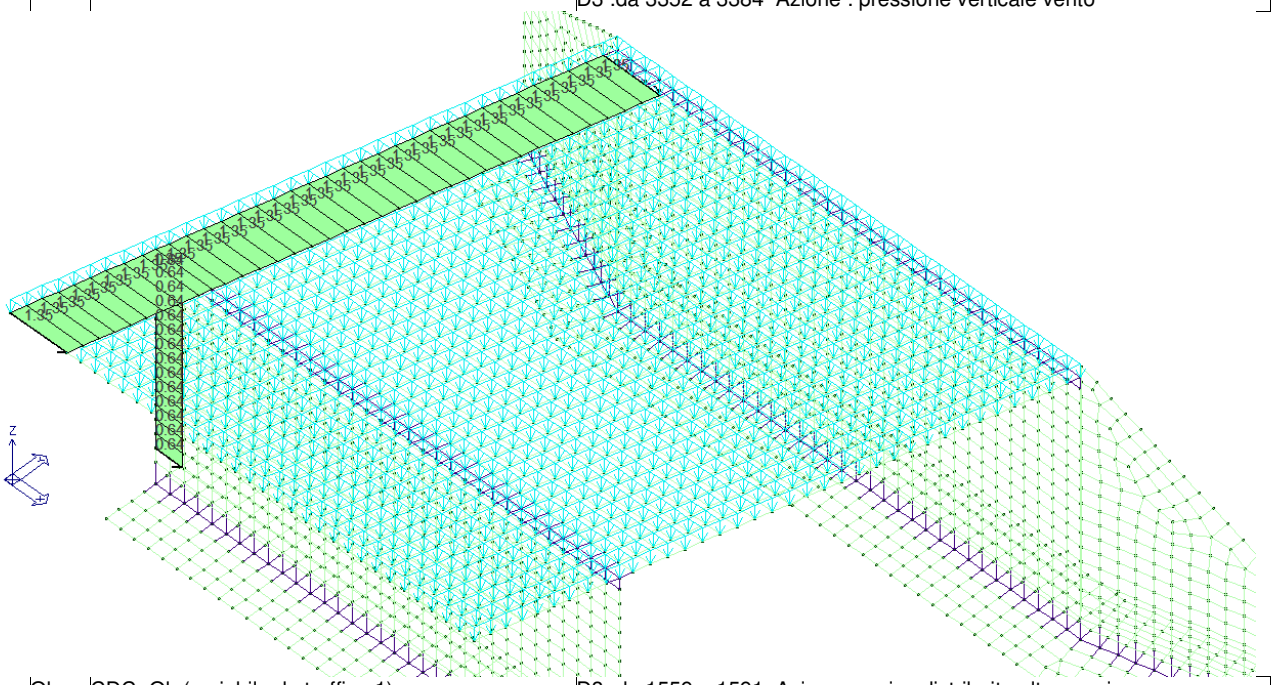


8	Gk	CDC=G1k (permanente generico)	D3 :da 694 a 792 Azione : perm massicciata ferroviaria 40cm
			D3 :da 826 a 1386 Azione : spinta terra+massicciata stradale

			D3 :da 1400 a 1406 Azione : spinta terra su andatore 1
			D3 :da 1407 a 1415 Azione : spinta terra su andatore 2
			D3 :da 1416 a 1422 Azione : spinta terra su andatore 1
			D3 :da 1423 a 1431 Azione : spinta terra su andatore 2
			D3 :da 1432 a 1438 Azione : spinta terra su andatore 1
			D3 :da 1439 a 1447 Azione : spinta terra su andatore 2
			D3 :da 1448 a 1454 Azione : spinta terra su andatore 1
			D3 :da 1455 a 1463 Azione : spinta terra su andatore 2
			D3 :da 1464 a 1470 Azione : spinta terra su andatore 1
			D3 :da 1471 a 1479 Azione : spinta terra su andatore 2
			D3 :da 1480 a 1486 Azione : spinta terra su andatore 1
			D3 :da 1487 a 1490 Azione : spinta terra su andatore 2
			D3 : 1491 Azione : spinta terra su andatore 1
			D3 :da 1492 a 1493 Azione : spinta terra su andatore 2
			D3 :da 1494 a 1502 Azione : spinta terra su andatore 1
			D3 : 1503 Azione : spinta terra su andatore 2
			D3 :da 1504 a 1507 Azione : spinta terra su andatore 1
			D3 : 1508 Azione : spinta terra su andatore 2
			D3 : 1509 Azione : spinta terra su andatore 1
			D3 : 1510 Azione : spinta terra su andatore 2
			D3 :da 1511 a 1515 Azione : spinta terra su andatore 1
			D3 :da 1516 a 1518 Azione : spinta terra su andatore 2
			D3 :da 1519 a 1522 Azione : spinta terra su andatore 1
			D3 : 1523 Azione : spinta terra su andatore 2
			D3 :da 1524 a 1525 Azione : spinta terra su andatore 1
			D3 :da 1526 a 1527 Azione : spinta terra su andatore 2
			D3 :da 1528 a 1529 Azione : spinta terra su andatore 1
			D3 : 1530 Azione : spinta terra su andatore 2
			D3 : 1531 Azione : spinta terra su andatore 1
			D3 :da 1532 a 1533 Azione : spinta terra su andatore 2
			D3 :da 1534 a 1536 Azione : spinta terra su andatore 1
			D3 : 1537 Azione : spinta terra su andatore 2
			D3 :da 1538 a 1553 Azione : spinta terra su andatore 1
			D3 :da 1554 a 1555 Azione : spinta terra su andatore 2
			D3 :da 1556 a 1557 Azione : spinta terra su andatore 1
			D3 : 1558 Azione : spinta terra su andatore 2
			D3 :da 1559 a 2713 Azione : permanente 600 daN/mq
			D3 :da 2726 a 2779 Azione : spinta terra su andatore 2
			D3 :da 2780 a 2833 Azione : spinta terra su andatore 1
			D3 : 2834 Azione : spinta terra su andatore 2
			D3 : 2835 Azione : spinta terra su andatore 1
			D3 : 2836 Azione : spinta terra su andatore 2
			D3 :da 2837 a 2839 Azione : spinta terra su andatore 1
			D3 :da 2840 a 2841 Azione : spinta terra su andatore 2
			D3 :da 2842 a 2853 Azione : spinta terra su andatore 1
			D3 :da 2854 a 2856 Azione : spinta terra su andatore 2
			D3 :da 2857 a 2858 Azione : spinta terra su andatore 1
			D3 : 2859 Azione : spinta terra su andatore 2
			D3 :da 2860 a 2862 Azione : spinta terra su andatore 1
			D3 : 2863 Azione : spinta terra su andatore 2
			D3 :da 2864 a 2872 Azione : spinta terra su andatore 1
			D3 : 2873 Azione : spinta terra su andatore 2
			D3 :da 2874 a 2875 Azione : spinta terra su andatore 1
			D3 : 2876 Azione : spinta terra su andatore 2
			D3 :da 2877 a 2878 Azione : spinta terra su andatore 1
			D3 :da 2879 a 2881 Azione : spinta terra su andatore 2
			D3 :da 2998 a 3090 Azione : perm terreno su suola a monte
			D3 :da 2998 a 3090 Azione : permanente 600 daN/mq
			D3 :da 3091 a 3191 Azione : perm massicciata ferroviaria 40cm
			D3 :da 3192 a 3203 Azione : perm terreno su suola a monte
			D3 :da 3192 a 3203 Azione : permanente 600 daN/mq
			D3 :da 3204 a 3213 Azione : perm massicciata ferroviaria 40cm
			D3 :da 3214 a 3249 Azione : perm terreno su suola a monte
			D3 :da 3214 a 3249 Azione : permanente 600 daN/mq
			D3 :da 3250 a 3285 Azione : perm massicciata ferroviaria 40cm
			D3 :da 3286 a 3318 Azione : perm terreno su suola a monte
			D3 :da 3286 a 3318 Azione : permanente 600 daN/mq
			D3 :da 3319 a 3351 Azione : perm massicciata ferroviaria 40cm
			D3 :da 3352 a 3384 Azione : permanente 600 daN/mq

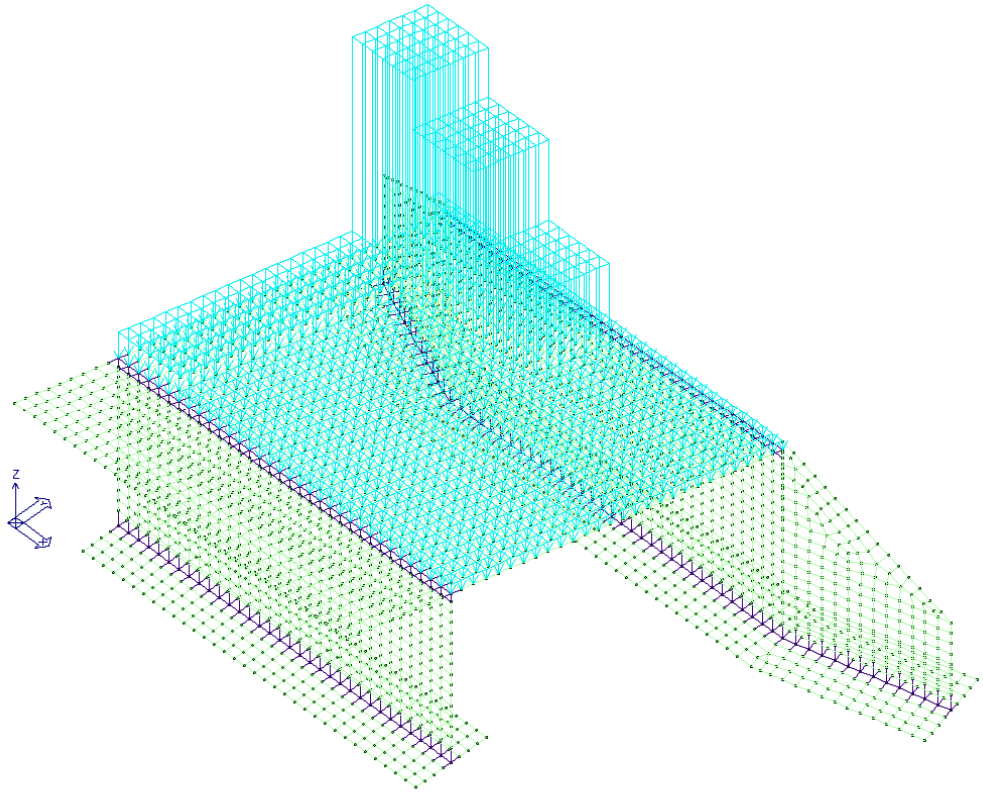


9	Gk	CDC=G1k (ritiro)	D3 :da 1 a 3384 Azione : ritiro -9.1°
10	Qvk	CDC=Qvk (carico da vento)	D2 :da 1 a 34 Azione : vento trasversale impalcato
			D2 :da 35 a 48 Azione : vento trasversale pila
			D2 : 49 Azione : vento trasversale impalcato
			D3 :da 1559 a 2713 Azione : pressione verticale vento
			D3 :da 3352 a 3384 Azione : pressione verticale vento



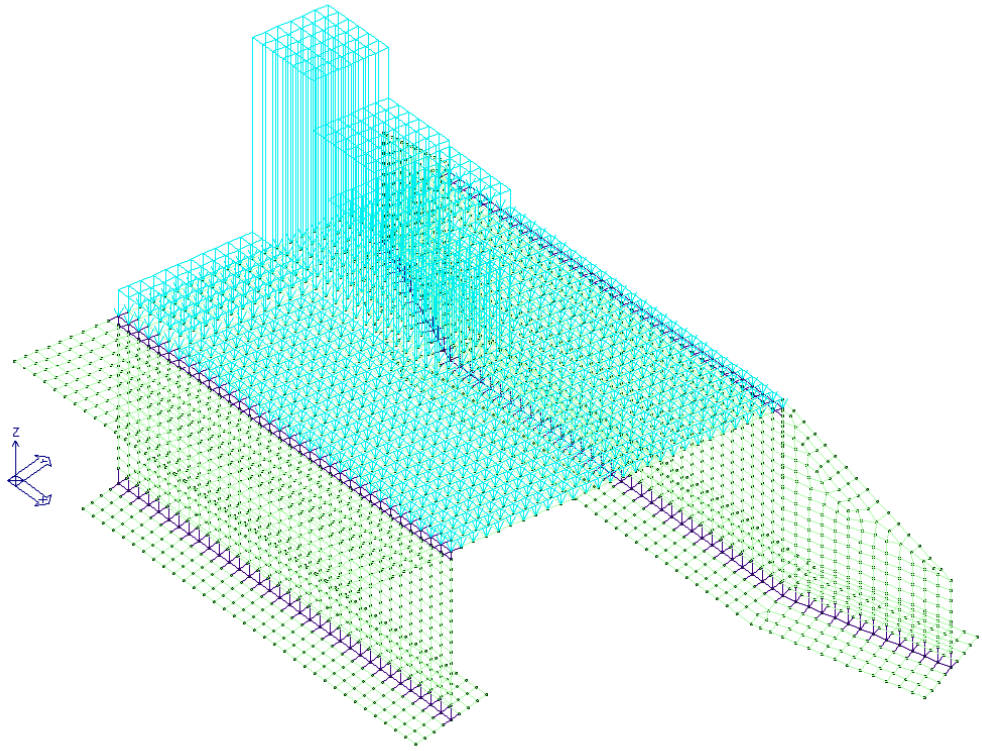
11	Qk	CDC=Qk (variabile da traffico 1)	D3 :da 1559 a 1591 Azione : carico distribuito altre corsie
			D3 :da 1592 a 1597 Azione : carico distribuito 1a corsia
			D3 :da 1598 a 1624 Azione : carico distribuito altre corsie
			D3 :da 1889 a 1894 Azione : carico distribuito 1a corsia
			D3 :da 1895 a 1921 Azione : carico distribuito altre corsie
			D3 :da 1922 a 1927 Azione : carico distribuito 1a corsia
			D3 :da 1928 a 1954 Azione : carico distribuito altre corsie
			D3 :da 1955 a 1960 Azione : carico distribuito 1a corsia
			D3 :da 1961 a 1987 Azione : carico distribuito altre corsie
			D3 :da 1988 a 1993 Azione : carico distribuito 1a corsia
			D3 :da 1994 a 2020 Azione : carico distribuito altre corsie
			D3 :da 2021 a 2026 Azione : carico distribuito 1a corsia
			D3 :da 2027 a 2053 Azione : carico distribuito altre corsie
			D3 :da 2054 a 2059 Azione : carico distribuito 1a corsia
			D3 :da 2060 a 2086 Azione : carico distribuito altre corsie

			D3 :da 2087 a 2092 Azione : carico distribuito 1a corsia
			D3 :da 2093 a 2119 Azione : carico distribuito altre corsie
			D3 :da 2120 a 2125 Azione : carico distribuito 1a corsia
			D3 :da 2126 a 2152 Azione : carico distribuito altre corsie
			D3 :da 2153 a 2158 Azione : carico distribuito 1a corsia
			D3 :da 2159 a 2185 Azione : carico distribuito altre corsie
			D3 :da 2186 a 2191 Azione : carico distribuito 1a corsia
			D3 :da 2192 a 2218 Azione : carico distribuito altre corsie
			D3 :da 2219 a 2224 Azione : carico distribuito 1a corsia
			D3 :da 2225 a 2251 Azione : carico distribuito altre corsie
			D3 :da 2252 a 2257 Azione : carico distribuito 1a corsia
			D3 :da 2258 a 2284 Azione : carico distribuito altre corsie
			D3 :da 2285 a 2290 Azione : carico distribuito 1a corsia
			D3 :da 2291 a 2317 Azione : carico distribuito altre corsie
			D3 :da 2318 a 2323 Azione : carico distribuito 1a corsia
			D3 :da 2324 a 2350 Azione : carico distribuito altre corsie
			D3 :da 2351 a 2356 Azione : carico distribuito 1a corsia
			D3 :da 2357 a 2383 Azione : carico distribuito altre corsie
			D3 :da 2384 a 2389 Azione : carico distribuito 1a corsia
			D3 :da 2390 a 2416 Azione : carico distribuito altre corsie
			D3 :da 2417 a 2422 Azione : carico distribuito 1a corsia
			D3 :da 2423 a 2449 Azione : carico distribuito altre corsie
			D3 :da 2450 a 2455 Azione : carico distribuito 1a corsia
			D3 :da 2456 a 2482 Azione : carico distribuito altre corsie
			D3 :da 2483 a 2488 Azione : tandem prima corsia
			D3 :da 2483 a 2488 Azione : carico distribuito 1a corsia
			D3 :da 2489 a 2494 Azione : tandem seconda corsia
			D3 :da 2489 a 2515 Azione : carico distribuito altre corsie
			D3 :da 2516 a 2521 Azione : tandem prima corsia
			D3 :da 2516 a 2521 Azione : carico distribuito 1a corsia
			D3 :da 2522 a 2527 Azione : tandem seconda corsia
			D3 :da 2522 a 2548 Azione : carico distribuito altre corsie
			D3 :da 2549 a 2554 Azione : tandem prima corsia
			D3 :da 2549 a 2554 Azione : carico distribuito 1a corsia
			D3 :da 2555 a 2560 Azione : tandem seconda corsia
			D3 :da 2555 a 2581 Azione : carico distribuito altre corsie
			D3 :da 2582 a 2587 Azione : tandem prima corsia
			D3 :da 2582 a 2587 Azione : carico distribuito 1a corsia
			D3 :da 2588 a 2593 Azione : tandem seconda corsia
			D3 :da 2588 a 2614 Azione : carico distribuito altre corsie
			D3 :da 2615 a 2620 Azione : tandem prima corsia
			D3 :da 2615 a 2620 Azione : carico distribuito 1a corsia
			D3 :da 2621 a 2626 Azione : tandem seconda corsia
			D3 :da 2621 a 2647 Azione : carico distribuito altre corsie
			D3 :da 2648 a 2653 Azione : tandem prima corsia
			D3 :da 2648 a 2653 Azione : carico distribuito 1a corsia
			D3 :da 2654 a 2659 Azione : tandem seconda corsia
			D3 :da 2654 a 2680 Azione : carico distribuito altre corsie
			D3 :da 2681 a 2686 Azione : carico distribuito 1a corsia
			D3 :da 2687 a 2713 Azione : carico distribuito altre corsie



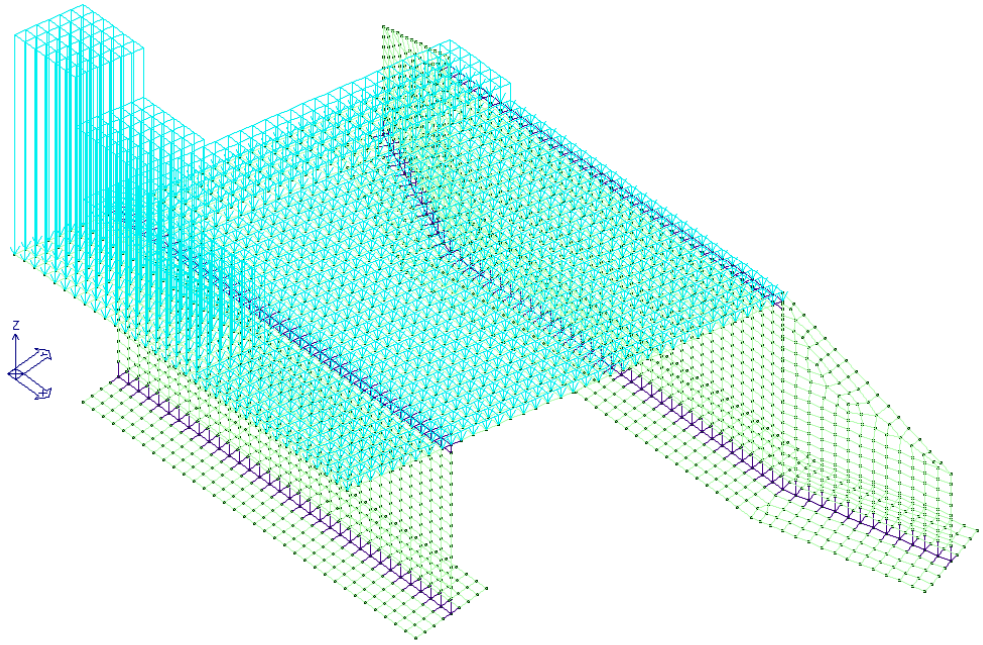
12	Qk	CDC=Qk (variabile da traffico 2)	D3 :da 1559 a 1564 Azione : carico distribuito 1a corsia
			D3 :da 1565 a 1591 Azione : carico distribuito altre corsie
			D3 :da 1592 a 1597 Azione : carico distribuito 1a corsia
			D3 :da 1598 a 1624 Azione : carico distribuito altre corsie
			D3 :da 1889 a 1894 Azione : carico distribuito 1a corsia
			D3 :da 1895 a 1921 Azione : carico distribuito altre corsie
			D3 :da 1922 a 1927 Azione : carico distribuito 1a corsia
			D3 :da 1928 a 1954 Azione : carico distribuito altre corsie
			D3 :da 1955 a 1960 Azione : carico distribuito 1a corsia
			D3 :da 1961 a 1987 Azione : carico distribuito altre corsie
			D3 :da 1988 a 1993 Azione : carico distribuito 1a corsia
			D3 :da 1994 a 2020 Azione : carico distribuito altre corsie
			D3 :da 2021 a 2026 Azione : carico distribuito 1a corsia
			D3 :da 2027 a 2053 Azione : carico distribuito altre corsie
			D3 :da 2054 a 2059 Azione : carico distribuito 1a corsia
			D3 :da 2060 a 2086 Azione : carico distribuito altre corsie
			D3 :da 2087 a 2092 Azione : carico distribuito 1a corsia
			D3 :da 2093 a 2119 Azione : carico distribuito altre corsie
			D3 :da 2120 a 2125 Azione : carico distribuito 1a corsia
			D3 :da 2126 a 2152 Azione : carico distribuito altre corsie
			D3 :da 2153 a 2158 Azione : carico distribuito 1a corsia
			D3 :da 2159 a 2185 Azione : carico distribuito altre corsie
			D3 :da 2186 a 2191 Azione : carico distribuito 1a corsia
			D3 :da 2192 a 2218 Azione : carico distribuito altre corsie
			D3 :da 2219 a 2224 Azione : tandem prima corsia
			D3 :da 2219 a 2224 Azione : carico distribuito 1a corsia
			D3 :da 2225 a 2230 Azione : tandem seconda corsia
			D3 :da 2225 a 2251 Azione : carico distribuito altre corsie
			D3 :da 2252 a 2257 Azione : tandem prima corsia
			D3 :da 2252 a 2257 Azione : carico distribuito 1a corsia
			D3 :da 2258 a 2263 Azione : tandem seconda corsia
			D3 :da 2258 a 2284 Azione : carico distribuito altre corsie
			D3 :da 2285 a 2290 Azione : tandem prima corsia
			D3 :da 2285 a 2290 Azione : carico distribuito 1a corsia
			D3 :da 2291 a 2296 Azione : tandem seconda corsia
			D3 :da 2291 a 2317 Azione : carico distribuito altre corsie
			D3 :da 2318 a 2323 Azione : tandem prima corsia
			D3 :da 2318 a 2323 Azione : carico distribuito 1a corsia
			D3 :da 2324 a 2329 Azione : tandem seconda corsia
			D3 :da 2324 a 2350 Azione : carico distribuito altre corsie

			D3 :da 2351 a 2356 Azione : tandem prima corsia
			D3 :da 2351 a 2356 Azione : carico distribuito 1a corsia
			D3 :da 2357 a 2362 Azione : tandem seconda corsia
			D3 :da 2357 a 2383 Azione : carico distribuito altre corsie
			D3 :da 2384 a 2389 Azione : tandem prima corsia
			D3 :da 2384 a 2389 Azione : carico distribuito 1a corsia
			D3 :da 2390 a 2395 Azione : tandem seconda corsia
			D3 :da 2390 a 2416 Azione : carico distribuito altre corsie
			D3 :da 2417 a 2422 Azione : carico distribuito 1a corsia
			D3 :da 2423 a 2449 Azione : carico distribuito altre corsie
			D3 :da 2450 a 2455 Azione : carico distribuito 1a corsia
			D3 :da 2456 a 2482 Azione : carico distribuito altre corsie
			D3 :da 2483 a 2488 Azione : carico distribuito 1a corsia
			D3 :da 2489 a 2515 Azione : carico distribuito altre corsie
			D3 :da 2516 a 2521 Azione : carico distribuito 1a corsia
			D3 :da 2522 a 2548 Azione : carico distribuito altre corsie
			D3 :da 2549 a 2554 Azione : carico distribuito 1a corsia
			D3 :da 2555 a 2581 Azione : carico distribuito altre corsie
			D3 :da 2582 a 2587 Azione : carico distribuito 1a corsia
			D3 :da 2588 a 2614 Azione : carico distribuito altre corsie
			D3 :da 2615 a 2620 Azione : carico distribuito 1a corsia
			D3 :da 2621 a 2647 Azione : carico distribuito altre corsie
			D3 :da 2648 a 2653 Azione : carico distribuito 1a corsia
			D3 :da 2654 a 2680 Azione : carico distribuito altre corsie
			D3 :da 2681 a 2686 Azione : carico distribuito 1a corsia
			D3 :da 2687 a 2713 Azione : carico distribuito altre corsie

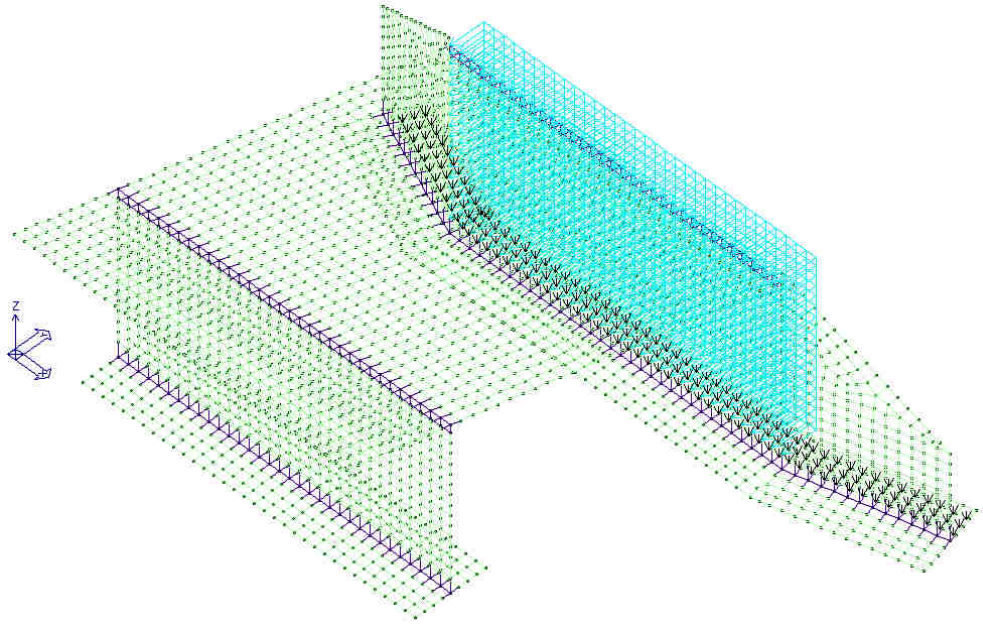


13	Qk	CDC=Qk (variabile da traffico 3)	D3 :da 1559 a 1564 Azione : carico distribuito 1a corsia
			D3 :da 1565 a 1591 Azione : carico distribuito altre corsie
			D3 :da 1592 a 1597 Azione : carico distribuito 1a corsia
			D3 :da 1598 a 1624 Azione : carico distribuito altre corsie
			D3 :da 1625 a 1630 Azione : carico distribuito 1a corsia
			D3 :da 1631 a 1657 Azione : carico distribuito altre corsie
			D3 :da 1658 a 1663 Azione : tandem prima corsia
			D3 :da 1658 a 1663 Azione : carico distribuito 1a corsia
			D3 :da 1664 a 1669 Azione : tandem seconda corsia
			D3 :da 1664 a 1690 Azione : carico distribuito altre corsie
			D3 :da 1691 a 1696 Azione : tandem prima corsia
			D3 :da 1691 a 1696 Azione : carico distribuito 1a corsia
			D3 :da 1697 a 1702 Azione : tandem seconda corsia
			D3 :da 1697 a 1723 Azione : carico distribuito altre corsie

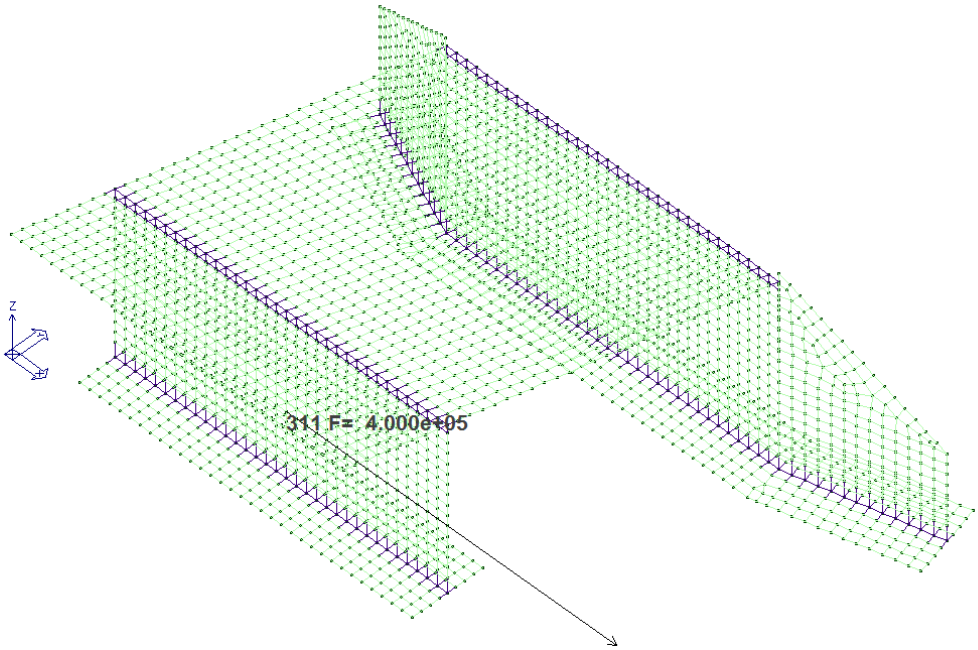
			D3 :da 1724 a 1729 Azione : tandem prima corsia
			D3 :da 1724 a 1729 Azione : carico distribuito 1a corsia
			D3 :da 1730 a 1735 Azione : tandem seconda corsia
			D3 :da 1730 a 1756 Azione : carico distribuito altre corsie
			D3 :da 1757 a 1762 Azione : tandem prima corsia
			D3 :da 1757 a 1762 Azione : carico distribuito 1a corsia
			D3 :da 1763 a 1768 Azione : tandem seconda corsia
			D3 :da 1763 a 1789 Azione : carico distribuito altre corsie
			D3 :da 1790 a 1795 Azione : tandem prima corsia
			D3 :da 1790 a 1795 Azione : carico distribuito 1a corsia
			D3 :da 1796 a 1801 Azione : tandem seconda corsia
			D3 :da 1796 a 1822 Azione : carico distribuito altre corsie
			D3 :da 1823 a 1828 Azione : tandem prima corsia
			D3 :da 1823 a 1828 Azione : carico distribuito 1a corsia
			D3 :da 1829 a 1834 Azione : tandem seconda corsia
			D3 :da 1829 a 1855 Azione : carico distribuito altre corsie
			D3 :da 1856 a 1861 Azione : carico distribuito 1a corsia
			D3 :da 1862 a 1888 Azione : carico distribuito altre corsie
			D3 :da 1889 a 1894 Azione : carico distribuito 1a corsia
			D3 :da 1895 a 1921 Azione : carico distribuito altre corsie
			D3 :da 1922 a 1927 Azione : carico distribuito 1a corsia
			D3 :da 1928 a 1954 Azione : carico distribuito altre corsie
			D3 :da 1955 a 1960 Azione : carico distribuito 1a corsia
			D3 :da 1961 a 1987 Azione : carico distribuito altre corsie
			D3 :da 1988 a 1993 Azione : carico distribuito 1a corsia
			D3 :da 1994 a 2020 Azione : carico distribuito altre corsie
			D3 :da 2021 a 2026 Azione : carico distribuito 1a corsia
			D3 :da 2027 a 2053 Azione : carico distribuito altre corsie
			D3 :da 2054 a 2059 Azione : carico distribuito 1a corsia
			D3 :da 2060 a 2086 Azione : carico distribuito altre corsie
			D3 :da 2087 a 2092 Azione : carico distribuito 1a corsia
			D3 :da 2093 a 2119 Azione : carico distribuito altre corsie
			D3 :da 2120 a 2125 Azione : carico distribuito 1a corsia
			D3 :da 2126 a 2152 Azione : carico distribuito altre corsie
			D3 :da 2153 a 2158 Azione : carico distribuito 1a corsia
			D3 :da 2159 a 2185 Azione : carico distribuito altre corsie
			D3 :da 2186 a 2191 Azione : carico distribuito 1a corsia
			D3 :da 2192 a 2218 Azione : carico distribuito altre corsie
			D3 :da 2219 a 2224 Azione : carico distribuito 1a corsia
			D3 :da 2225 a 2251 Azione : carico distribuito altre corsie
			D3 :da 2252 a 2257 Azione : carico distribuito 1a corsia
			D3 :da 2258 a 2284 Azione : carico distribuito altre corsie
			D3 :da 2285 a 2290 Azione : carico distribuito 1a corsia
			D3 :da 2291 a 2317 Azione : carico distribuito altre corsie
			D3 :da 2318 a 2323 Azione : carico distribuito 1a corsia
			D3 :da 2324 a 2350 Azione : carico distribuito altre corsie
			D3 :da 2351 a 2356 Azione : carico distribuito 1a corsia
			D3 :da 2357 a 2383 Azione : carico distribuito altre corsie
			D3 :da 2384 a 2389 Azione : carico distribuito 1a corsia
			D3 :da 2390 a 2416 Azione : carico distribuito altre corsie
			D3 :da 2417 a 2422 Azione : carico distribuito 1a corsia
			D3 :da 2423 a 2449 Azione : carico distribuito altre corsie
			D3 :da 2450 a 2455 Azione : carico distribuito 1a corsia
			D3 :da 2456 a 2482 Azione : carico distribuito altre corsie
			D3 :da 2483 a 2488 Azione : carico distribuito 1a corsia
			D3 :da 2489 a 2515 Azione : carico distribuito altre corsie
			D3 :da 2516 a 2521 Azione : carico distribuito 1a corsia
			D3 :da 2522 a 2548 Azione : carico distribuito altre corsie
			D3 :da 2549 a 2554 Azione : carico distribuito 1a corsia
			D3 :da 2555 a 2581 Azione : carico distribuito altre corsie
			D3 :da 2582 a 2587 Azione : carico distribuito 1a corsia
			D3 :da 2588 a 2614 Azione : carico distribuito altre corsie
			D3 :da 2615 a 2620 Azione : carico distribuito 1a corsia
			D3 :da 2621 a 2647 Azione : carico distribuito altre corsie
			D3 :da 2648 a 2653 Azione : carico distribuito 1a corsia
			D3 :da 2654 a 2680 Azione : carico distribuito altre corsie
			D3 :da 2681 a 2686 Azione : carico distribuito 1a corsia
			D3 :da 2687 a 2713 Azione : carico distribuito altre corsie
			D3 :da 3352 a 3357 Azione : carico distribuito 1a corsia
			D3 :da 3358 a 3384 Azione : carico distribuito altre corsie



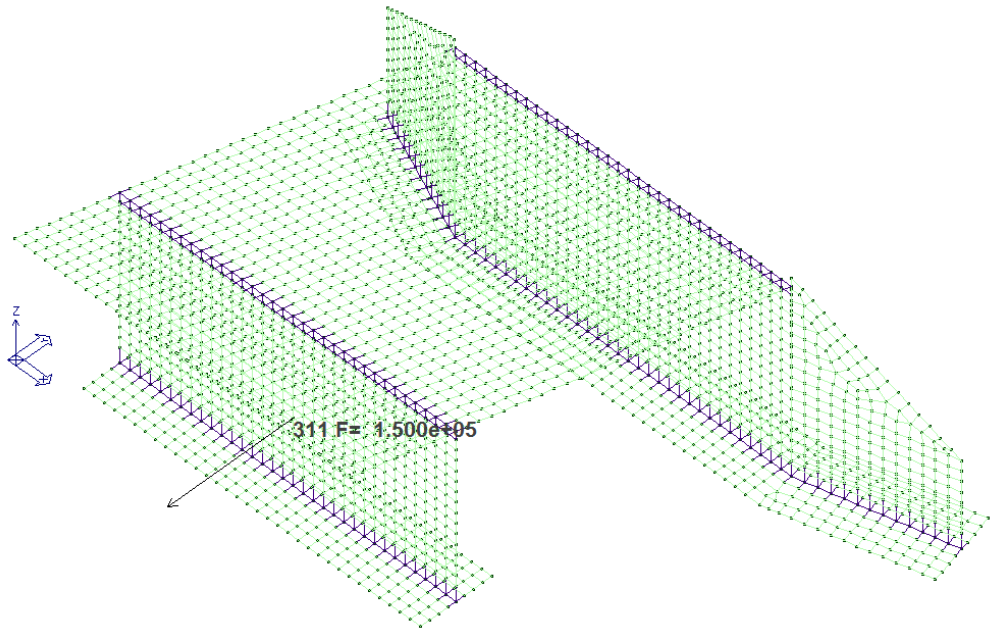
14	Qk	CDC=Qk (variabile traffico retro spalla)	D3 :da 826 a 1386 Azione : spinta traffico stradale a monte
			D3 :da 2998 a 3090 Azione : var traffico su suola monte
			D3 :da 3192 a 3203 Azione : var traffico su suola monte
			D3 :da 3214 a 3249 Azione : var traffico su suola monte
			D3 :da 3286 a 3318 Azione : var traffico su suola monte



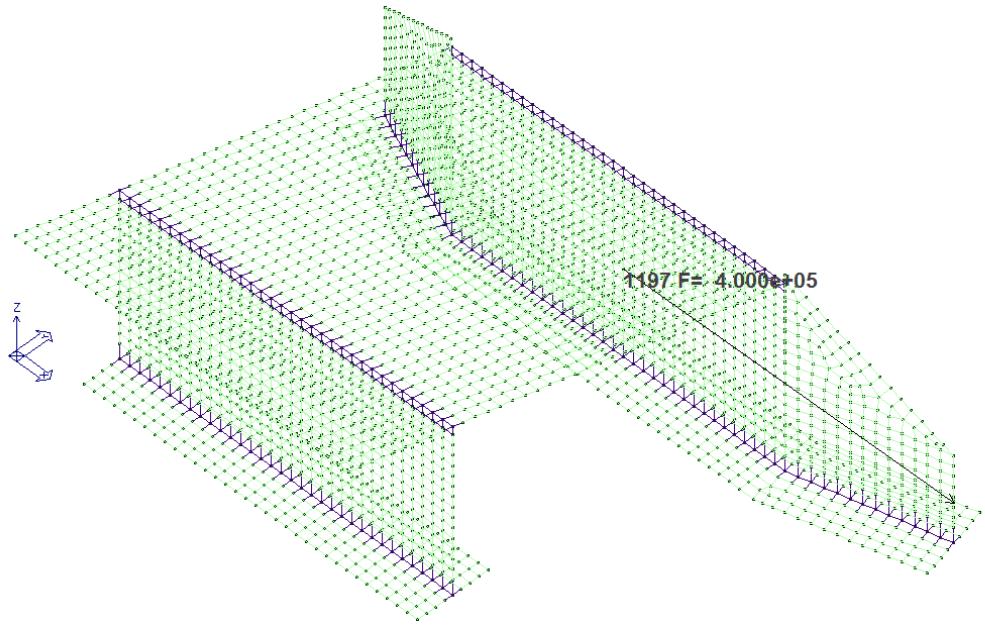
15	Qk	CDC=Qk (urto pila dir. parallela)	Nodo: 311 Azione : forza urto dir. parallela



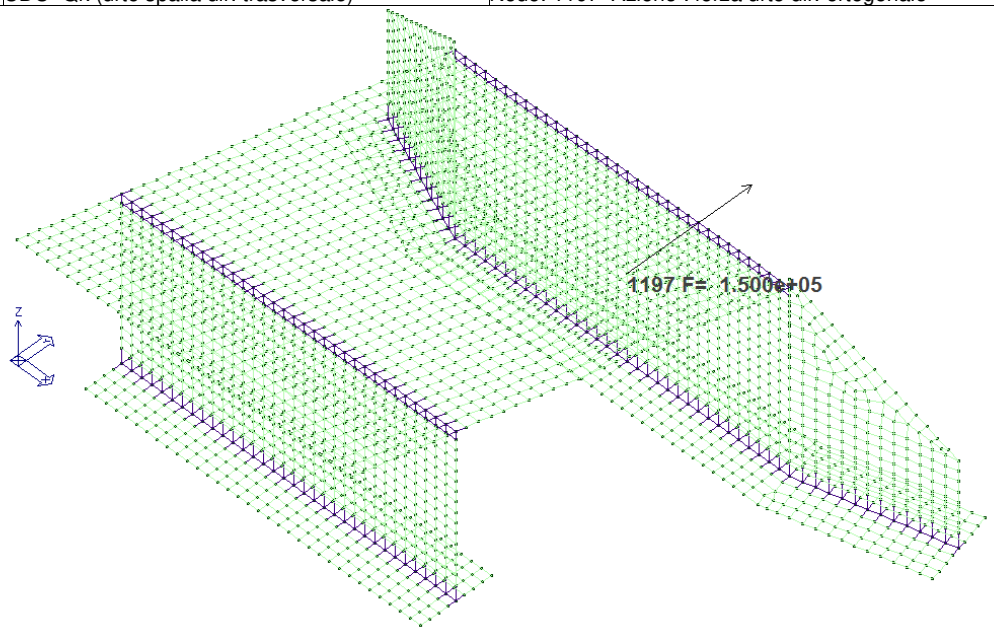
16	Qk	CDC=Qk (urto pila dir. trasversale)	Nodo: 311 Azione : forza urto dir. ortogonale-



17	Qk	CDC=Qk (urto spalla dir. parallela)	Nodo: 1197 Azione : forza urto dir. parallela



18	Qk	CDC=Qk (urto spalla dir. trasversale)	Nodo: 1197 Azione : forza urto dir. ortogonale



19	Qtk	CDC=Qtk (carico termico) dT= 15.00	variazione termica:15.00

12.10 RISULTATI ANALISI SISMICHE

Per l'opera in progetto è stata considerata un'analisi sismica statica equivalente.
Ciascun caso di carico sismico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).
Nella colonna Note sono riportati i parametri fondamentali che caratterizzano l' azione sismica: in particolare sono presenti i seguenti valori:

Angolo di ingresso	Angolo di ingresso dell'azione sismica orizzontale
Fattore di importanza	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica	Zona sismica
Accelerazione ag	Accelerazione orizzontale massima sul suolo
Categoria suolo	Categoria di profilo stratigrafico del suolo di fondazione
Fattore di struttura q	Fattore dipendente dalla tipologia strutturale
Fattore di sito S	Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD	Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore riduz. SLD	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	Periodo proprio di vibrazione della struttura
Coefficiente Lambda	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro Sd(T1)	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata spettro Se(T1)	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata spettro S (Tb-Tc)	Valore dell' ordinata dello spettro in uso nel tratto costante

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

- quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
- azione sismica complessiva

Per ciascuna combinazione sismica definita SLD viene riportato il livello di deformazione etaT (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità 1000*etaT/h da confrontare direttamente con il valore fornito nella norma (10, in assenza di tamponamenti collegati rigidamente alla struttura).

CDC	Tipo	Sigla Id	Note
2	Esk	CDC=Es (statico SLU) alfa=0.0 (ecc. R)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.169 g
			angolo di ingresso:0.0

CDC	Tipo	Sigla Id	Note
			eccentricità aggiuntiva: rapida
			periodo proprio T1: 0.412 sec.
			fattore di struttura q: 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: B
			coefficiente Lambda: 0.850
			ordinata spettro Sd(T1): 0.169

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	daN	daN	cm	cm	cm	cm	cm	cm			
968.00	20.06	20.06	100.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
967.50	21.24	41.31	106.73	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
936.64	37.00	78.31	192.01	606.87	1514.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
934.42	34.58	112.89	179.88	2341.40	1505.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
928.00	1.443e+05	1.444e+05	7.560e+05	1265.89	631.01	-103.12	-86.76	1315.38	835.00	0.848	0.004	0.309
914.27	33.66	1.445e+05	178.95	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
913.50	35.95	1.445e+05	191.26	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
905.79	52.65	1.446e+05	282.53	565.54	1532.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
903.39	45.82	1.446e+05	246.55	617.06	1509.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0
902.68	42.55	1.447e+05	229.11	2330.80	1503.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
900.84	48.80	1.447e+05	263.29	2383.06	1516.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
888.00	5472.20	1.502e+05	2.995e+04	1314.72	833.55	-98.13	-66.00	1315.38	835.00	0.967	4.8263e-05	0.002
874.93	49.97	1.502e+05	277.60	524.22	1550.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
867.25	45.60	1.503e+05	255.57	2424.73	1526.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.54	46.39	1.503e+05	262.02	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.12	123.20	1.504e+05	696.23	596.25	1518.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.50	49.65	1.505e+05	280.76	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.23	115.13	1.506e+05	651.28	2351.18	1508.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0
844.07	53.35	1.507e+05	307.21	482.89	1568.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
837.19	2880.33	1.535e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
836.86	2900.12	1.564e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
834.07	91.25	1.565e+05	531.78	547.74	1539.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
833.67	48.19	1.566e+05	280.98	2466.39	1536.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
830.32	83.56	1.567e+05	489.14	2400.04	1520.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
813.21	59.15	1.567e+05	353.54	441.57	1585.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0
806.81	41.49	1.568e+05	249.94	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
805.50	44.43	1.568e+05	268.11	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
800.09	131.15	1.569e+05	796.74	1278.97	1526.40	95.15	1.60	0.0	0.0	0.0	0.0	0.0
799.09	77.71	1.570e+05	472.69	2342.78	1506.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
796.18	51.79	1.571e+05	316.19	565.99	1531.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
795.64	98.78	1.572e+05	603.46	509.59	1556.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
792.97	46.99	1.572e+05	288.05	2380.00	1515.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
791.57	90.36	1.573e+05	554.83	2435.02	1529.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
786.38	2705.51	1.600e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
785.71	2722.88	1.627e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
782.36	57.71	1.628e+05	358.52	400.24	1603.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
766.51	46.37	1.628e+05	294.03	2549.72	1557.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
759.20	85.43	1.629e+05	546.96	2478.13	1539.71	0.0	0.0	0.0	0.0	0.0	0.0	0.0
758.22	112.67	1.630e+05	722.26	476.24	1570.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
753.07	40.86	1.631e+05	263.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
752.77	87.24	1.632e+05	563.28	544.27	1541.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
751.50	94.78	1.633e+05	612.99	497.64	1561.63	14.46	6.27	0.0	0.0	0.0	0.0	0.0
750.12	103.15	1.634e+05	668.40	2400.24	1520.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.85	79.65	1.634e+05	517.01	2348.63	1507.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.71	88.25	1.635e+05	572.91	597.59	1518.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
735.56	2530.69	1.661e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
734.57	2545.65	1.686e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
732.93	45.29	1.687e+05	300.38	2591.38	1567.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
727.99	111.84	1.688e+05	746.75	435.65	1588.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
723.60	85.79	1.689e+05	576.28	2517.11	1549.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
721.24	74.12	1.689e+05	499.50	2451.59	1533.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
720.64	41.29	1.690e+05	278.49	317.59	1639.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
705.16	134.29	1.691e+05	925.68	520.73	1551.62	0.0	0.0	0.0	0.0	0.0	0.0	0.0
703.31	93.99	1.692e+05	649.58	388.75	1608.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699.34	85.86	1.693e+05	596.73	2481.15	1540.45	16.67	4.11	0.0	0.0	0.0	0.0	0.0
699.19	98.93	1.694e+05	687.71	587.92	1522.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
697.50	48.49	1.694e+05	337.87	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
695.69	75.18	1.695e+05	525.29	2348.76	1507.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
692.16	69.38	1.696e+05	487.20	2393.49	1518.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0
690.01	87.80	1.697e+05	618.50	2558.77	1559.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0
689.79	39.10	1.697e+05	275.53	276.26	1657.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
685.08	41.08	1.697e+05	291.45	2433.21	1528.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
684.75	2355.87	1.721e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
683.43	2368.41	1.745e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
680.86	75.16	1.745e+05	536.53	2486.70	1541.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
679.04	76.38	1.746e+05	546.73	343.10	1628.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
670.18	126.30	1.747e+05	916.00	469.28	1573.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0
665.76	50.79	1.748e+05	370.80	2674.71	1588.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
658.93	45.53	1.748e+05	335.83	234.94	1675.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
652.56	85.43	1.749e+05	636.35	2598.48	1569.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
651.19	87.39	1.750e+05	652.33	411.28	1599.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.63	79.92	1.751e+05	597.96	542.68	1542.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.04	66.94	1.752e+05	501.32	299.15	1647.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.77	85.42	1.752e+05	642.92	595.64	1519.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.61	37.58	1.753e+05	282.93	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
644.00	81.32	1.754e+05	613.75	2520.69	1550.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
643.50	41.53	1.754e+05	313.65	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
642.70	73.04	1.755e+05	552.39	2351.17	1508.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
641.75	63.94	1.755e+05	484.24	2454.20	1533.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
640.40	69.96	1.756e+05	530.97	2402.28	1521.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
637.01	46.77	1.757e+05	356.89	504.40	1558.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0
635.83	61.47	1.757e+05	469.89	366.50	1618.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
633.94	2181.05	1.779e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
632.29	2191.18	1.801e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
632.18	56.16	1.801e+05	431.80	2716.37	1598.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
628.07	28.51	1.802e+05	220.61	193.61	1693.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
623.03	34.85	1.802e+05	271.86	326.92	1635.68	0.0	0.0	0.0	0.0	0.0	0.0	0.0
613.59	69.29	1.803e+05	548.92	2560.37	1559.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
611.52	87.46	1.804e+05	695.13	2637.46	1578.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
602.84	103.41	1.805e+05	833.77	266.47	1661.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
599.98	79.54	1.806e+05	644.40	456.95	1579.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.60	45.71	1.806e+05	371.13	2758.03	1608.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.02	95.23	1.807e+05	773.98	2475.17	1538.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
597.21	49.19	1.807e+05	400.32	152.29	1711.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0
593.00	73.68	1.808e+05	603.95	410.49	1599.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
591.88	35.86	1.809e+05	294.49	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.82	72.27	1.809e+05	594.56	2353.91	1509.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.49	148.08	1.811e+05	1218.95	1502.62	1531.16	93.14	0.79	0.0	0.0	0.0	0.0	0.0
589.50	35.33	1.811e+05	291.31	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
588.81	72.56	1.812e+05	598.98	599.35	1517.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
587.44	67.23	1.812e+05	556.31	211.33	1685.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.65	64.25	1.813e+05	532.34	500.94	1560.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.41	61.49	1.814e+05	509.65	362.01	1620.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
585.27	58.44	1.814e+05	485.34	315.93	1640.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
583.13	2006.23	1.834e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
581.14	2013.94	1.855e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
577.75	58.42	1.855e+05	491.47	2593.03	1568.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
577.61	56.33	1.856e+05	474.01	2521.03	1550.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
566.36	18.11	1.856e+05	155.41	110.96	1729.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
565.02	44.10	1.856e+05	379.39	2799.70	1619.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
563.13	113.55	1.857e+05	980.10	2670.17	1587.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
556.18	30.17	1.858e+05	263.70	2556.89	1559.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
545.99	72.38	1.858e+05	644.35	2723.32	1600.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.23	68.30	1.859e+05	616.81	2406.89	1522.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.15	97.40	1.860e+05	879.71	2334.75	1504.35	2.61	0.64	0.0	0.0	0.0	0.0	0.0
537.91	68.51	1.861e+05	619.04	2462.58	1535.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.89	62.72	1.861e+05	568.88	2610.45	1572.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.50	720.23	1.869e+05	6537.33	366.34	1618.58	28.93	12.55	0.0	0.0	0.0	0.0	0.0
532.31	1831.41	1.887e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
531.43	32.11	1.887e+05	293.71	2841.36	1629.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
530.00	1836.71	1.906e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
528.62	53.14	1.906e+05	488.62	2513.56	1548.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
516.99	43.70	1.907e+05	410.83	2557.66	1559.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500.90	84.58	1.907e+05	820.70	2764.15	1610.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
497.85	20.77	1.908e+05	202.73	2883.02	1639.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
494.01	67.08	1.908e+05	660.00	2665.45	1585.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0
489.25	56.40	1.909e+05	560.31	2711.68	1597.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0
486.04	54.52	1.909e+05	545.25	2810.60	1621.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0
485.80	58.14	1.910e+05	581.74	2612.81	1572.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.42	28.52	1.910e+05	286.15	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.32	700.52	1.917e+05	7030.21	530.92	1614.61	119.31	12.55	0.0	0.0	0.0	0.0	0.0
483.98	56.84	1.918e+05	570.85	2351.44	1508.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
483.50	57.78	1.918e+05	580.82	2402.29	1521.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
481.50	1656.59	1.935e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
479.86	51.07	1.936e+05	517.27	2507.61	1546.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
478.86	1659.47	1.952e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
477.66	47.40	1.953e+05	482.32	2559.05	1559.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
469.30	34.64	1.953e+05	358.78	2857.17	1633.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
464.27	12.74	1.953e+05	133.42	2924.69	1649.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
454.75	15.31	1.953e+05	163.59	2898.98	1643.48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
433.17	575.13	1.959e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
430.69	2098.67	1.980e+05	2.368e+04	1811.85	1518.67	-115.76	8.25	2265.62	1500.32	0.074	0.767	0.371
427.71	1482.24	1.995e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
382.00	507.19	2.000e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
379.88	1852.26	2.018e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
376.57	1305.00	2.031e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
330.83	439.26	2.036e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
329.06	1604.50	2.052e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
325.43	1127.77	2.063e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
279.67	371.32	2.067e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
278.25	1356.74	2.080e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
274.29	950.53	2.090e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
228.50	303.38	2.093e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
227.44	1108.98	2.104e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
223.14	773.00	2.112e+05	1.684e+04	1156.49	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
177.33	235.45	2.114e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
176.63	861.22	2.123e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
172.00	734.53	2.130e+05	2.076e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
126.17	167.62	2.132e+05	6457.71	359.09	1621.72	28.93	12.55	0.0	0.0	0.0	0.0	0.0
125.81	613.56	2.138e+05	2.370e+04	1815.28	1519.40	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
97.00	246.29	2.140e+05	1.234e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
75.00	576.62	2.146e+05	3.737e+04	1504.43	1541.16	144.84	12.61	1187.20	1505.58	0.154	0.305	0.275
Risulta	2.146e+05		1.491e+06									

CDC	Tipo	Sigla Id	Note
3	Esk	CDC=Es (statico SLU) alfa=90.00 (ecc. R)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.169 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: rapida
			periodo proprio T1: 0.412 sec.
			fattore di struttura q: 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: B
			coefficiente Lambda: 0.850
			ordinata spettro Sd(T1): 0.169

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	daN	daN	cm	cm	cm	cm	cm	cm			
968.00	20.06	20.06	100.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
967.50	21.24	41.31	106.73	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
936.64	37.00	78.31	192.01	606.87	1514.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
934.42	34.58	112.89	179.88	2341.40	1505.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
928.00	1.443e+05	1.444e+05	7.560e+05	1265.89	631.01	-103.12	-86.76	1315.38	835.00	0.848	0.004	0.309
914.27	33.66	1.445e+05	178.95	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
913.50	35.95	1.445e+05	191.26	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
905.79	52.65	1.446e+05	282.53	565.54	1532.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
903.39	45.82	1.446e+05	246.55	617.06	1509.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0
902.68	42.55	1.447e+05	229.11	2330.80	1503.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
900.84	48.80	1.447e+05	263.29	2383.06	1516.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
888.00	5472.20	1.502e+05	2.995e+04	1314.72	833.55	-98.13	-66.00	1315.38	835.00	0.967	4.8263e-05	0.002
874.93	49.97	1.502e+05	277.60	524.22	1550.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
867.25	45.60	1.503e+05	255.57	2424.73	1526.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.54	46.39	1.503e+05	262.02	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.12	123.20	1.504e+05	696.23	596.25	1518.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.50	49.65	1.505e+05	280.76	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.23	115.13	1.506e+05	651.28	2351.18	1508.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0
844.07	53.35	1.507e+05	307.21	482.89	1568.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
837.19	2880.33	1.535e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
836.86	2900.12	1.564e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
834.07	91.25	1.565e+05	531.78	547.74	1539.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
833.67	48.19	1.566e+05	280.98	2466.39	1536.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
830.32	83.56	1.567e+05	489.14	2400.04	1520.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
813.21	59.15	1.567e+05	353.54	441.57	1585.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0
806.81	41.49	1.568e+05	249.94	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
805.50	44.43	1.568e+05	268.11	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
800.09	131.15	1.569e+05	796.74	1278.97	1526.40	95.15	1.60	0.0	0.0	0.0	0.0	0.0
799.09	77.71	1.570e+05	472.69	2342.78	1506.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
796.18	51.79	1.571e+05	316.19	565.99	1531.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
795.64	98.78	1.572e+05	603.46	509.59	1556.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
792.97	46.99	1.572e+05	288.05	2380.00	1515.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
791.57	90.36	1.573e+05	554.83	2435.02	1529.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
786.38	2705.51	1.600e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
785.71	2722.88	1.627e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
782.36	57.71	1.628e+05	358.52	400.24	1603.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
766.51	46.37	1.628e+05	294.03	2549.72	1557.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
759.20	85.43	1.629e+05	546.96	2478.13	1539.71	0.0	0.0	0.0	0.0	0.0	0.0	0.0
758.22	112.67	1.630e+05	722.26	476.24	1570.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
753.07	40.86	1.631e+05	263.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
752.77	87.24	1.632e+05	563.28	544.27	1541.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
751.50	94.78	1.633e+05	612.99	497.64	1561.63	14.46	6.27	0.0	0.0	0.0	0.0	0.0
750.12	103.15	1.634e+05	668.40	2400.24	1520.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.85	79.65	1.634e+05	517.01	2348.63	1507.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.71	88.25	1.635e+05	572.91	597.59	1518.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
735.56	2530.69	1.661e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
734.57	2545.65	1.686e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
732.93	45.29	1.687e+05	300.38	2591.38	1567.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
727.99	111.84	1.688e+05	746.75	435.65	1588.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
723.60	85.79	1.689e+05	576.28	2517.11	1549.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
721.24	74.12	1.689e+05	499.50	2451.59	1533.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
720.64	41.29	1.690e+05	278.49	317.59	1639.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
705.16	134.29	1.691e+05	925.68	520.73	1551.62	0.0	0.0	0.0	0.0	0.0	0.0	0.0
703.31	93.99	1.692e+05	649.58	388.75	1608.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699.34	85.86	1.693e+05	596.73	2481.15	1540.45	16.67	4.11	0.0	0.0	0.0	0.0	0.0
699.19	98.93	1.694e+05	687.71	587.92	1522.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
697.50	48.49	1.694e+05	337.87	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
695.69	75.18	1.695e+05	525.29	2348.76	1507.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
692.16	69.38	1.696e+05	487.20	2393.49	1518.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0
690.01	87.80	1.697e+05	618.50	2558.77	1559.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0
689.79	39.10	1.697e+05	275.53	276.26	1657.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0
685.08	41.08	1.697e+05	291.45	2433.21	1528.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
684.75	2355.87	1.721e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
683.43	2368.41	1.745e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
680.86	75.16	1.745e+05	536.53	2486.70	1541.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
679.04	76.38	1.746e+05	546.73	343.10	1628.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
670.18	126.30	1.747e+05	916.00	469.28	1573.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0
665.76	50.79	1.748e+05	370.80	2674.71	1588.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
658.93	45.53	1.748e+05	335.83	234.94	1675.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
652.56	85.43	1.749e+05	636.35	2598.48	1569.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
651.19	87.39	1.750e+05	652.33	411.28	1599.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.63	79.92	1.751e+05	597.96	542.68	1542.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.04	66.94	1.752e+05	501.32	299.15	1647.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.77	85.42	1.752e+05	642.92	595.64	1519.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.61	37.58	1.753e+05	282.93	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
644.00	81.32	1.754e+05	613.75	2520.69	1550.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
643.50	41.53	1.754e+05	313.65	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
642.70	73.04	1.755e+05	552.39	2351.17	1508.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
641.75	63.94	1.755e+05	484.24	2454.20	1533.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
640.40	69.96	1.756e+05	530.97	2402.28	1521.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
637.01	46.77	1.757e+05	356.89	504.40	1558.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0
635.83	61.47	1.757e+05	469.89	366.50	1618.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
633.94	2181.05	1.779e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
632.29	2191.18	1.801e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
632.18	56.16	1.801e+05	431.80	2716.37	1598.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
628.07	28.51	1.802e+05	220.61	193.61	1693.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
623.03	34.85	1.802e+05	271.86	326.92	1635.68	0.0	0.0	0.0	0.0	0.0	0.0	0.0
613.59	69.29	1.803e+05	548.92	2560.37	1559.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
611.52	87.46	1.804e+05	695.13	2637.46	1578.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
602.84	103.41	1.805e+05	833.77	266.47	1661.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
599.98	79.54	1.806e+05	644.40	456.95	1579.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.60	45.71	1.806e+05	371.13	2758.03	1608.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.02	95.23	1.807e+05	773.98	2475.17	1538.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
597.21	49.19	1.807e+05	400.32	152.29	1711.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
593.00	73.68	1.808e+05	603.95	410.49	1599.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
591.88	35.86	1.809e+05	294.49	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.82	72.27	1.809e+05	594.56	2353.91	1509.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.49	148.08	1.811e+05	1218.95	1502.62	1531.16	93.14	0.79	0.0	0.0	0.0	0.0	0.0
589.50	35.33	1.811e+05	291.31	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
588.81	72.56	1.812e+05	598.98	599.35	1517.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
587.44	67.23	1.812e+05	556.31	211.33	1685.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.65	64.25	1.813e+05	532.34	500.94	1560.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.41	61.49	1.814e+05	509.65	362.01	1620.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
585.27	58.44	1.814e+05	485.34	315.93	1640.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
583.13	2006.23	1.834e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
581.14	2013.94	1.855e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
577.75	58.42	1.855e+05	491.47	2593.03	1568.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
577.61	56.33	1.856e+05	474.01	2521.03	1550.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
566.36	18.11	1.856e+05	155.41	110.96	1729.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
565.02	44.10	1.856e+05	379.39	2799.70	1619.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
563.13	113.55	1.857e+05	980.10	2670.17	1587.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
556.18	30.17	1.858e+05	263.70	2556.89	1559.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
545.99	72.38	1.858e+05	644.35	2723.32	1600.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.23	68.30	1.859e+05	616.81	2406.89	1522.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.15	97.40	1.860e+05	879.71	2334.75	1504.35	2.61	0.64	0.0	0.0	0.0	0.0	0.0
537.91	68.51	1.861e+05	619.04	2462.58	1535.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.89	62.72	1.861e+05	568.88	2610.45	1572.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.50	720.23	1.869e+05	6537.33	366.34	1618.58	28.93	12.55	0.0	0.0	0.0	0.0	0.0
532.31	1831.41	1.887e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
531.43	32.11	1.887e+05	293.71	2841.36	1629.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
530.00	1836.71	1.906e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
528.62	53.14	1.906e+05	488.62	2513.56	1548.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
516.99	43.70	1.907e+05	410.83	2557.66	1559.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500.90	84.58	1.907e+05	820.70	2764.15	1610.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
497.85	20.77	1.908e+05	202.73	2883.02	1639.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
494.01	67.08	1.908e+05	660.00	2665.45	1585.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0
489.25	56.40	1.909e+05	560.31	2711.68	1597.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0
486.04	54.52	1.909e+05	545.25	2810.60	1621.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0
485.80	58.14	1.910e+05	581.74	2612.81	1572.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.42	28.52	1.910e+05	286.15	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.32	700.52	1.917e+05	7030.21	530.92	1614.61	119.31	12.55	0.0	0.0	0.0	0.0	0.0
483.98	56.84	1.918e+05	570.85	2351.44	1508.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
483.50	57.78	1.918e+05	580.82	2402.29	1521.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0
481.50	1656.59	1.935e+05	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
479.86	51.07	1.936e+05	517.27	2507.61	1546.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
478.86	1659.47	1.952e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
477.66	47.40	1.953e+05	482.32	2559.05	1559.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
469.30	34.64	1.953e+05	358.78	2857.17	1633.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
464.27	12.74	1.953e+05	133.42	2924.69	1649.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
454.75	15.31	1.953e+05	163.59	2898.98	1643.48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
433.17	575.13	1.959e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
430.69	2098.67	1.980e+05	2.368e+04	1811.85	1518.67	-115.76	8.25	2265.62	1500.32	0.074	0.767	0.371
427.71	1482.24	1.995e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
382.00	507.19	2.000e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
379.88	1852.26	2.018e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
376.57	1305.00	2.031e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
330.83	439.26	2.036e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
329.06	1604.50	2.052e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
325.43	1127.77	2.063e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
279.67	371.32	2.067e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
278.25	1356.74	2.080e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
274.29	950.53	2.090e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
228.50	303.38	2.093e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
227.44	1108.98	2.104e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
223.14	773.00	2.112e+05	1.684e+04	1156.49	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
177.33	235.45	2.114e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
176.63	861.22	2.123e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
172.00	734.53	2.130e+05	2.076e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
126.17	167.62	2.132e+05	6457.71	359.09	1621.72	28.93	12.55	0.0	0.0	0.0	0.0	0.0
125.81	613.56	2.138e+05	2.370e+04	1815.28	1519.40	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
97.00	246.29	2.140e+05	1.234e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
75.00	576.62	2.146e+05	3.737e+04	1504.43	1541.16	144.84	12.61	1187.20	1505.58	0.154	0.305	0.275
Risulta	2.146e+05		1.491e+06									

CDC	Tipo	Sigla Id	Note
5	Esk	CDC=Es (statico SLD) alfa=0.0 (ecc. R)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.085 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: rapida
			periodo proprio T1: 0.412 sec.
			coefficiente Lambda: 0.850
			ordinata spettro Se(T1): 0.081

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	daN	daN	cm	cm	cm	cm	cm	cm			
968.00	9.65	9.65	100.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
967.50	10.22	19.86	106.73	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
936.64	17.79	37.66	192.01	606.87	1514.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
934.42	16.63	54.29	179.88	2341.40	1505.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
928.00	6.941e+04	6.947e+04	7.560e+05	1265.89	631.01	-103.12	-86.76	1315.38	835.00	0.848	0.004	0.309
914.27	16.19	6.948e+04	178.95	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
913.50	17.29	6.950e+04	191.26	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
905.79	25.32	6.952e+04	282.53	565.54	1532.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
903.39	22.04	6.955e+04	246.55	617.06	1509.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0
902.68	20.46	6.957e+04	229.11	2330.80	1503.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
900.84	23.47	6.959e+04	263.29	2383.06	1516.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
888.00	2631.60	7.222e+04	2.995e+04	1314.72	833.55	-98.13	-66.00	1315.38	835.00	0.967	4.8263e-05	0.002
874.93	24.03	7.225e+04	277.60	524.22	1550.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
867.25	21.93	7.227e+04	255.57	2424.73	1526.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.54	22.31	7.229e+04	262.02	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.12	59.25	7.235e+04	696.23	596.25	1518.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.50	23.88	7.237e+04	280.76	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.23	55.37	7.243e+04	651.28	2351.18	1508.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0
844.07	25.66	7.245e+04	307.21	482.89	1568.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
837.19	1385.16	7.384e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
836.86	1394.68	7.523e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
834.07	43.88	7.528e+04	531.78	547.74	1539.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
833.67	23.18	7.530e+04	280.98	2466.39	1536.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
830.32	40.18	7.534e+04	489.14	2400.04	1520.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
813.21	28.45	7.537e+04	353.54	441.57	1585.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0
806.81	19.95	7.539e+04	249.94	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
805.50	21.37	7.541e+04	268.11	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
800.09	63.07	7.547e+04	796.74	1278.97	1526.40	95.15	1.60	0.0	0.0	0.0	0.0	0.0
799.09	37.37	7.551e+04	472.69	2342.78	1506.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
796.18	24.91	7.554e+04	316.19	565.99	1531.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
795.64	47.50	7.558e+04	603.46	509.59	1556.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
792.97	22.60	7.561e+04	288.05	2380.00	1515.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
791.57	43.45	7.565e+04	554.83	2435.02	1529.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
786.38	1301.09	7.695e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
785.71	1309.44	7.826e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
782.36	27.75	7.829e+04	358.52	400.24	1603.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
766.51	22.30	7.831e+04	294.03	2549.72	1557.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
759.20	41.08	7.835e+04	546.96	2478.13	1539.71	0.0	0.0	0.0	0.0	0.0	0.0	0.0
758.22	54.18	7.841e+04	722.26	476.24	1570.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
753.07	19.65	7.843e+04	263.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
752.77	41.95	7.847e+04	563.28	544.27	1541.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
751.50	45.58	7.851e+04	612.99	497.64	1561.63	14.46	6.27	0.0	0.0	0.0	0.0	0.0
750.12	49.61	7.856e+04	668.40	2400.24	1520.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.85	38.31	7.860e+04	517.01	2348.63	1507.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.71	42.44	7.864e+04	572.91	597.59	1518.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
735.56	1217.02	7.986e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
734.57	1224.21	8.108e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
732.93	21.78	8.111e+04	300.38	2591.38	1567.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
727.99	53.79	8.116e+04	746.75	435.65	1588.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
723.60	41.26	8.120e+04	576.28	2517.11	1549.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
721.24	35.64	8.124e+04	499.50	2451.59	1533.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
720.64	19.86	8.126e+04	278.49	317.59	1639.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
705.16	64.58	8.132e+04	925.68	520.73	1551.62	0.0	0.0	0.0	0.0	0.0	0.0	0.0
703.31	45.20	8.137e+04	649.58	388.75	1608.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699.34	41.29	8.141e+04	596.73	2481.15	1540.45	16.67	4.11	0.0	0.0	0.0	0.0	0.0
699.19	47.57	8.146e+04	687.71	587.92	1522.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
697.50	23.32	8.148e+04	337.87	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
695.69	36.16	8.152e+04	525.29	2348.76	1507.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
692.16	33.36	8.155e+04	487.20	2393.49	1518.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0
690.01	42.23	8.159e+04	618.50	2558.77	1559.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0
689.79	18.80	8.161e+04	275.53	276.26	1657.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0
685.08	19.75	8.163e+04	291.45	2433.21	1528.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
684.75	1132.95	8.276e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
683.43	1138.98	8.390e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
680.86	36.14	8.394e+04	536.53	2486.70	1541.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
679.04	36.73	8.397e+04	546.73	343.10	1628.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
670.18	60.74	8.404e+04	916.00	469.28	1573.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0
665.76	24.42	8.406e+04	370.80	2674.71	1588.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
658.93	21.89	8.408e+04	335.83	234.94	1675.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
652.56	41.08	8.412e+04	636.35	2598.48	1569.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
651.19	42.03	8.416e+04	652.33	411.28	1599.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.63	38.43	8.420e+04	597.96	542.68	1542.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.04	32.19	8.424e+04	501.32	299.15	1647.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.77	41.08	8.428e+04	642.92	595.64	1519.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.61	18.07	8.429e+04	282.93	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
644.00	39.11	8.433e+04	613.75	2520.69	1550.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
643.50	19.97	8.435e+04	313.65	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
642.70	35.13	8.439e+04	552.39	2351.17	1508.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
641.75	30.75	8.442e+04	484.24	2454.20	1533.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
640.40	33.64	8.445e+04	530.97	2402.28	1521.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
637.01	22.49	8.448e+04	356.89	504.40	1558.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0
635.83	29.56	8.450e+04	469.89	366.50	1618.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
633.94	1048.88	8.555e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
632.29	1053.75	8.661e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
632.18	27.01	8.663e+04	431.80	2716.37	1598.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
628.07	13.71	8.665e+04	220.61	193.61	1693.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
623.03	16.76	8.667e+04	271.86	326.92	1635.68	0.0	0.0	0.0	0.0	0.0	0.0	0.0
613.59	33.32	8.670e+04	548.92	2560.37	1559.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
611.52	42.06	8.674e+04	695.13	2637.46	1578.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
602.84	49.73	8.679e+04	833.77	266.47	1661.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
599.98	38.25	8.683e+04	644.40	456.95	1579.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.60	21.98	8.685e+04	371.13	2758.03	1608.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.02	45.79	8.690e+04	773.98	2475.17	1538.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
597.21	23.65	8.692e+04	400.32	152.29	1711.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0
593.00	35.43	8.696e+04	603.95	410.49	1599.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
591.88	17.25	8.697e+04	294.49	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.82	34.76	8.701e+04	594.56	2353.91	1509.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.49	71.21	8.708e+04	1218.95	1502.62	1531.16	93.14	0.79	0.0	0.0	0.0	0.0	0.0
589.50	16.99	8.710e+04	291.31	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
588.81	34.89	8.713e+04	598.98	599.35	1517.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
587.44	32.33	8.716e+04	556.31	211.33	1685.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.65	30.90	8.719e+04	532.34	500.94	1560.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.41	29.57	8.722e+04	509.65	362.01	1620.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
585.27	28.10	8.725e+04	485.34	315.93	1640.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
583.13	964.81	8.822e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
581.14	968.51	8.918e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
577.75	28.09	8.921e+04	491.47	2593.03	1568.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
577.61	27.09	8.924e+04	474.01	2521.03	1550.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
566.36	8.71	8.925e+04	155.41	110.96	1729.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
565.02	21.21	8.927e+04	379.39	2799.70	1619.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
563.13	54.61	8.932e+04	980.10	2670.17	1587.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
556.18	14.51	8.934e+04	263.70	2556.89	1559.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
545.99	34.81	8.937e+04	644.35	2723.32	1600.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.23	32.85	8.941e+04	616.81	2406.89	1522.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.15	46.84	8.945e+04	879.71	2334.75	1504.35	2.61	0.64	0.0	0.0	0.0	0.0	0.0
537.91	32.95	8.949e+04	619.04	2462.58	1535.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.89	30.16	8.952e+04	568.88	2610.45	1572.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.50	346.36	8.986e+04	6537.33	366.34	1618.58	28.93	12.55	0.0	0.0	0.0	0.0	0.0
532.31	880.73	9.074e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
531.43	15.44	9.076e+04	293.71	2841.36	1629.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
530.00	883.28	9.164e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
528.62	25.56	9.167e+04	488.62	2513.56	1548.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
516.99	21.01	9.169e+04	410.83	2557.66	1559.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500.90	40.67	9.173e+04	820.70	2764.15	1610.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
497.85	9.99	9.174e+04	202.73	2883.02	1639.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
494.01	32.26	9.177e+04	660.00	2665.45	1585.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0
489.25	27.12	9.180e+04	560.31	2711.68	1597.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0
486.04	26.22	9.183e+04	545.25	2810.60	1621.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0
485.80	27.96	9.185e+04	581.74	2612.81	1572.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
484.42	13.71	9.187e+04	286.15	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.32	336.88	9.220e+04	7030.21	530.92	1614.61	119.31	12.55	0.0	0.0	0.0	0.0	0.0
483.98	27.34	9.223e+04	570.85	2351.44	1508.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
483.50	27.78	9.226e+04	580.82	2402.29	1521.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0
481.50	796.66	9.306e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
479.86	24.56	9.308e+04	517.27	2507.61	1546.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
478.86	798.05	9.388e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
477.66	22.79	9.390e+04	482.32	2559.05	1559.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
469.30	16.66	9.392e+04	358.78	2857.17	1633.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
464.27	6.13	9.392e+04	133.42	2924.69	1649.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
454.75	7.36	9.393e+04	163.59	2898.98	1643.48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
433.17	276.58	9.421e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
430.69	1009.26	9.522e+04	2.368e+04	1811.85	1518.67	-115.76	8.25	2265.62	1500.32	0.074	0.767	0.371
427.71	712.81	9.593e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
382.00	243.91	9.617e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
379.88	890.76	9.706e+04	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
376.57	627.58	9.769e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
330.83	211.24	9.790e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
329.06	771.61	9.867e+04	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
325.43	542.35	9.922e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
279.67	178.57	9.940e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
278.25	652.46	1.000e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
274.29	457.11	1.005e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
228.50	145.90	1.007e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
227.44	533.31	1.012e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
223.14	371.74	1.016e+05	1.684e+04	1156.49	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
177.33	113.23	1.017e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
176.63	414.16	1.021e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
172.00	353.24	1.024e+05	2.076e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
126.17	80.61	1.025e+05	6457.71	359.09	1621.72	28.93	12.55	0.0	0.0	0.0	0.0	0.0
125.81	295.06	1.028e+05	2.370e+04	1815.28	1519.40	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
97.00	118.44	1.029e+05	1.234e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
75.00	277.30	1.032e+05	3.737e+04	1504.43	1541.16	144.84	12.61	1187.20	1505.58	0.154	0.305	0.275
Risulta	1.032e+05		1.491e+06									

CDC	Tipo	Sigla Id	Note
6	Esk	CDC=Es (statico SLD) alfa=90.00 (ecc. R)	
			categoria suolo: E
			fattore di sito S = 1.600
			ordinata spettro (tratto Tb-Tc) = 0.085 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: rapida
			periodo proprio T1: 0.412 sec.
			coefficiente Lambda: 0.850
			ordinata spettro Se(T1): 0.081

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	daN	daN	cm	cm	cm	cm	cm	cm			
968.00	9.65	9.65	100.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
967.50	10.22	19.86	106.73	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
936.64	17.79	37.66	192.01	606.87	1514.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
934.42	16.63	54.29	179.88	2341.40	1505.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
928.00	6.941e+04	6.947e+04	7.560e+05	1265.89	631.01	-103.12	-86.76	1315.38	835.00	0.848	0.004	0.309
914.27	16.19	6.948e+04	178.95	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
913.50	17.29	6.950e+04	191.26	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
905.79	25.32	6.952e+04	282.53	565.54	1532.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
903.39	22.04	6.955e+04	246.55	617.06	1509.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0
902.68	20.46	6.957e+04	229.11	2330.80	1503.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
900.84	23.47	6.959e+04	263.29	2383.06	1516.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
888.00	2631.60	7.222e+04	2.995e+04	1314.72	833.55	-98.13	-66.00	1315.38	835.00	0.967	4.8263e-05	0.002
874.93	24.03	7.225e+04	277.60	524.22	1550.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
867.25	21.93	7.227e+04	255.57	2424.73	1526.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.54	22.31	7.229e+04	262.02	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
860.12	59.25	7.235e+04	696.23	596.25	1518.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.50	23.88	7.237e+04	280.76	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859.23	55.37	7.243e+04	651.28	2351.18	1508.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0
844.07	25.66	7.245e+04	307.21	482.89	1568.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
837.19	1385.16	7.384e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
836.86	1394.68	7.523e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
834.07	43.88	7.528e+04	531.78	547.74	1539.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
833.67	23.18	7.530e+04	280.98	2466.39	1536.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
830.32	40.18	7.534e+04	489.14	2400.04	1520.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
813.21	28.45	7.537e+04	353.54	441.57	1585.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0
806.81	19.95	7.539e+04	249.94	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
805.50	21.37	7.541e+04	268.11	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
800.09	63.07	7.547e+04	796.74	1278.97	1526.40	95.15	1.60	0.0	0.0	0.0	0.0	0.0
799.09	37.37	7.551e+04	472.69	2342.78	1506.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
796.18	24.91	7.554e+04	316.19	565.99	1531.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
795.64	47.50	7.558e+04	603.46	509.59	1556.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
792.97	22.60	7.561e+04	288.05	2380.00	1515.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
791.57	43.45	7.565e+04	554.83	2435.02	1529.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
786.38	1301.09	7.695e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
785.71	1309.44	7.826e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
782.36	27.75	7.829e+04	358.52	400.24	1603.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
766.51	22.30	7.831e+04	294.03	2549.72	1557.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
759.20	41.08	7.835e+04	546.96	2478.13	1539.71	0.0	0.0	0.0	0.0	0.0	0.0	0.0
758.22	54.18	7.841e+04	722.26	476.24	1570.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
753.07	19.65	7.843e+04	263.73	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
752.77	41.95	7.847e+04	563.28	544.27	1541.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
751.50	45.58	7.851e+04	612.99	497.64	1561.63	14.46	6.27	0.0	0.0	0.0	0.0	0.0
750.12	49.61	7.856e+04	668.40	2400.24	1520.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.85	38.31	7.860e+04	517.01	2348.63	1507.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0
748.71	42.44	7.864e+04	572.91	597.59	1518.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
735.56	1217.02	7.986e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
734.57	1224.21	8.108e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
732.93	21.78	8.111e+04	300.38	2591.38	1567.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
727.99	53.79	8.116e+04	746.75	435.65	1588.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
723.60	41.26	8.120e+04	576.28	2517.11	1549.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
721.24	35.64	8.124e+04	499.50	2451.59	1533.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
720.64	19.86	8.126e+04	278.49	317.59	1639.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
705.16	64.58	8.132e+04	925.68	520.73	1551.62	0.0	0.0	0.0	0.0	0.0	0.0	0.0
703.31	45.20	8.137e+04	649.58	388.75	1608.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0
699.34	41.29	8.141e+04	596.73	2481.15	1540.45	16.67	4.11	0.0	0.0	0.0	0.0	0.0
699.19	47.57	8.146e+04	687.71	587.92	1522.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
697.50	23.32	8.148e+04	337.87	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
695.69	36.16	8.152e+04	525.29	2348.76	1507.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
692.16	33.36	8.155e+04	487.20	2393.49	1518.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0
690.01	42.23	8.159e+04	618.50	2558.77	1559.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0
689.79	18.80	8.161e+04	275.53	276.26	1657.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0
685.08	19.75	8.163e+04	291.45	2433.21	1528.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
684.75	1132.95	8.276e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
683.43	1138.98	8.390e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
680.86	36.14	8.394e+04	536.53	2486.70	1541.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
679.04	36.73	8.397e+04	546.73	343.10	1628.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
670.18	60.74	8.404e+04	916.00	469.28	1573.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0
665.76	24.42	8.406e+04	370.80	2674.71	1588.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
658.93	21.89	8.408e+04	335.83	234.94	1675.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
652.56	41.08	8.412e+04	636.35	2598.48	1569.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
651.19	42.03	8.416e+04	652.33	411.28	1599.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.63	38.43	8.420e+04	597.96	542.68	1542.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649.04	32.19	8.424e+04	501.32	299.15	1647.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.77	41.08	8.428e+04	642.92	595.64	1519.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645.61	18.07	8.429e+04	282.93	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
644.00	39.11	8.433e+04	613.75	2520.69	1550.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
643.50	19.97	8.435e+04	313.65	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
642.70	35.13	8.439e+04	552.39	2351.17	1508.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
641.75	30.75	8.442e+04	484.24	2454.20	1533.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
640.40	33.64	8.445e+04	530.97	2402.28	1521.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
637.01	22.49	8.448e+04	356.89	504.40	1558.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0
635.83	29.56	8.450e+04	469.89	366.50	1618.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
633.94	1048.88	8.555e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
632.29	1053.75	8.661e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
632.18	27.01	8.663e+04	431.80	2716.37	1598.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
628.07	13.71	8.665e+04	220.61	193.61	1693.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
623.03	16.76	8.667e+04	271.86	326.92	1635.68	0.0	0.0	0.0	0.0	0.0	0.0	0.0
613.59	33.32	8.670e+04	548.92	2560.37	1559.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
611.52	42.06	8.674e+04	695.13	2637.46	1578.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
602.84	49.73	8.679e+04	833.77	266.47	1661.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
599.98	38.25	8.683e+04	644.40	456.95	1579.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.60	21.98	8.685e+04	371.13	2758.03	1608.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
598.02	45.79	8.690e+04	773.98	2475.17	1538.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Quota	Forza Sismica	Tot. parziale	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
597.21	23.65	8.692e+04	400.32	152.29	1711.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0
593.00	35.43	8.696e+04	603.95	410.49	1599.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
591.88	17.25	8.697e+04	294.49	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.82	34.76	8.701e+04	594.56	2353.91	1509.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
590.49	71.21	8.708e+04	1218.95	1502.62	1531.16	93.14	0.79	0.0	0.0	0.0	0.0	0.0
589.50	16.99	8.710e+04	291.31	648.20	1496.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
588.81	34.89	8.713e+04	598.98	599.35	1517.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0
587.44	32.33	8.716e+04	556.31	211.33	1685.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.65	30.90	8.719e+04	532.34	500.94	1560.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.41	29.57	8.722e+04	509.65	362.01	1620.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
585.27	28.10	8.725e+04	485.34	315.93	1640.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
583.13	964.81	8.822e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
581.14	968.51	8.918e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
577.75	28.09	8.921e+04	491.47	2593.03	1568.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
577.61	27.09	8.924e+04	474.01	2521.03	1550.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
566.36	8.71	8.925e+04	155.41	110.96	1729.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
565.02	21.21	8.927e+04	379.39	2799.70	1619.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
563.13	54.61	8.932e+04	980.10	2670.17	1587.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
556.18	14.51	8.934e+04	263.70	2556.89	1559.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
545.99	34.81	8.937e+04	644.35	2723.32	1600.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.23	32.85	8.941e+04	616.81	2406.89	1522.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538.15	46.84	8.945e+04	879.71	2334.75	1504.35	2.61	0.64	0.0	0.0	0.0	0.0	0.0
537.91	32.95	8.949e+04	619.04	2462.58	1535.87	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.89	30.16	8.952e+04	568.88	2610.45	1572.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535.50	346.36	8.986e+04	6537.33	366.34	1618.58	28.93	12.55	0.0	0.0	0.0	0.0	0.0
532.31	880.73	9.074e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
531.43	15.44	9.076e+04	293.71	2841.36	1629.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
530.00	883.28	9.164e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
528.62	25.56	9.167e+04	488.62	2513.56	1548.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
516.99	21.01	9.169e+04	410.83	2557.66	1559.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500.90	40.67	9.173e+04	820.70	2764.15	1610.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
497.85	9.99	9.174e+04	202.73	2883.02	1639.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
494.01	32.26	9.177e+04	660.00	2665.45	1585.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0
489.25	27.12	9.180e+04	560.31	2711.68	1597.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0
486.04	26.22	9.183e+04	545.25	2810.60	1621.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0
485.80	27.96	9.185e+04	581.74	2612.81	1572.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.42	13.71	9.187e+04	286.15	2299.74	1495.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0
484.32	336.88	9.220e+04	7030.21	530.92	1614.61	119.31	12.55	0.0	0.0	0.0	0.0	0.0
483.98	27.34	9.223e+04	570.85	2351.44	1508.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
483.50	27.78	9.226e+04	580.82	2402.29	1521.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0
481.50	796.66	9.306e+04	1.672e+04	1473.96	1495.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
479.86	24.56	9.308e+04	517.27	2507.61	1546.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0
478.86	798.05	9.388e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
477.66	22.79	9.390e+04	482.32	2559.05	1559.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0
469.30	16.66	9.392e+04	358.78	2857.17	1633.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
464.27	6.13	9.392e+04	133.42	2924.69	1649.82	0.0	0.0	0.0	0.0	0.0	0.0	0.0
454.75	7.36	9.393e+04	163.59	2898.98	1643.48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
433.17	276.58	9.421e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
430.69	1009.26	9.522e+04	2.368e+04	1811.85	1518.67	-115.76	8.25	2265.62	1500.32	0.074	0.767	0.371
427.71	712.81	9.593e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
382.00	243.91	9.617e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
379.88	890.76	9.706e+04	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
376.57	627.58	9.769e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
330.83	211.24	9.790e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
329.06	771.61	9.867e+04	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
325.43	542.35	9.922e+04	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
279.67	178.57	9.940e+04	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
278.25	652.46	1.000e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
274.29	457.11	1.005e+05	1.684e+04	1156.18	175.00	-82.28	0.0	1156.80	175.00	2.9010e-04	0.217	0.0
228.50	145.90	1.007e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
227.44	533.31	1.012e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
223.14	371.74	1.016e+05	1.684e+04	1156.49	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
177.33	113.23	1.017e+05	6453.52	358.92	1621.80	28.93	12.55	0.0	0.0	0.0	0.0	0.0
176.63	414.16	1.021e+05	2.370e+04	1815.20	1519.41	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
172.00	353.24	1.024e+05	2.076e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
126.17	80.61	1.025e+05	6457.71	359.09	1621.72	28.93	12.55	0.0	0.0	0.0	0.0	0.0
125.81	295.06	1.028e+05	2.370e+04	1815.28	1519.40	-115.76	8.25	2265.62	1500.32	0.074	0.761	0.386
97.00	118.44	1.029e+05	1.234e+04	1156.80	175.00	82.28	0.0	0.0	0.0	0.0	0.0	0.0
75.00	277.30	1.032e+05	3.737e+04	1504.43	1541.16	144.84	12.61	1187.20	1505.58	0.154	0.305	0.275
Risulta	1.032e+05		1.491e+06									

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
			cm	cm			cm	cm			cm	cm
231	35	3.18	0.16	51.1	36	3.18	0.16	51.1	37	3.16	0.16	51.1
	38	3.10	0.16	51.1	39	3.02	0.15	51.1	40	2.91	0.15	51.1
	41	2.78	0.14	51.1	42	2.62	0.13	51.1	43	2.43	0.12	51.1
	44	2.22	0.11	51.1	45	1.99	0.10	51.1	46	1.73	0.09	51.1
	47	1.46	0.07	51.1	48	1.36	0.05	40.0				
232	35	2.76	0.14	51.1	36	2.76	0.14	51.1	37	2.74	0.14	51.1
	38	2.69	0.14	51.1	39	2.62	0.13	51.1	40	2.53	0.13	51.1
	41	2.41	0.12	51.1	42	2.28	0.12	51.1	43	2.12	0.11	51.1
	44	1.94	0.10	51.1	45	1.73	0.09	51.1	46	1.51	0.08	51.1
	47	1.28	0.07	51.1	48	1.19	0.05	40.0				
233	35	3.85	0.20	51.1	36	3.85	0.20	51.1	37	3.82	0.20	51.1
	38	3.75	0.19	51.1	39	3.65	0.19	51.1	40	3.52	0.18	51.1
	41	3.35	0.17	51.1	42	3.16	0.16	51.1	43	2.94	0.15	51.1
	44	2.68	0.14	51.1	45	2.40	0.12	51.1	46	2.09	0.11	51.1
	47	1.76	0.09	51.1	48	1.65	0.07	40.0				
234	35	2.94	0.15	51.1	36	2.90	0.15	51.1	37	2.84	0.15	51.1
	38	2.76	0.14	51.1	39	2.66	0.14	51.1	40	2.55	0.13	51.1
	41	2.41	0.12	51.1	42	2.26	0.12	51.1	43	2.09	0.11	51.1
	44	1.91	0.10	51.1	45	1.70	0.09	51.1	46	1.49	0.08	51.1
	47	1.27	0.06	51.1	48	1.21	0.05	40.0				
235	35	2.52	0.13	51.1	36	2.48	0.13	51.1	37	2.42	0.12	51.1
	38	2.35	0.12	51.1	39	2.27	0.12	51.1	40	2.17	0.11	51.1
	41	2.06	0.11	51.1	42	1.93	0.10	51.1	43	1.79	0.09	51.1
	44	1.63	0.08	51.1	45	1.46	0.07	51.1	46	1.28	0.07	51.1
	47	1.10	0.06	51.1	48	1.06	0.04	40.0				
236	35	3.60	0.18	51.1	36	3.56	0.18	51.1	37	3.49	0.18	51.1
	38	3.40	0.17	51.1	39	3.29	0.17	51.1	40	3.15	0.16	51.1
	41	2.98	0.15	51.1	42	2.80	0.14	51.1	43	2.59	0.13	51.1
	44	2.36	0.12	51.1	45	2.11	0.11	51.1	46	1.84	0.09	51.1
	47	1.56	0.08	51.1	48	1.49	0.06	40.0				
237	35	1.63	0.08	51.1	36	1.61	0.08	51.1	37	1.58	0.08	51.1
	38	1.54	0.08	51.1	39	1.49	0.08	51.1	40	1.43	0.07	51.1
	41	1.36	0.07	51.1	42	1.28	0.07	51.1	43	1.19	0.06	51.1
	44	1.09	0.06	51.1	45	0.98	0.05	51.1	46	0.86	0.04	51.1
	47	0.73	0.04	51.1	48	0.69	0.03	40.0				
238	35	1.66	0.09	51.1	36	1.65	0.08	51.1	37	1.63	0.08	51.1
	38	1.59	0.08	51.1	39	1.55	0.08	51.1	40	1.49	0.08	51.1
	41	1.42	0.07	51.1	42	1.34	0.07	51.1	43	1.24	0.06	51.1
	44	1.14	0.06	51.1	45	1.02	0.05	51.1	46	0.89	0.05	51.1
	47	0.76	0.04	51.1	48	0.71	0.03	40.0				
239	35	1.60	0.08	51.1	36	1.57	0.08	51.1	37	1.54	0.08	51.1
	38	1.50	0.08	51.1	39	1.45	0.07	51.1	40	1.39	0.07	51.1
	41	1.32	0.07	51.1	42	1.24	0.06	51.1	43	1.15	0.06	51.1
	44	1.05	0.05	51.1	45	0.95	0.05	51.1	46	0.84	0.04	51.1
	47	0.72	0.04	51.1	48	0.69	0.03	40.0				
240	35	5.27	0.27	51.1	36	5.25	0.27	51.1	37	5.18	0.27	51.1
	38	5.08	0.26	51.1	39	4.92	0.25	51.1	40	4.73	0.24	51.1
	41	4.50	0.23	51.1	42	4.23	0.22	51.1	43	3.92	0.20	51.1
	44	3.58	0.18	51.1	45	3.20	0.16	51.1	46	2.78	0.14	51.1
	47	2.35	0.12	51.1	48	2.21	0.09	40.0				
241	35	5.31	0.27	51.1	36	5.30	0.27	51.1	37	5.24	0.27	51.1
	38	5.13	0.26	51.1	39	4.98	0.25	51.1	40	4.79	0.24	51.1
	41	4.56	0.23	51.1	42	4.29	0.22	51.1	43	3.98	0.20	51.1
	44	3.63	0.19	51.1	45	3.24	0.17	51.1	46	2.82	0.14	51.1
	47	2.38	0.12	51.1	48	2.24	0.09	40.0				
242	35	5.24	0.27	51.1	36	5.21	0.27	51.1	37	5.14	0.26	51.1
	38	5.02	0.26	51.1	39	4.87	0.25	51.1	40	4.68	0.24	51.1
	41	4.45	0.23	51.1	42	4.18	0.21	51.1	43	3.87	0.20	51.1
	44	3.53	0.18	51.1	45	3.15	0.16	51.1	46	2.75	0.14	51.1
	47	2.32	0.12	51.1	48	2.19	0.09	40.0				
243	35	3.05	0.16	51.1	36	3.05	0.16	51.1	37	3.02	0.15	51.1
	38	2.97	0.15	51.1	39	2.89	0.15	51.1	40	2.78	0.14	51.1
	41	2.65	0.14	51.1	42	2.49	0.13	51.1	43	2.31	0.12	51.1
	44	2.10	0.11	51.1	45	1.87	0.10	51.1	46	1.62	0.08	51.1
	47	1.36	0.07	51.1	48	1.27	0.05	40.0				
244	35	2.62	0.13	51.1	36	2.62	0.13	51.1	37	2.60	0.13	51.1
	38	2.55	0.13	51.1	39	2.49	0.13	51.1	40	2.40	0.12	51.1
	41	2.28	0.12	51.1	42	2.15	0.11	51.1	43	1.99	0.10	51.1
	44	1.82	0.09	51.1	45	1.62	0.08	51.1	46	1.41	0.07	51.1
	47	1.18	0.06	51.1	48	1.10	0.04	40.0				
245	35	3.72	0.19	51.1	36	3.72	0.19	51.1	37	3.68	0.19	51.1
	38	3.61	0.18	51.1	39	3.51	0.18	51.1	40	3.38	0.17	51.1

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
	41	3.22	0.16	51.1	42	3.03	0.16	51.1	43	2.81	0.14	51.1
	44	2.56	0.13	51.1	45	2.29	0.12	51.1	46	1.98	0.10	51.1
	47	1.66	0.09	51.1	48	1.55	0.06	40.0				
246	35	2.80	0.14	51.1	36	2.76	0.14	51.1	37	2.70	0.14	51.1
	38	2.62	0.13	51.1	39	2.52	0.13	51.1	40	2.41	0.12	51.1
	41	2.28	0.12	51.1	42	2.13	0.11	51.1	43	1.97	0.10	51.1
	44	1.78	0.09	51.1	45	1.59	0.08	51.1	46	1.38	0.07	51.1
	47	1.17	0.06	51.1	48	1.11	0.04	40.0				
247	35	2.38	0.12	51.1	36	2.34	0.12	51.1	37	2.28	0.12	51.1
	38	2.21	0.11	51.1	39	2.13	0.11	51.1	40	2.03	0.10	51.1
	41	1.92	0.10	51.1	42	1.80	0.09	51.1	43	1.66	0.08	51.1
	44	1.51	0.08	51.1	45	1.35	0.07	51.1	46	1.18	0.06	51.1
	47	1.00	0.05	51.1	48	0.96	0.04	40.0				
248	35	3.46	0.18	51.1	36	3.42	0.17	51.1	37	3.35	0.17	51.1
	38	3.26	0.17	51.1	39	3.15	0.16	51.1	40	3.01	0.15	51.1
	41	2.85	0.15	51.1	42	2.67	0.14	51.1	43	2.46	0.13	51.1
	44	2.24	0.11	51.1	45	1.99	0.10	51.1	46	1.73	0.09	51.1
	47	1.46	0.07	51.1	48	1.39	0.06	40.0				
249	35	1.49	0.08	51.1	36	1.47	0.08	51.1	37	1.44	0.07	51.1
	38	1.40	0.07	51.1	39	1.36	0.07	51.1	40	1.30	0.07	51.1
	41	1.23	0.06	51.1	42	1.15	0.06	51.1	43	1.07	0.05	51.1
	44	0.97	0.05	51.1	45	0.86	0.04	51.1	46	0.75	0.04	51.1
	47	0.63	0.03	51.1	48	0.59	0.02	40.0				
250	35	1.53	0.08	51.1	36	1.51	0.08	51.1	37	1.49	0.08	51.1
	38	1.45	0.07	51.1	39	1.41	0.07	51.1	40	1.35	0.07	51.1
	41	1.28	0.07	51.1	42	1.21	0.06	51.1	43	1.12	0.06	51.1
	44	1.02	0.05	51.1	45	0.91	0.05	51.1	46	0.78	0.04	51.1
	47	0.66	0.03	51.1	48	0.62	0.02	40.0				
251	35	1.46	0.07	51.1	36	1.43	0.07	51.1	37	1.40	0.07	51.1
	38	1.36	0.07	51.1	39	1.31	0.07	51.1	40	1.25	0.06	51.1
	41	1.18	0.06	51.1	42	1.11	0.06	51.1	43	1.03	0.05	51.1
	44	0.93	0.05	51.1	45	0.83	0.04	51.1	46	0.73	0.04	51.1
	47	0.62	0.03	51.1	48	0.59	0.02	40.0				
252	35	5.14	0.26	51.1	36	5.11	0.26	51.1	37	5.05	0.26	51.1
	38	4.94	0.25	51.1	39	4.79	0.24	51.1	40	4.60	0.24	51.1
	41	4.37	0.22	51.1	42	4.10	0.21	51.1	43	3.80	0.19	51.1
	44	3.46	0.18	51.1	45	3.08	0.16	51.1	46	2.68	0.14	51.1
	47	2.25	0.12	51.1	48	2.11	0.08	40.0				
253	35	5.18	0.26	51.1	36	5.16	0.26	51.1	37	5.10	0.26	51.1
	38	4.99	0.26	51.1	39	4.84	0.25	51.1	40	4.66	0.24	51.1
	41	4.43	0.23	51.1	42	4.16	0.21	51.1	43	3.85	0.20	51.1
	44	3.51	0.18	51.1	45	3.13	0.16	51.1	46	2.72	0.14	51.1
	47	2.28	0.12	51.1	48	2.14	0.09	40.0				
254	35	5.10	0.26	51.1	36	5.07	0.26	51.1	37	5.00	0.26	51.1
	38	4.88	0.25	51.1	39	4.73	0.24	51.1	40	4.54	0.23	51.1
	41	4.31	0.22	51.1	42	4.05	0.21	51.1	43	3.75	0.19	51.1
	44	3.41	0.17	51.1	45	3.04	0.16	51.1	46	2.64	0.13	51.1
	47	2.22	0.11	51.1	48	2.09	0.08	40.0				
255	35	3.24	0.17	51.1	36	3.24	0.17	51.1	37	3.22	0.16	51.1
	38	3.16	0.16	51.1	39	3.08	0.16	51.1	40	2.97	0.15	51.1
	41	2.84	0.15	51.1	42	2.67	0.14	51.1	43	2.49	0.13	51.1
	44	2.27	0.12	51.1	45	2.04	0.10	51.1	46	1.78	0.09	51.1
	47	1.50	0.08	51.1	48	1.40	0.06	40.0				
256	35	2.82	0.14	51.1	36	2.82	0.14	51.1	37	2.80	0.14	51.1
	38	2.75	0.14	51.1	39	2.68	0.14	51.1	40	2.59	0.13	51.1
	41	2.47	0.13	51.1	42	2.33	0.12	51.1	43	2.17	0.11	51.1
	44	1.99	0.10	51.1	45	1.78	0.09	51.1	46	1.56	0.08	51.1
	47	1.32	0.07	51.1	48	1.23	0.05	40.0				
257	35	3.91	0.20	51.1	36	3.91	0.20	51.1	37	3.88	0.20	51.1
	38	3.81	0.19	51.1	39	3.71	0.19	51.1	40	3.58	0.18	51.1
	41	3.41	0.17	51.1	42	3.22	0.16	51.1	43	2.99	0.15	51.1
	44	2.73	0.14	51.1	45	2.45	0.13	51.1	46	2.14	0.11	51.1
	47	1.80	0.09	51.1	48	1.69	0.07	40.0				
258	35	3.00	0.15	51.1	36	2.96	0.15	51.1	37	2.90	0.15	51.1
	38	2.82	0.14	51.1	39	2.72	0.14	51.1	40	2.61	0.13	51.1
	41	2.47	0.13	51.1	42	2.32	0.12	51.1	43	2.15	0.11	51.1
	44	1.96	0.10	51.1	45	1.76	0.09	51.1	46	1.54	0.08	51.1
	47	1.31	0.07	51.1	48	1.25	0.05	40.0				
259	35	2.58	0.13	51.1	36	2.54	0.13	51.1	37	2.48	0.13	51.1
	38	2.42	0.12	51.1	39	2.33	0.12	51.1	40	2.23	0.11	51.1
	41	2.12	0.11	51.1	42	1.99	0.10	51.1	43	1.84	0.09	51.1
	44	1.68	0.09	51.1	45	1.51	0.08	51.1	46	1.33	0.07	51.1
	47	1.15	0.06	51.1	48	1.10	0.04	40.0				

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
260	35	3.66	0.19	51.1	36	3.62	0.19	51.1	37	3.55	0.18	51.1
	38	3.46	0.18	51.1	39	3.35	0.17	51.1	40	3.21	0.16	51.1
	41	3.04	0.16	51.1	42	2.86	0.15	51.1	43	2.65	0.14	51.1
	44	2.41	0.12	51.1	45	2.16	0.11	51.1	46	1.89	0.10	51.1
	47	1.61	0.08	51.1	48	1.53	0.06	40.0				
261	35	1.69	0.09	51.1	36	1.67	0.09	51.1	37	1.64	0.08	51.1
	38	1.60	0.08	51.1	39	1.56	0.08	51.1	40	1.50	0.08	51.1
	41	1.42	0.07	51.1	42	1.34	0.07	51.1	43	1.25	0.06	51.1
	44	1.15	0.06	51.1	45	1.03	0.05	51.1	46	0.91	0.05	51.1
	47	0.78	0.04	51.1	48	0.74	0.03	40.0				
262	35	1.72	0.09	51.1	36	1.71	0.09	51.1	37	1.69	0.09	51.1
	38	1.65	0.08	51.1	39	1.61	0.08	51.1	40	1.55	0.08	51.1
	41	1.48	0.08	51.1	42	1.39	0.07	51.1	43	1.30	0.07	51.1
	44	1.19	0.06	51.1	45	1.07	0.05	51.1	46	0.94	0.05	51.1
	47	0.80	0.04	51.1	48	0.76	0.03	40.0				
263	35	1.66	0.08	51.1	36	1.64	0.08	51.1	37	1.60	0.08	51.1
	38	1.56	0.08	51.1	39	1.51	0.08	51.1	40	1.45	0.07	51.1
	41	1.38	0.07	51.1	42	1.30	0.07	51.1	43	1.21	0.06	51.1
	44	1.11	0.06	51.1	45	1.00	0.05	51.1	46	0.88	0.05	51.1
	47	0.76	0.04	51.1	48	0.73	0.03	40.0				
264	35	5.34	0.27	51.1	36	5.31	0.27	51.1	37	5.25	0.27	51.1
	38	5.14	0.26	51.1	39	4.99	0.25	51.1	40	4.79	0.25	51.1
	41	4.56	0.23	51.1	42	4.29	0.22	51.1	43	3.98	0.20	51.1
	44	3.63	0.19	51.1	45	3.25	0.17	51.1	46	2.83	0.14	51.1
	47	2.39	0.12	51.1	48	2.26	0.09	40.0				
265	35	5.37	0.27	51.1	36	5.36	0.27	51.1	37	5.30	0.27	51.1
	38	5.19	0.27	51.1	39	5.04	0.26	51.1	40	4.85	0.25	51.1
	41	4.62	0.24	51.1	42	4.35	0.22	51.1	43	4.03	0.21	51.1
	44	3.68	0.19	51.1	45	3.29	0.17	51.1	46	2.87	0.15	51.1
	47	2.43	0.12	51.1	48	2.28	0.09	40.0				
266	35	5.30	0.27	51.1	36	5.27	0.27	51.1	37	5.20	0.27	51.1
	38	5.08	0.26	51.1	39	4.93	0.25	51.1	40	4.74	0.24	51.1
	41	4.51	0.23	51.1	42	4.24	0.22	51.1	43	3.93	0.20	51.1
	44	3.58	0.18	51.1	45	3.20	0.16	51.1	46	2.79	0.14	51.1
	47	2.37	0.12	51.1	48	2.23	0.09	40.0				
Cmb		**1000 etaT/h**										
		5.37										

12.11 verifica distanza tra costruzioni contigue

La distanza tra il nuovo impalcato e l'esistente (costruzioni contigue) deve essere tale da evitare fenomeni di martellamento e comunque non può essere inferiore alla somma degli spostamenti massimi determinati per lo SLV, calcolati per ciascuna costruzione secondo le NTC'08 paragrafo 7.3.3, considerando, comunque, che la norma impone un limite minimo alla distanza tra due punti che si fronteggiano pari ad 1/100 della quota dei punti considerati misurata dal piano di fondazione, moltiplicata per a_g*S/0,5g ≤ 1.

Lo spostamento massimo per l'impalcato esistente è stimato in 1/100 dell'altezza della costruzione moltiplicata per a_g*S/0,5g.

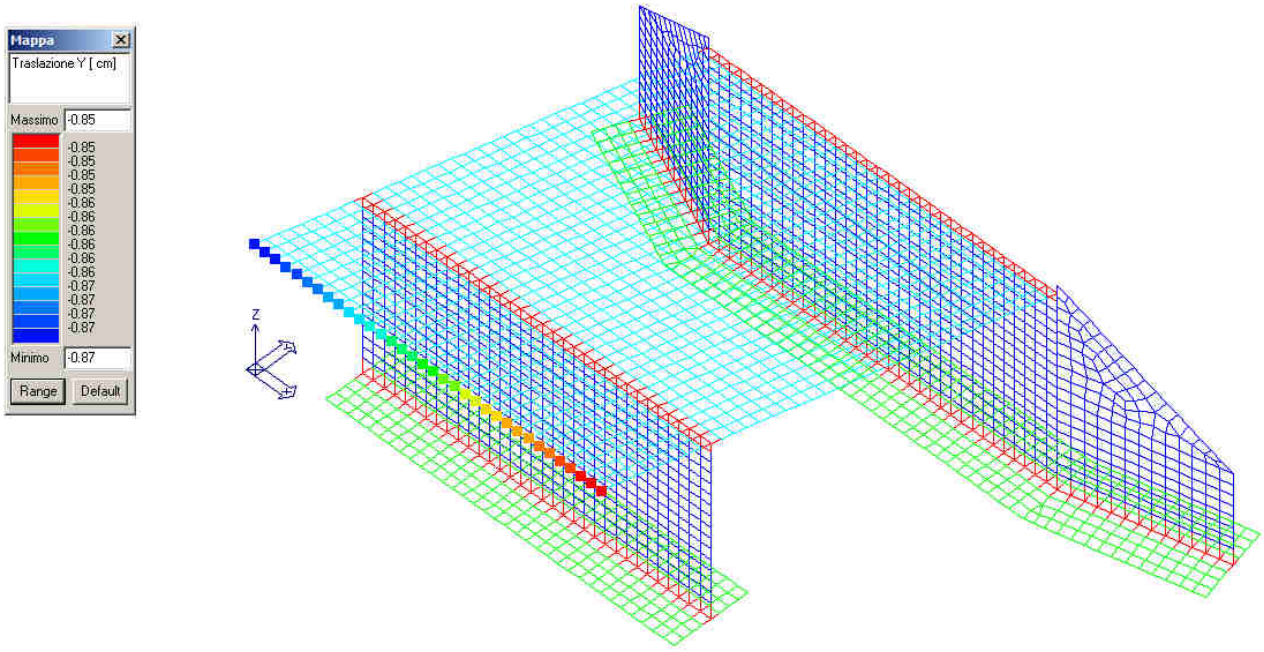
Nel caso in esame:

a_g*S/0,5g=0.04*1.6/0.5=0.128

$h_{impalcato\ esistente}$=10m

$u_{impalcato\ esistente}$= (1/100)*a_g*S/0,5g* $h_{impalcato\ esistente}$ =(1/100)*0.128*1000=1.28cm

per l'impalcato in progetto il massimo spostamento lungo l'asse Y (parallelo all'asse stradale e perpendicolare alla sponda impalcato che fronteggia l'esistente) si ha nella combinazione SLV 36:

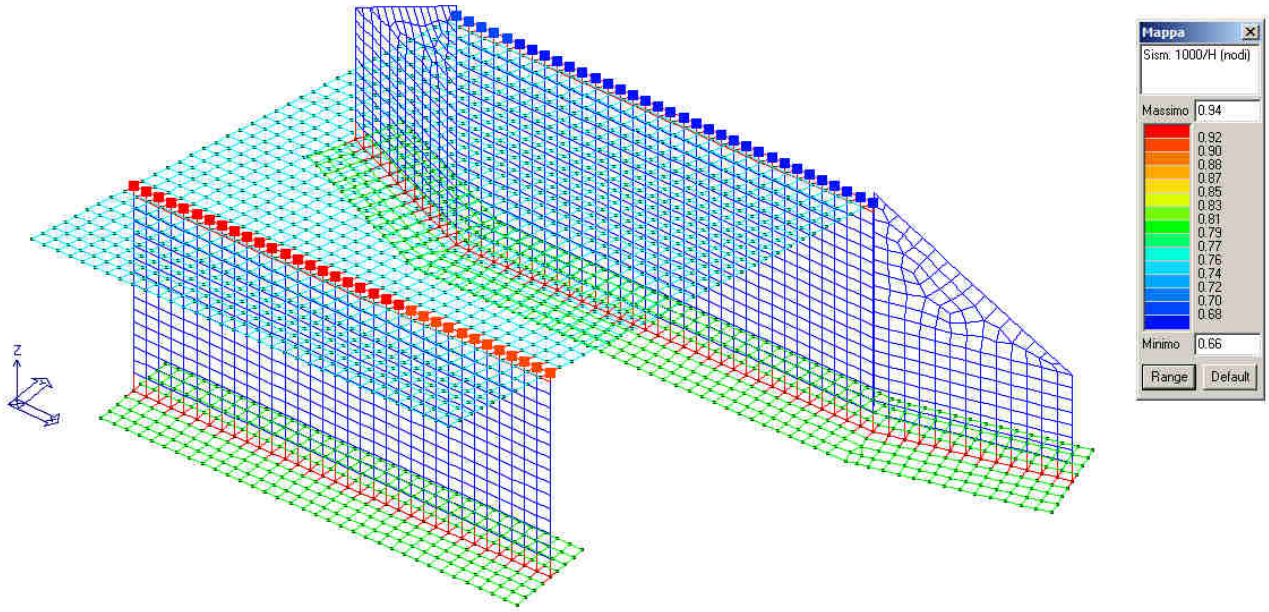


$u_{impalcato\ in\ progetto}$=0.87cm

Il giunto anti-martellamento a riposo sarà di 8cm > $u_{impalcato\ esistente}$ + $u_{impalcato\ in\ progetto}$ =1.28+0.85=2.13cm

12.12 Verifica spostamenti a SLD

Si riporta la rappresentazione, mediante mappa cromatica e legenda dei valori, degli spostamenti relativi massimi per la combinazione SLD 35 del setto e della spalla tra fondazione ed impalcato, espressi in modo indipendente dall'altezza. In altre parole, il valore riportato nella mappa cromatica è lo spostamento, moltiplicato per 1000 e diviso per l'altezza dell'elemento.

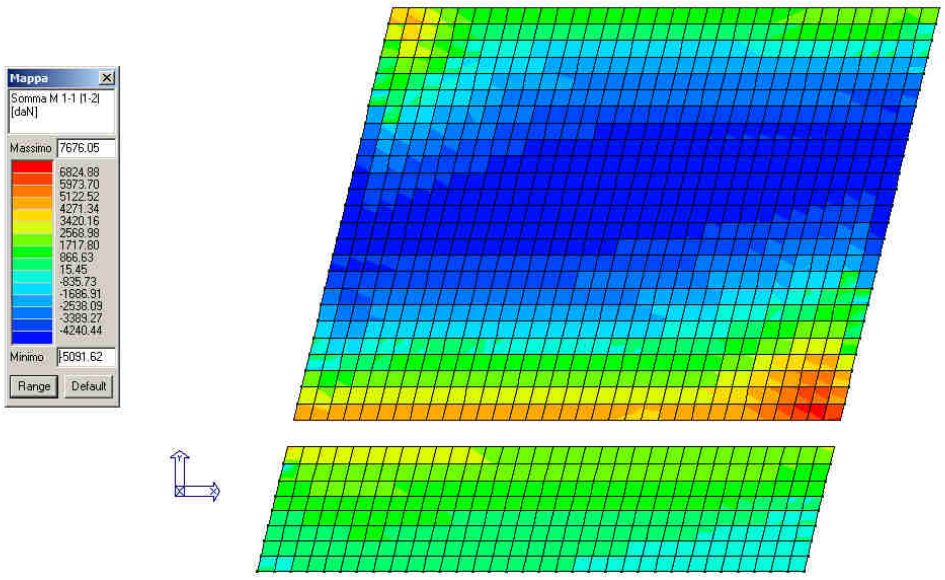


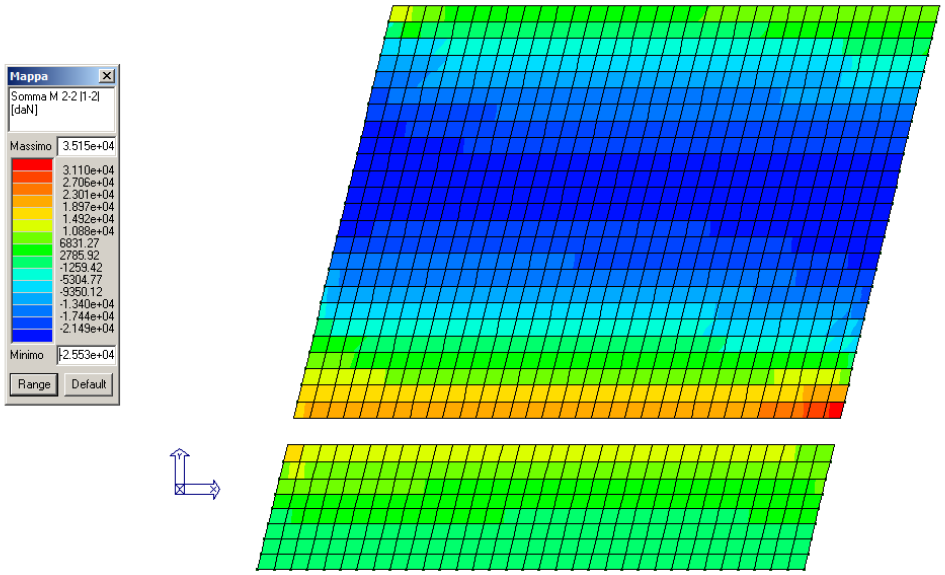
I massimi spostamenti relativi d_r/h risultano di molto inferiori alla soglia limite indicata dalle NTC '08 ($d_r/h<5/1000$).

12.13 Sollecitazioni impalcato

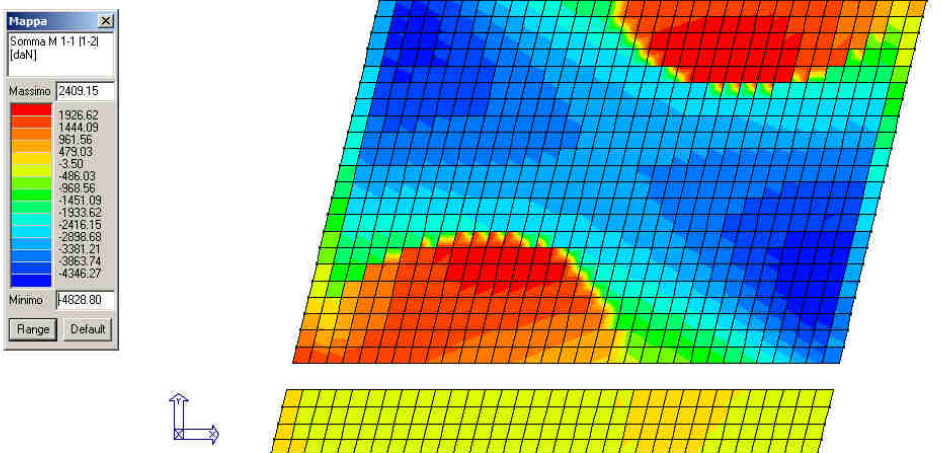
Si riportano le sollecitazioni flessionali per i casi di carico più significativi. M1-1(1-2) è la sollecitazione di flessione che tende le fibre in direzione X; M2-2(1-2) è la sollecitazione di flessione che tende le fibre in direzione Y.

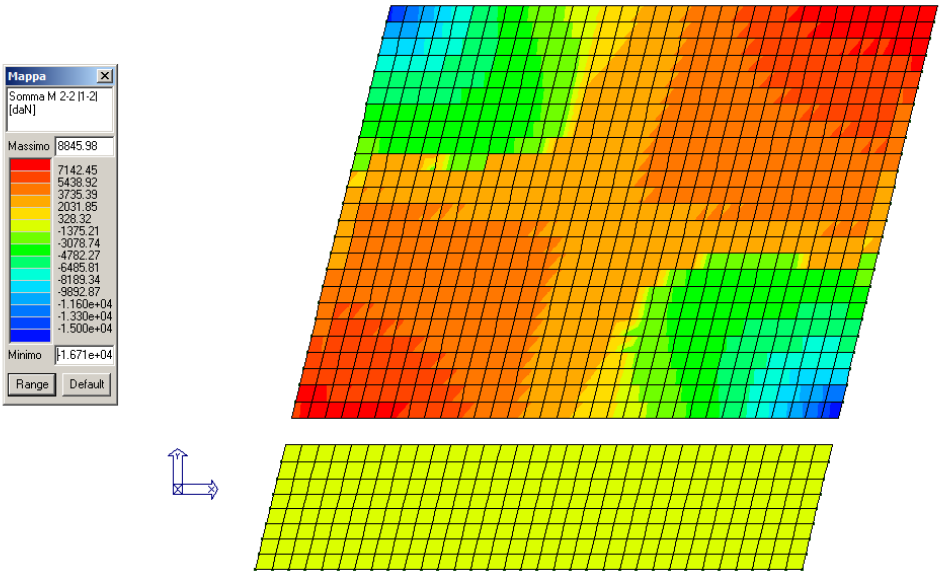
Peso proprio



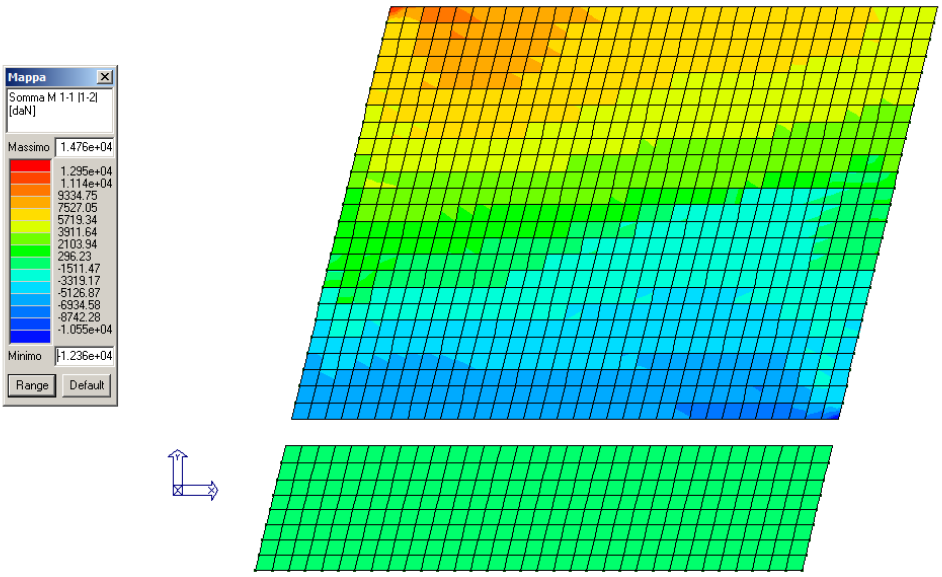


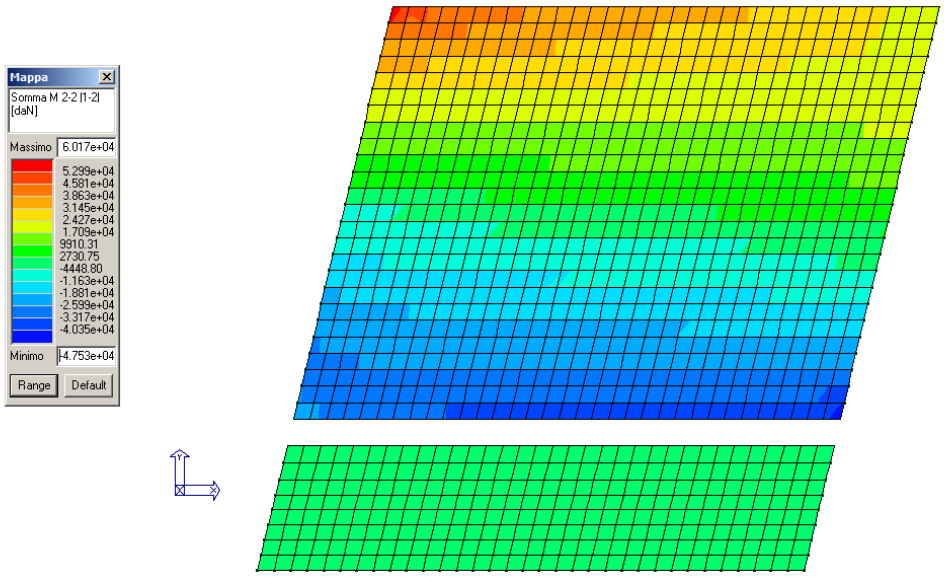
Sisma direzione 0°



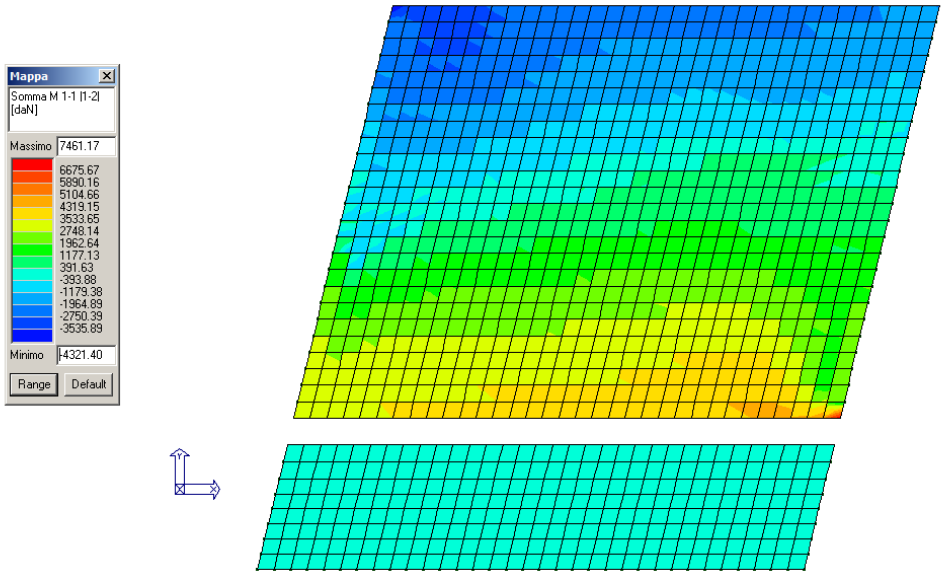


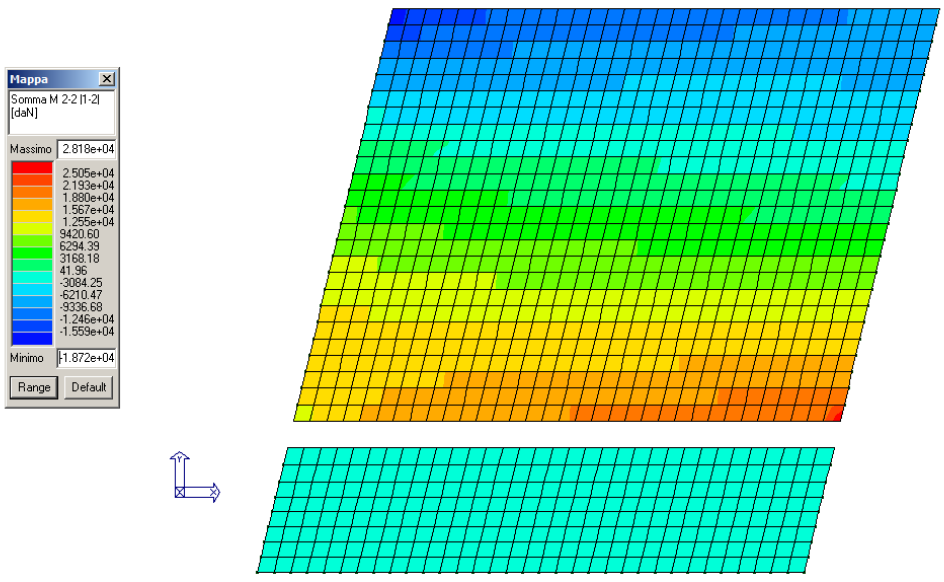
Sisma direzione 90°



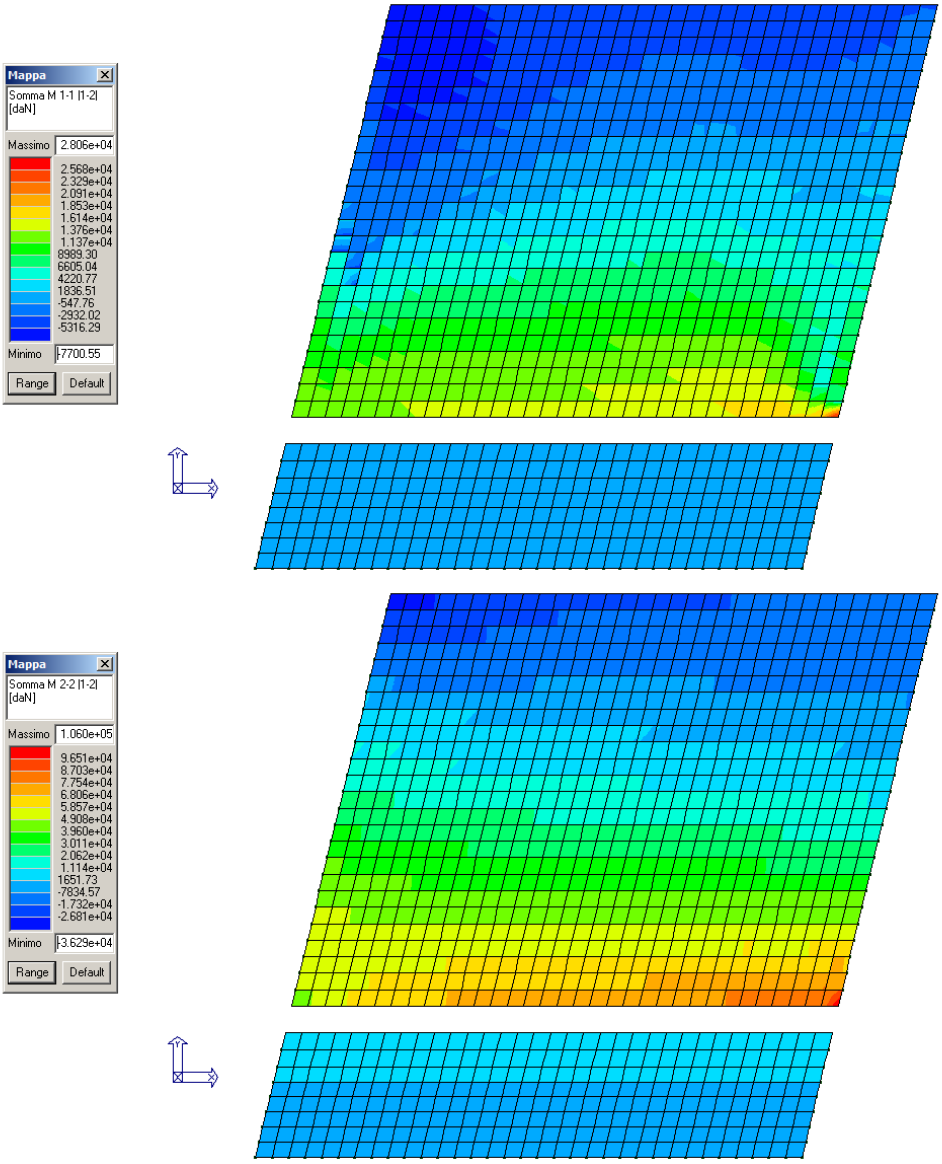


sovraspinta terra per sisma direzione 90°

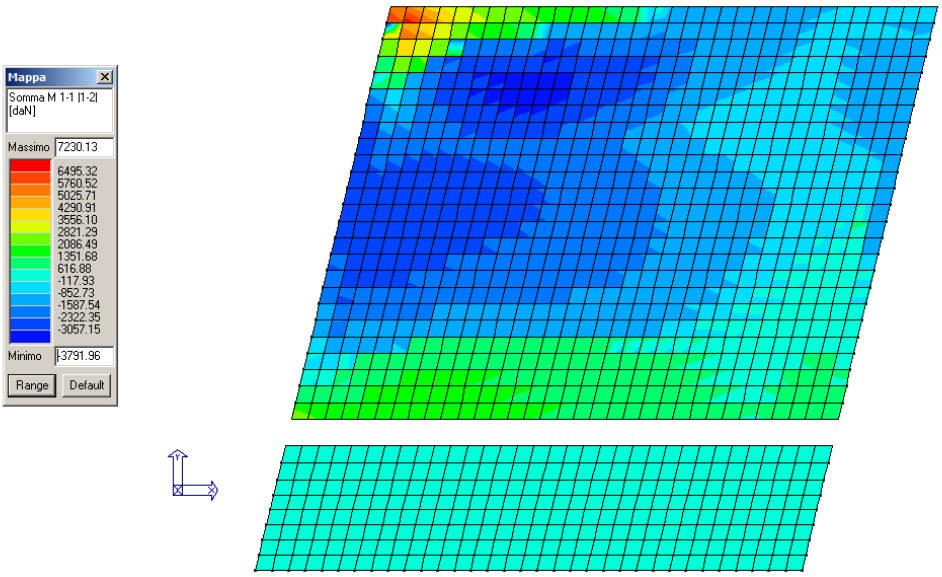


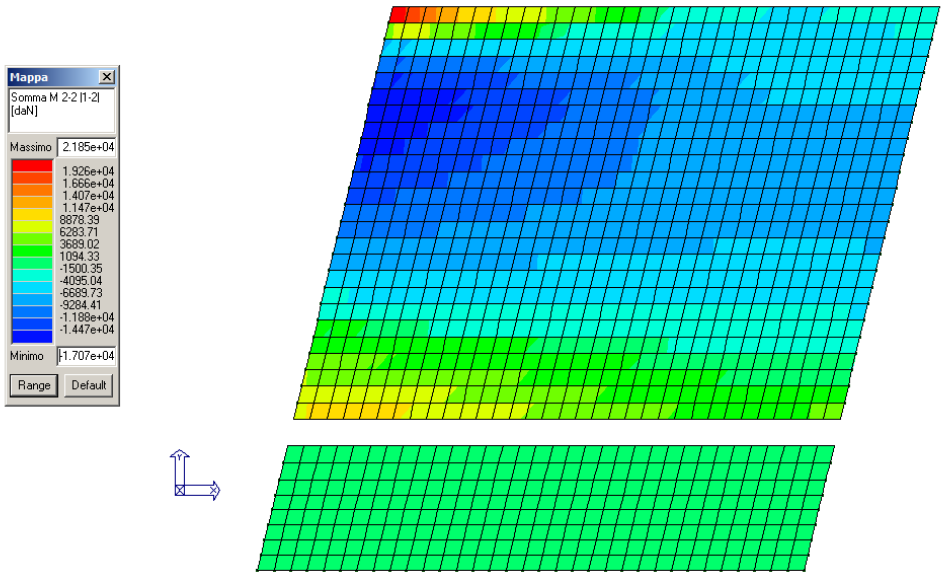


Permanente

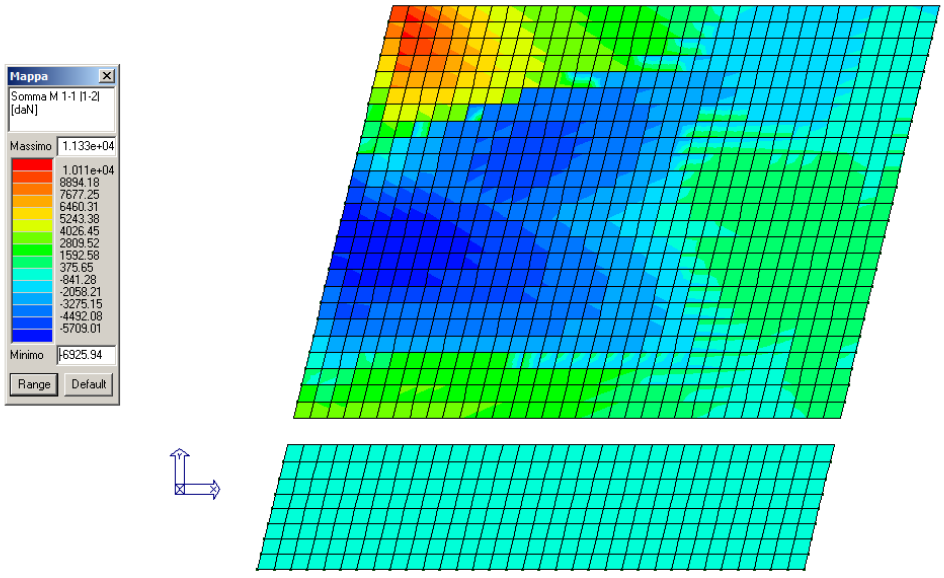


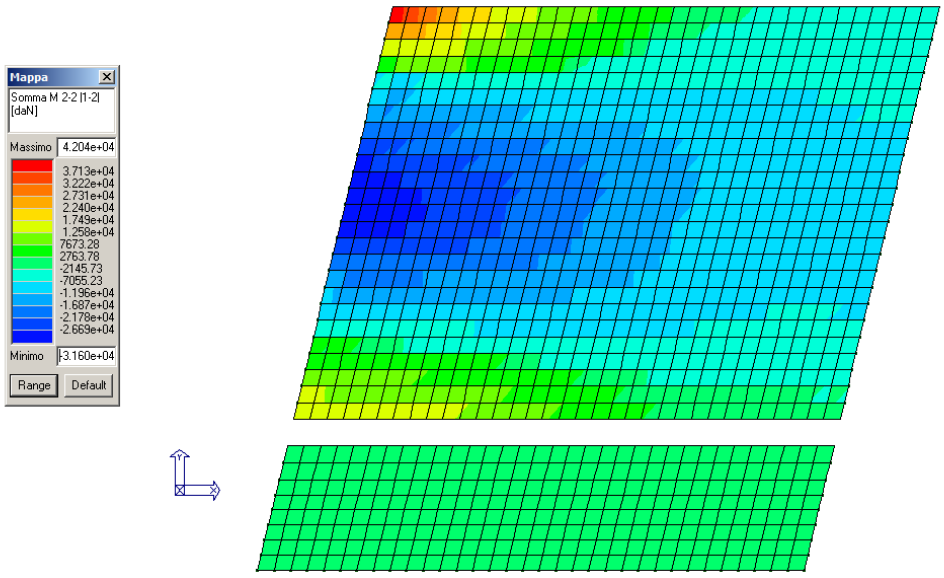
Carico mobile da traffico in posizione 1



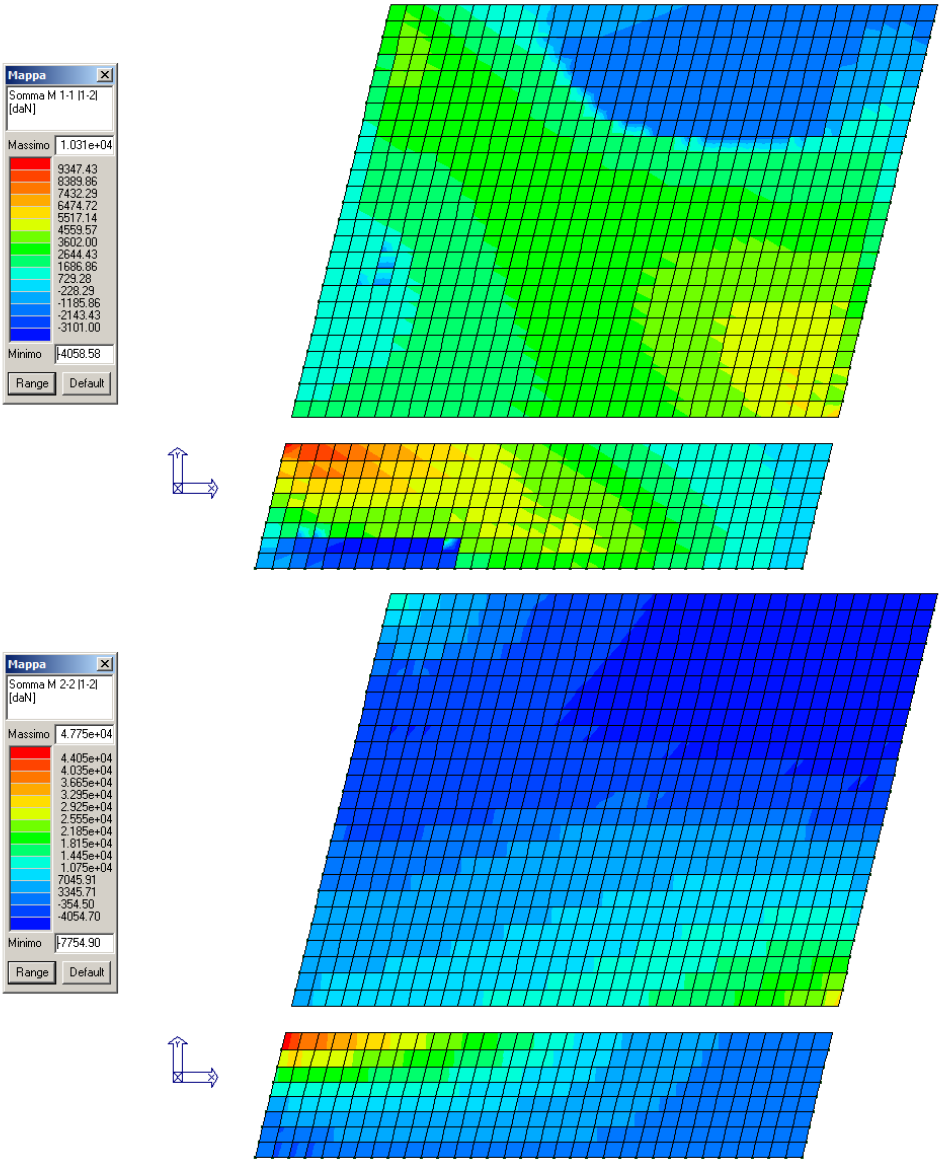


Carico mobile da traffico in posizione 2

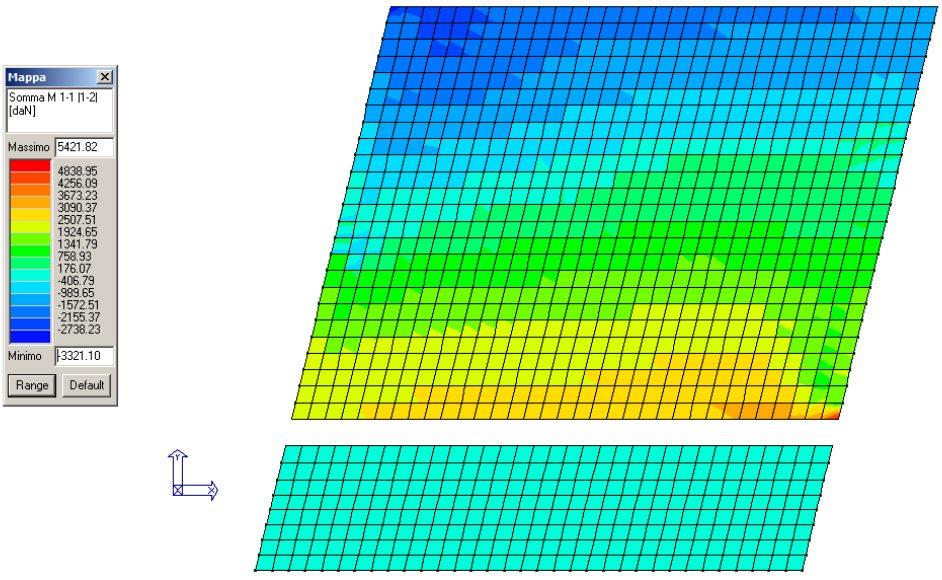


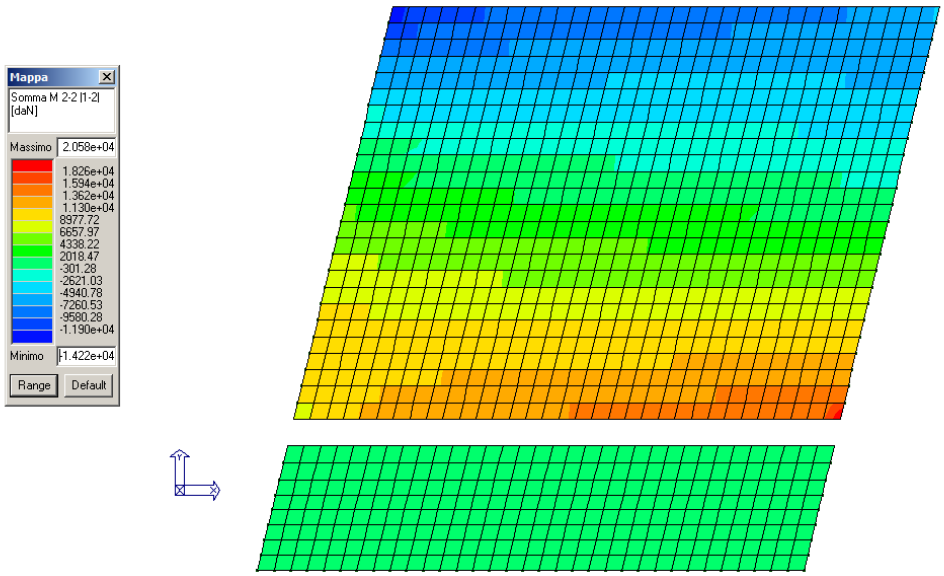


Carico mobile da traffico in posizione 3

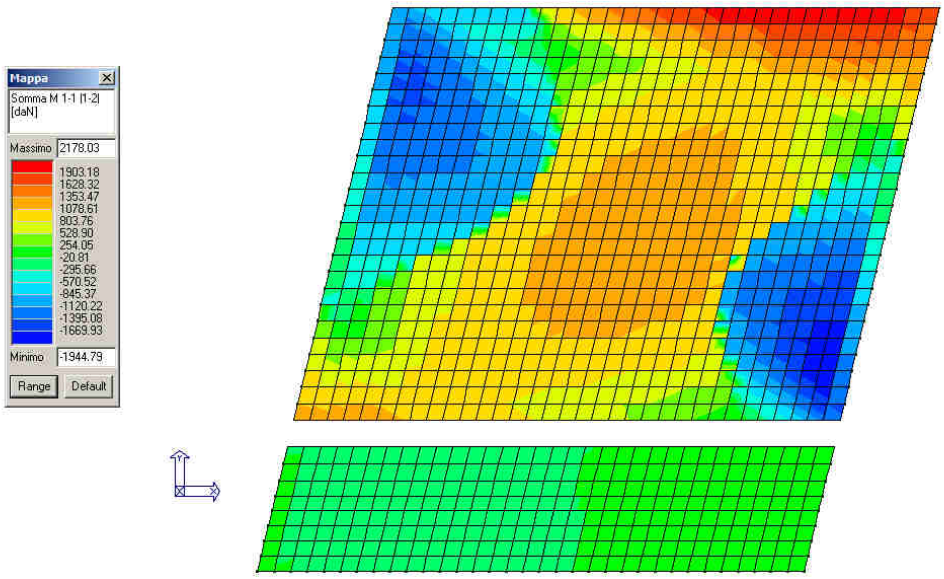


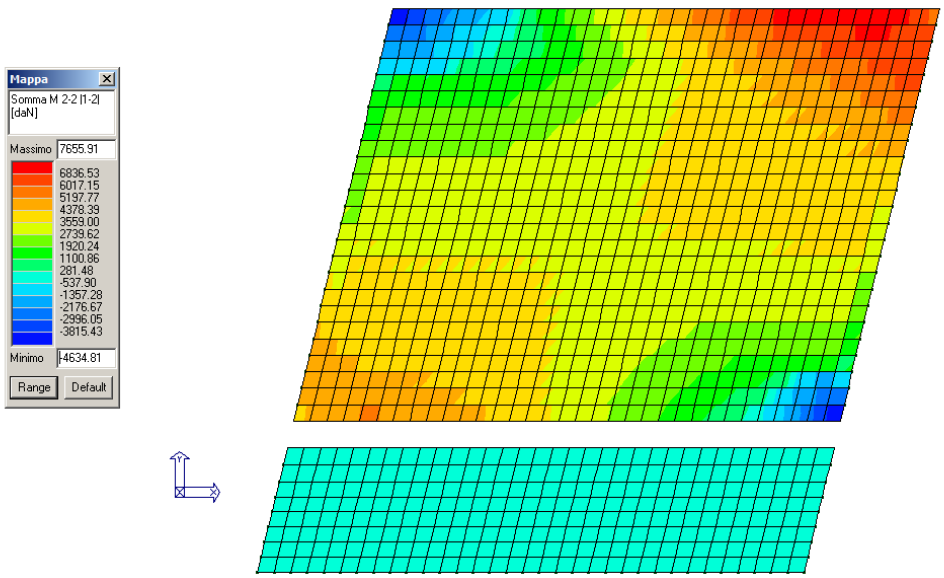
Carico mobile da traffico retro spalla



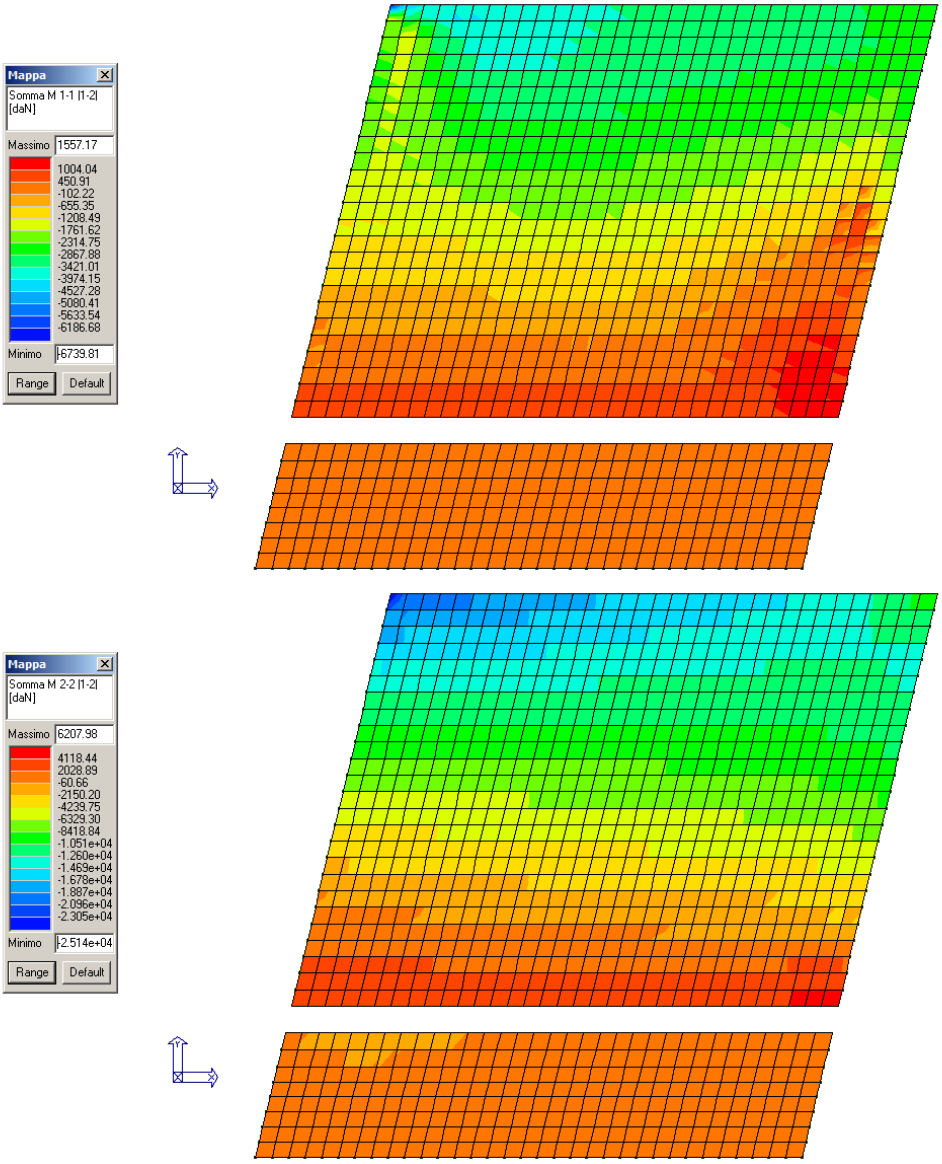


Carico da urto longitudinale su setto

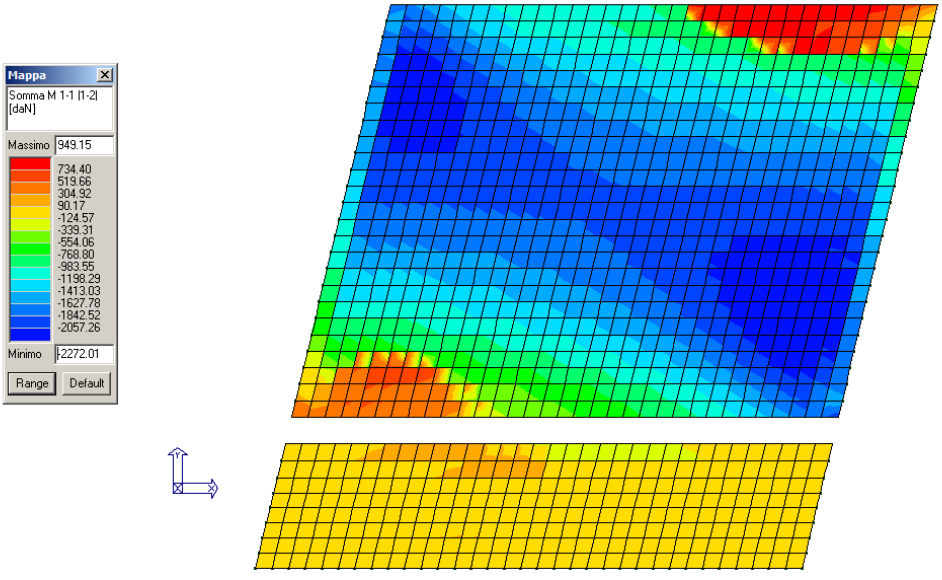


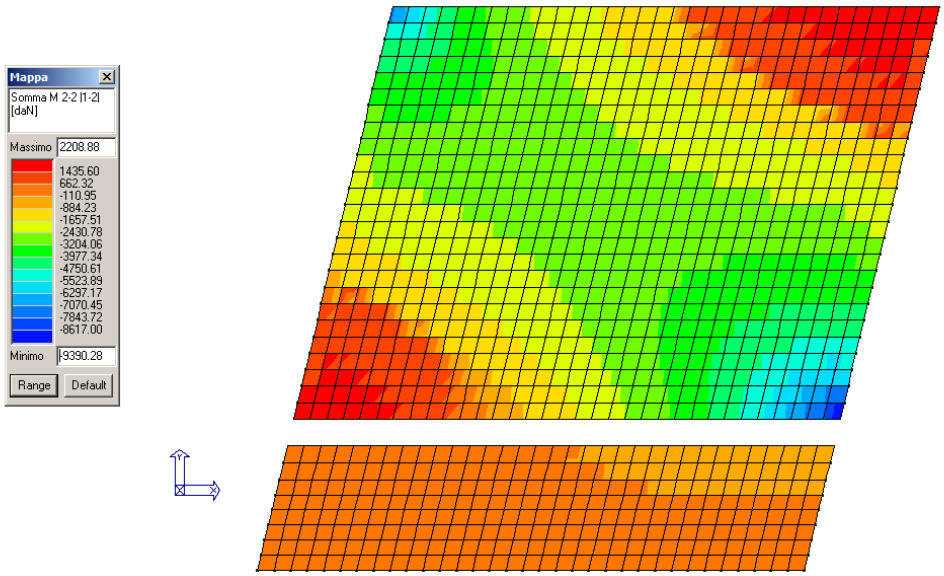


Carico da urto trasversale su setto

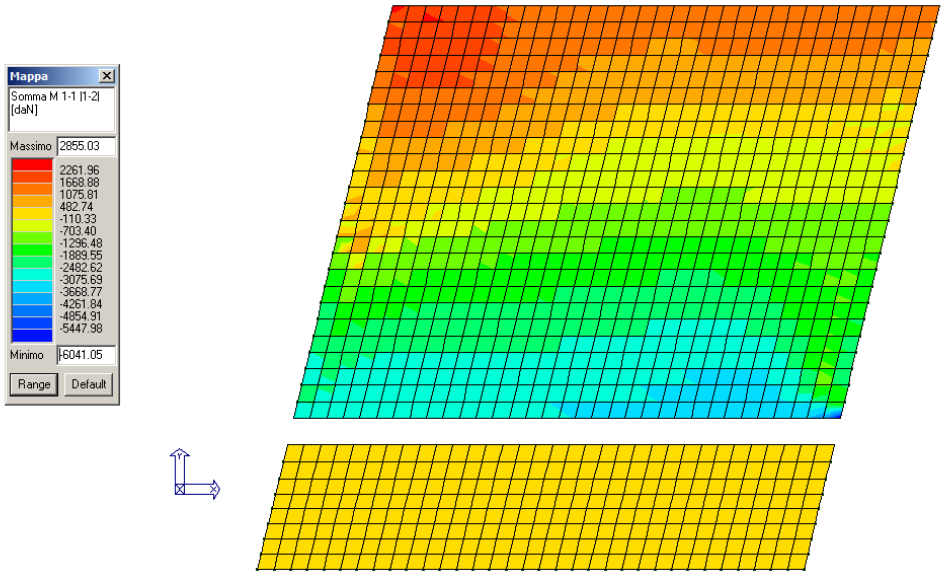


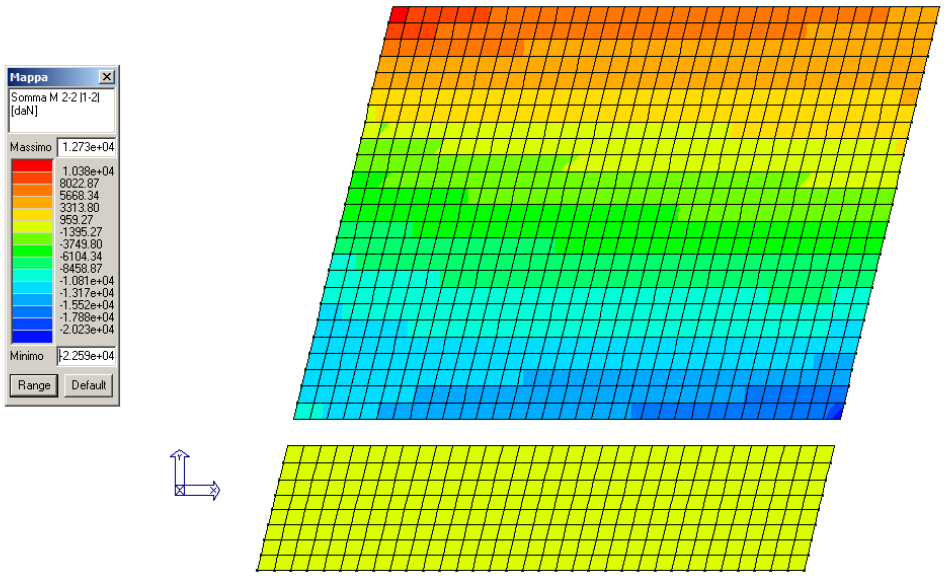
Carico da urto longitudinale su spalla





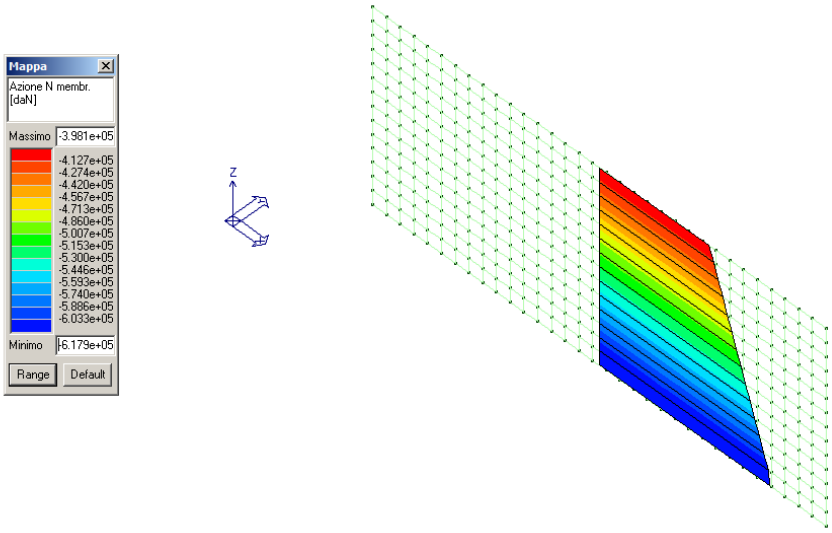
Carico da urto trasversale su spalla

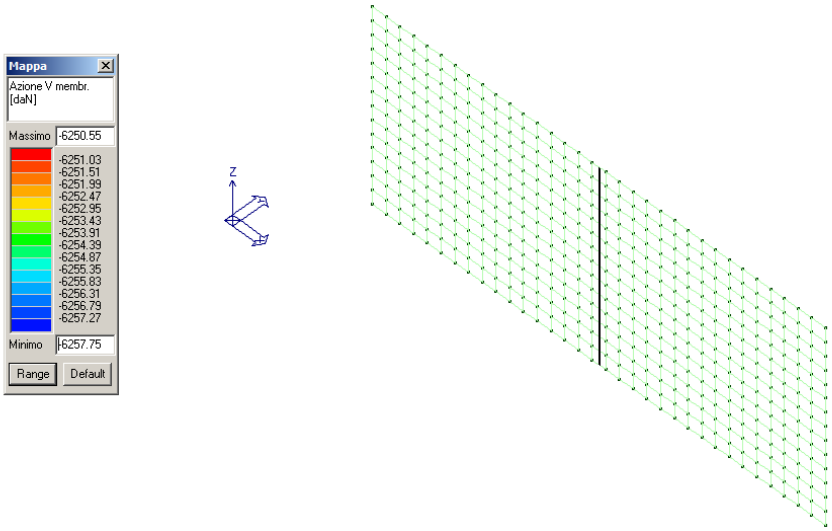


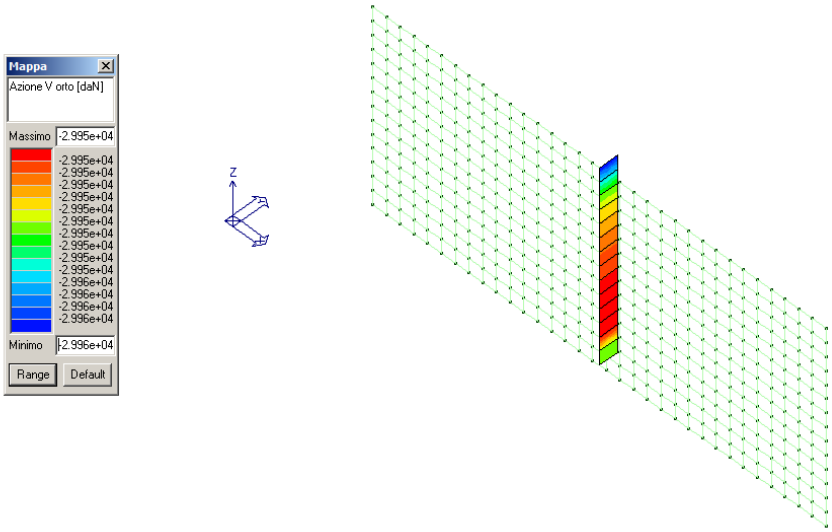


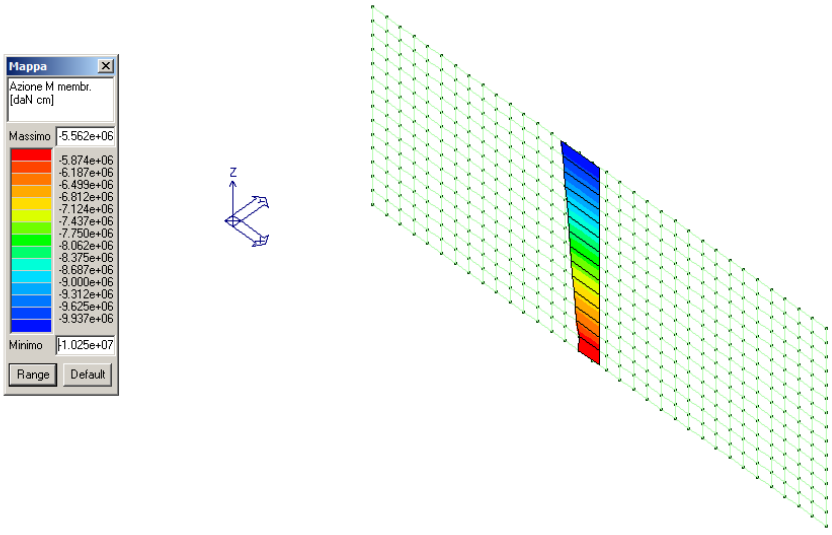
12.14 Sollecitazioni setto

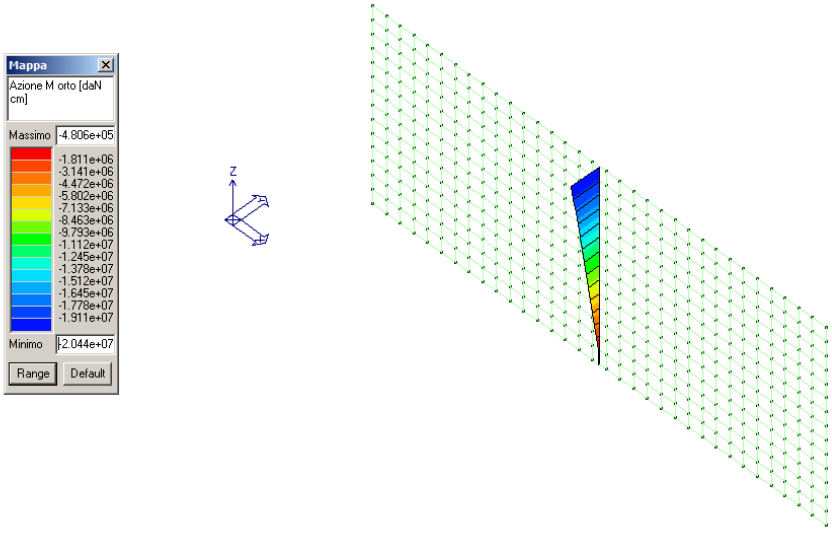
Si riportano le sollecitazioni per i casi di carico più significativi.
Peso proprio



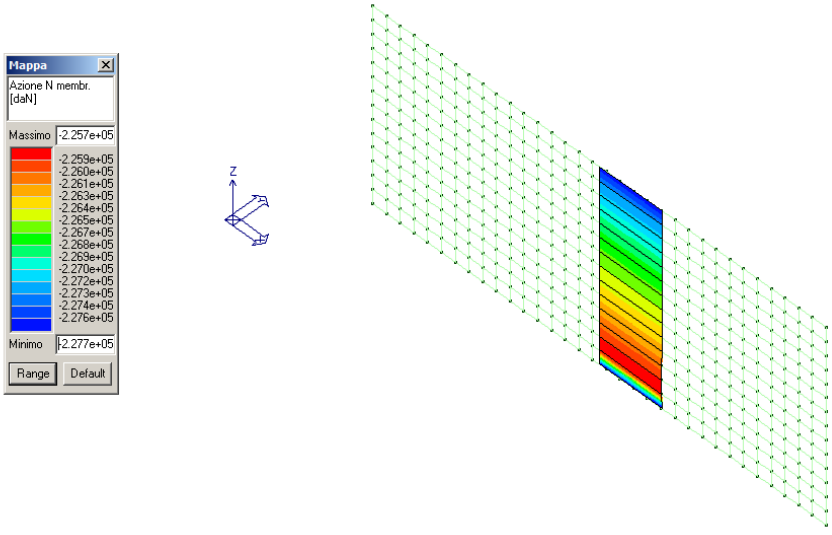


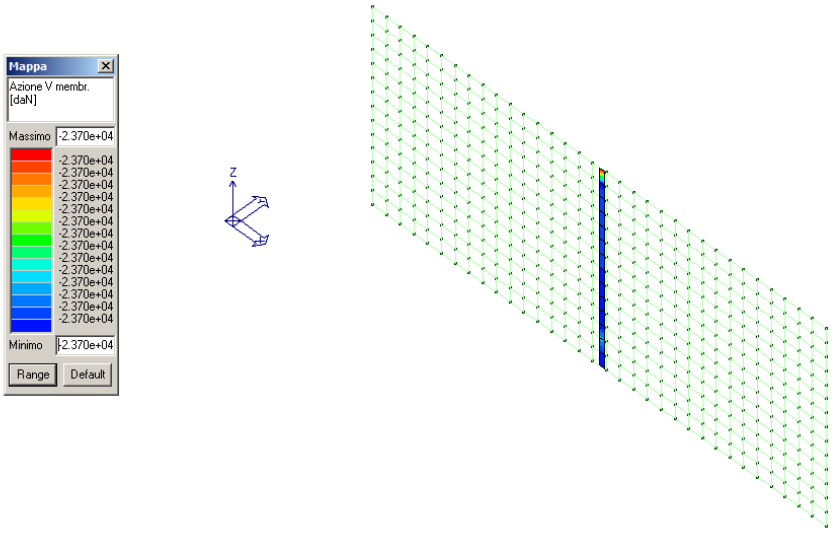



Mappa
Azione M membr. [daN cm]
Massimo -5.562e+06
-5.874e+06
-6.187e+06
-6.499e+06
-6.812e+06
-7.124e+06
-7.437e+06
-7.750e+06
-8.062e+06
-8.375e+06
-8.687e+06
-9.000e+06
-9.312e+06
-9.625e+06
-9.937e+06
Minimo -1.025e+07
Range
Default
Z


Mappa
Azione M orto [daN cm]
Massimo -4.806e+05
-1.811e+06
-3.141e+06
-4.472e+06
-5.802e+06
-7.133e+06
-8.463e+06
-9.793e+06
-1.112e+07
-1.245e+07
-1.378e+07
-1.512e+07
-1.645e+07
-1.778e+07
-1.911e+07
Minimo -2.044e+07
Range
Default
Z

Permanente


Mappa
Azione N membr. [daN]
Massimo -2.257e+05
-2.259e+05
-2.260e+05
-2.261e+05
-2.263e+05
-2.264e+05
-2.265e+05
-2.267e+05
-2.268e+05
-2.269e+05
-2.270e+05
-2.272e+05
-2.273e+05
-2.274e+05
-2.276e+05
Minimo -2.277e+05
Range
Default
Z


Mappa
Azione V membr. [daN]
Massimo -2.370e+04
-2.370e+04
-2.370e+04
-2.370e+04
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-2.370e+04
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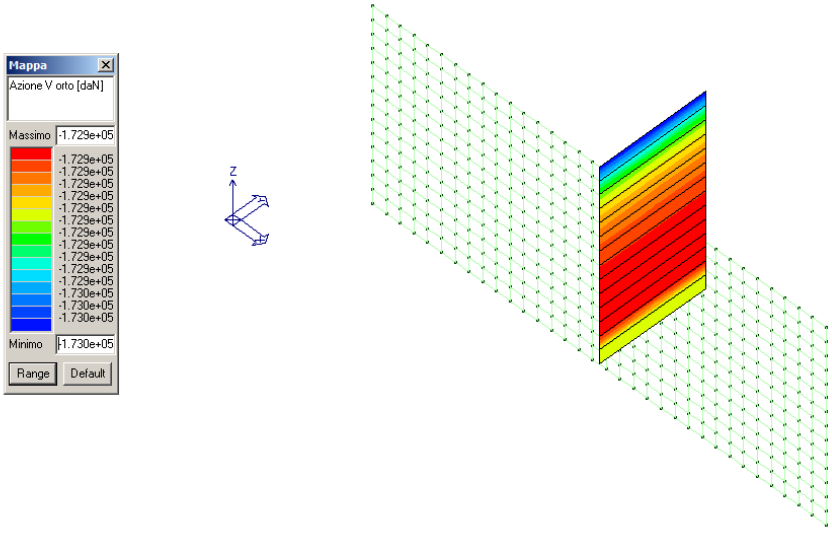
-2.370e+04
Minimo -2.370e+04
Range
Default
Z


Mappa
Azione V orto [daN]
Massimo -1.729e+05
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-1.729e+05
-1.729e+05
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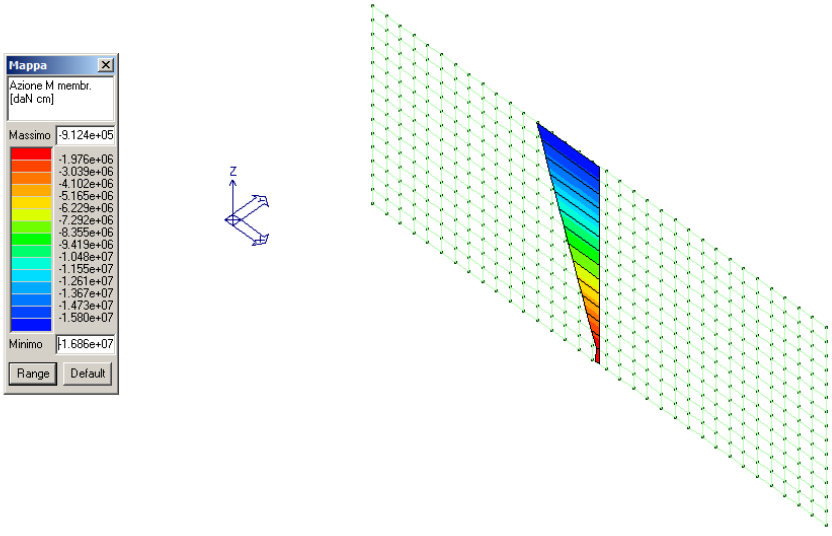
-1.729e+05
-1.729e+05
-1.730e+05
-1.730e+05
-1.730e+05
Minimo -1.730e+05
Range
Default
Z


Mappa
Azione M membr. [daN cm]
Massimo -9.124e+05
-1.976e+06
-3.039e+06
-4.102e+06
-5.165e+06
-6.229e+06
-7.292e+06
-8.355e+06
-9.419e+06
-1.048e+07
-1.155e+07
-1.261e+07
-1.367e+07
-1.473e+07
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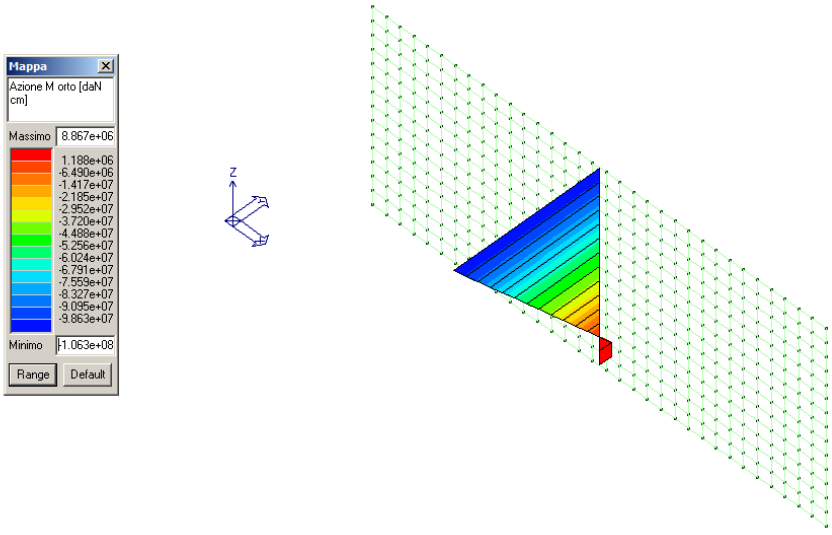
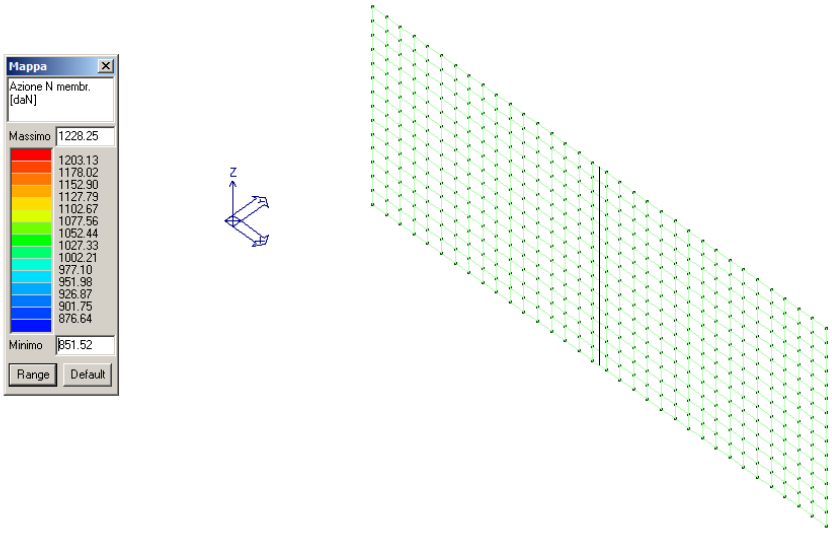
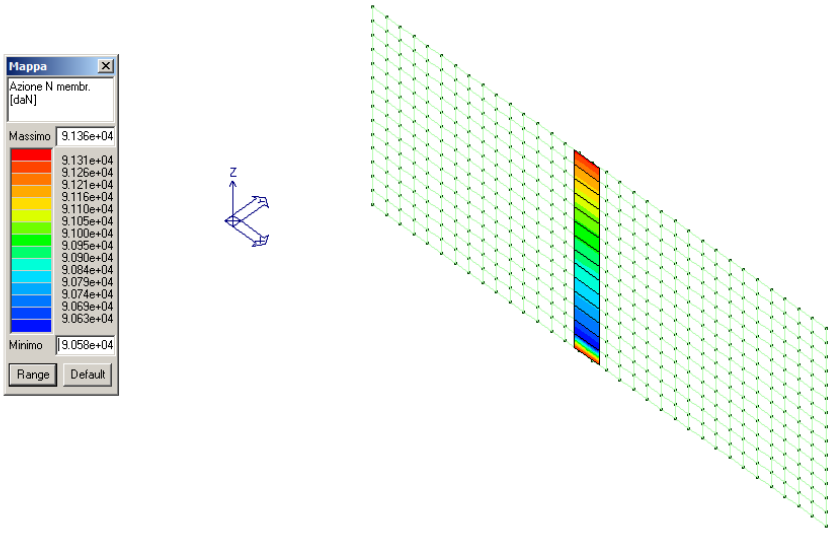
Minimo -1.686e+07
Range
Default
Z



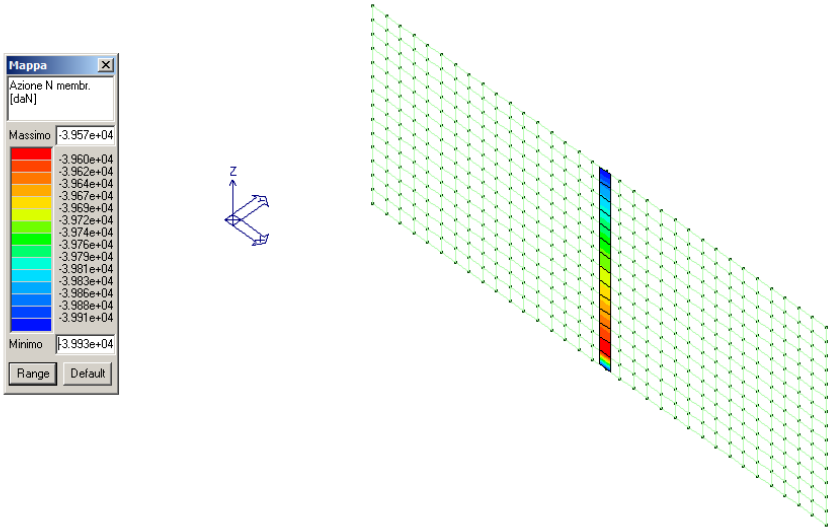
Sisma direzione 0°



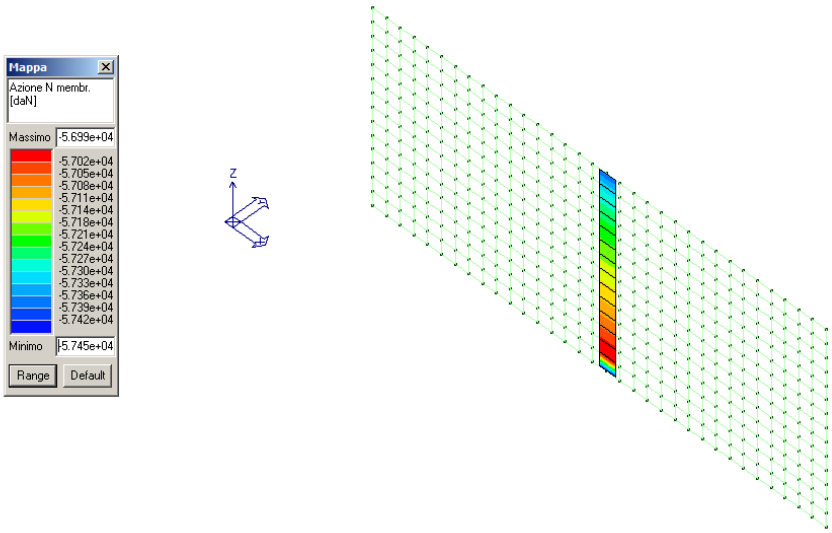
Sisma direzione 90°



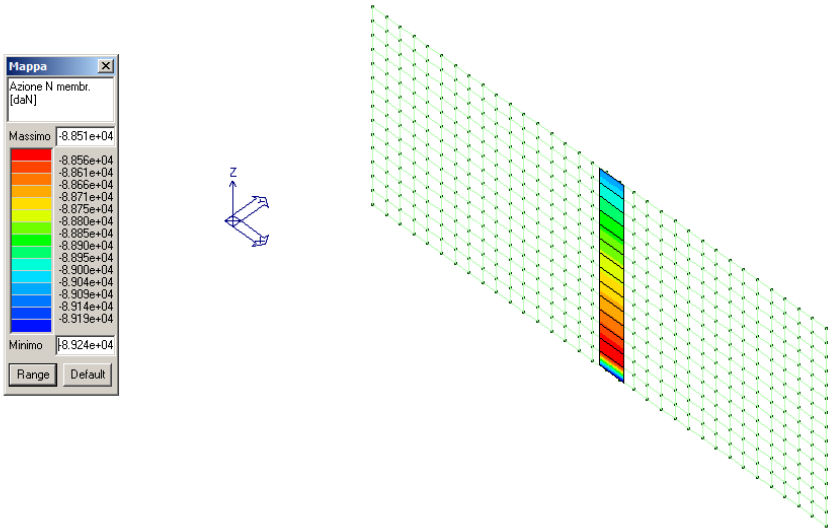
sovraspinta terra per sisma direzione 90°



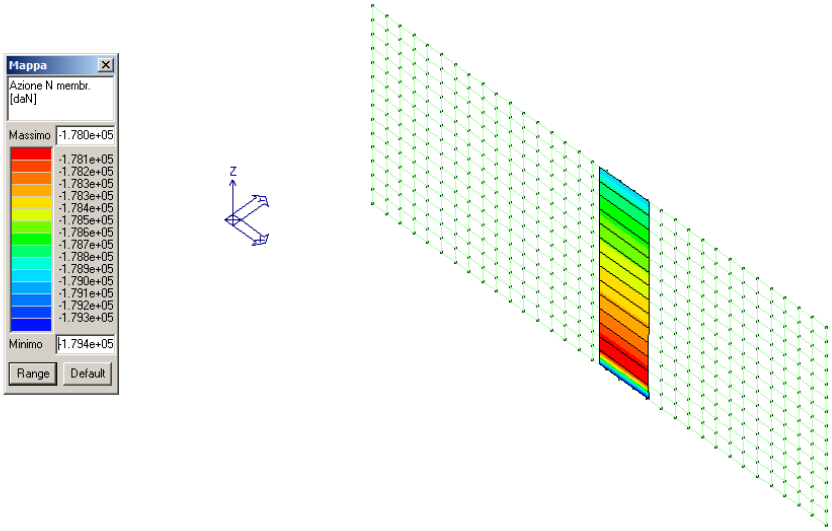
Carico mobile da traffico in posizione 1



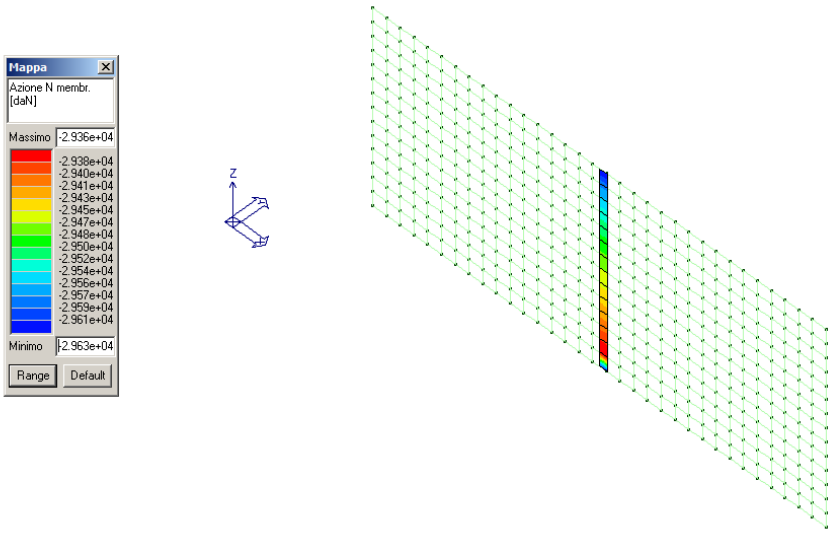
Carico mobile da traffico in posizione 2

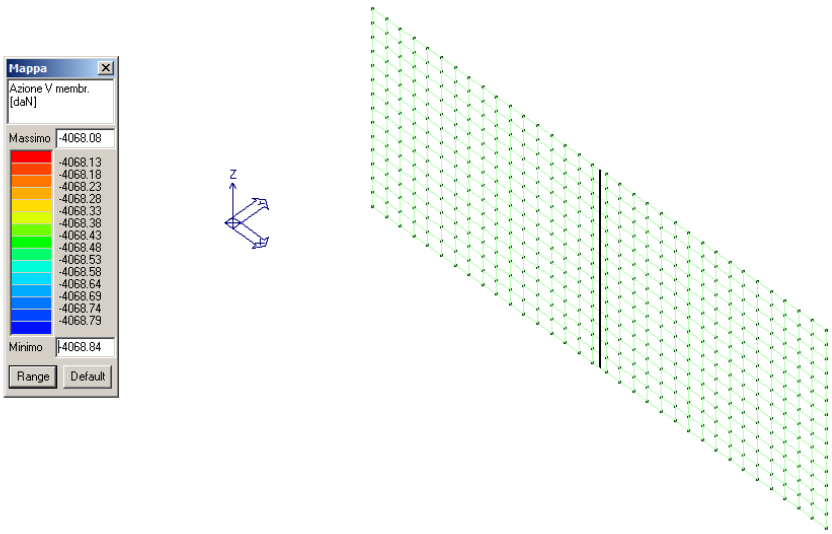


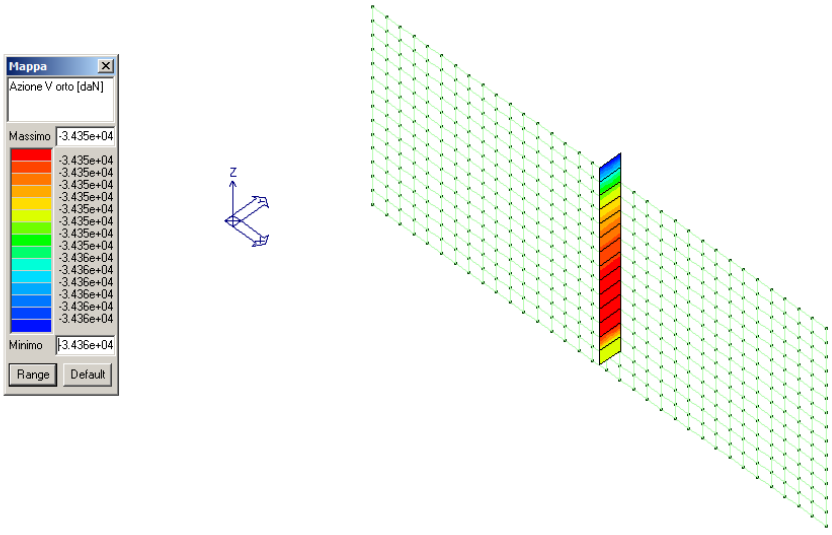
Carico mobile da traffico in posizione 3



Carico mobile da traffico retro spalla






Mappa
Azione V orto [daN]
Massimo -3.435e+04
-3.435e+04
-3.435e+04
-3.435e+04
-3.435e+04
-3.435e+04
-3.435e+04
-3.435e+04
-3.435e+04
-3.436e+04
-3.436e+04
-3.436e+04
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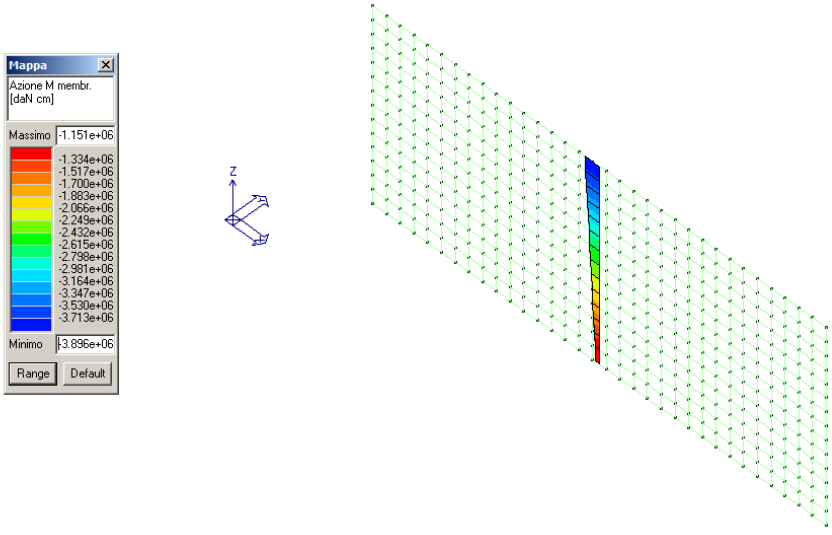
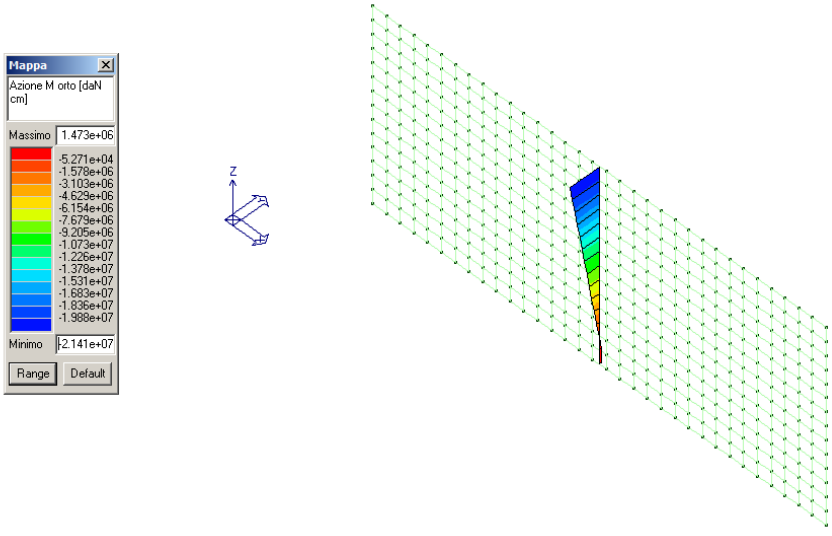
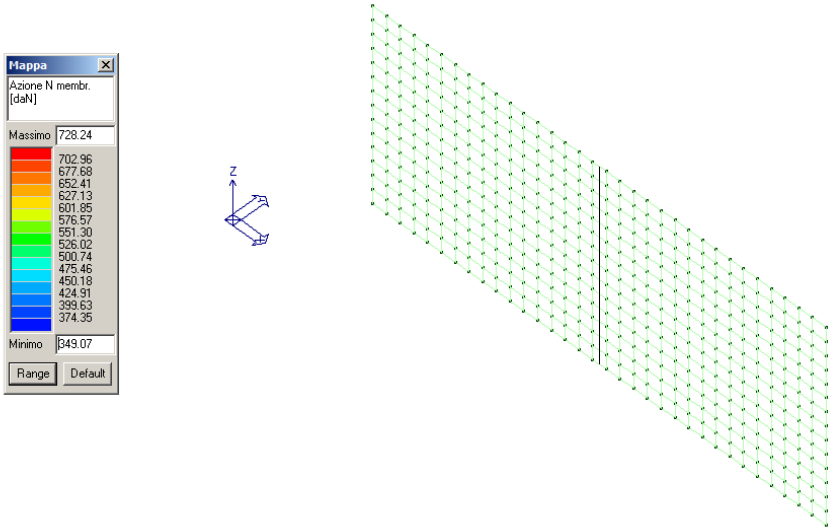
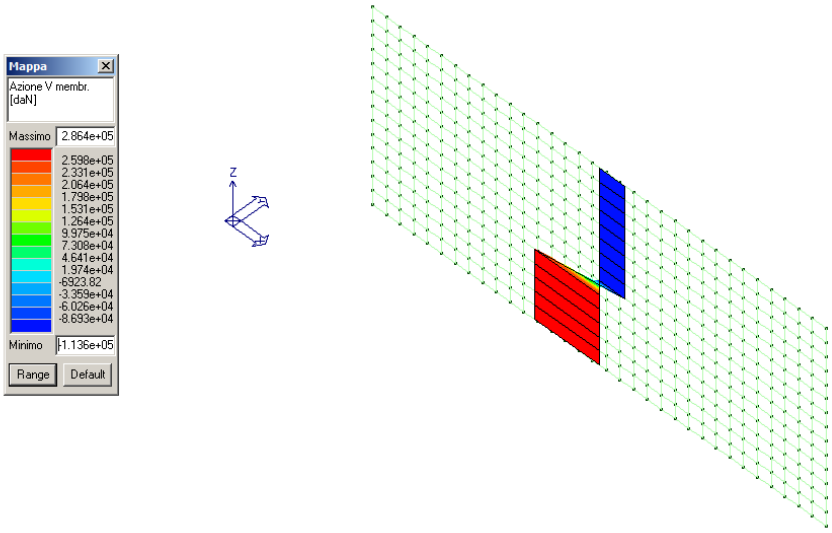
-3.436e+04
-3.436e+04
-3.436e+04
Minimo -3.436e+04
Range
Default
Z

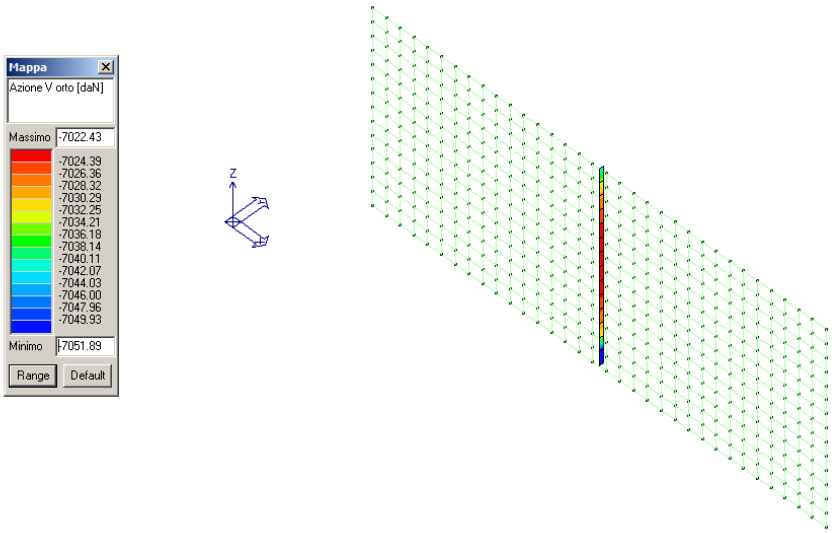

Mappa
Azione M membr. [daN cm]
Massimo -1.151e+06
-1.334e+06
-1.517e+06
-1.700e+06
-1.883e+06
-2.066e+06
-2.249e+06
-2.432e+06
-2.615e+06
-2.798e+06
-2.981e+06
-3.164e+06
-3.347e+06
-3.530e+06
-3.713e+06
Minimo -3.896e+06
Range
Default
Z

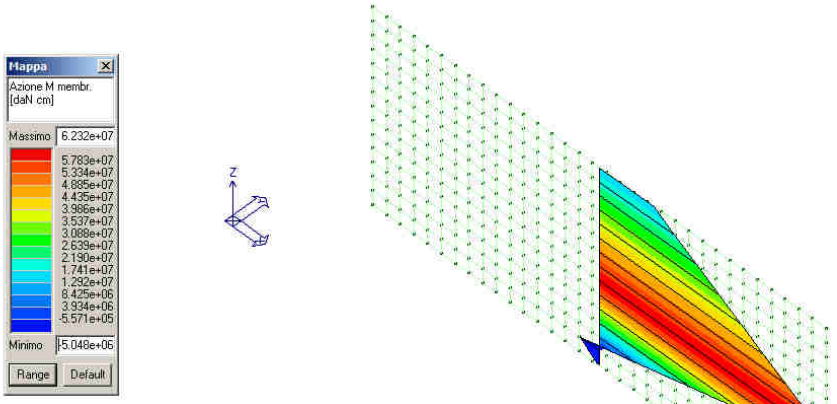

Mappa
Azione M orto [daN cm]
Massimo 1.473e+06
-5.271e+04
-1.578e+06
-3.103e+06
-4.629e+06
-6.154e+06
-7.679e+06
-9.205e+06
-1.073e+07
-1.226e+07
-1.378e+07
-1.531e+07
-1.683e+07
-1.836e+07
-1.988e+07
Minimo -2.141e+07
Range
Default
Z

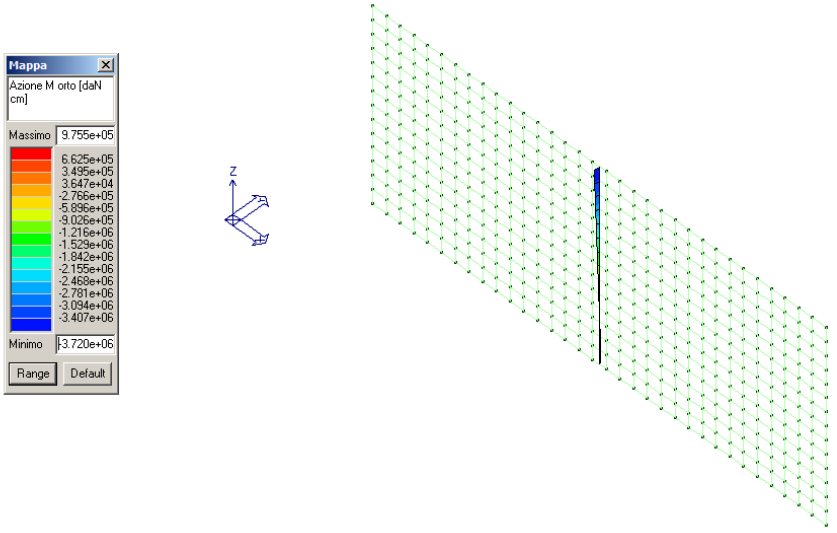
Carico da urto longitudinale su setto



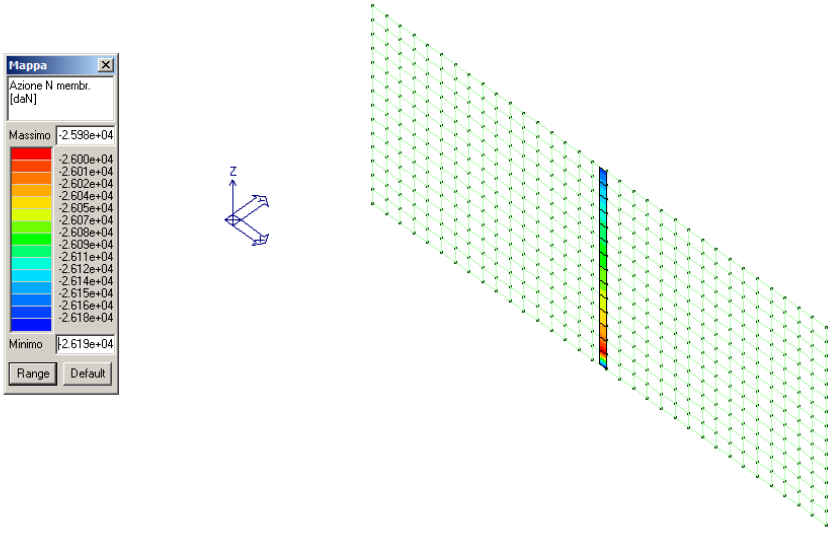


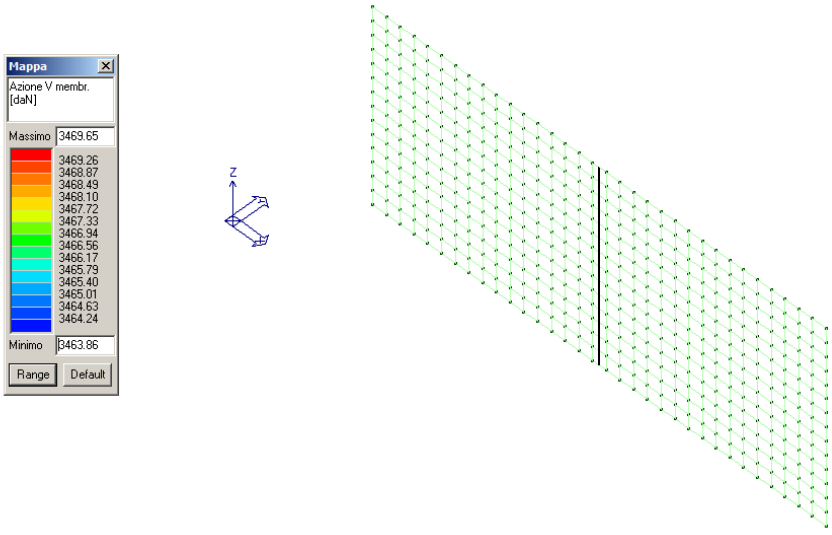


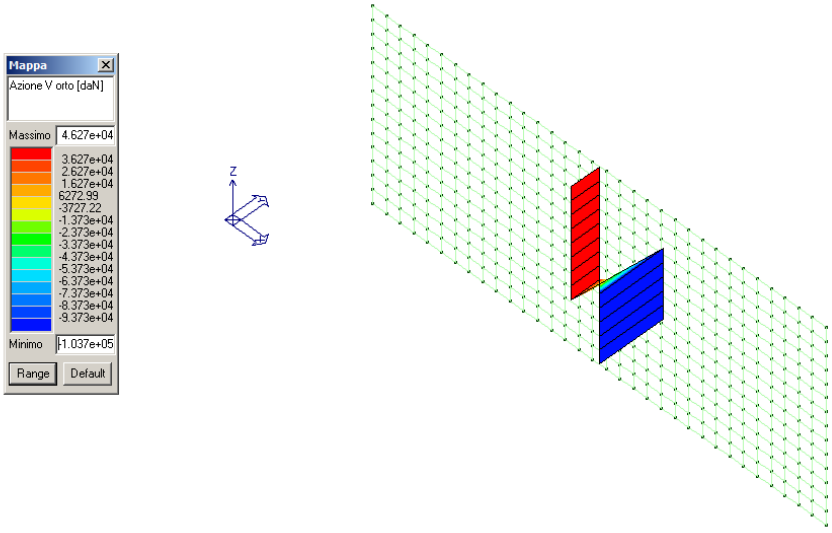


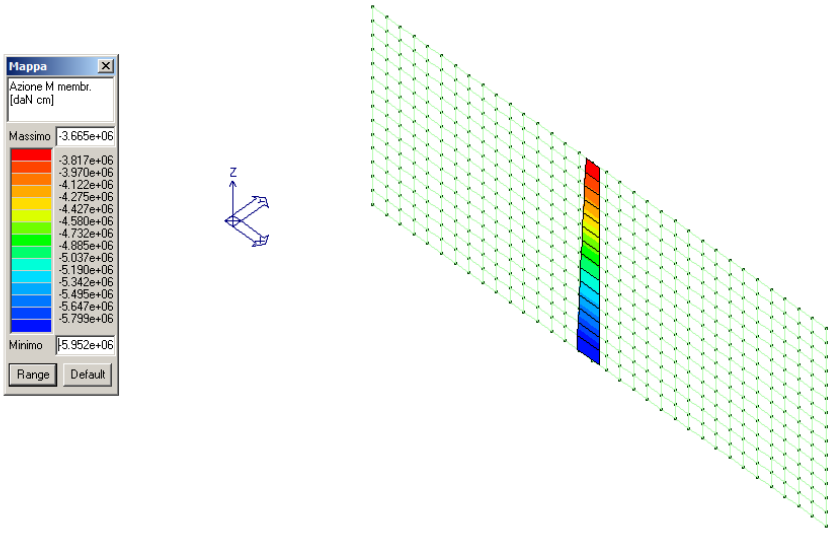


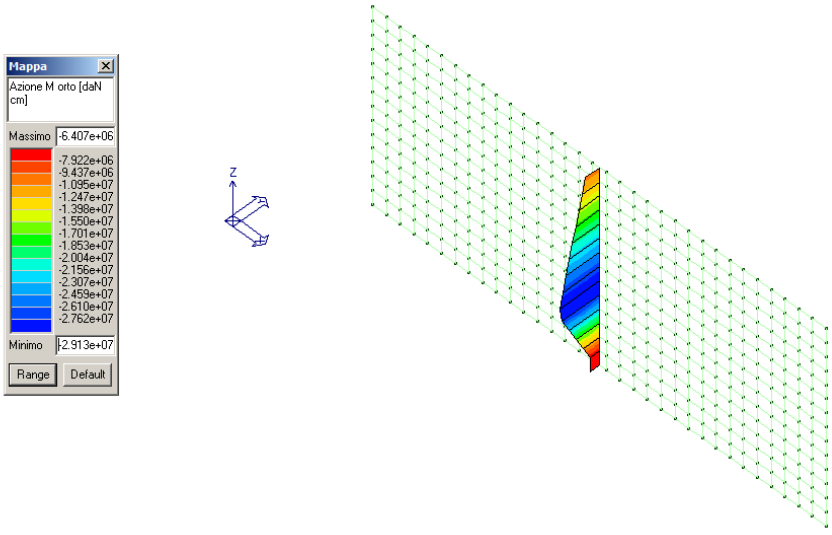
Carico da urto trasversale su setto



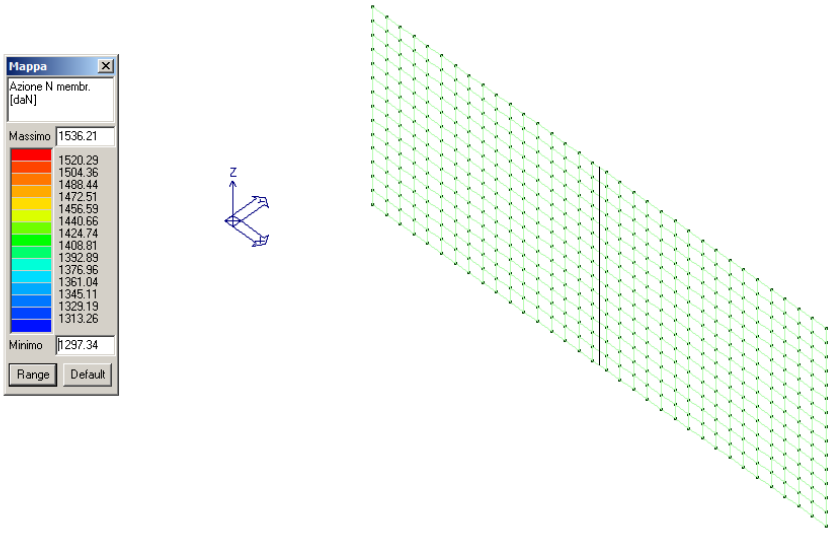

Mappa
Azione V membr. [daN]
Massimo 3469.65
3469.26
3468.87
3468.49
3468.10
3467.72
3467.33
3466.94
3466.56
3466.17
3465.79
3465.40
3465.01
3464.63
3464.24
Minimo 3463.86
Range
Default
Z

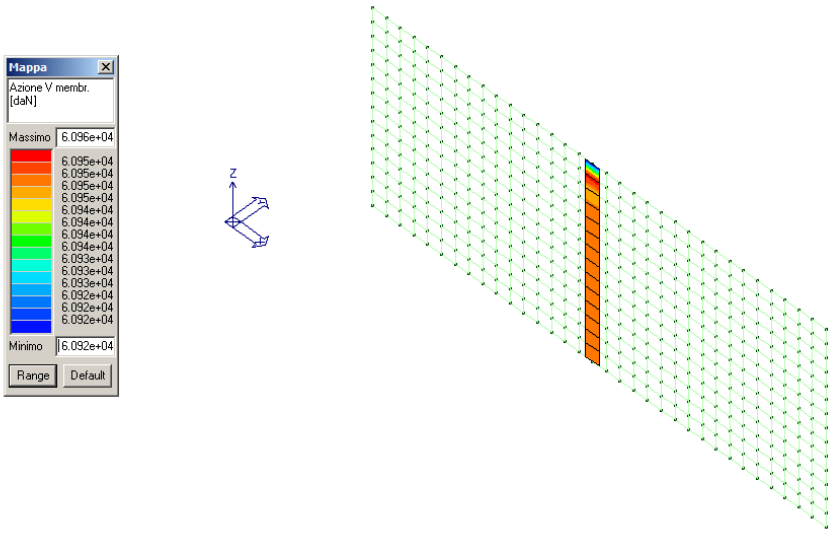

Mappa
Azione V orto [daN]
Massimo 4.627e+04
3.627e+04
2.627e+04
1.627e+04
6272.99
-3727.22
-1.373e+04
-2.373e+04
-3.373e+04
-4.373e+04
-5.373e+04
-6.373e+04
-7.373e+04
-8.373e+04
-9.373e+04
Minimo -1.037e+05
Range
Default
Z

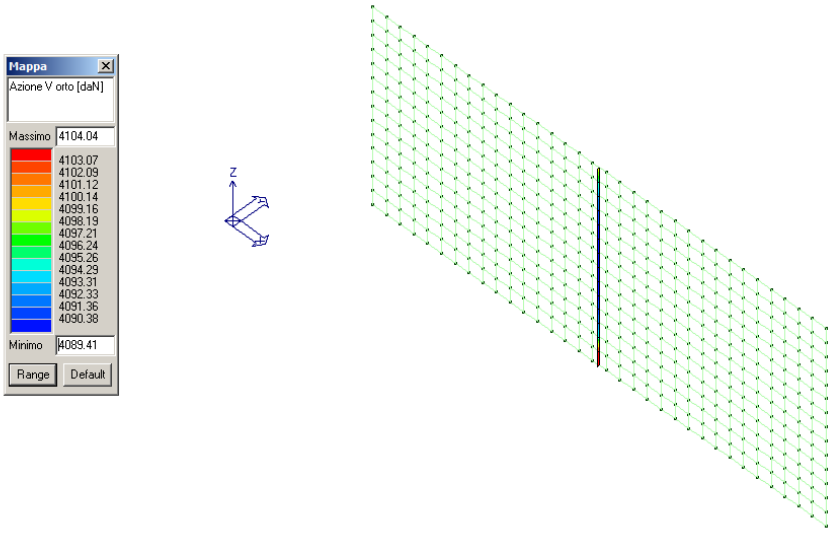

Mappa
Azione M membr. [daN cm]
Massimo -3.665e+06
-3.817e+06
-3.970e+06
-4.122e+06
-4.275e+06
-4.427e+06
-4.580e+06
-4.732e+06
-4.885e+06
-5.037e+06
-5.190e+06
-5.342e+06
-5.495e+06
-5.647e+06
-5.799e+06
Minimo -5.952e+06
Range
Default
Z

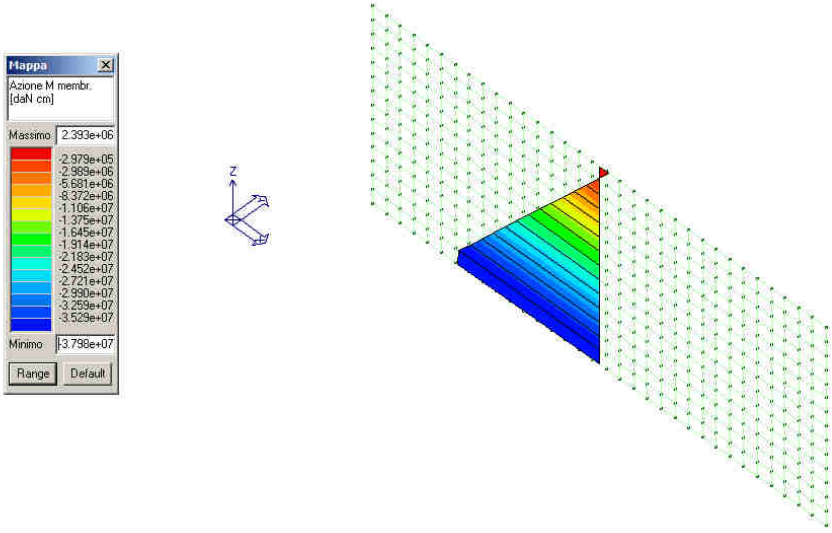


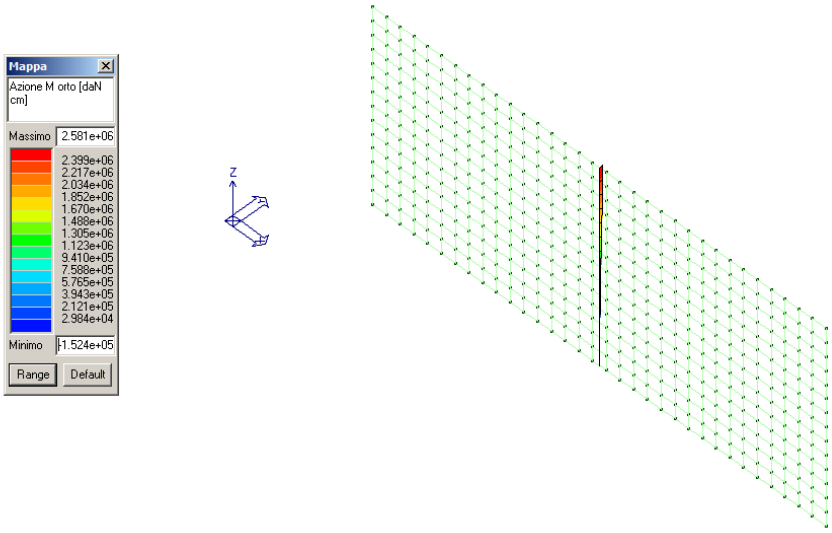
Carico da urto longitudinale su spalla



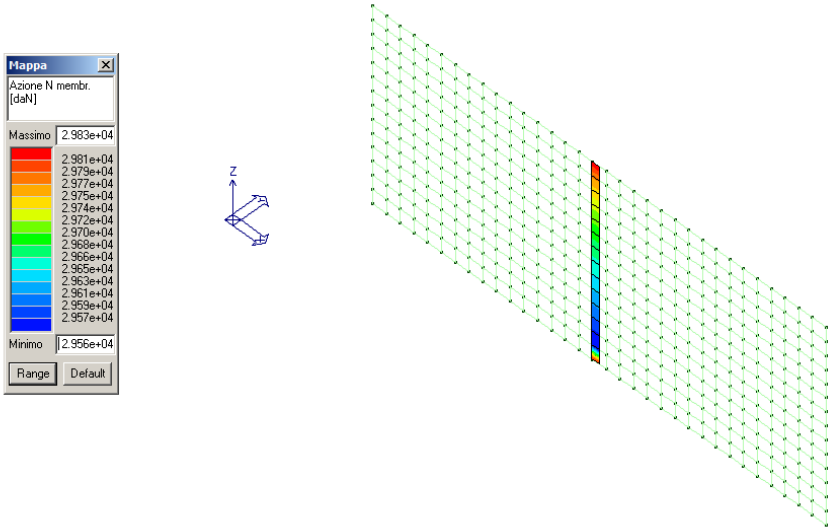


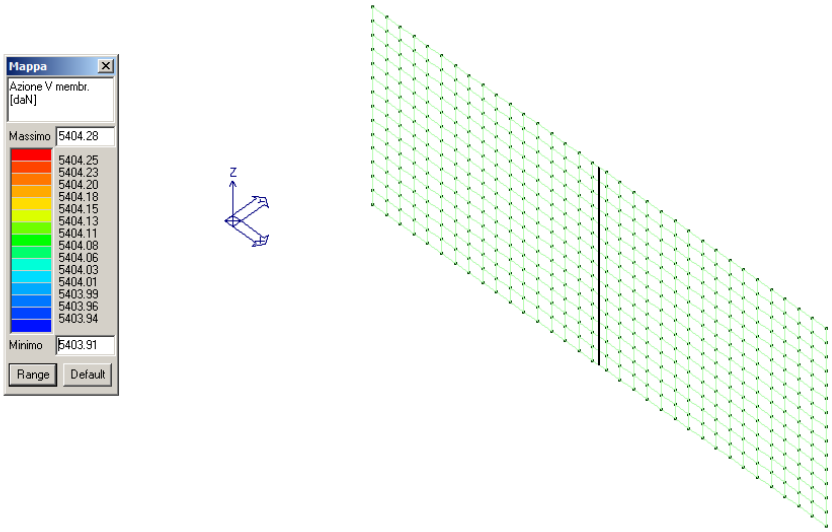

Mappa
Azione V orto [daN]
Massimo 4104.04
4103.07
4102.09
4101.12
4100.14
4099.16
4098.19
4097.21
4096.24
4095.26
4094.29
4093.31
4092.33
4091.36
4090.38
Minimo 4089.41
Range
Default
Z

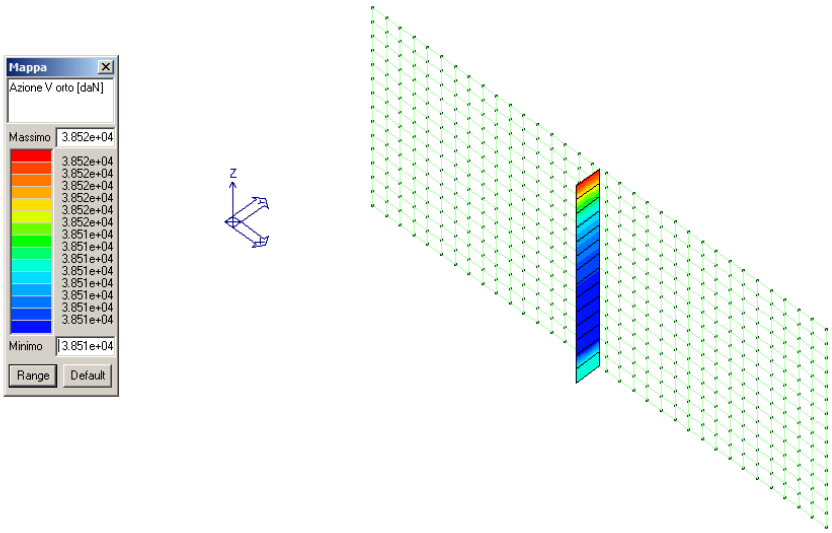

Mappa
Azione M membr. [daN cm]
Massimo 2.393e+06
-2.979e+05
-2.989e+06
-5.681e+06
-8.372e+06
-1.106e+07
-1.375e+07
-1.645e+07
-1.914e+07
-2.183e+07
-2.452e+07
-2.721e+07
-2.990e+07
-3.259e+07
-3.529e+07
Minimo -3.798e+07
Range
Default
Z

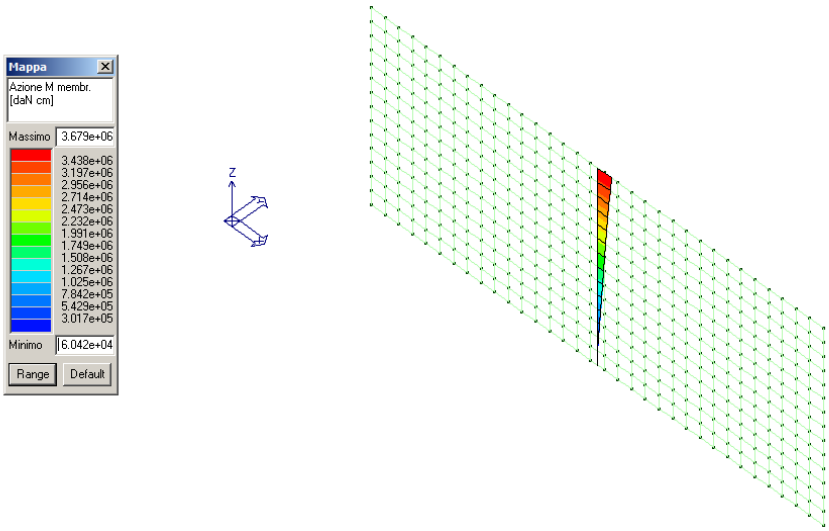

Mappa
Azione M orto [daN cm]
Massimo 2.581e+06
2.399e+06
2.217e+06
2.034e+06
1.852e+06
1.670e+06
1.488e+06
1.305e+06
1.123e+06
9.410e+05
7.588e+05
5.765e+05
3.943e+05
2.121e+05
2.984e+04
Minimo -1.524e+05
Range
Default
Z

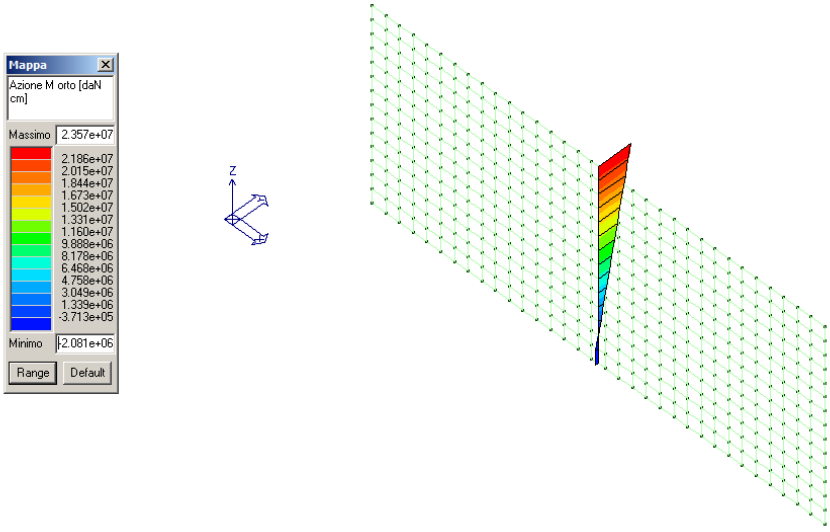
Carico da urto trasversale su spalla





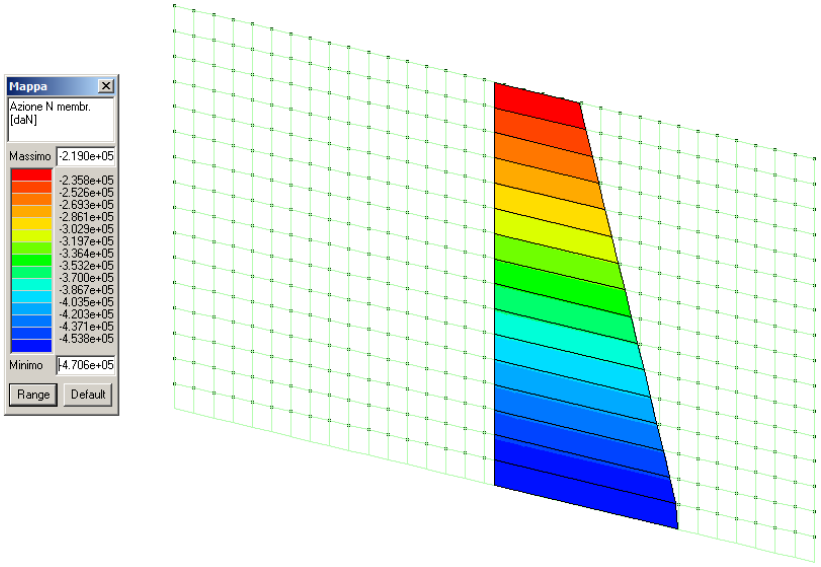


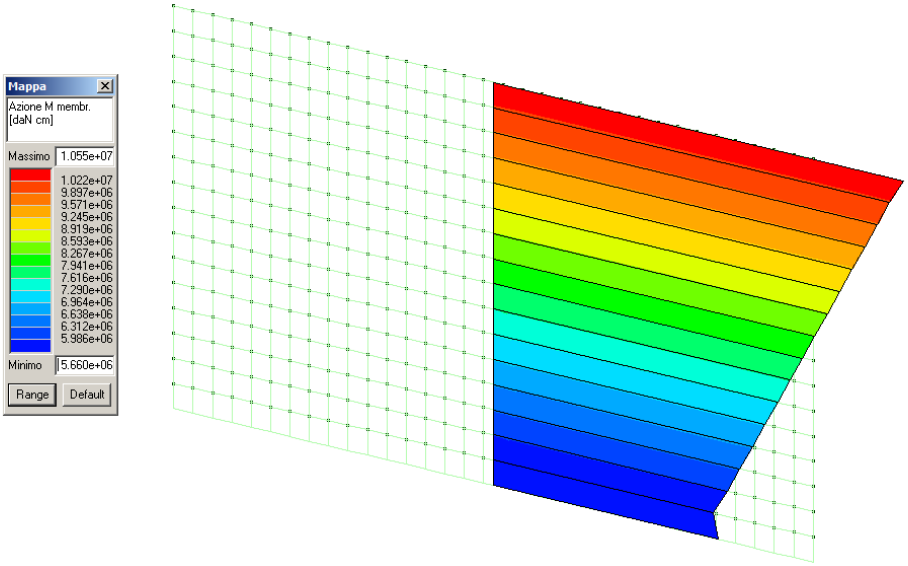


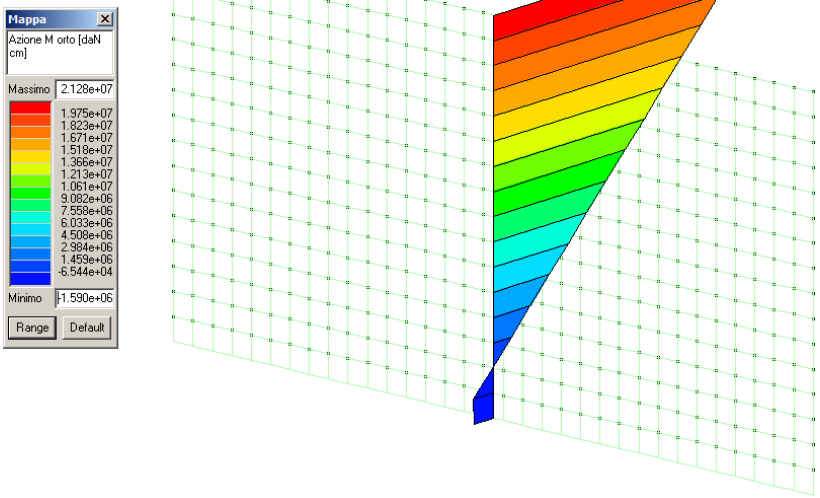


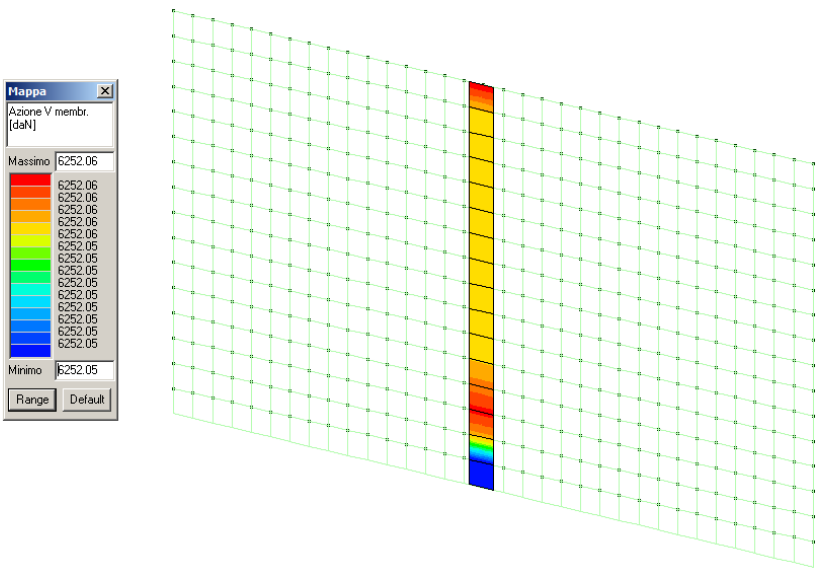
12.15 Sollecitazioni spalla

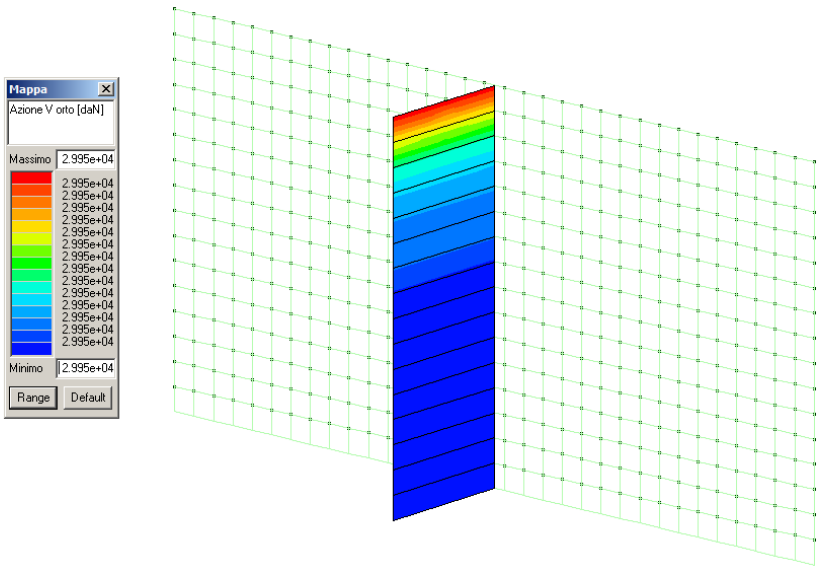
Si riportano le sollecitazioni per i casi di carico più significativi.
Peso proprio



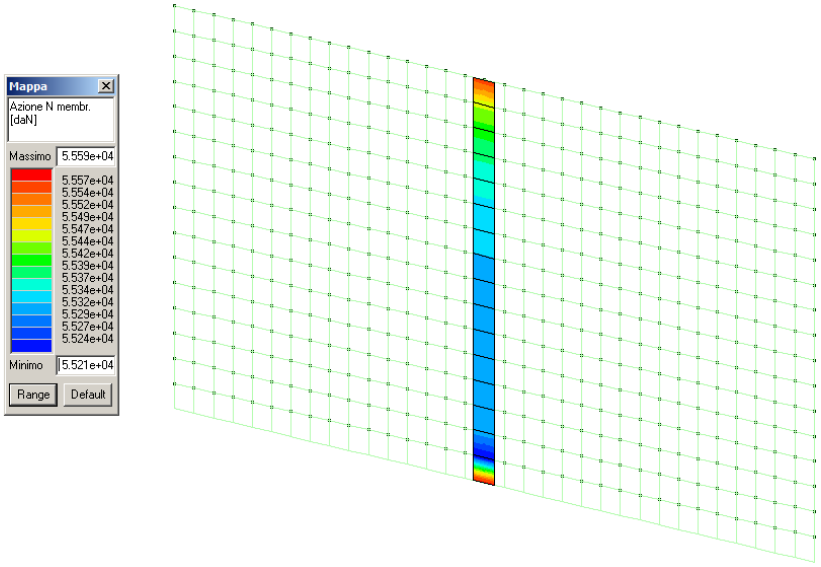

Mappa
Azione M membr. [daN cm]
Massimo 1.055e+07
1.022e+07
9.897e+06
9.571e+06
9.245e+06
8.919e+06
8.593e+06
8.267e+06
7.941e+06
7.616e+06
7.290e+06
6.964e+06
6.638e+06
6.312e+06
5.986e+06
Minimo 5.660e+06
Range
Default

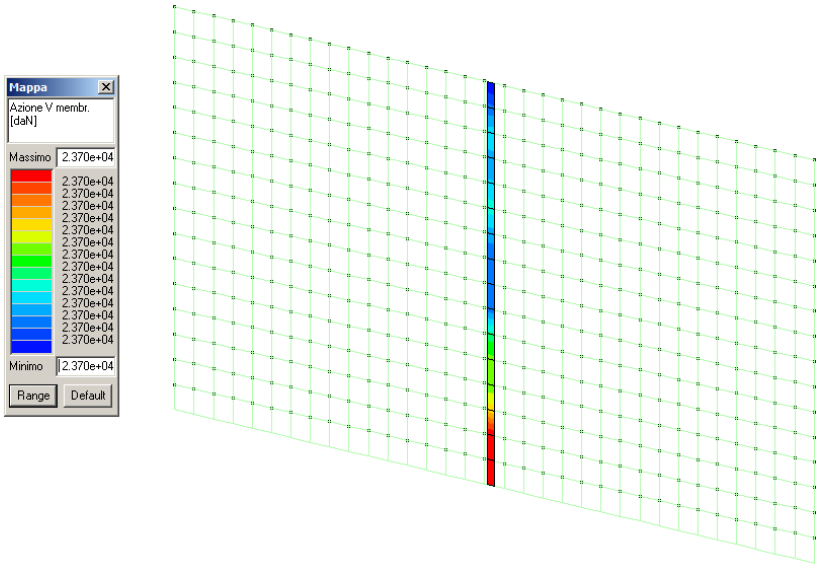

Mappa
Azione M orto [daN cm]
Massimo 2.128e+07
1.975e+07
1.823e+07
1.671e+07
1.518e+07
1.366e+07
1.213e+07
1.061e+07
9.082e+06
7.558e+06
6.033e+06
4.508e+06
2.984e+06
1.459e+06
-6.544e+04
Minimo -1.590e+06
Range
Default

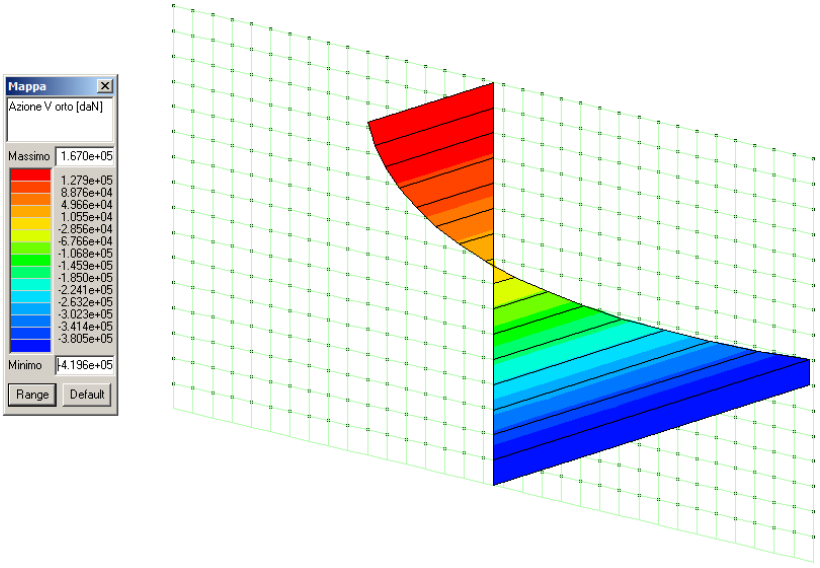

Mappa
Azione V membr. [daN]
Massimo 6252.06
6252.06
6252.06
6252.06
6252.06
6252.06
6252.05
6252.05
6252.05
6252.05
6252.05
6252.05
6252.05
6252.05
6252.05
Minimo 6252.05
Range
Default

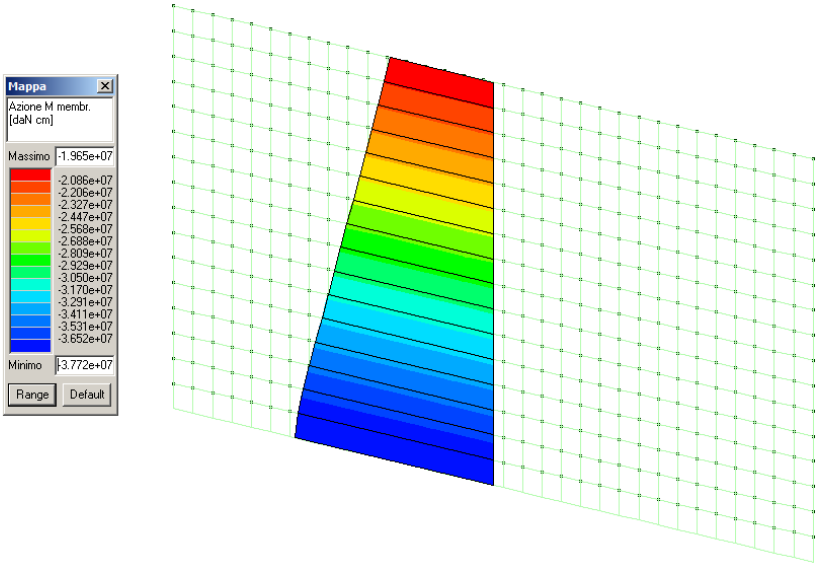

Mappa
Azione V orto [daN]
Massimo 2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
2.995e+04
Minimo 2.995e+04
Range
Default

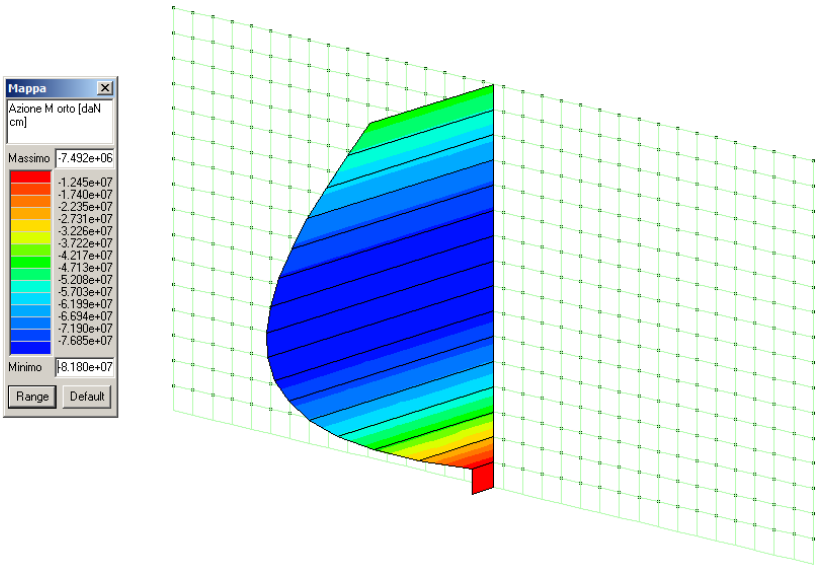
Permanente

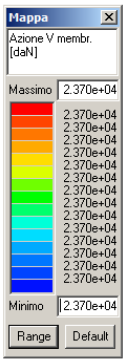

Mappa
Azione N membr. [daN]
Massimo 5.559e+04
5.557e+04
5.554e+04
5.552e+04
5.549e+04
5.547e+04
5.544e+04
5.542e+04
5.539e+04
5.537e+04
5.534e+04
5.532e+04
5.529e+04
5.527e+04
5.524e+04
Minimo 5.521e+04
Range
Default

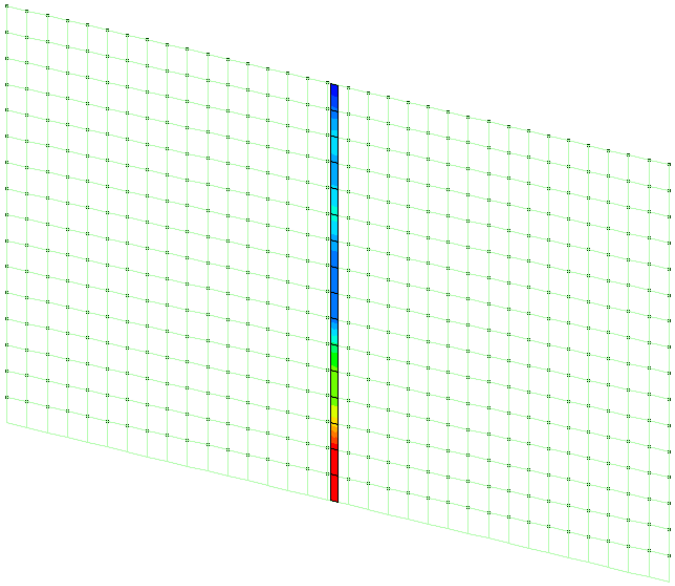

Mappa
Azione V membr. [daN]
Massimo 2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
2.370e+04
Minimo 2.370e+04
Range
Default

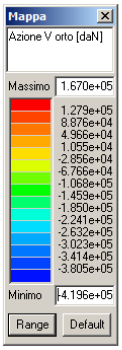

Mappa
Azione V orto [daN]
Massimo 1.670e+05
1.279e+05
8.876e+04
4.966e+04
1.055e+04
-2.856e+04
-6.766e+04
-1.068e+05
-1.459e+05
-1.850e+05
-2.241e+05
-2.632e+05
-3.023e+05
-3.414e+05
-3.805e+05
Minimo -4.196e+05
Range
Default

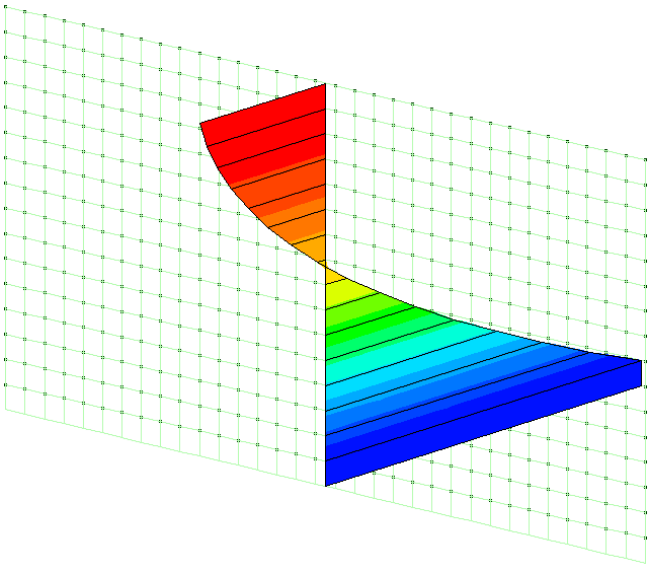

Mappa
Azione M membr. [daN cm]
Massimo -1.965e+07
-2.086e+07
-2.206e+07
-2.327e+07
-2.447e+07
-2.568e+07
-2.688e+07
-2.809e+07
-2.929e+07
-3.050e+07
-3.170e+07
-3.291e+07
-3.411e+07
-3.531e+07
-3.652e+07
Minimo -3.772e+07
Range
Default


Mappa
Azione M orto [daN cm]
Massimo -7.492e+06
-1.245e+07
-1.740e+07
-2.235e+07
-2.731e+07
-3.226e+07
-3.722e+07
-4.217e+07
-4.713e+07
-5.208e+07
-5.703e+07
-6.199e+07
-6.694e+07
-7.190e+07
-7.685e+07
Minimo -8.180e+07
Range
Default

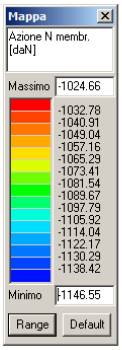


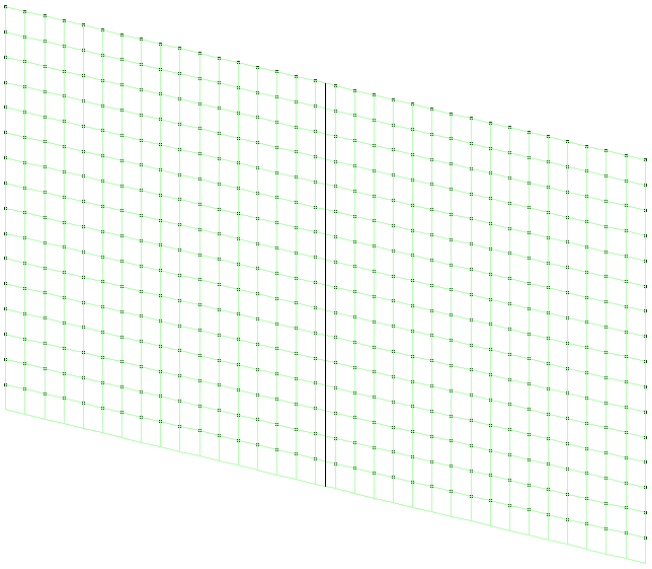


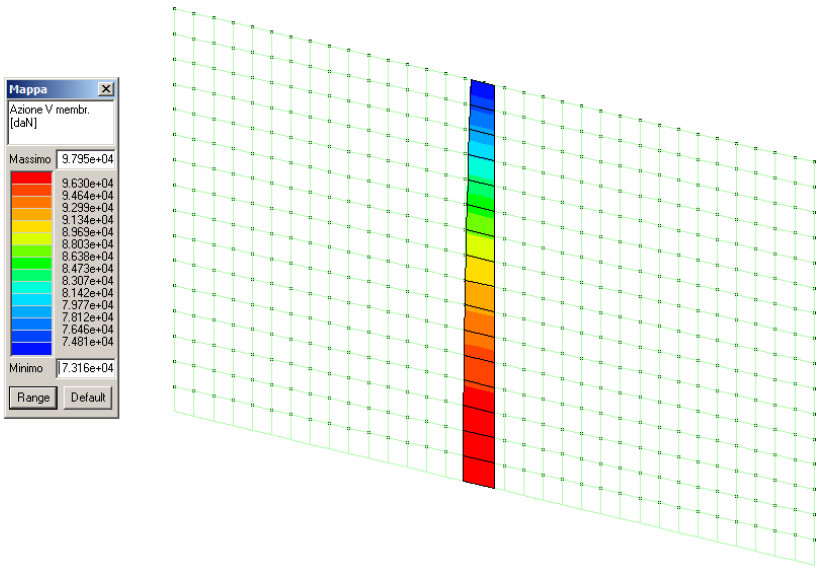


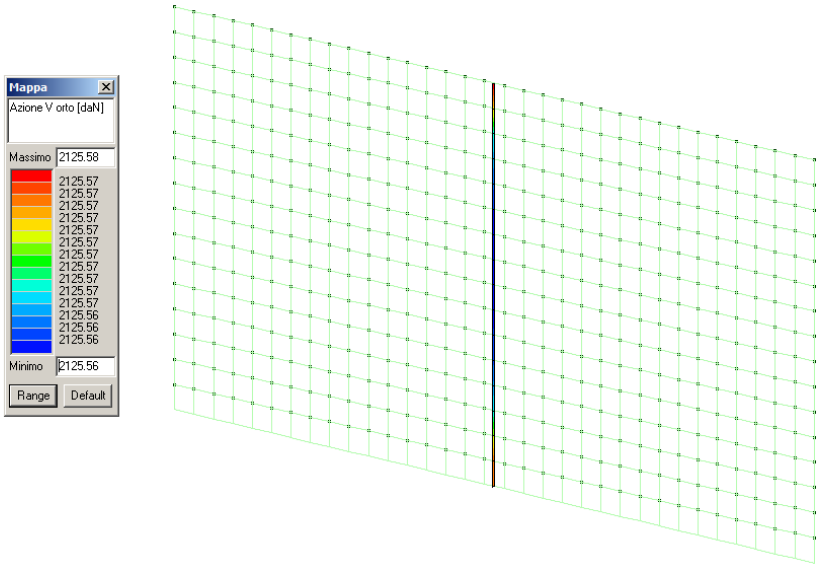


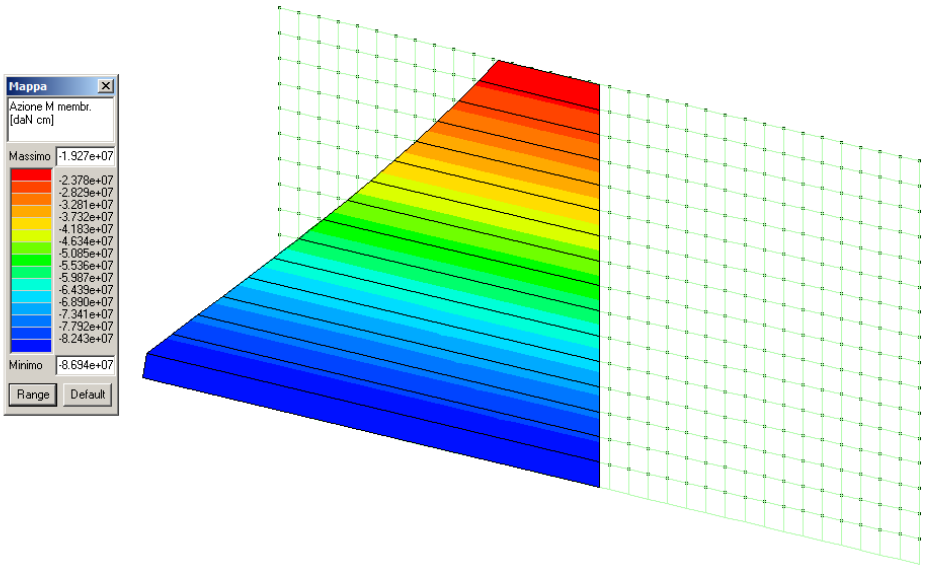
Sisma direzione 0°

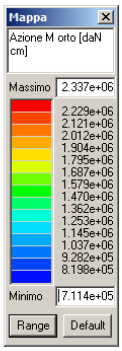


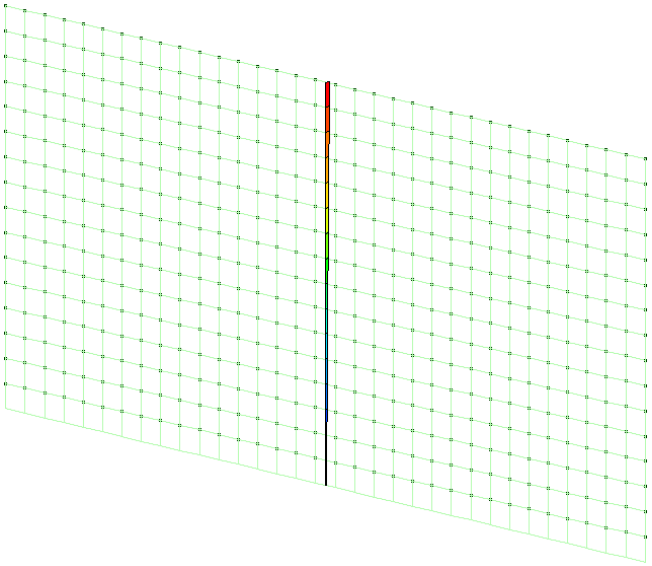



Mappa
Azione V membr. [daN]
Massimo 9.795e+04
9.630e+04
9.464e+04
9.299e+04
9.134e+04
8.969e+04
8.803e+04
8.638e+04
8.473e+04
8.307e+04
8.142e+04
7.977e+04
7.812e+04
7.646e+04
7.481e+04
Minimo 7.316e+04
Range
Default

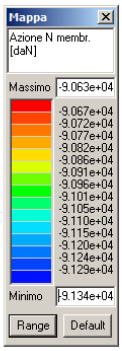

Mappa
Azione V orto [daN]
Massimo 2125.58
2125.57
2125.57
2125.57
2125.57
2125.57
2125.57
2125.57
2125.57
2125.57
2125.57
2125.56
2125.56
2125.56
Minimo 2125.56
Range
Default

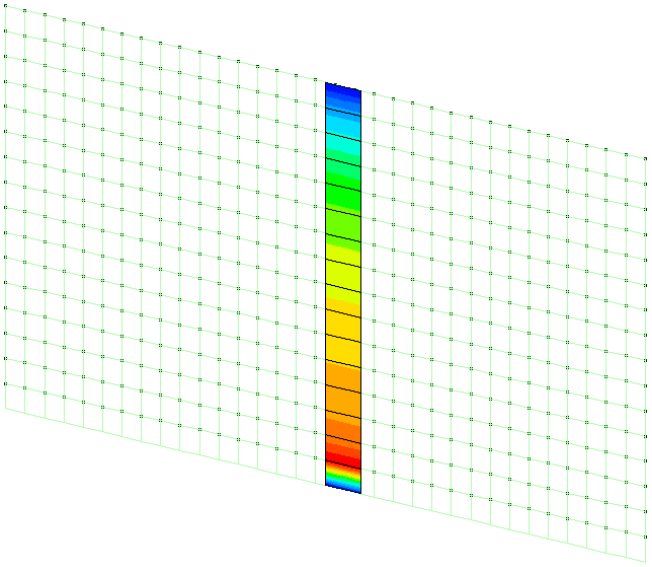

Mappa
Azione M membr. [daN cm]
Massimo -1.927e+07
-2.378e+07
-2.829e+07
-3.281e+07
-3.732e+07
-4.183e+07
-4.634e+07
-5.085e+07
-5.536e+07
-5.987e+07
-6.439e+07
-6.890e+07
-7.341e+07
-7.792e+07
-8.243e+07
Minimo -8.694e+07
Range
Default

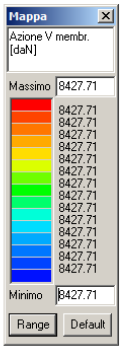


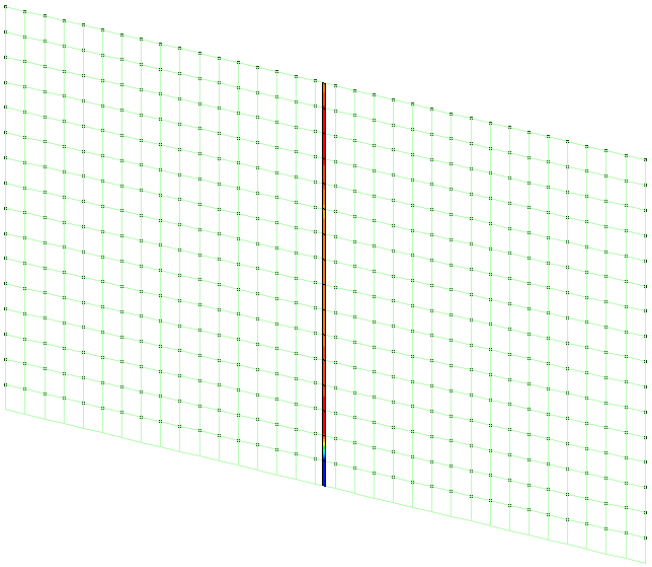


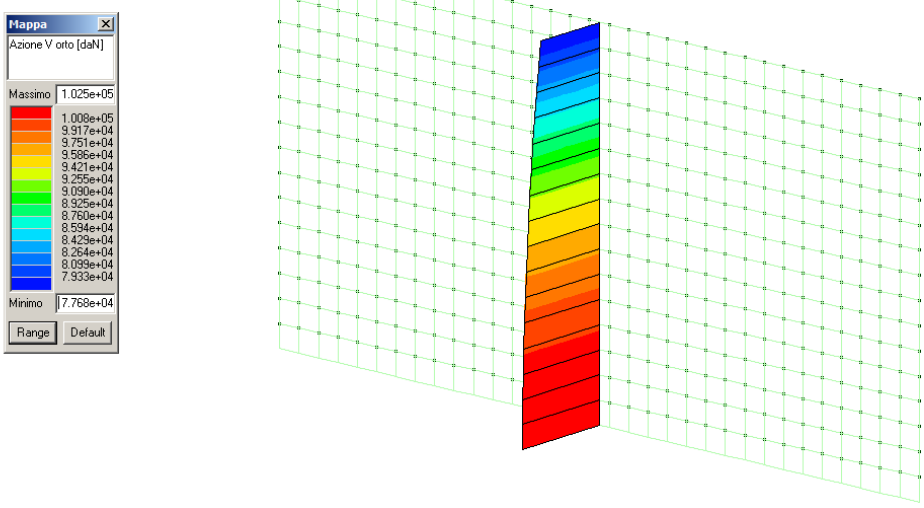
Sisma direzione 90°

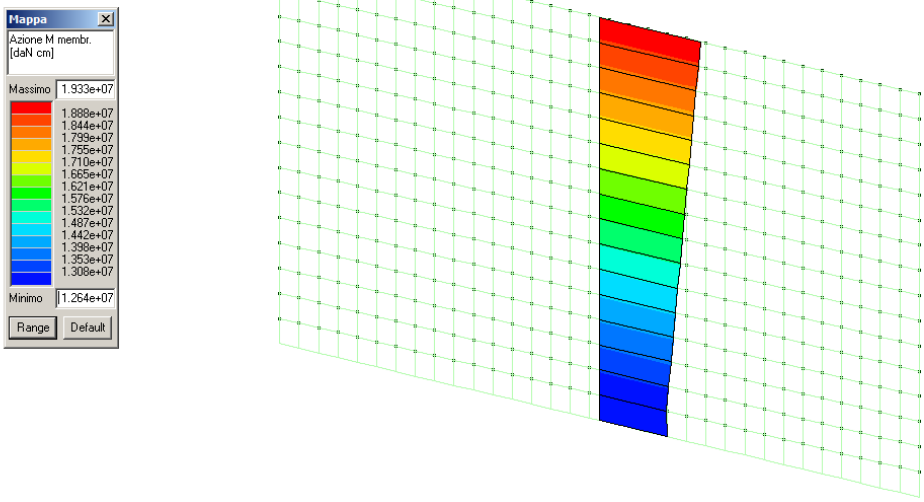


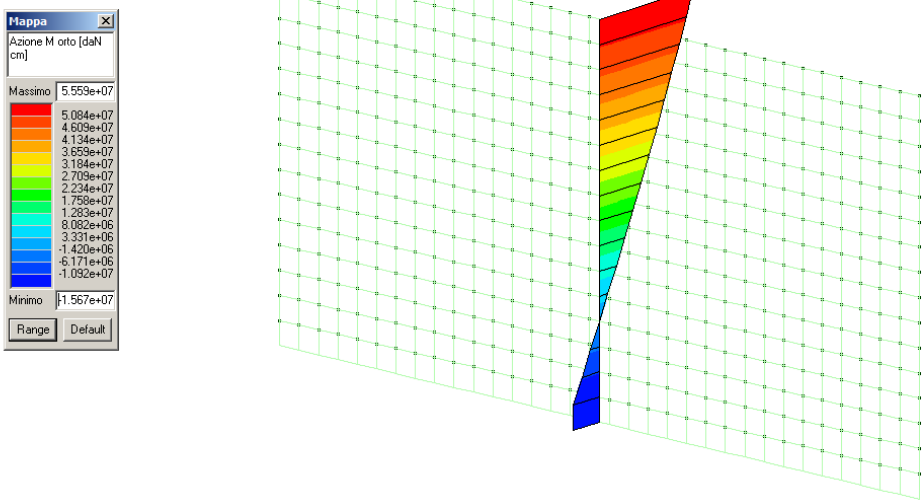




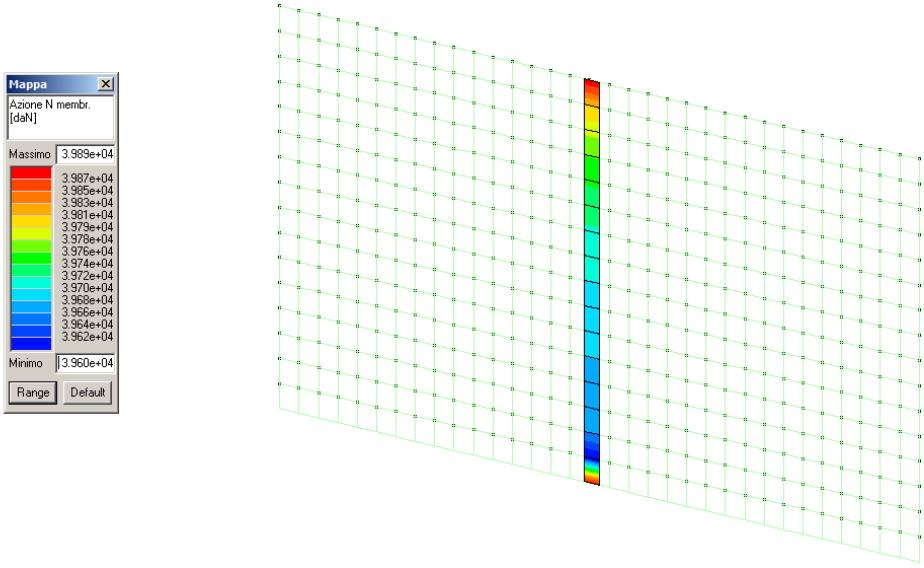


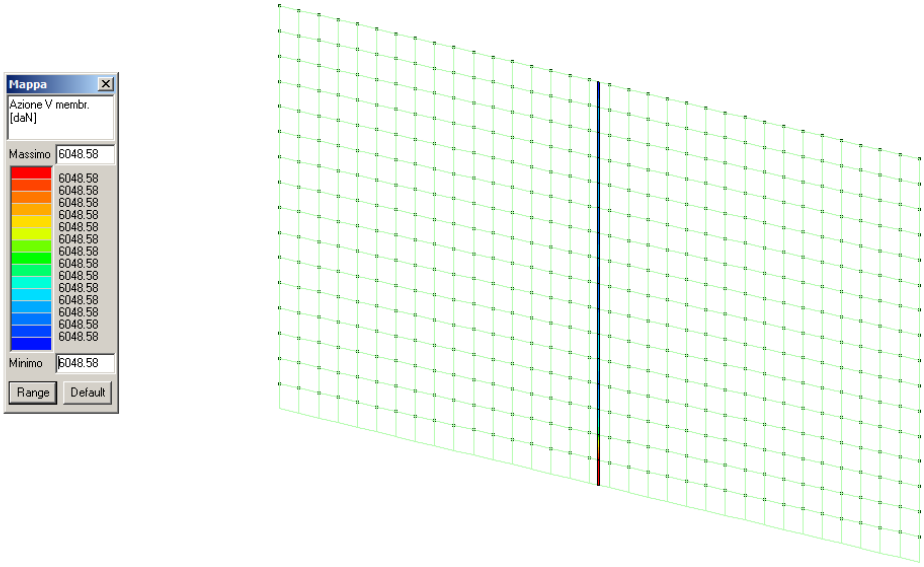

Mappa
Azione V orto [daN]
Massimo 1.025e+05
1.008e+05
9.917e+04
9.751e+04
9.586e+04
9.421e+04
9.255e+04
9.090e+04
8.925e+04
8.760e+04
8.594e+04
8.429e+04
8.264e+04
8.099e+04
7.933e+04
Minimo 7.768e+04
Range
Default

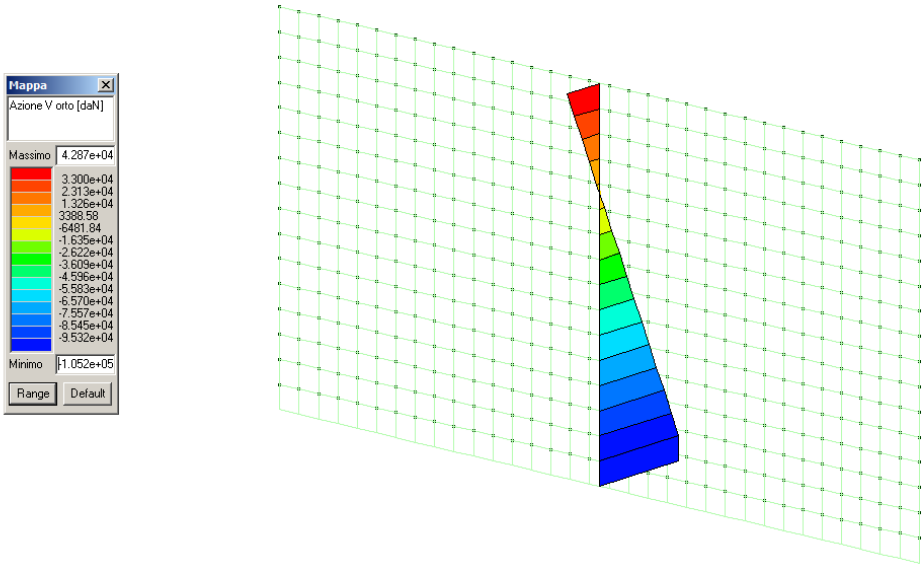

Mappa
Azione M membr. [daN cm]
Massimo 1.933e+07
1.888e+07
1.844e+07
1.799e+07
1.755e+07
1.710e+07
1.665e+07
1.621e+07
1.576e+07
1.532e+07
1.487e+07
1.442e+07
1.398e+07
1.353e+07
1.308e+07
Minimo 1.264e+07
Range
Default

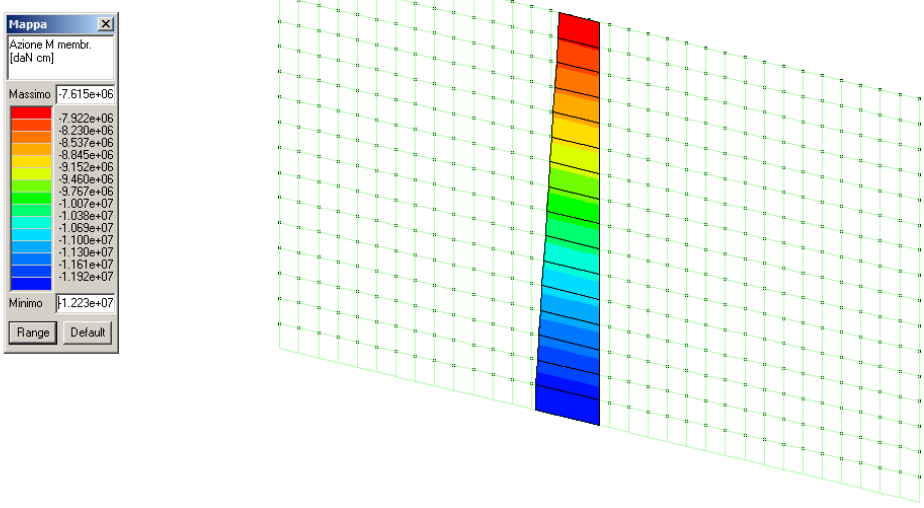

Mappa
Azione M orto [daN cm]
Massimo 5.559e+07
5.084e+07
4.609e+07
4.134e+07
3.659e+07
3.184e+07
2.709e+07
2.234e+07
1.758e+07
1.283e+07
8.082e+06
3.331e+06
-1.420e+06
-6.171e+06
-1.092e+07
Minimo -1.567e+07
Range
Default

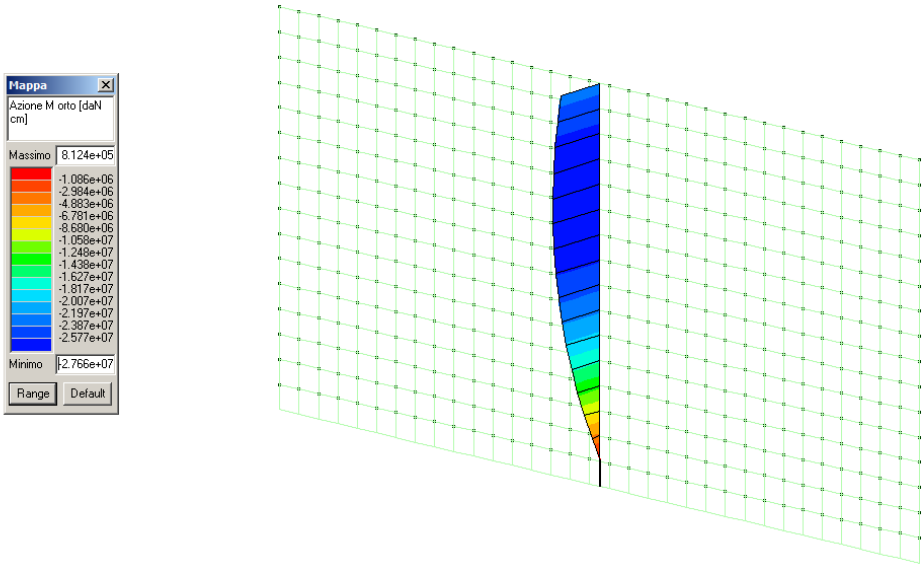
sovraspinta terra per sisma direzione 90°



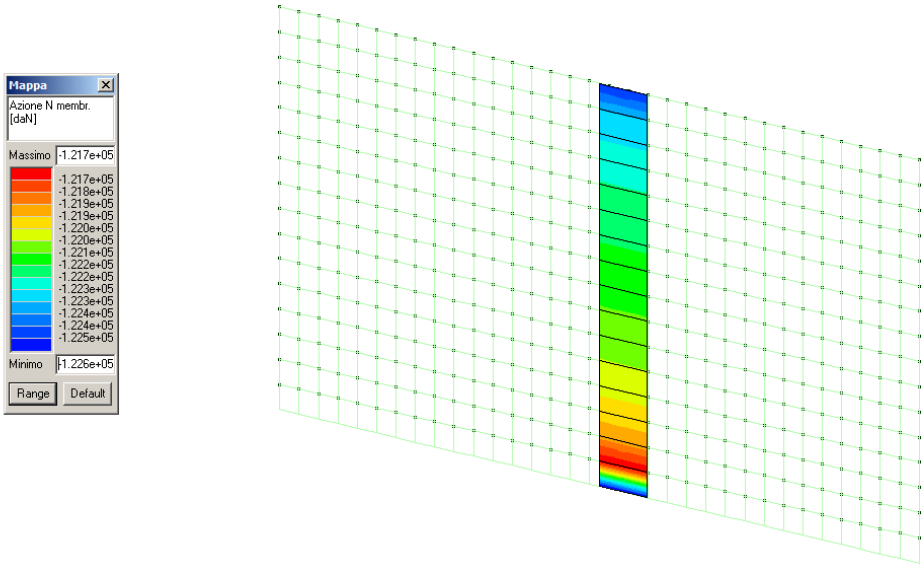


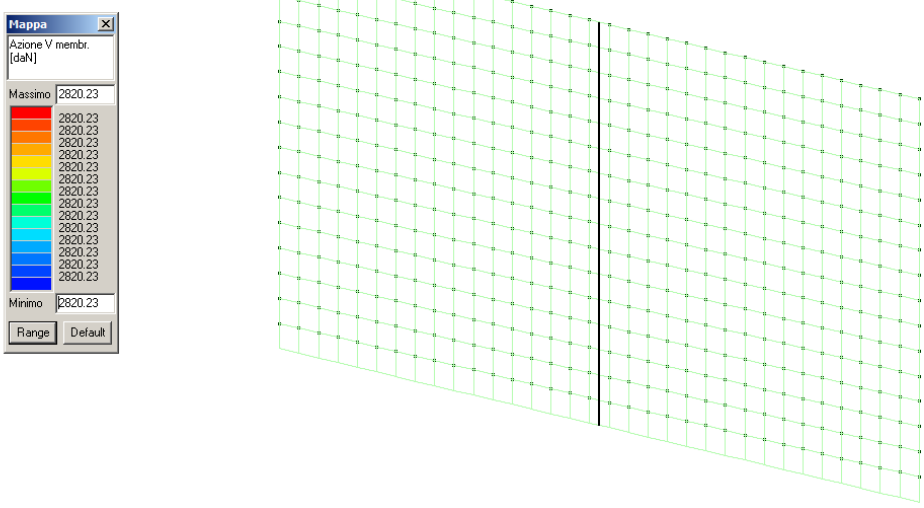


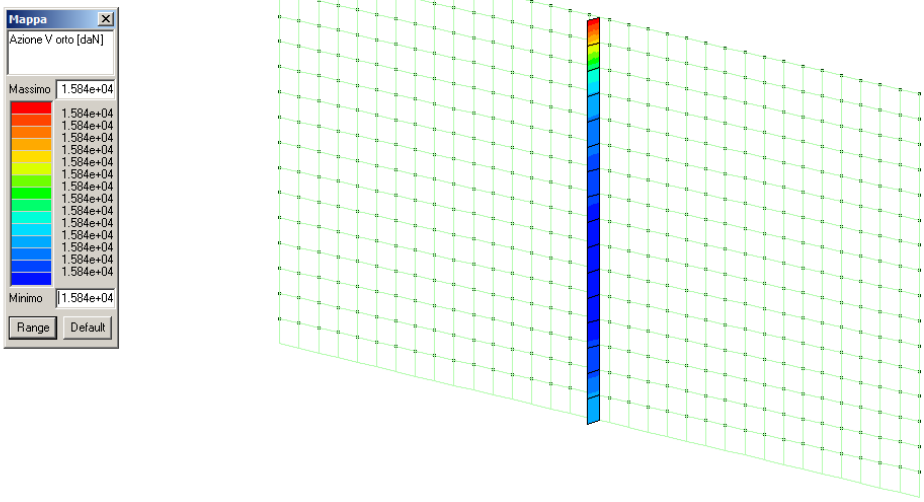


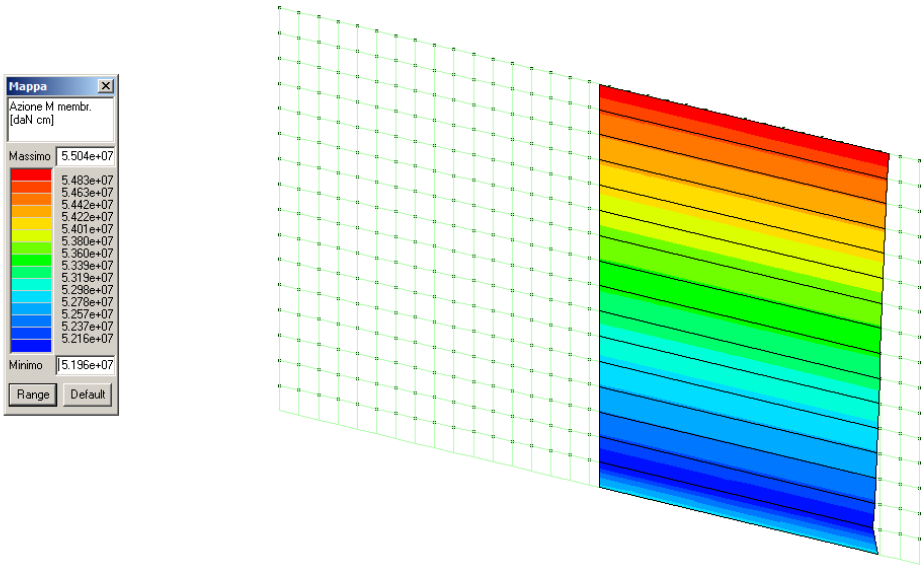


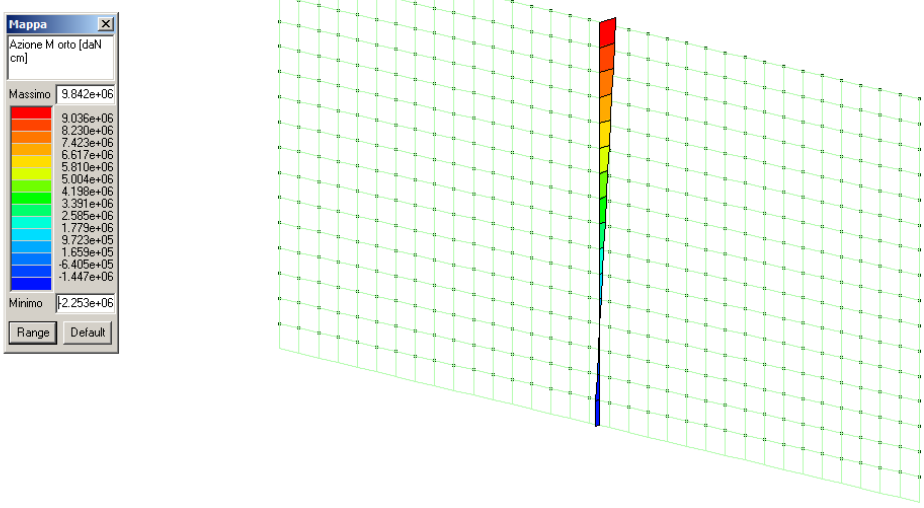
Carico mobile da traffico in posizione 1



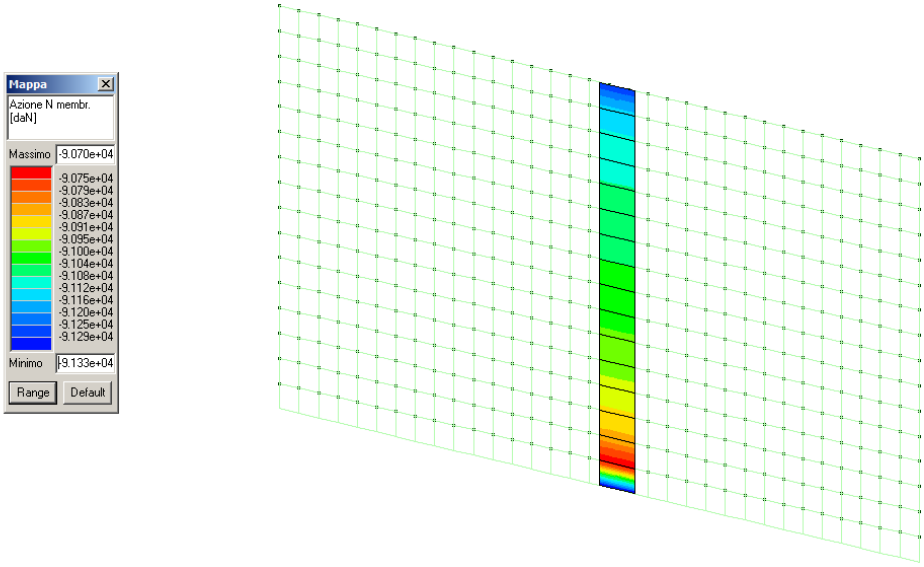

Mappa
Azione V membr. [daN]
Massimo 2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
2820.23
Minimo 2820.23
Range
Default

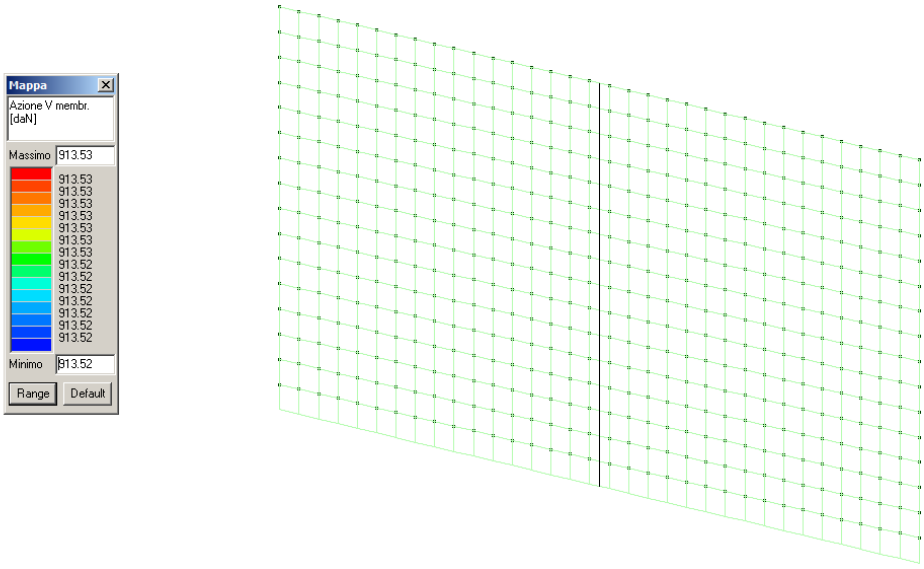

Mappa
Azione V orto [daN]
Massimo 1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
1.584e+04
Minimo 1.584e+04
Range
Default

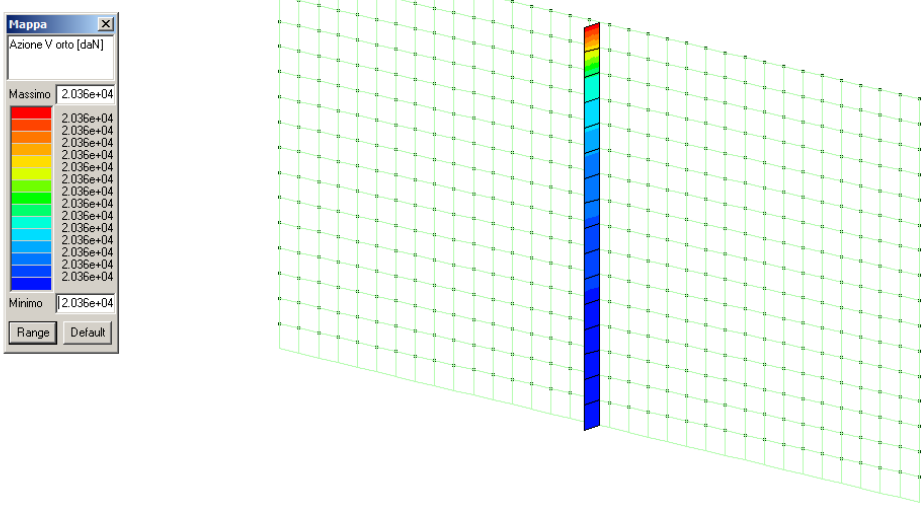

Mappa
Azione M membr. [daN cm]
Massimo 5.504e+07
5.483e+07
5.463e+07
5.442e+07
5.422e+07
5.401e+07
5.380e+07
5.360e+07
5.339e+07
5.319e+07
5.298e+07
5.278e+07
5.257e+07
5.237e+07
5.216e+07
Minimo 5.196e+07
Range
Default

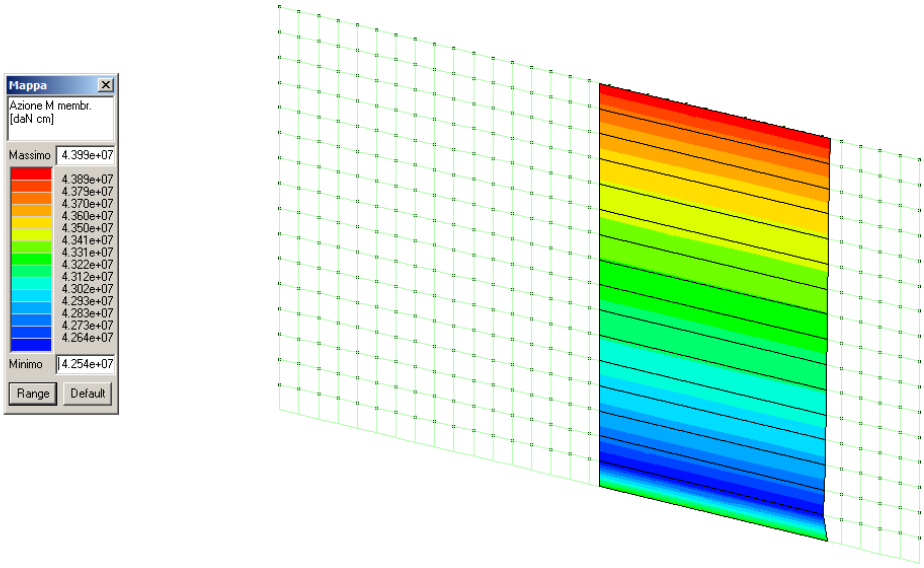


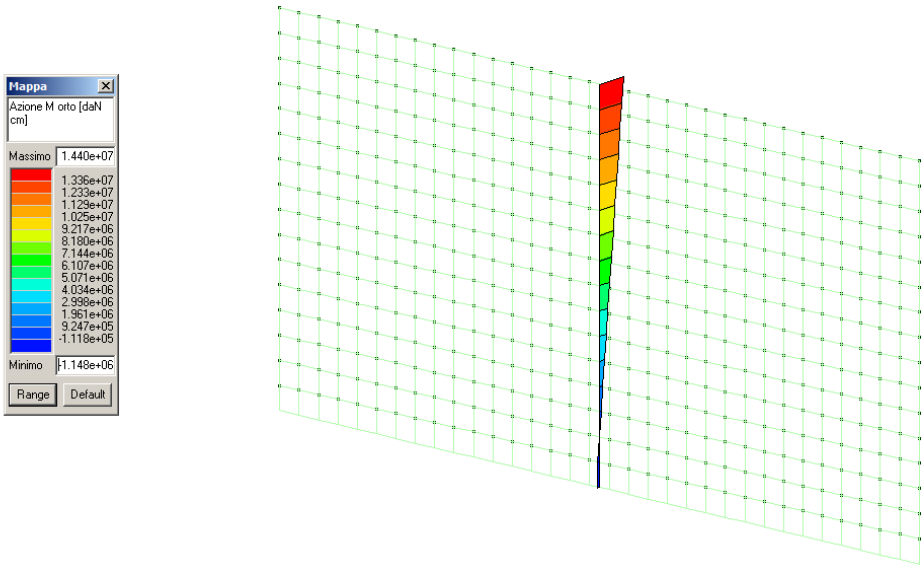
Carico mobile da traffico in posizione 2



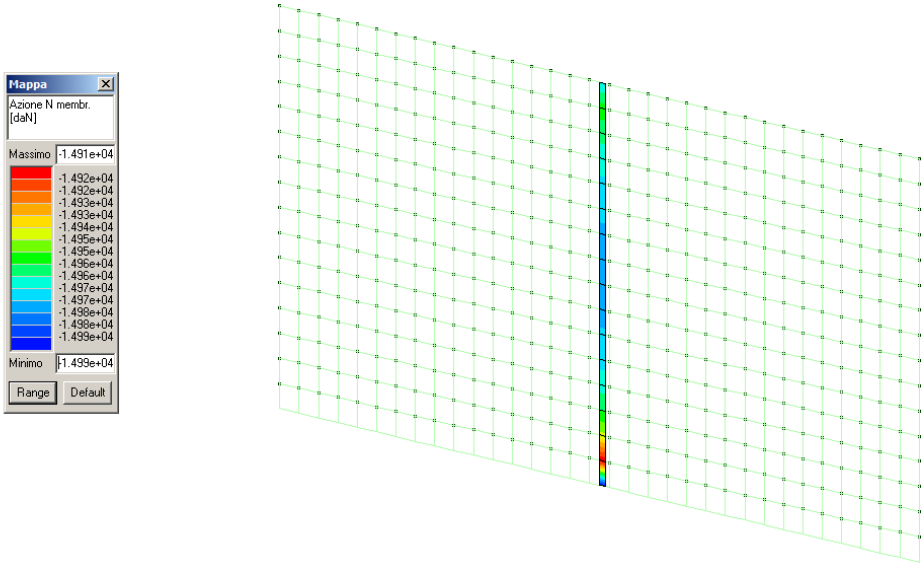


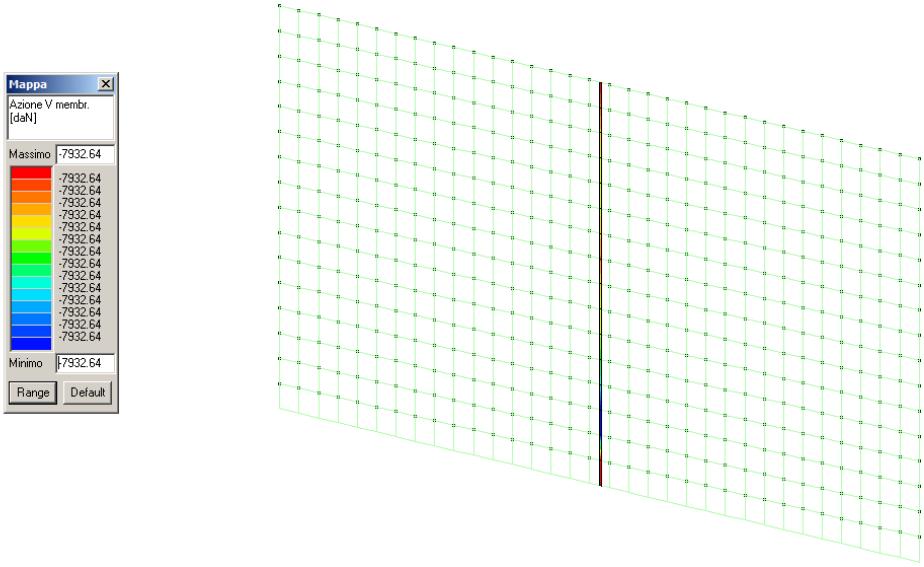

Mappa
Azione V orto [daN]
Massimo 2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
2.036e+04
Minimo 2.036e+04
Range
Default

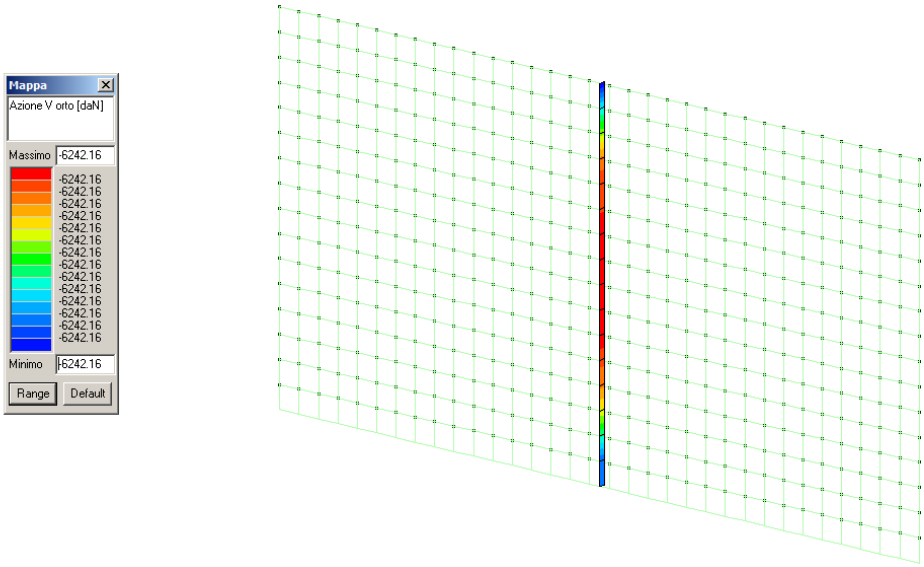

Mappa
Azione M membr. [daN cm]
Massimo 4.399e+07
4.389e+07
4.379e+07
4.370e+07
4.360e+07
4.350e+07
4.341e+07
4.331e+07
4.322e+07
4.312e+07
4.302e+07
4.293e+07
4.283e+07
4.273e+07
4.264e+07
Minimo 4.254e+07
Range
Default

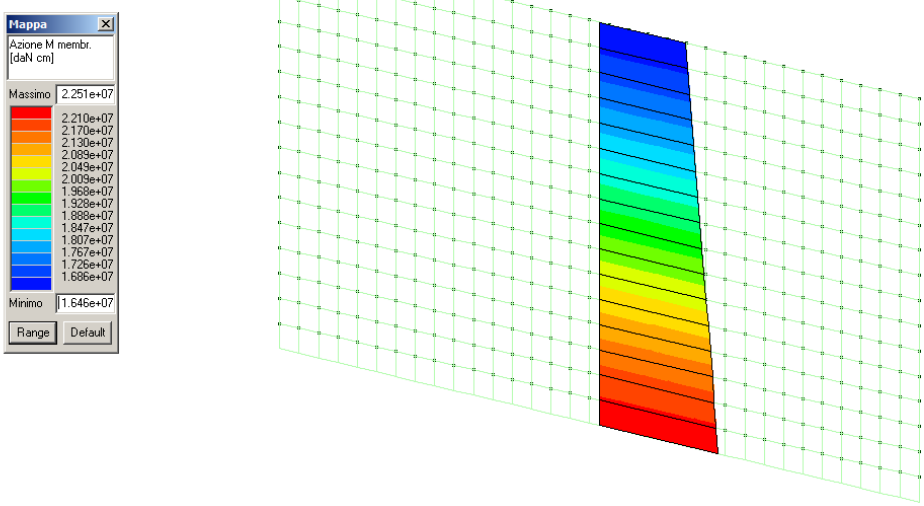

Mappa
Azione M orto [daN cm]
Massimo 1.440e+07
1.336e+07
1.233e+07
1.129e+07
1.025e+07
9.217e+06
8.180e+06
7.144e+06
6.107e+06
5.071e+06
4.034e+06
2.998e+06
1.961e+06
9.247e+05
-1.118e+05
Minimo -1.148e+06
Range
Default

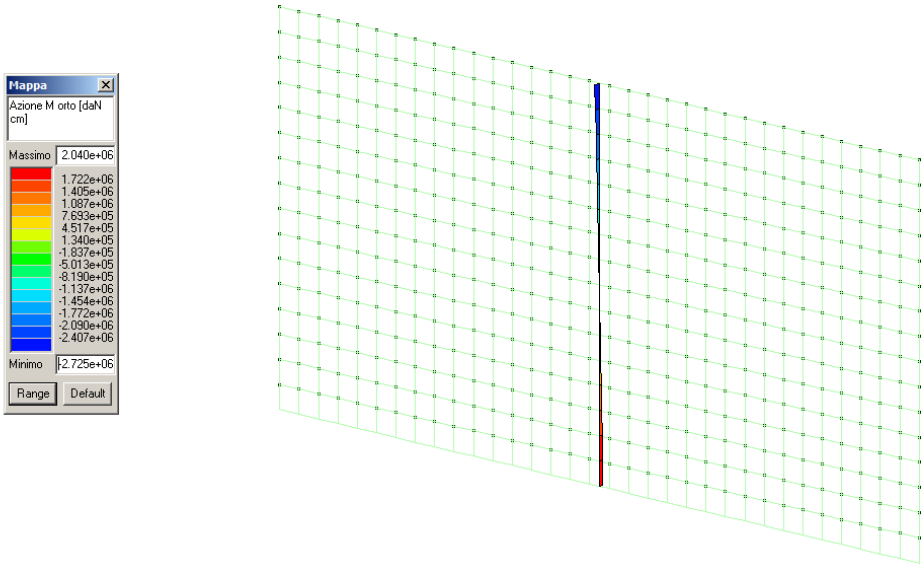
Carico mobile da traffico in posizione 3



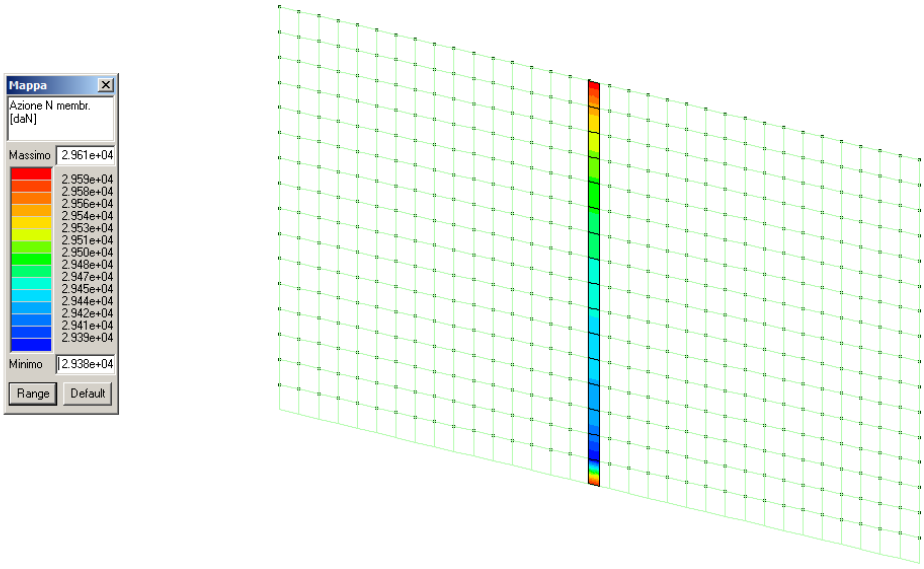


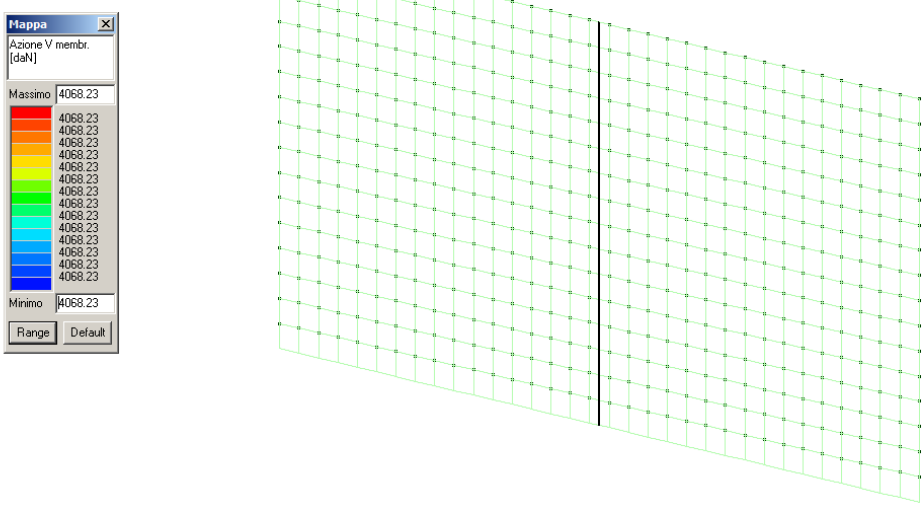






Carico mobile da traffico retro spalla




Mappa
Azione V membr. [daN]
Massimo 4068.23
4068.23
4068.23
4068.23
4068.23
4068.23
4068.23
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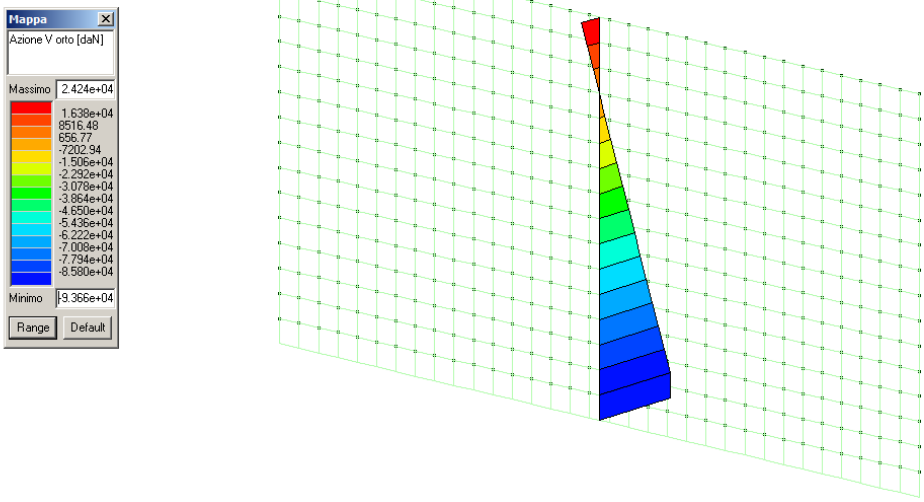
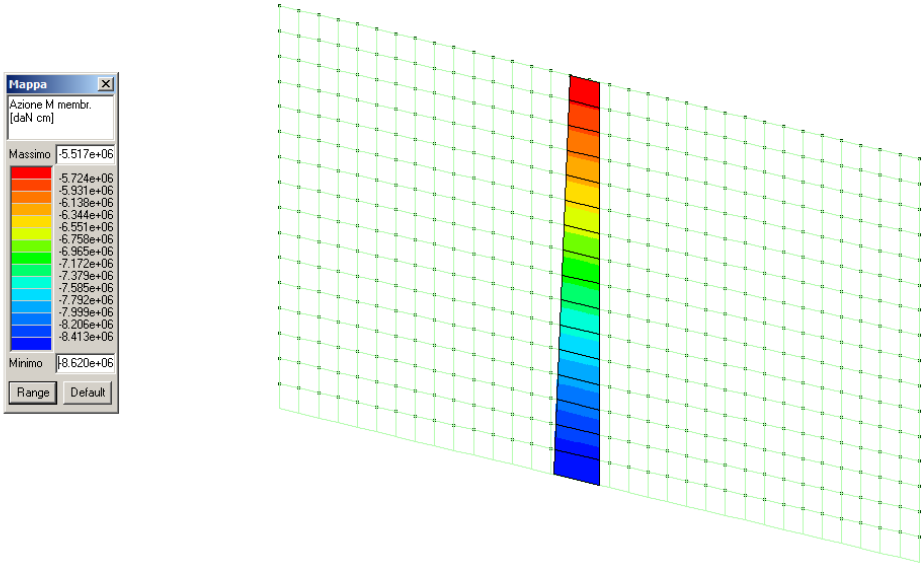
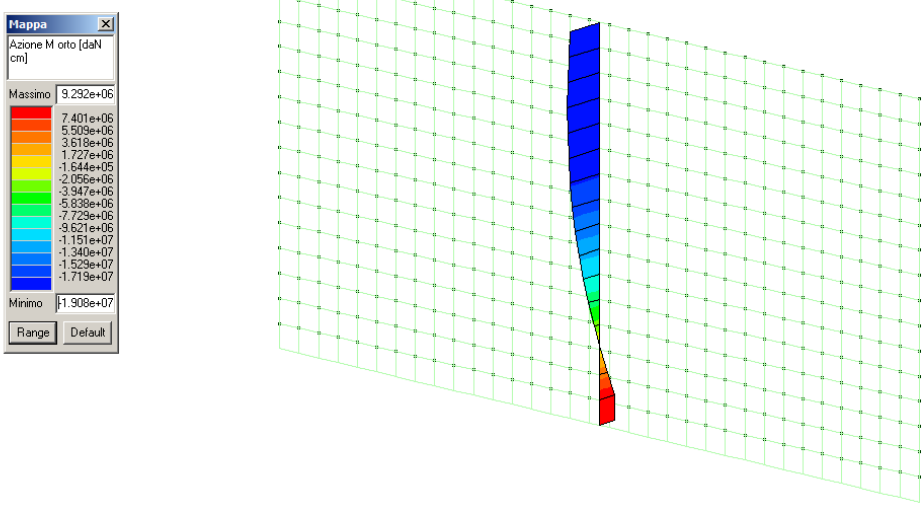
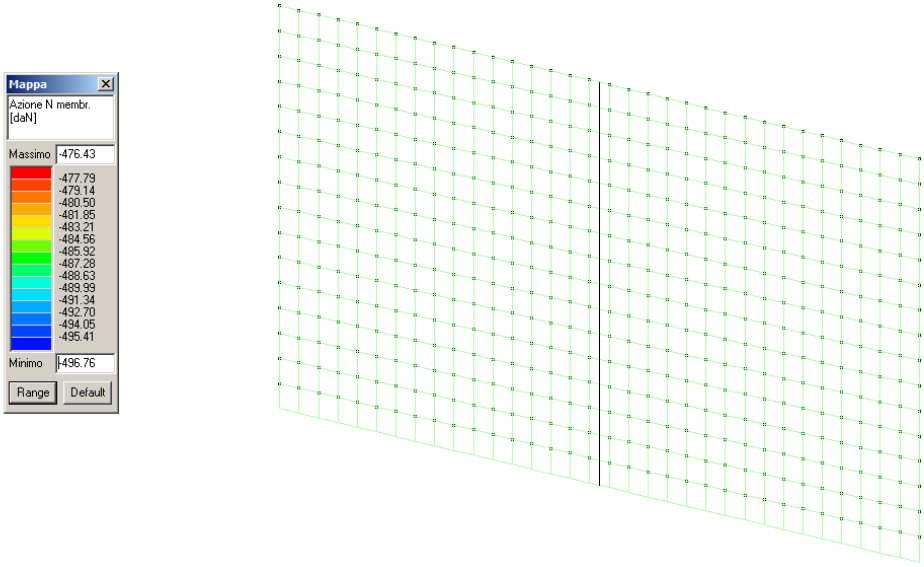
4068.23
4068.23
4068.23
4068.23
4068.23
4068.23
Minimo 4068.23
Range
Default

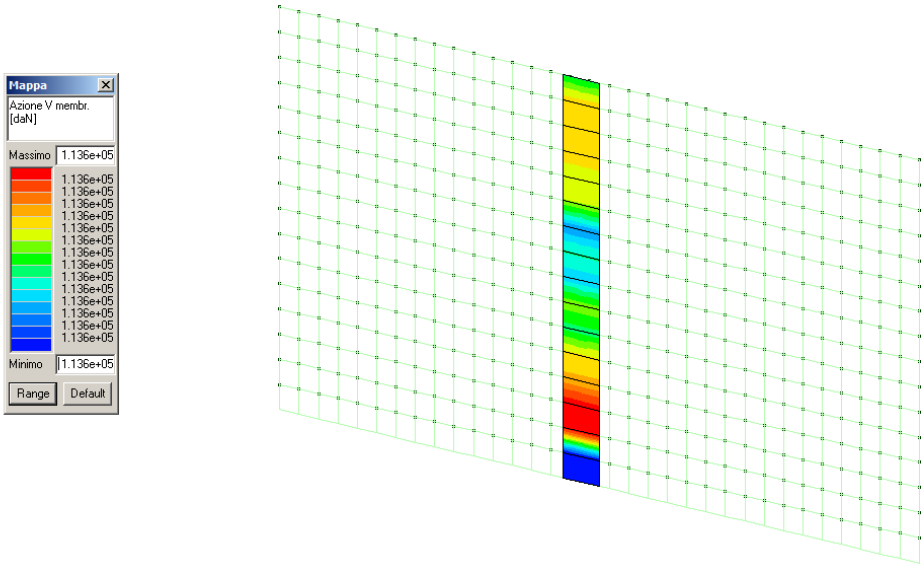

Mappa
Azione V orto [daN]
Massimo 2.424e+04
1.638e+04
8516.48
656.77
-7202.94
-1.506e+04
-2.292e+04
-3.078e+04
-3.864e+04
-4.650e+04
-5.436e+04
-6.222e+04
-7.008e+04
-7.794e+04
-8.580e+04
Minimo -9.366e+04
Range
Default

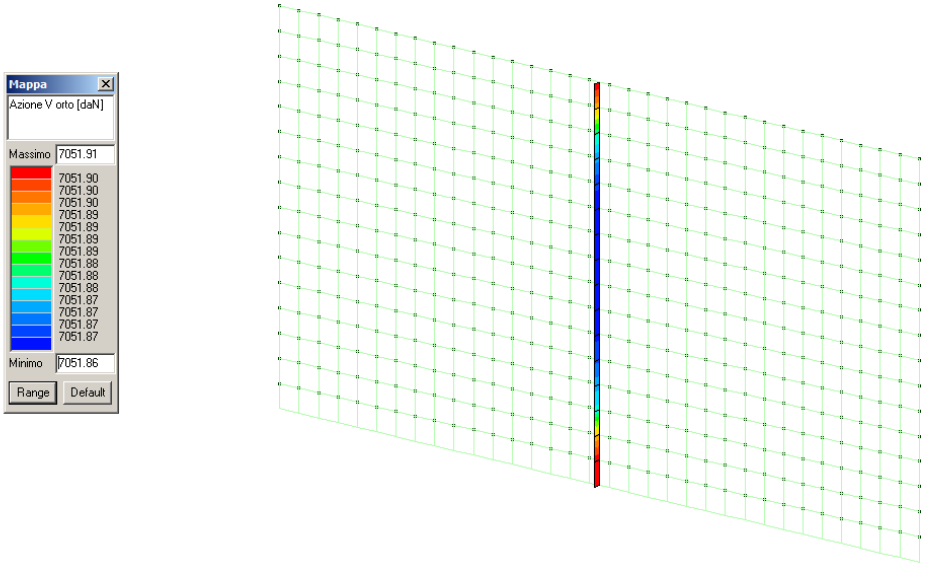

Mappa
Azione M membr. [daN cm]
Massimo -5.517e+06
-5.724e+06
-5.931e+06
-6.138e+06
-6.344e+06
-6.551e+06
-6.758e+06
-6.965e+06
-7.172e+06
-7.379e+06
-7.585e+06
-7.792e+06
-7.999e+06
-8.206e+06
-8.413e+06
Minimo -8.620e+06
Range
Default

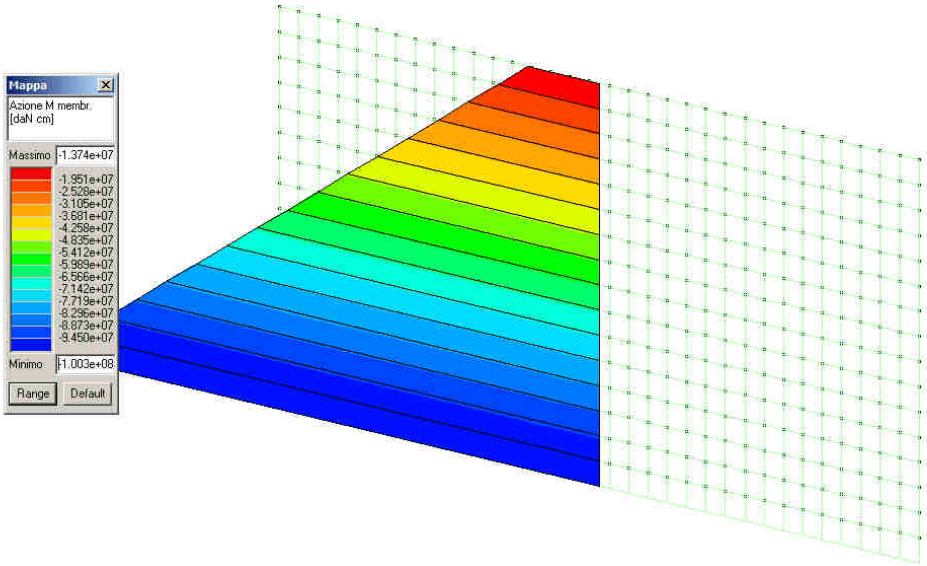


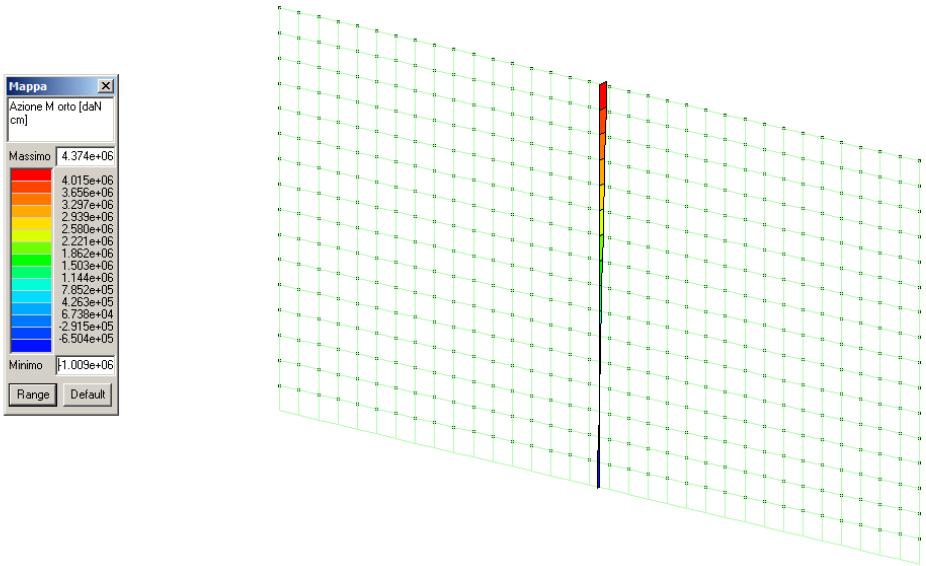
Carico da urto longitudinale su setto



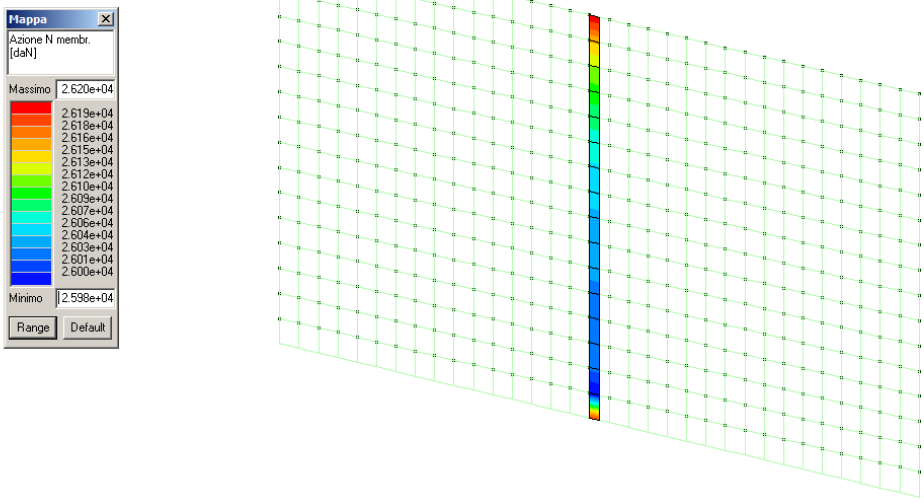


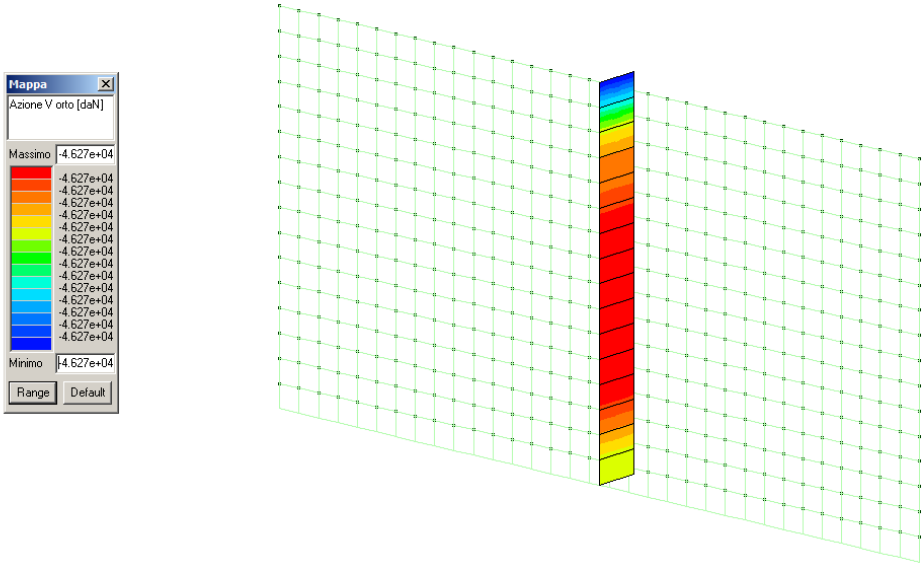

Mappa
Azione V orto [daN]
Massimo 7051.91
7051.90
7051.90
7051.90
7051.89
7051.89
7051.89
7051.89
7051.88
7051.88
7051.88
7051.87
7051.87
7051.87
7051.87
Minimo 7051.86
Range
Default

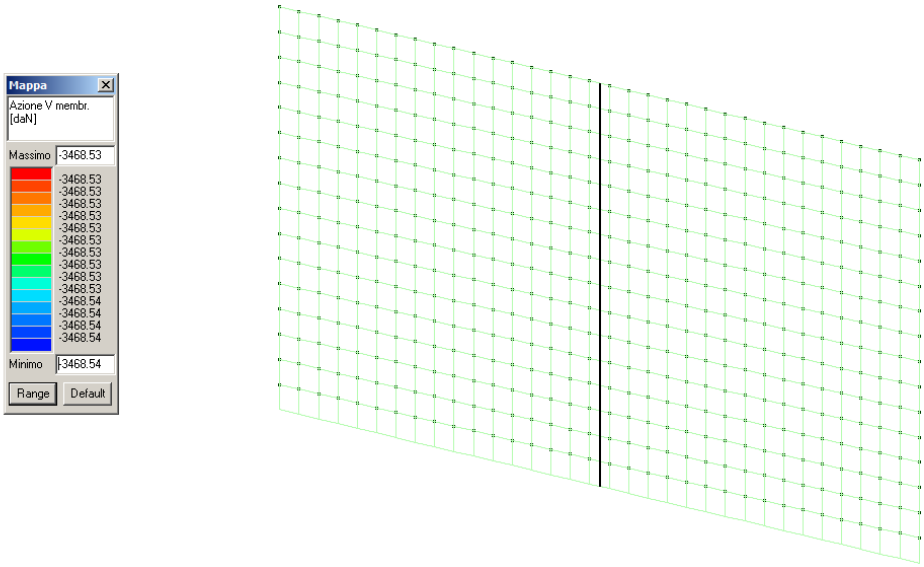

Mappa
Azione M membr. [daN cm]
Massimo -1.374e+07
-1.951e+07
-2.528e+07
-3.105e+07
-3.681e+07
-4.258e+07
-4.835e+07
-5.412e+07
-5.989e+07
-6.566e+07
-7.142e+07
-7.719e+07
-8.296e+07
-8.873e+07
-9.450e+07
Minimo -1.003e+08
Range
Default

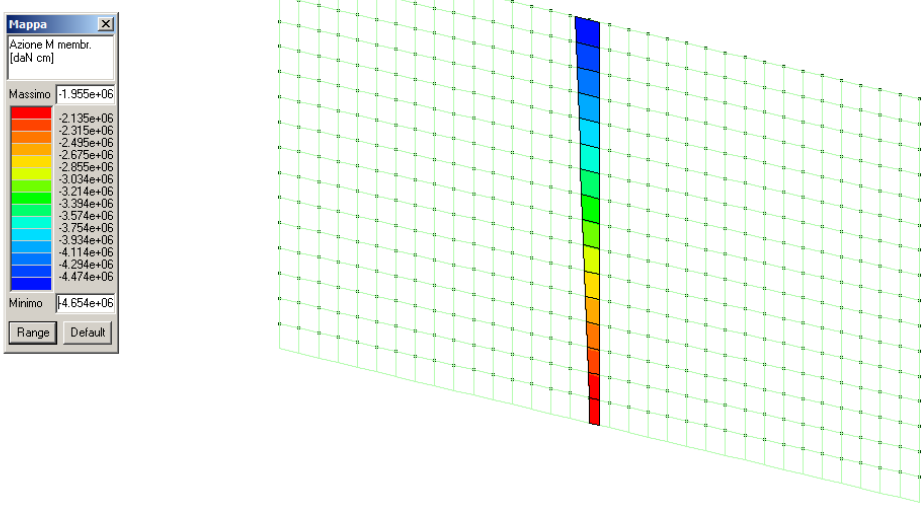

Mappa
Azione M orto [daN cm]
Massimo 4.374e+06
4.015e+06
3.656e+06
3.297e+06
2.939e+06
2.580e+06
2.221e+06
1.862e+06
1.503e+06
1.144e+06
7.852e+05
4.263e+05
6.738e+04
-2.915e+05
-6.504e+05
Minimo -1.009e+06
Range
Default

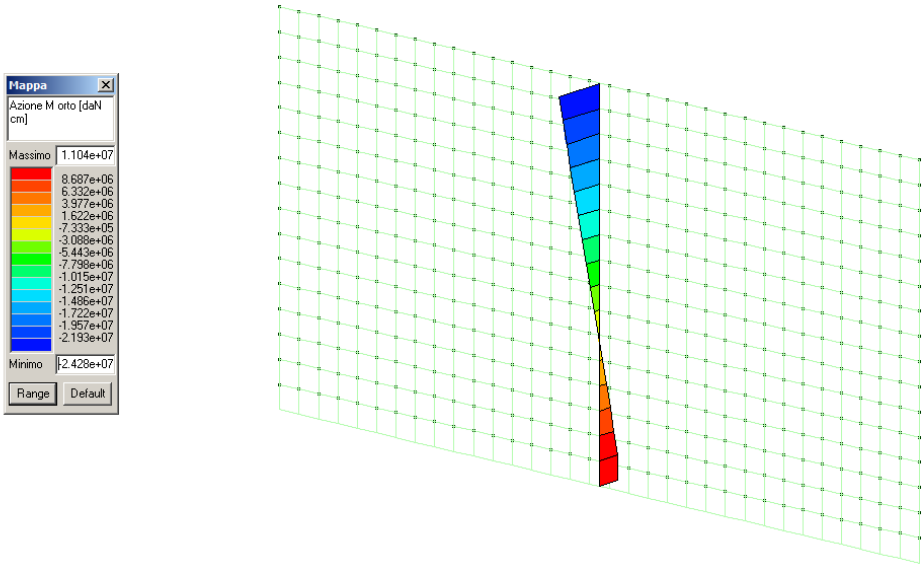
Carico da urto trasversale su setto



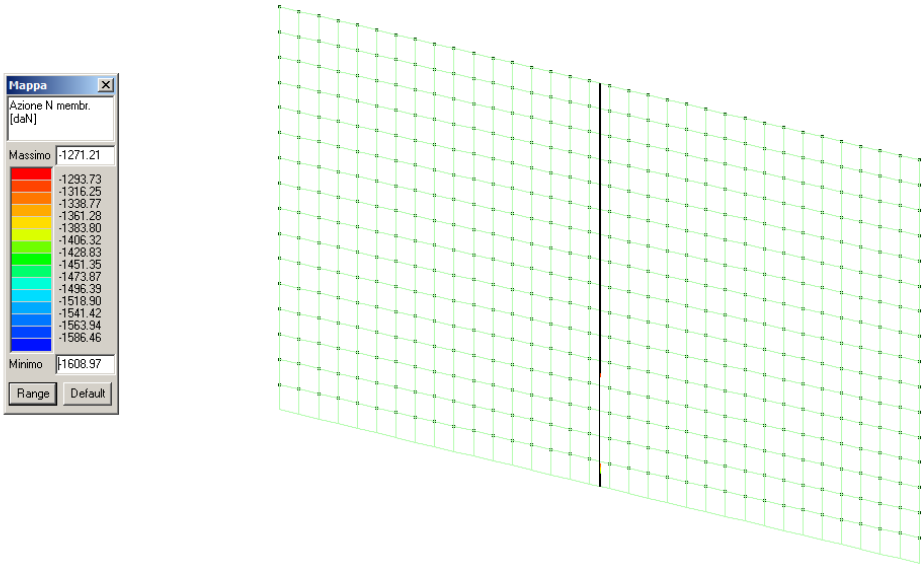


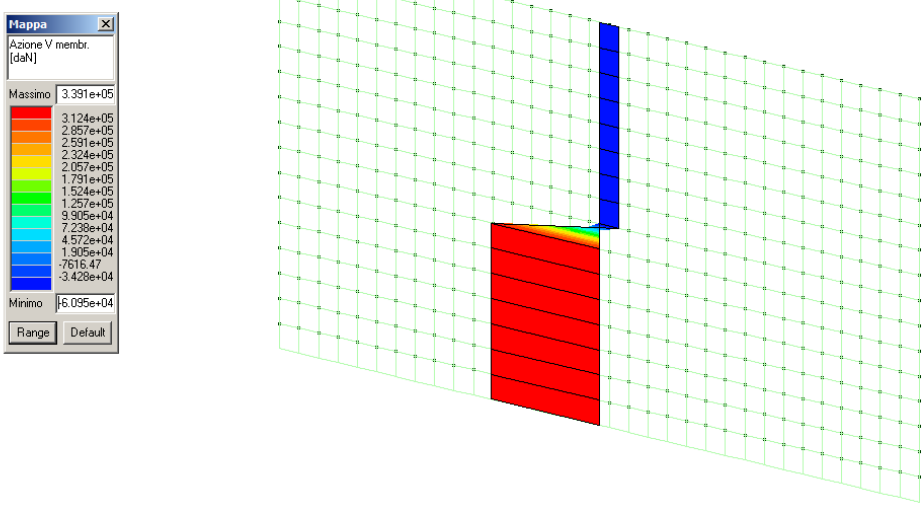


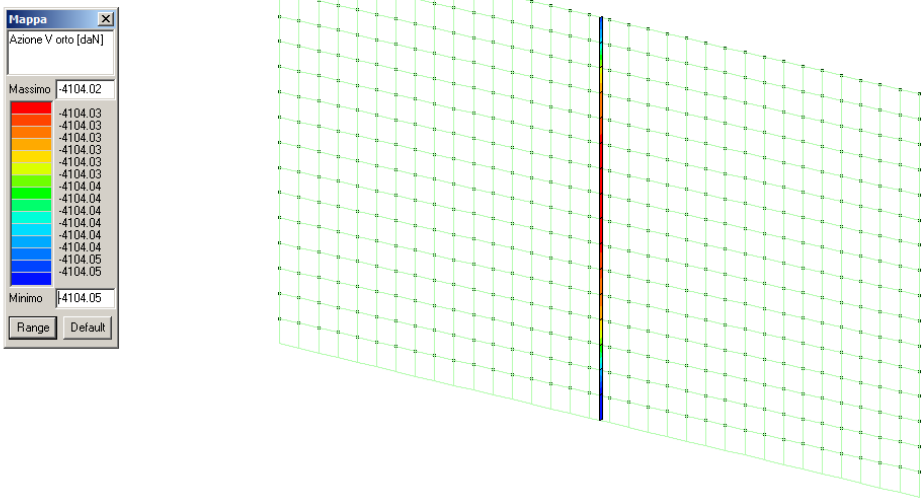


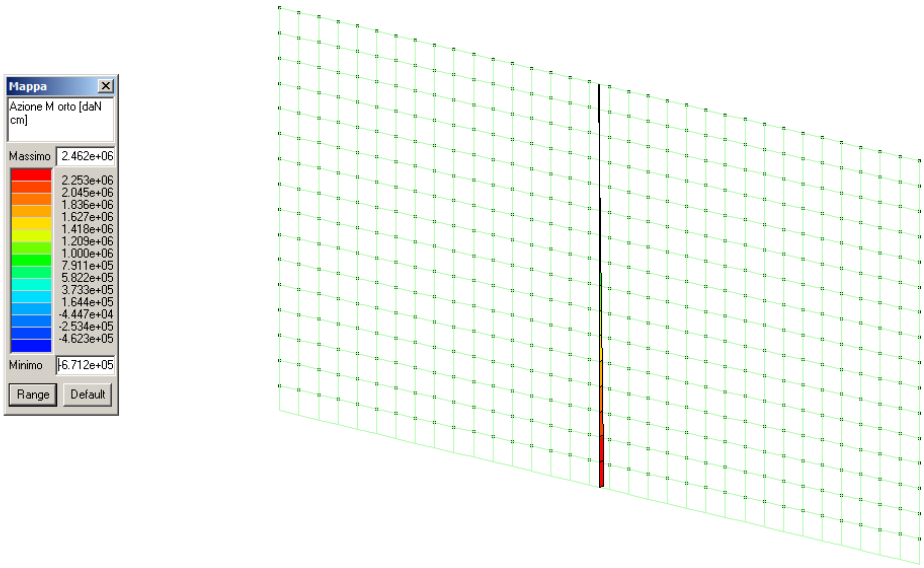


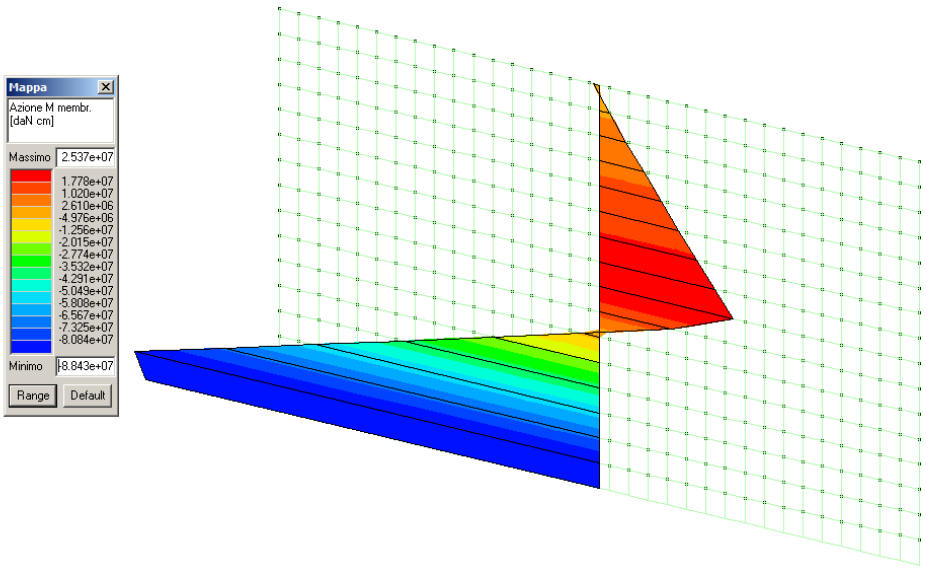
Carico da urto longitudinale su spalla



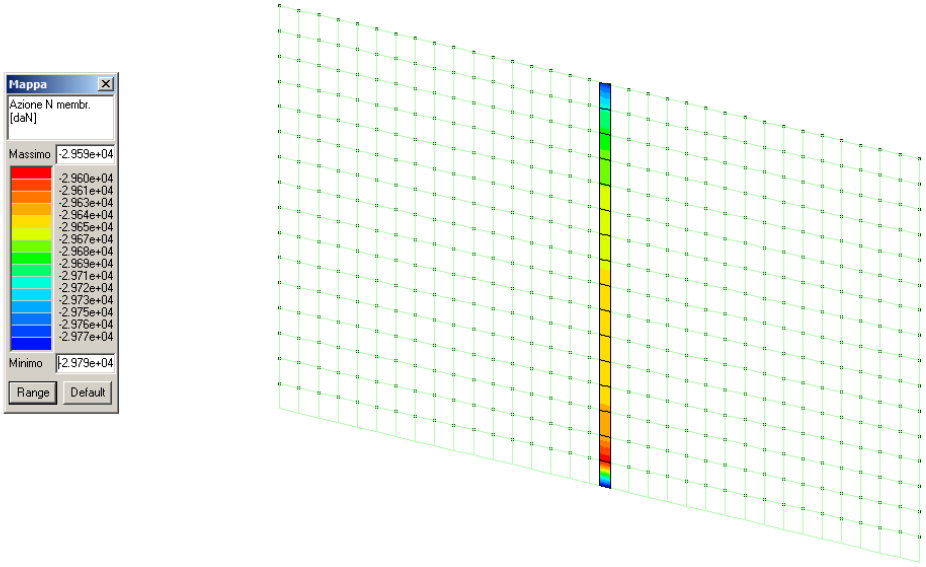

Mappa
Azione V membr. [daN]
Massimo 3.391e+05
3.124e+05
2.857e+05
2.591e+05
2.324e+05
2.057e+05
1.791e+05
1.524e+05
1.257e+05
9.905e+04
7.238e+04
4.572e+04
1.905e+04
-7616.47
-3.428e+04
Minimo -6.095e+04
Range
Default

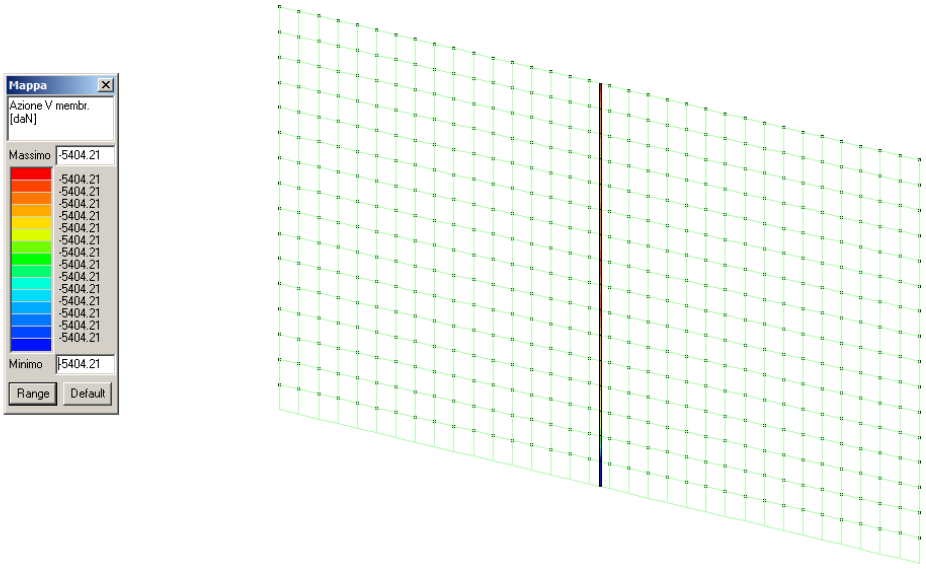

Mappa
Azione V orto [daN]
Massimo -4104.02
-4104.03
-4104.03
-4104.03
-4104.03
-4104.03
-4104.03
-4104.04
-4104.04
-4104.04
-4104.04
-4104.04
-4104.04
-4104.04
-4104.05
-4104.05
Minimo -4104.05
Range
Default

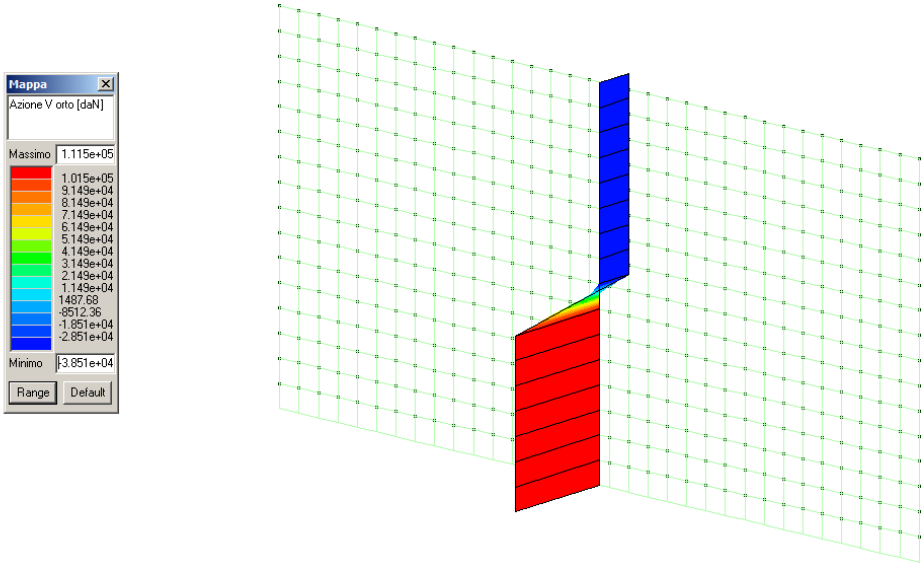

Mappa
Azione M orto [daN cm]
Massimo 2.462e+06
2.253e+06
2.045e+06
1.836e+06
1.627e+06
1.418e+06
1.209e+06
1.000e+06
7.911e+05
5.822e+05
3.733e+05
1.644e+05
-4.447e+04
-2.534e+05
-4.623e+05
Minimo -6.712e+05
Range
Default

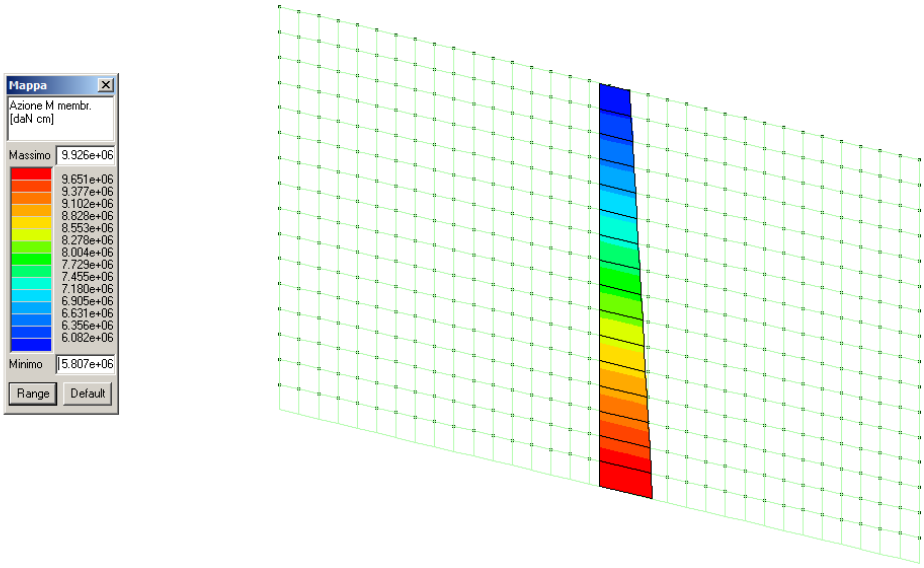


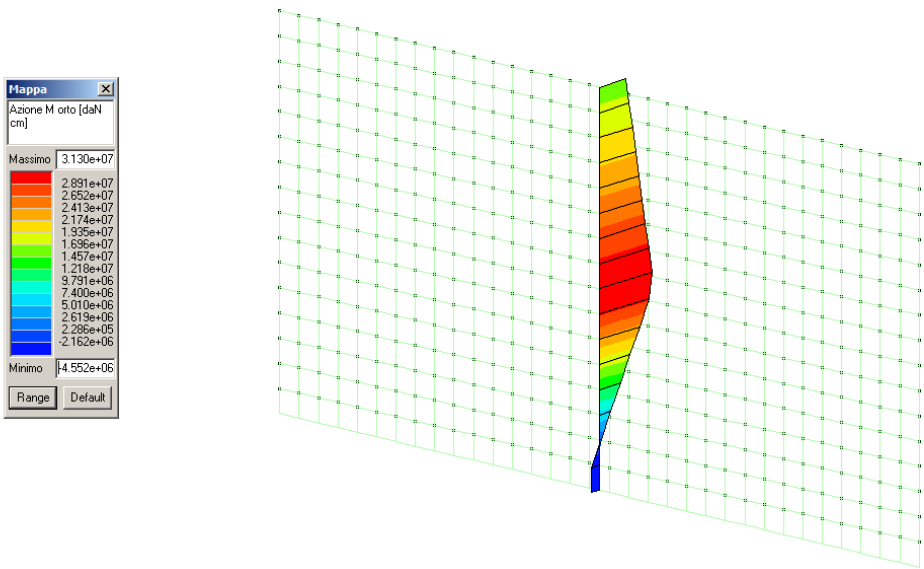
Carico da urto trasversale su spalla







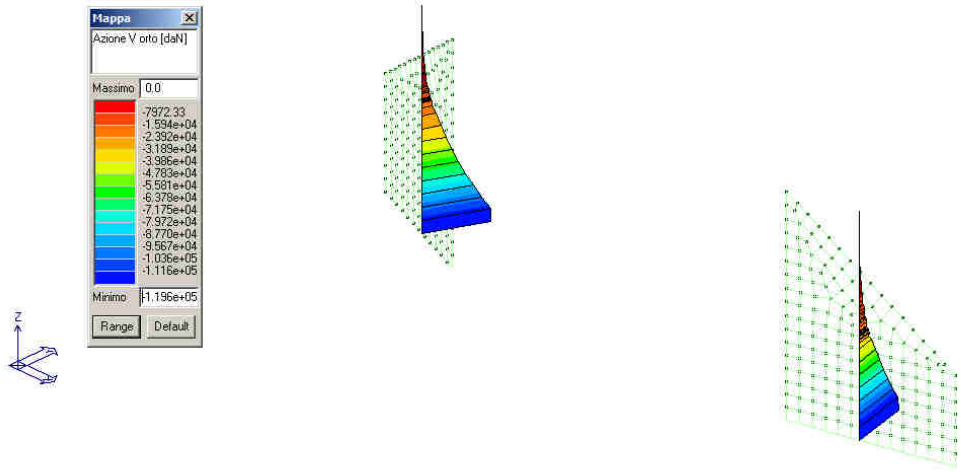


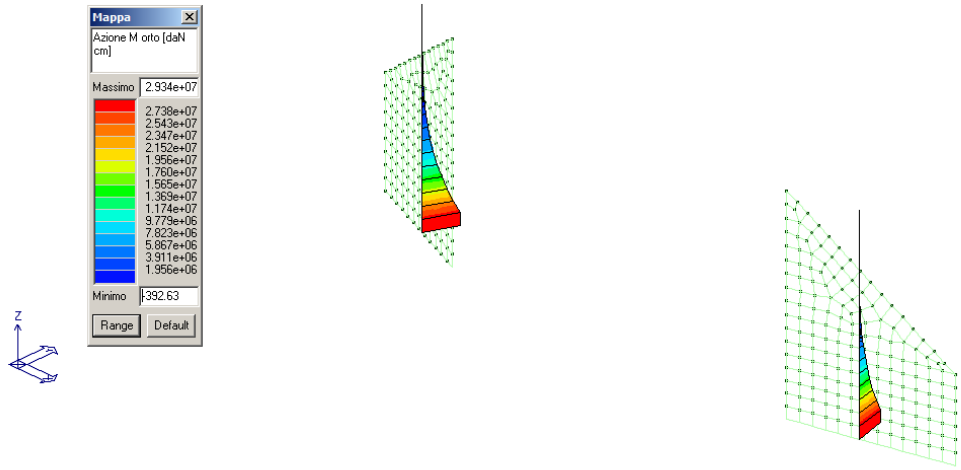


12.16 Sollecitazioni muri andatori

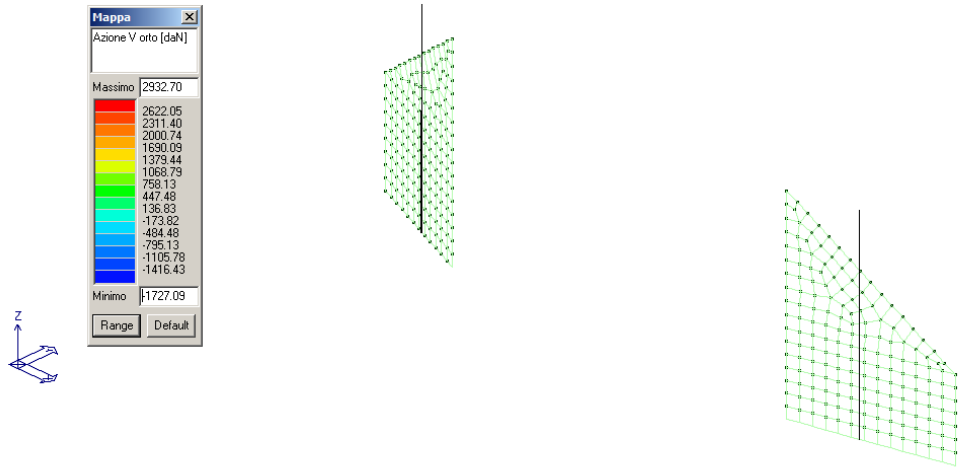
Si riportano le sollecitazioni per i casi di carico più significativi.

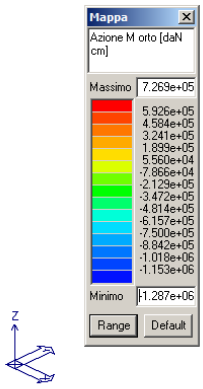
Permanente

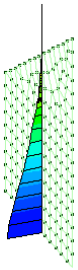


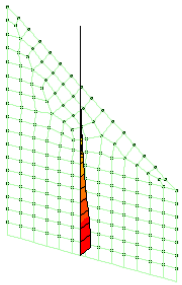


Sisma direzione 0°

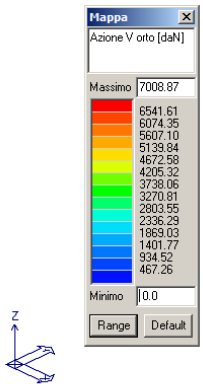


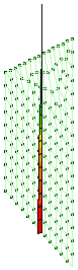


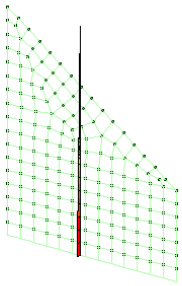


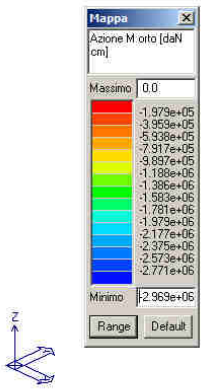


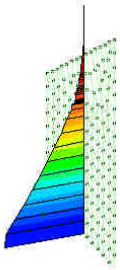
Sisma direzione 90°

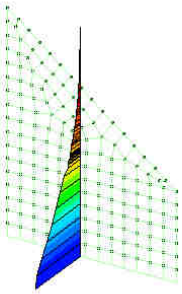




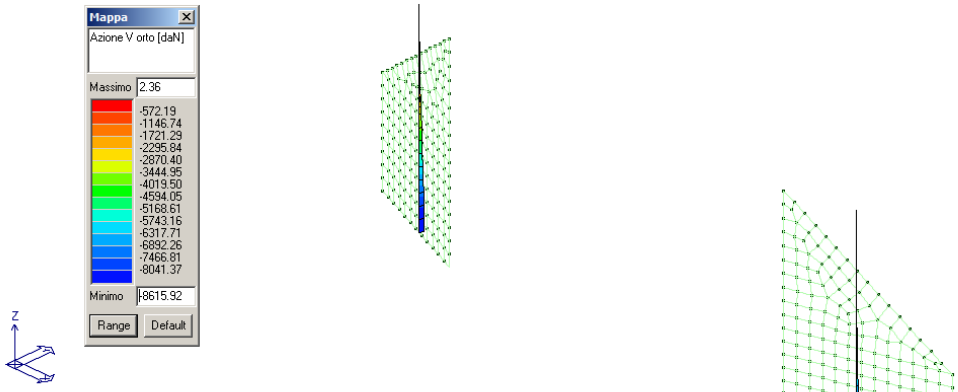


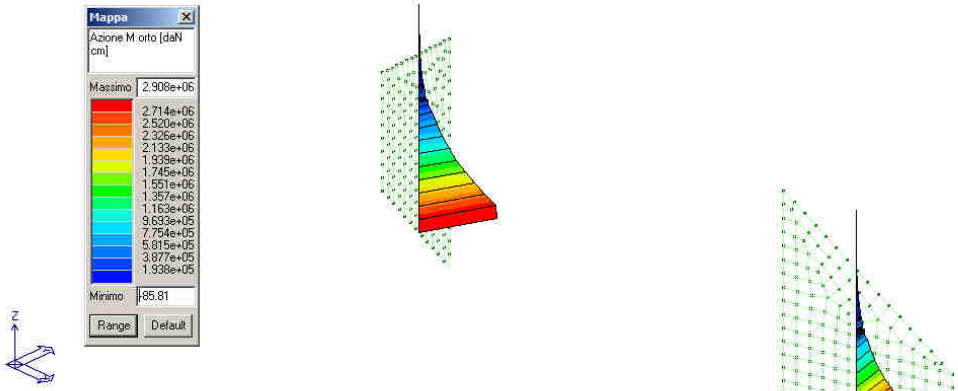






sovraspinta terra per sisma direzione 90°

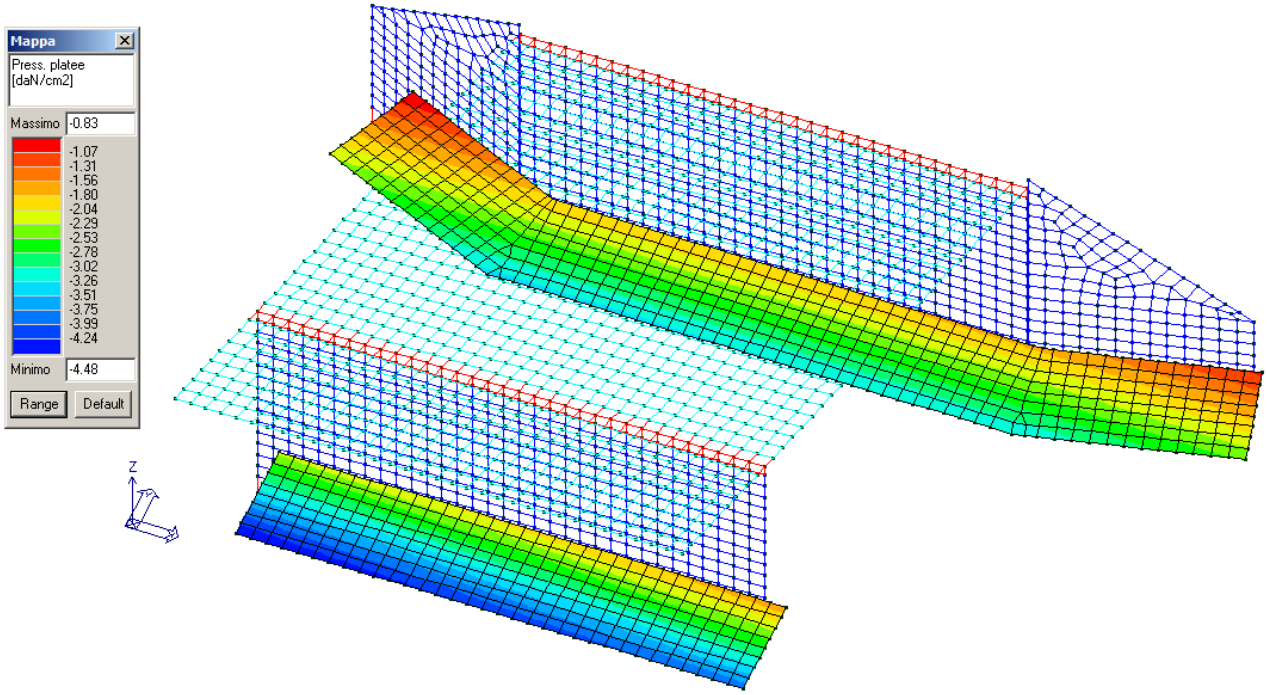




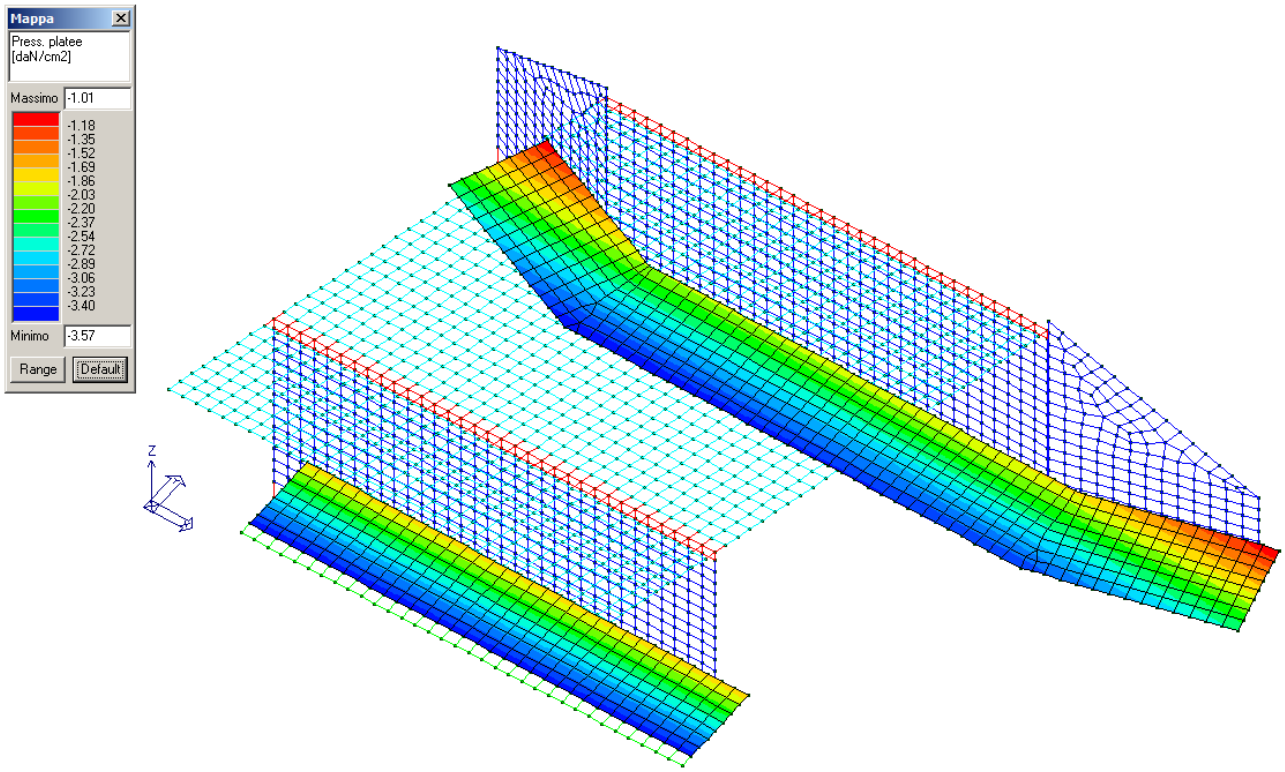
12.17 Pressioni indotte sul magrone

Si presentano nel seguito, per mezzo di immagini ricavate dal modello di calcolo, le pressioni indotte dalle strutture di fondazione sul sottoplinto in calcestruzzo magro nelle combinazioni più significative.

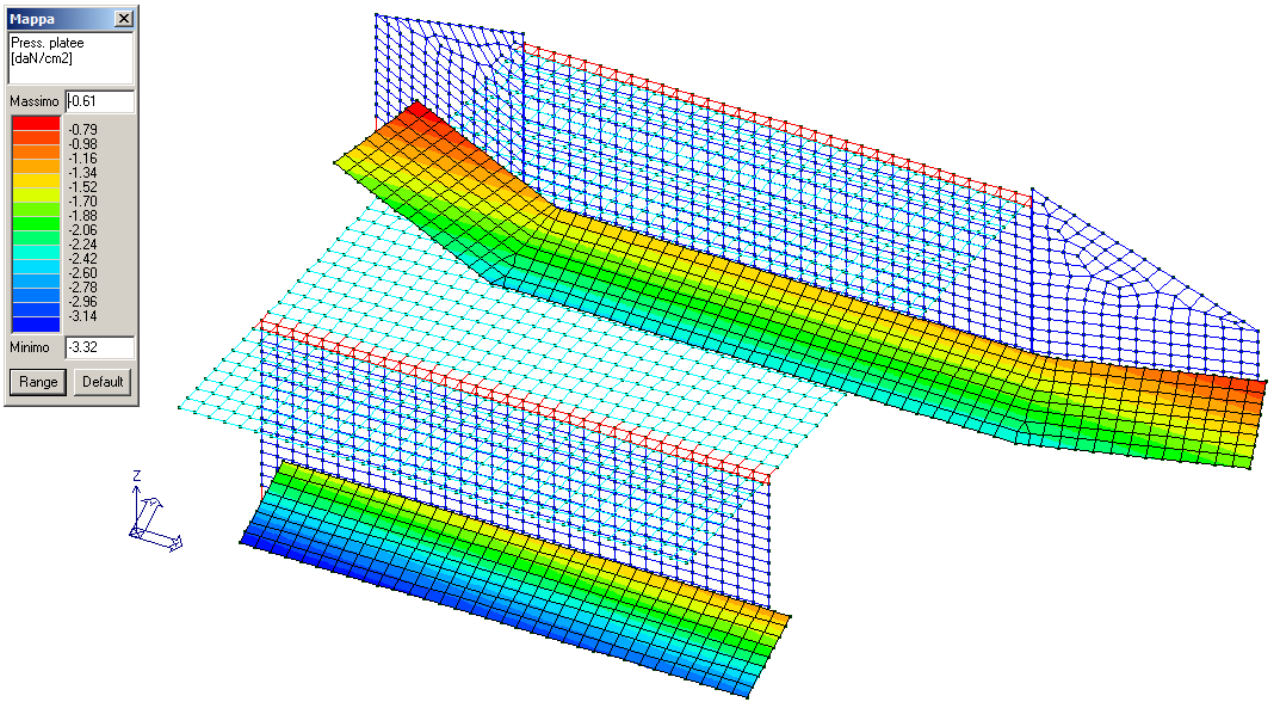
- Massima pressione a Stato limite ultimo nella combinazione SLUa 18



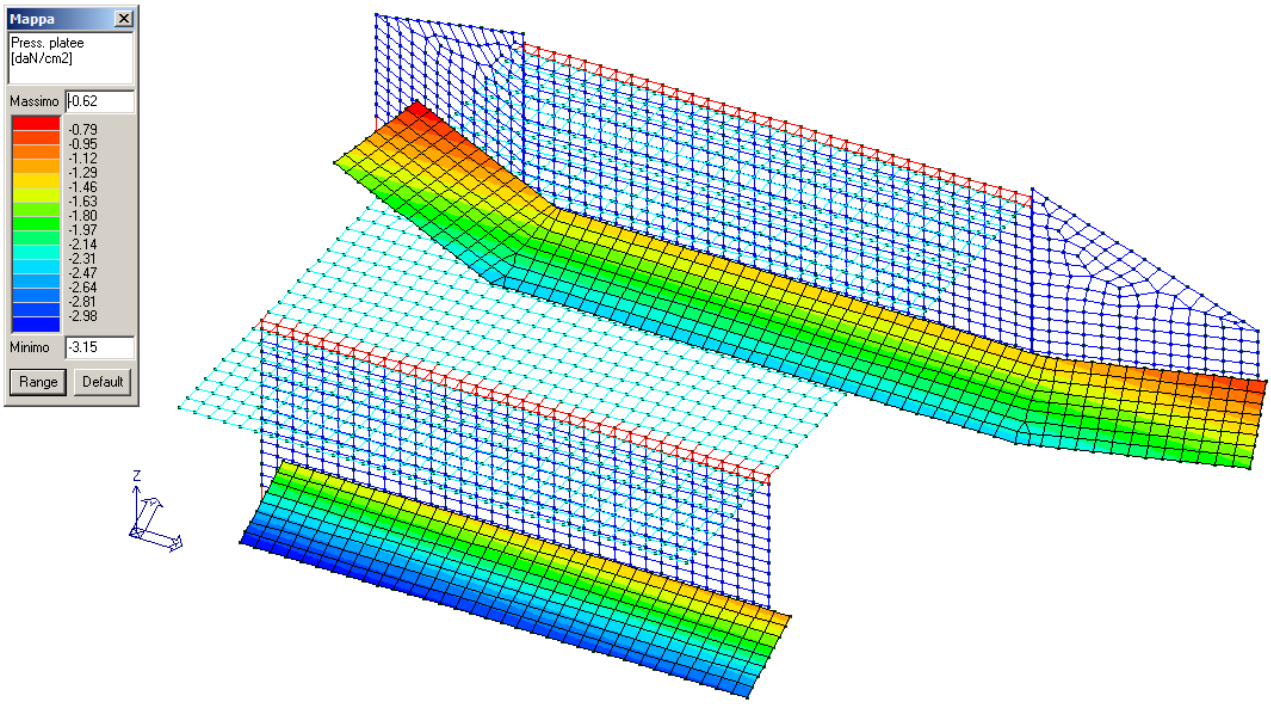
- Massima pressione sulla suola della spalla a Stato limite ultimo nella combinazione SLUa 47



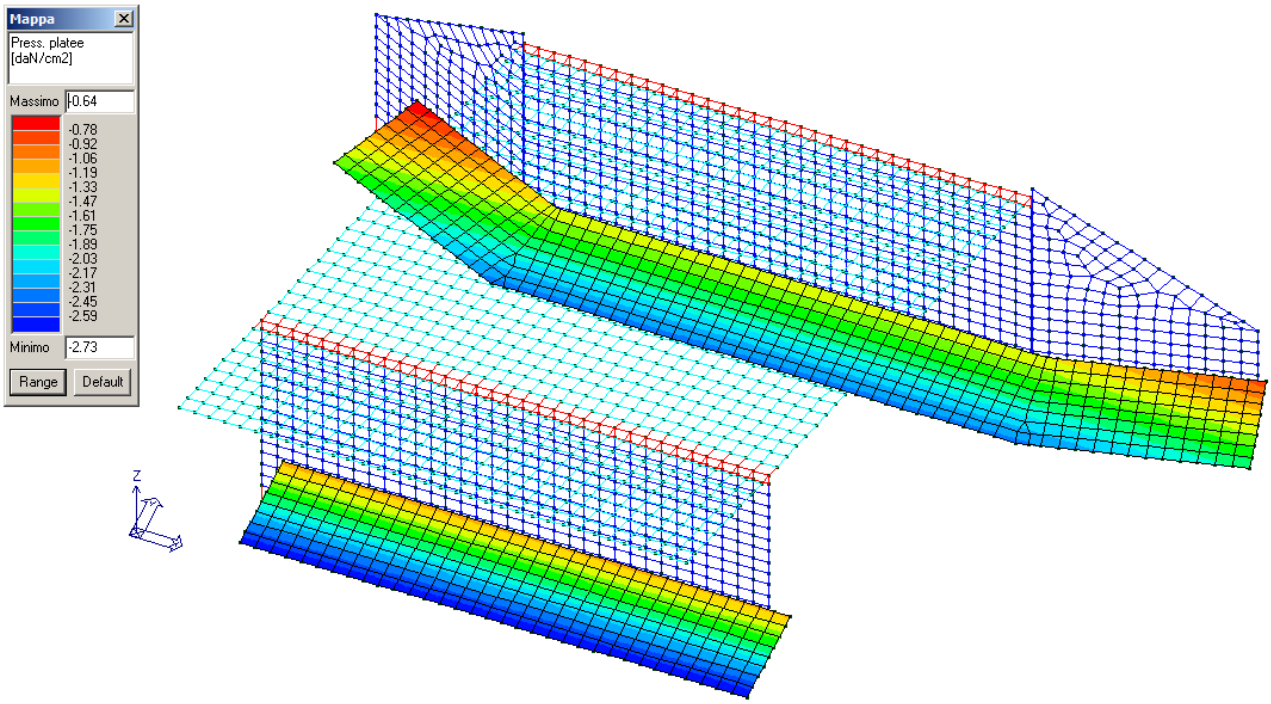
- Massima pressione a Stato limite di esercizio in combinazione rara SLEr 18



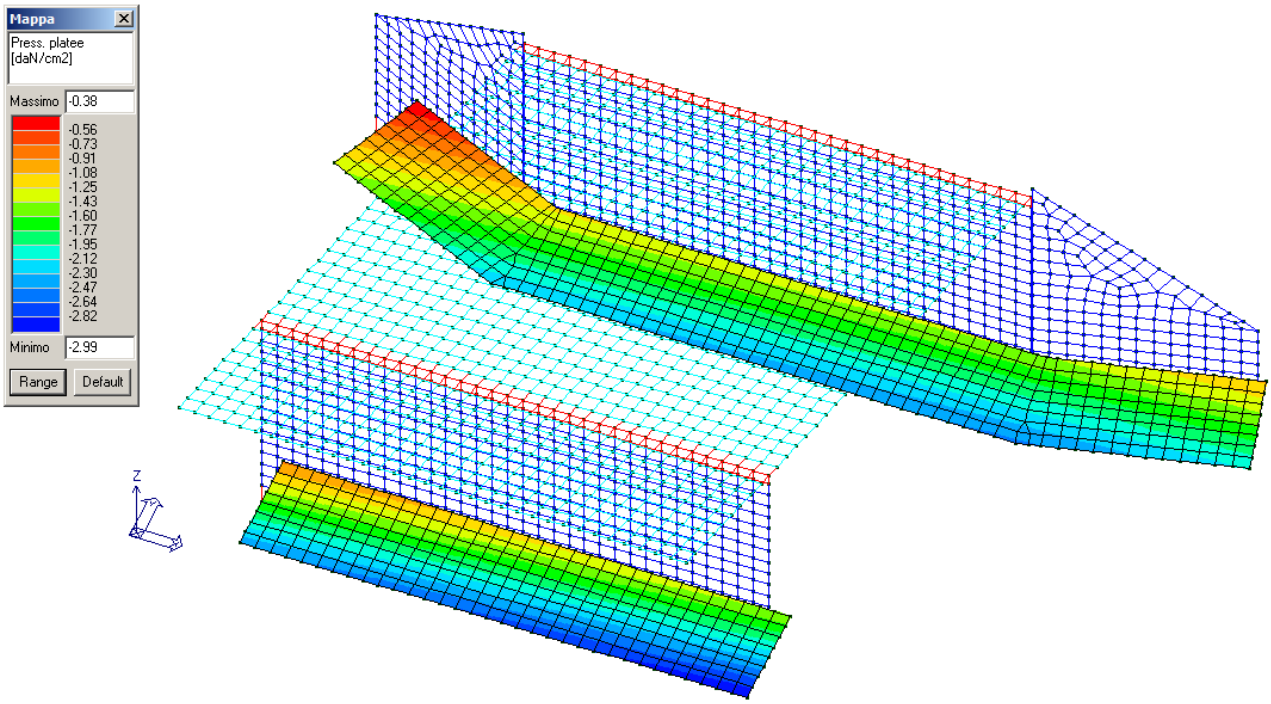
- Massima pressione a Stato limite di esercizio in combinazione frequente SLEf 4



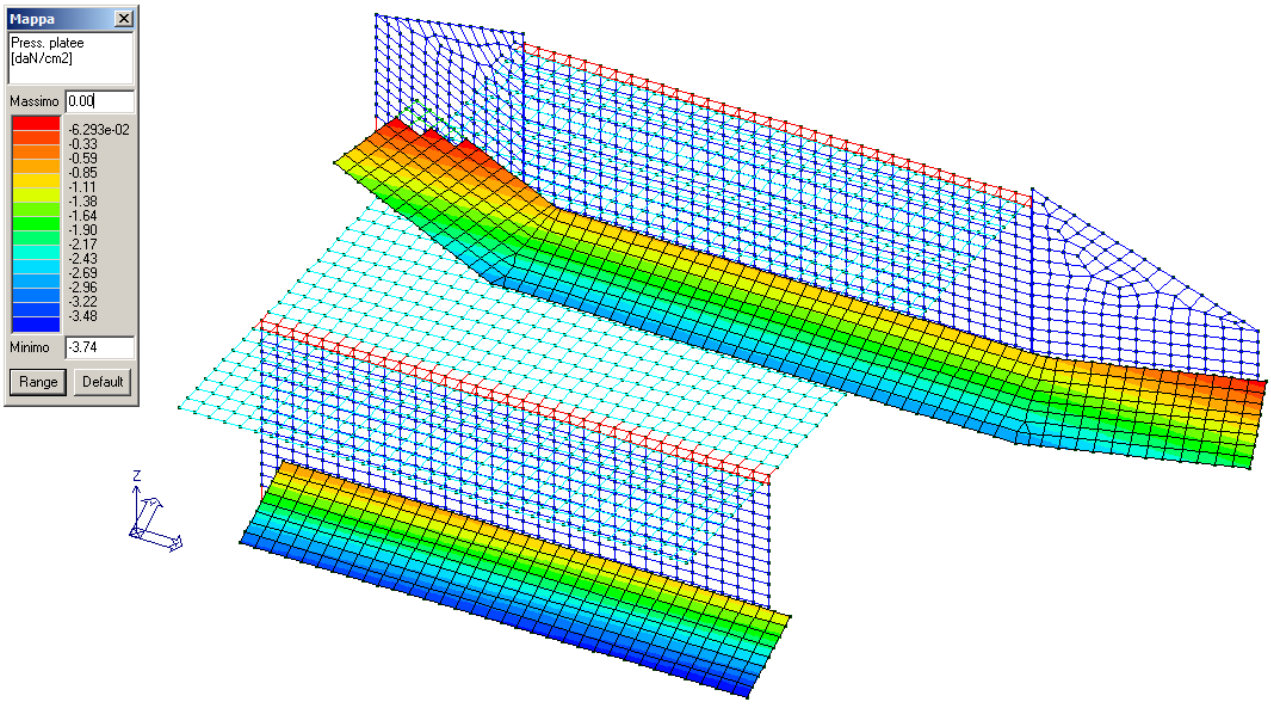
- Massima pressione a Stato limite di esercizio in combinazione quasi permanente SLEq 1



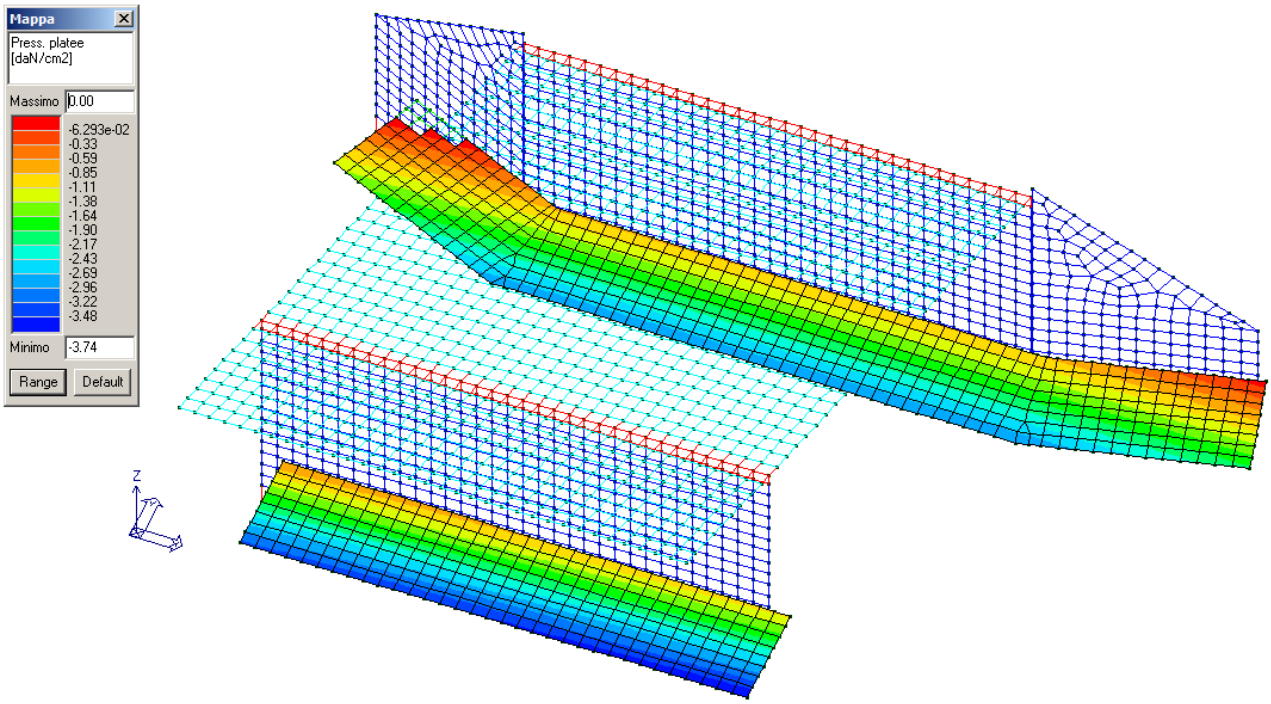
- Massima pressione a Stato limite ultimo in condizioni eccezionali SLUecc 6



- Massima pressione a Stato limite ultimo in condizioni sismiche nella combinazione SLV 35



- Massima pressione a Stato limite di danno in condizioni sismiche nella combinazione SLD 8



13 Verifica dell'impalcato

13.1 SLU

Si produce una tabella nella quale vengono riportati per ogni macroelemento il numero dello stesso ed il codice di verifica.

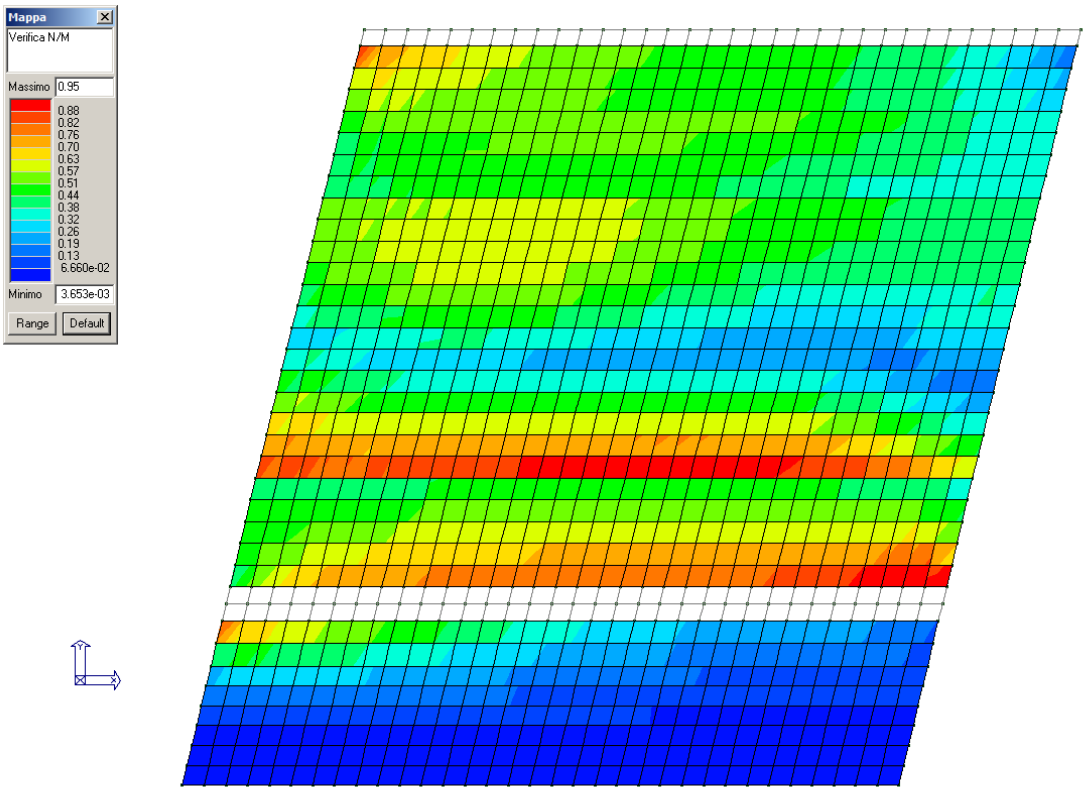
Vengono riportati il rapporto x/d, la verifica per sollecitazioni ultime e la verifica per compressione media con l'indicazione delle due combinazioni in cui si sono attinti i rispettivi valori.

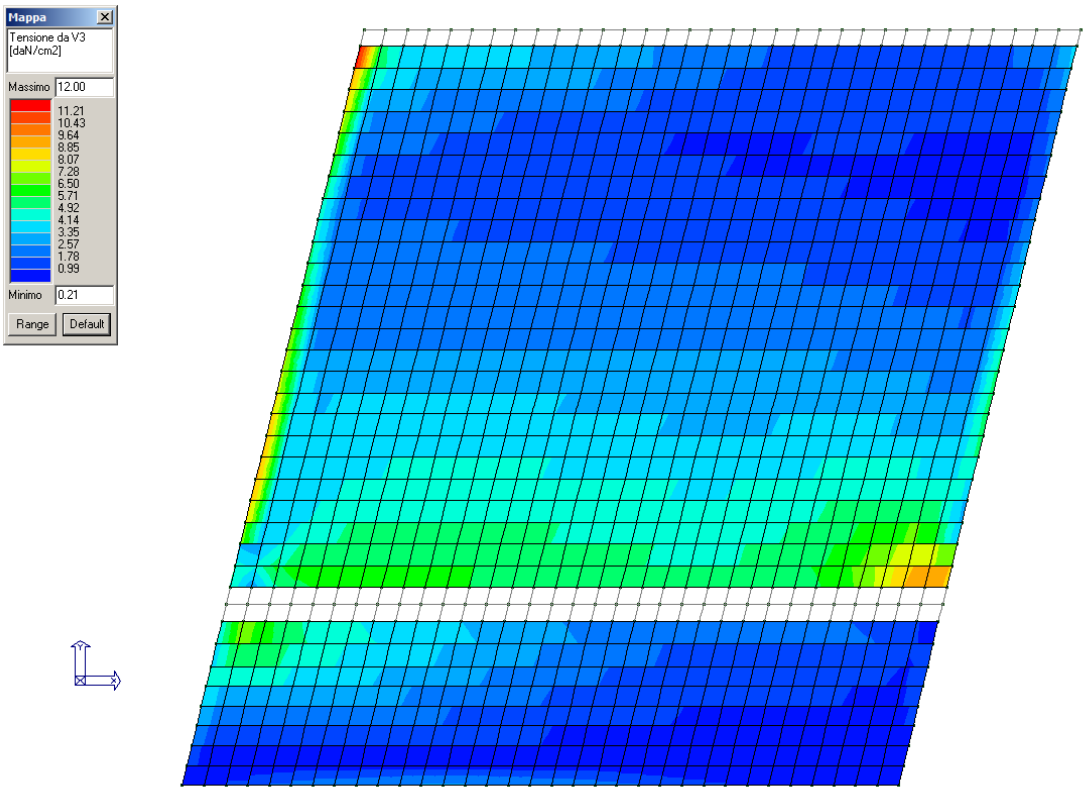
Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

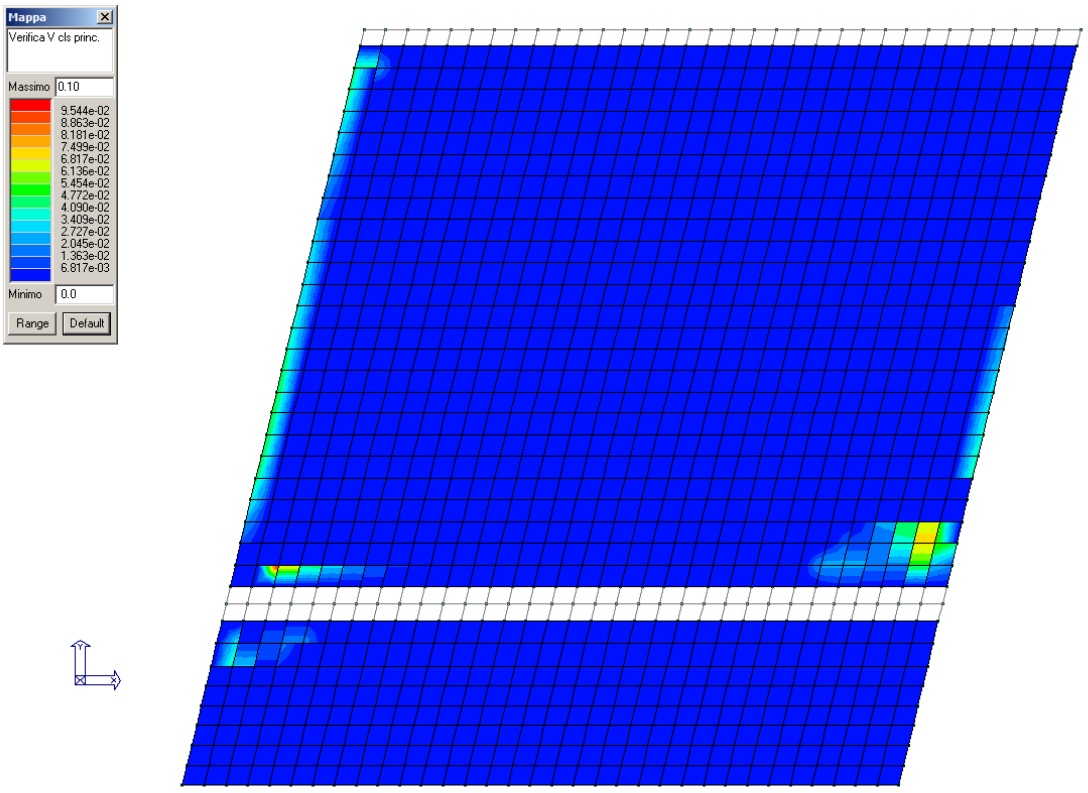
Per ogni elemento viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso (diametri in mm, passi in cm). Le quantità di armature necessarie sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

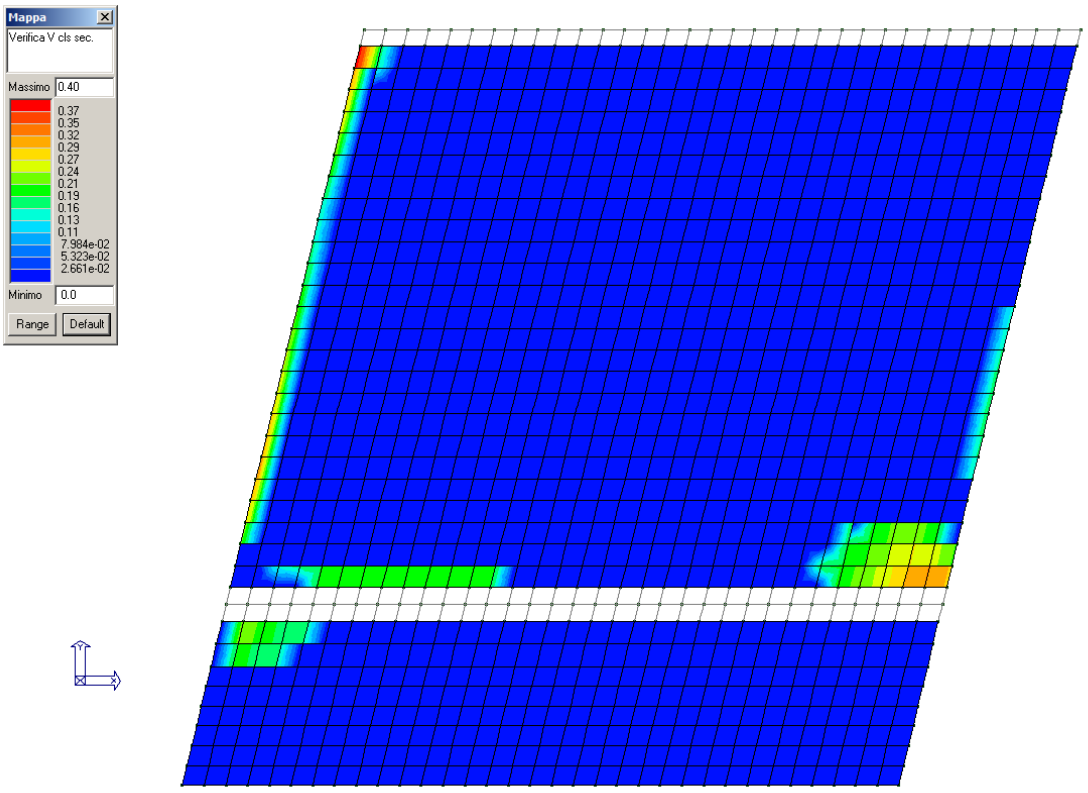
In particolare i simboli utilizzati assumono il seguente significato:

Nodo		numero del nodo
x/d		rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
verif.		rapporto Sd/Su con sollecitazioni ultime: valore minore o uguale a 1 per verifica positiva
Ver.rd		rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd): valore minore o uguale a 1 per verifica positiva
Af pr-		quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr+		quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	**Af sec+**	valori analoghi a quelli soprariportati ma relativi alla armatura secondaria
N	**M**	azioni membranali e flessionali (in direzione dell'armatura principale e secondaria) estratte, poiché rappresentative, tra quelle utilizzate per il progetto e la verifica


Mappa
Verifica N/M
Massimo 0.95
0.88
0.82
0.76
0.70
0.63
0.57
0.51
0.44
0.38
0.32
0.26
0.19
0.13
6.660e-02
Minimo 3.653e-03
Range
Default


Mappa
Tensione da V3
[daN/cm2]
Massimo 12.00
11.21
10.43
9.64
8.85
8.07
7.28
6.50
5.71
4.92
4.14
3.35
2.57
1.78
0.99
Minimo 0.21
Range
Default





Verifica porzione tra spalla e setto

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
15	80.00	4	8	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1697	ok	0.08	0.9	3.41e-02	45.2	45.2	45.2	45.2	-48.3	-231.2	-7.6	-2.117e+04	-9.799e+04	6526.1
1698	ok	0.09	0.4	1.03e-02	45.2	45.2	76.0	76.0	-29.5	-162.9	-43.7	1.717e+04	8.863e+04	1.420e+04
1700	ok	0.08	0.2	1.67e-02	45.2	45.2	45.2	45.2	-22.8	-124.3	-33.0	-4281.4	-2.276e+04	-4922.7
1701	ok	0.08	0.7	2.15e-02	45.2	45.2	45.2	45.2	-33.5	-153.2	-3.6	-1.708e+04	-8.106e+04	931.2
1702	ok	0.08	0.7	1.85e-02	45.2	45.2	45.2	45.2	-29.0	-129.9	-5.6	-1.678e+04	-8.064e+04	-1304.9
1703	ok	0.08	0.7	1.70e-02	45.2	45.2	45.2	45.2	-26.4	-117.1	-7.4	-1.616e+04	-7.797e+04	-1943.6
1704	ok	0.08	0.7	1.60e-02	45.2	45.2	45.2	45.2	-24.6	-109.4	-9.3	-1.551e+04	-7.491e+04	-2041.5
1705	ok	0.08	0.6	1.54e-02	45.2	45.2	45.2	45.2	-23.4	-104.5	-11.1	-1.489e+04	-7.190e+04	-1942.9
1706	ok	0.08	0.6	1.49e-02	45.2	45.2	45.2	45.2	-22.5	-101.5	-12.9	-1.435e+04	-6.919e+04	-1792.7
1707	ok	0.08	0.6	1.45e-02	45.2	45.2	45.2	45.2	-21.8	-99.5	-14.5	-1.387e+04	-6.681e+04	-1643.6
1708	ok	0.08	0.6	1.42e-02	45.2	45.2	45.2	45.2	-21.2	-98.5	-16.1	-1.345e+04	-6.475e+04	-1513.4
1709	ok	0.08	0.6	1.40e-02	45.2	45.2	45.2	45.2	-20.8	-98.0	-17.7	-1.309e+04	-6.298e+04	-1406.0
1710	ok	0.08	0.5	1.38e-02	45.2	45.2	45.2	45.2	-20.4	-97.9	-19.1	-1.277e+04	-6.143e+04	-1320.6
1711	ok	0.08	0.5	1.37e-02	45.2	45.2	45.2	45.2	-20.1	-98.0	-20.5	-1.249e+04	-6.007e+04	-1254.9
1712	ok	0.08	0.5	1.35e-02	45.2	45.2	45.2	45.2	-20.2	-98.3	-20.5	-1.224e+04	-5.885e+04	-1202.5
1713	ok	0.08	0.5	1.34e-02	45.2	45.2	45.2	45.2	-19.6	-87.8	5.2	-1.205e+04	-5.798e+04	-1087.4
1714	ok	0.08	0.5	1.33e-02	45.2	45.2	45.2	45.2	-19.5	-87.4	5.2	-1.191e+04	-5.732e+04	-1070.0
1715	ok	0.08	0.5	1.31e-02	45.2	45.2	45.2	45.2	-19.3	-87.3	3.7	-1.178e+04	-5.668e+04	-1065.6
1716	ok	0.08	0.5	1.30e-02	45.2	45.2	45.2	45.2	-19.0	-87.2	2.1	-1.165e+04	-5.607e+04	-1068.3
1717	ok	0.08	0.5	1.29e-02	45.2	45.2	45.2	45.2	-18.8	-87.0	0.5	-1.151e+04	-5.544e+04	-1076.7
1718	ok	0.08	0.5	1.27e-02	45.2	45.2	45.2	45.2	-18.6	-86.8	-1.2	-1.137e+04	-5.480e+04	-1089.7
1719	ok	0.08	0.5	1.26e-02	45.2	45.2	45.2	45.2	-18.4	-86.5	-2.9	-1.122e+04	-5.411e+04	-1106.3
1720	ok	0.08	0.5	1.25e-02	45.2	45.2	45.2	45.2	-18.2	-86.2	-4.7	-1.106e+04	-5.336e+04	-1125.6
1721	ok	0.08	0.5	1.23e-02	45.2	45.2	45.2	45.2	-18.1	-85.9	-6.6	-1.089e+04	-5.254e+04	-1147.5
1722	ok	0.08	0.5	1.22e-02	45.2	45.2	45.2	45.2	-18.0	-85.6	-8.5	-1.069e+04	-5.164e+04	-1172.3
1723	ok	0.08	0.4	1.21e-02	45.2	45.2	45.2	45.2	-17.9	-85.5	-10.6	-1.047e+04	-5.063e+04	-1200.8
1724	ok	0.08	0.4	1.20e-02	45.2	45.2	45.2	45.2	-17.8	-85.5	-12.8	-1.023e+04	-4.949e+04	-1235.5
1725	ok	0.08	0.4	1.18e-02	45.2	45.2	45.2	45.2	-17.7	-85.8	-15.0	-9952.6	-4.820e+04	-1280.4
1726	ok	0.08	0.4	1.18e-02	45.2	45.2	45.2	45.2	-17.7	-86.4	-17.3	-9634.4	-4.672e+04	-1343.0
1727	ok	0.08	0.4	1.17e-02	45.2	45.2	45.2	45.2	-17.7	-87.4	-19.7	-9261.9	-4.499e+04	-1435.5
1728	ok	0.08	0.4	1.17e-02	45.2	45.2	45.2	45.2	-17.8	-89.0	-22.0	-8816.3	-4.294e+04	-1578.6
1729	ok	0.08	0.4	1.18e-02	45.2	45.2	45.2	45.2	-18.0	-91.3	-24.4	-8269.4	-4.043e+04	-1807.0
1730	ok	0.08	0.3	1.19e-02	45.2	45.2	45.2	45.2	-18.3	-94.5	-26.6	-7578.4	-3.730e+04	-2177.8
1731	ok	0.08	0.3	1.24e-02	45.2	45.2	45.2	45.2	-18.7	-99.3	-28.8	-6682.7	-3.328e+04	-2776.4
1732	ok	0.08	0.2	1.38e-02	45.2	45.2	45.2	45.2	-19.6	-106.5	-31.0	-5494.9	-2.801e+04	-3666.9
1733	ok	0.09	0.5	9.74e-03	45.2	45.2	76.0	76.0	-28.2	-156.7	-43.7	2.136e+04	1.061e+05	8889.5
1734	ok	0.09	0.6	9.93e-03	45.2	45.2	76.0	76.0	-28.7	-160.9	-41.2	2.390e+04	1.165e+05	5197.8
1735	ok	0.09	0.7	1.02e-02	45.2	45.2	76.0	76.0	-29.4	-166.5	-39.3	2.545e+04	1.231e+05	3145.8
1736	ok	0.09	0.7	1.06e-02	45.2	45.2	76.0	76.0	-30.4	-172.3	-37.8	2.645e+04	1.273e+05	1984.6
1737	ok	0.09	0.7	1.09e-02	45.2	45.2	76.0	76.0	-31.5	-177.6	-36.6	2.709e+04	1.301e+05	1277.8
1738	ok	0.09	0.7	1.12e-02	45.2	45.2	76.0	76.0	-32.5	-182.3	-35.4	2.750e+04	1.318e+05	818.7
1739	ok	0.09	0.7	1.14e-02	45.2	45.2	76.0	76.0	-30.4	-162.8	-15.4	2.775e+04	1.332e+05	1188.1
1740	ok	0.09	0.8	1.16e-02	45.2	45.2	76.0	76.0	-31.2	-166.1	-14.4	2.813e+04	1.349e+05	965.2
1741	ok	0.09	0.8	1.18e-02	45.2	45.2	76.0	76.0	-31.9	-168.7	-13.6	2.843e+04	1.362e+05	799.8
1742	ok	0.09	0.8	1.20e-02	45.2	45.2	76.0	76.0	-32.5	-170.7	-12.8	2.866e+04	1.373e+05	673.3
1743	ok	0.09	0.8	1.21e-02	45.2	45.2	76.0	76.0	-32.9	-172.3	-12.2	2.884e+04	1.381e+05	574.3
1744	ok	0.09	0.8	1.22e-02	45.2	45.2	76.0	76.0	-33.2	-173.4	-11.6	2.898e+04	1.387e+05	495.9
1745	ok	0.09	0.8	1.23e-02	45.2	45.2	76.0	76.0	-33.4	-174.1	-11.1	2.909e+04	1.391e+05	434.1
1746	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-33.5	-174.6	-10.8	2.917e+04	1.395e+05	386.3
1747	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-33.6	-174.8	-10.5	2.924e+04	1.398e+05	351.2
1748	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-33.5	-174.9	-10.3	2.929e+04	1.400e+05	328.3
1749	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-33.4	-174.7	-10.1	2.934e+04	1.402e+05	317.4
1750	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-33.3	-174.4	-10.1	2.938e+04	1.404e+05	319.4
1751	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-39.5	-211.6	-24.4	2.941e+04	1.406e+05	469.2
1752	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-39.4	-211.0	-23.9	2.953e+04	1.412e+05	505.5
1753	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-32.2	-174.0	-13.6	2.967e+04	1.419e+05	1062.5
1754	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-32.1	-173.3	-13.3	2.994e+04	1.432e+05	1141.4
1755	ok	0.09	0.8	1.23e-02	45.2	45.2	76.0	76.0	-31.9	-172.6	-13.1	3.025e+04	1.448e+05	1246.8
1756	ok	0.09	0.8	1.23e-02	45.2	45.2	76.0	76.0	-31.7	-171.7	-12.9	3.063e+04	1.466e+05	1385.7
1757	ok	0.09	0.8	1.22e-02	45.2	45.2	76.0	76.0	-31.5	-170.8	-12.8	3.107e+04	1.489e+05	1566.2
1758	ok	0.09	0.8	1.21e-02	45.2	45.2	76.0	76.0	-31.4	-169.8	-12.7	3.160e+04	1.515e+05	1795.9
1759	ok	0.09	0.9	1.20e-02	45.2	45.2	76.0	76.0	-31.2	-168.9	-12.7	3.224e+04	1.547e+05	2077.1
1760	ok	0.09	0.9	1.19e-02	45.2	45.2	76.0	76.0	-31.1	-168.1	-12.6	3.300e+04	1.585e+05	2392.2
1761	ok	0.09	0.9	1.18e-02	45.2	45.2	76.0	76.0	-31.2	-167.7	-12.6	3.388e+04	1.629e+05	2665.7
1762	ok	0.09	0.9	1.18e-02	45.2	45.2	76.0	76.0	-31.6	-168.2	-12.3	3.484e+04	1.674e+05	2652.9
1763	ok	0.09	0.9	1.19e-02	45.2	45.7	76.0	76.5	-32.7	-171.3	-11.9	3.577e+04	1.714e+05	1725.1
1764	ok	0.09	0.9	1.25e-02	45.2	48.0	76.0	78.8	-35.5	-180.9	-10.7	3.614e+04	1.714e+05	-2258.9
2037	ok	0.09	0.5	9.66e-03	45.2	45.2	76.0	76.0	-18.3	-151.5	-41.2	1.150e+04	1.037e+05	1.489e+04
2038	ok	0.09	0.5	1.01e-02	45.2	45.2	76.0	76.0	-10.6	-144.7	-35.5	6383.7	9.752e+04	1.535e+04
2039	ok	0.09	0.6	9.98e-03	45.2	45.2	76.0	76.0	-20.4	-155.8	-39.3	1.839e+04	1.152e+05	8824.2
2040	ok	0.09	0.7	1.03e-02	45.2	45.2	76.0	76.0	-21.9	-161.6	-37.8	2.230e+04	1.223e+05	5431.6
2041	ok	0.09	0.7	1.06e-02	45.2	45.2	76.0	76.0	-23.2	-167.5	-36.6	2.453e+04	1.268e+05	3448.2

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2042	ok	0.09	0.7	1.10e-02	45.2	45.2	76.0	76.0	-24.4	-173.1	-35.4	2.585e+04	1.297e+05	2211.2
2043	ok	0.09	0.7	1.12e-02	45.2	45.2	76.0	76.0	-22.6	-155.8	-16.5	2.634e+04	1.307e+05	2576.0
2044	ok	0.09	0.7	1.15e-02	45.2	45.2	76.0	76.0	-24.0	-160.2	-15.4	2.710e+04	1.330e+05	2003.8
2045	ok	0.09	0.8	1.17e-02	45.2	45.2	76.0	76.0	-25.2	-163.8	-14.4	2.765e+04	1.348e+05	1592.0
2046	ok	0.09	0.8	1.19e-02	45.2	45.2	76.0	76.0	-26.3	-166.6	-13.6	2.806e+04	1.361e+05	1284.9
2047	ok	0.09	0.8	1.20e-02	45.2	45.2	76.0	76.0	-27.2	-168.8	-12.8	2.837e+04	1.372e+05	1049.4
2048	ok	0.09	0.8	1.22e-02	45.2	45.2	76.0	76.0	-27.7	-171.5	-12.8	2.855e+04	1.380e+05	950.6
2049	ok	0.09	0.8	1.23e-02	45.2	45.2	76.0	76.0	-28.5	-171.8	-11.6	2.880e+04	1.386e+05	720.4
2050	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-29.0	-172.7	-11.1	2.895e+04	1.391e+05	606.6
2051	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-29.4	-173.3	-10.8	2.907e+04	1.395e+05	519.5
2052	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-29.6	-173.6	-10.5	2.917e+04	1.398e+05	456.5
2053	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-29.7	-173.8	-10.3	2.926e+04	1.400e+05	416.4
2054	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-29.8	-173.7	-10.1	2.934e+04	1.402e+05	399.2
2055	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-29.9	-174.2	-10.1	2.938e+04	1.404e+05	402.2
2056	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-34.5	-210.2	-24.4	2.948e+04	1.406e+05	692.8
2057	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-28.0	-172.4	-13.6	2.953e+04	1.407e+05	1460.5
2058	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-27.9	-171.9	-13.3	2.981e+04	1.419e+05	1582.2
2059	ok	0.09	0.8	1.24e-02	45.2	45.2	76.0	76.0	-27.9	-171.4	-13.1	3.014e+04	1.432e+05	1743.6
2060	ok	0.09	0.8	1.23e-02	45.2	45.2	76.0	76.0	-27.7	-170.6	-12.9	3.052e+04	1.448e+05	1954.4
2061	ok	0.09	0.8	1.23e-02	45.2	45.2	76.0	76.0	-27.6	-169.8	-12.8	3.098e+04	1.466e+05	2226.0
2062	ok	0.09	0.8	1.22e-02	45.2	45.2	76.0	76.0	-27.4	-168.9	-12.7	3.153e+04	1.489e+05	2571.3
2063	ok	0.09	0.8	1.21e-02	45.2	45.2	76.0	76.0	-27.1	-167.9	-12.7	3.216e+04	1.515e+05	3000.7
2064	ok	0.09	0.8	1.20e-02	45.2	45.2	76.0	76.0	-26.8	-166.9	-12.6	3.286e+04	1.547e+05	3513.6
2065	ok	0.09	0.9	1.19e-02	45.2	45.2	76.0	76.0	-26.5	-165.9	-12.6	3.349e+04	1.585e+05	4076.7
2066	ok	0.09	0.9	1.19e-02	45.2	45.2	76.0	76.0	-26.6	-166.4	-12.6	3.438e+04	1.628e+05	4361.4
2067	ok	0.09	0.9	1.19e-02	45.2	45.2	76.0	76.0	-26.2	-166.5	-12.3	3.461e+04	1.672e+05	4560.2
2068	ok	0.09	0.9	1.21e-02	45.2	45.2	76.0	76.0	-25.5	-168.6	-11.9	3.328e+04	1.708e+05	3799.4
2069	ok	0.09	0.9	1.29e-02	45.2	45.2	76.0	76.0	-22.6	-175.3	-10.7	2.619e+04	1.693e+05	-548.4
2070	ok	0.10	0.9	1.46e-02	45.2	45.2	76.0	76.0	-17.6	-218.0	-13.5	1.489e+04	1.980e+05	5696.5
2071	ok	0.09	0.5	9.58e-03	45.2	45.2	76.0	76.0	-7.8	-117.7	-23.7	5585.6	1.010e+05	1.808e+04
2072	ok	0.09	0.5	8.89e-03	45.2	45.2	76.0	76.0	-5.5	-106.3	-22.6	5487.2	1.005e+05	1.800e+04
2073	ok	0.09	0.5	1.00e-02	45.2	45.2	76.0	76.0	-9.9	-127.2	-21.4	1.362e+04	1.055e+05	1.061e+04
2074	ok	0.09	0.6	1.04e-02	45.2	45.2	76.0	76.0	-12.2	-136.0	-19.6	1.731e+04	1.093e+05	7921.1
2075	ok	0.09	0.6	1.07e-02	45.2	45.2	76.0	76.0	-14.2	-143.4	-18.2	1.981e+04	1.126e+05	5957.2
2076	ok	0.09	0.6	1.10e-02	45.2	45.2	76.0	76.0	-16.0	-149.5	-17.0	2.151e+04	1.153e+05	4541.9
2077	ok	0.09	0.6	1.13e-02	45.2	45.2	76.0	76.0	-17.7	-154.6	-15.9	2.269e+04	1.175e+05	3514.9
2078	ok	0.09	0.7	1.16e-02	45.2	45.2	76.0	76.0	-19.2	-158.8	-15.0	2.353e+04	1.192e+05	2756.0
2079	ok	0.09	0.7	1.18e-02	45.2	45.2	76.0	76.0	-20.5	-162.2	-14.2	2.415e+04	1.205e+05	2183.1
2080	ok	0.09	0.7	1.20e-02	45.2	45.2	76.0	76.0	-21.7	-164.8	-13.5	2.461e+04	1.216e+05	1741.9
2081	ok	0.09	0.7	1.21e-02	45.2	45.2	76.0	76.0	-22.7	-166.9	-12.9	2.497e+04	1.225e+05	1396.6
2082	ok	0.09	0.7	1.23e-02	45.2	45.2	76.0	76.0	-23.6	-168.5	-12.4	2.525e+04	1.231e+05	1123.6
2083	ok	0.09	0.7	1.24e-02	45.2	45.2	76.0	76.0	-24.4	-169.7	-12.0	2.547e+04	1.236e+05	907.5
2084	ok	0.09	0.7	1.24e-02	45.2	45.2	76.0	76.0	-25.0	-170.5	-11.6	2.565e+04	1.241e+05	738.5
2085	ok	0.09	0.7	1.25e-02	45.2	45.2	76.0	76.0	-25.4	-171.1	-11.3	2.580e+04	1.244e+05	610.2
2086	ok	0.09	0.7	1.25e-02	45.2	45.2	76.0	76.0	-25.8	-171.4	-11.1	2.593e+04	1.246e+05	519.1
2087	ok	0.09	0.7	1.26e-02	45.2	45.2	76.0	76.0	-26.0	-171.4	-11.0	2.605e+04	1.248e+05	463.4
2088	ok	0.09	0.7	1.26e-02	45.2	45.2	76.0	76.0	-26.2	-171.3	-11.0	2.617e+04	1.250e+05	443.0
2089	ok	0.09	0.7	1.26e-02	45.2	45.2	76.0	76.0	-24.3	-172.8	-16.6	2.620e+04	1.249e+05	954.1
2090	ok	0.09	0.7	1.25e-02	45.2	45.2	76.0	76.0	-24.4	-172.7	-16.4	2.639e+04	1.255e+05	1022.6
2091	ok	0.09	0.7	1.25e-02	45.2	45.2	76.0	76.0	-24.5	-172.5	-16.4	2.660e+04	1.261e+05	1134.7
2092	ok	0.09	0.7	1.25e-02	45.2	45.2	76.0	76.0	-24.4	-172.2	-16.4	2.684e+04	1.267e+05	1295.0
2093	ok	0.09	0.7	1.24e-02	45.2	45.2	76.0	76.0	-24.3	-171.7	-16.5	2.712e+04	1.275e+05	1508.9
2094	ok	0.09	0.7	1.23e-02	45.2	45.2	76.0	76.0	-24.1	-170.5	-13.0	2.728e+04	1.276e+05	2712.3
2095	ok	0.09	0.7	1.23e-02	45.2	45.2	76.0	76.0	-23.9	-169.6	-13.0	2.778e+04	1.293e+05	3102.7
2096	ok	0.09	0.7	1.22e-02	45.2	45.2	76.0	76.0	-23.5	-168.6	-12.9	2.834e+04	1.311e+05	3573.2
2097	ok	0.09	0.7	1.21e-02	45.2	45.2	76.0	76.0	-23.0	-167.5	-12.9	2.892e+04	1.332e+05	4121.5
2098	ok	0.09	0.7	1.20e-02	45.2	45.2	76.0	76.0	-22.3	-166.4	-12.9	2.941e+04	1.355e+05	4725.9
2099	ok	0.09	0.7	1.19e-02	45.2	45.2	76.0	76.0	-22.4	-166.8	-12.9	2.991e+04	1.381e+05	5020.3
2100	ok	0.09	0.7	1.19e-02	45.2	45.2	76.0	76.0	-21.5	-166.4	-12.9	3.003e+04	1.405e+05	5515.7
2101	ok	0.09	0.8	1.19e-02	45.2	45.2	76.0	76.0	-19.9	-167.1	-12.9	2.906e+04	1.428e+05	5713.9
2102	ok	0.09	0.8	1.20e-02	45.2	45.2	76.0	76.0	-16.9	-169.9	-13.1	2.530e+04	1.442e+05	5159.8
2103	ok	0.09	0.8	1.25e-02	45.2	45.2	76.0	76.0	-11.3	-180.8	-30.2	1.132e+04	1.497e+05	1.468e+04
2104	ok	0.09	0.7	1.18e-02	45.2	45.2	76.0	76.0	-10.5	-176.8	-30.2	9723.4	1.436e+05	1.783e+04
2105	ok	0.09	0.5	9.57e-03	45.2	45.2	76.0	76.0	-6.8	-117.2	-22.6	4595.6	1.001e+05	1.770e+04
2106	ok	0.09	0.5	8.83e-03	45.2	45.2	76.0	76.0	-3.8	-102.6	-22.6	4612.4	1.003e+05	1.805e+04
2107	ok	0.09	0.5	1.01e-02	45.2	45.2	76.0	76.0	-7.1	-127.5	-19.9	1.050e+04	1.009e+05	1.134e+04
2108	ok	0.09	0.5	1.05e-02	45.2	45.2	76.0	76.0	-8.9	-135.8	-18.5	1.371e+04	1.017e+05	9139.7
2109	ok	0.09	0.5	1.08e-02	45.2	45.2	76.0	76.0	-10.7	-142.7	-17.2	1.611e+04	1.030e+05	7254.5
2110	ok	0.09	0.5	1.12e-02	45.2	45.2	76.0	76.0	-12.4	-148.5	-16.2	1.784e+04	1.043e+05	5739.0
2111	ok	0.09	0.6	1.14e-02	45.2	45.2	76.0	76.0	-14.0	-153.3	-15.3	1.910e+04	1.055e+05	4550.0
2112	ok	0.09	0.6	1.17e-02	45.2	45.2	76.0	76.0	-15.4	-157.2	-14.5	2.002e+04	1.065e+05	3620.6
2113	ok	0.09	0.6	1.19e-02	45.2	45.2	76.0	76.0	-16.8	-160.4	-13.9	2.071e+04	1.074e+05	2890.0
2114	ok	0.09	0.6	1.21e-02	45.2	45.2	76.0	76.0	-18.0	-162.9	-13.3	2.123e+04	1.081e+05	2310.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2115	ok	0.09	0.6	1.22e-02	45.2	45.2	76.0	76.0	-19.1	-164.9	-12.9	2.164e+04	1.087e+05	1847.8
2116	ok	0.09	0.6	1.23e-02	45.2	45.2	76.0	76.0	-20.0	-166.4	-12.5	2.196e+04	1.091e+05	1476.9
2117	ok	0.09	0.6	1.24e-02	45.2	45.2	76.0	76.0	-20.8	-167.5	-12.2	2.223e+04	1.095e+05	1181.0
2118	ok	0.09	0.6	1.25e-02	45.2	45.2	76.0	76.0	-21.5	-168.2	-12.0	2.245e+04	1.098e+05	948.4
2119	ok	0.09	0.6	1.26e-02	45.2	45.2	76.0	76.0	-22.1	-168.7	-11.8	2.264e+04	1.100e+05	771.8
2120	ok	0.09	0.6	1.26e-02	45.2	45.2	76.0	76.0	-22.5	-169.0	-11.7	2.282e+04	1.102e+05	646.5
2121	ok	0.09	0.6	1.26e-02	45.2	45.2	76.0	76.0	-22.8	-169.0	-11.7	2.298e+04	1.103e+05	570.4
2122	ok	0.09	0.6	1.26e-02	45.2	45.2	76.0	76.0	-20.2	-169.7	-15.8	2.304e+04	1.101e+05	1258.3
2123	ok	0.09	0.6	1.26e-02	45.2	45.2	76.0	76.0	-20.5	-169.8	-15.6	2.327e+04	1.106e+05	1298.3
2124	ok	0.09	0.6	1.26e-02	45.2	45.2	76.0	76.0	-20.7	-169.7	-15.6	2.351e+04	1.110e+05	1390.9
2125	ok	0.09	0.6	1.25e-02	45.2	45.2	76.0	76.0	-20.7	-169.5	-15.6	2.378e+04	1.116e+05	1539.4
2126	ok	0.09	0.6	1.25e-02	45.2	45.2	76.0	76.0	-20.7	-169.1	-15.8	2.406e+04	1.121e+05	1747.4
2127	ok	0.09	0.6	1.24e-02	45.2	45.2	76.0	76.0	-20.6	-168.7	-16.0	2.438e+04	1.128e+05	2018.0
2128	ok	0.09	0.6	1.23e-02	45.2	45.2	76.0	76.0	-20.3	-168.1	-16.3	2.473e+04	1.135e+05	2352.4
2129	ok	0.09	0.6	1.22e-02	45.2	45.2	76.0	76.0	-20.0	-167.4	-16.7	2.508e+04	1.143e+05	2747.4
2130	ok	0.09	0.6	1.22e-02	45.2	45.2	76.0	76.0	-19.8	-168.3	-13.3	2.535e+04	1.138e+05	4682.8
2131	ok	0.09	0.6	1.21e-02	45.2	45.2	76.0	76.0	-19.0	-167.2	-13.5	2.580e+04	1.153e+05	5278.2
2132	ok	0.09	0.6	1.20e-02	45.2	45.2	76.0	76.0	-17.9	-166.1	-13.7	2.597e+04	1.166e+05	5892.1
2133	ok	0.09	0.6	1.19e-02	45.2	45.2	76.0	76.0	-18.0	-166.7	-13.7	2.623e+04	1.180e+05	6165.6
2134	ok	0.09	0.6	1.18e-02	45.2	45.2	76.0	76.0	-16.5	-166.6	-14.1	2.571e+04	1.190e+05	6612.5
2135	ok	0.09	0.6	1.18e-02	45.2	45.2	76.0	76.0	-14.2	-167.5	-15.0	2.378e+04	1.197e+05	6902.9
2136	ok	0.09	0.6	1.18e-02	45.2	45.2	76.0	76.0	-11.3	-170.2	-17.4	1.955e+04	1.214e+05	7707.4
2137	ok	0.09	0.6	1.17e-02	45.2	45.2	76.0	76.0	-9.1	-170.7	-23.9	1.337e+04	1.224e+05	1.133e+04
2138	ok	0.09	0.6	1.09e-02	45.2	45.2	76.0	76.0	-7.9	-161.0	-32.8	7810.6	1.158e+05	1.792e+04
2139	ok	0.09	0.5	9.64e-03	45.2	45.2	76.0	76.0	-6.5	-118.2	-22.7	3813.0	9.511e+04	1.622e+04
2140	ok	0.09	0.5	8.96e-03	45.2	45.2	76.0	76.0	-4.0	-106.2	-22.7	4132.6	9.661e+04	1.617e+04
2141	ok	0.09	0.5	1.02e-02	45.2	45.2	76.0	76.0	-5.6	-127.7	-18.9	7942.7	9.437e+04	1.058e+04
2142	ok	0.09	0.5	1.06e-02	45.2	45.2	76.0	76.0	-7.0	-135.5	-17.6	1.061e+04	9.374e+04	9030.8
2143	ok	0.09	0.5	1.10e-02	45.2	45.2	76.0	76.0	-8.4	-142.0	-16.5	1.277e+04	9.363e+04	7514.7
2144	ok	0.09	0.5	1.13e-02	45.2	45.2	76.0	76.0	-9.8	-147.4	-15.5	1.444e+04	9.385e+04	6161.8
2145	ok	0.09	0.5	1.15e-02	45.2	45.2	76.0	76.0	-11.2	-151.8	-14.7	1.570e+04	9.422e+04	5013.8
2146	ok	0.09	0.5	1.18e-02	45.2	45.2	76.0	76.0	-12.6	-155.5	-14.1	1.666e+04	9.462e+04	4062.0
2147	ok	0.09	0.5	1.20e-02	45.2	45.2	76.0	76.0	-13.8	-158.5	-13.6	1.740e+04	9.501e+04	3279.9
2148	ok	0.09	0.5	1.22e-02	45.2	45.2	76.0	76.0	-15.0	-160.8	-13.1	1.797e+04	9.535e+04	2638.8
2149	ok	0.09	0.5	1.23e-02	45.2	45.2	76.0	76.0	-16.1	-162.7	-12.8	1.842e+04	9.564e+04	2113.9
2150	ok	0.09	0.5	1.24e-02	45.2	45.2	76.0	76.0	-17.1	-164.1	-12.5	1.880e+04	9.587e+04	1685.8
2151	ok	0.09	0.5	1.25e-02	45.2	45.2	76.0	76.0	-17.9	-165.1	-12.3	1.911e+04	9.606e+04	1339.8
2152	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-18.6	-165.8	-12.2	1.938e+04	9.620e+04	1065.6
2153	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-19.2	-166.3	-12.2	1.962e+04	9.631e+04	856.2
2154	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-19.6	-166.5	-12.3	1.984e+04	9.640e+04	707.0
2155	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-16.4	-166.5	-14.7	1.995e+04	9.608e+04	1525.8
2156	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-16.8	-166.7	-14.6	2.022e+04	9.640e+04	1512.8
2157	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-17.1	-166.8	-14.6	2.050e+04	9.674e+04	1557.4
2158	ok	0.09	0.5	1.26e-02	45.2	45.2	76.0	76.0	-17.3	-166.6	-14.7	2.079e+04	9.710e+04	1660.5
2159	ok	0.09	0.5	1.25e-02	45.2	45.2	76.0	76.0	-17.4	-166.4	-14.9	2.110e+04	9.749e+04	1823.8
2160	ok	0.09	0.5	1.24e-02	45.2	45.2	76.0	76.0	-17.4	-166.0	-15.2	2.143e+04	9.790e+04	2047.9
2161	ok	0.09	0.5	1.24e-02	45.2	45.2	76.0	76.0	-17.3	-165.5	-15.5	2.178e+04	9.834e+04	2331.8
2162	ok	0.09	0.5	1.23e-02	45.2	45.2	76.0	76.0	-17.0	-165.0	-16.0	2.213e+04	9.880e+04	2671.1
2163	ok	0.09	0.5	1.22e-02	45.2	45.2	76.0	76.0	-16.5	-164.3	-16.5	2.244e+04	9.923e+04	3055.7
2164	ok	0.09	0.5	1.21e-02	45.2	45.2	76.0	76.0	-15.9	-163.5	-17.1	2.264e+04	9.962e+04	3467.8
2165	ok	0.09	0.5	1.20e-02	45.2	45.2	76.0	76.0	-15.0	-162.7	-17.9	2.260e+04	9.987e+04	3882.2
2166	ok	0.09	0.5	1.19e-02	45.2	45.2	76.0	76.0	-14.0	-165.9	-15.1	2.252e+04	9.816e+04	6385.6
2167	ok	0.09	0.5	1.18e-02	45.2	45.2	76.0	76.0	-14.1	-166.5	-15.1	2.259e+04	9.859e+04	6586.9
2168	ok	0.09	0.5	1.18e-02	45.2	45.2	76.0	76.0	-12.4	-166.3	-16.2	2.160e+04	9.868e+04	6993.7
2169	ok	0.09	0.5	1.17e-02	45.2	45.2	76.0	76.0	-10.5	-166.5	-18.3	1.938e+04	9.878e+04	7594.1
2170	ok	0.09	0.5	1.15e-02	45.2	45.2	76.0	76.0	-8.6	-166.1	-22.1	1.571e+04	9.888e+04	9100.2
2171	ok	0.09	0.5	1.11e-02	45.2	45.2	76.0	76.0	-7.5	-162.3	-27.7	1.090e+04	9.831e+04	1.210e+04
2172	ok	0.09	0.4	1.05e-02	45.2	45.2	76.0	76.0	-7.5	-153.4	-32.9	6975.4	9.348e+04	1.650e+04
2173	ok	0.09	0.8	1.21e-02	45.2	45.2	76.0	76.0	-6.4	-120.1	-23.3	3017.3	8.768e+04	1.419e+04
2174	ok	0.09	0.8	1.13e-02	45.2	45.2	76.0	76.0	-4.3	-110.3	-23.3	3458.9	8.967e+04	1.395e+04
2175	ok	0.09	0.8	1.27e-02	45.2	45.2	76.0	76.0	-5.0	-128.3	-18.6	5788.1	8.631e+04	9085.7
2176	ok	0.09	0.8	1.32e-02	45.2	45.2	76.0	76.0	-5.8	-135.3	-17.1	7967.2	8.497e+04	8101.5
2177	ok	0.09	0.8	1.36e-02	45.2	45.2	76.0	76.0	-6.9	-141.2	-15.9	9833.5	8.411e+04	7015.0
2178	ok	0.09	0.8	1.40e-02	45.2	45.2	76.0	76.0	-8.1	-146.2	-15.0	1.135e+04	8.361e+04	5941.5
2179	ok	0.09	0.8	1.43e-02	45.2	45.2	76.0	76.0	-9.3	-150.3	-14.3	1.255e+04	8.335e+04	4956.3
2180	ok	0.09	0.8	1.46e-02	45.2	45.2	76.0	76.0	-10.5	-153.7	-13.7	1.350e+04	8.324e+04	4088.4
2181	ok	0.09	0.9	1.48e-02	45.2	45.2	76.0	76.0	-11.6	-156.5	-13.3	1.426e+04	8.321e+04	3340.8
2182	ok	0.09	0.9	1.50e-02	45.2	45.2	76.0	76.0	-12.7	-158.7	-12.9	1.486e+04	8.321e+04	2705.4
2183	ok	0.09	0.9	1.52e-02	45.2	45.2	76.0	76.0	-13.8	-160.4	-12.7	1.535e+04	8.323e+04	2170.4
2184	ok	0.09	0.9	1.53e-02	45.2	45.2	76.0	76.0	-14.7	-161.7	-12.5	1.576e+04	8.324e+04	1724.7
2185	ok	0.09	0.9	1.54e-02	45.2	45.2	76.0	76.0	-15.5	-162.7	-12.5	1.612e+04	8.324e+04	1358.8
2186	ok	0.09	0.9	1.54e-02	45.2	45.2	76.0	76.0	-16.2	-163.4	-12.5	1.643e+04	8.324e+04	1065.2
2187	ok	0.09	0.9	1.55e-02	45.2	45.2	76.0	76.0	-16.8	-163.8	-12.6	1.672e+04	8.323e+04	838.6

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2188	ok	0.09	0.9	1.55e-02	45.2	45.2	76.0	76.0	-12.9	-163.1	-13.6	1.690e+04	8.280e+04	1750.9
2189	ok	0.09	0.9	1.55e-02	45.2	45.2	76.0	76.0	-13.5	-163.5	-13.5	1.721e+04	8.300e+04	1673.3
2190	ok	0.09	0.9	1.55e-02	45.2	45.2	76.0	76.0	-13.9	-163.6	-13.5	1.753e+04	8.321e+04	1654.9
2191	ok	0.09	0.9	1.54e-02	45.2	45.2	76.0	76.0	-14.2	-163.7	-13.6	1.785e+04	8.342e+04	1695.0
2192	ok	0.09	0.9	1.54e-02	45.2	45.2	76.0	76.0	-14.5	-163.5	-13.9	1.819e+04	8.364e+04	1793.1
2193	ok	0.09	0.9	1.53e-02	45.2	45.2	76.0	76.0	-14.6	-163.2	-14.2	1.854e+04	8.387e+04	1948.1
2194	ok	0.09	0.9	1.52e-02	45.2	45.2	76.0	76.0	-14.5	-162.9	-14.6	1.890e+04	8.409e+04	2157.3
2195	ok	0.09	0.9	1.51e-02	45.2	45.2	76.0	76.0	-14.4	-162.4	-15.2	1.926e+04	8.430e+04	2415.6
2196	ok	0.09	0.9	1.50e-02	45.2	45.2	76.0	76.0	-14.1	-161.8	-15.8	1.958e+04	8.446e+04	2714.2
2197	ok	0.09	0.9	1.49e-02	45.2	45.2	76.0	76.0	-13.6	-161.2	-16.5	1.982e+04	8.454e+04	3039.7
2198	ok	0.09	0.9	1.48e-02	45.2	45.2	76.0	76.0	-12.9	-160.5	-17.4	1.989e+04	8.449e+04	3375.4
2199	ok	0.09	0.9	1.46e-02	45.2	45.2	76.0	76.0	-13.0	-160.5	-17.4	1.984e+04	8.432e+04	3549.3
2200	ok	0.09	0.8	1.45e-02	45.2	45.2	76.0	76.0	-12.1	-159.8	-18.4	1.957e+04	8.397e+04	3831.9
2201	ok	0.09	0.8	1.43e-02	45.2	45.2	76.0	76.0	-11.0	-159.1	-19.7	1.878e+04	8.345e+04	4101.4
2202	ok	0.09	0.8	1.41e-02	45.2	45.2	76.0	76.0	-9.8	-158.3	-21.4	1.726e+04	8.286e+04	4470.9
2203	ok	0.09	0.8	1.38e-02	45.2	45.2	76.0	76.0	-8.7	-157.1	-23.8	1.484e+04	8.231e+04	5223.3
2204	ok	0.09	0.7	1.34e-02	45.2	45.2	76.0	76.0	-7.8	-154.7	-26.7	1.156e+04	8.182e+04	6736.3
2205	ok	0.09	0.7	1.29e-02	45.2	45.2	76.0	76.0	-8.8	-150.8	-32.0	6058.7	8.041e+04	1.202e+04
2206	ok	0.09	0.6	1.23e-02	45.2	45.2	76.0	76.0	-7.4	-143.9	-32.0	5233.6	7.705e+04	1.324e+04
2207	ok	0.07	0.9	1.23e-02	12.8	12.8	34.6	34.6	-6.4	-122.2	-24.0	2256.2	7.892e+04	1.196e+04
2208	ok	0.07	0.8	1.16e-02	12.8	12.8	34.6	34.6	-4.7	-114.3	-24.0	2762.2	8.116e+04	1.160e+04
2209	ok	0.07	0.8	1.28e-02	12.8	12.8	34.6	34.6	-4.7	-129.2	-18.6	3947.6	7.726e+04	7282.7
2210	ok	0.07	0.8	1.33e-02	12.8	12.8	34.6	34.6	-5.3	-135.3	-16.9	5689.2	7.561e+04	6746.4
2211	ok	0.07	0.8	1.37e-02	12.8	12.8	34.6	34.6	-6.0	-140.6	-15.7	7251.9	7.434e+04	6048.3
2212	ok	0.07	0.8	1.41e-02	12.8	12.8	34.6	34.6	-6.9	-145.1	-14.7	8580.0	7.340e+04	5274.2
2213	ok	0.07	0.8	1.44e-02	12.8	12.8	34.6	34.6	-7.9	-148.9	-14.0	9679.1	7.272e+04	4501.2
2214	ok	0.07	0.8	1.47e-02	12.8	12.8	34.6	34.6	-8.9	-152.0	-13.4	1.058e+04	7.222e+04	3774.7
2215	ok	0.07	0.9	1.49e-02	12.8	12.8	34.6	34.6	-10.0	-154.5	-13.0	1.132e+04	7.186e+04	3116.6
2216	ok	0.07	0.9	1.51e-02	12.8	12.8	34.6	34.6	-11.0	-156.5	-12.8	1.193e+04	7.158e+04	2534.6
2217	ok	0.07	0.9	1.52e-02	12.8	12.8	34.6	34.6	-12.0	-158.1	-12.6	1.244e+04	7.136e+04	2029.3
2218	ok	0.07	0.9	1.53e-02	12.8	12.8	34.6	34.6	-12.8	-159.3	-12.6	1.289e+04	7.117e+04	1597.9
2219	ok	0.07	0.9	1.54e-02	12.8	12.8	34.6	34.6	-13.6	-160.2	-12.6	1.328e+04	7.101e+04	1236.9
2220	ok	0.07	0.9	1.55e-02	12.8	12.8	34.6	34.6	-14.3	-160.8	-12.8	1.364e+04	7.086e+04	942.6
2221	ok	0.07	0.9	1.55e-02	12.8	12.8	34.6	34.6	-9.8	-159.5	-12.2	1.390e+04	7.032e+04	1925.5
2222	ok	0.07	0.9	1.55e-02	12.8	12.8	34.6	34.6	-10.4	-160.1	-12.2	1.426e+04	7.039e+04	1784.0
2223	ok	0.07	0.9	1.55e-02	12.8	12.8	34.6	34.6	-11.0	-160.4	-12.2	1.461e+04	7.046e+04	1700.3
2224	ok	0.07	0.9	1.54e-02	12.8	12.8	34.6	34.6	-11.5	-160.5	-12.4	1.497e+04	7.054e+04	1672.7
2225	ok	0.07	0.9	1.54e-02	12.8	12.8	34.6	34.6	-11.8	-160.5	-12.7	1.533e+04	7.062e+04	1699.6
2226	ok	0.07	0.9	1.53e-02	12.8	12.8	34.6	34.6	-12.0	-160.3	-13.1	1.571e+04	7.069e+04	1778.6
2227	ok	0.07	0.9	1.53e-02	12.8	12.8	34.6	34.6	-12.1	-160.0	-13.6	1.608e+04	7.074e+04	1906.1
2228	ok	0.07	0.9	1.52e-02	12.8	12.8	34.6	34.6	-12.1	-159.7	-14.2	1.645e+04	7.076e+04	2076.7
2229	ok	0.07	0.9	1.51e-02	12.8	12.8	34.6	34.6	-12.0	-159.2	-14.9	1.680e+04	7.073e+04	2282.8
2230	ok	0.07	0.9	1.50e-02	12.8	12.8	34.6	34.6	-11.7	-158.6	-15.7	1.708e+04	7.062e+04	2513.9
2231	ok	0.07	0.9	1.49e-02	12.8	12.8	34.6	34.6	-11.2	-158.0	-16.6	1.723e+04	7.039e+04	2758.5
2232	ok	0.07	0.9	1.48e-02	12.8	12.8	34.6	34.6	-10.6	-157.3	-17.7	1.717e+04	7.001e+04	3007.3
2233	ok	0.07	0.9	1.46e-02	12.8	12.8	34.6	34.6	-10.6	-157.2	-17.7	1.706e+04	6.951e+04	3127.7
2234	ok	0.07	0.9	1.45e-02	12.8	12.8	34.6	34.6	-9.8	-156.4	-19.1	1.664e+04	6.886e+04	3347.6
2235	ok	0.07	0.8	1.43e-02	12.8	12.8	34.6	34.6	-9.0	-155.5	-20.7	1.575e+04	6.809e+04	3622.6
2236	ok	0.07	0.8	1.41e-02	12.8	12.8	34.6	34.6	-8.1	-154.2	-22.6	1.428e+04	6.728e+04	4087.5
2237	ok	0.07	0.8	1.38e-02	12.8	12.8	34.6	34.6	-7.5	-152.3	-25.0	1.218e+04	6.649e+04	4952.1
2238	ok	0.07	0.7	1.35e-02	12.8	12.8	34.6	34.6	-7.1	-149.3	-27.5	9561.1	6.567e+04	6455.0
2239	ok	0.07	0.7	1.30e-02	12.8	12.8	34.6	34.6	-7.0	-144.9	-29.8	6759.6	6.447e+04	8728.3
2240	ok	0.07	0.6	1.24e-02	12.8	12.8	34.6	34.6	-7.2	-139.7	-31.2	4604.9	6.094e+04	1.133e+04
2241	ok	0.07	0.8	1.25e-02	12.8	12.8	34.6	34.6	-6.4	-124.4	-24.8	1541.2	6.945e+04	9691.3
2242	ok	0.07	0.8	1.19e-02	12.8	12.8	34.6	34.6	-5.1	-118.1	-24.8	2080.6	7.181e+04	9247.4
2243	ok	0.07	0.7	1.30e-02	12.8	12.8	34.6	34.6	-4.8	-130.2	-18.9	2357.7	6.764e+04	5377.9
2244	ok	0.07	0.7	1.35e-02	12.8	12.8	34.6	34.6	-5.0	-135.5	-17.1	3713.2	6.587e+04	5191.0
2245	ok	0.07	0.7	1.39e-02	12.8	12.8	34.6	34.6	-5.6	-140.1	-15.7	4981.5	6.440e+04	4819.7
2246	ok	0.07	0.7	1.43e-02	12.8	12.8	34.6	34.6	-6.2	-144.1	-14.6	6103.8	6.321e+04	4322.9
2247	ok	0.07	0.7	1.46e-02	12.8	12.8	34.6	34.6	-7.0	-147.5	-13.9	7069.6	6.226e+04	3768.3
2248	ok	0.07	0.7	1.48e-02	12.8	12.8	34.6	34.6	-7.9	-150.3	-13.3	7890.8	6.150e+04	3205.2
2249	ok	0.07	0.7	1.50e-02	12.8	12.8	34.6	34.6	-8.8	-152.6	-12.9	8588.9	6.089e+04	2664.8
2250	ok	0.07	0.7	1.52e-02	12.8	12.8	34.6	34.6	-9.7	-154.4	-12.7	9187.6	6.039e+04	2165.0
2251	ok	0.07	0.7	1.53e-02	12.8	12.8	34.6	34.6	-10.6	-155.8	-12.6	9709.4	5.998e+04	1715.7
2252	ok	0.07	0.7	1.54e-02	12.8	12.8	34.6	34.6	-11.5	-156.9	-12.6	1.017e+04	5.962e+04	1321.4
2253	ok	0.07	0.7	1.55e-02	12.8	12.8	34.6	34.6	-12.2	-157.7	-12.8	1.060e+04	5.931e+04	983.9
2254	ok	0.07	0.7	1.55e-02	12.8	12.8	34.6	34.6	-7.0	-155.8	-10.8	1.095e+04	5.866e+04	2029.3
2255	ok	0.07	0.7	1.55e-02	12.8	12.8	34.6	34.6	-7.8	-156.5	-10.8	1.135e+04	5.858e+04	1835.9
2256	ok	0.07	0.8	1.55e-02	12.8	12.8	34.6	34.6	-8.4	-157.0	-10.8	1.175e+04	5.851e+04	1695.3
2257	ok	0.07	0.8	1.55e-02	12.8	12.8	34.6	34.6	-9.0	-157.2	-11.0	1.214e+04	5.846e+04	1606.0
2258	ok	0.07	0.8	1.54e-02	12.8	12.8	34.6	34.6	-9.5	-157.3	-11.3	1.253e+04	5.840e+04	1566.1
2259	ok	0.07	0.8	1.54e-02	12.8	12.8	34.6	34.6	-9.8	-157.2	-11.8	1.292e+04	5.834e+04	1572.8
2260	ok	0.07	0.8	1.53e-02	12.8	12.8	34.6	34.6	-10.1	-157.0	-12.3	1.332e+04	5.826e+04	1622.2

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2261	ok	0.07	0.8	1.52e-02	12.8	12.8	34.6	34.6	-10.2	-156.7	-13.0	1.371e+04	5.815e+04	1709.2
2262	ok	0.07	0.8	1.51e-02	12.8	12.8	34.6	34.6	-10.2	-156.4	-13.7	1.407e+04	5.798e+04	1827.0
2263	ok	0.07	0.8	1.50e-02	12.8	12.8	34.6	34.6	-10.0	-155.9	-14.6	1.439e+04	5.774e+04	1967.4
2264	ok	0.07	0.7	1.49e-02	12.8	12.8	34.6	34.6	-9.7	-155.3	-15.6	1.461e+04	5.740e+04	2121.6
2265	ok	0.07	0.7	1.48e-02	12.8	12.8	34.6	34.6	-9.3	-154.7	-16.8	1.469e+04	5.693e+04	2283.3
2266	ok	0.07	0.7	1.47e-02	12.8	12.8	34.6	34.6	-8.9	-154.0	-18.1	1.454e+04	5.631e+04	2453.7
2267	ok	0.07	0.7	1.45e-02	12.8	12.8	34.6	34.6	-8.8	-153.7	-18.1	1.438e+04	5.561e+04	2532.1
2268	ok	0.07	0.7	1.44e-02	12.8	12.8	34.6	34.6	-8.2	-152.7	-19.6	1.390e+04	5.478e+04	2714.9
2269	ok	0.07	0.7	1.42e-02	12.8	12.8	34.6	34.6	-7.6	-151.5	-21.4	1.302e+04	5.387e+04	3002.8
2270	ok	0.07	0.6	1.39e-02	12.8	12.8	34.6	34.6	-6.5	-153.2	-23.3	1.037e+04	5.144e+04	6398.7
2271	ok	0.07	0.6	1.36e-02	12.8	12.8	34.6	34.6	-5.9	-150.4	-23.3	1.023e+04	5.093e+04	6678.5
2272	ok	0.07	0.6	1.32e-02	12.8	12.8	34.6	34.6	-5.8	-146.5	-25.9	8366.9	4.998e+04	7912.1
2273	ok	0.07	0.5	1.28e-02	12.8	12.8	34.6	34.6	-6.1	-141.3	-28.2	6410.7	4.866e+04	9589.5
2274	ok	0.07	0.5	1.23e-02	12.8	12.8	34.6	34.6	-6.7	-135.3	-30.0	4403.1	4.564e+04	1.037e+04
2275	ok	0.07	0.7	1.28e-02	12.8	12.8	34.6	34.6	-6.5	-126.6	-25.5	877.6	5.961e+04	7439.9
2276	ok	0.07	0.7	1.22e-02	12.8	12.8	34.6	34.6	-5.5	-121.7	-25.5	1432.0	6.201e+04	6940.4
2277	ok	0.07	0.7	1.32e-02	12.8	12.8	34.6	34.6	-4.9	-131.4	-19.4	973.9	5.775e+04	3475.5
2278	ok	0.07	0.6	1.37e-02	12.8	12.8	34.6	34.6	-5.0	-135.8	-17.4	1986.9	5.595e+04	3564.5
2279	ok	0.07	0.6	1.41e-02	12.8	12.8	34.6	34.6	-5.4	-139.8	-15.8	2977.7	5.440e+04	3462.2
2280	ok	0.07	0.6	1.44e-02	12.8	12.8	34.6	34.6	-5.9	-143.2	-14.7	3890.8	5.308e+04	3207.1
2281	ok	0.07	0.6	1.47e-02	12.8	12.8	34.6	34.6	-6.5	-146.2	-13.9	4708.8	5.197e+04	2856.4
2282	ok	0.07	0.6	1.49e-02	12.8	12.8	34.6	34.6	-7.3	-148.6	-13.3	5432.4	5.104e+04	2457.1
2283	ok	0.07	0.6	1.51e-02	12.8	12.8	34.6	34.6	-8.1	-150.6	-12.9	6072.0	5.026e+04	2043.6
2284	ok	0.07	0.6	1.53e-02	12.8	12.8	34.6	34.6	-8.9	-152.3	-12.7	6641.9	4.960e+04	1639.7
2285	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-9.7	-153.5	-12.7	7156.7	4.904e+04	1261.2
2286	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-3.9	-150.9	-9.7	7628.9	4.808e+04	2296.8
2287	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-4.7	-152.1	-9.4	8082.4	4.780e+04	2032.3
2288	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-5.5	-152.9	-9.3	8518.6	4.756e+04	1809.3
2289	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-6.3	-153.5	-9.3	8944.4	4.735e+04	1629.5
2290	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-6.9	-153.8	-9.5	9365.0	4.716e+04	1493.0
2291	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-7.5	-154.0	-9.8	9783.4	4.698e+04	1398.7
2292	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-7.9	-154.0	-10.3	1.020e+04	4.681e+04	1344.4
2293	ok	0.07	0.6	1.53e-02	12.8	12.8	34.6	34.6	-8.3	-153.9	-10.9	1.061e+04	4.662e+04	1326.6
2294	ok	0.07	0.6	1.53e-02	12.8	12.8	34.6	34.6	-8.5	-153.7	-11.6	1.102e+04	4.640e+04	1340.6
2295	ok	0.07	0.6	1.52e-02	12.8	12.8	34.6	34.6	-8.6	-153.4	-12.4	1.141e+04	4.614e+04	1380.7
2296	ok	0.07	0.6	1.51e-02	12.8	12.8	34.6	34.6	-8.6	-153.0	-13.4	1.175e+04	4.581e+04	1440.2
2297	ok	0.07	0.6	1.50e-02	12.8	12.8	34.6	34.6	-8.5	-152.5	-14.4	1.204e+04	4.540e+04	1512.4
2298	ok	0.07	0.6	1.49e-02	12.8	12.8	34.6	34.6	-8.3	-152.0	-15.6	1.221e+04	4.489e+04	1592.2
2299	ok	0.07	0.6	1.47e-02	12.8	12.8	34.6	34.6	-8.0	-151.3	-16.9	1.223e+04	4.425e+04	1679.9
2300	ok	0.07	0.6	1.46e-02	12.8	12.8	34.6	34.6	-7.6	-150.6	-18.4	1.203e+04	4.349e+04	1785.9
2301	ok	0.07	0.6	1.44e-02	12.8	12.8	34.6	34.6	-7.0	-156.5	-18.1	1.141e+04	4.168e+04	4687.1
2302	ok	0.07	0.6	1.42e-02	12.8	12.8	34.6	34.6	-6.7	-155.2	-18.1	1.127e+04	4.101e+04	4719.7
2303	ok	0.07	0.5	1.40e-02	12.8	12.8	34.6	34.6	-6.2	-153.2	-19.9	1.058e+04	4.020e+04	4923.5
2304	ok	0.07	0.5	1.37e-02	12.8	12.8	34.6	34.6	-5.7	-150.6	-21.9	9584.2	3.933e+04	5322.1
2305	ok	0.07	0.5	1.34e-02	12.8	12.8	34.6	34.6	-5.5	-147.3	-24.1	8335.2	3.838e+04	6017.3
2306	ok	0.07	0.4	1.30e-02	12.8	12.8	34.6	34.6	-5.6	-143.2	-26.2	6935.5	3.729e+04	7081.3
2307	ok	0.07	0.4	1.26e-02	12.8	12.8	34.6	34.6	-6.0	-138.1	-28.1	5514.4	3.588e+04	8418.9
2308	ok	0.07	0.3	1.21e-02	12.8	12.8	34.6	34.6	-6.6	-132.5	-29.5	3796.0	3.320e+04	8469.3
2309	ok	0.07	0.6	1.30e-02	12.8	12.8	34.6	34.6	-6.7	-128.7	-26.2	267.0	4.962e+04	5250.1
2310	ok	0.07	0.6	1.25e-02	12.8	12.8	34.6	34.6	-5.8	-124.8	-26.2	824.6	5.202e+04	4712.6
2311	ok	0.07	0.6	1.35e-02	12.8	12.8	34.6	34.6	-6.2	-132.5	-22.7	-1207.8	4.756e+04	1837.8
2312	ok	0.07	0.5	1.39e-02	12.8	12.8	34.6	34.6	-5.2	-136.2	-17.8	469.6	4.600e+04	1943.9
2313	ok	0.07	0.5	1.42e-02	12.8	12.8	34.6	34.6	-5.4	-139.5	-16.1	1201.7	4.444e+04	2061.6
2314	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-5.8	-142.5	-14.9	1909.8	4.307e+04	2011.7
2315	ok	0.07	0.5	1.48e-02	12.8	12.8	34.6	34.6	-6.3	-145.0	-14.0	2574.2	4.188e+04	1841.9
2316	ok	0.07	0.5	1.50e-02	12.8	12.8	34.6	34.6	-7.0	-147.1	-13.3	3189.4	4.086e+04	1595.2
2317	ok	0.07	0.5	1.52e-02	12.8	12.8	34.6	34.6	-0.6	-143.0	-9.8	3846.9	3.933e+04	2661.3
2318	ok	0.07	0.5	1.53e-02	12.8	12.8	34.6	34.6	-1.3	-145.2	-9.0	4365.2	3.869e+04	2403.2
2319	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-2.1	-147.0	-8.4	4856.5	3.815e+04	2145.0
2320	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-8.5	-204.1	-23.0	5549.4	3.757e+04	1911.6
2321	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-9.3	-204.6	-22.5	5996.0	3.725e+04	1717.6
2322	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-10.0	-204.8	-22.2	6422.4	3.697e+04	1551.3
2323	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-10.6	-204.7	-22.0	6832.0	3.673e+04	1414.3
2324	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-11.2	-204.4	-21.9	7227.3	3.651e+04	1306.2
2325	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-11.6	-204.0	-22.0	7609.0	3.629e+04	1225.2
2326	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-11.9	-203.3	-22.2	7976.0	3.607e+04	1168.0
2327	ok	0.07	0.5	1.53e-02	12.8	12.8	34.6	34.6	-12.1	-202.5	-22.6	8324.5	3.583e+04	1130.6
2328	ok	0.07	0.5	1.52e-02	12.8	12.8	34.6	34.6	-12.1	-201.5	-23.0	8646.9	3.556e+04	1107.8
2329	ok	0.07	0.5	1.51e-02	12.8	12.8	34.6	34.6	-12.0	-200.5	-23.6	8931.2	3.525e+04	1094.2
2330	ok	0.07	0.5	1.50e-02	12.8	12.8	34.6	34.6	-11.8	-199.3	-24.3	9159.3	3.487e+04	1084.5
2331	ok	0.07	0.5	1.49e-02	12.8	12.8	34.6	34.6	-8.1	-160.8	-14.2	9569.8	3.294e+04	3995.0
2332	ok	0.07	0.5	1.48e-02	12.8	12.8	34.6	34.6	-7.7	-159.6	-15.1	9717.5	3.256e+04	4010.1
2333	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-7.3	-158.2	-16.3	9731.0	3.205e+04	4017.9

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2334	ok	0.07	0.5	1.45e-02	12.8	12.8	34.6	34.6	-7.0	-157.0	-16.3	9598.8	3.143e+04	4032.0
2335	ok	0.07	0.4	1.43e-02	12.8	12.8	34.6	34.6	-6.6	-155.3	-17.6	9422.5	3.073e+04	4038.6
2336	ok	0.07	0.4	1.41e-02	12.8	12.8	34.6	34.6	-6.1	-153.4	-19.2	9041.0	2.993e+04	4098.4
2337	ok	0.07	0.4	1.38e-02	12.8	12.8	34.6	34.6	-5.7	-151.0	-20.9	8439.9	2.907e+04	4269.3
2338	ok	0.07	0.4	1.36e-02	12.8	12.8	34.6	34.6	-5.4	-148.1	-22.7	7635.1	2.813e+04	4621.0
2339	ok	0.07	0.3	1.32e-02	12.8	12.8	34.6	34.6	-5.3	-144.5	-24.6	6681.9	2.710e+04	5221.1
2340	ok	0.07	0.3	1.29e-02	12.8	12.8	34.6	34.6	-5.5	-140.2	-26.4	5672.1	2.594e+04	6106.0
2341	ok	0.07	0.3	1.25e-02	12.8	12.8	34.6	34.6	-5.9	-135.3	-27.8	4682.2	2.451e+04	7143.6
2342	ok	0.07	0.2	1.20e-02	12.8	12.8	34.6	34.6	-6.4	-130.0	-29.0	3209.1	2.214e+04	6638.6
2343	ok	0.07	0.5	1.33e-02	12.8	12.8	34.6	34.6	-6.8	-130.6	-26.9	-290.5	3.963e+04	3147.4
2344	ok	0.07	0.5	1.28e-02	12.8	12.8	34.6	34.6	-6.2	-127.7	-26.9	262.2	4.200e+04	2584.2
2345	ok	0.07	0.5	1.37e-02	12.8	12.8	34.6	34.6	-6.4	-133.6	-23.3	-1947.0	3.769e+04	-29.1
2346	ok	0.07	0.4	1.41e-02	12.8	12.8	34.6	34.6	-6.1	-136.5	-20.5	-1721.7	3.597e+04	251.1
2347	ok	0.07	0.4	1.44e-02	12.8	12.8	34.6	34.6	-6.0	-139.2	-18.2	-1249.2	3.444e+04	622.5
2348	ok	0.07	0.4	1.47e-02	12.8	12.8	34.6	34.6	-3.8	-134.1	-17.7	-8246.3	-2.436e+04	-3436.3
2349	ok	0.07	0.4	1.50e-02	12.8	12.8	34.6	34.6	-3.4	-136.5	-16.3	-8196.5	-2.439e+04	-2900.0
2350	ok	0.07	0.4	1.52e-02	12.8	12.8	34.6	34.6	-5.0	-199.4	-25.7	1750.5	3.114e+04	2107.3
2351	ok	0.07	0.4	1.53e-02	12.8	12.8	34.6	34.6	-5.6	-201.4	-24.6	2260.5	3.043e+04	1981.3
2352	ok	0.07	0.4	1.54e-02	12.8	12.8	34.6	34.6	-6.4	-202.9	-23.6	2753.3	2.982e+04	1827.6
2353	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-7.2	-204.0	-22.8	3228.4	2.930e+04	1663.6
2354	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-8.0	-204.6	-22.2	3686.5	2.884e+04	1501.8
2355	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-8.7	-204.9	-21.7	4128.8	2.845e+04	1350.5
2356	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-9.5	-204.9	-21.5	4556.4	2.810e+04	1214.9
2357	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-10.1	-204.6	-21.4	4970.0	2.779e+04	1097.3
2358	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-10.6	-204.2	-21.5	5369.2	2.749e+04	998.0
2359	ok	0.07	0.4	1.54e-02	12.8	12.8	34.6	34.6	-11.0	-203.6	-21.7	5752.7	2.720e+04	915.4
2360	ok	0.07	0.4	1.53e-02	12.8	12.8	34.6	34.6	-11.3	-202.8	-22.1	6117.3	2.691e+04	846.7
2361	ok	0.07	0.4	1.53e-02	12.8	12.8	34.6	34.6	-11.5	-201.9	-22.6	6457.6	2.660e+04	788.3
2362	ok	0.07	0.4	1.52e-02	12.8	12.8	34.6	34.6	-11.5	-200.9	-23.2	6764.7	2.625e+04	735.7
2363	ok	0.07	0.4	1.51e-02	12.8	12.8	34.6	34.6	-11.4	-199.7	-24.0	7026.2	2.586e+04	684.8
2364	ok	0.07	0.4	1.50e-02	12.8	12.8	34.6	34.6	-11.2	-198.4	-24.8	7225.2	2.540e+04	632.2
2365	ok	0.07	0.4	1.48e-02	12.8	12.8	34.6	34.6	-7.5	-159.9	-14.8	7602.1	2.331e+04	3585.9
2366	ok	0.07	0.3	1.47e-02	12.8	12.8	34.6	34.6	-7.2	-158.6	-15.9	7701.2	2.282e+04	3533.6
2367	ok	0.07	0.3	1.45e-02	12.8	12.8	34.6	34.6	-6.9	-157.1	-17.1	7679.0	2.222e+04	3477.8
2368	ok	0.07	0.3	1.44e-02	12.8	12.8	34.6	34.6	-6.5	-155.6	-17.1	7535.7	2.153e+04	3459.9
2369	ok	0.07	0.3	1.42e-02	12.8	12.8	34.6	34.6	-6.1	-153.7	-18.5	7355.6	2.078e+04	3418.7
2370	ok	0.07	0.3	1.39e-02	12.8	12.8	34.6	34.6	-5.7	-151.4	-20.0	7017.6	1.995e+04	3438.5
2371	ok	0.07	0.3	1.37e-02	12.8	12.8	34.6	34.6	-5.5	-148.8	-21.6	6525.2	1.906e+04	3566.3
2372	ok	0.07	0.2	1.34e-02	12.8	12.8	34.6	34.6	-5.3	-145.6	-23.3	5906.5	1.810e+04	3853.1
2373	ok	0.07	0.2	1.31e-02	12.8	12.8	34.6	34.6	-5.3	-141.9	-24.9	5217.4	1.704e+04	4343.1
2374	ok	0.07	0.2	1.27e-02	12.8	12.8	34.6	34.6	-5.5	-137.6	-26.4	4535.3	1.585e+04	5051.0
2375	ok	0.07	0.3	1.23e-02	12.8	12.8	34.6	34.6	-5.9	-132.8	-27.6	3897.9	1.443e+04	5824.5
2376	ok	0.07	0.2	1.19e-02	12.8	12.8	34.6	34.6	-6.9	-147.2	-33.3	-220.0	-2.143e+04	-940.1
2377	ok	0.07	0.4	1.36e-02	12.8	12.8	34.6	34.6	-5.5	-122.4	-23.3	-6359.5	-3.242e+04	-7931.8
2378	ok	0.07	0.4	1.32e-02	12.8	12.8	34.6	34.6	-6.8	-118.0	-25.4	-4087.7	-3.018e+04	-7935.3
2379	ok	0.07	0.4	1.40e-02	12.8	12.8	34.6	34.6	-4.5	-126.5	-21.3	-7752.6	-3.282e+04	-6354.2
2380	ok	0.07	0.3	1.44e-02	12.8	12.8	34.6	34.6	-3.7	-130.1	-19.5	-8658.8	-3.296e+04	-5026.9
2381	ok	0.07	0.4	1.47e-02	12.8	12.8	34.6	34.6	-3.1	-133.3	-17.7	-9157.5	-3.296e+04	-4011.3
2382	ok	0.07	0.4	1.49e-02	12.8	12.8	34.6	34.6	-3.7	-136.2	-17.7	-9150.8	-3.274e+04	-3611.6
2383	ok	0.07	0.4	1.51e-02	12.8	12.8	34.6	34.6	-3.3	-138.3	-16.2	-9244.9	-3.247e+04	-2931.7
2384	ok	0.07	0.4	1.53e-02	12.8	12.8	34.6	34.6	-4.2	-185.9	-20.8	-9936.3	-3.152e+04	-2424.4
2385	ok	0.07	0.4	1.54e-02	12.8	12.8	34.6	34.6	-4.2	-187.4	-19.2	-9572.2	-3.114e+04	-2017.0
2386	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-4.4	-188.4	-17.9	-9174.9	-3.064e+04	-1722.5
2387	ok	0.07	0.4	1.56e-02	12.8	12.8	34.6	34.6	-4.8	-189.1	-16.9	-8713.6	-3.003e+04	-1522.9
2388	ok	0.07	0.4	1.56e-02	12.8	12.8	34.6	34.6	-5.2	-189.5	-16.1	-8141.1	-2.929e+04	-1396.7
2389	ok	0.07	0.3	1.55e-02	12.8	12.8	34.6	34.6	-5.7	-189.6	-15.6	-7372.7	-2.843e+04	-1324.7
2390	ok	0.07	0.3	1.55e-02	12.8	12.8	34.6	34.6	-6.3	-189.5	-15.3	-6443.4	-2.750e+04	-1276.3
2391	ok	0.07	0.3	1.55e-02	12.8	12.8	34.6	34.6	-6.7	-189.2	-15.2	-5551.6	-2.657e+04	-1222.7
2392	ok	0.07	0.3	1.54e-02	12.8	12.8	34.6	34.6	-7.2	-188.8	-15.4	-4767.1	-2.568e+04	-1170.7
2393	ok	0.07	0.3	1.54e-02	12.8	12.8	34.6	34.6	-7.5	-188.2	-15.7	-4021.4	-2.481e+04	-1136.6
2394	ok	0.07	0.3	1.53e-02	12.8	12.8	34.6	34.6	-7.8	-187.5	-16.1	-3246.6	-2.397e+04	-1122.5
2395	ok	0.07	0.3	1.52e-02	12.8	12.8	34.6	34.6	-8.0	-186.7	-16.7	-2348.1	-2.314e+04	-1126.3
2396	ok	0.07	0.3	1.51e-02	12.8	12.8	34.6	34.6	-8.0	-185.7	-17.5	-1361.4	-2.237e+04	-1130.5
2397	ok	0.07	0.2	1.50e-02	12.8	12.8	34.6	34.6	-8.0	-184.6	-18.3	-494.6	-2.175e+04	-1116.7
2398	ok	0.07	0.2	1.49e-02	12.8	12.8	34.6	34.6	-8.0	-183.4	-20.3	614.1	-2.121e+04	-1122.3
2399	ok	0.07	0.2	1.47e-02	12.8	12.8	34.6	34.6	-7.4	-158.9	-15.3	5744.6	1.454e+04	3126.4
2400	ok	0.07	0.2	1.46e-02	12.8	12.8	34.6	34.6	-7.4	-180.3	-22.7	1219.9	-2.087e+04	-1159.3
2401	ok	0.07	0.2	1.44e-02	12.8	12.8	34.6	34.6	-7.1	-178.4	-24.0	1336.0	-2.094e+04	-1214.3
2402	ok	0.07	0.2	1.42e-02	12.8	12.8	34.6	34.6	-6.8	-176.3	-25.4	1341.1	-2.116e+04	-1277.1
2403	ok	0.07	0.2	1.40e-02	12.8	12.8	34.6	34.6	-6.3	-173.8	-25.4	1272.8	-2.150e+04	-1318.9
2404	ok	0.07	0.2	1.38e-02	12.8	12.8	34.6	34.6	-6.0	-171.0	-26.8	1157.0	-2.196e+04	-1359.0
2405	ok	0.07	0.3	1.35e-02	12.8	12.8	34.6	34.6	-5.7	-167.7	-28.1	969.1	-2.255e+04	-1347.2
2406	ok	0.07	0.3	1.33e-02	12.8	12.8	34.6	34.6	-5.7	-164.0	-29.4	747.7	-2.327e+04	-1258.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2407	ok	0.07	0.3	1.29e-02	12.8	12.8	34.6	34.6	-5.7	-159.9	-30.5	547.4	-2.413e+04	-1074.6
2408	ok	0.07	0.3	1.26e-02	12.8	12.8	34.6	34.6	-7.4	-155.6	-32.3	675.4	-2.510e+04	-848.1
2409	ok	0.07	0.3	1.22e-02	12.8	12.8	34.6	34.6	-8.0	-150.7	-32.9	-177.7	-2.629e+04	-2717.1
2410	ok	0.07	0.3	1.18e-02	12.8	12.8	34.6	34.6	-6.8	-145.1	-32.9	-478.1	-2.759e+04	-2438.1
2411	ok	0.07	0.4	1.39e-02	12.8	12.8	34.6	34.6	-7.4	-168.4	-32.4	-7142.2	-4.030e+04	-9013.8
2412	ok	0.07	0.4	1.35e-02	12.8	12.8	34.6	34.6	-9.1	-163.2	-35.3	-4556.7	-3.809e+04	-9357.8
2413	ok	0.07	0.4	1.43e-02	12.8	12.8	34.6	34.6	-6.0	-173.1	-29.6	-8898.3	-4.046e+04	-7159.3
2414	ok	0.07	0.4	1.46e-02	12.8	12.8	34.6	34.6	-5.0	-177.3	-27.0	-1.007e+04	-4.039e+04	-5573.1
2415	ok	0.07	0.4	1.49e-02	12.8	12.8	34.6	34.6	-4.3	-180.9	-24.5	-1.075e+04	-4.021e+04	-4316.7
2416	ok	0.07	0.5	1.51e-02	12.8	12.8	34.6	34.6	-5.0	-184.0	-24.5	-1.071e+04	-3.981e+04	-3823.7
2417	ok	0.07	0.5	1.53e-02	12.8	12.8	34.6	34.6	-4.4	-186.1	-22.3	-1.093e+04	-3.944e+04	-2938.0
2418	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-4.2	-187.6	-20.3	-1.081e+04	-3.892e+04	-2267.1
2419	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-4.2	-188.6	-18.6	-1.056e+04	-3.831e+04	-1750.6
2420	ok	0.07	0.5	1.56e-02	12.8	12.8	34.6	34.6	-4.5	-189.2	-17.2	-1.026e+04	-3.762e+04	-1352.4
2421	ok	0.07	0.5	1.56e-02	12.8	12.8	34.6	34.6	-4.9	-189.5	-16.1	-9866.1	-3.682e+04	-1055.5
2422	ok	0.07	0.5	1.56e-02	12.8	12.8	34.6	34.6	-5.4	-189.5	-15.3	-9326.6	-3.593e+04	-844.2
2423	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-5.9	-189.4	-14.9	-8552.2	-3.494e+04	-712.5
2424	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-6.4	-189.0	-14.7	-7604.1	-3.390e+04	-640.1
2425	ok	0.07	0.4	1.55e-02	12.8	12.8	34.6	34.6	-6.9	-188.6	-14.8	-6709.0	-3.287e+04	-587.8
2426	ok	0.07	0.4	1.54e-02	12.8	12.8	34.6	34.6	-7.3	-188.0	-15.0	-5938.6	-3.189e+04	-546.5
2427	ok	0.07	0.4	1.53e-02	12.8	12.8	34.6	34.6	-7.6	-187.3	-15.5	-5207.3	-3.096e+04	-529.4
2428	ok	0.07	0.4	1.52e-02	12.8	12.8	34.6	34.6	-7.9	-186.5	-16.1	-4428.3	-3.005e+04	-542.4
2429	ok	0.07	0.4	1.51e-02	12.8	12.8	34.6	34.6	-8.0	-185.6	-16.8	-3502.0	-2.917e+04	-595.9
2430	ok	0.07	0.3	1.50e-02	12.8	12.8	34.6	34.6	-8.1	-184.5	-17.7	-2488.1	-2.837e+04	-682.5
2431	ok	0.07	0.3	1.49e-02	12.8	12.8	34.6	34.6	-8.0	-183.3	-18.6	-1622.5	-2.771e+04	-773.4
2432	ok	0.07	0.3	1.48e-02	12.8	12.8	34.6	34.6	-7.9	-182.0	-19.7	-995.5	-2.724e+04	-867.0
2433	ok	0.07	0.3	1.46e-02	12.8	12.8	34.6	34.6	-7.6	-180.5	-20.8	-552.2	-2.694e+04	-980.4
2434	ok	0.07	0.3	1.45e-02	12.8	12.8	34.6	34.6	-7.4	-178.7	-22.1	-254.7	-2.681e+04	-1118.1
2435	ok	0.07	0.3	1.43e-02	12.8	12.8	34.6	34.6	-7.2	-176.8	-24.7	28.9	-2.680e+04	-1353.7
2436	ok	0.07	0.3	1.41e-02	12.8	12.8	34.6	34.6	-6.9	-174.6	-26.0	46.4	-2.697e+04	-1515.8
2437	ok	0.07	0.3	1.39e-02	12.8	12.8	34.6	34.6	-6.8	-172.1	-27.3	2.6	-2.725e+04	-1665.4
2438	ok	0.07	0.3	1.37e-02	12.8	12.8	34.6	34.6	-6.7	-169.2	-28.5	-71.6	-2.765e+04	-1784.8
2439	ok	0.07	0.3	1.34e-02	12.8	12.8	34.6	34.6	-5.9	-165.8	-28.5	-174.9	-2.817e+04	-1838.5
2440	ok	0.07	0.3	1.31e-02	12.8	12.8	34.6	34.6	-5.9	-162.1	-29.7	-267.3	-2.880e+04	-1875.4
2441	ok	0.07	0.3	1.28e-02	12.8	12.8	34.6	34.6	-5.9	-157.9	-30.6	-300.2	-2.957e+04	-1843.7
2442	ok	0.07	0.3	1.25e-02	12.8	12.8	34.6	34.6	-7.4	-153.6	-32.0	207.5	-3.038e+04	-1919.8
2443	ok	0.07	0.4	1.21e-02	12.8	12.8	34.6	34.6	-7.9	-148.7	-32.5	-477.8	-3.143e+04	-3928.3
2444	ok	0.07	0.3	1.17e-02	12.8	12.8	34.6	34.6	-6.7	-143.1	-32.5	-711.9	-3.246e+04	-3740.2
2445	ok	0.07	0.5	1.43e-02	12.8	12.8	34.6	34.6	-7.7	-173.2	-33.2	-6685.4	-4.758e+04	-8878.9
2446	ok	0.07	0.4	1.39e-02	12.8	12.8	34.6	34.6	-9.3	-168.3	-36.4	-4293.7	-4.591e+04	-9946.8
2447	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-6.3	-177.6	-30.2	-8640.7	-4.725e+04	-7001.9
2448	ok	0.07	0.5	1.49e-02	12.8	12.8	34.6	34.6	-5.2	-181.3	-27.2	-1.001e+04	-4.675e+04	-5403.7
2449	ok	0.07	0.5	1.52e-02	12.8	12.8	34.6	34.6	-4.5	-184.4	-24.4	-1.086e+04	-4.620e+04	-4100.5
2450	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-4.2	-186.7	-21.9	-1.124e+04	-4.557e+04	-3059.3
2451	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-4.6	-188.3	-21.9	-1.112e+04	-4.480e+04	-2639.4
2452	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-4.4	-189.3	-19.7	-1.114e+04	-4.407e+04	-1889.4
2453	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-4.5	-189.7	-17.8	-1.102e+04	-4.328e+04	-1295.7
2454	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-4.8	-189.9	-16.3	-1.082e+04	-4.244e+04	-822.3
2455	ok	0.07	0.5	1.56e-02	12.8	12.8	34.6	34.6	-5.3	-189.7	-15.3	-1.051e+04	-4.154e+04	-454.1
2456	ok	0.07	0.5	1.56e-02	12.8	12.8	34.6	34.6	-5.9	-189.4	-14.6	-1.002e+04	-4.057e+04	-182.6
2457	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-6.4	-189.0	-14.2	-9285.9	-3.952e+04	-12.1
2458	ok	0.07	0.5	1.55e-02	12.8	12.8	34.6	34.6	-6.9	-188.5	-14.1	-8370.7	-3.844e+04	72.8
2459	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-7.4	-187.8	-14.3	-7515.3	-3.739e+04	116.7
2460	ok	0.07	0.5	1.53e-02	12.8	12.8	34.6	34.6	-7.8	-187.1	-14.7	-6787.5	-3.641e+04	137.8
2461	ok	0.07	0.5	1.52e-02	12.8	12.8	34.6	34.6	-8.1	-186.3	-15.3	-6090.5	-3.548e+04	128.2
2462	ok	0.07	0.4	1.51e-02	12.8	12.8	34.6	34.6	-8.3	-185.4	-16.1	-5332.3	-3.459e+04	78.3
2463	ok	0.07	0.4	1.50e-02	12.8	12.8	34.6	34.6	-8.4	-184.4	-16.9	-4420.3	-3.373e+04	-32.1
2464	ok	0.07	0.4	1.49e-02	12.8	12.8	34.6	34.6	-8.4	-183.3	-17.9	-3428.9	-3.294e+04	-200.3
2465	ok	0.07	0.4	1.48e-02	12.8	12.8	34.6	34.6	-8.4	-182.0	-19.0	-2603.3	-3.231e+04	-391.9
2466	ok	0.07	0.4	1.47e-02	12.8	12.8	34.6	34.6	-8.2	-180.6	-20.1	-2028.6	-3.186e+04	-595.0
2467	ok	0.07	0.4	1.45e-02	12.8	12.8	34.6	34.6	-8.0	-179.0	-21.3	-1637.5	-3.158e+04	-817.8
2468	ok	0.07	0.4	1.44e-02	12.8	12.8	34.6	34.6	-7.7	-177.1	-22.6	-1382.2	-3.144e+04	-1059.8
2469	ok	0.07	0.4	1.42e-02	12.8	12.8	34.6	34.6	-7.6	-175.3	-25.2	-1141.7	-3.142e+04	-1440.1
2470	ok	0.07	0.4	1.40e-02	12.8	12.8	34.6	34.6	-7.4	-173.0	-26.5	-1105.8	-3.154e+04	-1696.0
2471	ok	0.07	0.4	1.38e-02	12.8	12.8	34.6	34.6	-7.2	-170.4	-27.8	-1101.4	-3.177e+04	-1940.4
2472	ok	0.07	0.4	1.36e-02	12.8	12.8	34.6	34.6	-7.0	-167.5	-28.9	-1094.9	-3.210e+04	-2161.1
2473	ok	0.07	0.4	1.33e-02	12.8	12.8	34.6	34.6	-6.3	-164.0	-28.9	-1180.7	-3.256e+04	-2261.3
2474	ok	0.07	0.4	1.30e-02	12.8	12.8	34.6	34.6	-6.2	-160.3	-29.9	-1158.7	-3.310e+04	-2418.8
2475	ok	0.07	0.4	1.27e-02	12.8	12.8	34.6	34.6	-6.1	-156.2	-30.8	-1048.7	-3.375e+04	-2530.2
2476	ok	0.07	0.4	1.24e-02	12.8	12.8	34.6	34.6	-6.2	-151.6	-31.4	-803.0	-3.454e+04	-2612.0
2477	ok	0.07	0.4	1.20e-02	12.8	12.8	34.6	34.6	-7.9	-147.0	-32.2	-748.4	-3.532e+04	-4946.8
2478	ok	0.07	0.4	1.16e-02	12.8	12.8	34.6	34.6	-6.7	-141.3	-32.2	-918.3	-3.608e+04	-4843.7
2479	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-7.9	-178.2	-34.1	-5922.5	-5.225e+04	-8241.9

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2480	ok	0.07	0.5	1.42e-02	12.8	12.8	34.6	34.6	-9.6	-173.5	-37.5	-3831.1	-5.118e+04	-9983.0
2481	ok	0.07	0.5	1.49e-02	12.8	12.8	34.6	34.6	-6.5	-182.2	-30.7	-7983.8	-5.147e+04	-6418.5
2482	ok	0.07	0.6	1.52e-02	12.8	12.8	34.6	34.6	-5.5	-185.5	-27.3	-9492.9	-5.059e+04	-4875.1
2483	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-4.9	-188.0	-24.2	-1.048e+04	-4.972e+04	-3583.1
2484	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-4.7	-189.7	-21.3	-1.099e+04	-4.884e+04	-2523.9
2485	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-4.9	-190.6	-21.3	-1.081e+04	-4.782e+04	-2111.7
2486	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-4.8	-190.8	-18.9	-1.098e+04	-4.693e+04	-1325.8
2487	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-5.1	-190.7	-16.9	-1.098e+04	-4.603e+04	-694.5
2488	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-5.6	-190.3	-15.4	-1.090e+04	-4.513e+04	-182.2
2489	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-6.1	-189.8	-14.4	-1.068e+04	-4.420e+04	225.0
2490	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-6.8	-189.2	-13.8	-1.027e+04	-4.323e+04	530.4
2491	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-7.4	-188.5	-13.6	-9604.3	-4.220e+04	720.9
2492	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-7.9	-187.7	-13.6	-8768.0	-4.117e+04	804.5
2493	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-8.4	-187.0	-14.0	-7993.3	-4.020e+04	827.3
2494	ok	0.07	0.5	1.53e-02	12.8	12.8	34.6	34.6	-8.7	-186.1	-14.5	-7334.9	-3.930e+04	817.6
2495	ok	0.07	0.5	1.52e-02	12.8	12.8	34.6	34.6	-9.0	-185.2	-15.3	-6691.4	-3.846e+04	773.9
2496	ok	0.07	0.5	1.51e-02	12.8	12.8	34.6	34.6	-9.1	-184.2	-16.1	-5979.2	-3.765e+04	683.4
2497	ok	0.07	0.5	1.50e-02	12.8	12.8	34.6	34.6	-9.2	-183.1	-17.1	-5119.4	-3.687e+04	518.6
2498	ok	0.07	0.5	1.48e-02	12.8	12.8	34.6	34.6	-9.2	-181.9	-18.2	-4195.1	-3.616e+04	274.5
2499	ok	0.07	0.4	1.47e-02	12.8	12.8	34.6	34.6	-9.1	-180.6	-19.4	-3446.7	-3.561e+04	-12.1
2500	ok	0.07	0.4	1.46e-02	12.8	12.8	34.6	34.6	-8.9	-179.1	-20.6	-2943.7	-3.523e+04	-317.3
2501	ok	0.07	0.4	1.44e-02	12.8	12.8	34.6	34.6	-8.6	-177.4	-21.9	-2608.0	-3.499e+04	-639.4
2502	ok	0.07	0.4	1.42e-02	12.8	12.8	34.6	34.6	-9.3	-173.5	-25.4	-3543.4	-3.296e+04	-3003.4
2503	ok	0.07	0.4	1.41e-02	12.8	12.8	34.6	34.6	-9.0	-171.7	-26.6	-3324.2	-3.313e+04	-3185.2
2504	ok	0.07	0.4	1.39e-02	12.8	12.8	34.6	34.6	-8.7	-169.7	-27.9	-3156.1	-3.335e+04	-3378.6
2505	ok	0.07	0.4	1.37e-02	12.8	12.8	34.6	34.6	-8.4	-167.4	-29.1	-3024.3	-3.363e+04	-3576.0
2506	ok	0.07	0.4	1.34e-02	12.8	12.8	34.6	34.6	-7.1	-165.6	-28.3	-2112.7	-3.541e+04	-2315.7
2507	ok	0.07	0.4	1.32e-02	12.8	12.8	34.6	34.6	-6.8	-162.3	-29.4	-2055.3	-3.576e+04	-2612.0
2508	ok	0.07	0.4	1.29e-02	12.8	12.8	34.6	34.6	-6.6	-158.7	-30.3	-1933.6	-3.621e+04	-2880.8
2509	ok	0.07	0.4	1.26e-02	12.8	12.8	34.6	34.6	-6.5	-154.6	-31.0	-1703.2	-3.675e+04	-3123.1
2510	ok	0.07	0.4	1.23e-02	12.8	12.8	34.6	34.6	-6.4	-150.1	-31.5	-1321.7	-3.740e+04	-3358.1
2511	ok	0.07	0.4	1.20e-02	12.8	12.8	34.6	34.6	-7.9	-145.5	-31.9	-986.2	-3.800e+04	-5770.5
2512	ok	0.07	0.4	1.15e-02	12.8	12.8	34.6	34.6	-6.7	-139.7	-31.9	-1094.1	-3.850e+04	-5746.7
2513	ok	0.07	0.6	1.50e-02	12.8	12.8	34.6	34.6	-8.2	-183.4	-34.9	-4875.3	-5.414e+04	-7165.0
2514	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-9.9	-178.9	-38.6	-3176.6	-5.368e+04	-9494.0
2515	ok	0.07	0.6	1.53e-02	12.8	12.8	34.6	34.6	-6.8	-187.2	-31.0	-6955.7	-5.299e+04	-5467.6
2516	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-5.9	-190.0	-27.2	-8540.8	-5.182e+04	-4038.9
2517	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-5.4	-191.8	-23.6	-9625.0	-5.071e+04	-2812.5
2518	ok	0.07	0.6	1.58e-02	12.8	12.8	34.6	34.6	-5.4	-192.8	-20.4	-1.026e+04	-4.964e+04	-1783.7
2519	ok	0.07	0.6	1.59e-02	12.8	12.8	34.6	34.6	-5.7	-193.0	-17.8	-1.055e+04	-4.859e+04	-945.0
2520	ok	0.07	0.6	1.59e-02	12.8	12.8	34.6	34.6	-6.3	-192.6	-15.8	-1.068e+04	-4.759e+04	-266.1
2521	ok	0.07	0.6	1.58e-02	12.8	12.8	34.6	34.6	-7.0	-192.0	-14.3	-1.070e+04	-4.664e+04	285.5
2522	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-7.7	-191.2	-13.4	-1.057e+04	-4.572e+04	727.9
2523	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-7.4	-189.6	-13.4	-1.040e+04	-4.482e+04	917.8
2524	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-8.1	-188.7	-13.0	-1.009e+04	-4.394e+04	1230.2
2525	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-8.7	-187.8	-13.0	-9536.9	-4.305e+04	1423.0
2526	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-9.2	-186.9	-13.2	-8829.4	-4.217e+04	1487.7
2527	ok	0.07	0.6	1.53e-02	12.8	12.8	34.6	34.6	-9.7	-186.0	-13.7	-8173.4	-4.137e+04	1475.3
2528	ok	0.07	0.6	1.52e-02	12.8	12.8	34.6	34.6	-10.0	-185.0	-14.4	-7601.1	-4.063e+04	1428.4
2529	ok	0.07	0.5	1.51e-02	12.8	12.8	34.6	34.6	-10.2	-184.0	-15.3	-7022.2	-3.994e+04	1347.1
2530	ok	0.07	0.5	1.50e-02	12.8	12.8	34.6	34.6	-10.3	-183.0	-16.3	-6377.6	-3.929e+04	1219.0
2531	ok	0.07	0.5	1.49e-02	12.8	12.8	34.6	34.6	-10.3	-181.8	-17.4	-5609.0	-3.867e+04	1008.6
2532	ok	0.07	0.5	1.47e-02	12.8	12.8	34.6	34.6	-10.2	-180.5	-18.6	-4801.7	-3.812e+04	695.9
2533	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-11.1	-176.7	-23.3	-4941.6	-3.615e+04	-2728.2
2534	ok	0.07	0.5	1.44e-02	12.8	12.8	34.6	34.6	-10.7	-175.1	-23.3	-4939.7	-3.616e+04	-2770.2
2535	ok	0.07	0.5	1.43e-02	12.8	12.8	34.6	34.6	-10.5	-173.6	-24.6	-4608.2	-3.611e+04	-2934.9
2536	ok	0.07	0.4	1.41e-02	12.8	12.8	34.6	34.6	-10.2	-172.0	-25.9	-4336.8	-3.611e+04	-3121.5
2537	ok	0.07	0.4	1.39e-02	12.8	12.8	34.6	34.6	-9.9	-170.2	-27.2	-4120.6	-3.616e+04	-3330.3
2538	ok	0.07	0.4	1.38e-02	12.8	12.8	34.6	34.6	-9.6	-168.2	-28.5	-3945.7	-3.626e+04	-3558.0
2539	ok	0.07	0.4	1.36e-02	12.8	12.8	34.6	34.6	-9.3	-166.0	-29.7	-3792.1	-3.641e+04	-3798.8
2540	ok	0.07	0.4	1.33e-02	12.8	12.8	34.6	34.6	-8.9	-163.6	-30.8	-3634.7	-3.662e+04	-4046.2
2541	ok	0.07	0.4	1.31e-02	12.8	12.8	34.6	34.6	-8.5	-160.9	-31.7	-3443.5	-3.689e+04	-4295.1
2542	ok	0.07	0.4	1.28e-02	12.8	12.8	34.6	34.6	-8.1	-157.9	-32.4	-3183.7	-3.723e+04	-4543.5
2543	ok	0.07	0.4	1.26e-02	12.8	12.8	34.6	34.6	-7.8	-154.5	-32.8	-2817.2	-3.765e+04	-4794.7
2544	ok	0.07	0.4	1.22e-02	12.8	12.8	34.6	34.6	-7.4	-150.7	-33.0	-2307.8	-3.816e+04	-5065.9
2545	ok	0.07	0.4	1.19e-02	12.8	12.8	34.6	34.6	-7.9	-144.2	-31.7	-1187.9	-3.952e+04	-6397.8
2546	ok	0.07	0.4	1.15e-02	12.8	12.8	34.6	34.6	-6.7	-138.3	-31.7	-1235.6	-3.977e+04	-6447.9
2547	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-9.9	-182.5	-38.6	-2305.5	-5.347e+04	-9284.6
2548	ok	0.07	0.5	1.50e-02	12.8	12.8	34.6	34.6	-8.8	-177.5	-38.6	-2273.4	-5.349e+04	-9644.0
2549	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-5.9	-186.2	-31.0	-5723.5	-5.279e+04	-5023.4
2550	ok	0.07	0.6	1.59e-02	12.8	12.8	34.6	34.6	-5.3	-189.4	-27.2	-7385.5	-5.162e+04	-3655.0
2551	ok	0.07	0.6	1.60e-02	12.8	12.8	34.6	34.6	-5.2	-191.6	-23.6	-8581.9	-5.054e+04	-2466.0
2552	ok	0.07	0.6	1.61e-02	12.8	12.8	34.6	34.6	-5.7	-192.9	-20.4	-9355.0	-4.949e+04	-1455.9

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2553	ok	0.07	0.6	1.60e-02	12.8	12.8	34.6	34.6	-6.6	-193.3	-17.8	-9804.9	-4.847e+04	-627.2
2554	ok	0.07	0.6	1.60e-02	12.8	12.8	34.6	34.6	-7.6	-193.2	-15.8	-1.007e+04	-4.750e+04	42.8
2555	ok	0.07	0.6	1.59e-02	12.8	12.8	34.6	34.6	-8.6	-192.7	-14.3	-1.019e+04	-4.657e+04	586.2
2556	ok	0.07	0.6	1.58e-02	12.8	12.8	34.6	34.6	-9.6	-192.0	-13.4	-1.014e+04	-4.566e+04	1022.0
2557	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-10.4	-191.1	-13.0	-9893.2	-4.475e+04	1359.0
2558	ok	0.07	0.6	1.56e-02	12.8	12.8	34.6	34.6	-10.1	-189.5	-13.0	-9728.4	-4.389e+04	1520.0
2559	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-10.8	-188.6	-13.0	-9276.2	-4.302e+04	1714.7
2560	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-11.3	-187.7	-13.2	-8701.0	-4.217e+04	1780.0
2561	ok	0.07	0.6	1.52e-02	12.8	12.8	34.6	34.6	-11.7	-186.8	-13.7	-8141.6	-4.138e+04	1757.9
2562	ok	0.07	0.6	1.51e-02	12.8	12.8	34.6	34.6	-11.6	-183.8	-14.5	-7631.3	-4.063e+04	1916.5
2563	ok	0.07	0.6	1.50e-02	12.8	12.8	34.6	34.6	-11.7	-182.8	-15.5	-7122.4	-4.013e+04	1796.9
2564	ok	0.07	0.5	1.49e-02	12.8	12.8	34.6	34.6	-11.7	-181.6	-16.6	-6556.7	-3.968e+04	1626.2
2565	ok	0.07	0.5	1.47e-02	12.8	12.8	34.6	34.6	-12.6	-177.7	-21.2	-6385.4	-3.903e+04	-2402.4
2566	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-12.3	-176.2	-21.2	-6350.2	-3.888e+04	-2436.1
2567	ok	0.07	0.5	1.45e-02	12.8	12.8	34.6	34.6	-12.1	-175.0	-22.5	-5912.0	-3.865e+04	-2580.9
2568	ok	0.07	0.5	1.43e-02	12.8	12.8	34.6	34.6	-12.0	-173.6	-23.8	-5520.9	-3.844e+04	-2737.2
2569	ok	0.07	0.5	1.42e-02	12.8	12.8	34.6	34.6	-11.7	-172.1	-25.2	-5197.1	-3.826e+04	-2916.4
2570	ok	0.07	0.5	1.40e-02	12.8	12.8	34.6	34.6	-11.4	-170.5	-26.5	-4939.6	-3.814e+04	-3123.9
2571	ok	0.07	0.5	1.38e-02	12.8	12.8	34.6	34.6	-11.1	-168.7	-27.9	-4733.9	-3.806e+04	-3360.4
2572	ok	0.07	0.5	1.36e-02	12.8	12.8	34.6	34.6	-10.7	-166.8	-29.2	-4559.3	-3.804e+04	-3622.7
2573	ok	0.07	0.4	1.35e-02	12.8	12.8	34.6	34.6	-10.3	-164.7	-30.4	-4391.7	-3.806e+04	-3905.8
2574	ok	0.07	0.4	1.32e-02	12.8	12.8	34.6	34.6	-9.9	-162.5	-31.4	-4204.1	-3.814e+04	-4205.1
2575	ok	0.07	0.4	1.30e-02	12.8	12.8	34.6	34.6	-9.4	-159.9	-32.3	-3967.1	-3.827e+04	-4517.7
2576	ok	0.07	0.4	1.28e-02	12.8	12.8	34.6	34.6	-8.9	-157.1	-33.0	-3648.3	-3.846e+04	-4844.2
2577	ok	0.07	0.4	1.25e-02	12.8	12.8	34.6	34.6	-8.4	-153.9	-33.4	-3213.8	-3.872e+04	-5190.3
2578	ok	0.07	0.4	1.22e-02	12.8	12.8	34.6	34.6	-7.9	-150.2	-33.4	-2632.2	-3.905e+04	-5573.7
2579	ok	0.07	0.4	1.19e-02	12.8	12.8	34.6	34.6	-7.9	-143.2	-31.6	-1349.9	-3.993e+04	-6826.2
2580	ok	0.07	0.4	1.15e-02	12.8	12.8	34.6	34.6	-5.0	-101.1	-23.0	-1629.2	-3.995e+04	-6577.6
2581	ok	0.07	0.6	1.58e-02	12.8	12.8	34.6	34.6	-10.1	-188.2	-39.7	-1808.4	-5.298e+04	-8230.0
2582	ok	0.07	0.5	1.54e-02	12.8	12.8	34.6	34.6	-9.1	-183.1	-39.7	-1896.7	-5.350e+04	-8440.5
2583	ok	0.07	0.6	1.61e-02	12.8	12.8	34.6	34.6	-7.7	-192.2	-30.8	-6553.8	-4.827e+04	-6080.9
2584	ok	0.07	0.6	1.63e-02	12.8	12.8	34.6	34.6	-7.3	-193.7	-26.2	-7963.4	-4.769e+04	-4938.8
2585	ok	0.07	0.6	1.64e-02	12.8	12.8	34.6	34.6	-7.5	-193.8	-22.1	-9000.8	-4.712e+04	-4047.1
2586	ok	0.07	0.6	1.63e-02	12.8	12.8	34.6	34.6	-8.2	-192.9	-18.7	-9682.8	-4.658e+04	-3371.3
2587	ok	0.07	0.6	1.62e-02	12.8	12.8	34.6	34.6	-9.1	-191.4	-16.3	-1.007e+04	-4.606e+04	-2866.3
2588	ok	0.07	0.6	1.60e-02	12.8	12.8	34.6	34.6	-10.1	-189.7	-14.7	-1.027e+04	-4.558e+04	-2483.0
2589	ok	0.07	0.6	1.59e-02	12.8	12.8	34.6	34.6	-11.1	-188.0	-13.8	-1.035e+04	-4.513e+04	-2199.2
2590	ok	0.07	0.6	1.58e-02	12.8	12.8	34.6	34.6	-10.6	-185.6	-13.8	-1.027e+04	-4.468e+04	-2103.5
2591	ok	0.07	0.6	1.57e-02	12.8	12.8	34.6	34.6	-11.5	-184.2	-13.5	-1.024e+04	-4.428e+04	-1941.8
2592	ok	0.07	0.6	1.55e-02	12.8	12.8	34.6	34.6	-12.3	-183.0	-13.7	-1.009e+04	-4.388e+04	-1854.5
2593	ok	0.07	0.6	1.54e-02	12.8	12.8	34.6	34.6	-12.9	-182.0	-14.1	-9808.1	-4.346e+04	-1815.5
2594	ok	0.07	0.6	1.53e-02	12.8	12.8	34.6	34.6	-13.4	-181.0	-14.8	-9413.6	-4.301e+04	-1787.8
2595	ok	0.07	0.6	1.51e-02	12.8	12.8	34.6	34.6	-13.7	-180.0	-15.7	-8967.4	-4.253e+04	-1768.4
2596	ok	0.07	0.6	1.50e-02	12.8	12.8	34.6	34.6	-13.9	-179.1	-16.7	-8530.1	-4.205e+04	-1781.8
2597	ok	0.07	0.6	1.49e-02	12.8	12.8	34.6	34.6	-14.0	-178.1	-17.8	-8111.8	-4.159e+04	-1843.8
2598	ok	0.07	0.5	1.48e-02	12.8	12.8	34.6	34.6	-14.0	-177.1	-19.0	-7688.2	-4.115e+04	-1959.4
2599	ok	0.07	0.5	1.46e-02	12.8	12.8	34.6	34.6	-13.9	-176.0	-20.3	-7233.2	-4.073e+04	-2111.1
2600	ok	0.07	0.5	1.45e-02	12.8	12.8	34.6	34.6	-13.8	-174.8	-21.6	-6748.3	-4.032e+04	-2264.7
2601	ok	0.07	0.5	1.43e-02	12.8	12.8	34.6	34.6	-13.6	-173.5	-23.0	-6282.9	-3.993e+04	-2415.1
2602	ok	0.07	0.5	1.42e-02	12.8	12.8	34.6	34.6	-13.4	-172.1	-24.4	-5893.1	-3.958e+04	-2583.1
2603	ok	0.07	0.5	1.40e-02	12.8	12.8	34.6	34.6	-7.2	-109.4	-9.9	-5905.7	-3.854e+04	-3520.1
2604	ok	0.07	0.5	1.39e-02	12.8	12.8	34.6	34.6	-7.1	-108.8	-9.9	-5937.4	-3.874e+04	-3631.7
2605	ok	0.07	0.5	1.37e-02	12.8	12.8	34.6	34.6	-7.1	-108.5	-11.9	-5692.0	-3.890e+04	-3913.5
2606	ok	0.07	0.5	1.35e-02	12.8	12.8	34.6	34.6	-7.0	-108.1	-13.8	-5436.2	-3.909e+04	-4206.8
2607	ok	0.07	0.4	1.34e-02	12.8	12.8	34.6	34.6	-6.8	-107.6	-15.6	-5154.6	-3.932e+04	-4504.4
2608	ok	0.07	0.4	1.32e-02	12.8	12.8	34.6	34.6	-6.7	-107.2	-17.4	-4828.4	-3.960e+04	-4798.9
2609	ok	0.07	0.4	1.30e-02	12.8	12.8	34.6	34.6	-6.5	-106.6	-19.0	-4437.1	-3.995e+04	-5082.3
2610	ok	0.07	0.4	1.27e-02	12.8	12.8	34.6	34.6	-6.2	-105.9	-20.4	-3959.5	-4.038e+04	-5346.5
2611	ok	0.07	0.4	1.25e-02	12.8	12.8	34.6	34.6	-5.9	-104.9	-21.5	-3377.3	-4.091e+04	-5585.2
2612	ok	0.07	0.4	1.22e-02	12.8	12.8	34.6	34.6	-5.6	-103.7	-22.3	-2682.9	-4.156e+04	-5803.7
2613	ok	0.07	0.4	1.19e-02	12.8	12.8	34.6	34.6	-5.6	-102.0	-22.8	-1694.5	-4.213e+04	-7579.6
2614	ok	0.07	0.4	1.14e-02	12.8	12.8	34.6	34.6	-5.0	-99.4	-22.8	-1827.5	-4.274e+04	-7520.7
2615	ok	0.07	0.6	1.57e-02	12.8	12.8	45.2	45.2	-11.7	-195.9	-40.8	-3100.8	-5.181e+04	-8616.5
2616	ok	0.07	0.5	1.53e-02	12.8	12.8	45.2	45.2	-10.6	-190.7	-40.8	-2978.5	-5.141e+04	-9009.2
2617	ok	0.07	0.6	1.61e-02	12.8	12.8	45.2	45.2	-8.3	-198.0	-30.1	-6258.0	-5.137e+04	-5354.3
2618	ok	0.07	0.6	1.63e-02	12.8	12.8	45.2	45.2	-8.3	-198.5	-24.6	-7800.5	-5.047e+04	-4276.9
2619	ok	0.07	0.6	1.64e-02	12.8	12.8	45.2	45.2	-9.0	-197.3	-20.0	-8953.5	-4.963e+04	-3456.7
2620	ok	0.07	0.6	1.64e-02	12.8	12.8	45.2	45.2	-10.1	-195.1	-16.7	-9721.0	-4.886e+04	-2853.4
2621	ok	0.07	0.6	1.63e-02	12.8	12.8	45.2	45.2	-11.4	-192.5	-14.4	-1.016e+04	-4.816e+04	-2413.1
2622	ok	0.07	0.6	1.62e-02	12.8	12.8	45.2	45.2	-12.6	-190.0	-13.2	-1.041e+04	-4.753e+04	-2078.7
2623	ok	0.07	0.6	1.60e-02	12.8	12.8	45.2	45.2	-13.7	-187.7	-12.7	-1.055e+04	-4.696e+04	-1828.2
2624	ok	0.07	0.6	1.58e-02	12.8	12.8	45.2	45.2	-14.5	-185.8	-12.8	-1.056e+04	-4.642e+04	-1655.7
2625	ok	0.07	0.6	1.56e-02	12.8	12.8	45.2	45.2	-14.0	-183.3	-12.8	-1.046e+04	-4.588e+04	-1599.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2626	ok	0.07	0.6	1.55e-02	12.8	12.8	45.2	45.2	-13.9	-115.4	-13.6	-1.061e+04	-4.367e+04	-4426.4
2627	ok	0.07	0.6	1.53e-02	12.8	12.8	45.2	45.2	-13.8	-114.7	-13.6	-1.060e+04	-4.359e+04	-4292.6
2628	ok	0.07	0.6	1.52e-02	12.8	12.8	45.2	45.2	-14.0	-114.6	-15.1	-1.018e+04	-4.341e+04	-4142.8
2629	ok	0.07	0.6	1.50e-02	12.8	12.8	45.2	45.2	-14.2	-114.7	-16.5	-9767.7	-4.320e+04	-4036.3
2630	ok	0.07	0.6	1.49e-02	12.8	12.8	45.2	45.2	-14.2	-114.9	-18.1	-9361.8	-4.298e+04	-3974.3
2631	ok	0.07	0.6	1.48e-02	12.8	12.8	45.2	45.2	-14.3	-115.0	-19.6	-8973.7	-4.276e+04	-3956.9
2632	ok	0.07	0.5	1.46e-02	12.8	12.8	45.2	45.2	-14.3	-115.2	-21.2	-8607.1	-4.253e+04	-3983.1
2633	ok	0.07	0.5	1.45e-02	12.8	12.8	45.2	45.2	-14.3	-115.4	-22.8	-8263.1	-4.231e+04	-4051.1
2634	ok	0.07	0.5	1.43e-02	12.8	12.8	45.2	45.2	-14.3	-115.6	-24.4	-7941.3	-4.210e+04	-4158.5
2635	ok	0.07	0.5	1.42e-02	12.8	12.8	45.2	45.2	-14.3	-115.8	-26.1	-7640.0	-4.189e+04	-4302.3
2636	ok	0.07	0.5	1.41e-02	12.8	12.8	45.2	45.2	-8.3	-105.8	-6.1	-7470.9	-4.249e+04	-3213.1
2637	ok	0.07	0.5	1.39e-02	12.8	12.8	45.2	45.2	-8.3	-105.5	-8.0	-7221.0	-4.247e+04	-3456.5
2638	ok	0.07	0.5	1.38e-02	12.8	12.8	45.2	45.2	-8.2	-105.3	-10.0	-6970.9	-4.246e+04	-3729.1
2639	ok	0.07	0.5	1.36e-02	12.8	12.8	45.2	45.2	-8.1	-105.0	-12.0	-6710.2	-4.245e+04	-4027.5
2640	ok	0.07	0.5	1.34e-02	12.8	12.8	45.2	45.2	-8.0	-104.7	-13.9	-6425.2	-4.247e+04	-4348.2
2641	ok	0.07	0.5	1.33e-02	12.8	12.8	45.2	45.2	-7.9	-104.5	-15.8	-6098.6	-4.252e+04	-4687.5
2642	ok	0.07	0.4	1.31e-02	12.8	12.8	45.2	45.2	-7.7	-104.2	-17.6	-5710.4	-4.261e+04	-5041.4
2643	ok	0.07	0.4	1.29e-02	12.8	12.8	45.2	45.2	-7.4	-103.9	-19.3	-5238.7	-4.277e+04	-5404.5
2644	ok	0.07	0.4	1.27e-02	12.8	12.8	45.2	45.2	-7.0	-103.5	-20.7	-4662.9	-4.300e+04	-5769.8
2645	ok	0.07	0.4	1.25e-02	12.8	12.8	45.2	45.2	-6.6	-103.0	-21.9	-3966.8	-4.334e+04	-6129.7
2646	ok	0.07	0.4	1.22e-02	12.8	12.8	45.2	45.2	-6.1	-102.0	-22.6	-3148.2	-4.379e+04	-6484.5
2647	ok	0.07	0.4	1.19e-02	12.8	12.8	45.2	45.2	-5.6	-100.6	-22.7	-1910.5	-4.415e+04	-8274.2
2648	ok	0.07	0.4	1.15e-02	12.8	12.8	45.2	45.2	-5.1	-98.3	-22.7	-1986.5	-4.452e+04	-8282.1
2649	ok	0.07	0.4	1.60e-02	12.8	12.8	45.2	45.2	-7.2	-134.7	-23.2	-6458.1	-4.983e+04	-1.012e+04
2650	ok	0.07	0.4	1.56e-02	12.8	12.8	45.2	45.2	-10.9	-197.6	-41.9	-2469.0	-5.312e+04	-8409.1
2651	ok	0.07	0.5	1.63e-02	12.8	12.8	45.2	45.2	-7.7	-133.1	-18.3	-8461.5	-4.989e+04	-8686.8
2652	ok	0.07	0.5	1.63e-02	12.8	12.8	45.2	45.2	-8.7	-130.0	-14.3	-1.011e+04	-4.978e+04	-7600.2
2653	ok	0.07	0.5	1.61e-02	12.8	12.8	45.2	45.2	-10.1	-126.2	-11.5	-1.132e+04	-4.969e+04	-6853.0
2654	ok	0.07	0.5	1.58e-02	12.8	12.8	45.2	45.2	-11.4	-122.4	-10.0	-1.207e+04	-4.964e+04	-6325.4
2655	ok	0.07	0.5	1.56e-02	12.8	12.8	45.2	45.2	-12.7	-119.2	-9.6	-1.242e+04	-4.957e+04	-5912.6
2656	ok	0.07	0.5	1.54e-02	12.8	12.8	45.2	45.2	-11.9	-115.6	-9.6	-1.241e+04	-4.943e+04	-5735.4
2657	ok	0.07	0.5	1.51e-02	12.8	12.8	45.2	45.2	-13.1	-113.9	-9.9	-1.246e+04	-4.929e+04	-5362.6
2658	ok	0.07	0.5	1.49e-02	12.8	12.8	45.2	45.2	-13.9	-112.8	-10.7	-1.229e+04	-4.907e+04	-5023.3
2659	ok	0.07	0.5	1.47e-02	12.8	12.8	45.2	45.2	-14.5	-112.1	-11.8	-1.200e+04	-4.877e+04	-4717.3
2660	ok	0.07	0.5	1.45e-02	12.8	12.8	45.2	45.2	-14.9	-111.8	-13.1	-1.163e+04	-4.844e+04	-4449.3
2661	ok	0.07	0.5	1.44e-02	12.8	12.8	45.2	45.2	-15.2	-111.6	-14.5	-1.123e+04	-4.807e+04	-4224.8
2662	ok	0.07	0.5	1.42e-02	12.8	12.8	45.2	45.2	-15.3	-111.7	-16.0	-1.083e+04	-4.769e+04	-4047.5
2663	ok	0.07	0.5	1.41e-02	12.8	12.8	45.2	45.2	-15.3	-111.8	-17.5	-1.043e+04	-4.730e+04	-3919.2
2664	ok	0.07	0.5	1.40e-02	12.8	12.8	45.2	45.2	-15.3	-112.0	-19.1	-1.005e+04	-4.691e+04	-3840.2
2665	ok	0.07	0.5	1.38e-02	12.8	12.8	45.2	45.2	-15.3	-112.2	-20.6	-9691.8	-4.653e+04	-3809.4
2666	ok	0.07	0.5	1.37e-02	12.8	12.8	45.2	45.2	-15.3	-112.4	-22.2	-9352.6	-4.616e+04	-3824.9
2667	ok	0.07	0.5	1.36e-02	12.8	12.8	45.2	45.2	-15.3	-112.6	-23.8	-9033.5	-4.579e+04	-3884.1
2668	ok	0.07	0.5	1.34e-02	12.8	12.8	45.2	45.2	-15.3	-112.8	-25.3	-8732.8	-4.542e+04	-3984.1
2669	ok	0.07	0.4	1.33e-02	12.8	12.8	45.2	45.2	-9.6	-102.4	-4.3	-8611.8	-4.595e+04	-2970.0
2670	ok	0.07	0.4	1.31e-02	12.8	12.8	45.2	45.2	-9.5	-102.2	-6.2	-8370.8	-4.578e+04	-3174.7
2671	ok	0.07	0.4	1.30e-02	12.8	12.8	45.2	45.2	-9.4	-102.0	-8.1	-8129.6	-4.561e+04	-3414.5
2672	ok	0.07	0.4	1.29e-02	12.8	12.8	45.2	45.2	-9.4	-101.8	-10.1	-7879.5	-4.543e+04	-3687.9
2673	ok	0.07	0.4	1.27e-02	12.8	12.8	45.2	45.2	-9.3	-101.6	-12.1	-7608.7	-4.525e+04	-3994.0
2674	ok	0.07	0.4	1.26e-02	12.8	12.8	45.2	45.2	-9.2	-101.5	-14.1	-7302.1	-4.508e+04	-4332.7
2675	ok	0.07	0.4	1.24e-02	12.8	12.8	45.2	45.2	-9.0	-101.4	-16.0	-6941.1	-4.492e+04	-4704.5
2676	ok	0.07	0.4	1.23e-02	12.8	12.8	45.2	45.2	-8.8	-101.3	-17.9	-6503.5	-4.479e+04	-5109.7
2677	ok	0.07	0.4	1.21e-02	12.8	12.8	45.2	45.2	-8.5	-101.4	-19.7	-5965.6	-4.470e+04	-5546.9
2678	ok	0.07	0.4	1.20e-02	12.8	12.8	45.2	45.2	-8.0	-101.4	-21.2	-5304.9	-4.469e+04	-6011.4
2679	ok	0.07	0.4	1.18e-02	12.8	12.8	45.2	45.2	-7.5	-101.3	-22.4	-4505.6	-4.479e+04	-6494.2
2680	ok	0.07	0.4	1.15e-02	12.8	12.8	45.2	45.2	-6.8	-100.9	-23.2	-3569.9	-4.500e+04	-6988.8
2681	ok	0.07	0.4	1.13e-02	12.8	12.8	45.2	45.2	-5.7	-99.8	-22.8	-2084.2	-4.512e+04	-8765.8
2682	ok	0.07	0.3	1.09e-02	12.8	12.8	45.2	45.2	-5.3	-97.8	-22.8	-2097.8	-4.522e+04	-8843.6
2683	ok	0.07	0.5	1.68e-02	12.8	12.8	45.2	45.2	-7.6	-137.7	-22.3	-6552.6	-5.677e+04	-9833.0
2684	ok	0.07	0.4	1.62e-02	12.8	12.8	45.2	45.2	-7.4	-137.7	-28.4	-4288.0	-5.509e+04	-1.128e+04
2685	ok	0.07	0.5	1.69e-02	12.8	12.8	45.2	45.2	-8.5	-134.8	-16.5	-8929.1	-5.650e+04	-8294.7
2686	ok	0.07	0.5	1.67e-02	12.8	12.8	45.2	45.2	-10.1	-129.9	-12.1	-1.085e+04	-5.606e+04	-7280.0
2687	ok	0.07	0.5	1.64e-02	12.8	12.8	45.2	45.2	-11.9	-124.5	-9.8	-1.215e+04	-5.568e+04	-6641.0
2688	ok	0.07	0.5	1.60e-02	12.8	12.8	45.2	45.2	-13.5	-119.7	-9.0	-1.288e+04	-5.534e+04	-6194.3
2689	ok	0.07	0.5	1.57e-02	12.8	12.8	45.2	45.2	-14.8	-116.0	-9.2	-1.315e+04	-5.499e+04	-5805.9
2690	ok	0.07	0.5	1.54e-02	12.8	12.8	45.2	45.2	-14.0	-112.2	-9.2	-1.307e+04	-5.454e+04	-5619.1
2691	ok	0.07	0.5	1.51e-02	12.8	12.8	45.2	45.2	-15.1	-110.6	-10.0	-1.303e+04	-5.408e+04	-5222.7
2692	ok	0.07	0.5	1.48e-02	12.8	12.8	45.2	45.2	-15.8	-109.6	-11.2	-1.280e+04	-5.355e+04	-4851.2
2693	ok	0.07	0.5	1.46e-02	12.8	12.8	45.2	45.2	-16.2	-109.0	-12.6	-1.247e+04	-5.298e+04	-4513.9
2694	ok	0.07	0.5	1.44e-02	12.8	12.8	45.2	45.2	-16.4	-108.8	-14.0	-1.209e+04	-5.239e+04	-4220.1
2695	ok	0.07	0.5	1.42e-02	12.8	12.8	45.2	45.2	-16.4	-108.7	-15.5	-1.170e+04	-5.180e+04	-3975.8
2696	ok	0.07	0.5	1.41e-02	12.8	12.8	45.2	45.2	-16.4	-108.8	-17.1	-1.132e+04	-5.122e+04	-3784.2
2697	ok	0.07	0.5	1.40e-02	12.8	12.8	45.2	45.2	-16.4	-109.0	-18.6	-1.095e+04	-5.066e+04	-3645.6
2698	ok	0.07	0.5	1.38e-02	12.8	12.8	45.2	45.2	-16.3	-109.2	-20.1	-1.060e+04	-5.011e+04	-3558.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2699	ok	0.07	0.5	1.37e-02	12.8	12.8	45.2	45.2	-16.2	-109.4	-21.6	-1.027e+04	-4.958e+04	-3521.1
2700	ok	0.07	0.5	1.36e-02	12.8	12.8	45.2	45.2	-16.2	-109.6	-23.2	-9961.7	-4.905e+04	-3529.7
2701	ok	0.07	0.5	1.34e-02	12.8	12.8	45.2	45.2	-11.2	-99.3	-0.7	-9818.8	-4.926e+04	-2544.0
2702	ok	0.07	0.5	1.33e-02	12.8	12.8	45.2	45.2	-11.0	-99.1	-2.5	-9588.1	-4.897e+04	-2661.0
2703	ok	0.07	0.5	1.32e-02	12.8	12.8	45.2	45.2	-10.9	-98.9	-4.3	-9363.1	-4.868e+04	-2816.2
2704	ok	0.07	0.5	1.30e-02	12.8	12.8	45.2	45.2	-10.8	-98.7	-6.2	-9138.5	-4.837e+04	-3007.8
2705	ok	0.07	0.5	1.29e-02	12.8	12.8	45.2	45.2	-10.7	-98.5	-8.2	-8907.3	-4.804e+04	-3234.9
2706	ok	0.07	0.5	1.28e-02	12.8	12.8	45.2	45.2	-10.6	-98.3	-10.2	-8660.2	-4.769e+04	-3497.9
2707	ok	0.07	0.4	1.26e-02	12.8	12.8	45.2	45.2	-10.6	-98.2	-12.2	-8384.7	-4.732e+04	-3798.5
2708	ok	0.07	0.4	1.25e-02	12.8	12.8	45.2	45.2	-10.5	-98.2	-14.3	-8065.1	-4.693e+04	-4140.3
2709	ok	0.07	0.4	1.24e-02	12.8	12.8	45.2	45.2	-10.3	-98.3	-16.3	-7681.2	-4.653e+04	-4528.5
2710	ok	0.07	0.4	1.22e-02	12.8	12.8	45.2	45.2	-10.1	-98.5	-18.3	-7208.8	-4.614e+04	-4969.2
2711	ok	0.07	0.4	1.21e-02	12.8	12.8	45.2	45.2	-9.7	-98.9	-20.2	-6620.9	-4.577e+04	-5467.2
2712	ok	0.07	0.4	1.20e-02	12.8	12.8	45.2	45.2	-9.2	-99.4	-21.9	-5890.5	-4.545e+04	-6023.2
2713	ok	0.07	0.4	1.18e-02	12.8	12.8	45.2	45.2	-8.6	-99.9	-23.2	-4998.2	-4.523e+04	-6629.1
2714	ok	0.07	0.4	1.17e-02	12.8	12.8	45.2	45.2	-7.7	-100.1	-24.0	-3947.5	-4.513e+04	-7271.2
2715	ok	0.07	0.4	1.15e-02	12.8	12.8	45.2	45.2	-6.1	-100.4	-22.8	-2274.8	-4.516e+04	-8774.4
2716	ok	0.07	0.3	1.13e-02	12.8	12.8	45.2	45.2	-5.7	-98.4	-22.8	-2288.5	-4.526e+04	-8852.2
2717	ok	0.07	0.5	1.77e-02	12.8	12.8	45.2	45.2	-8.2	-141.9	-20.3	-6718.9	-6.360e+04	-9082.1
2718	ok	0.07	0.5	1.71e-02	12.8	12.8	45.2	45.2	-7.7	-142.1	-28.4	-4281.3	-6.195e+04	-1.145e+04
2719	ok	0.07	0.5	1.77e-02	12.8	12.8	45.2	45.2	-9.9	-136.6	-13.3	-9593.4	-6.292e+04	-7483.2
2720	ok	0.07	0.5	1.72e-02	12.8	12.8	45.2	45.2	-12.2	-128.7	-9.4	-1.175e+04	-6.202e+04	-6609.1
2721	ok	0.07	0.6	1.66e-02	12.8	12.8	45.2	45.2	-14.4	-121.5	-8.1	-1.306e+04	-6.125e+04	-6163.9
2722	ok	0.07	0.6	1.61e-02	12.8	12.8	45.2	45.2	-16.1	-116.2	-8.3	-1.365e+04	-6.057e+04	-5808.6
2723	ok	0.07	0.6	1.57e-02	12.8	12.8	45.2	45.2	-17.1	-112.3	-9.3	-1.376e+04	-5.982e+04	-5431.0
2724	ok	0.07	0.6	1.53e-02	12.8	12.8	45.2	45.2	-16.3	-108.8	-9.3	-1.360e+04	-5.898e+04	-5230.5
2725	ok	0.07	0.6	1.50e-02	12.8	12.8	45.2	45.2	-17.1	-107.3	-10.6	-1.344e+04	-5.813e+04	-4816.7
2726	ok	0.07	0.6	1.47e-02	12.8	12.8	45.2	45.2	-17.5	-106.5	-12.0	-1.313e+04	-5.726e+04	-4428.1
2727	ok	0.07	0.6	1.45e-02	12.8	12.8	45.2	45.2	-17.7	-106.0	-13.6	-1.277e+04	-5.639e+04	-4080.2
2728	ok	0.07	0.6	1.43e-02	12.8	12.8	45.2	45.2	-17.7	-105.9	-15.2	-1.239e+04	-5.555e+04	-3782.5
2729	ok	0.07	0.6	1.41e-02	12.8	12.8	45.2	45.2	-17.6	-105.9	-16.7	-1.202e+04	-5.475e+04	-3539.3
2730	ok	0.07	0.6	1.40e-02	12.8	12.8	45.2	45.2	-17.4	-106.1	-18.2	-1.167e+04	-5.399e+04	-3351.4
2731	ok	0.07	0.6	1.38e-02	12.8	12.8	45.2	45.2	-17.3	-106.3	-19.7	-1.133e+04	-5.326e+04	-3217.0
2732	ok	0.07	0.5	1.37e-02	12.8	12.8	45.2	45.2	-17.1	-106.5	-21.2	-1.102e+04	-5.256e+04	-3132.9
2733	ok	0.07	0.5	1.36e-02	12.8	12.8	45.2	45.2	-17.0	-106.8	-22.7	-1.072e+04	-5.189e+04	-3095.5
2734	ok	0.07	0.5	1.34e-02	12.8	12.8	45.2	45.2	-12.7	-96.0	1.0	-1.060e+04	-5.197e+04	-2236.2
2735	ok	0.07	0.5	1.33e-02	12.8	12.8	45.2	45.2	-12.5	-95.9	-0.8	-1.039e+04	-5.157e+04	-2302.6
2736	ok	0.07	0.5	1.32e-02	12.8	12.8	45.2	45.2	-12.3	-95.7	-2.5	-1.018e+04	-5.116e+04	-2405.1
2737	ok	0.07	0.5	1.30e-02	12.8	12.8	45.2	45.2	-12.2	-95.5	-4.4	-9979.6	-5.074e+04	-2541.8
2738	ok	0.07	0.5	1.29e-02	12.8	12.8	45.2	45.2	-12.1	-95.3	-6.3	-9770.2	-5.028e+04	-2711.5
2739	ok	0.07	0.5	1.28e-02	12.8	12.8	45.2	45.2	-12.0	-95.1	-8.2	-9549.1	-4.980e+04	-2914.3
2740	ok	0.07	0.5	1.26e-02	12.8	12.8	45.2	45.2	-11.9	-94.9	-10.3	-9307.0	-4.927e+04	-3152.1
2741	ok	0.07	0.5	1.25e-02	12.8	12.8	45.2	45.2	-11.9	-94.9	-12.3	-9031.7	-4.870e+04	-3429.1
2742	ok	0.07	0.5	1.24e-02	12.8	12.8	45.2	45.2	-11.8	-95.0	-14.5	-8707.2	-4.808e+04	-3752.2
2743	ok	0.07	0.4	1.23e-02	12.8	12.8	45.2	45.2	-11.7	-95.2	-16.6	-8312.8	-4.741e+04	-4131.4
2744	ok	0.07	0.4	1.22e-02	12.8	12.8	45.2	45.2	-11.5	-95.7	-18.7	-7822.0	-4.671e+04	-4579.7
2745	ok	0.07	0.4	1.21e-02	12.8	12.8	45.2	45.2	-11.9	-99.4	-20.2	-7168.6	-4.589e+04	-5270.4
2746	ok	0.07	0.4	1.20e-02	12.8	12.8	45.2	45.2	-11.2	-99.8	-21.9	-6476.3	-4.558e+04	-5856.4
2747	ok	0.07	0.4	1.19e-02	12.8	12.8	45.2	45.2	-10.3	-100.2	-23.2	-5599.9	-4.535e+04	-6514.1
2748	ok	0.07	0.4	1.18e-02	12.8	12.8	45.2	45.2	-9.1	-100.5	-24.0	-4531.4	-4.525e+04	-7229.1
2749	ok	0.07	0.4	1.19e-02	12.8	12.8	45.2	45.2	-7.5	-100.1	-24.0	-3346.7	-4.525e+04	-8001.3
2750	ok	0.07	0.3	1.22e-02	12.8	12.8	45.2	45.2	-5.9	-98.5	-23.1	-2548.5	-4.483e+04	-9024.2
2751	ok	0.07	0.6	1.92e-02	25.4	25.4	45.2	45.2	-9.8	-148.1	-16.0	-7189.4	-7.079e+04	-7681.4
2752	ok	0.07	0.5	1.85e-02	25.4	25.4	45.2	45.2	-8.3	-149.5	-27.8	-4201.0	-6.860e+04	-1.109e+04
2753	ok	0.07	0.6	1.85e-02	25.4	25.4	45.2	45.2	-12.5	-137.0	-8.7	-1.059e+04	-6.921e+04	-5965.9
2754	ok	0.07	0.6	1.75e-02	25.4	25.4	45.2	45.2	-15.6	-125.3	-6.9	-1.292e+04	-6.753e+04	-5573.4
2755	ok	0.07	0.6	1.68e-02	25.4	25.4	45.2	45.2	-17.7	-117.4	-7.2	-1.402e+04	-6.640e+04	-5385.2
2756	ok	0.07	0.6	1.61e-02	25.4	25.4	45.2	45.2	-18.8	-112.0	-8.4	-1.432e+04	-6.519e+04	-5088.2
2757	ok	0.07	0.6	1.56e-02	25.4	25.4	45.2	45.2	-17.8	-107.3	-8.4	-1.406e+04	-6.386e+04	-4923.5
2758	ok	0.07	0.6	1.51e-02	25.4	25.4	45.2	45.2	-18.7	-105.4	-9.9	-1.396e+04	-6.257e+04	-4509.6
2759	ok	0.07	0.6	1.48e-02	25.4	25.4	45.2	45.2	-19.0	-104.1	-11.6	-1.367e+04	-6.130e+04	-4104.2
2760	ok	0.07	0.6	1.45e-02	25.4	25.4	45.2	45.2	-19.1	-103.5	-13.2	-1.330e+04	-6.008e+04	-3732.6
2761	ok	0.07	0.6	1.43e-02	25.4	25.4	45.2	45.2	-19.0	-103.2	-14.9	-1.293e+04	-5.893e+04	-3409.1
2762	ok	0.07	0.6	1.41e-02	25.4	25.4	45.2	45.2	-18.8	-103.1	-16.4	-1.256e+04	-5.787e+04	-3139.4
2763	ok	0.07	0.6	1.40e-02	25.4	25.4	45.2	45.2	-18.5	-103.2	-18.0	-1.221e+04	-5.688e+04	-2924.2
2764	ok	0.07	0.6	1.38e-02	25.4	25.4	45.2	45.2	-18.2	-103.4	-19.4	-1.189e+04	-5.596e+04	-2761.2
2765	ok	0.07	0.6	1.37e-02	25.4	25.4	45.2	45.2	-18.0	-103.7	-20.9	-1.159e+04	-5.509e+04	-2646.6
2766	ok	0.07	0.5	1.36e-02	25.4	25.4	45.2	45.2	-17.8	-104.0	-22.3	-1.131e+04	-5.427e+04	-2576.1
2767	ok	0.07	0.5	1.34e-02	25.4	25.4	45.2	45.2	-14.4	-92.9	2.5	-1.120e+04	-5.421e+04	-1883.2
2768	ok	0.07	0.5	1.33e-02	25.4	25.4	45.2	45.2	-14.1	-92.7	0.8	-1.101e+04	-5.371e+04	-1905.8
2769	ok	0.07	0.5	1.32e-02	25.4	25.4	45.2	45.2	-13.8	-92.6	-0.9	-1.083e+04	-5.321e+04	-1960.1
2770	ok	0.07	0.5	1.30e-02	25.4	25.4	45.2	45.2	-13.6	-92.3	-2.7	-1.065e+04	-5.270e+04	-2043.3
2771	ok	0.07	0.5	1.29e-02	25.4	25.4	45.2	45.2	-13.5	-92.1	-4.5	-1.046e+04	-5.215e+04	-2154.0

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2772	ok	0.07	0.5	1.28e-02	25.4	25.4	45.2	45.2	-13.4	-91.9	-6.4	-1.026e+04	-5.156e+04	-2291.2
2773	ok	0.07	0.5	1.27e-02	25.4	25.4	45.2	45.2	-13.3	-91.6	-8.3	-1.005e+04	-5.092e+04	-2455.9
2774	ok	0.07	0.5	1.25e-02	25.4	25.4	45.2	45.2	-13.3	-91.5	-10.4	-9810.2	-5.021e+04	-2650.8
2775	ok	0.07	0.5	1.24e-02	25.4	25.4	45.2	45.2	-13.3	-91.5	-12.5	-9538.1	-4.943e+04	-2881.3
2776	ok	0.07	0.5	1.23e-02	25.4	25.4	45.2	45.2	-13.2	-91.7	-14.7	-9215.5	-4.857e+04	-3156.7
2777	ok	0.07	0.5	1.22e-02	25.4	25.4	45.2	45.2	-14.0	-95.8	-16.6	-8772.0	-4.753e+04	-3805.9
2778	ok	0.07	0.4	1.21e-02	25.4	25.4	45.2	45.2	-13.8	-96.2	-18.7	-8354.9	-4.684e+04	-4233.8
2779	ok	0.07	0.4	1.20e-02	25.4	25.4	45.2	45.2	-13.5	-96.9	-20.7	-7820.3	-4.613e+04	-4753.2
2780	ok	0.07	0.4	1.20e-02	25.4	25.4	45.2	45.2	-12.9	-97.9	-22.6	-7126.9	-4.543e+04	-5382.5
2781	ok	0.07	0.4	1.19e-02	25.4	25.4	45.2	45.2	-12.0	-99.0	-24.1	-6229.5	-4.478e+04	-6133.3
2782	ok	0.07	0.4	1.20e-02	25.4	25.4	45.2	45.2	-10.6	-100.1	-25.1	-5093.8	-4.425e+04	-6994.8
2783	ok	0.07	0.3	1.26e-02	25.4	25.4	45.2	45.2	-8.6	-100.7	-25.1	-3788.7	-4.384e+04	-7937.9
2784	ok	0.07	0.3	1.31e-02	25.4	25.4	45.2	45.2	-6.3	-99.7	-23.7	-2764.3	-4.302e+04	-8877.8
2785	ok	0.08	0.7	2.12e-02	45.2	45.2	45.2	45.2	-8.6	-153.9	-24.5	-4949.2	-7.772e+04	-8700.5
2786	ok	0.08	0.6	2.12e-02	45.2	45.2	45.2	45.2	-11.0	-165.5	-24.5	-4579.5	-7.650e+04	-9852.4
2787	ok	0.08	0.6	1.91e-02	45.2	45.2	45.2	45.2	-17.5	-132.1	-5.1	-1.237e+04	-7.429e+04	-3894.5
2788	ok	0.08	0.6	1.77e-02	45.2	45.2	45.2	45.2	-20.1	-120.2	-6.0	-1.438e+04	-7.281e+04	-4285.1
2789	ok	0.08	0.6	1.67e-02	45.2	45.2	45.2	45.2	-21.1	-112.6	-7.7	-1.492e+04	-7.095e+04	-4227.4
2790	ok	0.08	0.6	1.59e-02	45.2	45.2	45.2	45.2	-21.3	-107.7	-9.4	-1.484e+04	-6.897e+04	-3965.7
2791	ok	0.08	0.6	1.54e-02	45.2	45.2	45.2	45.2	-20.5	-103.9	-9.4	-1.443e+04	-6.698e+04	-3809.5
2792	ok	0.08	0.6	1.49e-02	45.2	45.2	45.2	45.2	-20.6	-102.2	-11.2	-1.412e+04	-6.514e+04	-3445.9
2793	ok	0.08	0.5	1.46e-02	45.2	45.2	45.2	45.2	-20.4	-101.1	-13.0	-1.373e+04	-6.345e+04	-3102.8
2794	ok	0.08	0.5	1.44e-02	45.2	45.2	45.2	45.2	-20.2	-100.6	-14.6	-1.334e+04	-6.192e+04	-2800.7
2795	ok	0.08	0.5	1.42e-02	45.2	45.2	45.2	45.2	-19.8	-100.4	-16.3	-1.296e+04	-6.055e+04	-2546.7
2796	ok	0.08	0.5	1.40e-02	45.2	45.2	45.2	45.2	-19.5	-100.5	-17.8	-1.262e+04	-5.931e+04	-2341.3
2797	ok	0.08	0.5	1.38e-02	45.2	45.2	45.2	45.2	-19.1	-100.7	-19.2	-1.230e+04	-5.818e+04	-2181.6
2798	ok	0.08	0.5	1.37e-02	45.2	45.2	45.2	45.2	-18.8	-101.0	-20.6	-1.201e+04	-5.714e+04	-2063.3
2799	ok	0.08	0.5	1.36e-02	45.2	45.2	45.2	45.2	-18.5	-101.2	-22.0	-1.175e+04	-5.617e+04	-1982.0
2800	ok	0.08	0.5	1.34e-02	45.2	45.2	45.2	45.2	-16.0	-89.8	3.9	-1.164e+04	-5.596e+04	-1501.4
2801	ok	0.08	0.5	1.33e-02	45.2	45.2	45.2	45.2	-15.7	-89.7	2.3	-1.147e+04	-5.539e+04	-1494.8
2802	ok	0.08	0.5	1.32e-02	45.2	45.2	45.2	45.2	-15.4	-89.5	0.7	-1.130e+04	-5.481e+04	-1512.2
2803	ok	0.08	0.5	1.30e-02	45.2	45.2	45.2	45.2	-15.1	-89.3	-1.0	-1.114e+04	-5.423e+04	-1551.2
2804	ok	0.08	0.5	1.29e-02	45.2	45.2	45.2	45.2	-14.9	-89.1	-2.8	-1.097e+04	-5.361e+04	-1609.5
2805	ok	0.08	0.5	1.28e-02	45.2	45.2	45.2	45.2	-14.8	-89.1	-6.4	-1.075e+04	-5.294e+04	-1739.4
2806	ok	0.08	0.5	1.26e-02	45.2	45.2	45.2	45.2	-14.7	-88.8	-8.4	-1.056e+04	-5.223e+04	-1844.1
2807	ok	0.08	0.5	1.25e-02	45.2	45.2	45.2	45.2	-14.7	-88.6	-10.5	-1.034e+04	-5.144e+04	-1968.8
2808	ok	0.08	0.4	1.24e-02	45.2	45.2	45.2	45.2	-14.7	-88.5	-12.6	-1.010e+04	-5.056e+04	-2117.6
2809	ok	0.08	0.4	1.23e-02	45.2	45.2	45.2	45.2	-15.5	-92.4	-14.7	-9752.4	-4.949e+04	-2635.1
2810	ok	0.08	0.4	1.21e-02	45.2	45.2	45.2	45.2	-15.4	-92.3	-14.7	-9567.5	-4.867e+04	-2758.6
2811	ok	0.08	0.4	1.21e-02	45.2	45.2	45.2	45.2	-15.4	-92.7	-16.9	-9242.6	-4.773e+04	-3047.6
2812	ok	0.08	0.4	1.20e-02	45.2	45.2	45.2	45.2	-15.3	-93.4	-19.1	-8839.3	-4.670e+04	-3410.3
2813	ok	0.08	0.4	1.19e-02	45.2	45.2	45.2	45.2	-15.1	-94.4	-21.3	-8325.9	-4.557e+04	-3873.9
2814	ok	0.08	0.4	1.19e-02	45.2	45.2	45.2	45.2	-14.8	-95.9	-23.3	-7657.8	-4.436e+04	-4472.3
2815	ok	0.08	0.4	1.20e-02	45.2	45.2	45.2	45.2	-14.1	-97.8	-25.2	-6776.5	-4.311e+04	-5241.0
2816	ok	0.08	0.3	1.22e-02	45.2	45.2	45.2	45.2	-12.9	-100.2	-26.5	-5631.5	-4.191e+04	-6209.6
2817	ok	0.08	0.3	1.34e-02	45.2	45.2	45.2	45.2	-10.4	-102.3	-26.8	-4186.9	-4.080e+04	-7320.6
2818	ok	0.08	0.3	1.44e-02	45.2	45.2	45.2	45.2	-7.2	-102.6	-24.9	-2963.9	-3.932e+04	-8230.2
2819	ok	0.08	0.7	2.24e-02	45.2	45.2	45.2	45.2	-25.9	-164.4	-7.5	-1.136e+04	-7.955e+04	-1343.9
2820	ok	0.08	0.8	3.00e-02	45.2	45.2	45.2	45.2	-18.2	-206.5	-7.6	-6277.4	-9.434e+04	-2986.2
2821	ok	0.08	0.7	1.91e-02	45.2	45.2	45.2	45.2	-24.3	-125.9	-5.6	-1.511e+04	-8.020e+04	-2681.2
2822	ok	0.08	0.7	1.75e-02	45.2	45.2	45.2	45.2	-24.0	-114.8	-7.4	-1.581e+04	-7.780e+04	-3258.8
2823	ok	0.08	0.6	1.64e-02	45.2	45.2	45.2	45.2	-23.3	-108.1	-9.3	-1.565e+04	-7.484e+04	-3247.7
2824	ok	0.08	0.6	1.56e-02	45.2	45.2	45.2	45.2	-22.6	-103.7	-11.1	-1.517e+04	-7.187e+04	-3007.2
2825	ok	0.08	0.6	1.51e-02	45.2	45.2	45.2	45.2	-22.0	-100.8	-11.1	-1.461e+04	-6.916e+04	-2844.1
2826	ok	0.08	0.6	1.47e-02	45.2	45.2	45.2	45.2	-21.5	-99.2	-12.9	-1.414e+04	-6.679e+04	-2557.8
2827	ok	0.08	0.6	1.44e-02	45.2	45.2	45.2	45.2	-21.1	-98.3	-14.5	-1.369e+04	-6.474e+04	-2304.3
2828	ok	0.08	0.5	1.42e-02	45.2	45.2	45.2	45.2	-20.6	-97.9	-16.1	-1.329e+04	-6.296e+04	-2092.4
2829	ok	0.08	0.5	1.40e-02	45.2	45.2	45.2	45.2	-20.2	-97.8	-17.7	-1.293e+04	-6.141e+04	-1921.8
2830	ok	0.08	0.5	1.38e-02	45.2	45.2	45.2	45.2	-19.8	-97.9	-19.1	-1.260e+04	-6.005e+04	-1788.8
2831	ok	0.08	0.5	1.37e-02	45.2	45.2	45.2	45.2	-19.5	-98.2	-20.5	-1.231e+04	-5.883e+04	-1688.7
2832	ok	0.08	0.5	1.35e-02	45.2	45.2	45.2	45.2	-17.7	-87.2	5.2	-1.206e+04	-5.796e+04	-1359.4
2833	ok	0.08	0.5	1.34e-02	45.2	45.2	45.2	45.2	-17.6	-86.9	5.2	-1.192e+04	-5.730e+04	-1342.1
2834	ok	0.08	0.5	1.33e-02	45.2	45.2	45.2	45.2	-17.3	-86.7	3.7	-1.177e+04	-5.666e+04	-1326.2
2835	ok	0.08	0.5	1.31e-02	45.2	45.2	45.2	45.2	-16.9	-86.5	2.1	-1.161e+04	-5.604e+04	-1326.4
2836	ok	0.08	0.5	1.30e-02	45.2	45.2	45.2	45.2	-16.7	-86.4	0.5	-1.146e+04	-5.541e+04	-1340.4
2837	ok	0.08	0.5	1.29e-02	45.2	45.2	45.2	45.2	-16.4	-86.1	-1.2	-1.131e+04	-5.476e+04	-1366.2
2838	ok	0.08	0.5	1.27e-02	45.2	45.2	45.2	45.2	-16.2	-86.2	-4.7	-1.113e+04	-5.406e+04	-1424.2
2839	ok	0.08	0.5	1.26e-02	45.2	45.2	45.2	45.2	-16.1	-85.9	-6.6	-1.095e+04	-5.331e+04	-1473.9
2840	ok	0.08	0.5	1.24e-02	45.2	45.2	45.2	45.2	-16.0	-85.5	-8.5	-1.076e+04	-5.249e+04	-1532.7
2841	ok	0.08	0.5	1.23e-02	45.2	45.2	45.2	45.2	-16.0	-85.3	-10.6	-1.054e+04	-5.158e+04	-1601.8
2842	ok	0.08	0.4	1.22e-02	45.2	45.2	45.2	45.2	-16.8	-89.1	-12.6	-1.032e+04	-5.064e+04	-1687.7
2843	ok	0.08	0.4	1.21e-02	45.2	45.2	45.2	45.2	-16.7	-89.1	-14.8	-1.007e+04	-4.967e+04	-1812.5
2844	ok	0.08	0.4	1.20e-02	45.2	45.2	45.2	45.2	-16.7	-89.0	-14.8	-9834.9	-4.860e+04	-1896.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
2845	ok	0.08	0.4	1.19e-02	45.2	45.2	45.2	45.2	-16.7	-89.5	-17.1	-9510.2	-4.737e+04	-2074.3
2846	ok	0.08	0.4	1.18e-02	45.2	45.2	45.2	45.2	-16.7	-90.4	-19.4	-9115.1	-4.597e+04	-2308.5
2847	ok	0.08	0.4	1.18e-02	45.2	45.2	45.2	45.2	-16.7	-91.7	-21.7	-8620.6	-4.436e+04	-2626.6
2848	ok	0.08	0.4	1.18e-02	45.2	45.2	45.2	45.2	-16.6	-93.7	-24.0	-7983.1	-4.252e+04	-3069.3
2849	ok	0.08	0.3	1.19e-02	45.2	45.2	45.2	45.2	-16.4	-96.4	-26.1	-7140.0	-4.043e+04	-3693.3
2850	ok	0.08	0.3	1.26e-02	45.2	45.2	45.2	45.2	-16.0	-100.1	-28.0	-6020.5	-3.807e+04	-4564.9
2851	ok	0.08	0.3	1.41e-02	45.2	45.2	45.2	45.2	-14.8	-105.6	-29.2	-4713.0	-3.568e+04	-5803.5
2852	ok	0.08	0.2	1.70e-02	45.2	45.2	45.2	45.2	-8.2	-108.0	-27.1	-3091.1	-3.232e+04	-6520.6

Verifica porzione a sbalzo

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
14	80.00	4	9	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1765	ok	0.08	0.8	9.32e-03	45.2	45.2	45.2	45.2	0.9	9.6	9.5	1.895e+04	8.931e+04	-2495.9
1766	ok	0.08	0.1	4.19e-03	45.2	45.2	45.2	45.2	-6.2	-29.6	-8.9	3104.4	1.606e+04	2531.0
1767	ok	0.08	0.7	4.92e-03	45.2	45.2	45.2	45.2	1.9	18.3	12.3	1.574e+04	7.573e+04	1229.6
1768	ok	0.08	0.7	3.84e-03	45.2	45.2	45.2	45.2	0.8	16.7	12.2	1.504e+04	7.283e+04	2115.8
1769	ok	0.08	0.6	3.30e-03	45.2	45.2	45.2	45.2	-0.2	13.7	11.0	1.429e+04	6.933e+04	2078.0
1770	ok	0.08	0.6	3.01e-03	45.2	45.2	45.2	45.2	-1.1	10.9	9.4	1.362e+04	6.609e+04	1920.6
1771	ok	0.08	0.6	2.87e-03	45.2	45.2	45.2	45.2	-1.6	8.6	7.7	1.301e+04	6.314e+04	1791.1
1772	ok	0.08	0.5	2.74e-03	45.2	45.2	45.2	45.2	-2.0	4.8	4.9	1.246e+04	6.042e+04	1711.7
1773	ok	0.08	0.5	2.62e-03	45.2	45.2	45.2	45.2	-1.8	5.0	4.3	1.193e+04	5.788e+04	1656.9
1774	ok	0.08	0.5	2.52e-03	45.2	45.2	45.2	45.2	-1.7	4.9	3.8	1.143e+04	5.548e+04	1632.3
1775	ok	0.08	0.5	2.43e-03	45.2	45.2	45.2	45.2	-1.6	4.7	3.3	1.095e+04	5.313e+04	1640.6
1776	ok	0.08	0.5	2.35e-03	45.2	45.2	45.2	45.2	-1.5	4.3	2.8	1.046e+04	5.081e+04	1660.2
1777	ok	0.08	0.4	2.28e-03	45.2	45.2	45.2	45.2	-1.4	3.9	2.3	9975.5	4.847e+04	1676.6
1778	ok	0.08	0.4	2.22e-03	45.2	45.2	45.2	45.2	-1.4	3.5	1.9	9491.5	4.613e+04	1672.4
1779	ok	0.08	0.4	2.17e-03	45.2	45.2	45.2	45.2	-1.3	3.1	1.5	9018.3	4.383e+04	1646.6
1780	ok	0.08	0.4	2.12e-03	45.2	45.2	45.2	45.2	-1.2	2.8	1.1	8561.6	4.161e+04	1610.9
1781	ok	0.08	0.4	2.07e-03	45.2	45.2	45.2	45.2	-1.2	2.6	0.7	8120.5	3.947e+04	1574.9
1782	ok	0.08	0.3	2.02e-03	45.2	45.2	45.2	45.2	-1.2	2.4	0.4	7694.1	3.740e+04	1536.1
1783	ok	0.08	0.3	1.97e-03	45.2	45.2	45.2	45.2	-1.2	2.3	-2.69e-04	7284.3	3.540e+04	1481.5
1784	ok	0.08	0.3	1.92e-03	45.2	45.2	45.2	45.2	-1.3	1.8	-2.69e-04	6896.2	3.352e+04	1401.0
1785	ok	0.08	0.3	1.87e-03	45.2	45.2	45.2	45.2	-1.3	1.9	-0.4	6548.6	3.180e+04	1290.0
1786	ok	0.08	0.3	1.85e-03	45.2	45.2	45.2	45.2	-1.3	1.9	-0.9	6245.3	3.029e+04	1167.2
1787	ok	0.08	0.3	1.83e-03	45.2	45.2	45.2	45.2	-1.3	2.0	-1.3	5985.3	2.900e+04	1048.5
1788	ok	0.08	0.3	1.81e-03	45.2	45.2	45.2	45.2	-1.4	2.1	-1.9	5763.8	2.790e+04	942.4
1789	ok	0.08	0.2	1.79e-03	45.2	45.2	45.2	45.2	-1.5	2.2	-2.5	5574.6	2.697e+04	852.1
1790	ok	0.08	0.2	1.78e-03	45.2	45.2	45.2	45.2	-1.6	2.2	-3.1	5410.7	2.618e+04	778.6
1791	ok	0.08	0.2	1.78e-03	45.2	45.2	45.2	45.2	-1.7	2.0	-3.8	5264.8	2.548e+04	722.4
1792	ok	0.08	0.2	1.78e-03	45.2	45.2	45.2	45.2	-1.9	1.6	-4.6	5129.2	2.485e+04	685.1
1793	ok	0.08	0.2	1.81e-03	45.2	45.2	45.2	45.2	-2.2	0.9	-5.3	4995.1	2.423e+04	669.7
1794	ok	0.08	0.2	1.86e-03	45.2	45.2	45.2	45.2	-2.5	-0.4	-6.1	4851.8	2.359e+04	683.2
1795	ok	0.08	0.2	1.95e-03	45.2	45.2	45.2	45.2	-2.9	-2.4	-6.8	4685.4	2.285e+04	739.7
1796	ok	0.08	0.2	2.10e-03	45.2	45.2	45.2	45.2	-3.4	-5.5	-7.5	4475.1	2.193e+04	869.9
1797	ok	0.08	0.2	2.37e-03	45.2	45.2	45.2	45.2	-4.1	-10.2	-8.2	4189.8	2.070e+04	1142.5
1798	ok	0.08	0.2	2.89e-03	45.2	45.2	45.2	45.2	-4.9	-17.2	-8.7	3772.6	1.893e+04	1693.1
1799	ok	0.08	5.14e-03	1.78e-04	45.2	45.2	45.2	45.2	-0.9	-7.20e-02	6.18e-03	-117.8	226.1	452.5
1800	ok	0.08	4.74e-03	1.35e-04	45.2	45.2	45.2	45.2	-0.1	-2.91e-03	-0.2	40.8	641.7	208.6
1801	ok	0.08	1.52e-02	5.51e-03	45.2	45.2	45.2	45.2	-0.9	-6.11e-02	3.31e-02	-597.7	257.6	1087.9
1802	ok	0.08	2.23e-02	3.12e-03	45.2	45.2	45.2	45.2	-1.5	-0.3	0.3	-567.1	1549.7	2203.7
1803	ok	0.08	1.13e-02	4.06e-04	45.2	45.2	45.2	45.2	17.5	103.5	30.0	-33.4	1294.9	1304.9
1804	ok	0.08	2.14e-02	4.25e-03	45.2	45.2	45.2	45.2	-1.1	-0.1	0.2	-1033.9	684.2	1599.2
1805	ok	0.08	2.78e-02	1.22e-03	45.2	45.2	45.2	45.2	-2.0	-0.4	0.9	-830.8	2415.5	2873.5
1806	ok	0.08	2.52e-02	3.22e-03	45.2	45.2	45.2	45.2	-1.9	-9.84e-02	0.5	-1138.0	993.6	1979.8
1807	ok	0.08	3.16e-02	1.61e-03	45.2	45.2	45.2	45.2	-2.8	-0.1	1.5	-777.3	3045.3	3435.1
1808	ok	0.08	2.72e-02	2.89e-03	45.2	45.2	45.2	45.2	-3.2	-6.49e-02	0.7	-989.9	1243.2	2315.7
1809	ok	0.08	3.44e-02	1.79e-03	45.2	45.2	45.2	45.2	-4.0	0.2	2.0	-553.6	3536.2	3959.6
1810	ok	0.08	2.84e-02	2.69e-03	45.2	45.2	45.2	45.2	-4.9	-6.84e-02	0.8	-705.7	1459.9	2602.4
1811	ok	0.08	3.65e-02	1.85e-03	45.2	45.2	45.2	45.2	-3.9	0.8	2.0	-499.1	3912.1	4206.6
1812	ok	0.08	2.88e-02	2.54e-03	45.2	45.2	45.2	45.2	-4.8	0.4	0.8	-682.8	1595.7	2659.5
1813	ok	0.08	3.84e-02	1.89e-03	45.2	45.2	45.2	45.2	-6.8	0.6	2.2	68.3	4268.5	4779.9
1814	ok	0.08	2.94e-02	2.39e-03	45.2	45.2	45.2	45.2	-6.8	0.1	0.9	-374.4	1737.6	2871.3
1815	ok	0.08	4.07e-02	1.89e-03	45.2	45.2	45.2	45.2	-8.2	0.6	2.1	219.2	4479.9	5056.1
1816	ok	0.08	3.06e-02	2.25e-03	45.2	45.2	45.2	45.2	-10.3	-0.3	0.7	-284.7	1759.8	3063.7
1817	ok	0.08	4.20e-02	1.85e-03	45.2	45.2	45.2	45.2	-9.6	0.5	1.9	203.6	4590.3	5263.3
1818	ok	0.08	3.18e-02	2.13e-03	45.2	45.2	45.2	45.2	-12.4	-0.4	0.7	-232.0	1880.4	3220.7
1819	ok	0.08	4.37e-02	1.80e-03	45.2	45.2	45.2	45.2	-9.6	0.3	1.9	211.5	4658.6	5328.2

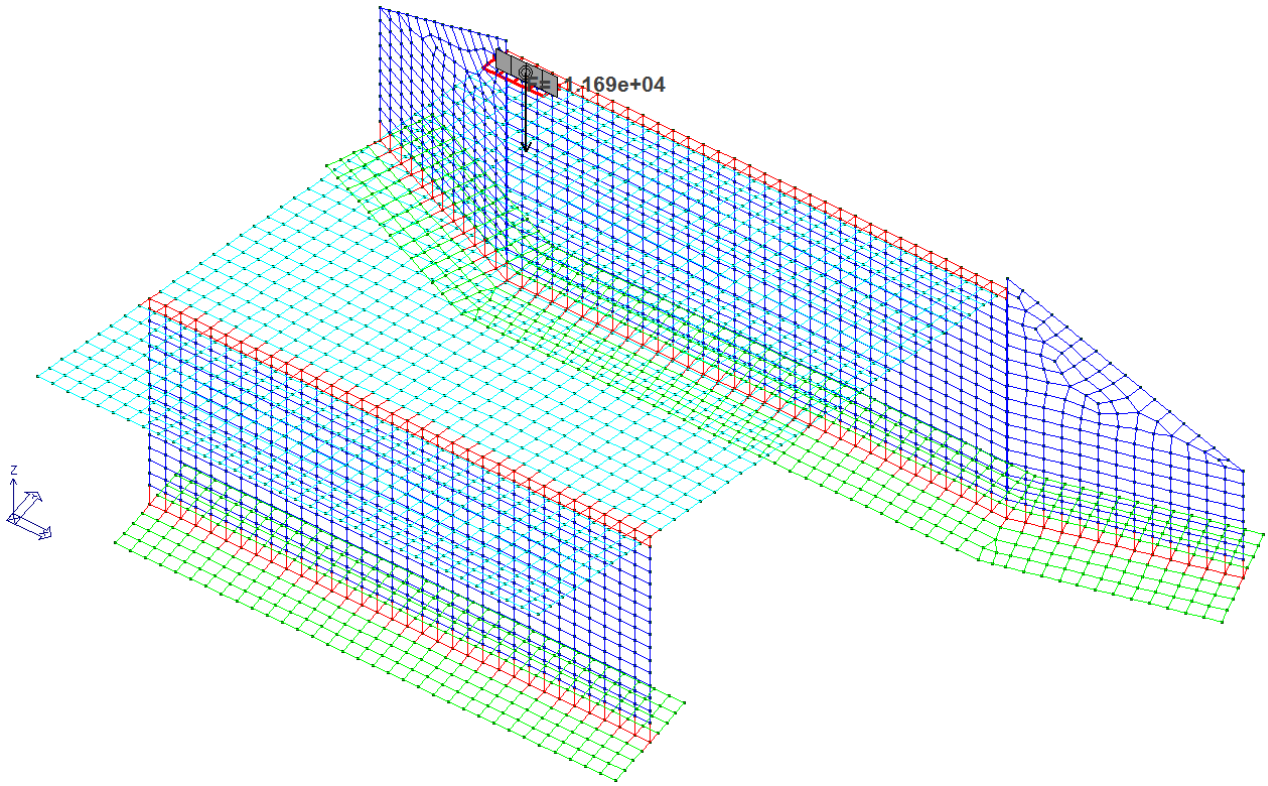
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1820	ok	0.08	3.25e-02	2.02e-03	45.2	45.2	45.2	45.2	-13.8	-0.6	0.6	-237.5	1918.1	3289.3
1821	ok	0.08	4.48e-02	1.75e-03	45.2	45.2	45.2	45.2	-12.0	0.2	1.5	141.3	4654.7	5508.1
1822	ok	0.08	3.25e-02	1.93e-03	45.2	45.2	45.2	45.2	-13.9	-0.9	0.6	-236.1	1929.1	3299.1
1823	ok	0.08	4.54e-02	1.70e-03	45.2	45.2	45.2	45.2	-13.1	-2.04e-03	1.2	362.7	4676.0	5539.7
1824	ok	0.08	3.23e-02	1.87e-03	45.2	45.2	45.2	45.2	-15.8	-0.7	0.4	341.7	2007.1	3300.1
1825	ok	0.08	4.47e-02	1.66e-03	45.2	45.2	45.2	45.2	-13.9	-0.2	1.0	759.5	4691.2	5501.9
1826	ok	0.08	3.03e-02	1.86e-03	45.2	45.2	45.2	45.2	-16.8	-0.8	0.3	697.5	2014.8	3255.3
1827	ok	0.08	4.49e-02	1.62e-03	45.2	45.2	45.2	45.2	-14.6	-0.3	0.8	1087.0	4659.2	5426.9
1828	ok	0.08	2.80e-02	1.86e-03	45.2	45.2	45.2	45.2	-17.4	-0.9	0.2	911.2	1989.7	3195.2
1829	ok	0.08	4.45e-02	1.61e-03	45.2	45.2	45.2	45.2	-15.1	-0.4	0.7	1262.3	4578.5	5329.0
1830	ok	0.08	2.62e-02	1.85e-03	45.2	45.2	45.2	45.2	-17.9	-0.9	0.2	1053.0	1955.0	3120.3
1831	ok	0.08	4.39e-02	1.61e-03	45.2	45.2	45.2	45.2	-15.5	-0.5	0.5	1383.0	4476.7	5201.0
1832	ok	0.08	2.48e-02	1.84e-03	45.2	45.2	45.2	45.2	-18.3	-1.0	0.1	1227.3	1921.6	3026.7
1833	ok	0.08	4.32e-02	1.61e-03	45.2	45.2	45.2	45.2	-15.9	-0.6	0.4	1564.9	4373.5	5032.4
1834	ok	0.08	2.49e-02	1.83e-03	45.2	45.2	45.2	45.2	-18.6	-1.0	9.41e-02	1571.8	1901.0	2897.7
1835	ok	0.08	4.28e-02	1.60e-03	45.2	45.2	45.2	45.2	-16.1	-0.7	0.2	1936.4	4287.4	4801.5
1836	ok	0.08	2.58e-02	1.82e-03	45.2	45.2	45.2	45.2	-18.8	-1.0	4.54e-02	2073.3	1877.3	2722.6
1837	ok	0.08	4.25e-02	1.58e-03	45.2	45.2	45.2	45.2	-16.2	-0.8	8.16e-02	2440.4	4199.8	4504.8
1838	ok	0.08	2.64e-02	1.80e-03	45.2	45.2	45.2	45.2	-18.9	-1.1	-8.49e-03	2488.1	1813.5	2520.6
1839	ok	0.08	4.16e-02	1.56e-03	45.2	45.2	45.2	45.2	-16.2	-0.8	-7.82e-02	2814.6	4061.6	4174.7
1840	ok	0.08	2.60e-02	1.77e-03	45.2	45.2	45.2	45.2	-18.8	-1.1	-7.15e-02	2675.2	1710.8	2310.7
1841	ok	0.08	4.00e-02	1.53e-03	45.2	45.2	45.2	45.2	-16.1	-0.9	-0.3	2946.6	3865.3	3833.5
1842	ok	0.08	2.56e-02	1.73e-03	45.2	45.2	45.2	45.2	-19.0	-1.8	-7.15e-02	2647.0	1569.6	2296.5
1843	ok	0.08	3.81e-02	1.49e-03	45.2	45.2	45.2	45.2	-16.2	-1.6	-0.3	2911.9	3623.0	3670.0
1844	ok	0.08	2.43e-02	1.68e-03	45.2	45.2	45.2	45.2	-18.8	-1.9	-0.1	2645.2	1469.1	2067.4
1845	ok	0.08	3.55e-02	1.44e-03	45.2	45.2	45.2	45.2	-16.0	-1.7	-0.5	2860.1	3399.5	3310.9
1846	ok	0.08	2.25e-02	1.62e-03	45.2	45.2	45.2	45.2	-18.4	-1.9	-0.2	2497.8	1356.8	1848.9
1847	ok	0.08	3.25e-02	1.38e-03	45.2	45.2	45.2	45.2	-15.5	-1.8	-0.7	2674.4	3161.1	2968.2
1848	ok	0.08	2.02e-02	1.54e-03	45.2	45.2	45.2	45.2	-17.7	-2.0	-0.4	2251.5	1240.6	1646.6
1849	ok	0.08	2.94e-02	1.30e-03	45.2	45.2	45.2	45.2	-14.9	-1.8	-1.0	2400.5	2922.2	2651.7
1850	ok	0.08	1.78e-02	1.43e-03	45.2	45.2	45.2	45.2	-16.8	-2.0	-0.5	1943.6	1126.8	1464.3
1851	ok	0.08	2.63e-02	1.21e-03	45.2	45.2	45.2	45.2	-14.1	-1.9	-1.4	2073.6	2694.4	2367.7
1852	ok	0.08	1.53e-02	1.31e-03	45.2	45.2	45.2	45.2	-14.9	-1.9	-0.6	1685.0	965.3	1256.0
1853	ok	0.08	2.34e-02	1.10e-03	45.2	45.2	45.2	45.2	-13.0	-2.0	-1.8	1719.4	2486.9	2118.4
1854	ok	0.08	1.29e-02	1.17e-03	45.2	45.2	45.2	45.2	-13.3	-1.8	-0.8	1348.5	866.2	1109.4
1855	ok	0.08	2.07e-02	9.85e-04	45.2	45.2	45.2	45.2	-11.6	-2.1	-2.2	1357.1	2306.8	1900.6
1856	ok	0.08	1.06e-02	1.01e-03	45.2	45.2	45.2	45.2	-8.8	-1.3	-0.7	1047.2	758.3	957.4
1857	ok	0.08	1.84e-02	8.62e-04	45.2	45.2	45.2	45.2	-10.0	-2.1	-2.6	1003.4	2159.2	1705.2
1858	ok	0.08	8.58e-03	8.09e-04	45.2	45.2	45.2	45.2	-7.0	-1.2	-0.8	735.5	678.5	837.0
1859	ok	0.08	1.66e-02	7.30e-04	45.2	45.2	45.2	45.2	-8.2	-2.2	-3.0	677.1	2047.4	1515.4
1860	ok	0.08	6.96e-03	6.71e-04	45.2	45.2	45.2	45.2	-5.0	-1.0	-0.9	459.0	605.6	717.1
1861	ok	0.08	1.52e-02	5.94e-04	45.2	45.2	45.2	45.2	-6.2	-2.2	-3.1	405.0	1972.8	1305.2
1862	ok	0.08	6.47e-03	5.18e-04	45.2	45.2	45.2	45.2	-4.3	-1.1	-1.3	-679.0	273.0	266.2
1863	ok	0.08	1.43e-02	4.57e-04	45.2	45.2	45.2	45.2	-4.2	-2.3	-2.9	227.0	1936.0	1039.2
1864	ok	0.08	4.41e-03	3.40e-04	45.2	45.2	45.2	45.2	-1.5	-0.7	-0.9	-477.7	256.6	168.9
1865	ok	0.08	1.49e-02	3.43e-04	45.2	45.2	45.2	45.2	-2.4	-2.3	-2.3	180.4	1957.2	693.0
1866	ok	0.08	1.86e-02	2.82e-04	45.2	45.2	45.2	45.2	-0.7	-1.3	-1.1	261.7	2321.2	376.3
1867	ok	0.08	3.89e-02	1.31e-03	45.2	45.2	45.2	45.2	13.1	33.8	14.9	507.7	5107.6	3122.1
1868	ok	0.08	3.21e-02	6.64e-04	45.2	45.2	45.2	45.2	12.3	72.0	21.0	647.5	4250.7	2260.0
1869	ok	0.08	4.62e-02	9.97e-04	45.2	45.2	45.2	45.2	7.9	9.1	14.9	747.5	6266.6	3156.5
1870	ok	0.08	5.14e-02	9.50e-04	45.2	45.2	45.2	45.2	-3.4	1.8	2.5	552.8	6956.8	3908.4
1871	ok	0.08	5.57e-02	1.17e-03	45.2	45.2	45.2	45.2	-7.6	-0.4	1.2	783.6	7549.2	4368.7
1872	ok	0.08	5.99e-02	1.38e-03	45.2	45.2	45.2	45.2	-9.9	-1.0	0.8	1021.2	7996.9	4785.5
1873	ok	0.08	6.28e-02	1.49e-03	45.2	45.2	45.2	45.2	-6.5	1.2	3.3	1207.4	8298.1	5111.7
1874	ok	0.08	6.40e-02	1.54e-03	45.2	45.2	45.2	45.2	-7.7	1.3	3.1	1238.0	8439.2	5351.1
1875	ok	0.08	6.41e-02	1.57e-03	45.2	45.2	45.2	45.2	-7.7	1.3	3.1	1237.1	8470.9	5427.7
1876	ok	0.08	6.40e-02	1.58e-03	45.2	45.2	45.2	45.2	-8.7	1.0	2.8	1109.2	8385.9	5574.7
1877	ok	0.08	6.34e-02	1.58e-03	45.2	45.2	45.2	45.2	-10.5	0.9	2.1	946.8	8235.1	5718.4
1878	ok	0.08	6.31e-02	1.56e-03	45.2	45.2	45.2	45.2	-11.4	0.6	1.8	1116.7	8119.8	5724.7
1879	ok	0.08	6.27e-02	1.54e-03	45.2	45.2	45.2	45.2	-12.0	0.4	1.5	1444.3	8007.9	5666.8
1880	ok	0.08	6.20e-02	1.51e-03	45.2	45.2	45.2	45.2	-12.5	0.2	1.2	1693.8	7856.8	5580.4
1881	ok	0.08	6.07e-02	1.49e-03	45.2	45.2	45.2	45.2	-13.0	2.53e-02	1.0	1797.1	7655.8	5474.3
1882	ok	0.08	5.91e-02	1.46e-03	45.2	45.2	45.2	45.2	-13.3	-0.1	0.7	1859.9	7430.0	5334.1
1883	ok	0.08	5.75e-02	1.43e-03	45.2	45.2	45.2	45.2	-13.5	-0.3	0.5	1994.0	7205.6	5146.6
1884	ok	0.08	5.60e-02	1.41e-03	45.2	45.2	45.2	45.2	-13.7	-0.4	0.3	2310.7	7007.5	4891.0
1885	ok	0.08	5.46e-02	1.38e-03	45.2	45.2	45.2	45.2	-13.7	-0.5	5.58e-02	2742.3	6821.1	4571.0
1886	ok	0.08	5.27e-02	1.35e-03	45.2	45.2	45.2	45.2	-13.7	-0.5	-0.2	3037.7	6593.4	4225.1
1887	ok	0.08	5.03e-02	1.32e-03	45.2	45.2	45.2	45.2	-13.9	-1.2	-0.2	2985.4	6267.9	4063.2
1888	ok	0.08	4.76e-02	1.28e-03	45.2	45.2	45.2	45.2	-13.7	-1.3	-0.5	3049.7	5971.0	3690.8
1889	ok	0.08	4.46e-02	1.25e-03	45.2	45.2	45.2	45.2	-13.5	-1.4	-0.8	2948.2	5640.2	3325.4
1890	ok	0.08	4.13e-02	1.21e-03	45.2	45.2	45.2	45.2	-13.1	-1.5	-1.2	2736.2	5297.1	2979.1
1891	ok	0.08	3.81e-02	1.17e-03	45.2	45.2	45.2	45.2	-12.5	-1.6	-1.7	2455.5	4960.3	2662.4
1892	ok	0.08	3.51e-02	1.13e-03	45.2	45.2	45.2	45.2	-11.8	-1.7	-2.2	2135.9	4645.0	2382.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1893	ok	0.08	3.24e-02	1.08e-03	45.2	45.2	45.2	45.2	-10.9	-1.8	-2.8	1796.9	4363.5	2141.6
1894	ok	0.08	3.04e-02	1.04e-03	45.2	45.2	45.2	45.2	-9.9	-2.0	-3.4	1451.7	4126.6	1937.1
1895	ok	0.08	2.90e-02	9.86e-04	45.2	45.2	45.2	45.2	-8.7	-2.3	-3.9	1111.1	3945.0	1759.5
1896	ok	0.08	2.81e-02	9.30e-04	45.2	45.2	45.2	45.2	-7.3	-2.6	-4.4	788.1	3830.6	1590.5
1897	ok	0.08	2.79e-02	8.62e-04	45.2	45.2	45.2	45.2	-5.9	-3.1	-4.6	503.8	3795.6	1400.7
1898	ok	0.08	2.93e-02	7.94e-04	45.2	45.2	45.2	45.2	-4.3	-3.8	-4.4	292.2	3851.3	1153.1
1899	ok	0.08	3.18e-02	6.74e-04	45.2	45.2	45.2	45.2	-2.7	-4.2	-3.6	208.5	4023.4	827.8
1900	ok	0.08	3.77e-02	5.01e-04	45.2	45.2	45.2	45.2	-1.1	-3.8	-2.0	351.1	4613.9	614.9
1901	ok	0.08	8.84e-02	1.16e-03	45.2	45.2	45.2	45.2	10.2	32.1	14.4	1829.4	1.152e+04	4115.6
1902	ok	0.08	7.39e-02	9.29e-04	45.2	45.2	45.2	45.2	6.9	53.5	15.5	1444.7	9915.8	3490.6
1903	ok	0.08	9.44e-02	1.31e-03	45.2	45.2	45.2	45.2	7.1	15.3	9.9	2069.2	1.272e+04	4104.1
1904	ok	0.08	0.1	1.42e-03	45.2	45.2	45.2	45.2	2.0	6.3	6.2	2389.2	1.353e+04	4309.4
1905	ok	0.08	0.1	1.45e-03	45.2	45.2	45.2	45.2	-2.4	2.4	4.0	2606.7	1.406e+04	4645.9
1906	ok	0.08	0.1	1.42e-03	45.2	45.2	45.2	45.2	-5.5	0.9	2.8	2725.1	1.437e+04	4964.5
1907	ok	0.08	0.1	1.38e-03	45.2	45.2	45.2	45.2	-7.6	0.3	2.2	2759.0	1.448e+04	5191.7
1908	ok	0.08	0.1	1.43e-03	45.2	45.2	45.2	45.2	-7.7	-0.3	2.2	2737.5	1.441e+04	5256.1
1909	ok	0.08	0.1	1.47e-03	45.2	45.2	45.2	45.2	-7.0	1.9	3.8	2602.3	1.417e+04	5384.9
1910	ok	0.08	0.1	1.50e-03	45.2	45.2	45.2	45.2	-7.9	1.6	3.4	2361.9	1.382e+04	5482.4
1911	ok	0.08	9.86e-02	1.51e-03	45.2	45.2	45.2	45.2	-8.6	1.3	3.0	2130.3	1.342e+04	5555.0
1912	ok	0.08	9.59e-02	1.51e-03	45.2	45.2	45.2	45.2	-9.7	1.2	2.2	2186.4	1.306e+04	5570.0
1913	ok	0.08	9.34e-02	1.49e-03	45.2	45.2	45.2	45.2	-10.2	1.0	1.8	2424.1	1.272e+04	5501.9
1914	ok	0.08	9.08e-02	1.48e-03	45.2	45.2	45.2	45.2	-10.6	0.7	1.5	2577.4	1.235e+04	5407.6
1915	ok	0.08	8.77e-02	1.46e-03	45.2	45.2	45.2	45.2	-10.9	0.5	1.2	2589.8	1.194e+04	5294.0
1916	ok	0.08	8.45e-02	1.44e-03	45.2	45.2	45.2	45.2	-11.2	0.3	0.9	2571.9	1.150e+04	5147.8
1917	ok	0.08	8.14e-02	1.42e-03	45.2	45.2	45.2	45.2	-11.3	0.1	0.6	2629.4	1.107e+04	4956.9
1918	ok	0.08	7.85e-02	1.39e-03	45.2	45.2	45.2	45.2	-11.4	4.98e-03	0.3	2863.6	1.068e+04	4700.2
1919	ok	0.08	7.59e-02	1.37e-03	45.2	45.2	45.2	45.2	-11.5	-9.47e-02	-1.17e-02	3204.3	1.033e+04	4379.9
1920	ok	0.08	7.30e-02	1.35e-03	45.2	45.2	45.2	45.2	-11.4	-0.2	-0.3	3409.7	9942.1	4032.3
1921	ok	0.08	6.98e-02	1.33e-03	45.2	45.2	45.2	45.2	-11.5	-0.8	-0.3	3328.5	9475.7	3863.0
1922	ok	0.08	6.63e-02	1.30e-03	45.2	45.2	45.2	45.2	-11.4	-0.9	-0.7	3318.4	9029.5	3490.9
1923	ok	0.08	6.29e-02	1.28e-03	45.2	45.2	45.2	45.2	-11.2	-1.0	-1.2	3168.5	8560.1	3130.3
1924	ok	0.08	5.94e-02	1.26e-03	45.2	45.2	45.2	45.2	-10.9	-1.0	-1.7	2935.0	8093.2	2794.2
1925	ok	0.08	5.62e-02	1.25e-03	45.2	45.2	45.2	45.2	-10.5	-1.1	-2.2	2654.4	7648.6	2493.2
1926	ok	0.08	5.32e-02	1.23e-03	45.2	45.2	45.2	45.2	-9.9	-1.3	-2.9	2348.9	7240.9	2234.6
1927	ok	0.08	5.09e-02	1.22e-03	45.2	45.2	45.2	45.2	-9.3	-1.5	-3.5	2030.9	6881.6	2021.3
1928	ok	0.08	4.92e-02	1.21e-03	45.2	45.2	45.2	45.2	-8.6	-1.8	-4.2	1706.7	6581.9	1851.9
1929	ok	0.08	4.79e-02	1.20e-03	45.2	45.2	45.2	45.2	-7.7	-2.3	-4.9	1379.3	6355.8	1719.2
1930	ok	0.08	4.73e-02	1.19e-03	45.2	45.2	45.2	45.2	-6.8	-3.0	-5.4	1053.3	6221.8	1607.4
1931	ok	0.08	4.78e-02	1.17e-03	45.2	45.2	45.2	45.2	-5.7	-4.0	-5.7	740.7	6203.6	1487.9
1932	ok	0.08	4.98e-02	1.14e-03	45.2	45.2	45.2	45.2	-4.4	-5.3	-5.6	473.5	6324.1	1318.1
1933	ok	0.08	5.33e-02	1.05e-03	45.2	45.2	45.2	45.2	-1.3	-6.2	-3.0	300.6	6594.7	1193.4
1934	ok	0.08	5.94e-02	8.45e-04	45.2	45.2	45.2	45.2	-1.5	-7.3	-3.0	466.4	7293.0	997.7
1935	ok	0.08	0.2	1.70e-03	45.2	45.2	45.2	45.2	7.1	28.1	13.3	3414.1	2.120e+04	5129.3
1936	ok	0.08	0.1	1.29e-03	45.2	45.2	45.2	45.2	4.3	41.8	12.3	2379.1	1.877e+04	5045.3
1937	ok	0.08	0.2	1.97e-03	45.2	45.2	45.2	45.2	6.3	16.7	11.3	4193.9	2.243e+04	4665.0
1938	ok	0.08	0.2	2.03e-03	45.2	45.2	45.2	45.2	3.3	9.4	8.5	4699.0	2.300e+04	4607.7
1939	ok	0.08	0.2	1.94e-03	45.2	45.2	45.2	45.2	4.14e-02	5.2	6.3	4855.7	2.318e+04	4804.7
1940	ok	0.08	0.2	1.85e-03	45.2	45.2	45.2	45.2	-2.8	3.0	4.7	4800.1	2.312e+04	4977.9
1941	ok	0.08	0.2	1.76e-03	45.2	45.2	45.2	45.2	-3.0	1.8	4.7	4736.6	2.283e+04	5006.4
1942	ok	0.08	0.2	1.68e-03	45.2	45.2	45.2	45.2	-5.1	1.1	3.7	4557.6	2.233e+04	5071.9
1943	ok	0.08	0.2	1.63e-03	45.2	45.2	45.2	45.2	-6.4	2.5	4.2	4280.7	2.169e+04	5116.8
1944	ok	0.08	0.2	1.59e-03	45.2	45.2	45.2	45.2	-6.9	2.2	3.8	3935.3	2.096e+04	5159.2
1945	ok	0.08	0.2	1.58e-03	45.2	45.2	45.2	45.2	-7.4	1.8	3.3	3622.2	2.021e+04	5201.4
1946	ok	0.08	0.1	1.60e-03	45.2	45.2	45.2	45.2	-8.2	1.8	2.4	3574.1	1.950e+04	5203.2
1947	ok	0.08	0.1	1.60e-03	45.2	45.2	45.2	45.2	-8.5	1.5	2.0	3699.2	1.884e+04	5135.4
1948	ok	0.08	0.1	1.59e-03	45.2	45.2	45.2	45.2	-8.8	1.2	1.6	3735.2	1.815e+04	5036.2
1949	ok	0.08	0.1	1.58e-03	45.2	45.2	45.2	45.2	-9.0	0.9	1.2	3639.7	1.742e+04	4915.3
1950	ok	0.08	0.1	1.56e-03	45.2	45.2	45.2	45.2	-9.1	0.2	1.2	3487.8	1.667e+04	4848.0
1951	ok	0.08	0.1	1.54e-03	45.2	45.2	45.2	45.2	-9.2	0.5	0.6	3491.1	1.596e+04	4588.4
1952	ok	0.08	0.1	1.52e-03	45.2	45.2	45.2	45.2	-9.3	0.4	0.3	3621.3	1.531e+04	4348.6
1953	ok	0.08	0.1	1.50e-03	45.2	45.2	45.2	45.2	-9.3	0.3	-0.1	3849.3	1.471e+04	4043.6
1954	ok	0.08	0.1	1.48e-03	45.2	45.2	45.2	45.2	-9.3	0.2	-0.5	3948.9	1.410e+04	3701.9
1955	ok	0.08	0.1	1.47e-03	45.2	45.2	45.2	45.2	-9.4	-0.4	-0.5	3824.9	1.343e+04	3529.5
1956	ok	0.08	9.78e-02	1.45e-03	45.2	45.2	45.2	45.2	-9.3	-0.4	-0.9	3737.4	1.279e+04	3163.3
1957	ok	0.08	9.36e-02	1.43e-03	45.2	45.2	45.2	45.2	-9.1	-0.4	-1.4	3545.0	1.215e+04	2815.6
1958	ok	0.08	8.96e-02	1.42e-03	45.2	45.2	45.2	45.2	-8.9	-0.5	-2.0	3298.8	1.155e+04	2499.4
1959	ok	0.08	8.59e-02	1.41e-03	45.2	45.2	45.2	45.2	-8.6	-0.6	-2.6	3026.4	1.099e+04	2224.5
1960	ok	0.08	8.24e-02	1.40e-03	45.2	45.2	45.2	45.2	-8.3	-0.7	-3.3	2742.0	1.049e+04	1997.3
1961	ok	0.08	7.93e-02	1.40e-03	45.2	45.2	45.2	45.2	-7.9	-1.0	-4.1	2451.0	1.005e+04	1821.3
1962	ok	0.08	7.67e-02	1.41e-03	45.2	45.2	45.2	45.2	-7.5	-1.4	-4.8	2152.4	9674.6	1697.6
1963	ok	0.08	7.45e-02	1.42e-03	45.2	45.2	45.2	45.2	-7.0	-2.2	-5.6	1841.6	9379.4	1623.4
1964	ok	0.08	7.31e-02	1.45e-03	45.2	45.2	45.2	45.2	-6.4	-3.3	-6.2	1512.7	9183.8	1589.7
1965	ok	0.08	7.28e-02	1.47e-03	45.2	45.2	45.2	45.2	-5.7	-4.9	-6.6	1165.1	9121.4	1573.5

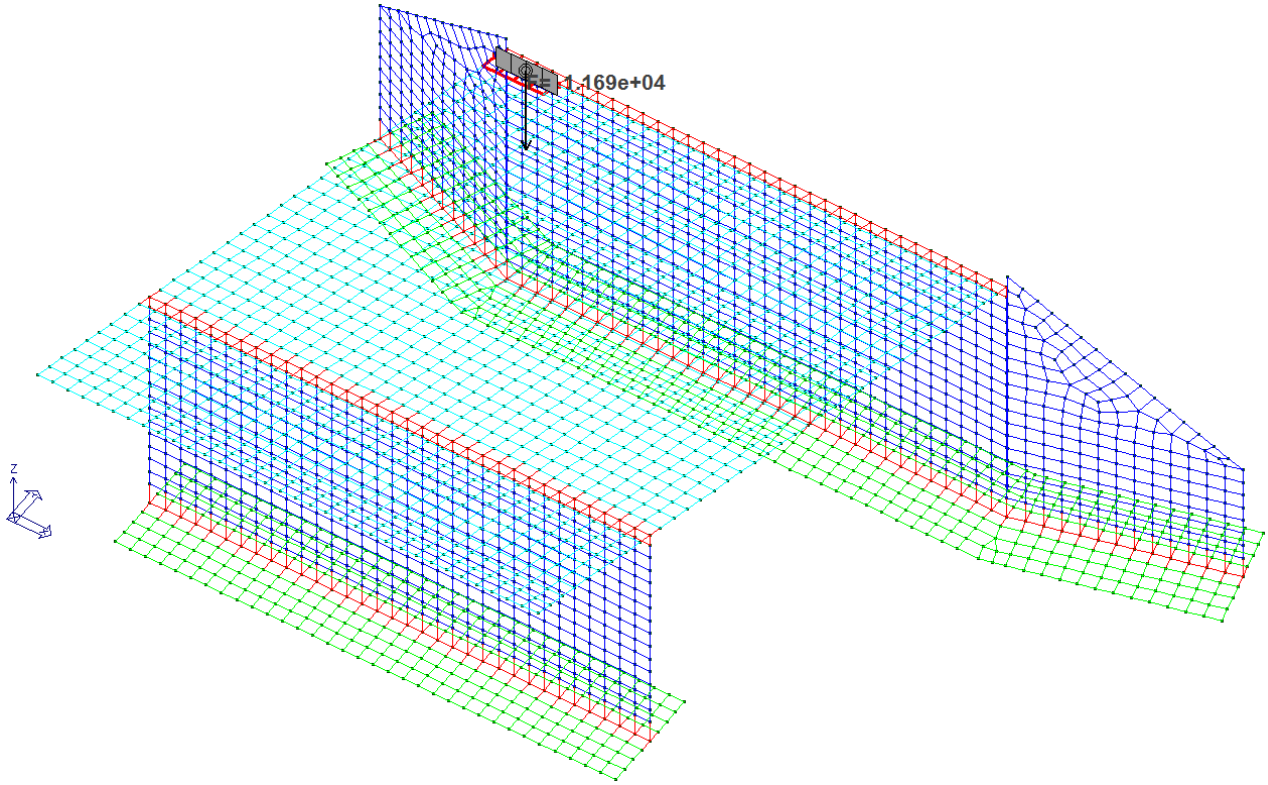
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1966	ok	0.08	7.41e-02	1.49e-03	45.2	45.2	45.2	45.2	-4.7	-6.9	-6.6	821.6	9233.2	1524.8
1967	ok	0.08	7.76e-02	1.48e-03	45.2	45.2	45.2	45.2	-1.5	-9.0	-4.0	444.8	9523.3	1676.3
1968	ok	0.08	8.33e-02	1.40e-03	45.2	45.2	45.2	45.2	-2.0	-11.5	-4.0	622.7	1.028e+04	1490.2
1969	ok	0.08	0.3	2.60e-03	45.2	45.2	45.2	45.2	4.9	23.7	12.6	5441.3	3.497e+04	5969.7
1970	ok	0.08	0.2	1.88e-03	45.2	45.2	45.2	45.2	2.7	32.9	10.1	3407.6	3.108e+04	6772.0
1971	ok	0.08	0.3	2.80e-03	45.2	45.2	45.2	45.2	4.7	16.7	12.0	6840.8	3.568e+04	4777.1
1972	ok	0.08	0.3	2.56e-03	45.2	45.2	45.2	45.2	3.0	11.3	9.9	7501.6	3.527e+04	4624.3
1973	ok	0.08	0.3	2.37e-03	45.2	45.2	45.2	45.2	0.8	7.4	7.8	7473.6	3.484e+04	4671.0
1974	ok	0.08	0.3	2.20e-03	45.2	45.2	45.2	45.2	0.3	5.1	7.8	7324.1	3.411e+04	4641.0
1975	ok	0.08	0.3	2.08e-03	45.2	45.2	45.2	45.2	-1.7	3.5	6.2	7003.8	3.316e+04	4618.4
1976	ok	0.08	0.3	1.99e-03	45.2	45.2	45.2	45.2	-3.4	2.5	4.9	6655.0	3.208e+04	4572.9
1977	ok	0.08	0.2	1.93e-03	45.2	45.2	45.2	45.2	-5.6	3.0	4.4	6256.3	3.092e+04	4542.6
1978	ok	0.08	0.2	1.88e-03	45.2	45.2	45.2	45.2	-6.0	2.7	3.9	5825.1	2.972e+04	4541.3
1979	ok	0.08	0.2	1.83e-03	45.2	45.2	45.2	45.2	-6.3	2.3	3.4	5440.5	2.853e+04	4563.9
1980	ok	0.08	0.2	1.78e-03	45.2	45.2	45.2	45.2	-6.6	2.3	2.5	5285.2	2.738e+04	4572.4
1981	ok	0.08	0.2	1.74e-03	45.2	45.2	45.2	45.2	-6.8	2.0	2.0	5263.2	2.628e+04	4514.4
1982	ok	0.08	0.2	1.73e-03	45.2	45.2	45.2	45.2	-7.0	1.6	1.6	5153.8	2.516e+04	4410.9
1983	ok	0.08	0.2	1.72e-03	45.2	45.2	45.2	45.2	-7.1	0.9	1.6	4917.6	2.401e+04	4354.0
1984	ok	0.08	0.2	1.71e-03	45.2	45.2	45.2	45.2	-7.3	0.6	1.3	4709.1	2.289e+04	4226.4
1985	ok	0.08	0.2	1.69e-03	45.2	45.2	45.2	45.2	-7.3	0.9	0.6	4589.2	2.182e+04	3999.9
1986	ok	0.08	0.2	1.67e-03	45.2	45.2	45.2	45.2	-7.3	0.8	0.2	4593.4	2.082e+04	3798.2
1987	ok	0.08	0.2	1.65e-03	45.2	45.2	45.2	45.2	-7.3	0.7	-0.2	4675.5	1.988e+04	3526.3
1988	ok	0.08	0.2	1.63e-03	45.2	45.2	45.2	45.2	-7.2	0.7	-0.6	4646.2	1.896e+04	3200.5
1989	ok	0.08	0.1	1.61e-03	45.2	45.2	45.2	45.2	-7.4	0.1	-0.6	4467.3	1.803e+04	3035.2
1990	ok	0.08	0.1	1.60e-03	45.2	45.2	45.2	45.2	-7.3	0.1	-1.1	4307.3	1.717e+04	2693.6
1991	ok	0.08	0.1	1.58e-03	45.2	45.2	45.2	45.2	-7.2	0.2	-1.6	4085.1	1.637e+04	2377.5
1992	ok	0.08	0.1	1.57e-03	45.2	45.2	45.2	45.2	-7.1	0.2	-2.2	3837.6	1.563e+04	2097.9
1993	ok	0.08	0.1	1.56e-03	45.2	45.2	45.2	45.2	-7.0	9.22e-02	-2.9	3582.6	1.497e+04	1862.6
1994	ok	0.08	0.1	1.56e-03	45.2	45.2	45.2	45.2	-6.8	-6.93e-02	-3.6	3326.7	1.438e+04	1676.7
1995	ok	0.08	0.1	1.57e-03	45.2	45.2	45.2	45.2	-6.7	-0.4	-4.4	3068.7	1.386e+04	1543.8
1996	ok	0.08	0.1	1.59e-03	45.2	45.2	45.2	45.2	-6.5	-1.0	-5.2	2802.0	1.340e+04	1467.5
1997	ok	0.08	0.1	1.62e-03	45.2	45.2	45.2	45.2	-6.4	-2.0	-6.0	2514.6	1.301e+04	1451.1
1998	ok	0.08	0.1	1.68e-03	45.2	45.2	45.2	45.2	-6.1	-3.4	-6.7	2189.7	1.269e+04	1495.9
1999	ok	0.08	0.1	1.75e-03	45.2	45.2	45.2	45.2	-5.7	-5.6	-7.2	1808.0	1.248e+04	1593.6
2000	ok	0.08	0.1	1.85e-03	45.2	45.2	45.2	45.2	-5.1	-8.6	-7.5	1362.5	1.245e+04	1704.9
2001	ok	0.08	0.1	1.98e-03	45.2	45.2	45.2	45.2	-1.7	-12.1	-5.2	636.6	1.260e+04	2194.2
2002	ok	0.08	0.1	2.10e-03	45.2	45.2	45.2	45.2	-2.6	-16.4	-5.2	799.2	1.331e+04	2059.8
2003	ok	0.08	0.5	4.11e-03	45.2	45.2	45.2	45.2	2.8	19.7	12.6	8233.1	5.529e+04	5061.2
2004	ok	0.08	0.4	3.19e-03	45.2	45.2	45.2	45.2	1.5	23.6	9.5	5188.6	4.984e+04	8174.0
2005	ok	0.08	0.4	3.36e-03	45.2	45.2	45.2	45.2	2.9	16.5	12.1	1.048e+04	5.237e+04	4199.8
2006	ok	0.08	0.4	2.97e-03	45.2	45.2	45.2	45.2	2.1	12.5	10.6	1.091e+04	5.107e+04	4149.8
2007	ok	0.08	0.4	2.70e-03	45.2	45.2	45.2	45.2	1.4	9.3	10.6	1.057e+04	4.940e+04	4060.4
2008	ok	0.08	0.4	2.50e-03	45.2	45.2	45.2	45.2	0.2	6.9	8.8	1.017e+04	4.765e+04	3893.4
2009	ok	0.08	0.4	2.37e-03	45.2	45.2	45.2	45.2	-1.1	5.1	7.2	9647.1	4.584e+04	3761.0
2010	ok	0.08	0.4	2.28e-03	45.2	45.2	45.2	45.2	-2.4	3.8	5.8	9150.0	4.404e+04	3648.4
2011	ok	0.08	0.4	2.21e-03	45.2	45.2	45.2	45.2	-4.7	3.5	4.5	8650.4	4.226e+04	3580.4
2012	ok	0.08	0.3	2.14e-03	45.2	45.2	45.2	45.2	-4.9	3.1	3.9	8147.9	4.051e+04	3559.6
2013	ok	0.08	0.3	2.09e-03	45.2	45.2	45.2	45.2	-5.0	2.7	3.4	7692.4	3.877e+04	3575.5
2014	ok	0.08	0.3	2.03e-03	45.2	45.2	45.2	45.2	-5.1	2.8	2.4	7415.2	3.708e+04	3594.5
2015	ok	0.08	0.3	1.99e-03	45.2	45.2	45.2	45.2	-5.2	2.4	2.0	7198.6	3.540e+04	3548.7
2016	ok	0.08	0.3	1.94e-03	45.2	45.2	45.2	45.2	-5.2	2.0	1.6	6920.8	3.372e+04	3456.2
2017	ok	0.08	0.3	1.90e-03	45.2	45.2	45.2	45.2	-5.4	1.3	1.6	6577.8	3.207e+04	3409.8
2018	ok	0.08	0.3	1.88e-03	45.2	45.2	45.2	45.2	-5.4	1.0	1.2	6256.2	3.047e+04	3307.4
2019	ok	0.08	0.2	1.86e-03	45.2	45.2	45.2	45.2	-5.3	1.3	0.5	6016.7	2.895e+04	3134.1
2020	ok	0.08	0.2	1.84e-03	45.2	45.2	45.2	45.2	-5.4	1.2	0.1	5867.0	2.750e+04	2981.7
2021	ok	0.08	0.2	1.82e-03	45.2	45.2	45.2	45.2	-5.4	1.2	-0.3	5760.8	2.612e+04	2760.4
2022	ok	0.08	0.2	1.80e-03	45.2	45.2	45.2	45.2	-5.5	0.6	-0.3	5491.0	2.478e+04	2645.5
2023	ok	0.08	0.2	1.78e-03	45.2	45.2	45.2	45.2	-5.4	0.7	-0.7	5344.8	2.359e+04	2349.7
2024	ok	0.08	0.2	1.76e-03	45.2	45.2	45.2	45.2	-5.4	0.7	-1.2	5127.7	2.251e+04	2067.5
2025	ok	0.08	0.2	1.74e-03	45.2	45.2	45.2	45.2	-5.4	0.8	-1.8	4888.0	2.155e+04	1812.6
2026	ok	0.08	0.2	1.73e-03	45.2	45.2	45.2	45.2	-5.4	0.8	-2.4	4648.1	2.070e+04	1593.3
2027	ok	0.08	0.2	1.72e-03	45.2	45.2	45.2	45.2	-5.4	0.8	-3.1	4416.6	1.996e+04	1414.3
2028	ok	0.08	0.2	1.72e-03	45.2	45.2	45.2	45.2	-5.4	0.6	-3.8	4192.9	1.930e+04	1278.7
2029	ok	0.08	0.2	1.74e-03	45.2	45.2	45.2	45.2	-5.4	0.2	-4.5	3970.8	1.871e+04	1190.0
2030	ok	0.08	0.2	1.76e-03	45.2	45.2	45.2	45.2	-5.5	-0.5	-5.3	3739.0	1.816e+04	1153.2
2031	ok	0.08	0.2	1.81e-03	45.2	45.2	45.2	45.2	-5.6	-1.7	-6.1	3480.1	1.763e+04	1176.4
2032	ok	0.08	0.1	1.89e-03	45.2	45.2	45.2	45.2	-5.7	-3.5	-6.9	3167.1	1.712e+04	1272.1
2033	ok	0.08	0.1	2.01e-03	45.2	45.2	45.2	45.2	-5.7	-6.3	-7.6	2757.6	1.661e+04	1454.8
2034	ok	0.08	0.1	2.21e-03	45.2	45.2	45.2	45.2	-5.5	-10.3	-8.1	2191.1	1.614e+04	1728.8
2035	ok	0.08	0.1	2.57e-03	45.2	45.2	45.2	45.2	-4.8	-16.2	-8.1	1435.0	1.587e+04	2065.1
2036	ok	0.08	0.1	3.05e-03	45.2	45.2	45.2	45.2	-3.5	-22.8	-6.6	888.4	1.540e+04	2656.2
3522	ok	0.08	0.1	4.52e-03	45.2	45.2	45.2	45.2	-4.7	-32.3	-8.9	677.0	1.545e+04	4181.4
3523	ok	0.08	0.8	7.87e-03	45.2	45.2	45.2	45.2	-2.0	10.6	9.5	8481.1	8.667e+04	5125.1

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3524	ok	0.08	0.7	4.68e-03	45.2	45.2	45.2	45.2	0.7	17.6	12.3	1.333e+04	7.513e+04	2886.8
3525	ok	0.08	0.6	3.71e-03	45.2	45.2	45.2	45.2	1.3	16.2	12.2	1.501e+04	7.270e+04	3614.5
3526	ok	0.08	0.6	3.25e-03	45.2	45.2	45.2	45.2	1.0	13.4	11.0	1.458e+04	6.928e+04	3408.9
3527	ok	0.08	0.6	2.96e-03	45.2	45.2	45.2	45.2	0.4	10.8	11.0	1.392e+04	6.604e+04	3233.4
3528	ok	0.08	0.6	2.80e-03	45.2	45.2	45.2	45.2	-0.3	8.5	9.4	1.324e+04	6.309e+04	2999.6
3529	ok	0.08	0.5	2.68e-03	45.2	45.2	45.2	45.2	-1.1	6.6	7.7	1.257e+04	6.035e+04	2833.1
3530	ok	0.08	0.5	2.58e-03	45.2	45.2	45.2	45.2	-3.4	4.2	4.9	1.197e+04	5.781e+04	2724.2
3531	ok	0.08	0.5	2.49e-03	45.2	45.2	45.2	45.2	-3.4	3.9	4.3	1.139e+04	5.538e+04	2661.1
3532	ok	0.08	0.5	2.42e-03	45.2	45.2	45.2	45.2	-3.5	3.6	3.8	1.083e+04	5.303e+04	2651.3
3533	ok	0.08	0.4	2.35e-03	45.2	45.2	45.2	45.2	-3.3	3.6	2.8	1.030e+04	5.069e+04	2686.6
3534	ok	0.08	0.4	2.28e-03	45.2	45.2	45.2	45.2	-3.3	3.2	2.3	9869.5	4.837e+04	2695.2
3535	ok	0.08	0.4	2.23e-03	45.2	45.2	45.2	45.2	-3.3	2.8	1.9	9441.9	4.604e+04	2663.5
3536	ok	0.08	0.4	2.18e-03	45.2	45.2	45.2	45.2	-3.3	2.4	1.5	8995.5	4.375e+04	2600.4
3537	ok	0.08	0.4	2.13e-03	45.2	45.2	45.2	45.2	-3.4	1.7	1.5	8532.8	4.153e+04	2564.8
3538	ok	0.08	0.3	2.08e-03	45.2	45.2	45.2	45.2	-3.4	1.4	1.1	8095.0	3.939e+04	2496.0
3539	ok	0.08	0.3	2.04e-03	45.2	45.2	45.2	45.2	-3.2	1.8	0.4	7725.8	3.734e+04	2383.6
3540	ok	0.08	0.3	2.02e-03	45.2	45.2	45.2	45.2	-3.2	1.7	-2.69e-04	7396.7	3.536e+04	2269.0
3541	ok	0.08	0.3	1.99e-03	45.2	45.2	45.2	45.2	-3.2	1.7	-0.4	7090.9	3.350e+04	2099.3
3542	ok	0.08	0.3	1.97e-03	45.2	45.2	45.2	45.2	-3.3	1.2	-0.4	6740.8	3.178e+04	1991.7
3543	ok	0.08	0.3	1.94e-03	45.2	45.2	45.2	45.2	-3.3	1.3	-0.9	6477.7	3.029e+04	1771.3
3544	ok	0.08	0.3	1.92e-03	45.2	45.2	45.2	45.2	-3.3	1.5	-1.3	6216.9	2.900e+04	1561.0
3545	ok	0.08	0.2	1.90e-03	45.2	45.2	45.2	45.2	-3.4	1.6	-1.9	5971.2	2.791e+04	1375.1
3546	ok	0.08	0.2	1.88e-03	45.2	45.2	45.2	45.2	-3.4	1.6	-2.5	5748.2	2.698e+04	1219.1
3547	ok	0.08	0.2	1.87e-03	45.2	45.2	45.2	45.2	-3.5	1.6	-3.1	5546.1	2.618e+04	1094.8
3548	ok	0.08	0.2	1.87e-03	45.2	45.2	45.2	45.2	-3.7	1.4	-3.8	5358.5	2.548e+04	1003.7
3549	ok	0.08	0.2	1.89e-03	45.2	45.2	45.2	45.2	-3.9	1.0	-4.6	5175.2	2.484e+04	948.5
3550	ok	0.08	0.2	1.92e-03	45.2	45.2	45.2	45.2	-4.1	0.1	-5.3	4982.2	2.421e+04	935.1
3551	ok	0.08	0.2	1.98e-03	45.2	45.2	45.2	45.2	-4.5	-1.3	-6.1	4758.9	2.355e+04	975.3
3552	ok	0.08	0.2	2.08e-03	45.2	45.2	45.2	45.2	-4.8	-3.5	-6.8	4470.6	2.278e+04	1092.8
3553	ok	0.08	0.2	2.25e-03	45.2	45.2	45.2	45.2	-5.3	-6.8	-7.5	4051.9	2.181e+04	1336.3
3554	ok	0.08	0.2	2.54e-03	45.2	45.2	45.2	45.2	-5.6	-11.8	-8.2	3368.3	2.049e+04	1809.1
3555	ok	0.08	0.1	3.09e-03	45.2	45.2	45.2	45.2	-5.7	-19.3	-8.7	2177.4	1.853e+04	2731.5

Per la verifica a taglio si considera la sollecitazione verticale mediata su una larghezza di 2m (corrispondente a 4 elementi shell del modello FEM). Si sono vagliate le porzioni esterne di impalcato, in prossimità sia della spalla che del setto.
Massimo taglio in appoggio sulla spalla su una larghezza di 2m di impalcato nella combinazione SLUa47:



V_{Ed}=71690daN=716.9kN; v_{Ed}=V_{ED}/b=716.9/2=358.5kN/m
Massimo taglio in appoggio sulla spalla su una larghezza di 2m di impalcato nella combinazione SLUa47:



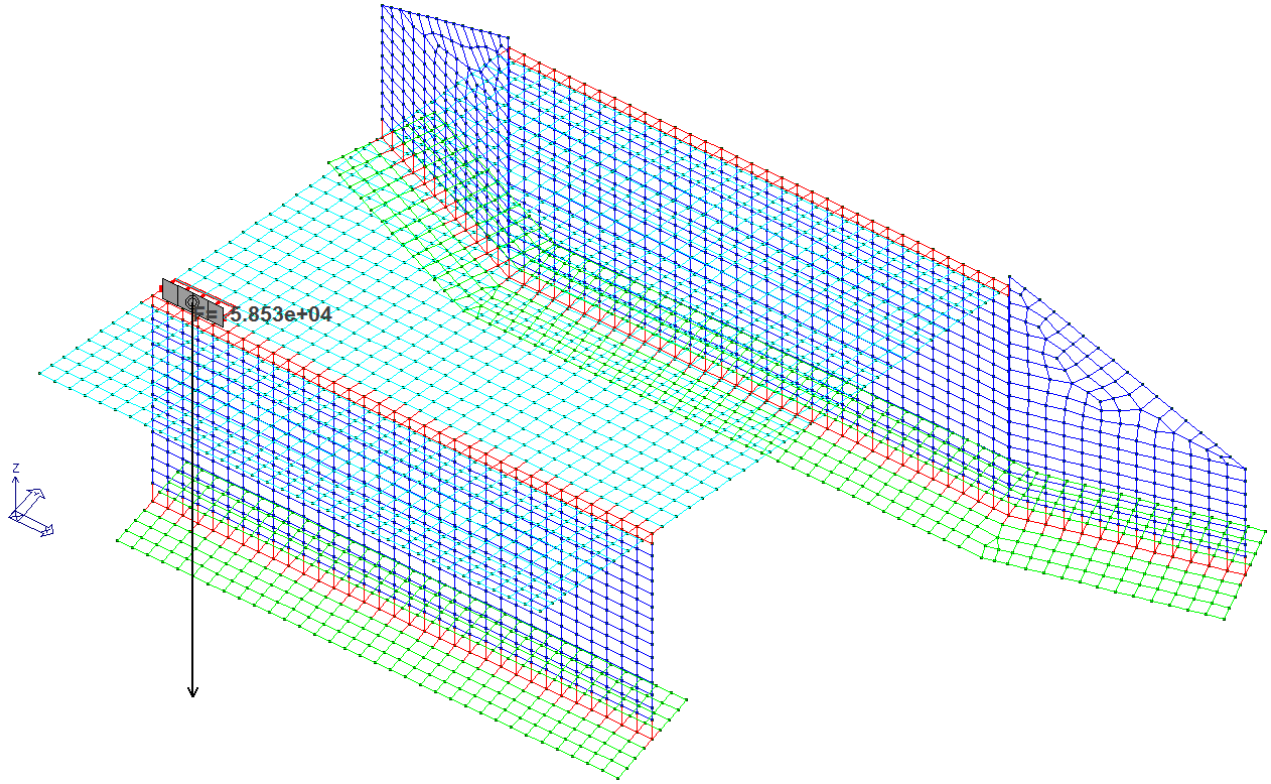
V_{Ed}=71690daN=716.9kN; v_{Ed}=V_{ED}/b=716.9/2=358.5kN/m
Per tutte le combinazioni si riportano I valori in tabella:

CMB	Fz [daN]	SLUa 22	-3.28E+04	SLUa 44	-2.93E+04
SLUa 1	-6.17E+04	SLUa 23	-7.40E+03	SLUa 45	-1.03E+04
SLUa 2	-5.74E+04	SLUa 24	-7.59E+04	SLUa 46	-1.76E+04
SLUa 3	-3.05E+04	SLUa 25	-7.03E+04	SLUa 47	-7.64E+04
SLUa 4	-1.15E+04	SLUa 26	-3.43E+04	SLUa 48	-7.08E+04
SLUa 5	-1.76E+04	SLUa 27	-8.84E+03	SLUa 49	-3.47E+04
SLUa 6	-1.78E+04	SLUa 28	-7.47E+04	SLUa 50	-9.29E+03
SLUa 7	-6.07E+04	SLUa 29	-6.91E+04	SLUa 51	-7.52E+04
SLUa 8	-5.65E+04	SLUa 30	-3.31E+04	SLUa 52	-6.95E+04
SLUa 9	-2.95E+04	SLUa 31	-7.63E+03	SLUa 53	-3.35E+04
SLUa 10	-1.05E+04	SLUa 32	-6.23E+04	SLUa 54	-8.08E+03
SLUa 11	-5.95E+04	SLUa 33	-5.81E+04	SLUa 55	-7.61E+04
SLUa 12	-5.53E+04	SLUa 34	-3.12E+04	SLUa 56	-7.05E+04
SLUa 13	-2.83E+04	SLUa 35	-1.21E+04	SLUa 57	-3.45E+04
SLUa 14	-9.30E+03	SLUa 36	-1.82E+04	SLUa 58	-9.05E+03
SLUa 15	-1.66E+04	SLUa 37	-1.80E+04	SLUa 59	-7.49E+04
SLUa 16	-7.57E+04	SLUa 38	-6.17E+04	SLUa 60	-6.93E+04
SLUa 17	-7.01E+04	SLUa 39	-5.75E+04	SLUa 61	-3.33E+04
SLUa 18	-3.40E+04	SLUa 40	-3.05E+04	SLUa 62	-7.85E+03
SLUa 19	-8.60E+03	SLUa 41	-1.15E+04	SLUb 1	-5.76E+04
SLUa 20	-7.45E+04	SLUa 42	-6.05E+04	SLUb 2	-5.34E+04
SLUa 21	-6.89E+04	SLUa 43	-5.63E+04	SLUb 3	-2.64E+04

SLUb 4	-7.37E+03	SLUb 50	-5.20E+03	SLUc 34	-2.07E+04
SLUb 5	-1.35E+04	SLUb 51	-7.11E+04	SLUc 35	-1.64E+03
SLUb 6	-1.37E+04	SLUb 52	-6.55E+04	SLUc 36	-7.73E+03
SLUb 7	-5.66E+04	SLUb 53	-2.94E+04	SLUc 37	-7.50E+03
SLUb 8	-5.24E+04	SLUb 54	-3.99E+03	SLUc 38	-5.12E+04
SLUb 9	-2.54E+04	SLUb 55	-7.20E+04	SLUc 39	-4.70E+04
SLUb 10	-6.41E+03	SLUb 56	-6.64E+04	SLUc 40	-2.00E+04
SLUb 11	-5.54E+04	SLUb 57	-3.04E+04	SLUc 41	-9.86E+02
SLUb 12	-5.12E+04	SLUb 58	-4.96E+03	SLUc 42	-5.00E+04
SLUb 13	-2.42E+04	SLUb 59	-7.08E+04	SLUc 43	-4.58E+04
SLUb 14	-5.20E+03	SLUb 60	-6.52E+04	SLUc 44	-1.88E+04
SLUb 15	-1.25E+04	SLUb 61	-2.92E+04	SLUc 45	2.20E+02
SLUb 16	-7.16E+04	SLUb 62	-3.76E+03	SLUc 46	-7.09E+03
SLUb 17	-6.60E+04	SLUc 1	-5.11E+04	SLUc 47	-6.59E+04
SLUb 18	-2.99E+04	SLUc 2	-4.69E+04	SLUc 48	-6.02E+04
SLUb 19	-4.51E+03	SLUc 3	-2.00E+04	SLUc 49	-2.42E+04
SLUb 20	-7.04E+04	SLUc 4	-9.51E+02	SLUc 50	1.22E+03
SLUb 21	-6.48E+04	SLUc 5	-7.05E+03	SLUc 51	-6.47E+04
SLUb 22	-2.87E+04	SLUc 6	-7.28E+03	SLUc 52	-5.90E+04
SLUb 23	-3.31E+03	SLUc 7	-5.02E+04	SLUc 53	-2.30E+04
SLUb 24	-7.18E+04	SLUc 8	-4.60E+04	SLUc 54	2.43E+03
SLUb 25	-6.62E+04	SLUc 9	-1.90E+04	SLUc 55	-6.56E+04
SLUb 26	-3.02E+04	SLUc 10	8.17E+00	SLUc 56	-6.00E+04
SLUb 27	-4.74E+03	SLUc 11	-4.90E+04	SLUc 57	-2.40E+04
SLUb 28	-7.06E+04	SLUc 12	-4.48E+04	SLUc 58	1.45E+03
SLUb 29	-6.50E+04	SLUc 13	-1.78E+04	SLUc 59	-6.44E+04
SLUb 30	-2.90E+04	SLUc 14	1.21E+03	SLUc 60	-5.88E+04
SLUb 31	-3.54E+03	SLUc 15	-6.09E+03	SLUc 61	-2.28E+04
SLUb 32	-5.82E+04	SLUc 16	-6.52E+04	SLUc 62	2.66E+03
SLUb 33	-5.40E+04	SLUc 17	-5.96E+04	SLUecc 1	-7.63E+03
SLUb 34	-2.71E+04	SLUc 18	-2.35E+04	SLUecc 2	-7.12E+03
SLUb 35	-8.05E+03	SLUc 19	1.91E+03	SLUecc 3	-8.87E+03
SLUb 36	-1.42E+04	SLUc 20	-6.40E+04	SLUecc 4	-8.37E+03
SLUb 37	-1.39E+04	SLUc 21	-5.84E+04	SLUecc 5	-8.65E+03
SLUb 38	-5.76E+04	SLUc 22	-2.23E+04	SLUecc 6	-8.14E+03
SLUb 39	-5.34E+04	SLUc 23	3.11E+03	SLUecc 7	-1.87E+04
SLUb 40	-2.64E+04	SLUc 24	-6.54E+04	SLUecc 8	-1.82E+04
SLUb 41	-7.40E+03	SLUc 25	-5.98E+04	SLV 1	-2.34E+03
SLUb 42	-5.64E+04	SLUc 26	-2.38E+04	SLV 2	-7.96E+03
SLUb 43	-5.22E+04	SLUc 27	1.67E+03	SLV 3	5.79E+03
SLUb 44	-2.52E+04	SLUc 28	-6.42E+04	SLV 4	-2.10E+04
SLUb 45	-6.20E+03	SLUc 29	-5.86E+04	SLV 5	-2.67E+04
SLUb 46	-1.35E+04	SLUc 30	-2.25E+04	SLV 6	-1.29E+04
SLUb 47	-7.23E+04	SLUc 31	2.88E+03	SLV 7	-3.04E+04
SLUb 48	-6.67E+04	SLUc 32	-5.18E+04	SLV 8	-2.76E+04
SLUb 49	-3.06E+04	SLUc 33	-4.76E+04	SLV 9	-3.32E+04

SLV 10	1.54E+04	SLV 19	-3.08E+04	SLV 28	-2.09E+04
SLV 11	1.82E+04	SLV 20	-2.80E+04	SLV 29	-2.65E+04
SLV 12	1.26E+04	SLV 21	-3.36E+04	SLV 30	-1.28E+04
SLV 13	-2.68E+03	SLV 22	1.50E+04	SLV 31	-3.03E+04
SLV 14	-8.30E+03	SLV 23	1.78E+04	SLV 32	-2.75E+04
SLV 15	5.44E+03	SLV 24	1.22E+04	SLV 33	-3.31E+04
SLV 16	-2.14E+04	SLV 25	-2.18E+03	SLV 34	1.55E+04
SLV 17	-2.70E+04	SLV 26	-7.80E+03	SLV 35	1.84E+04
SLV 18	-1.33E+04	SLV 27	5.95E+03	SLV 36	1.27E+04

Massimo taglio in appoggio sul setto su una larghezza di 2m di impalcato nella combinazione SLUa48:



V_{Ed}=58530daN=585.3kN; $v_{Ed}=V_{ED}/b$=585.3/2=292.7kN/m

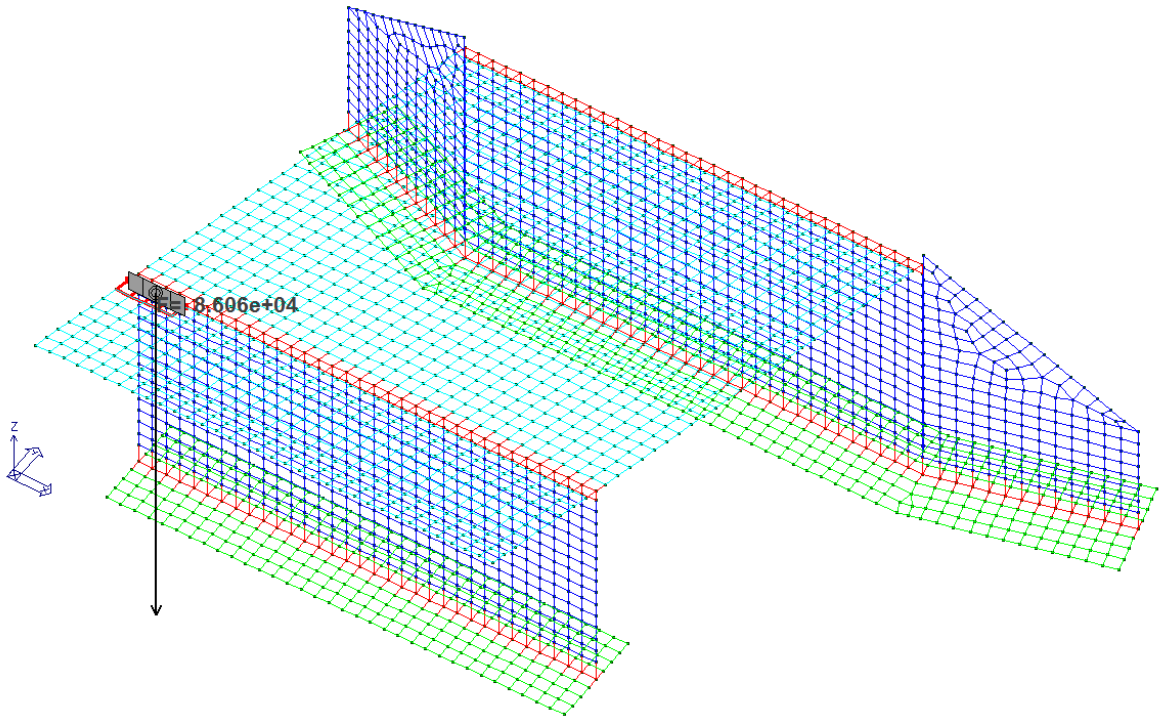
Per tutte le combinazioni si riportano I valori in tabella:

CMB	Fz [daN]	SLUa 13	-3.79E+04	SLUa 26	-4.05E+04
SLUa 1	-4.51E+04	SLUa 14	-3.47E+04	SLUa 27	-3.62E+04
SLUa 2	-5.26E+04	SLUa 15	-3.52E+04	SLUa 28	-4.69E+04
SLUa 3	-3.96E+04	SLUa 16	-4.76E+04	SLUa 29	-5.70E+04
SLUa 4	-3.64E+04	SLUa 17	-5.76E+04	SLUa 30	-3.96E+04
SLUa 5	-3.60E+04	SLUa 18	-4.02E+04	SLUa 31	-3.53E+04
SLUa 6	-3.63E+04	SLUa 19	-3.59E+04	SLUa 32	-4.60E+04
SLUa 7	-4.43E+04	SLUa 20	-4.66E+04	SLUa 33	-5.35E+04
SLUa 8	-5.18E+04	SLUa 21	-5.67E+04	SLUa 34	-4.05E+04
SLUa 9	-3.88E+04	SLUa 22	-3.93E+04	SLUa 35	-3.73E+04
SLUa 10	-3.56E+04	SLUa 23	-3.50E+04	SLUa 36	-3.69E+04
SLUa 11	-4.34E+04	SLUa 24	-4.78E+04	SLUa 37	-3.66E+04
SLUa 12	-5.09E+04	SLUa 25	-5.79E+04	SLUa 38	-4.56E+04

SLUa 39	-5.31E+04	SLUb 23	-2.60E+04	SLUc 7	-3.73E+04
SLUa 40	-4.01E+04	SLUb 24	-3.88E+04	SLUc 8	-4.48E+04
SLUa 41	-3.69E+04	SLUb 25	-4.89E+04	SLUc 9	-3.18E+04
SLUa 42	-4.47E+04	SLUb 26	-3.15E+04	SLUc 10	-2.86E+04
SLUa 43	-5.22E+04	SLUb 27	-2.72E+04	SLUc 11	-3.63E+04
SLUa 44	-3.92E+04	SLUb 28	-3.79E+04	SLUc 12	-4.39E+04
SLUa 45	-3.60E+04	SLUb 29	-4.80E+04	SLUc 13	-3.09E+04
SLUa 46	-3.65E+04	SLUb 30	-3.06E+04	SLUc 14	-2.77E+04
SLUa 47	-4.84E+04	SLUb 31	-2.63E+04	SLUc 15	-2.82E+04
SLUa 48	-5.85E+04	SLUb 32	-3.70E+04	SLUc 16	-4.05E+04
SLUa 49	-4.11E+04	SLUb 33	-4.45E+04	SLUc 17	-5.06E+04
SLUa 50	-3.68E+04	SLUb 34	-3.15E+04	SLUc 18	-3.32E+04
SLUa 51	-4.75E+04	SLUb 35	-2.83E+04	SLUc 19	-2.89E+04
SLUa 52	-5.76E+04	SLUb 36	-2.79E+04	SLUc 20	-3.96E+04
SLUa 53	-4.02E+04	SLUb 37	-2.76E+04	SLUc 21	-4.97E+04
SLUa 54	-3.59E+04	SLUb 38	-3.66E+04	SLUc 22	-3.23E+04
SLUa 55	-4.81E+04	SLUb 39	-4.41E+04	SLUc 23	-2.80E+04
SLUa 56	-5.82E+04	SLUb 40	-3.11E+04	SLUc 24	-4.08E+04
SLUa 57	-4.08E+04	SLUb 41	-2.79E+04	SLUc 25	-5.09E+04
SLUa 58	-3.65E+04	SLUb 42	-3.56E+04	SLUc 26	-3.35E+04
SLUa 59	-4.72E+04	SLUb 43	-4.32E+04	SLUc 27	-2.92E+04
SLUa 60	-5.73E+04	SLUb 44	-3.02E+04	SLUc 28	-3.99E+04
SLUa 61	-3.99E+04	SLUb 45	-2.70E+04	SLUc 29	-5.00E+04
SLUa 62	-3.56E+04	SLUb 46	-2.75E+04	SLUc 30	-3.26E+04
SLUb 1	-3.61E+04	SLUb 47	-3.94E+04	SLUc 31	-2.83E+04
SLUb 2	-4.36E+04	SLUb 48	-4.95E+04	SLUc 32	-3.90E+04
SLUb 3	-3.06E+04	SLUb 49	-3.21E+04	SLUc 33	-4.65E+04
SLUb 4	-2.74E+04	SLUb 50	-2.78E+04	SLUc 34	-3.35E+04
SLUb 5	-2.70E+04	SLUb 51	-3.85E+04	SLUc 35	-3.03E+04
SLUb 6	-2.73E+04	SLUb 52	-4.86E+04	SLUc 36	-2.99E+04
SLUb 7	-3.53E+04	SLUb 53	-3.12E+04	SLUc 37	-2.96E+04
SLUb 8	-4.28E+04	SLUb 54	-2.69E+04	SLUc 38	-3.85E+04
SLUb 9	-2.98E+04	SLUb 55	-3.91E+04	SLUc 39	-4.61E+04
SLUb 10	-2.66E+04	SLUb 56	-4.92E+04	SLUc 40	-3.30E+04
SLUb 11	-3.44E+04	SLUb 57	-3.18E+04	SLUc 41	-2.99E+04
SLUb 12	-4.19E+04	SLUb 58	-2.75E+04	SLUc 42	-3.76E+04
SLUb 13	-2.89E+04	SLUb 59	-3.82E+04	SLUc 43	-4.52E+04
SLUb 14	-2.57E+04	SLUb 60	-4.83E+04	SLUc 44	-3.21E+04
SLUb 15	-2.62E+04	SLUb 61	-3.09E+04	SLUc 45	-2.89E+04
SLUb 16	-3.85E+04	SLUb 62	-2.66E+04	SLUc 46	-2.94E+04
SLUb 17	-4.86E+04	SLUc 1	-3.81E+04	SLUc 47	-4.14E+04
SLUb 18	-3.12E+04	SLUc 2	-4.56E+04	SLUc 48	-5.15E+04
SLUb 19	-2.69E+04	SLUc 3	-3.26E+04	SLUc 49	-3.41E+04
SLUb 20	-3.76E+04	SLUc 4	-2.94E+04	SLUc 50	-2.98E+04
SLUb 21	-4.77E+04	SLUc 5	-2.90E+04	SLUc 51	-4.05E+04
SLUb 22	-3.03E+04	SLUc 6	-2.93E+04	SLUc 52	-5.06E+04

SLUc 53	-3.32E+04	SLV 1	-2.95E+04	SLV 19	-2.24E+04
SLUc 54	-2.89E+04	SLV 2	-2.84E+04	SLV 20	-2.36E+04
SLUc 55	-4.11E+04	SLV 3	-3.08E+04	SLV 21	-2.13E+04
SLUc 56	-5.12E+04	SLV 4	-2.20E+04	SLV 22	-3.05E+04
SLUc 57	-3.38E+04	SLV 5	-2.08E+04	SLV 23	-3.17E+04
SLUc 58	-2.95E+04	SLV 6	-2.33E+04	SLV 24	-2.94E+04
SLUc 59	-4.02E+04	SLV 7	-2.20E+04	SLV 25	-2.93E+04
SLUc 60	-5.03E+04	SLV 8	-2.31E+04	SLV 26	-2.82E+04
SLUc 61	-3.29E+04	SLV 9	-2.08E+04	SLV 27	-3.06E+04
SLUc 62	-2.86E+04	SLV 10	-3.01E+04	SLV 28	-2.18E+04
SLUecc 1	-2.73E+04	SLV 11	-3.12E+04	SLV 29	-2.06E+04
SLUecc 2	-2.66E+04	SLV 12	-2.89E+04	SLV 30	-2.31E+04
SLUecc 3	-2.82E+04	SLV 13	-3.00E+04	SLV 31	-2.18E+04
SLUecc 4	-2.76E+04	SLV 14	-2.89E+04	SLV 32	-2.29E+04
SLUecc 5	-2.82E+04	SLV 15	-3.13E+04	SLV 33	-2.06E+04
SLUecc 6	-2.75E+04	SLV 16	-2.24E+04	SLV 34	-2.99E+04
SLUecc 7	-2.60E+04	SLV 17	-2.13E+04	SLV 35	-3.10E+04
SLUecc 8	-2.53E+04	SLV 18	-2.37E+04	SLV 36	-2.87E+04

Massimo taglio sulla porzione a sbalzo in appoggio sul setto su una larghezza di 2m di impalcato nella combinazione SLUa49:



V_{Ed}=86060daN=860.6kN; $v_{Ed}=V_{ED}/b$=860.6/2=430.3kN/m

Per tutte le combinazioni si riportano I valori in tabella:

CMB	Fz	SLUa 5	-3.03E+04	SLUa 10	-2.99E+04
SLUa 1	-3.03E+04	SLUa 6	-3.03E+04	SLUa 11	-2.91E+04
SLUa 2	-3.04E+04	SLUa 7	-2.99E+04	SLUa 12	-2.92E+04
SLUa 3	-7.24E+04	SLUa 8	-2.99E+04	SLUa 13	-7.12E+04
SLUa 4	-3.03E+04	SLUa 9	-7.19E+04	SLUa 14	-2.91E+04

SLUa 15	-2.99E+04	SLUa 61	-8.53E+04	SLUb 45	-2.16E+04
SLUa 16	-2.99E+04	SLUa 62	-2.91E+04	SLUb 46	-2.23E+04
SLUa 17	-2.99E+04	SLUb 1	-2.28E+04	SLUb 47	-2.23E+04
SLUa 18	-8.61E+04	SLUb 2	-2.28E+04	SLUb 48	-2.23E+04
SLUa 19	-2.99E+04	SLUb 3	-6.48E+04	SLUb 49	-7.85E+04
SLUa 20	-2.91E+04	SLUb 4	-2.28E+04	SLUb 50	-2.23E+04
SLUa 21	-2.92E+04	SLUb 5	-2.28E+04	SLUb 51	-2.16E+04
SLUa 22	-8.53E+04	SLUb 6	-2.28E+04	SLUb 52	-2.16E+04
SLUa 23	-2.91E+04	SLUb 7	-2.23E+04	SLUb 53	-7.78E+04
SLUa 24	-2.99E+04	SLUb 8	-2.23E+04	SLUb 54	-2.16E+04
SLUa 25	-2.99E+04	SLUb 9	-6.43E+04	SLUb 55	-2.23E+04
SLUa 26	-8.61E+04	SLUb 10	-2.23E+04	SLUb 56	-2.23E+04
SLUa 27	-2.99E+04	SLUb 11	-2.16E+04	SLUb 57	-7.85E+04
SLUa 28	-2.91E+04	SLUb 12	-2.16E+04	SLUb 58	-2.23E+04
SLUa 29	-2.92E+04	SLUb 13	-6.36E+04	SLUb 59	-2.16E+04
SLUa 30	-8.53E+04	SLUb 14	-2.16E+04	SLUb 60	-2.16E+04
SLUa 31	-2.91E+04	SLUb 15	-2.23E+04	SLUb 61	-7.78E+04
SLUa 32	-3.04E+04	SLUb 16	-2.23E+04	SLUb 62	-2.16E+04
SLUa 33	-3.04E+04	SLUb 17	-2.23E+04	SLUc 1	-2.45E+04
SLUa 34	-7.24E+04	SLUb 18	-7.85E+04	SLUc 2	-2.45E+04
SLUa 35	-3.03E+04	SLUb 19	-2.23E+04	SLUc 3	-6.66E+04
SLUa 36	-3.04E+04	SLUb 20	-2.16E+04	SLUc 4	-2.45E+04
SLUa 37	-3.03E+04	SLUb 21	-2.16E+04	SLUc 5	-2.45E+04
SLUa 38	-2.99E+04	SLUb 22	-7.78E+04	SLUc 6	-2.45E+04
SLUa 39	-2.99E+04	SLUb 23	-2.16E+04	SLUc 7	-2.40E+04
SLUa 40	-7.19E+04	SLUb 24	-2.23E+04	SLUc 8	-2.41E+04
SLUa 41	-2.99E+04	SLUb 25	-2.23E+04	SLUc 9	-6.61E+04
SLUa 42	-2.92E+04	SLUb 26	-7.85E+04	SLUc 10	-2.40E+04
SLUa 43	-2.92E+04	SLUb 27	-2.23E+04	SLUc 11	-2.33E+04
SLUa 44	-7.12E+04	SLUb 28	-2.16E+04	SLUc 12	-2.33E+04
SLUa 45	-2.91E+04	SLUb 29	-2.16E+04	SLUc 13	-6.54E+04
SLUa 46	-2.99E+04	SLUb 30	-7.78E+04	SLUc 14	-2.33E+04
SLUa 47	-2.99E+04	SLUb 31	-2.16E+04	SLUc 15	-2.40E+04
SLUa 48	-2.99E+04	SLUb 32	-2.28E+04	SLUc 16	-2.40E+04
SLUa 49	-8.61E+04	SLUb 33	-2.28E+04	SLUc 17	-2.41E+04
SLUa 50	-2.99E+04	SLUb 34	-6.48E+04	SLUc 18	-8.02E+04
SLUa 51	-2.92E+04	SLUb 35	-2.28E+04	SLUc 19	-2.40E+04
SLUa 52	-2.92E+04	SLUb 36	-2.28E+04	SLUc 20	-2.33E+04
SLUa 53	-8.53E+04	SLUb 37	-2.28E+04	SLUc 21	-2.33E+04
SLUa 54	-2.91E+04	SLUb 38	-2.23E+04	SLUc 22	-7.95E+04
SLUa 55	-2.99E+04	SLUb 39	-2.23E+04	SLUc 23	-2.33E+04
SLUa 56	-2.99E+04	SLUb 40	-6.44E+04	SLUc 24	-2.40E+04
SLUa 57	-8.61E+04	SLUb 41	-2.23E+04	SLUc 25	-2.41E+04
SLUa 58	-2.99E+04	SLUb 42	-2.16E+04	SLUc 26	-8.02E+04
SLUa 59	-2.92E+04	SLUb 43	-2.16E+04	SLUc 27	-2.40E+04
SLUa 60	-2.92E+04	SLUb 44	-6.36E+04	SLUc 28	-2.33E+04

SLUc 29	-2.33E+04	SLUc 55	-2.41E+04	SLV 11	-2.16E+04
SLUc 30	-7.95E+04	SLUc 56	-2.41E+04	SLV 12	-2.16E+04
SLUc 31	-2.33E+04	SLUc 57	-8.02E+04	SLV 13	-2.16E+04
SLUc 32	-2.45E+04	SLUc 58	-2.40E+04	SLV 14	-2.16E+04
SLUc 33	-2.45E+04	SLUc 59	-2.33E+04	SLV 15	-2.16E+04
SLUc 34	-6.66E+04	SLUc 60	-2.33E+04	SLV 16	-2.16E+04
SLUc 35	-2.45E+04	SLUc 61	-7.95E+04	SLV 17	-2.16E+04
SLUc 36	-2.45E+04	SLUc 62	-2.33E+04	SLV 18	-2.16E+04
SLUc 37	-2.45E+04	SLUecc 1	-2.16E+04	SLV 19	-2.16E+04
SLUc 38	-2.41E+04	SLUecc 2	-2.16E+04	SLV 20	-2.16E+04
SLUc 39	-2.41E+04	SLUecc 3	-2.16E+04	SLV 21	-2.16E+04
SLUc 40	-6.61E+04	SLUecc 4	-2.16E+04	SLV 22	-2.16E+04
SLUc 41	-2.40E+04	SLUecc 5	-2.16E+04	SLV 23	-2.16E+04
SLUc 42	-2.33E+04	SLUecc 6	-2.16E+04	SLV 24	-2.16E+04
SLUc 43	-2.33E+04	SLUecc 7	-2.16E+04	SLV 25	-2.16E+04
SLUc 44	-6.54E+04	SLUecc 8	-2.16E+04	SLV 26	-2.16E+04
SLUc 45	-2.33E+04	SLV 1	-2.16E+04	SLV 27	-2.16E+04
SLUc 46	-2.40E+04	SLV 2	-2.16E+04	SLV 28	-2.16E+04
SLUc 47	-2.41E+04	SLV 3	-2.16E+04	SLV 29	-2.16E+04
SLUc 48	-2.41E+04	SLV 4	-2.16E+04	SLV 30	-2.16E+04
SLUc 49	-8.02E+04	SLV 5	-2.16E+04	SLV 31	-2.16E+04
SLUc 50	-2.40E+04	SLV 6	-2.16E+04	SLV 32	-2.16E+04
SLUc 51	-2.33E+04	SLV 7	-2.16E+04	SLV 33	-2.16E+04
SLUc 52	-2.33E+04	SLV 8	-2.16E+04	SLV 34	-2.16E+04
SLUc 53	-7.95E+04	SLV 9	-2.16E+04	SLV 35	-2.16E+04
SLUc 54	-2.33E+04	SLV 10	-2.16E+04	SLV 36	-2.16E+04

Dunque la massima sollecitazione di taglio v_{Ed}=430.3kN/m si ha sulla porzione a sbalzo, per la quale si conduce la verifica

ARMATURA LONGITUDINALE TESA

n°	ϕ[mm]	Area
10	**24**	45.24
	Af	**45.24** cm^2

Copriferro all'asse delle armature tese

c **7.1** cm

resistenza a taglio di elementi quali solai e piastre, privi di armatura trasversale

V_{Rd} **365.43** kN; pari a 5.0 kg/cm^2 ρ_l = 0.006 ; k = 1.524

Ved>VRd; è necessaria armatura specifica a taglio

armatura a taglio

Staffe **5** braccia ϕ **10** / **20** (Asw/s **1.96** mm^2/mm)

resistenza a taglio cotg θ **2.5**

V_{Rsd} **1260.24** kN V_{Rcd} **2128.18** kN **verificato** **2.89**

13.2 SLE

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

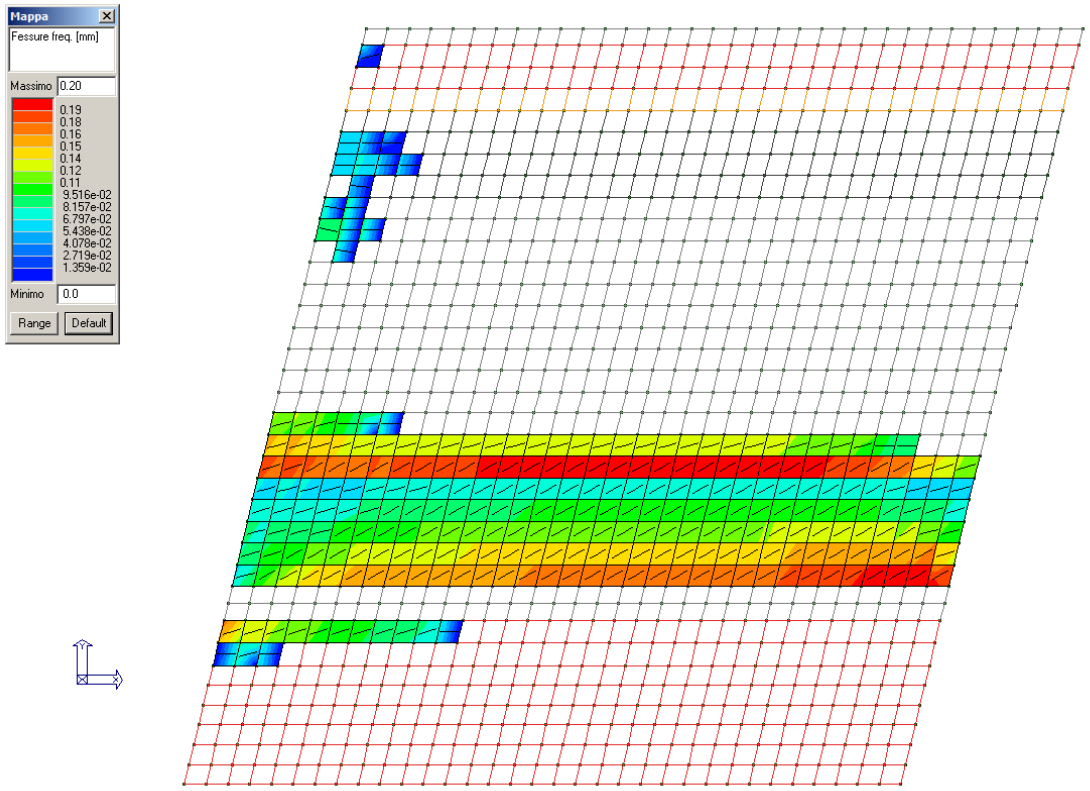
In particolare vengono riportati i risultati relativi alle tre categorie di combinazione considerate:

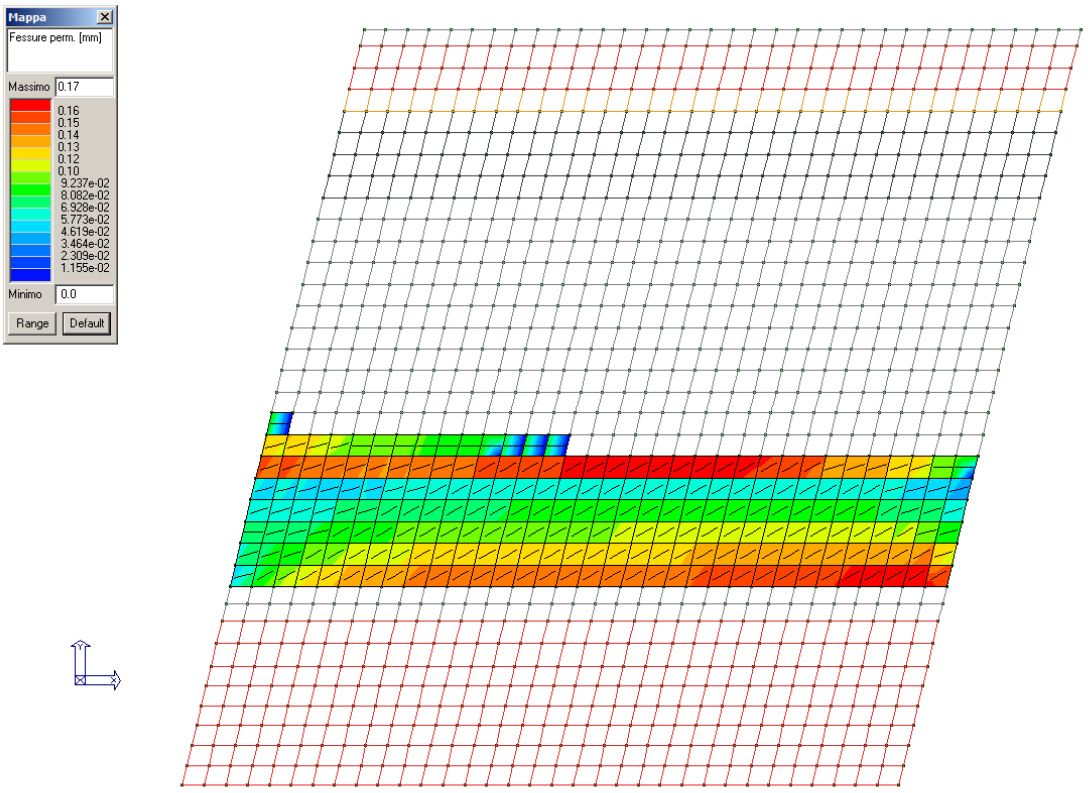
- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

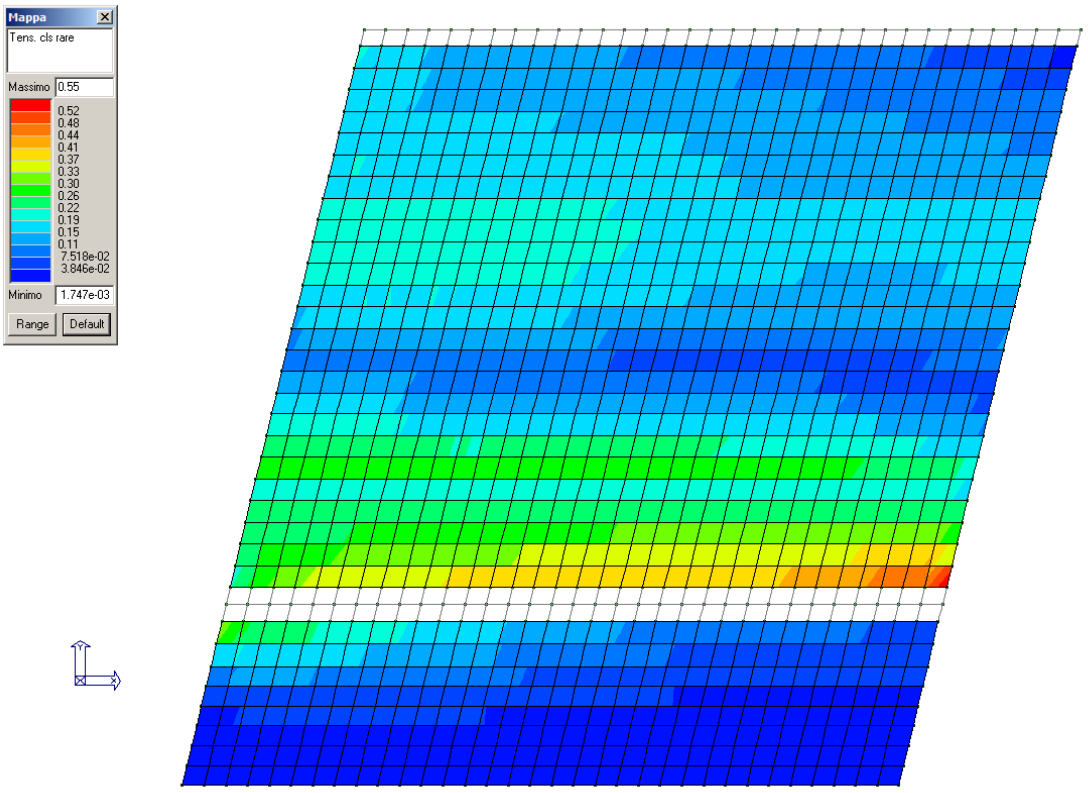
I valori di interesse sono i seguenti:

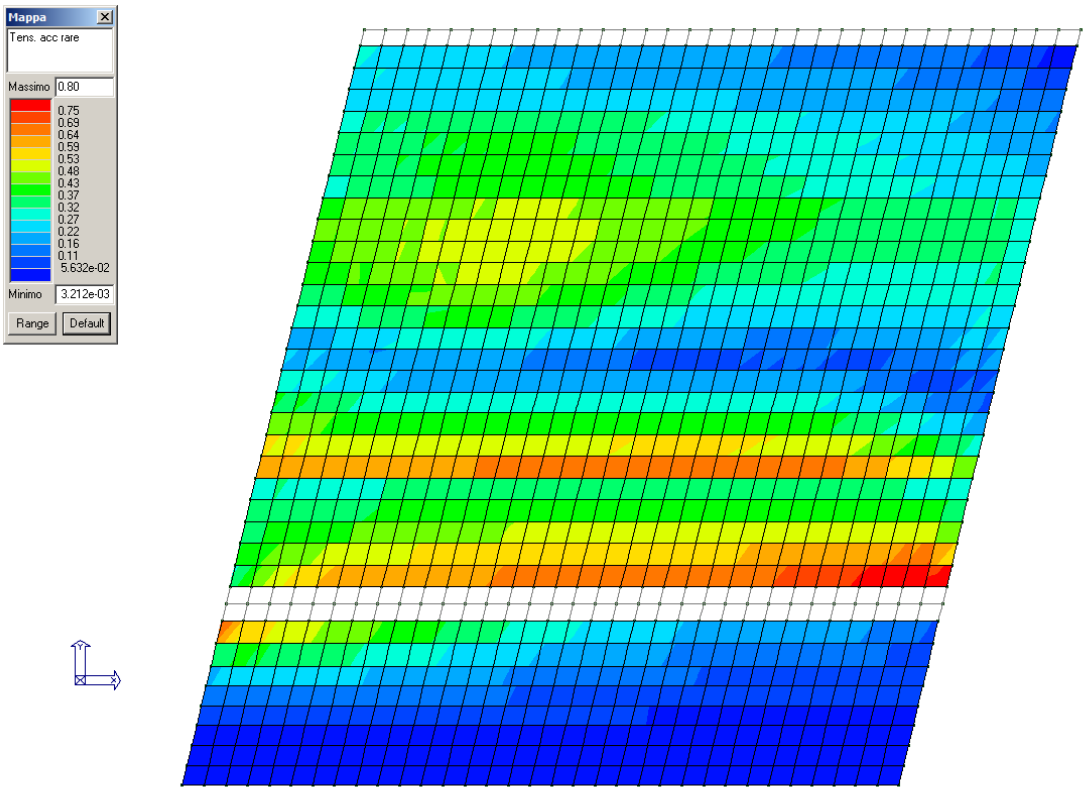
rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare	[*normalizzato a 1*]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare	[*normalizzato a 1*]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti	[*normalizzato a 1*]
wR	apertura caratteristica delle fessure in combinazioni rare	[*mm*]
wF	apertura caratteristica delle fessure in combinazioni frequenti	[*mm*]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti	[*mm*]

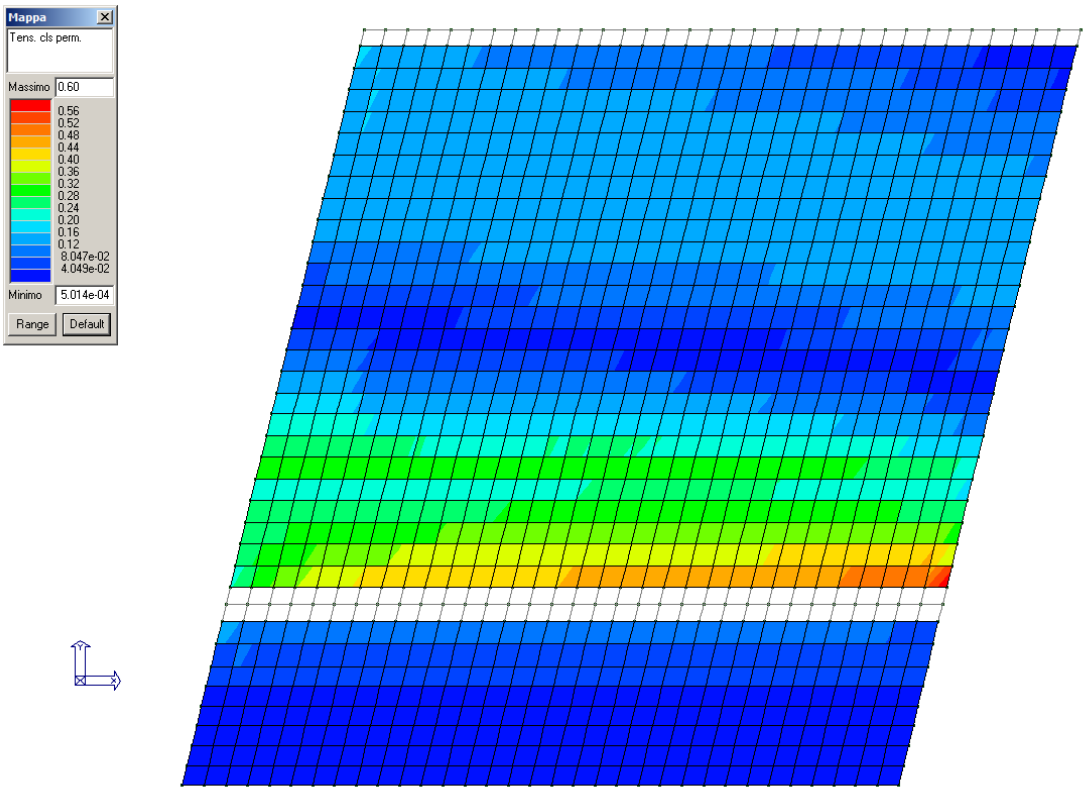
Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.




Mappa
Fessure perm. [mm]
Massimo 0.17
0.16
0.15
0.14
0.13
0.12
0.10
9.237e-02
8.082e-02
6.928e-02
5.773e-02
4.619e-02
3.464e-02
2.309e-02
1.155e-02
Minimo 0.0
Range
Default


Mappa
Tens. cls rare
Massimo 0.55
0.52
0.48
0.44
0.41
0.37
0.33
0.30
0.26
0.22
0.19
0.15
0.11
7.518e-02
3.846e-02
Minimo 1.747e-03
Range
Default





Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
					mm	mm	
1658	4.34e-03	0.05	4.74e-03	323,318,348	0.0	0.0	0,0,0
1659	7.16e-03	0.02	3.87e-03	284,327,348	0.0	0.0	0,0,0
1660	8.90e-03	0.02	2.97e-03	323,327,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1661	0.01	0.02	2.73e-03	323,288,348	0.0	0.0	0,0,0
1662	0.01	0.02	2.82e-03	323,288,348	0.0	0.0	0,0,0
1663	0.01	0.02	3.09e-03	323,288,348	0.0	0.0	0,0,0
1664	0.01	0.02	3.28e-03	323,288,348	0.0	0.0	0,0,0
1665	0.01	0.02	3.30e-03	323,288,348	0.0	0.0	0,0,0
1666	0.01	0.02	3.21e-03	323,288,348	0.0	0.0	0,0,0
1667	0.01	0.03	3.02e-03	323,288,349	0.0	0.0	0,0,0
1668	0.01	0.03	2.78e-03	323,288,349	0.0	0.0	0,0,0
1669	0.01	0.02	2.53e-03	323,296,349	0.0	0.0	0,0,0
1670	0.01	0.02	2.29e-03	323,296,349	0.0	0.0	0,0,0
1671	0.01	0.02	2.08e-03	323,296,349	0.0	0.0	0,0,0
1672	0.01	0.02	1.89e-03	323,296,349	0.0	0.0	0,0,0
1673	0.01	0.02	1.75e-03	323,292,349	0.0	0.0	0,0,0
1674	0.01	0.02	1.63e-03	323,292,349	0.0	0.0	0,0,0
1675	0.01	0.02	1.52e-03	323,292,349	0.0	0.0	0,0,0
1676	0.01	0.02	1.42e-03	323,292,349	0.0	0.0	0,0,0
1677	0.01	0.02	1.44e-03	323,296,349	0.0	0.0	0,0,0
1678	0.01	0.02	1.55e-03	323,296,349	0.0	0.0	0,0,0
1679	0.01	0.02	1.69e-03	323,296,349	0.0	0.0	0,0,0
1680	0.01	0.02	1.84e-03	323,296,349	0.0	0.0	0,0,0
1681	9.97e-03	0.02	2.01e-03	323,296,349	0.0	0.0	0,0,0
1682	8.80e-03	0.01	2.29e-03	323,296,349	0.0	0.0	0,0,0
1683	7.59e-03	0.01	2.70e-03	327,296,349	0.0	0.0	0,0,0
1684	6.40e-03	9.43e-03	3.12e-03	327,296,349	0.0	0.0	0,0,0
1685	5.28e-03	7.87e-03	3.50e-03	327,292,349	0.0	0.0	0,0,0
1686	4.29e-03	6.51e-03	3.75e-03	327,284,349	0.0	0.0	0,0,0
1687	3.44e-03	5.33e-03	3.77e-03	284,284,349	0.0	0.0	0,0,0
1688	2.75e-03	4.90e-03	3.36e-03	284,268,348	0.0	0.0	0,0,0
1689	2.22e-03	3.90e-03	2.36e-03	284,284,348	0.0	0.0	0,0,0
1690	2.00e-03	4.01e-03	1.71e-03	284,323,347	0.0	0.0	0,0,0
1691	6.47e-03	0.04	2.93e-03	292,315,350	0.0	0.0	0,0,0
1692	0.01	0.02	3.83e-03	284,327,347	0.0	0.0	0,0,0
1693	0.01	0.02	4.61e-03	284,327,349	0.0	0.0	0,0,0
1694	0.01	0.03	5.13e-03	323,284,349	0.0	0.0	0,0,0
1695	0.02	0.03	5.50e-03	323,284,349	0.0	0.0	0,0,0
1696	0.02	0.03	5.76e-03	323,284,349	0.0	0.0	0,0,0
1697	0.02	0.03	5.86e-03	323,284,349	0.0	0.0	0,0,0
1698	0.02	0.04	5.81e-03	323,284,349	0.0	0.0	0,0,0
1699	0.02	0.04	5.71e-03	323,284,349	0.0	0.0	0,0,0
1700	0.02	0.04	5.52e-03	323,284,349	0.0	0.0	0,0,0
1701	0.02	0.04	5.30e-03	323,284,349	0.0	0.0	0,0,0
1702	0.02	0.04	5.07e-03	323,284,349	0.0	0.0	0,0,0
1703	0.02	0.04	4.86e-03	323,284,349	0.0	0.0	0,0,0
1704	0.02	0.04	4.68e-03	323,292,349	0.0	0.0	0,0,0
1705	0.02	0.04	4.53e-03	323,292,349	0.0	0.0	0,0,0
1706	0.02	0.04	4.41e-03	323,292,349	0.0	0.0	0,0,0
1707	0.02	0.04	4.31e-03	323,284,349	0.0	0.0	0,0,0
1708	0.02	0.03	4.24e-03	323,284,349	0.0	0.0	0,0,0
1709	0.02	0.03	4.19e-03	323,284,349	0.0	0.0	0,0,0
1710	0.02	0.03	4.15e-03	323,284,349	0.0	0.0	0,0,0
1711	0.02	0.03	4.12e-03	323,284,349	0.0	0.0	0,0,0
1712	0.02	0.03	4.11e-03	323,284,349	0.0	0.0	0,0,0
1713	0.02	0.03	4.10e-03	323,284,349	0.0	0.0	0,0,0
1714	0.01	0.02	4.12e-03	323,284,349	0.0	0.0	0,0,0
1715	0.01	0.02	4.15e-03	323,284,349	0.0	0.0	0,0,0
1716	0.01	0.02	4.20e-03	323,284,349	0.0	0.0	0,0,0
1717	0.01	0.02	4.28e-03	323,284,349	0.0	0.0	0,0,0
1718	9.05e-03	0.02	4.39e-03	323,284,349	0.0	0.0	0,0,0
1719	8.03e-03	0.01	4.54e-03	323,284,347	0.0	0.0	0,0,0
1720	7.19e-03	0.01	4.72e-03	323,284,347	0.0	0.0	0,0,0
1721	6.57e-03	0.01	4.92e-03	284,284,347	0.0	0.0	0,0,0
1722	6.20e-03	0.01	5.34e-03	284,284,347	0.0	0.0	0,0,0
1723	7.55e-03	0.02	7.15e-03	284,284,347	0.0	0.0	0,0,0
1724	0.02	0.04	8.25e-03	284,315,350	0.0	0.0	0,0,0
1725	0.02	0.04	9.32e-03	292,315,350	0.0	0.0	0,0,0
1726	0.02	0.04	0.01	292,315,348	0.0	0.0	0,0,0
1727	0.02	0.05	0.01	292,315,348	0.0	0.0	0,0,0
1728	0.03	0.05	0.01	323,315,348	0.0	0.0	0,0,0
1729	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1730	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1731	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1732	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1733	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1734	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1735	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1736	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1737	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1738	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1739	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1740	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1741	0.03	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1742	0.02	0.05	0.01	323,284,348	0.0	0.0	0,0,0
1743	0.02	0.04	0.01	323,284,350	0.0	0.0	0,0,0
1744	0.02	0.04	0.01	323,284,349	0.0	0.0	0,0,0
1745	0.02	0.04	0.01	323,284,347	0.0	0.0	0,0,0
1746	0.02	0.04	0.01	323,284,347	0.0	0.0	0,0,0
1747	0.02	0.03	9.91e-03	323,284,347	0.0	0.0	0,0,0
1748	0.02	0.03	9.80e-03	323,284,347	0.0	0.0	0,0,0
1749	0.02	0.03	9.73e-03	323,284,349	0.0	0.0	0,0,0
1750	0.01	0.03	9.78e-03	323,284,349	0.0	0.0	0,0,0
1751	0.01	0.02	9.92e-03	323,284,349	0.0	0.0	0,0,0
1752	0.01	0.02	0.01	323,284,349	0.0	0.0	0,0,0
1753	0.01	0.02	0.01	284,284,349	0.0	0.0	0,0,0
1754	0.01	0.02	0.01	284,284,347	0.0	0.0	0,0,0
1755	0.01	0.03	0.01	284,284,347	0.0	0.0	0,0,0
1756	0.02	0.03	0.02	284,284,347	0.0	0.0	0,0,0
1757	0.04	0.08	0.02	292,315,350	0.0	0.0	0,0,0
1758	0.04	0.08	0.02	292,315,350	0.0	0.0	0,0,0
1759	0.04	0.08	0.02	292,315,350	0.0	0.0	0,0,0
1760	0.04	0.09	0.02	292,315,348	0.0	0.0	0,0,0
1761	0.04	0.09	0.02	292,315,348	0.0	0.0	0,0,0
1762	0.05	0.09	0.02	315,284,348	0.0	0.0	0,0,0
1763	0.05	0.09	0.02	315,284,348	0.0	0.0	0,0,0
1764	0.04	0.09	0.02	315,284,348	0.0	0.0	0,0,0
1765	0.04	0.09	0.02	315,284,348	0.0	0.0	0,0,0
1766	0.04	0.09	0.02	292,284,348	0.0	0.0	0,0,0
1767	0.04	0.08	0.02	315,284,348	0.0	0.0	0,0,0
1768	0.04	0.08	0.02	323,284,348	0.0	0.0	0,0,0
1769	0.04	0.08	0.02	323,284,348	0.0	0.0	0,0,0
1770	0.04	0.08	0.02	323,284,348	0.0	0.0	0,0,0
1771	0.04	0.07	0.02	323,284,348	0.0	0.0	0,0,0
1772	0.04	0.07	0.02	323,284,348	0.0	0.0	0,0,0
1773	0.03	0.07	0.02	323,284,348	0.0	0.0	0,0,0
1774	0.03	0.07	0.02	323,284,348	0.0	0.0	0,0,0
1775	0.03	0.06	0.02	323,284,348	0.0	0.0	0,0,0
1776	0.03	0.06	0.02	323,284,348	0.0	0.0	0,0,0
1777	0.03	0.06	0.02	323,284,350	0.0	0.0	0,0,0
1778	0.03	0.06	0.02	323,284,350	0.0	0.0	0,0,0
1779	0.03	0.05	0.02	284,284,347	0.0	0.0	0,0,0
1780	0.03	0.05	0.02	284,284,347	0.0	0.0	0,0,0
1781	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
1782	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
1783	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
1784	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
1785	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
1786	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
1787	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
1788	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
1789	0.02	0.05	0.03	284,284,347	0.0	0.0	0,0,0
1790	0.07	0.14	0.03	292,315,350	0.0	0.0	0,0,0
1791	0.07	0.15	0.03	292,315,350	0.0	0.0	0,0,0
1792	0.07	0.15	0.03	292,315,350	0.0	0.0	0,0,0
1793	0.07	0.15	0.04	292,315,350	0.0	0.0	0,0,0
1794	0.07	0.15	0.04	292,315,348	0.0	0.0	0,0,0
1795	0.07	0.15	0.04	292,315,348	0.0	0.0	0,0,0
1796	0.07	0.15	0.04	292,315,348	0.0	0.0	0,0,0
1797	0.07	0.15	0.04	315,292,348	0.0	0.0	0,0,0
1798	0.07	0.14	0.04	315,292,348	0.0	0.0	0,0,0
1799	0.07	0.14	0.03	315,292,348	0.0	0.0	0,0,0
1800	0.06	0.13	0.03	315,292,348	0.0	0.0	0,0,0
1801	0.06	0.13	0.03	315,292,348	0.0	0.0	0,0,0
1802	0.06	0.12	0.03	323,292,348	0.0	0.0	0,0,0
1803	0.06	0.12	0.03	284,323,348	0.0	0.0	0,0,0
1804	0.05	0.11	0.03	292,323,348	0.0	0.0	0,0,0
1805	0.05	0.11	0.03	323,323,348	0.0	0.0	0,0,0
1806	0.05	0.10	0.03	323,284,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1807	0.05	0.10	0.03	323,292,348	0.0	0.0	0,0,0
1808	0.05	0.09	0.03	323,284,348	0.0	0.0	0,0,0
1809	0.04	0.09	0.03	323,323,348	0.0	0.0	0,0,0
1810	0.04	0.09	0.03	323,323,350	0.0	0.0	0,0,0
1811	0.04	0.08	0.03	284,323,350	0.0	0.0	0,0,0
1812	0.04	0.08	0.03	284,284,350	0.0	0.0	0,0,0
1813	0.04	0.08	0.03	284,284,347	0.0	0.0	0,0,0
1814	0.03	0.07	0.03	284,284,347	0.0	0.0	0,0,0
1815	0.03	0.07	0.03	284,284,347	0.0	0.0	0,0,0
1816	0.03	0.07	0.03	284,284,347	0.0	0.0	0,0,0
1817	0.03	0.06	0.03	284,284,347	0.0	0.0	0,0,0
1818	0.03	0.06	0.03	284,284,347	0.0	0.0	0,0,0
1819	0.03	0.06	0.03	284,284,347	0.0	0.0	0,0,0
1820	0.03	0.06	0.03	284,284,347	0.0	0.0	0,0,0
1821	0.03	0.06	0.03	284,284,347	0.0	0.0	0,0,0
1822	0.03	0.07	0.04	284,284,349	0.0	0.0	0,0,0
1823	0.11	0.24	0.05	292,315,350	0.0	0.0	0,0,0
1824	0.12	0.24	0.05	292,315,350	0.0	0.0	0,0,0
1825	0.12	0.25	0.05	292,315,350	0.0	0.0	0,0,0
1826	0.12	0.24	0.05	292,315,350	0.0	0.0	0,0,0
1827	0.11	0.24	0.05	292,315,350	0.0	0.0	0,0,0
1828	0.11	0.23	0.05	292,315,350	0.0	0.0	0,0,0
1829	0.11	0.23	0.05	292,315,350	0.0	0.0	0,0,0
1830	0.10	0.22	0.05	315,292,348	0.0	0.0	0,0,0
1831	0.10	0.21	0.05	315,292,348	0.0	0.0	0,0,0
1832	0.10	0.20	0.05	315,292,348	0.0	0.0	0,0,0
1833	0.09	0.19	0.05	315,292,348	0.0	0.0	0,0,0
1834	0.09	0.19	0.05	315,292,348	0.0	0.0	0,0,0
1835	0.08	0.18	0.05	315,292,348	0.0	0.0	0,0,0
1836	0.08	0.17	0.05	315,292,348	0.0	0.0	0,0,0
1837	0.08	0.16	0.05	315,284,348	0.0	0.0	0,0,0
1838	0.07	0.15	0.05	315,284,348	0.0	0.0	0,0,0
1839	0.07	0.15	0.05	284,323,348	0.0	0.0	0,0,0
1840	0.07	0.14	0.05	292,323,348	0.0	0.0	0,0,0
1841	0.06	0.13	0.05	284,315,348	0.0	0.0	0,0,0
1842	0.06	0.13	0.05	284,284,350	0.0	0.0	0,0,0
1843	0.06	0.12	0.05	284,292,350	0.0	0.0	0,0,0
1844	0.06	0.12	0.05	284,292,350	0.0	0.0	0,0,0
1845	0.05	0.11	0.05	284,292,347	0.0	0.0	0,0,0
1846	0.05	0.11	0.05	284,323,347	0.0	0.0	0,0,0
1847	0.05	0.10	0.05	284,323,347	0.0	0.0	0,0,0
1848	0.05	0.10	0.05	284,323,347	0.0	0.0	0,0,0
1849	0.05	0.10	0.05	284,323,347	0.0	0.0	0,0,0
1850	0.04	0.09	0.05	284,323,347	0.0	0.0	0,0,0
1851	0.04	0.09	0.05	284,323,347	0.0	0.0	0,0,0
1852	0.04	0.09	0.04	284,284,347	0.0	0.0	0,0,0
1853	0.04	0.08	0.05	284,284,347	0.0	0.0	0,0,0
1854	0.04	0.08	0.05	323,284,349	0.0	0.0	0,0,0
1855	0.04	0.09	0.05	323,292,349	0.0	0.0	0,0,0
1856	0.33	0.71	0.14	284,315,347	0.17	0.0	315,341,0
1857	0.26	0.58	0.12	292,315,350	0.14	0.0	315,341,0
1858	0.25	0.55	0.11	292,315,350	0.13	0.0	315,341,0
1859	0.24	0.52	0.11	292,315,350	0.12	0.0	315,341,0
1860	0.23	0.50	0.11	292,315,350	0.11	0.0	315,341,0
1861	0.22	0.48	0.10	292,315,350	0.11	0.0	315,341,0
1862	0.21	0.46	0.10	292,315,348	0.10	0.0	315,341,0
1863	0.20	0.44	0.10	315,315,348	0.10	0.0	315,341,0
1864	0.19	0.42	0.10	315,292,348	0.09	0.0	292,336,0
1865	0.18	0.40	0.10	315,292,348	0.09	0.0	292,336,0
1866	0.17	0.38	0.10	315,292,348	0.08	0.0	292,336,0
1867	0.17	0.36	0.10	315,292,348	0.0	0.0	292,0,0
1868	0.16	0.35	0.10	315,315,348	0.0	0.0	315,0,0
1869	0.15	0.33	0.10	315,315,348	0.0	0.0	284,0,0
1870	0.14	0.31	0.10	315,315,348	0.0	0.0	0,0,0
1871	0.14	0.29	0.10	323,315,348	0.0	0.0	0,0,0
1872	0.13	0.28	0.10	315,315,348	0.0	0.0	0,0,0
1873	0.12	0.26	0.10	315,323,348	0.0	0.0	0,0,0
1874	0.12	0.25	0.10	284,315,350	0.0	0.0	0,0,0
1875	0.11	0.24	0.10	292,284,350	0.0	0.0	0,0,0
1876	0.10	0.23	0.10	284,315,350	0.0	0.0	0,0,0
1877	0.10	0.22	0.10	284,323,350	0.0	0.0	0,0,0
1878	0.10	0.21	0.10	284,323,350	0.0	0.0	0,0,0
1879	0.09	0.20	0.10	284,323,350	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1880	0.09	0.20	0.09	284,323,350	0.0	0.0	0,0,0
1881	0.09	0.19	0.09	284,323,347	0.0	0.0	0,0,0
1882	0.09	0.19	0.09	284,323,347	0.0	0.0	0,0,0
1883	0.08	0.18	0.09	284,323,347	0.0	0.0	0,0,0
1884	0.08	0.18	0.09	284,284,347	0.0	0.0	0,0,0
1885	0.08	0.17	0.09	284,284,347	0.0	0.0	0,0,0
1886	0.08	0.16	0.09	284,284,347	0.0	0.0	0,0,0
1887	0.07	0.15	0.08	284,284,347	0.0	0.0	0,0,0
1888	0.06	0.13	0.07	323,284,349	0.0	0.0	0,0,0
1889	0.27	0.45	0.29	283,283,347	0.10	0.08	283,331,347
1890	0.31	0.52	0.33	283,283,347	0.12	0.10	283,331,347
1891	0.33	0.56	0.36	283,283,347	0.14	0.11	283,331,347
1892	0.34	0.59	0.38	283,283,347	0.15	0.12	283,331,347
1893	0.35	0.61	0.39	283,283,347	0.15	0.13	283,331,347
1894	0.36	0.62	0.40	283,283,347	0.15	0.13	283,331,347
1895	0.36	0.63	0.41	283,283,347	0.16	0.14	283,331,347
1896	0.37	0.63	0.42	283,283,347	0.16	0.14	283,331,347
1897	0.37	0.63	0.42	283,283,347	0.16	0.14	283,331,347
1898	0.37	0.63	0.43	285,285,347	0.16	0.14	285,333,347
1899	0.37	0.64	0.43	285,285,347	0.16	0.14	285,333,347
1900	0.38	0.64	0.43	285,285,347	0.16	0.14	285,333,347
1901	0.38	0.64	0.44	285,285,347	0.16	0.15	285,333,347
1902	0.38	0.65	0.44	285,285,347	0.16	0.15	285,333,347
1903	0.38	0.65	0.44	285,285,347	0.16	0.15	285,333,347
1904	0.38	0.65	0.44	285,285,347	0.17	0.15	285,333,347
1905	0.38	0.65	0.44	285,285,347	0.17	0.15	285,333,347
1906	0.38	0.66	0.44	285,285,347	0.17	0.15	285,333,347
1907	0.39	0.66	0.45	285,285,347	0.17	0.15	285,333,347
1908	0.39	0.66	0.45	285,285,347	0.17	0.15	285,333,347
1909	0.39	0.66	0.45	285,285,347	0.17	0.15	285,333,347
1910	0.39	0.67	0.45	285,284,347	0.17	0.15	284,332,347
1911	0.39	0.68	0.45	284,284,347	0.17	0.15	284,332,347
1912	0.40	0.69	0.46	284,284,347	0.17	0.15	284,332,347
1913	0.40	0.69	0.46	284,284,347	0.18	0.15	284,332,347
1914	0.41	0.71	0.47	284,284,347	0.18	0.16	284,332,347
1915	0.42	0.72	0.47	284,284,347	0.18	0.16	284,332,347
1916	0.43	0.74	0.48	284,284,347	0.19	0.16	284,332,347
1917	0.44	0.76	0.49	284,284,347	0.19	0.17	284,332,347
1918	0.45	0.78	0.50	284,284,347	0.20	0.17	284,332,347
1919	0.46	0.80	0.51	284,284,347	0.20	0.17	284,332,347
1920	0.47	0.80	0.51	284,284,347	0.20	0.17	284,332,347
1921	0.55	0.80	0.60	284,284,347	0.20	0.17	284,332,347
1922	0.26	0.40	0.29	283,283,347	0.09	0.08	283,331,347
1923	0.27	0.44	0.30	283,283,347	0.10	0.08	283,331,347
1924	0.28	0.47	0.32	283,283,347	0.11	0.09	283,331,347
1925	0.29	0.49	0.33	283,283,347	0.12	0.10	283,331,347
1926	0.30	0.51	0.34	283,283,347	0.12	0.11	283,331,347
1927	0.31	0.52	0.35	285,283,347	0.13	0.11	283,331,347
1928	0.31	0.53	0.36	285,285,347	0.13	0.11	285,333,347
1929	0.32	0.54	0.37	285,285,347	0.13	0.12	285,333,347
1930	0.32	0.54	0.37	285,285,347	0.13	0.12	285,333,347
1931	0.33	0.55	0.37	285,285,347	0.14	0.12	285,333,347
1932	0.33	0.56	0.38	285,285,347	0.14	0.12	285,333,347
1933	0.33	0.56	0.38	285,285,347	0.14	0.12	285,333,347
1934	0.33	0.56	0.38	285,285,347	0.14	0.12	285,333,347
1935	0.33	0.57	0.38	285,285,347	0.14	0.12	285,333,347
1936	0.34	0.57	0.39	285,285,347	0.14	0.12	285,333,347
1937	0.34	0.57	0.39	285,285,347	0.14	0.12	285,333,347
1938	0.34	0.57	0.39	285,285,347	0.14	0.13	285,333,347
1939	0.34	0.57	0.39	285,285,347	0.14	0.13	285,333,347
1940	0.34	0.58	0.39	285,285,347	0.14	0.13	285,333,347
1941	0.34	0.58	0.39	285,285,347	0.14	0.13	285,333,347
1942	0.34	0.58	0.39	285,285,347	0.14	0.13	285,333,347
1943	0.35	0.58	0.40	285,285,347	0.15	0.13	285,333,347
1944	0.35	0.59	0.40	285,284,347	0.15	0.13	284,332,347
1945	0.35	0.59	0.40	284,284,347	0.15	0.13	284,332,347
1946	0.35	0.60	0.40	284,284,347	0.15	0.13	284,332,347
1947	0.36	0.61	0.41	284,284,347	0.15	0.13	284,332,347
1948	0.36	0.62	0.41	284,284,347	0.15	0.13	284,332,347
1949	0.37	0.62	0.41	284,284,347	0.16	0.13	284,332,347
1950	0.37	0.63	0.42	284,284,347	0.16	0.14	284,332,347
1951	0.38	0.64	0.42	284,284,347	0.16	0.14	284,332,347
1952	0.39	0.66	0.43	284,284,347	0.16	0.14	284,332,347

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1953	0.42	0.70	0.46	284,284,347	0.18	0.15	284,332,347
1954	0.38	0.63	0.42	284,284,347	0.15	0.13	284,332,347
1955	0.24	0.38	0.27	283,283,347	0.08	0.07	283,331,347
1956	0.24	0.39	0.28	283,283,347	0.09	0.08	283,331,347
1957	0.25	0.40	0.28	285,285,347	0.09	0.08	285,333,347
1958	0.25	0.41	0.29	285,285,347	0.09	0.08	285,333,347
1959	0.26	0.43	0.30	285,285,347	0.10	0.09	285,333,347
1960	0.27	0.44	0.30	285,285,347	0.10	0.09	285,333,347
1961	0.27	0.45	0.31	285,285,347	0.11	0.09	285,333,347
1962	0.28	0.46	0.32	285,285,347	0.11	0.10	285,333,347
1963	0.28	0.47	0.32	285,285,347	0.11	0.10	285,333,347
1964	0.28	0.47	0.32	285,285,347	0.11	0.10	285,333,347
1965	0.29	0.48	0.33	285,285,347	0.11	0.10	285,333,347
1966	0.29	0.48	0.33	285,285,347	0.12	0.10	285,333,347
1967	0.29	0.48	0.33	285,285,347	0.12	0.10	285,333,347
1968	0.29	0.49	0.33	285,285,347	0.12	0.10	285,333,347
1969	0.29	0.49	0.33	285,285,347	0.12	0.10	285,333,347
1970	0.29	0.49	0.34	285,285,347	0.12	0.10	285,333,347
1971	0.30	0.49	0.34	285,285,347	0.12	0.10	285,333,347
1972	0.30	0.50	0.34	285,285,347	0.12	0.10	285,333,347
1973	0.30	0.50	0.34	285,285,347	0.12	0.10	285,333,347
1974	0.30	0.50	0.34	285,285,347	0.12	0.11	285,333,347
1975	0.30	0.50	0.34	285,285,347	0.12	0.11	285,333,347
1976	0.30	0.50	0.34	285,285,347	0.12	0.11	285,333,347
1977	0.30	0.50	0.34	285,285,347	0.12	0.11	285,333,347
1978	0.30	0.50	0.34	285,285,347	0.12	0.11	285,333,347
1979	0.30	0.51	0.35	285,284,347	0.12	0.11	284,332,347
1980	0.31	0.51	0.35	284,284,347	0.12	0.11	284,332,347
1981	0.31	0.51	0.35	284,284,347	0.12	0.11	284,332,347
1982	0.31	0.52	0.35	284,284,347	0.13	0.11	284,332,347
1983	0.31	0.52	0.35	284,284,347	0.13	0.11	284,332,347
1984	0.31	0.52	0.35	284,284,347	0.13	0.11	284,332,347
1985	0.32	0.53	0.35	284,284,347	0.13	0.11	284,332,347
1986	0.31	0.51	0.34	284,284,347	0.12	0.10	284,332,347
1987	0.30	0.49	0.33	284,284,347	0.11	0.09	284,332,347
1988	0.23	0.35	0.26	285,285,347	0.08	0.07	285,333,347
1989	0.23	0.36	0.26	285,285,347	0.08	0.07	285,333,347
1990	0.23	0.36	0.26	285,285,347	0.08	0.07	285,333,347
1991	0.23	0.36	0.26	285,285,347	0.08	0.07	285,333,347
1992	0.23	0.37	0.26	285,285,347	0.08	0.07	285,333,347
1993	0.23	0.38	0.26	285,285,347	0.08	0.07	285,333,347
1994	0.24	0.38	0.27	285,285,347	0.09	0.07	285,333,347
1995	0.24	0.39	0.27	285,285,347	0.09	0.08	285,333,347
1996	0.24	0.39	0.27	285,285,347	0.09	0.08	285,333,347
1997	0.25	0.40	0.28	285,285,347	0.09	0.08	285,333,347
1998	0.25	0.40	0.28	285,285,347	0.09	0.08	285,333,347
1999	0.25	0.41	0.28	285,285,347	0.09	0.08	285,333,347
2000	0.25	0.41	0.28	285,285,347	0.10	0.08	285,333,347
2001	0.25	0.41	0.28	285,285,347	0.10	0.08	285,333,347
2002	0.25	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2003	0.25	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2004	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2005	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2006	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2007	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2008	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2009	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2010	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2011	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2012	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2013	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2014	0.26	0.42	0.29	285,285,347	0.10	0.08	285,333,347
2015	0.26	0.42	0.29	285,284,347	0.10	0.08	285,333,347
2016	0.26	0.42	0.29	284,284,347	0.10	0.08	284,333,347
2017	0.26	0.42	0.28	284,284,347	0.09	0.08	284,332,347
2018	0.25	0.41	0.28	284,284,347	0.09	0.08	284,332,347
2019	0.25	0.40	0.27	284,284,347	0.09	0.07	284,332,347
2020	0.24	0.38	0.27	284,288,347	0.08	0.07	288,332,347
2021	0.21	0.32	0.24	285,285,347	0.07	0.06	285,333,347
2022	0.21	0.33	0.24	285,285,347	0.07	0.06	285,333,347
2023	0.21	0.32	0.23	285,285,347	0.07	0.06	285,333,347
2024	0.20	0.32	0.23	285,285,347	0.07	0.06	285,333,347
2025	0.20	0.32	0.23	285,285,347	0.07	0.06	285,333,347

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2026	0.20	0.32	0.23	285,285,347	0.07	0.06	285,333,347
2027	0.20	0.32	0.23	285,285,347	0.07	0.06	285,333,347
2028	0.21	0.33	0.23	285,285,347	0.07	0.06	285,333,347
2029	0.21	0.33	0.23	285,285,347	0.07	0.06	285,333,347
2030	0.21	0.33	0.23	285,285,347	0.07	0.06	285,333,347
2031	0.21	0.34	0.24	285,285,347	0.07	0.06	285,333,347
2032	0.21	0.34	0.24	285,285,347	0.08	0.06	285,333,347
2033	0.21	0.34	0.24	285,285,347	0.08	0.06	285,333,347
2034	0.21	0.35	0.24	285,285,347	0.08	0.06	285,333,347
2035	0.22	0.35	0.24	285,285,347	0.08	0.06	285,333,347
2036	0.22	0.35	0.24	285,289,347	0.08	0.06	289,333,347
2037	0.22	0.35	0.24	285,289,347	0.08	0.07	289,333,347
2038	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2039	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2040	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2041	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2042	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2043	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2044	0.22	0.35	0.24	289,289,347	0.08	0.07	289,333,347
2045	0.22	0.35	0.24	289,289,347	0.08	0.06	289,333,347
2046	0.22	0.35	0.24	289,289,347	0.08	0.06	289,333,347
2047	0.21	0.34	0.24	289,289,347	0.08	0.06	289,333,347
2048	0.21	0.34	0.23	289,289,347	0.07	0.06	289,333,347
2049	0.21	0.33	0.23	289,289,347	0.07	0.06	289,333,347
2050	0.21	0.33	0.23	288,289,347	0.07	0.06	289,333,347
2051	0.20	0.32	0.22	288,288,347	0.07	0.06	288,332,347
2052	0.20	0.31	0.22	288,288,347	0.06	0.05	288,332,347
2053	0.19	0.29	0.21	288,288,347	0.06	0.05	288,332,347
2054	0.29	0.64	0.32	285,285,347	0.19	0.16	285,333,347
2055	0.29	0.65	0.32	285,285,347	0.19	0.16	285,333,347
2056	0.28	0.63	0.31	285,285,347	0.18	0.15	285,333,347
2057	0.27	0.61	0.30	289,289,347	0.18	0.15	289,333,347
2058	0.27	0.61	0.30	289,289,347	0.18	0.14	289,333,347
2059	0.27	0.61	0.30	289,289,347	0.18	0.14	289,333,347
2060	0.27	0.62	0.29	289,289,347	0.18	0.14	289,333,347
2061	0.27	0.62	0.29	289,289,347	0.18	0.14	289,333,347
2062	0.27	0.63	0.29	289,289,347	0.19	0.14	289,333,347
2063	0.27	0.64	0.29	289,289,347	0.19	0.14	289,333,347
2064	0.27	0.65	0.30	289,289,347	0.19	0.16	289,333,347
2065	0.27	0.65	0.30	289,289,347	0.19	0.16	289,333,347
2066	0.27	0.66	0.30	289,289,347	0.20	0.16	289,333,347
2067	0.27	0.66	0.30	289,289,347	0.20	0.16	289,333,347
2068	0.28	0.67	0.30	289,289,347	0.20	0.16	289,333,347
2069	0.28	0.67	0.30	289,289,347	0.20	0.16	289,333,347
2070	0.28	0.68	0.30	289,289,347	0.20	0.16	289,333,347
2071	0.28	0.68	0.30	289,289,347	0.20	0.16	289,333,347
2072	0.28	0.68	0.30	289,289,347	0.20	0.17	289,333,347
2073	0.28	0.69	0.30	289,289,347	0.20	0.17	289,333,347
2074	0.28	0.69	0.30	289,289,347	0.20	0.17	289,333,347
2075	0.28	0.69	0.30	289,289,347	0.20	0.16	289,333,347
2076	0.27	0.69	0.30	289,289,347	0.20	0.16	289,333,347
2077	0.27	0.68	0.30	289,289,347	0.20	0.16	289,333,347
2078	0.27	0.68	0.30	289,289,347	0.20	0.16	289,333,347
2079	0.27	0.67	0.29	289,289,347	0.20	0.16	289,333,347
2080	0.27	0.66	0.29	289,289,347	0.19	0.14	289,333,347
2081	0.26	0.64	0.28	289,289,347	0.19	0.13	289,333,347
2082	0.26	0.61	0.28	289,289,347	0.18	0.13	289,333,347
2083	0.25	0.59	0.27	289,289,347	0.17	0.13	289,333,347
2084	0.24	0.56	0.26	289,289,347	0.15	0.12	289,333,347
2085	0.24	0.51	0.26	289,289,347	0.14	0.10	289,333,347
2086	0.23	0.48	0.25	289,289,347	0.13	0.10	288,333,347
2087	0.25	0.56	0.28	289,289,347	0.16	0.13	289,333,347
2088	0.25	0.56	0.27	289,289,347	0.16	0.13	289,333,347
2089	0.24	0.54	0.27	289,289,347	0.15	0.12	289,333,347
2090	0.24	0.52	0.26	289,289,347	0.14	0.11	289,333,347
2091	0.23	0.51	0.25	289,289,347	0.14	0.10	289,333,347
2092	0.23	0.50	0.25	289,289,347	0.13	0.10	289,333,347
2093	0.23	0.50	0.24	289,289,347	0.13	0.10	289,333,347
2094	0.22	0.50	0.24	289,289,347	0.13	0.09	289,333,347
2095	0.22	0.51	0.24	289,289,347	0.13	0.09	289,333,347
2096	0.22	0.51	0.24	289,289,347	0.13	0.09	289,333,347
2097	0.22	0.51	0.24	289,289,347	0.13	0.09	289,333,347
2098	0.22	0.52	0.24	289,289,347	0.13	0.09	289,333,347

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2099	0.22	0.52	0.24	289,289,347	0.13	0.09	289,333,347
2100	0.22	0.53	0.24	289,289,347	0.13	0.09	289,333,347
2101	0.23	0.53	0.24	289,289,347	0.13	0.0	289,333,0
2102	0.23	0.53	0.24	289,289,347	0.13	0.0	289,333,0
2103	0.23	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2104	0.23	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2105	0.23	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2106	0.22	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2107	0.22	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2108	0.22	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2109	0.22	0.54	0.24	289,289,347	0.13	0.0	289,333,0
2110	0.22	0.54	0.23	289,289,347	0.13	0.0	289,333,0
2111	0.22	0.53	0.23	289,289,347	0.12	0.0	289,333,0
2112	0.21	0.53	0.23	289,289,347	0.12	0.0	289,333,0
2113	0.21	0.51	0.22	289,289,347	0.12	0.0	289,333,0
2114	0.20	0.49	0.22	289,289,347	0.11	0.0	289,333,0
2115	0.20	0.47	0.21	289,289,347	0.10	0.0	289,333,0
2116	0.19	0.44	0.20	289,289,347	0.09	0.0	289,333,0
2117	0.19	0.41	0.20	289,289,347	0.0	0.0	289,0,0
2118	0.18	0.37	0.19	289,289,347	0.0	0.0	289,0,0
2119	0.17	0.35	0.18	289,289,347	0.0	0.0	0,0,0
2120	0.22	0.47	0.23	289,289,347	0.12	0.09	289,333,347
2121	0.21	0.48	0.23	289,289,347	0.13	0.0	289,333,0
2122	0.21	0.45	0.22	289,289,347	0.12	0.0	289,333,0
2123	0.20	0.43	0.21	289,289,347	0.10	0.0	289,333,0
2124	0.19	0.41	0.21	289,289,347	0.09	0.0	289,333,0
2125	0.19	0.40	0.20	289,289,347	0.09	0.0	289,333,0
2126	0.19	0.40	0.20	289,289,347	0.0	0.0	289,0,0
2127	0.18	0.40	0.19	289,289,347	0.0	0.0	289,0,0
2128	0.18	0.39	0.19	289,289,347	0.0	0.0	289,0,0
2129	0.18	0.39	0.19	289,289,347	0.0	0.0	289,0,0
2130	0.18	0.40	0.19	289,289,347	0.0	0.0	0,0,0
2131	0.18	0.40	0.19	289,289,347	0.0	0.0	0,0,0
2132	0.18	0.40	0.19	289,289,347	0.0	0.0	0,0,0
2133	0.18	0.40	0.19	289,289,347	0.0	0.0	0,0,0
2134	0.18	0.40	0.19	289,289,347	0.0	0.0	0,0,0
2135	0.18	0.41	0.19	289,289,347	0.0	0.0	0,0,0
2136	0.18	0.41	0.18	289,289,347	0.0	0.0	0,0,0
2137	0.18	0.41	0.18	289,289,347	0.0	0.0	0,0,0
2138	0.18	0.41	0.18	289,289,347	0.0	0.0	0,0,0
2139	0.18	0.41	0.18	289,289,347	0.0	0.0	0,0,0
2140	0.18	0.42	0.18	289,289,347	0.0	0.0	0,0,0
2141	0.17	0.41	0.18	289,289,347	0.0	0.0	0,0,0
2142	0.17	0.41	0.18	289,289,347	0.0	0.0	0,0,0
2143	0.17	0.41	0.17	289,289,347	0.0	0.0	0,0,0
2144	0.17	0.40	0.17	289,289,347	0.0	0.0	0,0,0
2145	0.16	0.39	0.17	289,289,347	0.0	0.0	0,0,0
2146	0.16	0.38	0.16	289,289,347	0.0	0.0	0,0,0
2147	0.15	0.36	0.16	289,289,347	0.0	0.0	0,0,0
2148	0.15	0.34	0.15	289,289,347	0.0	0.0	0,0,0
2149	0.14	0.31	0.14	289,289,347	0.0	0.0	0,0,0
2150	0.14	0.28	0.14	289,289,347	0.0	0.0	0,0,0
2151	0.13	0.25	0.13	289,289,347	0.0	0.0	0,0,0
2152	0.12	0.23	0.12	289,289,347	0.0	0.0	0,0,0
2153	0.18	0.39	0.19	289,289,347	0.0	0.0	289,0,0
2154	0.18	0.40	0.19	289,289,347	0.0	0.0	289,0,0
2155	0.17	0.37	0.18	289,289,347	0.0	0.0	0,0,0
2156	0.16	0.34	0.17	289,289,347	0.0	0.0	0,0,0
2157	0.16	0.32	0.16	289,289,347	0.0	0.0	0,0,0
2158	0.15	0.31	0.16	289,289,347	0.0	0.0	0,0,0
2159	0.15	0.30	0.15	289,289,347	0.0	0.0	0,0,0
2160	0.15	0.29	0.15	289,289,347	0.0	0.0	0,0,0
2161	0.14	0.29	0.14	289,289,347	0.0	0.0	0,0,0
2162	0.14	0.29	0.14	289,289,347	0.0	0.0	0,0,0
2163	0.14	0.29	0.14	289,289,347	0.0	0.0	0,0,0
2164	0.14	0.28	0.14	289,289,347	0.0	0.0	0,0,0
2165	0.14	0.28	0.14	289,289,347	0.0	0.0	0,0,0
2166	0.14	0.28	0.14	289,289,347	0.0	0.0	0,0,0
2167	0.14	0.28	0.13	289,289,347	0.0	0.0	0,0,0
2168	0.14	0.29	0.13	289,289,347	0.0	0.0	0,0,0
2169	0.13	0.29	0.13	289,289,347	0.0	0.0	0,0,0
2170	0.13	0.29	0.13	289,289,347	0.0	0.0	0,0,0
2171	0.13	0.30	0.13	289,289,347	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2172	0.13	0.30	0.13	289,289,347	0.0	0.0	0,0,0
2173	0.13	0.30	0.13	289,289,347	0.0	0.0	0,0,0
2174	0.13	0.30	0.13	289,289,347	0.0	0.0	0,0,0
2175	0.13	0.30	0.12	289,289,347	0.0	0.0	0,0,0
2176	0.12	0.29	0.12	289,289,347	0.0	0.0	0,0,0
2177	0.12	0.29	0.12	289,289,347	0.0	0.0	0,0,0
2178	0.12	0.28	0.11	289,289,347	0.0	0.0	0,0,0
2179	0.11	0.27	0.11	289,289,347	0.0	0.0	0,0,0
2180	0.11	0.25	0.10	289,289,347	0.0	0.0	0,0,0
2181	0.10	0.23	0.10	289,289,347	0.0	0.0	0,0,0
2182	0.10	0.20	0.09	289,289,347	0.0	0.0	0,0,0
2183	0.09	0.17	0.08	289,289,347	0.0	0.0	0,0,0
2184	0.08	0.14	0.07	289,289,347	0.0	0.0	0,0,0
2185	0.08	0.12	0.07	289,289,347	0.0	0.0	0,0,0
2186	0.15	0.31	0.15	289,289,347	0.0	0.0	0,0,0
2187	0.14	0.32	0.15	289,289,347	0.0	0.0	0,0,0
2188	0.14	0.29	0.14	289,289,347	0.0	0.0	0,0,0
2189	0.13	0.26	0.13	289,289,347	0.0	0.0	0,0,0
2190	0.12	0.24	0.12	289,289,347	0.0	0.0	0,0,0
2191	0.12	0.22	0.11	289,289,347	0.0	0.0	0,0,0
2192	0.11	0.21	0.11	289,289,347	0.0	0.0	0,0,0
2193	0.11	0.20	0.10	289,289,347	0.0	0.0	0,0,0
2194	0.11	0.19	0.10	289,289,347	0.0	0.0	0,0,0
2195	0.10	0.19	0.10	289,289,347	0.0	0.0	0,0,0
2196	0.10	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2197	0.10	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2198	0.10	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2199	0.10	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2200	0.10	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2201	0.09	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2202	0.09	0.18	0.08	289,289,347	0.0	0.0	0,0,0
2203	0.09	0.19	0.08	289,289,347	0.0	0.0	0,0,0
2204	0.09	0.19	0.08	289,289,347	0.0	0.0	0,0,0
2205	0.09	0.19	0.08	289,289,347	0.0	0.0	0,0,0
2206	0.09	0.19	0.08	289,289,347	0.0	0.0	0,0,0
2207	0.09	0.19	0.08	289,289,347	0.0	0.0	0,0,0
2208	0.08	0.20	0.07	289,289,347	0.0	0.0	0,0,0
2209	0.08	0.20	0.07	289,289,347	0.0	0.0	0,0,0
2210	0.08	0.19	0.07	289,289,347	0.0	0.0	0,0,0
2211	0.08	0.19	0.06	289,289,347	0.0	0.0	0,0,0
2212	0.07	0.18	0.06	289,289,347	0.0	0.0	0,0,0
2213	0.07	0.16	0.05	289,289,347	0.0	0.0	0,0,0
2214	0.06	0.14	0.05	289,289,347	0.0	0.0	0,0,0
2215	0.06	0.11	0.04	289,289,347	0.0	0.0	0,0,0
2216	0.05	0.10	0.03	314,314,347	0.0	0.0	0,0,0
2217	0.06	0.13	0.03	314,314,347	0.0	0.0	0,0,0
2218	0.07	0.13	0.03	314,314,348	0.0	0.0	0,0,0
2219	0.11	0.24	0.11	289,289,347	0.0	0.0	0,0,0
2220	0.11	0.24	0.11	289,289,347	0.0	0.0	0,0,0
2221	0.10	0.21	0.10	289,289,347	0.0	0.0	0,0,0
2222	0.09	0.18	0.09	289,289,347	0.0	0.0	0,0,0
2223	0.09	0.19	0.08	289,314,347	0.0	0.0	0,0,0
2224	0.09	0.20	0.07	314,314,347	0.0	0.0	0,0,0
2225	0.09	0.21	0.07	314,314,347	0.0	0.0	0,0,0
2226	0.09	0.20	0.06	314,314,347	0.0	0.0	0,0,0
2227	0.09	0.19	0.06	314,314,347	0.0	0.0	0,0,0
2228	0.09	0.18	0.06	314,314,347	0.0	0.0	0,0,0
2229	0.09	0.18	0.05	314,314,347	0.0	0.0	0,0,0
2230	0.09	0.16	0.05	314,314,347	0.0	0.0	0,0,0
2231	0.08	0.15	0.05	314,314,347	0.0	0.0	0,0,0
2232	0.08	0.14	0.05	314,314,347	0.0	0.0	0,0,0
2233	0.08	0.13	0.04	314,314,347	0.0	0.0	0,0,0
2234	0.08	0.12	0.04	314,314,347	0.0	0.0	0,0,0
2235	0.07	0.11	0.04	314,314,347	0.0	0.0	0,0,0
2236	0.07	0.10	0.04	314,314,347	0.0	0.0	0,0,0
2237	0.07	0.10	0.04	314,289,347	0.0	0.0	0,0,0
2238	0.06	0.11	0.04	314,289,347	0.0	0.0	0,0,0
2239	0.06	0.11	0.03	314,289,347	0.0	0.0	0,0,0
2240	0.06	0.11	0.03	314,289,347	0.0	0.0	0,0,0
2241	0.06	0.12	0.03	314,289,347	0.0	0.0	0,0,0
2242	0.06	0.12	0.03	314,289,347	0.0	0.0	0,0,0
2243	0.06	0.12	0.03	314,289,347	0.0	0.0	0,0,0
2244	0.06	0.11	0.03	314,289,347	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2245	0.07	0.10	0.03	314,289,347	0.0	0.0	0,0,0
2246	0.07	0.11	0.02	314,314,347	0.0	0.0	0,0,0
2247	0.07	0.13	0.03	314,314,348	0.0	0.0	0,0,0
2248	0.08	0.14	0.04	314,314,348	0.0	0.0	0,0,0
2249	0.08	0.17	0.04	314,314,348	0.0	0.0	0,0,0
2250	0.09	0.19	0.05	314,314,348	0.0	0.0	0,0,0
2251	0.09	0.19	0.06	314,314,348	0.0	0.0	0,0,0
2252	0.12	0.21	0.07	314,314,347	0.0	0.0	0,0,0
2253	0.12	0.22	0.07	314,314,347	0.0	0.0	0,0,0
2254	0.12	0.22	0.06	314,314,347	0.0	0.0	0,0,0
2255	0.13	0.25	0.05	314,314,347	0.0	0.0	0,0,0
2256	0.13	0.28	0.04	314,314,347	0.0	0.0	0,0,0
2257	0.13	0.29	0.03	314,314,347	0.0	0.0	0,0,0
2258	0.13	0.30	0.03	314,314,348	0.0	0.0	0,0,0
2259	0.13	0.30	0.03	314,314,348	0.0	0.0	0,0,0
2260	0.13	0.30	0.03	314,314,348	0.0	0.0	0,0,0
2261	0.13	0.29	0.02	314,314,348	0.0	0.0	0,0,0
2262	0.13	0.29	0.02	314,314,348	0.0	0.0	0,0,0
2263	0.12	0.27	0.02	314,314,348	0.0	0.0	0,0,0
2264	0.12	0.26	0.02	314,314,348	0.0	0.0	0,0,0
2265	0.12	0.24	0.02	314,314,348	0.0	0.0	0,0,0
2266	0.11	0.23	0.02	314,314,348	0.0	0.0	0,0,0
2267	0.11	0.22	0.03	314,314,348	0.0	0.0	0,0,0
2268	0.11	0.21	0.03	314,314,348	0.0	0.0	0,0,0
2269	0.10	0.20	0.03	314,314,348	0.0	0.0	0,0,0
2270	0.10	0.18	0.03	314,314,348	0.0	0.0	0,0,0
2271	0.10	0.17	0.03	314,314,348	0.0	0.0	0,0,0
2272	0.09	0.17	0.04	314,314,348	0.0	0.0	0,0,0
2273	0.09	0.16	0.04	314,314,348	0.0	0.0	0,0,0
2274	0.09	0.16	0.04	314,314,348	0.0	0.0	0,0,0
2275	0.09	0.16	0.04	314,314,348	0.0	0.0	0,0,0
2276	0.09	0.16	0.05	314,314,348	0.0	0.0	0,0,0
2277	0.09	0.17	0.05	314,314,348	0.0	0.0	0,0,0
2278	0.09	0.17	0.06	314,314,348	0.0	0.0	0,0,0
2279	0.10	0.18	0.06	314,314,348	0.0	0.0	0,0,0
2280	0.10	0.19	0.06	314,314,348	0.0	0.0	0,0,0
2281	0.10	0.21	0.07	314,314,348	0.0	0.0	0,0,0
2282	0.11	0.23	0.08	314,314,348	0.0	0.0	0,0,0
2283	0.11	0.24	0.08	314,314,348	0.0	0.0	0,0,0
2284	0.11	0.23	0.09	314,314,348	0.0	0.0	0,0,0
2285	0.15	0.30	0.04	314,314,347	0.0	0.0	0,0,0
2286	0.16	0.30	0.04	314,314,348	0.0	0.0	0,0,0
2287	0.16	0.31	0.04	314,314,348	0.0	0.0	0,0,0
2288	0.16	0.33	0.04	314,314,348	0.0	0.0	0,0,0
2289	0.16	0.36	0.04	314,314,348	0.0	0.0	0,0,0
2290	0.16	0.37	0.04	314,314,348	0.0	0.0	0,0,0
2291	0.16	0.38	0.04	314,314,348	0.0	0.0	0,0,0
2292	0.16	0.38	0.04	314,314,348	0.0	0.0	0,0,0
2293	0.16	0.38	0.05	314,314,348	0.0	0.0	0,0,0
2294	0.16	0.38	0.05	314,314,348	0.0	0.0	0,0,0
2295	0.16	0.38	0.05	314,314,348	0.0	0.0	0,0,0
2296	0.15	0.36	0.05	314,314,348	0.0	0.0	0,0,0
2297	0.15	0.35	0.06	314,314,348	0.0	0.0	0,0,0
2298	0.15	0.33	0.06	314,314,348	0.0	0.0	0,0,0
2299	0.14	0.32	0.06	314,314,348	0.0	0.0	0,0,0
2300	0.14	0.30	0.06	314,314,348	0.0	0.0	0,0,0
2301	0.13	0.29	0.06	314,314,348	0.0	0.0	0,0,0
2302	0.13	0.28	0.06	314,314,348	0.0	0.0	0,0,0
2303	0.13	0.26	0.07	314,314,348	0.0	0.0	0,0,0
2304	0.12	0.25	0.07	314,314,348	0.0	0.0	0,0,0
2305	0.12	0.24	0.07	314,314,348	0.0	0.0	0,0,0
2306	0.12	0.23	0.07	314,314,348	0.0	0.0	0,0,0
2307	0.12	0.23	0.07	314,314,348	0.0	0.0	0,0,0
2308	0.11	0.23	0.08	314,314,348	0.0	0.0	0,0,0
2309	0.11	0.23	0.08	314,314,348	0.0	0.0	0,0,0
2310	0.12	0.23	0.08	314,314,348	0.0	0.0	0,0,0
2311	0.12	0.23	0.09	314,314,348	0.0	0.0	0,0,0
2312	0.12	0.24	0.09	314,314,348	0.0	0.0	0,0,0
2313	0.12	0.25	0.09	314,314,348	0.0	0.0	0,0,0
2314	0.12	0.26	0.10	314,314,348	0.0	0.0	0,0,0
2315	0.13	0.27	0.10	314,314,348	0.0	0.0	0,0,0
2316	0.13	0.28	0.11	314,314,348	0.0	0.0	0,0,0
2317	0.13	0.27	0.11	314,314,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2318	0.18	0.36	0.05	314,314,348	0.0	0.0	314,0,0
2319	0.18	0.37	0.06	314,314,348	0.0	0.0	314,0,0
2320	0.18	0.38	0.06	314,314,348	0.0	0.0	314,0,0
2321	0.19	0.40	0.06	314,314,348	0.0	0.0	314,0,0
2322	0.19	0.42	0.06	314,314,348	0.0	0.0	314,0,0
2323	0.19	0.43	0.07	314,314,348	0.0	0.0	314,0,0
2324	0.19	0.44	0.07	314,314,348	0.0	0.0	314,0,0
2325	0.19	0.45	0.07	314,314,348	0.0	0.0	314,0,0
2326	0.18	0.45	0.08	314,314,348	0.0	0.0	314,0,0
2327	0.18	0.45	0.08	314,314,348	0.0	0.0	0,0,0
2328	0.18	0.44	0.08	314,314,348	0.0	0.0	0,0,0
2329	0.18	0.43	0.08	314,314,348	0.0	0.0	0,0,0
2330	0.17	0.42	0.09	314,314,348	0.0	0.0	0,0,0
2331	0.17	0.40	0.09	314,314,348	0.0	0.0	0,0,0
2332	0.17	0.39	0.09	314,314,348	0.0	0.0	0,0,0
2333	0.16	0.37	0.09	314,314,348	0.0	0.0	0,0,0
2334	0.16	0.36	0.09	314,314,348	0.0	0.0	0,0,0
2335	0.15	0.34	0.09	314,314,348	0.0	0.0	0,0,0
2336	0.15	0.33	0.09	314,314,348	0.0	0.0	0,0,0
2337	0.14	0.31	0.10	314,314,348	0.0	0.0	0,0,0
2338	0.14	0.30	0.10	314,314,348	0.0	0.0	0,0,0
2339	0.14	0.29	0.10	314,314,348	0.0	0.0	0,0,0
2340	0.14	0.29	0.10	314,314,348	0.0	0.0	0,0,0
2341	0.13	0.28	0.10	314,314,348	0.0	0.0	0,0,0
2342	0.13	0.28	0.11	314,314,348	0.0	0.0	0,0,0
2343	0.13	0.28	0.11	314,314,348	0.0	0.0	0,0,0
2344	0.13	0.28	0.11	314,314,348	0.0	0.0	0,0,0
2345	0.14	0.28	0.11	314,314,348	0.0	0.0	0,0,0
2346	0.14	0.29	0.12	314,314,348	0.0	0.0	0,0,0
2347	0.14	0.29	0.12	314,314,348	0.0	0.0	0,0,0
2348	0.14	0.30	0.12	314,314,348	0.0	0.0	0,0,0
2349	0.15	0.31	0.13	314,314,348	0.0	0.0	0,0,0
2350	0.14	0.30	0.13	314,314,348	0.0	0.0	0,0,0
2351	0.20	0.41	0.08	314,314,348	0.0	0.0	314,0,0
2352	0.20	0.42	0.08	314,314,348	0.0	0.0	314,0,0
2353	0.20	0.43	0.09	314,314,348	0.0	0.0	314,0,0
2354	0.20	0.45	0.09	314,314,348	0.0	0.0	314,0,0
2355	0.20	0.46	0.09	314,314,348	0.0	0.0	314,0,0
2356	0.20	0.47	0.09	314,314,348	0.0	0.0	314,0,0
2357	0.20	0.48	0.10	314,314,348	0.0	0.0	314,0,0
2358	0.20	0.49	0.10	314,314,348	0.0	0.0	314,0,0
2359	0.20	0.49	0.10	314,314,348	0.0	0.0	314,0,0
2360	0.20	0.49	0.10	314,314,348	0.0	0.0	314,0,0
2361	0.19	0.49	0.11	314,314,348	0.0	0.0	314,0,0
2362	0.19	0.48	0.11	314,314,348	0.0	0.0	314,0,0
2363	0.19	0.46	0.11	314,314,348	0.0	0.0	314,0,0
2364	0.18	0.45	0.11	314,314,348	0.0	0.0	0,0,0
2365	0.18	0.43	0.11	314,314,348	0.0	0.0	0,0,0
2366	0.18	0.42	0.11	314,314,348	0.0	0.0	0,0,0
2367	0.17	0.40	0.12	314,314,348	0.0	0.0	0,0,0
2368	0.17	0.39	0.12	314,314,348	0.0	0.0	0,0,0
2369	0.16	0.37	0.12	314,314,348	0.0	0.0	0,0,0
2370	0.16	0.36	0.12	314,314,348	0.0	0.0	0,0,0
2371	0.16	0.35	0.12	314,314,348	0.0	0.0	0,0,0
2372	0.15	0.34	0.12	314,314,348	0.0	0.0	0,0,0
2373	0.15	0.33	0.12	314,314,348	0.0	0.0	0,0,0
2374	0.15	0.32	0.12	314,314,348	0.0	0.0	0,0,0
2375	0.15	0.32	0.13	314,314,348	0.0	0.0	0,0,0
2376	0.15	0.32	0.13	314,314,348	0.0	0.0	0,0,0
2377	0.15	0.31	0.13	314,314,348	0.0	0.0	0,0,0
2378	0.15	0.31	0.13	314,314,348	0.0	0.0	0,0,0
2379	0.15	0.32	0.13	314,314,348	0.0	0.0	0,0,0
2380	0.15	0.32	0.14	314,314,348	0.0	0.0	0,0,0
2381	0.15	0.32	0.14	314,314,348	0.0	0.0	0,0,0
2382	0.15	0.33	0.14	314,314,348	0.0	0.0	0,0,0
2383	0.15	0.31	0.14	314,314,348	0.0	0.0	0,0,0
2384	0.21	0.43	0.11	314,314,348	0.0	0.0	314,0,0
2385	0.21	0.46	0.11	314,314,348	0.09	0.0	314,340,0
2386	0.21	0.46	0.11	314,314,348	0.0	0.0	314,0,0
2387	0.21	0.47	0.11	314,314,348	0.0	0.0	314,0,0
2388	0.21	0.48	0.11	314,314,348	0.0	0.0	314,0,0
2389	0.21	0.49	0.12	314,314,348	0.0	0.0	314,0,0
2390	0.21	0.50	0.12	314,314,348	0.0	0.0	314,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2391	0.21	0.51	0.12	314,314,348	0.0	0.0	314,0,0
2392	0.20	0.51	0.12	314,314,348	0.0	0.0	314,0,0
2393	0.20	0.51	0.13	314,314,348	0.0	0.0	314,0,0
2394	0.20	0.51	0.13	314,314,348	0.0	0.0	314,0,0
2395	0.20	0.50	0.13	314,314,348	0.0	0.0	314,0,0
2396	0.19	0.49	0.13	314,314,348	0.0	0.0	314,0,0
2397	0.19	0.47	0.13	314,314,348	0.0	0.0	314,0,0
2398	0.19	0.46	0.13	314,314,348	0.0	0.0	0,0,0
2399	0.18	0.45	0.13	314,314,348	0.0	0.0	0,0,0
2400	0.18	0.44	0.13	314,314,348	0.0	0.0	0,0,0
2401	0.18	0.42	0.14	314,314,348	0.0	0.0	0,0,0
2402	0.17	0.40	0.14	314,314,348	0.0	0.0	0,0,0
2403	0.17	0.39	0.14	314,314,348	0.0	0.0	0,0,0
2404	0.17	0.38	0.14	314,314,348	0.0	0.0	0,0,0
2405	0.16	0.37	0.14	314,314,348	0.0	0.0	0,0,0
2406	0.16	0.36	0.14	314,314,348	0.0	0.0	0,0,0
2407	0.16	0.35	0.14	314,314,348	0.0	0.0	0,0,0
2408	0.16	0.35	0.14	314,314,348	0.0	0.0	0,0,0
2409	0.16	0.34	0.14	314,314,348	0.0	0.0	0,0,0
2410	0.16	0.34	0.14	314,314,348	0.0	0.0	0,0,0
2411	0.16	0.34	0.14	314,314,348	0.0	0.0	0,0,0
2412	0.16	0.33	0.15	314,314,348	0.0	0.0	0,0,0
2413	0.16	0.33	0.15	314,314,348	0.0	0.0	0,0,0
2414	0.16	0.34	0.15	314,314,348	0.0	0.0	0,0,0
2415	0.16	0.34	0.15	314,314,348	0.0	0.0	0,0,0
2416	0.16	0.32	0.15	314,314,348	0.0	0.0	0,0,0
2417	0.21	0.43	0.13	314,314,348	0.09	0.0	314,340,0
2418	0.22	0.46	0.13	314,314,348	0.09	0.0	314,340,0
2419	0.21	0.47	0.13	314,314,348	0.09	0.0	314,340,0
2420	0.21	0.48	0.13	314,314,348	0.0	0.0	314,0,0
2421	0.21	0.48	0.13	314,314,348	0.0	0.0	314,0,0
2422	0.21	0.49	0.14	314,314,348	0.0	0.0	314,0,0
2423	0.21	0.50	0.14	314,314,348	0.0	0.0	314,0,0
2424	0.20	0.50	0.14	314,314,348	0.0	0.0	314,0,0
2425	0.20	0.51	0.14	314,314,348	0.0	0.0	314,0,0
2426	0.20	0.51	0.14	314,314,348	0.0	0.0	314,0,0
2427	0.20	0.50	0.14	314,314,348	0.0	0.0	314,0,0
2428	0.20	0.50	0.15	314,314,348	0.0	0.0	314,0,0
2429	0.19	0.49	0.15	314,314,348	0.0	0.0	314,0,0
2430	0.19	0.48	0.15	314,314,348	0.0	0.0	314,0,0
2431	0.19	0.47	0.15	314,314,348	0.0	0.0	314,0,0
2432	0.19	0.46	0.15	314,314,348	0.0	0.0	0,0,0
2433	0.18	0.45	0.15	314,314,348	0.0	0.0	0,0,0
2434	0.18	0.43	0.15	314,314,348	0.0	0.0	0,0,0
2435	0.18	0.42	0.15	314,314,348	0.0	0.0	0,0,0
2436	0.17	0.41	0.15	314,314,348	0.0	0.0	0,0,0
2437	0.17	0.40	0.15	314,314,348	0.0	0.0	0,0,0
2438	0.17	0.39	0.15	314,314,348	0.0	0.0	0,0,0
2439	0.17	0.38	0.15	314,314,348	0.0	0.0	0,0,0
2440	0.16	0.37	0.15	314,314,348	0.0	0.0	0,0,0
2441	0.16	0.37	0.15	314,314,348	0.0	0.0	0,0,0
2442	0.16	0.36	0.15	314,314,348	0.0	0.0	0,0,0
2443	0.16	0.35	0.15	314,314,348	0.0	0.0	0,0,0
2444	0.16	0.35	0.15	314,314,348	0.0	0.0	0,0,0
2445	0.16	0.34	0.15	314,314,348	0.0	0.0	0,0,0
2446	0.16	0.34	0.15	314,314,348	0.0	0.0	0,0,0
2447	0.16	0.34	0.15	314,314,348	0.0	0.0	0,0,0
2448	0.16	0.34	0.16	314,314,348	0.0	0.0	0,0,0
2449	0.16	0.32	0.15	314,314,348	0.0	0.0	0,0,0
2450	0.20	0.43	0.15	314,314,348	0.09	0.0	314,340,0
2451	0.21	0.46	0.15	314,314,348	0.09	0.0	314,340,0
2452	0.21	0.47	0.15	314,314,348	0.0	0.0	314,0,0
2453	0.20	0.47	0.15	314,314,348	0.0	0.0	314,0,0
2454	0.20	0.47	0.15	314,314,348	0.0	0.0	314,0,0
2455	0.20	0.47	0.15	314,314,348	0.0	0.0	314,0,0
2456	0.20	0.48	0.15	314,314,348	0.0	0.0	314,0,0
2457	0.20	0.48	0.15	314,314,348	0.0	0.0	314,0,0
2458	0.19	0.49	0.15	314,314,348	0.0	0.0	314,0,0
2459	0.19	0.49	0.16	314,314,348	0.0	0.0	314,0,0
2460	0.19	0.49	0.16	314,314,348	0.0	0.0	314,0,0
2461	0.19	0.48	0.16	314,314,348	0.0	0.0	314,0,0
2462	0.19	0.48	0.16	314,314,348	0.0	0.0	313,0,0
2463	0.19	0.47	0.16	314,314,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2464	0.18	0.46	0.16	314,314,348	0.0	0.0	0,0,0
2465	0.18	0.46	0.16	314,314,348	0.0	0.0	0,0,0
2466	0.18	0.45	0.16	314,314,348	0.0	0.0	0,0,0
2467	0.18	0.44	0.16	314,314,348	0.0	0.0	0,0,0
2468	0.18	0.42	0.16	314,314,348	0.0	0.0	0,0,0
2469	0.17	0.41	0.16	314,314,348	0.0	0.0	0,0,0
2470	0.17	0.40	0.16	314,314,348	0.0	0.0	0,0,0
2471	0.17	0.39	0.16	314,314,348	0.0	0.0	0,0,0
2472	0.17	0.39	0.16	314,314,348	0.0	0.0	0,0,0
2473	0.16	0.38	0.16	314,314,348	0.0	0.0	0,0,0
2474	0.16	0.37	0.16	314,314,348	0.0	0.0	0,0,0
2475	0.16	0.36	0.16	314,314,348	0.0	0.0	0,0,0
2476	0.16	0.36	0.16	314,314,348	0.0	0.0	0,0,0
2477	0.16	0.35	0.16	314,314,348	0.0	0.0	0,0,0
2478	0.16	0.34	0.15	314,314,348	0.0	0.0	0,0,0
2479	0.16	0.33	0.15	314,314,348	0.0	0.0	0,0,0
2480	0.16	0.33	0.15	314,314,348	0.0	0.0	0,0,0
2481	0.16	0.33	0.15	314,314,348	0.0	0.0	0,0,0
2482	0.15	0.31	0.15	314,314,348	0.0	0.0	0,0,0
2483	0.18	0.32	0.14	313,313,348	0.0	0.0	313,0,0
2484	0.18	0.36	0.14	313,314,348	0.06	0.0	314,339,0
2485	0.18	0.36	0.14	313,314,348	0.0	0.0	313,0,0
2486	0.18	0.37	0.14	313,314,348	0.0	0.0	313,0,0
2487	0.18	0.37	0.14	313,313,348	0.0	0.0	313,0,0
2488	0.18	0.38	0.14	313,313,348	0.0	0.0	313,0,0
2489	0.18	0.39	0.14	313,313,348	0.0	0.0	313,0,0
2490	0.17	0.39	0.14	313,313,348	0.0	0.0	313,0,0
2491	0.17	0.39	0.14	313,313,348	0.0	0.0	313,0,0
2492	0.17	0.39	0.14	313,313,348	0.0	0.0	313,0,0
2493	0.17	0.39	0.14	313,314,348	0.0	0.0	313,0,0
2494	0.17	0.39	0.14	313,314,348	0.0	0.0	313,0,0
2495	0.17	0.39	0.14	313,314,348	0.0	0.0	313,0,0
2496	0.16	0.38	0.14	313,314,348	0.0	0.0	0,0,0
2497	0.16	0.38	0.14	313,314,348	0.0	0.0	0,0,0
2498	0.16	0.37	0.14	313,314,348	0.0	0.0	0,0,0
2499	0.16	0.37	0.14	313,314,348	0.0	0.0	0,0,0
2500	0.15	0.36	0.14	313,314,348	0.0	0.0	0,0,0
2501	0.15	0.35	0.14	313,314,348	0.0	0.0	0,0,0
2502	0.15	0.35	0.14	314,314,348	0.0	0.0	0,0,0
2503	0.15	0.34	0.14	314,314,348	0.0	0.0	0,0,0
2504	0.15	0.33	0.14	314,314,348	0.0	0.0	0,0,0
2505	0.14	0.32	0.14	314,314,348	0.0	0.0	0,0,0
2506	0.14	0.31	0.14	314,314,348	0.0	0.0	0,0,0
2507	0.14	0.30	0.14	314,314,348	0.0	0.0	0,0,0
2508	0.14	0.29	0.14	314,314,348	0.0	0.0	0,0,0
2509	0.14	0.28	0.14	314,314,348	0.0	0.0	0,0,0
2510	0.13	0.27	0.13	314,314,348	0.0	0.0	0,0,0
2511	0.13	0.26	0.13	314,314,348	0.0	0.0	0,0,0
2512	0.13	0.26	0.13	314,314,348	0.0	0.0	0,0,0
2513	0.13	0.25	0.13	314,314,348	0.0	0.0	0,0,0
2514	0.13	0.24	0.13	314,314,348	0.0	0.0	0,0,0
2515	0.13	0.23	0.13	314,314,348	0.0	0.0	0,0,0
2516	0.18	0.33	0.15	313,313,348	0.07	0.0	313,339,0
2517	0.19	0.37	0.15	313,313,348	0.07	0.0	313,339,0
2518	0.19	0.37	0.15	313,313,348	0.07	0.0	313,339,0
2519	0.18	0.38	0.15	313,313,348	0.07	0.0	313,339,0
2520	0.18	0.39	0.15	313,313,348	0.0	0.0	313,0,0
2521	0.18	0.40	0.15	313,313,348	0.0	0.0	313,0,0
2522	0.18	0.40	0.15	313,313,348	0.0	0.0	313,0,0
2523	0.18	0.40	0.15	313,313,348	0.0	0.0	313,0,0
2524	0.17	0.40	0.15	313,313,348	0.0	0.0	313,0,0
2525	0.17	0.40	0.15	313,313,348	0.0	0.0	313,0,0
2526	0.17	0.40	0.15	313,313,348	0.0	0.0	313,0,0
2527	0.17	0.39	0.15	313,313,348	0.0	0.0	313,0,0
2528	0.17	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2529	0.16	0.37	0.15	313,313,348	0.0	0.0	0,0,0
2530	0.16	0.37	0.15	313,313,348	0.0	0.0	0,0,0
2531	0.16	0.36	0.14	313,313,348	0.0	0.0	0,0,0
2532	0.16	0.35	0.14	313,313,348	0.0	0.0	0,0,0
2533	0.15	0.34	0.14	313,313,348	0.0	0.0	0,0,0
2534	0.15	0.34	0.14	313,314,348	0.0	0.0	0,0,0
2535	0.15	0.33	0.14	313,314,348	0.0	0.0	0,0,0
2536	0.14	0.32	0.14	313,314,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2537	0.14	0.32	0.14	313,314,348	0.0	0.0	0,0,0
2538	0.14	0.31	0.14	313,314,348	0.0	0.0	0,0,0
2539	0.14	0.30	0.14	314,314,348	0.0	0.0	0,0,0
2540	0.13	0.29	0.14	314,314,348	0.0	0.0	0,0,0
2541	0.13	0.28	0.13	314,314,348	0.0	0.0	0,0,0
2542	0.13	0.27	0.13	313,314,348	0.0	0.0	0,0,0
2543	0.13	0.26	0.13	314,314,348	0.0	0.0	0,0,0
2544	0.13	0.25	0.13	314,314,348	0.0	0.0	0,0,0
2545	0.12	0.24	0.13	314,314,348	0.0	0.0	0,0,0
2546	0.12	0.23	0.12	314,315,348	0.0	0.0	0,0,0
2547	0.12	0.22	0.12	314,315,348	0.0	0.0	0,0,0
2548	0.12	0.21	0.12	314,315,348	0.0	0.0	0,0,0
2549	0.18	0.33	0.15	313,313,348	0.07	0.0	313,339,0
2550	0.19	0.37	0.16	313,313,348	0.07	0.0	313,339,0
2551	0.18	0.37	0.16	313,313,348	0.07	0.0	313,339,0
2552	0.18	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2553	0.18	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2554	0.17	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2555	0.17	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2556	0.17	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2557	0.17	0.38	0.15	313,313,348	0.0	0.0	313,0,0
2558	0.17	0.38	0.15	313,313,348	0.0	0.0	0,0,0
2559	0.16	0.38	0.15	313,313,348	0.0	0.0	0,0,0
2560	0.16	0.38	0.15	313,313,348	0.0	0.0	0,0,0
2561	0.16	0.37	0.14	313,313,348	0.0	0.0	0,0,0
2562	0.16	0.36	0.14	313,313,348	0.0	0.0	0,0,0
2563	0.15	0.36	0.14	313,313,348	0.0	0.0	0,0,0
2564	0.15	0.35	0.14	313,313,348	0.0	0.0	0,0,0
2565	0.15	0.34	0.14	313,313,348	0.0	0.0	0,0,0
2566	0.15	0.33	0.14	313,313,348	0.0	0.0	0,0,0
2567	0.14	0.32	0.14	313,313,348	0.0	0.0	0,0,0
2568	0.14	0.31	0.14	313,313,348	0.0	0.0	0,0,0
2569	0.14	0.30	0.14	313,314,348	0.0	0.0	0,0,0
2570	0.13	0.29	0.13	313,314,348	0.0	0.0	0,0,0
2571	0.13	0.29	0.13	313,314,348	0.0	0.0	0,0,0
2572	0.13	0.28	0.13	313,314,348	0.0	0.0	0,0,0
2573	0.13	0.27	0.13	313,314,348	0.0	0.0	0,0,0
2574	0.12	0.26	0.13	313,314,348	0.0	0.0	0,0,0
2575	0.12	0.26	0.12	313,315,348	0.0	0.0	0,0,0
2576	0.12	0.25	0.12	313,315,348	0.0	0.0	0,0,0
2577	0.12	0.24	0.12	314,315,348	0.0	0.0	0,0,0
2578	0.11	0.23	0.12	315,315,348	0.0	0.0	0,0,0
2579	0.11	0.21	0.11	315,315,348	0.0	0.0	0,0,0
2580	0.11	0.20	0.11	315,315,348	0.0	0.0	0,0,0
2581	0.11	0.20	0.11	315,315,348	0.0	0.0	0,0,0
2582	0.17	0.32	0.16	313,313,348	0.0	0.0	313,0,0
2583	0.17	0.35	0.16	313,313,348	0.0	0.0	313,0,0
2584	0.17	0.35	0.16	313,313,348	0.0	0.0	313,0,0
2585	0.16	0.35	0.16	313,313,348	0.0	0.0	0,0,0
2586	0.16	0.35	0.15	313,313,348	0.0	0.0	0,0,0
2587	0.16	0.35	0.15	313,313,348	0.0	0.0	0,0,0
2588	0.16	0.34	0.15	313,313,348	0.0	0.0	0,0,0
2589	0.15	0.34	0.15	313,313,348	0.0	0.0	0,0,0
2590	0.15	0.34	0.14	313,313,348	0.0	0.0	0,0,0
2591	0.15	0.34	0.14	313,313,348	0.0	0.0	0,0,0
2592	0.15	0.34	0.14	313,313,348	0.0	0.0	0,0,0
2593	0.15	0.34	0.14	313,313,348	0.0	0.0	0,0,0
2594	0.15	0.33	0.14	313,313,348	0.0	0.0	0,0,0
2595	0.14	0.33	0.14	313,313,348	0.0	0.0	0,0,0
2596	0.14	0.33	0.14	313,313,348	0.0	0.0	0,0,0
2597	0.14	0.32	0.14	313,313,348	0.0	0.0	0,0,0
2598	0.14	0.32	0.13	313,313,348	0.0	0.0	0,0,0
2599	0.13	0.31	0.13	313,313,348	0.0	0.0	0,0,0
2600	0.13	0.30	0.13	313,313,348	0.0	0.0	0,0,0
2601	0.13	0.29	0.13	313,313,348	0.0	0.0	0,0,0
2602	0.13	0.28	0.13	313,313,348	0.0	0.0	0,0,0
2603	0.12	0.27	0.12	313,313,348	0.0	0.0	0,0,0
2604	0.12	0.27	0.12	313,315,348	0.0	0.0	0,0,0
2605	0.12	0.26	0.12	313,315,348	0.0	0.0	0,0,0
2606	0.12	0.26	0.12	315,315,348	0.0	0.0	0,0,0
2607	0.11	0.25	0.12	315,315,348	0.0	0.0	0,0,0
2608	0.11	0.24	0.11	315,315,348	0.0	0.0	0,0,0
2609	0.11	0.23	0.11	315,315,348	0.0	0.0	0,0,0

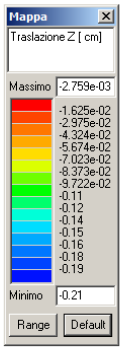
Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2610	0.11	0.22	0.11	315,315,348	0.0	0.0	0,0,0
2611	0.11	0.21	0.10	315,315,348	0.0	0.0	0,0,0
2612	0.10	0.19	0.10	315,315,348	0.0	0.0	0,0,0
2613	0.10	0.18	0.10	315,319,348	0.0	0.0	0,0,0
2614	0.10	0.17	0.09	315,319,348	0.0	0.0	0,0,0
2615	0.15	0.26	0.16	316,313,348	0.0	0.0	0,0,0
2616	0.16	0.27	0.16	316,313,348	0.0	0.0	0,0,0
2617	0.16	0.26	0.16	316,316,348	0.0	0.0	0,0,0
2618	0.15	0.26	0.15	316,316,348	0.0	0.0	0,0,0
2619	0.15	0.25	0.15	316,316,348	0.0	0.0	0,0,0
2620	0.14	0.25	0.15	316,316,348	0.0	0.0	0,0,0
2621	0.14	0.25	0.14	316,316,348	0.0	0.0	0,0,0
2622	0.14	0.24	0.14	316,316,348	0.0	0.0	0,0,0
2623	0.14	0.24	0.14	316,316,348	0.0	0.0	0,0,0
2624	0.13	0.24	0.14	316,316,348	0.0	0.0	0,0,0
2625	0.13	0.24	0.13	316,316,348	0.0	0.0	0,0,0
2626	0.13	0.23	0.13	316,316,348	0.0	0.0	0,0,0
2627	0.13	0.23	0.13	316,316,348	0.0	0.0	0,0,0
2628	0.13	0.23	0.13	316,316,348	0.0	0.0	0,0,0
2629	0.13	0.23	0.13	316,313,348	0.0	0.0	0,0,0
2630	0.12	0.22	0.12	316,313,348	0.0	0.0	0,0,0
2631	0.12	0.22	0.12	316,313,348	0.0	0.0	0,0,0
2632	0.12	0.22	0.12	316,313,348	0.0	0.0	0,0,0
2633	0.12	0.22	0.12	316,313,348	0.0	0.0	0,0,0
2634	0.12	0.21	0.12	316,316,348	0.0	0.0	0,0,0
2635	0.12	0.21	0.11	316,316,348	0.0	0.0	0,0,0
2636	0.11	0.21	0.11	316,315,348	0.0	0.0	0,0,0
2637	0.11	0.21	0.11	316,319,348	0.0	0.0	0,0,0
2638	0.11	0.20	0.11	316,319,348	0.0	0.0	0,0,0
2639	0.11	0.20	0.10	316,319,348	0.0	0.0	0,0,0
2640	0.10	0.20	0.10	320,319,348	0.0	0.0	0,0,0
2641	0.10	0.19	0.10	319,319,348	0.0	0.0	0,0,0
2642	0.10	0.19	0.09	319,319,348	0.0	0.0	0,0,0
2643	0.10	0.18	0.09	319,319,348	0.0	0.0	0,0,0
2644	0.09	0.17	0.08	319,319,348	0.0	0.0	0,0,0
2645	0.09	0.16	0.08	319,319,348	0.0	0.0	0,0,0
2646	0.09	0.15	0.07	319,319,348	0.0	0.0	0,0,0
2647	0.08	0.14	0.07	319,319,348	0.0	0.0	0,0,0
2648	0.16	0.25	0.16	316,320,348	0.0	0.0	0,0,0
2649	0.17	0.28	0.16	316,316,348	0.0	0.0	0,0,0
2650	0.16	0.26	0.15	316,316,348	0.0	0.0	0,0,0
2651	0.15	0.25	0.15	316,316,348	0.0	0.0	0,0,0
2652	0.15	0.25	0.14	316,316,348	0.0	0.0	0,0,0
2653	0.14	0.24	0.14	316,316,348	0.0	0.0	0,0,0
2654	0.14	0.24	0.13	316,316,348	0.0	0.0	0,0,0
2655	0.14	0.23	0.13	316,316,348	0.0	0.0	0,0,0
2656	0.13	0.23	0.13	316,320,348	0.0	0.0	0,0,0
2657	0.13	0.22	0.12	320,320,348	0.0	0.0	0,0,0
2658	0.13	0.22	0.12	320,320,348	0.0	0.0	0,0,0
2659	0.12	0.21	0.12	320,320,348	0.0	0.0	0,0,0
2660	0.12	0.21	0.12	320,320,348	0.0	0.0	0,0,0
2661	0.12	0.21	0.11	320,320,348	0.0	0.0	0,0,0
2662	0.12	0.20	0.11	320,320,348	0.0	0.0	0,0,0
2663	0.12	0.20	0.11	320,320,348	0.0	0.0	0,0,0
2664	0.12	0.20	0.11	320,320,348	0.0	0.0	0,0,0
2665	0.11	0.19	0.11	320,320,348	0.0	0.0	0,0,0
2666	0.11	0.19	0.10	320,320,348	0.0	0.0	0,0,0
2667	0.11	0.19	0.10	320,320,348	0.0	0.0	0,0,0
2668	0.11	0.18	0.10	320,320,348	0.0	0.0	0,0,0
2669	0.11	0.18	0.10	320,320,348	0.0	0.0	0,0,0
2670	0.10	0.17	0.09	320,320,348	0.0	0.0	0,0,0
2671	0.10	0.17	0.09	320,320,348	0.0	0.0	0,0,0
2672	0.10	0.17	0.09	320,319,348	0.0	0.0	0,0,0
2673	0.09	0.16	0.08	320,319,348	0.0	0.0	0,0,0
2674	0.09	0.16	0.08	320,319,348	0.0	0.0	0,0,0
2675	0.09	0.16	0.07	319,319,348	0.0	0.0	0,0,0
2676	0.08	0.15	0.07	319,319,348	0.0	0.0	0,0,0
2677	0.08	0.14	0.06	319,319,348	0.0	0.0	0,0,0
2678	0.08	0.13	0.06	319,319,348	0.0	0.0	0,0,0
2679	0.07	0.11	0.05	319,319,348	0.0	0.0	0,0,0
2680	0.06	0.10	0.04	319,319,348	0.0	0.0	0,0,0
2681	0.21	0.32	0.19	320,320,348	0.07	0.0	320,342,0
2682	0.16	0.26	0.14	320,320,348	0.0	0.0	0,0,0

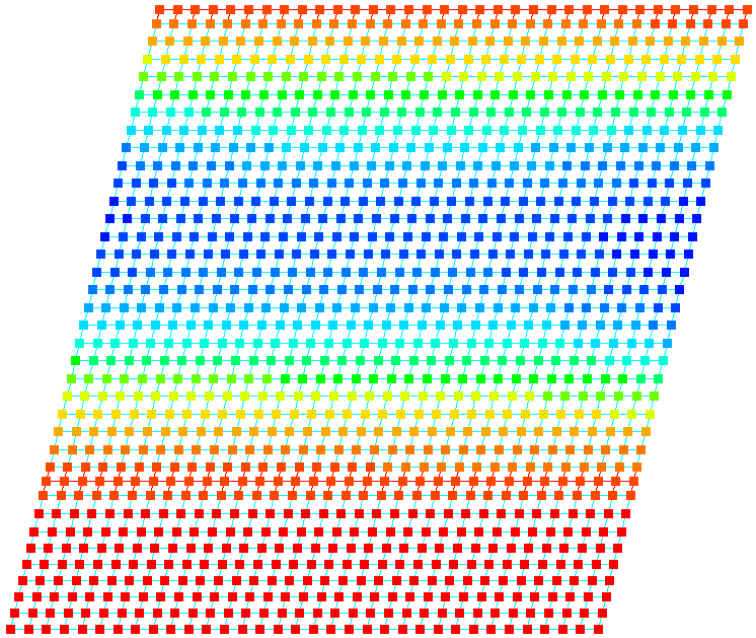
Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2683	0.16	0.26	0.14	320,320,348	0.0	0.0	0,0,0
2684	0.15	0.26	0.14	320,320,348	0.0	0.0	0,0,0
2685	0.14	0.25	0.13	320,320,348	0.0	0.0	0,0,0
2686	0.14	0.24	0.12	320,320,348	0.0	0.0	0,0,0
2687	0.13	0.23	0.12	320,320,348	0.0	0.0	0,0,0
2688	0.13	0.22	0.11	320,320,348	0.0	0.0	0,0,0
2689	0.12	0.21	0.11	320,320,348	0.0	0.0	0,0,0
2690	0.12	0.20	0.11	320,320,348	0.0	0.0	0,0,0
2691	0.12	0.20	0.10	320,320,348	0.0	0.0	0,0,0
2692	0.12	0.19	0.10	320,320,348	0.0	0.0	0,0,0
2693	0.11	0.19	0.10	320,320,348	0.0	0.0	0,0,0
2694	0.11	0.19	0.09	320,320,348	0.0	0.0	0,0,0
2695	0.11	0.18	0.09	320,320,348	0.0	0.0	0,0,0
2696	0.11	0.18	0.09	320,320,348	0.0	0.0	0,0,0
2697	0.10	0.18	0.09	320,320,348	0.0	0.0	0,0,0
2698	0.10	0.17	0.09	320,320,348	0.0	0.0	0,0,0
2699	0.10	0.17	0.08	320,320,348	0.0	0.0	0,0,0
2700	0.10	0.16	0.08	320,320,348	0.0	0.0	0,0,0
2701	0.10	0.16	0.08	320,320,348	0.0	0.0	0,0,0
2702	0.09	0.16	0.08	320,320,348	0.0	0.0	0,0,0
2703	0.09	0.15	0.07	320,320,348	0.0	0.0	0,0,0
2704	0.09	0.15	0.07	320,320,348	0.0	0.0	0,0,0
2705	0.09	0.14	0.07	320,320,348	0.0	0.0	0,0,0
2706	0.08	0.14	0.06	320,319,348	0.0	0.0	0,0,0
2707	0.08	0.13	0.06	320,319,348	0.0	0.0	0,0,0
2708	0.07	0.13	0.05	319,319,348	0.0	0.0	0,0,0
2709	0.07	0.12	0.05	319,319,348	0.0	0.0	0,0,0
2710	0.06	0.11	0.04	319,319,348	0.0	0.0	0,0,0
2711	0.06	0.09	0.03	319,319,348	0.0	0.0	0,0,0
2712	0.05	0.08	0.02	319,319,348	0.0	0.0	0,0,0
2713	0.04	0.05	0.01	319,319,348	0.0	0.0	0,0,0
3352	0.18	0.38	0.08	292,315,350	0.08	0.0	315,341,0
3353	0.19	0.41	0.08	292,315,350	0.09	0.0	315,341,0
3354	0.18	0.38	0.08	292,315,350	0.08	0.0	315,341,0
3355	0.17	0.37	0.08	292,315,350	0.0	0.0	315,0,0
3356	0.17	0.36	0.08	292,315,350	0.0	0.0	315,0,0
3357	0.16	0.35	0.08	292,315,350	0.0	0.0	315,0,0
3358	0.15	0.33	0.07	292,315,350	0.0	0.0	315,0,0
3359	0.15	0.32	0.07	315,315,348	0.0	0.0	315,0,0
3360	0.14	0.31	0.07	315,292,348	0.0	0.0	0,0,0
3361	0.14	0.29	0.07	315,292,348	0.0	0.0	0,0,0
3362	0.13	0.28	0.07	315,292,348	0.0	0.0	0,0,0
3363	0.12	0.27	0.07	315,292,348	0.0	0.0	0,0,0
3364	0.12	0.25	0.07	315,292,348	0.0	0.0	0,0,0
3365	0.11	0.24	0.07	315,315,348	0.0	0.0	0,0,0
3366	0.11	0.23	0.07	315,315,348	0.0	0.0	0,0,0
3367	0.10	0.22	0.07	315,315,348	0.0	0.0	0,0,0
3368	0.10	0.21	0.07	315,315,348	0.0	0.0	0,0,0
3369	0.09	0.20	0.07	315,323,348	0.0	0.0	0,0,0
3370	0.09	0.19	0.07	284,323,348	0.0	0.0	0,0,0
3371	0.08	0.18	0.07	292,315,350	0.0	0.0	0,0,0
3372	0.08	0.17	0.07	284,284,350	0.0	0.0	0,0,0
3373	0.08	0.16	0.07	284,292,350	0.0	0.0	0,0,0
3374	0.07	0.16	0.07	284,323,350	0.0	0.0	0,0,0
3375	0.07	0.15	0.07	284,323,350	0.0	0.0	0,0,0
3376	0.07	0.15	0.07	284,323,347	0.0	0.0	0,0,0
3377	0.07	0.14	0.07	284,323,347	0.0	0.0	0,0,0
3378	0.06	0.14	0.07	284,323,347	0.0	0.0	0,0,0
3379	0.06	0.14	0.07	284,323,347	0.0	0.0	0,0,0
3380	0.06	0.13	0.07	284,284,347	0.0	0.0	0,0,0
3381	0.06	0.13	0.06	284,284,347	0.0	0.0	0,0,0
3382	0.06	0.12	0.06	284,284,347	0.0	0.0	0,0,0
3383	0.05	0.11	0.06	284,284,349	0.0	0.0	0,0,0
3384	0.05	0.10	0.06	323,284,349	0.0	0.0	0,0,0

13.3 Deformazioni

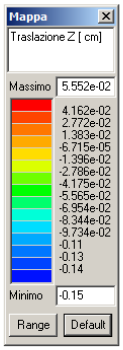
Si riportano le deformazioni (spostamenti verticali in cm) per i casi di carico più significativi e per la combinazione di carico rare più gravosa.

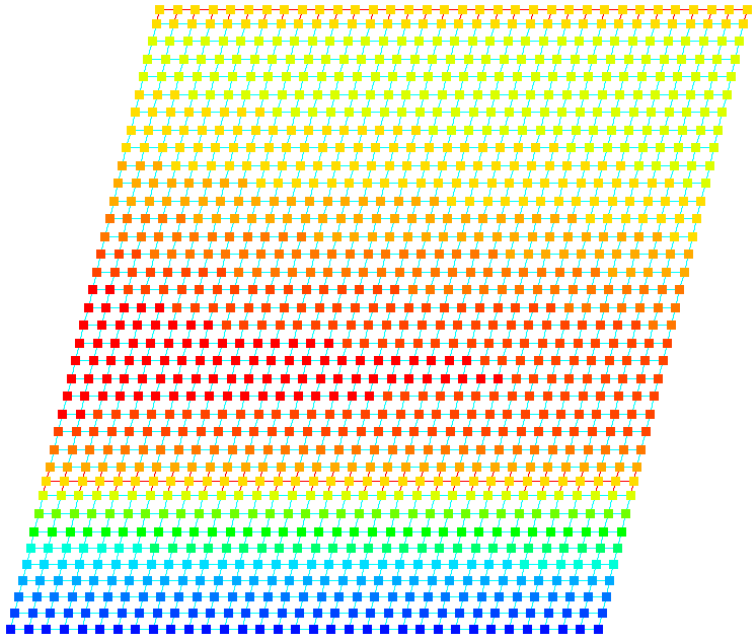
Peso proprio



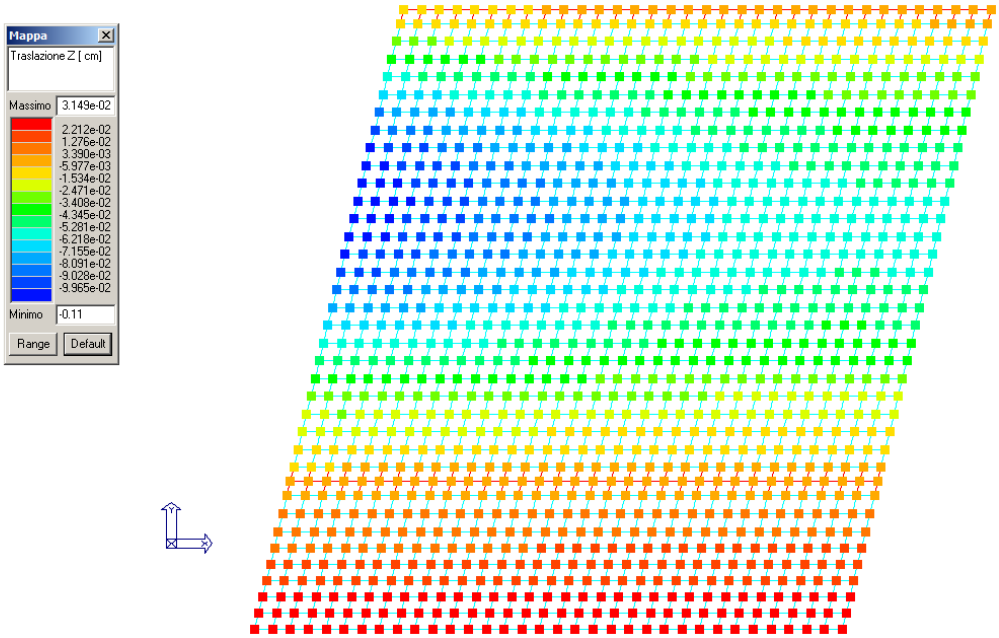


Permanente

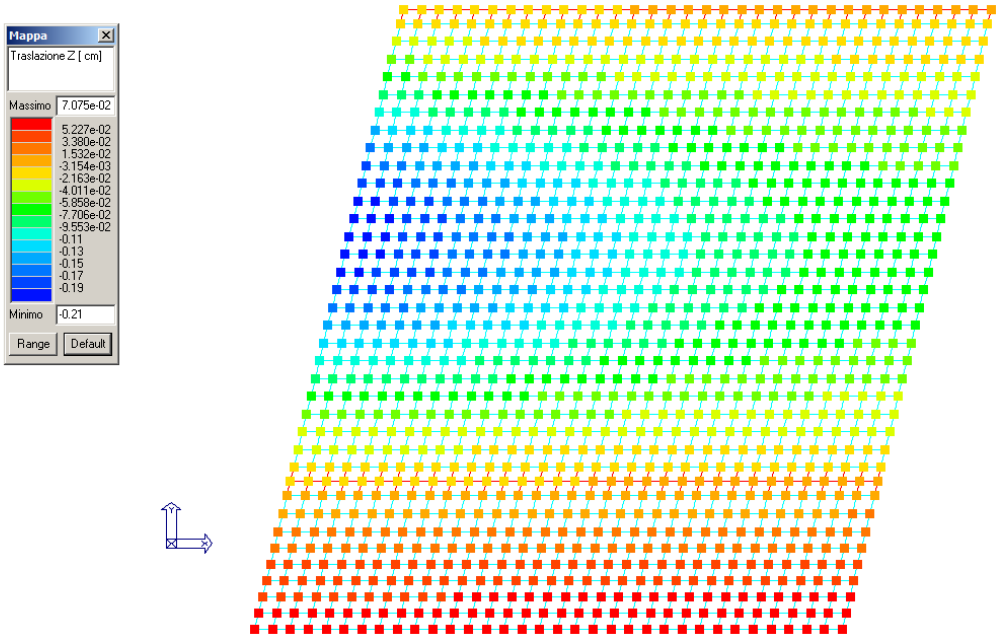




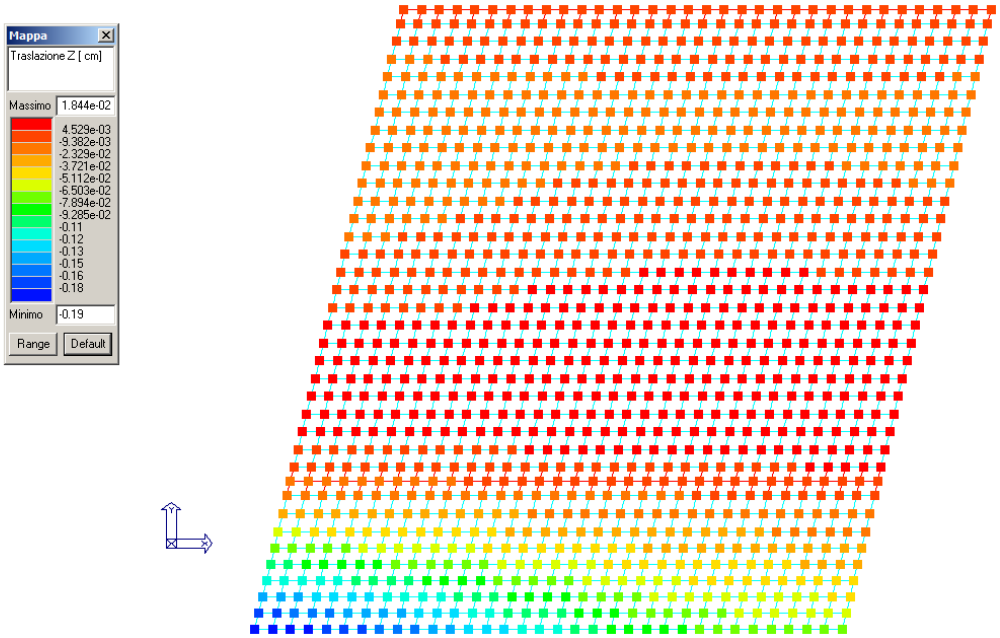
Carico mobile da traffico in posizione 1



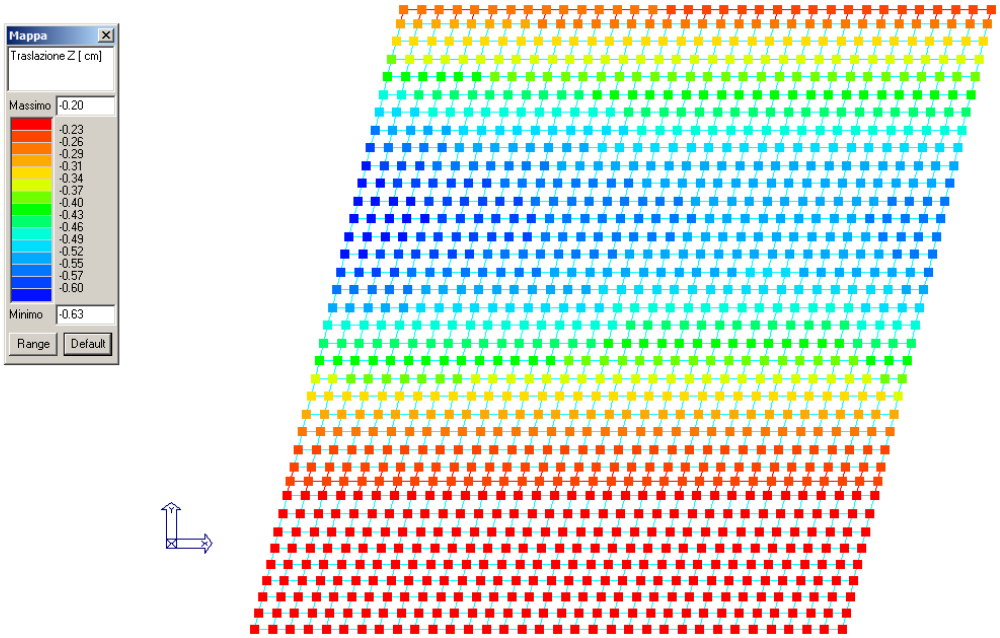
Carico mobile da traffico in posizione 2



Carico mobile da traffico in posizione 3

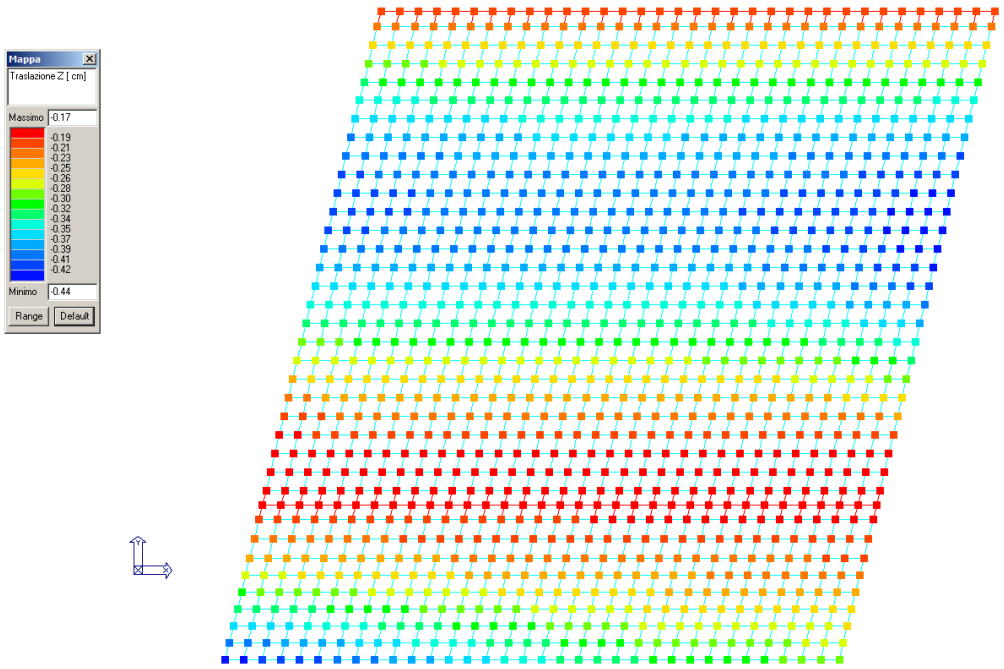


<u>Combinazione peggiore a SLE rara (SLEr39) in campata</u>



u_z=0.63cm=L/2095 (essendo L=1320); la deformazione risulta ampiamente inferiore ai limiti indicati nella Circolare alle NTC'08 (L/500 in combinazione quasi permanente).
Anche considerando il fluage, la deformazione rimane inferiore a L/500:
$u_{z\infty} = (u_z - u_{z,var})*(1+\phi)+ u_{z,var}$=(0.63-0.21)*(1+2.289)+0.21=1.59=L/829<L/500=2.64cm

<u>Combinazione peggiore a SLE rara (SLEr39) nello sbalzo</u>



u_z=0.44cm=2L/1691 (essendo L=372); la deformazione risulta ampiamente inferiore ai limiti indicati nella Circolare alle NTC'08 (2L/500 in combinazione quasi permanente).
Anche considerando il fluage, la deformazione rimane inferiore a L/500:
$u_{z\infty} = (u_z - u_{z,var})*(1+\phi)+ u_{z,var}$=(0.44-0.19)*(1+2.289)+0.19=1.01=2L/735<2L/500=1.49cm

13.4 Validazione risultati

Ai sensi del par. 10.2 del DM 14.01.2008, la correttezza delle risultanze da modello FEM è stata verificata adottando per l'impalcato uno schema di calcolo di trave incastrata su entrambi gli appoggi e considerando il carico da traffico pari ad un carico uniformemente distribuito di 20kN/mq.

VERIFICA DI UNA TRAVE IN C.A. A STATO LIMITE ULTIMO E DI ESERCIZIO (verifica trave rettangolare o a T) — 01/06/2018

TELT Torrazza Piemonte Cavalcavia: impalcato — Normativa di riferimento: Decreto 14/01/2008 Norme Tecniche

SEZIONE

Ala superiore	B		cm
Spessore ala superiore	h_s		cm
Base	b_u	100.0	cm
Altezza totale	H	80.0	cm
Copriferro armatura compressa	c'	6.0	cm
Copriferro armatura tesa	c	6.0	cm
Altezza utile	d	72.9	cm
Luce trave	L	13.60	m

MATERIALI

Acciaio	B450C	f_{yk}	450 N/mm²	γ_s	1.15	f_{yd}	391.3 N/mm²
		E_s	200000 N/mm²			e_{syd}	0.196%
					Tensione in comb.rare	$f_{yd;rare}$	360.0 N/mm²
Calcestruzzo	C32/40	f_{ck}	33 N/mm²	γ_c	1.50	f_{cd}	18.8 N/mm²
		R_{ck}	40 N/mm²	α_{cc}	0.85	f_{ctm}	3.0 N/mm²
		E_c	33300 N/mm²		Tensione in comb.rare	$f_{cd\ rare}$	19.9 N/mm²
					Tensione in comb.quasi permanenti	$f_{cd\ q.perm.}$	14.9 N/mm²
		Fluage	ϕ 1.70		Ritiro	ε_r	2 *10^-4

ANALISI DEI CARICHI

						SLU		SLE rare			SLE frequenti			SLE quasi perm
PERMANENTI		kN/m²		m										
Peso proprio					20.0 kN/m									
Solaio		6.10	x		kN/m									
Tot. pesi propri	γ_{G1} 1.35		x		20.0 kN/m	27.0 kN/m		20.0	20.0 kN/m		20.0	20.0 kN/m		20.0 kN/m
Permanenti portati		6.00	x	1.00	6.0 kN/m									
			x	1.00	kN/m									
			x	1.00	kN/m									
Murature di tamponamen			x		kN/m									
Tot. permanenti	γ_{G2} 1.35		x		6.0 kN/m	8.1 kN/m	ψ_0	6.0	6.0 kN/m	ψ_1	6.0	6.0 kN/m	ψ_2	6.0 kN/m
VARIABILI		20.00	x	1.00	20.0 kN/m		0.75	20.0	20.0	0.75	15.0	15.0		
			x	1.00	kN/m		0.40			0.40				
Tot. variabili	γ_Q 1.35		x		20.0 kN/m	27.0 kN/m		20.0	20.0 kN/m		15.0	15.0 kN/m		kN/m
CARICHI CONCENTRATI		kN/m²		m²										
PERMANENTI	γ_{G2} 1.30		x		kN	kN			kN			kN		kN
VARIABILI	γ_Q 1.50		x		kN	kN			kN	0.70		kN	0.60	kN

distanza del carico concentrato da un appoggio L_1 — m

VERIFICA A FLESSIONE

STATO LIMITE ULTIMO — Calcolo SLU

Momento di calcolo trave continua	M*		kNm		
Coefficiente per calcolo momento minimo	α	8			
Momento minimo	$M_{min}=P^*L_1^*(L-L_1)/L+ql^2/\alpha$	1435.75	kNm		
Momento di verifica	**Msd**	**1435.75**	kNm		
Momento resistente	**Mrd**	**1954.87**	kNm	verificato	1.36
Deformazioni Campo 2	ε_c	-3.02	ε_s	10.00	
	x	16.70	cm		

ARMATURE

	n°	ϕ[mm]	Area		n°	ϕ[mm]	Area
compresse	5	20	15.71	tese	10	24	45.24
					10	20	31.42
		Af'	15.71 cm²			Af	76.65 cm²
		γ = Af' / Af	0.20			Af/Ac	0.96%
		Diametro equivalente	22.2 mm			Af_{min}	12.63 cm²

VERIFICHE A STATO LIMITE IN ESERCIZIO

Caratteristiche sezione

Coefficiente di omogeneizzazione	n_o	15.0					
Sezione Interamente reagente — asse neutro	x	43.0 cm	Sezione parzializzata — asse neutro	x	29.7 cm		
momento di inerzia sezione	J_{int}	5582509 cm⁴	momento di inerzia sezione	J_i	3131486 cm⁴		
momento di prima fessurazione	M_{fess}	452.8 kNm	Altezza efficace calcestruzzo teso attorno alle armature	hc_{eff}	16.75 cm		
Tensione acciaio per sez.parzializzata alla fessurazione	σ_{sr}	93.6 N/mm²	Area efficace calcestruzzo teso attorno alle armature	Ac_{eff}	1675.1 cm²		
			Percentuale armatura rispetto area efficac	ρp_{eff}	0.0458		
Parametri fessurazione	k_1	0.80	k_2 0.50	k_3	3.400	k_4	0.425
Distanza fessure	s_{rmax}	286.40 mm					

	Combinazione RARA				Combinazione FREQUENTE				Combinazione QUASI PERMANENTE			
Momento di calcolo trave continua	M*		kNm		M*		kNm		M*		kNm	
Momento minimo	M_{min}	1063.52	kNm		M_{min}	947.92	kNm		M_{min}	601.12	kNm	
Momento di verifica	**M**	**1063.52**	kNm		**M**	**947.92**	kNm		**M**	**601.12**	kNm	
Calcestruzzo	σ_{cls}	10.1 N/mm²	verificato	1.97	σ_{cls}	9.0 N/mm²	verificato		σ_{cls}	5.7 N/mm²	verificato	2.62
Armatura	σ_f'	-116 N/mm²	verificato	3.11	σ_f'	-103 N/mm²	verificato		σ_f'	-66 N/mm²		
	σ_f	220 N/mm²	verificato	1.64	σ_f	196 N/mm²	verificato		σ_f	124 N/mm²		
Fessurazione	w_k	0.220 mm			w_k	0.186 mm			w_k	0.107 mm		
	$(\varepsilon_{sm}-\varepsilon_c)^*E_s$	153 N/mm²			$(\varepsilon_{sm}-\varepsilon_c)^*E_t$	130 N/mm²			$(\varepsilon_{sm}-\varepsilon_c)^*E_s$	75 N/mm²		

VERIFICA A TAGLIO (SLU)

Quota parte del carico distribuito sull'appoggio di verifica		60%
Distanza carico concentrato dall'appoggio	L_2	m
Taglio in asse appoggio di verifica	V_1	506.74 kN
Taglio in asse secondo appoggio	V_2	337.82 kN
Profondità appoggio	b	80 cm
Taglio al filo $V_{filo} = V_1-(V_1+V_2)/L^*(b/2)$		481.90 kN

Taglio di verifica a distanza "d" dal filo setto — V_{ed} 436.63 kN

VEd>VRd; è necessaria armatura specifica a taglio

armatura a taglio

Staffe 5 braccia ϕ 10 / 20 (Asw/s 1.96 mm²/mm)

+ staffe braccia ϕ / 20

armatura a taglio del tratto oltre la sezione — z_a 150 cm dal filo setto

Taglio nella sezione distante "z_a" dal filo pilas — V_{ed} 388.75 kN

ARMATURA LONGITUDINALE TESA

n°	ϕ[mm]	Area
10	24	45.24
10	20	31.42
	Af	76.65 cm²

Copriferro all'asse delle armature tese: c 7.1 cm

resistenza a taglio di elementi quali solai e piastre, privi di armatura trasversale

V_{Rd} 435.66 kN; pari a 6.0 kg/cm² — ρ_l = 0.011 ; k = 1.524

resistenza a taglio — cotg θ 2.5

V_{Rsd} 1260.24 kN — V_{Rcd} 2128.18 kN — verificato — 2.89

VEd<VRd; non è necessaria armatura specifica a taglio oltre la sezione za

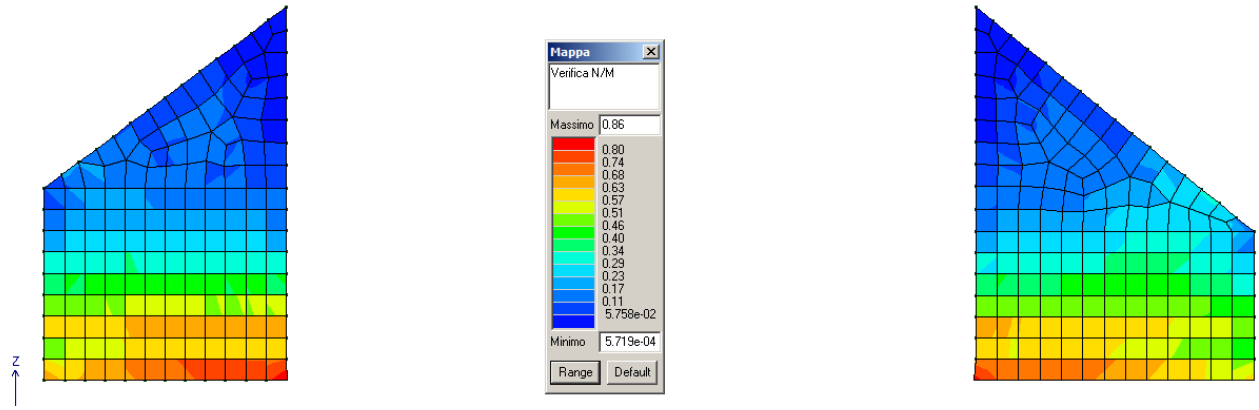
14 Verifica dei muri andatori

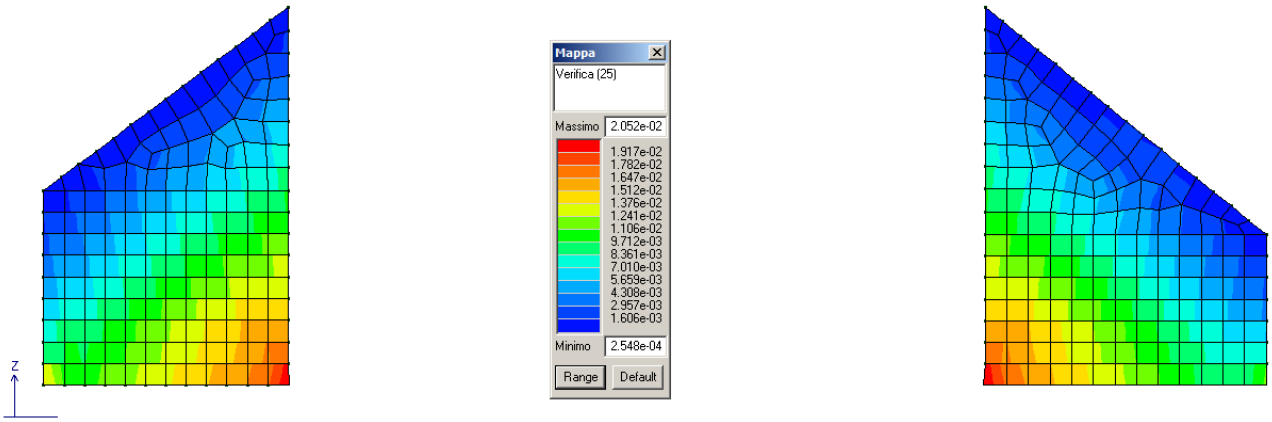
14.1 SLU

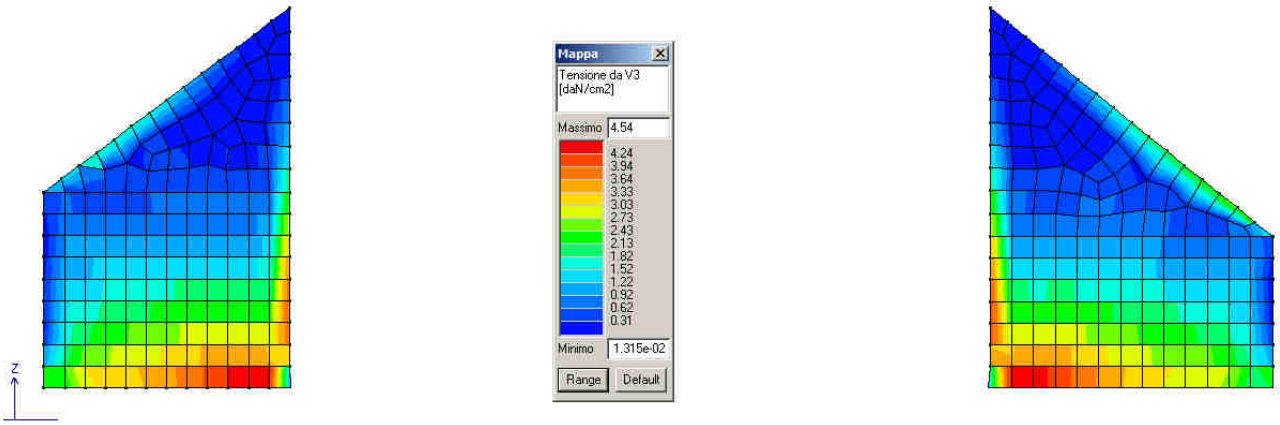
Si produce una tabella nella quale vengono riportati per ogni macroelemento il numero dello stesso ed il codice di verifica. Vengono riportati il rapporto x/d, la verifica per sollecitazioni ultime e la verifica per compressione media. Per ogni elemento viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso (diametri in mm, passi in cm). Le quantità di armature necessarie sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

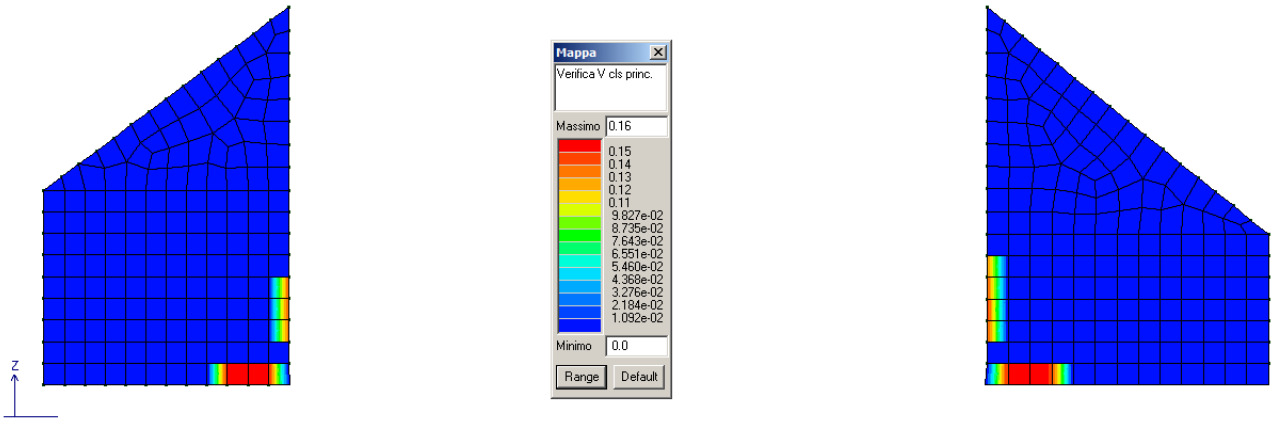
In particolare i simboli utilizzati assumono il seguente significato:

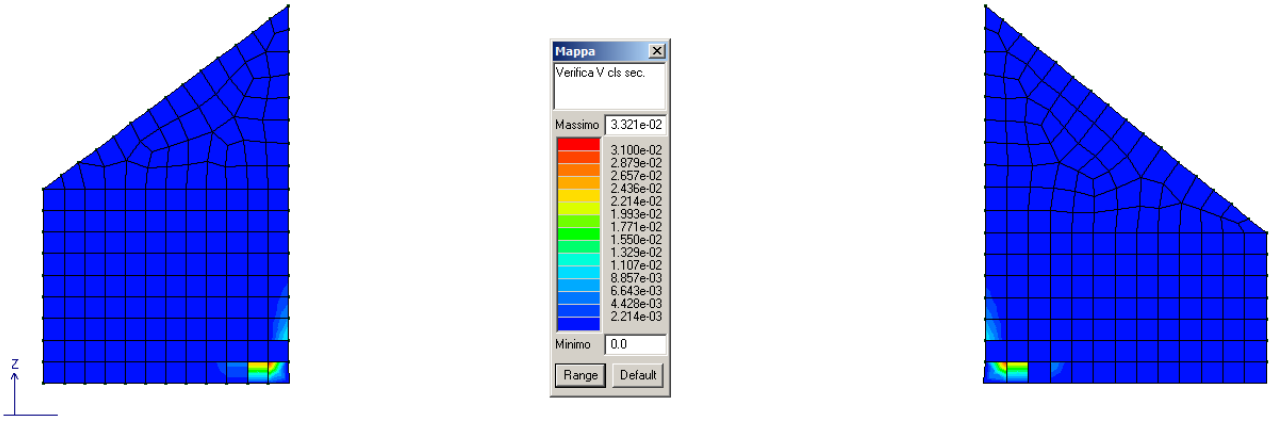
M_S		macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà)
Stato		codice di verifica dell'elemento
Nodo		numero del nodo
x/d		rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
verif.		rapporto Sd/Su con sollecitazioni ultime: valore minore o uguale a 1 per verifica positiva
Ver.rd		rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd): valore minore o uguale a 1 per verifica positiva
Af pr-		quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr+		quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	**Af sec+**	valori analoghi a quelli soprariportati ma relativi alla armatura secondaria
N	**M**	azioni membranali e flessionali (in direzione dell'armatura principale e secondaria) estratte, poiché rappresentative, tra quelle utilizzate per il progetto e la verifica


Mappa
Verifica N/M
Massimo 0.86
0.80
0.74
0.68
0.63
0.57
0.51
0.46
0.40
0.34
0.29
0.23
0.17
0.11
5.758e-02
Minimo 5.719e-04
Range
Default
Z


Mappa
Verifica (25)
Massimo 2.052e-02
1.917e-02
1.782e-02
1.647e-02
1.512e-02
1.376e-02
1.241e-02
1.106e-02
9.712e-03
8.361e-03
7.010e-03
5.659e-03
4.308e-03
2.957e-03
1.606e-03
Minimo 2.548e-04
Range
Default
Z


Mappa
Tensione da V3 [daN/cm2]
Massimo 4.54
4.24
3.94
3.64
3.33
3.03
2.73
2.43
2.13
1.82
1.52
1.22
0.92
0.62
0.31
Minimo 1.315e-02
Range
Default
Z


Mappa
Verifica V cls princ.
Massimo 0.16
0.15
0.14
0.13
0.12
0.11
9.827e-02
8.735e-02
7.643e-02
6.551e-02
5.460e-02
4.368e-02
3.276e-02
2.184e-02
1.092e-02
Minimo 0.0
Range
Default
Z



Muro andatore nord-est

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
11	80.00	4	3	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
917	ok	0.06	0.8	2.05e-02	31.4	31.4	6.0	6.0	-261.6	-53.0	-25.8	6.563e+04	1.319e+04	5823.8
1499	ok	0.06	0.7	1.76e-02	31.4	31.4	6.0	6.0	-223.7	-45.5	-25.8	6.678e+04	1.328e+04	1529.4
1501	ok	0.06	0.7	1.63e-02	31.4	31.4	6.0	6.0	-208.9	-42.0	-10.8	6.701e+04	1.332e+04	-54.3
1503	ok	0.06	0.7	1.54e-02	31.4	31.4	6.0	6.0	-197.0	-39.5	-6.0	6.587e+04	1.310e+04	-623.9
1505	ok	0.06	0.7	1.45e-02	31.4	31.4	6.0	6.0	-187.3	-36.5	-2.4	6.410e+04	1.274e+04	-858.1
1507	ok	0.06	0.7	1.37e-02	31.4	31.4	6.0	6.0	-176.4	-34.7	0.4	6.206e+04	1.234e+04	-950.8
1509	ok	0.06	0.7	1.28e-02	31.4	31.4	6.0	6.0	-165.7	-32.6	2.7	5.987e+04	1.192e+04	-989.4
1511	ok	0.06	0.7	1.20e-02	31.4	31.4	6.0	6.0	-154.3	-30.7	5.2	5.762e+04	1.149e+04	-977.5
1513	ok	0.06	0.6	1.12e-02	31.4	31.4	6.0	6.0	-143.5	-28.6	7.1	5.538e+04	1.104e+04	-977.1
1515	ok	0.06	0.6	1.03e-02	31.4	31.4	6.0	6.0	-132.6	-26.4	9.0	5.305e+04	1.059e+04	-1051.4
1517	ok	0.06	0.6	9.52e-03	31.4	31.4	6.0	6.0	-121.7	-24.2	10.9	5.046e+04	1.007e+04	-1290.4
1519	ok	0.06	0.6	8.79e-03	31.4	31.4	6.0	6.0	-111.4	-22.2	10.9	4.728e+04	9437.3	-1862.6
1521	ok	0.06	0.5	8.93e-03	31.4	31.4	6.0	6.0	-109.4	-21.8	21.6	3.142e+04	6273.8	-2295.8
1523	ok	0.06	0.6	1.15e-02	31.4	31.4	6.0	6.0	-144.7	-28.9	20.9	3.121e+04	6231.6	-4395.0
1525	ok	0.06	0.7	2.00e-02	31.4	31.4	6.0	6.0	-255.5	-11.4	-25.8	6.363e+04	2737.1	6479.6
1526	ok	0.06	0.7	1.71e-02	31.4	31.4	6.0	6.0	-219.7	-24.6	-17.4	6.585e+04	9312.5	1706.5
1527	ok	0.07	0.6	1.69e-02	31.4	31.4	6.0	6.0	-218.9	-5.7	-7.0	5.427e+04	2830.4	-707.0
1528	ok	0.07	0.6	1.66e-02	31.4	31.4	6.0	6.0	-213.2	-11.3	-12.2	5.396e+04	5768.5	-542.5
1529	ok	0.07	0.6	1.59e-02	22.6	22.6	6.0	6.0	-195.2	-2.4	-1.5	4.241e+04	1861.0	-1887.6
1530	ok	0.07	0.6	1.59e-02	22.6	22.6	6.0	6.0	-195.5	-6.0	-4.9	4.226e+04	3777.3	-2389.1
1531	ok	0.07	0.5	1.47e-02	22.6	22.6	6.0	6.0	-180.9	-1.9	0.3	3.236e+04	1322.6	-2667.3
1532	ok	0.07	0.5	1.46e-02	22.6	22.6	6.0	6.0	-179.0	-3.6	-1.0	3.227e+04	2381.2	-3461.3
1533	ok	0.07	0.4	1.38e-02	22.6	22.6	6.0	6.0	-169.0	-1.9	0.8	2.406e+04	906.3	-3018.1
1534	ok	0.07	0.4	1.34e-02	22.6	22.6	6.0	6.0	-164.3	-2.6	0.9	2.395e+04	1382.5	-4076.8
1535	ok	0.07	0.3	1.28e-02	22.6	22.6	6.0	6.0	-157.5	-2.0	0.9	1.732e+04	579.2	-3124.8
1536	ok	0.07	0.3	1.23e-02	22.6	22.6	6.0	6.0	-150.7	-2.2	1.6	1.722e+04	643.1	-4333.2
1537	ok	0.07	0.2	1.19e-02	22.6	22.6	6.0	6.0	-145.9	-2.1	0.9	1.198e+04	344.7	-3065.2
1538	ok	0.07	0.2	1.12e-02	22.6	22.6	6.0	6.0	-137.7	-2.1	1.8	1.189e+04	62.7	-4318.1
1539	ok	0.07	0.6	1.15e-02	22.6	22.6	6.0	6.0	-140.7	-15.0	0.8	3.750e+04	7260.0	-3512.8
1540	ok	0.07	0.5	1.05e-02	22.6	22.6	6.0	6.0	-128.4	-10.4	0.3	2.895e+04	5327.7	-4096.6
1541	ok	0.07	0.4	9.43e-03	22.6	22.6	6.0	6.0	-115.4	-7.0	0.1	2.201e+04	3675.9	-4441.9
1542	ok	0.07	0.3	8.32e-03	22.6	22.6	6.0	6.0	-101.9	-4.5	7.65e-02	1.652e+04	2274.7	-4596.4
1543	ok	0.07	0.3	7.18e-03	22.6	22.6	6.0	6.0	-88.0	-2.9	7.47e-02	1.231e+04	1129.3	-4588.5
1544	ok	0.07	0.4	4.77e-03	22.6	22.6	6.0	6.0	-56.4	-0.9	10.7	1.474e+04	1551.6	-3278.4
1545	ok	0.07	0.3	3.68e-03	22.6	22.6	6.0	6.0	-43.2	-0.4	9.0	1.117e+04	1167.6	-3441.6
1546	ok	0.07	0.3	2.63e-03	22.6	22.6	6.0	6.0	-30.7	-3.0	4.7	8388.5	1074.2	-3758.1
1547	ok	0.07	0.3	2.75e-03	22.6	22.6	6.0	6.0	-32.6	9.09e-02	6.0	1.067e+04	680.3	-3030.2
1548	ok	0.07	0.3	1.66e-03	22.6	22.6	6.0	6.0	-19.4	-2.3	1.5	7408.1	1330.4	-2901.8
1549	ok	0.07	0.2	1.64e-03	22.6	22.6	6.0	6.0	-19.9	5.20e-02	2.2	1.024e+04	415.6	-1638.4
1550	ok	0.07	0.2	5.31e-04	22.6	22.6	6.0	6.0	-6.1	0.3	1.5	4798.3	808.5	-2260.2
1551	ok	0.06	0.5	1.12e-02	31.4	31.4	6.0	6.0	-140.8	-9.6	20.9	3.020e+04	1176.1	-4477.1
1552	ok	0.06	0.6	9.44e-03	31.4	31.4	6.0	6.0	-120.8	-19.6	9.0	5.035e+04	9503.9	-2284.3
1553	ok	0.06	0.7	1.19e-02	31.4	31.4	6.0	6.0	-153.4	-25.9	5.2	5.762e+04	1.149e+04	-1843.0
1554	ok	0.07	0.6	1.10e-02	31.4	31.4	6.0	6.0	-141.7	-19.6	3.5	4.620e+04	9145.9	-2713.1
1555	ok	0.07	0.6	1.06e-02	22.6	22.6	6.0	6.0	-129.6	-14.2	2.1	3.643e+04	7060.6	-3653.8
1556	ok	0.07	0.5	9.57e-03	22.6	22.6	6.0	6.0	-117.1	-10.0	1.1	2.828e+04	5262.8	-4286.3
1557	ok	0.06	0.7	1.60e-02	31.4	31.4	6.0	6.0	-206.2	-28.5	-10.8	6.674e+04	1.196e+04	-494.5
1558	ok	0.07	0.6	1.53e-02	31.4	31.4	6.0	6.0	-197.6	-16.9	-9.3	5.247e+04	8233.1	-1262.3
1559	ok	0.07	0.6	1.52e-02	22.6	22.6	6.0	6.0	-186.3	-9.7	-5.6	4.097e+04	5446.0	-2269.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1560	ok	0.07	0.5	1.40e-02	22.6	22.6	6.0	6.0	-172.0	-5.9	-2.1	3.137e+04	3444.8	-3151.6
1561	ok	0.07	0.4	1.28e-02	22.6	22.6	6.0	6.0	-157.3	-3.8	0.2	2.345e+04	1954.7	-3729.1
1562	ok	0.07	0.3	1.17e-02	22.6	22.6	6.0	6.0	-143.1	-2.7	1.3	1.702e+04	825.6	-4024.0
1563	ok	0.07	0.2	1.05e-02	22.6	22.6	6.0	6.0	-128.8	-0.3	1.8	1.195e+04	74.4	-4107.5
1564	ok	0.07	0.4	8.50e-03	22.6	22.6	6.0	6.0	-104.0	-6.8	0.4	2.166e+04	3749.2	-4659.7
1565	ok	0.07	0.4	7.39e-03	22.6	22.6	6.0	6.0	-90.7	-4.3	-0.2	1.642e+04	2496.8	-4843.7
1566	ok	0.07	0.3	6.26e-03	22.6	22.6	6.0	6.0	-76.9	-2.7	-0.3	1.243e+04	1400.9	-4894.9
1567	ok	0.07	0.6	8.46e-03	31.4	31.4	6.0	6.0	-108.8	-13.4	6.7	4.078e+04	7184.2	-3171.3
1568	ok	0.07	0.6	7.85e-03	22.6	22.6	6.0	6.0	-96.1	-8.6	4.2	3.282e+04	5310.6	-4052.3
1569	ok	0.07	0.5	6.75e-03	22.6	22.6	6.0	6.0	-82.7	-5.3	1.9	2.612e+04	3906.6	-4509.6
1570	ok	0.07	0.4	5.61e-03	22.6	22.6	6.0	6.0	-68.6	-3.0	0.2	2.038e+04	2872.4	-4757.5
1571	ok	0.07	0.3	4.46e-03	22.6	22.6	6.0	6.0	-51.9	-1.0	10.8	1.150e+04	1523.0	-3662.0
1572	ok	0.07	0.3	3.46e-03	22.6	22.6	6.0	6.0	-40.3	-3.2	7.4	8869.3	1003.4	-3859.3
1573	ok	0.06	0.7	1.52e-02	31.4	31.4	6.0	6.0	-195.0	-29.6	-6.0	6.576e+04	1.259e+04	-1298.5
1574	ok	0.07	0.6	1.44e-02	31.4	31.4	6.0	6.0	-185.6	-19.9	-5.9	5.161e+04	9277.6	-1911.5
1575	ok	0.07	0.6	1.43e-02	22.6	22.6	6.0	6.0	-174.6	-12.7	-4.3	4.000e+04	6468.3	-2629.7
1576	ok	0.07	0.5	1.32e-02	22.6	22.6	6.0	6.0	-162.0	-7.9	-2.1	3.061e+04	4228.9	-3247.7
1577	ok	0.07	0.4	1.21e-02	22.6	22.6	6.0	6.0	-148.2	-5.1	-0.3	2.296e+04	2479.4	-3698.5
1578	ok	0.07	0.3	1.09e-02	22.6	22.6	6.0	6.0	-134.0	-3.3	0.9	1.680e+04	1113.4	-3951.4
1579	ok	0.07	0.2	9.78e-03	22.6	22.6	6.0	6.0	-120.0	-2.4	1.5	1.196e+04	58.5	-4015.3
1580	ok	0.07	0.5	7.34e-03	31.4	31.4	6.0	6.0	-94.0	-3.6	8.5	2.672e+04	948.5	-1944.9
1581	ok	0.07	0.5	5.66e-03	22.6	22.6	6.0	6.0	-69.2	-1.2	4.8	2.308e+04	773.7	-1653.9
1582	ok	0.07	0.4	4.16e-03	22.6	22.6	6.0	6.0	-50.9	-0.4	3.3	1.877e+04	644.6	-1479.7
1583	ok	0.06	0.7	1.11e-02	31.4	31.4	6.0	6.0	-142.5	-23.7	5.2	5.538e+04	1.104e+04	-1840.9
1584	ok	0.07	0.6	1.02e-02	31.4	31.4	6.0	6.0	-130.5	-17.4	3.5	4.452e+04	8809.5	-2740.0
1585	ok	0.07	0.6	9.68e-03	22.6	22.6	6.0	6.0	-118.2	-12.0	2.1	3.527e+04	6828.8	-3710.1
1586	ok	0.07	0.5	8.64e-03	22.6	22.6	6.0	6.0	-105.4	-7.7	1.1	2.755e+04	5116.9	-4359.3
1587	ok	0.07	0.4	7.55e-03	22.6	22.6	6.0	6.0	-92.1	-4.4	0.4	2.124e+04	3666.7	-4741.4
1588	ok	0.07	0.4	6.43e-03	22.6	22.6	6.0	6.0	-79.0	-4.1	-0.5	1.622e+04	2410.6	-4999.0
1589	ok	0.06	0.7	1.44e-02	31.4	31.4	6.0	6.0	-185.7	-28.7	-2.4	6.406e+04	1.252e+04	-1646.0
1590	ok	0.07	0.6	1.36e-02	31.4	31.4	6.0	6.0	-174.4	-21.1	-3.0	5.052e+04	9558.0	-2298.7
1591	ok	0.07	0.6	1.33e-02	22.6	22.6	6.0	6.0	-163.3	-14.4	-2.5	3.923e+04	6947.5	-3019.1
1592	ok	0.07	0.5	1.23e-02	22.6	22.6	6.0	6.0	-151.0	-9.5	-1.5	3.003e+04	4739.3	-3542.5
1593	ok	0.07	0.4	1.12e-02	22.6	22.6	6.0	6.0	-137.7	-6.1	-0.4	2.259e+04	2922.4	-3896.2
1594	ok	0.07	0.3	1.01e-02	22.6	22.6	6.0	6.0	-123.9	-4.0	0.5	1.664e+04	1462.5	-4084.2
1595	ok	0.07	0.2	8.95e-03	22.6	22.6	6.0	6.0	-109.8	-2.4	1.0	1.196e+04	258.7	-4101.2
1596	ok	0.07	0.3	5.28e-03	22.6	22.6	6.0	6.0	-64.3	-0.2	-0.3	1.234e+04	1384.0	-5024.0
1597	ok	0.07	0.3	2.85e-03	22.6	22.6	6.0	6.0	-34.8	-2.22e-02	2.6	1.458e+04	560.1	-1408.5
1598	ok	0.06	0.5	8.80e-03	31.4	31.4	6.0	6.0	-108.1	-15.4	21.6	3.098e+04	4051.6	-3605.5
1599	ok	0.07	0.5	7.93e-03	31.4	31.4	6.0	6.0	-98.5	-7.2	18.2	2.786e+04	2508.3	-3196.1
1600	ok	0.07	0.5	6.67e-03	22.6	22.6	6.0	6.0	-79.7	-3.3	12.6	2.328e+04	1752.3	-2947.7
1601	ok	0.07	0.4	5.21e-03	22.6	22.6	6.0	6.0	-62.5	-1.2	9.3	1.884e+04	1265.9	-2831.6
1602	ok	0.07	0.4	3.92e-03	22.6	22.6	6.0	6.0	-46.9	-0.2	7.3	1.460e+04	950.3	-2802.0
1603	ok	0.06	0.6	8.66e-03	31.4	31.4	6.0	6.0	-110.3	-16.9	10.9	4.700e+04	8061.0	-3088.2
1604	ok	0.07	0.5	7.69e-03	31.4	31.4	6.0	6.0	-98.2	-10.3	8.0	3.879e+04	5654.4	-3720.1
1605	ok	0.06	0.7	1.36e-02	31.4	31.4	6.0	6.0	-175.2	-28.2	0.4	6.204e+04	1.226e+04	-1795.4
1606	ok	0.07	0.6	1.27e-02	31.4	31.4	6.0	6.0	-164.3	-20.6	-0.6	4.922e+04	9563.0	-2526.8
1607	ok	0.07	0.6	1.24e-02	22.6	22.6	6.0	6.0	-152.5	-14.7	-0.8	3.842e+04	7169.5	-3314.2
1608	ok	0.07	0.5	1.14e-02	22.6	22.6	6.0	6.0	-139.7	-10.3	-0.6	2.951e+04	5099.6	-3845.3
1609	ok	0.07	0.4	1.03e-02	22.6	22.6	6.0	6.0	-126.7	-6.8	-0.2	2.230e+04	3336.4	-4173.2
1610	ok	0.07	0.3	9.22e-03	22.6	22.6	6.0	6.0	-113.0	-4.4	0.2	1.656e+04	1870.2	-4319.2
1611	ok	0.07	0.3	8.07e-03	22.6	22.6	6.0	6.0	-98.9	-2.7	0.5	1.207e+04	672.7	-4289.0
1612	ok	0.07	0.5	7.09e-03	22.6	22.6	6.0	6.0	-85.2	-5.9	4.6	3.197e+04	3957.0	-4238.2
1613	ok	0.06	0.6	1.03e-02	31.4	31.4	6.0	6.0	-131.6	-21.8	7.1	5.302e+04	1.041e+04	-1941.9
1614	ok	0.07	0.6	9.29e-03	31.4	31.4	6.0	6.0	-119.6	-15.7	5.1	4.270e+04	8175.1	-2875.0
1615	ok	0.07	0.6	8.76e-03	22.6	22.6	6.0	6.0	-107.2	-10.6	3.3	3.402e+04	6257.4	-3856.0
1616	ok	0.07	0.5	7.69e-03	22.6	22.6	6.0	6.0	-94.1	-6.7	1.6	2.679e+04	4680.9	-4473.0
1617	ok	0.07	0.4	6.59e-03	22.6	22.6	6.0	6.0	-80.5	-3.8	0.4	2.080e+04	3410.7	-4828.5
1618	ok	0.07	0.4	5.46e-03	22.6	22.6	6.0	6.0	-66.6	-1.6	-0.5	1.600e+04	2366.5	-5034.6
1619	ok	0.07	0.3	4.33e-03	22.6	22.6	6.0	6.0	-33.6	2.7	-1.5	9761.4	1058.0	-5228.3
1620	ok	0.07	0.5	5.92e-03	22.6	22.6	6.0	6.0	-70.0	-2.6	13.0	1.891e+04	2102.1	-3209.5
1621	ok	0.06	0.7	1.27e-02	31.4	31.4	6.0	6.0	-164.4	-27.2	2.8	5.987e+04	1.194e+04	-1849.1
1622	ok	0.07	0.6	1.19e-02	31.4	31.4	6.0	6.0	-152.5	-20.7	1.6	4.779e+04	9468.1	-2643.4
1623	ok	0.07	5.72e-04	4.98e-04	22.6	22.6	6.0	6.0	-6.1	9.83e-02	-7.95e-03	-9.9	-1.2	3.1
1624	ok	0.07	0.2	1.09e-02	22.6	22.6	6.0	6.0	-133.7	-2.2	0.8	7762.6	132.9	-2857.2
1625	ok	0.07	0.1	9.84e-03	22.6	22.6	6.0	6.0	-120.8	-2.4	0.6	4603.1	-2.3	-2588.2
1626	ok	0.07	8.83e-02	8.75e-03	22.6	22.6	6.0	6.0	-107.3	-2.4	0.4	2387.2	-184.3	-2219.3
1627	ok	0.07	5.92e-02	7.63e-03	22.6	22.6	6.0	6.0	-93.6	-2.3	0.2	933.0	-334.4	-1772.1
1628	ok	0.07	4.93e-02	6.48e-03	22.6	22.6	6.0	6.0	-79.5	-2.1	2.37e-02	153.3	-329.3	-1354.6
1629	ok	0.07	3.94e-02	5.30e-03	22.6	22.6	6.0	6.0	-65.0	-2.5	-0.3	-167.2	-313.5	-950.7
1630	ok	0.07	2.88e-02	4.09e-03	22.6	22.6	6.0	6.0	-50.2	-1.8	-0.2	-218.7	-298.7	-578.6
1631	ok	0.07	1.48e-02	2.83e-03	22.6	22.6	6.0	6.0	-34.8	-2.0	-0.3	-98.4	-168.1	-267.5
1632	ok	0.07	5.40e-03	1.77e-03	22.6	22.6	6.0	6.0	-21.7	-1.9	-0.6	-19.4	-62.6	-81.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1633	ok	0.07	6.19e-03	4.32e-04	22.6	22.6	6.0	6.0	-2.0	4.3	-3.0	38.1	-76.1	-45.2
1634	ok	0.07	1.92e-02	7.57e-04	22.6	22.6	6.0	6.0	-7.8	-3.6	2.7	95.7	-235.7	-89.9
1635	ok	0.07	4.14e-02	9.00e-04	22.6	22.6	6.0	6.0	-1.9	7.1	-5.3	276.0	-541.6	-182.3
1636	ok	0.07	5.97e-02	1.14e-03	22.6	22.6	6.0	6.0	-9.9	-6.2	5.1	503.3	-745.4	-270.6
1637	ok	0.07	7.43e-02	1.31e-03	22.6	22.6	6.0	6.0	-0.6	10.6	-7.9	934.3	-935.5	-483.5
1638	ok	0.07	8.41e-02	1.49e-03	22.6	22.6	6.0	6.0	-11.9	-8.7	7.1	1313.7	-945.2	-710.6
1639	ok	0.07	9.21e-02	1.56e-03	22.6	22.6	6.0	6.0	1.0	13.7	-9.8	2030.5	-851.4	-1195.0
1640	ok	0.07	9.62e-02	1.60e-03	22.6	22.6	6.0	6.0	1.6	15.2	-11.4	2650.0	-631.9	-1765.8
1641	ok	0.07	0.1	1.61e-03	22.6	22.6	6.0	6.0	2.4	15.8	-12.9	3089.2	-188.8	-2371.4
1642	ok	0.07	0.2	1.78e-03	22.6	22.6	6.0	6.0	-16.7	-7.7	7.8	4131.3	431.8	-2810.2
1643	ok	0.07	0.2	1.77e-03	22.6	22.6	6.0	6.0	2.3	13.7	-12.6	4799.1	1023.6	-3313.5
1644	ok	0.07	0.3	1.48e-03	22.6	22.6	6.0	6.0	-14.7	-4.8	6.1	5141.3	1557.1	-3617.8
1645	ok	0.07	0.3	1.45e-03	22.6	22.6	6.0	6.0	1.6	8.7	-9.6	5930.0	2121.1	-3866.8
1646	ok	0.07	0.3	1.08e-03	22.6	22.6	6.0	6.0	3.2	9.9	-9.3	5415.3	2507.3	-3814.6
1647	ok	0.07	0.3	6.63e-04	22.6	22.6	6.0	6.0	2.8	6.1	-6.5	4836.4	2426.8	-3429.8
1648	ok	0.07	0.1	4.57e-03	22.6	22.6	6.0	6.0	-56.1	1.7	-0.2	2399.8	-1517.5	-2496.0
1649	ok	0.07	0.3	8.72e-04	22.6	22.6	6.0	6.0	2.2	4.5	-3.7	4638.3	2410.2	-3487.2
1650	ok	0.07	3.86e-02	2.42e-03	22.6	22.6	6.0	6.0	-29.7	-0.3	0.3	541.8	-480.2	-717.4
1651	ok	0.07	0.1	5.39e-03	22.6	22.6	6.0	6.0	-65.3	0.2	0.5	4390.4	-1752.9	-3353.9
1652	ok	0.07	5.42e-02	3.46e-03	22.6	22.6	6.0	6.0	-42.5	-2.5	-0.3	-223.0	-685.7	-929.1
1653	ok	0.07	7.72e-02	4.50e-03	22.6	22.6	6.0	6.0	-43.1	1.1	-0.5	-345.2	-1018.8	-1167.3
1654	ok	0.07	4.41e-02	2.21e-03	22.6	22.6	6.0	6.0	-26.5	-0.2	-0.3	-104.7	-667.2	-417.4
1655	ok	0.07	9.37e-02	5.63e-03	22.6	22.6	6.0	6.0	-69.1	-2.0	0.2	202.0	-1049.7	-2048.0
1656	ok	0.07	0.1	6.73e-03	22.6	22.6	6.0	6.0	-82.6	-1.7	0.7	987.4	-1048.7	-2668.6
1657	ok	0.07	0.1	7.89e-03	22.6	22.6	6.0	6.0	-96.9	-2.4	0.9	2394.5	-974.3	-3220.2
1658	ok	0.07	0.1	9.01e-03	22.6	22.6	6.0	6.0	-110.5	-2.2	1.4	4525.0	-701.1	-3699.1
1659	ok	0.07	0.2	1.01e-02	22.6	22.6	6.0	6.0	-124.4	-2.2	1.6	7737.3	-338.1	-4106.2
1660	ok	0.07	7.07e-02	1.89e-03	22.6	22.6	6.0	6.0	-21.9	3.8	-0.7	346.8	-1171.2	-518.3
1661	ok	0.07	9.82e-02	2.13e-03	22.6	22.6	6.0	6.0	-26.1	1.4	-0.6	612.1	-1653.3	-816.7
1662	ok	0.07	0.1	2.09e-03	22.6	22.6	6.0	6.0	-24.8	2.5	-1.3	1316.0	-2144.7	-1130.3
1663	ok	0.07	0.2	9.40e-03	22.6	22.6	6.0	6.0	-115.3	-2.2	1.9	7955.8	-654.7	-3926.6
1664	ok	0.07	0.1	2.17e-03	22.6	22.6	6.0	6.0	-26.5	3.3	-1.1	2134.0	-2374.6	-1578.4
1665	ok	0.07	0.2	8.59e-03	22.6	22.6	6.0	6.0	-105.4	-1.7	1.4	8131.3	-777.6	-3839.3
1666	ok	0.07	0.2	2.23e-03	22.6	22.6	6.0	6.0	-26.9	2.9	-1.0	2338.3	-2698.3	-1686.3
1667	ok	0.07	0.2	7.81e-03	22.6	22.6	6.0	6.0	-95.9	-1.8	1.1	8495.8	-659.1	-3972.0
1668	ok	0.07	0.2	2.27e-03	22.6	22.6	6.0	6.0	-27.6	5.3	-2.2	4291.8	-1860.2	-2824.9
1669	ok	0.07	0.2	6.99e-03	22.6	22.6	6.0	6.0	-84.8	0.4	1.2	8703.6	-628.2	-4074.8
1670	ok	0.07	0.2	2.35e-03	22.6	22.6	6.0	6.0	-28.3	6.7	-4.1	5635.9	-1358.4	-3435.5
1671	ok	0.07	0.1	3.89e-03	22.6	22.6	6.0	6.0	-47.7	0.3	0.9	1685.1	-1314.6	-1907.5
1672	ok	0.07	0.2	3.44e-03	22.6	22.6	6.0	6.0	-42.2	3.5	-1.6	7035.9	-698.7	-4308.2
1673	ok	0.07	0.2	4.97e-03	22.6	22.6	6.0	6.0	-60.8	0.1	-0.4	9259.1	276.4	-4544.6
1674	ok	0.07	0.2	2.87e-03	22.6	22.6	6.0	6.0	-17.3	-8.3	8.8	4784.5	1441.4	-3357.6
1675	ok	0.07	0.2	4.12e-03	22.6	22.6	6.0	6.0	-50.5	-1.6	-7.76e-02	9477.9	268.5	-4919.6
1676	ok	0.07	0.2	5.99e-03	22.6	22.6	6.0	6.0	-72.5	-0.4	0.9	3326.2	-1990.9	-3070.4
1677	ok	0.07	0.3	3.09e-03	22.6	22.6	6.0	6.0	-36.1	1.5	-1.3	9627.7	418.1	-5162.3
1678	ok	0.07	0.3	2.51e-03	22.6	22.6	6.0	6.0	-27.6	-3.2	6.0	7050.7	952.9	-4077.9
1679	ok	0.07	0.3	1.78e-03	22.6	22.6	6.0	6.0	-20.2	-2.5	3.5	6711.8	1194.6	-4069.5
1680	ok	0.07	0.1	3.72e-03	22.6	22.6	6.0	6.0	-44.9	-4.76e-02	2.41e-02	313.3	-1743.3	-1448.9
1681	ok	0.07	0.1	4.85e-03	22.6	22.6	6.0	6.0	-59.5	-1.8	0.4	843.1	-1542.5	-2123.8
1682	ok	0.07	0.1	5.84e-03	22.6	22.6	6.0	6.0	-71.6	-1.3	0.8	1750.0	-1635.7	-2650.8
1683	ok	0.07	0.1	7.01e-03	22.6	22.6	6.0	6.0	-86.0	-1.9	1.6	2814.8	-1633.3	-3058.5
1684	ok	0.07	0.1	8.23e-03	22.6	22.6	6.0	6.0	-101.0	-2.1	1.6	4894.7	-1209.7	-3560.7
1685	ok	0.07	0.1	3.36e-03	22.6	22.6	6.0	6.0	-40.1	4.6	-0.3	1316.7	-2033.7	-1711.3
1686	ok	0.07	0.2	3.63e-03	22.6	22.6	6.0	6.0	-44.5	5.2	-1.3	2053.2	-2192.2	-2202.9
1687	ok	0.07	0.1	7.35e-03	22.6	22.6	6.0	6.0	-89.8	-1.2	1.2	5314.7	-1423.5	-3535.3
1688	ok	0.07	0.2	3.99e-03	22.6	22.6	6.0	6.0	-48.9	3.1	-6.10e-03	2804.5	-2188.8	-2654.5
1689	ok	0.07	0.2	6.03e-03	22.6	22.6	6.0	6.0	-73.9	-2.1	1.9	6798.8	-967.8	-3965.6
1690	ok	0.07	0.2	4.01e-03	22.6	22.6	6.0	6.0	-46.6	3.9	-1.3	4102.0	-1871.3	-3118.1
1691	ok	0.07	0.2	4.82e-03	22.6	22.6	6.0	6.0	-59.1	-1.3	2.5	6715.5	-1012.0	-4029.9
1692	ok	0.07	0.1	3.96e-03	22.6	22.6	6.0	6.0	-48.5	4.5	-1.6	5559.6	-1382.8	-3686.2
1693	ok	0.07	0.2	6.62e-03	22.6	22.6	6.0	6.0	-81.0	-0.6	0.6	6028.6	-1299.5	-3681.8
1694	ok	0.07	0.1	5.12e-03	22.6	22.6	6.0	6.0	-62.7	-0.7	3.3	5429.2	-1489.8	-3600.6
1695	ok	0.07	0.2	6.03e-03	22.6	22.6	6.0	6.0	-73.9	-2.7	0.4	9046.6	196.3	-4434.7
1696	ok	0.07	2.94e-03	8.75e-04	22.6	22.6	6.0	6.0	-10.6	-0.2	0.9	53.0	-17.0	-23.4

Muro andatore sud-ovest

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
17	80.00	4	3	Singolo elemento

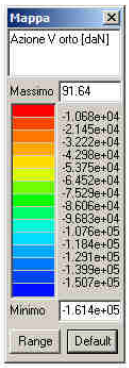
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo

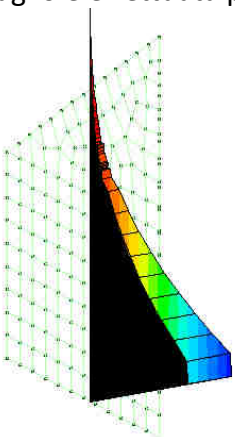
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
852	ok	0.06	0.9	2.05e-02	31.4	31.4	6.0	6.0	-260.9	-52.4	26.4	6.757e+04	1.344e+04	-6276.6
2854	ok	0.06	0.7	1.41e-02	31.4	31.4	6.0	6.0	-178.1	-35.5	-23.2	3.683e+04	7354.3	4963.3
2855	ok	0.06	0.6	1.10e-02	31.4	31.4	6.0	6.0	-136.3	-27.1	-22.9	3.697e+04	7383.3	2504.4
2857	ok	0.06	0.6	1.07e-02	31.4	31.4	6.0	6.0	-136.2	-27.1	-14.8	5.397e+04	1.078e+04	1899.5
2859	ok	0.06	0.7	1.13e-02	31.4	31.4	6.0	6.0	-145.1	-28.8	-11.5	5.710e+04	1.140e+04	1259.2
2861	ok	0.06	0.7	1.21e-02	31.4	31.4	6.0	6.0	-154.5	-30.6	-8.8	5.956e+04	1.189e+04	995.0
2863	ok	0.06	0.7	1.28e-02	31.4	31.4	6.0	6.0	-164.1	-32.5	-6.3	6.171e+04	1.232e+04	904.5
2865	ok	0.06	0.7	1.36e-02	31.4	31.4	6.0	6.0	-175.5	-33.6	-2.6	6.374e+04	1.271e+04	873.5
2867	ok	0.06	0.7	1.43e-02	31.4	31.4	6.0	6.0	-185.1	-35.1	-0.1	6.565e+04	1.309e+04	812.2
2869	ok	0.06	0.8	1.51e-02	31.4	31.4	6.0	6.0	-194.6	-36.3	2.6	6.737e+04	1.343e+04	698.2
2871	ok	0.06	0.8	1.58e-02	31.4	31.4	6.0	6.0	-201.3	-39.9	10.8	6.877e+04	1.372e+04	436.6
2873	ok	0.06	0.8	1.66e-02	31.4	31.4	6.0	6.0	-211.5	-42.0	17.4	6.949e+04	1.385e+04	-214.1
2875	ok	0.06	0.8	1.77e-02	31.4	31.4	6.0	6.0	-224.3	-45.1	26.4	6.873e+04	1.389e+04	-1915.7
2879	ok	0.06	0.6	1.37e-02	31.4	31.4	6.0	6.0	-173.2	-10.6	-23.2	3.563e+04	1363.1	5019.2
2880	ok	0.06	0.6	1.08e-02	31.4	31.4	6.0	6.0	-134.4	-17.8	-22.9	3.645e+04	4760.9	3887.8
2881	ok	0.07	0.6	9.55e-03	31.4	31.4	6.0	6.0	-122.8	-4.1	-8.7	3.163e+04	1132.7	1980.1
2882	ok	0.07	0.6	9.99e-03	31.4	31.4	6.0	6.0	-125.7	-8.1	-19.0	3.289e+04	2989.3	3262.2
2883	ok	0.07	0.6	7.99e-03	22.6	22.6	6.0	6.0	-97.8	-1.5	-4.7	2.747e+04	922.5	1563.9
2884	ok	0.07	0.6	8.79e-03	22.6	22.6	6.0	6.0	-106.2	-3.9	-12.7	2.766e+04	2110.9	2813.8
2885	ok	0.07	0.5	6.51e-03	22.6	22.6	6.0	6.0	-79.7	-0.8	-3.2	2.260e+04	759.5	1277.3
2886	ok	0.07	0.5	7.30e-03	22.6	22.6	6.0	6.0	-88.5	-1.6	-9.3	2.265e+04	1515.7	2521.3
2887	ok	0.07	0.4	5.21e-03	22.6	22.6	6.0	6.0	-63.9	-0.4	-2.6	1.799e+04	610.6	1108.6
2888	ok	0.07	0.4	5.98e-03	22.6	22.6	6.0	6.0	-72.6	-0.4	-7.5	1.801e+04	1111.2	2256.5
2889	ok	0.07	0.3	3.99e-03	22.6	22.6	6.0	6.0	-48.9	-0.2	-2.3	1.389e+04	493.0	1003.3
2890	ok	0.07	0.3	4.77e-03	22.6	22.6	6.0	6.0	-57.8	0.2	-6.5	1.389e+04	824.5	2062.8
2891	ok	0.07	0.2	2.79e-03	22.6	22.6	6.0	6.0	-34.1	-2.51e-02	-2.2	1.031e+04	417.5	949.0
2892	ok	0.07	0.2	3.62e-03	22.6	22.6	6.0	6.0	-43.7	0.5	-5.9	1.028e+04	611.9	1977.5
2893	ok	0.07	0.2	1.61e-03	22.6	22.6	6.0	6.0	-19.5	-0.1	-2.0	6867.3	295.3	1118.1
2894	ok	0.07	0.2	2.53e-03	22.6	22.6	6.0	6.0	-30.1	0.3	-5.2	7165.3	421.2	2092.2
2895	ok	0.07	0.1	5.23e-04	22.6	22.6	6.0	6.0	-6.1	0.6	1.0	3867.1	876.4	1929.1
2896	ok	0.07	0.2	1.48e-03	22.6	22.6	6.0	6.0	-17.1	-2.4	-1.2	4613.8	999.6	1955.7
2897	ok	0.06	0.6	1.05e-02	31.4	31.4	6.0	6.0	-124.5	-17.5	-8.5	4.467e+04	7429.9	3015.7
2898	ok	0.07	0.6	9.59e-03	31.4	31.4	6.0	6.0	-111.1	-9.0	-4.8	3.695e+04	5007.1	3829.7
2899	ok	0.07	0.6	9.03e-03	22.6	22.6	6.0	6.0	-95.9	-3.2	-1.6	2.986e+04	3169.9	3871.3
2900	ok	0.07	0.5	7.83e-03	22.6	22.6	6.0	6.0	-80.7	0.2	0.9	2.359e+04	1998.5	3690.2
2901	ok	0.07	0.4	6.65e-03	22.6	22.6	6.0	6.0	-66.4	1.7	1.7	1.811e+04	1221.9	3443.5
2902	ok	0.07	0.3	5.50e-03	22.6	22.6	6.0	6.0	-65.3	0.2	-9.8	1.375e+04	1258.8	2513.0
2903	ok	0.07	0.3	4.37e-03	22.6	22.6	6.0	6.0	-52.0	0.7	-8.7	1.026e+04	902.8	2406.9
2904	ok	0.07	0.2	3.33e-03	22.6	22.6	6.0	6.0	-39.3	0.3	-7.7	7423.7	632.8	2423.1
2905	ok	0.07	0.2	2.33e-03	22.6	22.6	6.0	6.0	-27.4	-3.6	-4.3	5380.6	767.6	2662.3
2906	ok	0.06	0.7	1.12e-02	31.4	31.4	6.0	6.0	-143.8	-22.2	-8.8	5.697e+04	1.077e+04	2214.3
2907	ok	0.07	0.6	1.03e-02	31.4	31.4	6.0	6.0	-132.4	-14.7	-6.6	4.634e+04	8159.5	2997.6
2908	ok	0.07	0.6	9.80e-03	22.6	22.6	6.0	6.0	-120.2	-9.0	-4.1	3.745e+04	6002.5	3695.5
2909	ok	0.07	0.5	8.72e-03	22.6	22.6	6.0	6.0	-107.0	-5.4	-1.6	2.975e+04	3232.4	3857.5
2910	ok	0.07	0.4	7.59e-03	22.6	22.6	6.0	6.0	-93.2	-3.7	0.9	2.336e+04	2271.8	3713.2
2911	ok	0.07	0.3	6.44e-03	22.6	22.6	6.0	6.0	-79.1	-2.9	1.7	1.793e+04	1615.3	3520.0
2912	ok	0.07	0.3	5.29e-03	22.6	22.6	6.0	6.0	-64.9	-2.5	2.0	1.342e+04	1168.9	3385.2
2913	ok	0.07	0.2	4.14e-03	22.6	22.6	6.0	6.0	-46.9	0.2	-9.5	7493.6	720.7	2621.4
2914	ok	0.07	0.2	3.02e-03	22.6	22.6	6.0	6.0	-35.3	-2.9	-6.6	5572.9	508.8	2682.4
2915	ok	0.06	0.7	1.19e-02	31.4	31.4	6.0	6.0	-153.3	-24.3	-6.3	5.952e+04	1.168e+04	1828.1
2916	ok	0.07	0.6	1.10e-02	31.4	31.4	6.0	6.0	-141.8	-16.9	-4.5	4.806e+04	9143.5	2632.6
2917	ok	0.07	0.6	1.06e-02	22.6	22.6	6.0	6.0	-129.8	-10.9	-2.8	3.839e+04	6923.8	3411.8
2918	ok	0.07	0.5	9.58e-03	22.6	22.6	6.0	6.0	-117.0	-6.5	-1.3	3.030e+04	5078.6	3782.9
2919	ok	0.07	0.4	8.48e-03	22.6	22.6	6.0	6.0	-103.5	-3.5	-0.2	2.353e+04	3606.0	3861.6
2920	ok	0.07	0.3	7.34e-03	22.6	22.6	6.0	6.0	-89.5	-1.6	0.5	1.791e+04	2460.4	3793.1
2921	ok	0.07	0.3	6.18e-03	22.6	22.6	6.0	6.0	-75.8	-2.4	1.6	1.333e+04	1459.9	3625.1
2922	ok	0.07	0.2	5.01e-03	22.6	22.6	6.0	6.0	-61.5	-2.0	1.6	9817.2	942.7	3548.0
2923	ok	0.07	0.2	3.86e-03	22.6	22.6	6.0	6.0	-29.8	3.2	1.6	5539.3	-28.5	3424.3
2924	ok	0.06	0.7	1.27e-02	31.4	31.4	6.0	6.0	-162.8	-25.9	-3.7	6.169e+04	1.223e+04	1689.9
2925	ok	0.07	0.6	1.18e-02	31.4	31.4	6.0	6.0	-151.3	-18.3	-2.3	4.961e+04	9653.2	2423.8
2926	ok	0.07	0.6	1.15e-02	22.6	22.6	6.0	6.0	-139.4	-12.0	-1.3	3.931e+04	7347.3	3174.9
2927	ok	0.07	0.5	1.04e-02	22.6	22.6	6.0	6.0	-126.9	-7.2	-0.5	3.071e+04	5363.2	3595.5
2928	ok	0.07	0.4	9.33e-03	22.6	22.6	6.0	6.0	-113.6	-3.9	-7.47e-02	2.360e+04	3724.0	3758.7
2929	ok	0.07	0.3	8.19e-03	22.6	22.6	6.0	6.0	-100.6	-3.3	0.8	1.781e+04	2440.9	3783.4
2930	ok	0.07	0.3	7.03e-03	22.6	22.6	6.0	6.0	-86.3	-2.3	1.0	1.321e+04	1545.7	3691.2
2931	ok	0.07	0.2	5.85e-03	22.6	22.6	6.0	6.0	-71.8	-1.7	1.0	9648.3	836.3	3569.4
2932	ok	0.07	0.2	4.66e-03	22.6	22.6	6.0	6.0	-57.1	-1.4	0.9	7036.3	274.3	3420.6
2933	ok	0.06	0.7	1.35e-02	31.4	31.4	6.0	6.0	-172.2	-27.8	-3.7	6.372e+04	1.263e+04	1655.1
2934	ok	0.07	0.6	1.26e-02	31.4	31.4	6.0	6.0	-161.0	-20.2	-2.3	5.099e+04	9928.9	2355.7
2935	ok	0.07	0.6	1.23e-02	22.6	22.6	6.0	6.0	-149.4	-14.0	-1.3	4.016e+04	7516.9	3069.7
2936	ok	0.07	0.5	1.12e-02	22.6	22.6	6.0	6.0	-137.0	-9.3	-0.5	3.114e+04	5450.2	3482.8
2937	ok	0.07	0.4	1.02e-02	22.6	22.6	6.0	6.0	-124.6	-5.3	0.2	2.376e+04	3752.5	3665.4

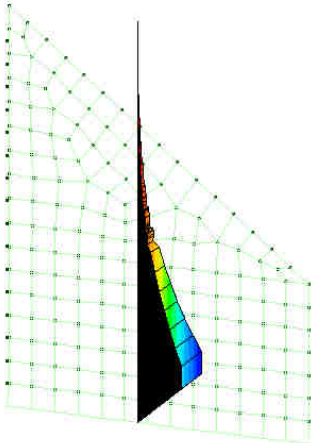
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
2938	ok	0.07	0.3	9.02e-03	22.6	22.6	6.0	6.0	-110.7	-3.4	0.3	1.779e+04	2406.6	3697.9
2939	ok	0.07	0.3	7.85e-03	22.6	22.6	6.0	6.0	-96.1	-2.6	0.2	1.306e+04	1360.9	3637.2
2940	ok	0.07	0.2	6.68e-03	22.6	22.6	6.0	6.0	-81.8	-1.9	0.2	9412.4	548.1	3511.6
2941	ok	0.07	0.2	5.50e-03	22.6	22.6	6.0	6.0	-67.1	0.9	-0.4	6642.5	-519.8	3272.9
2942	ok	0.06	0.7	1.42e-02	31.4	31.4	6.0	6.0	-183.7	-27.6	-0.1	6.562e+04	1.295e+04	1556.5
2943	ok	0.07	0.6	1.33e-02	31.4	31.4	6.0	6.0	-172.5	-19.4	0.5	5.222e+04	1.008e+04	2179.6
2944	ok	0.07	0.7	1.31e-02	22.6	22.6	6.0	6.0	-160.5	-13.0	0.6	4.091e+04	7530.6	2823.5
2945	ok	0.07	0.5	1.20e-02	22.6	22.6	6.0	6.0	-147.4	-8.8	0.4	3.156e+04	5347.6	3228.3
2946	ok	0.07	0.4	1.09e-02	22.6	22.6	6.0	6.0	-133.7	-6.0	0.1	2.393e+04	3544.9	3454.1
2947	ok	0.07	0.3	9.80e-03	22.6	22.6	6.0	6.0	-120.0	-3.8	-0.1	1.778e+04	2103.3	3543.6
2948	ok	0.07	0.3	8.64e-03	22.6	22.6	6.0	6.0	-105.8	-2.5	-0.3	1.291e+04	976.1	3524.5
2949	ok	0.07	0.2	7.47e-03	22.6	22.6	6.0	6.0	-91.3	0.5	-1.1	9095.0	-237.3	3375.9
2950	ok	0.07	0.2	6.29e-03	22.6	22.6	6.0	6.0	-76.9	0.5	-1.0	6321.6	-847.3	3189.2
2951	ok	0.06	0.8	1.49e-02	31.4	31.4	6.0	6.0	-192.9	-27.7	2.6	6.732e+04	1.316e+04	1370.8
2952	ok	0.07	0.7	1.41e-02	31.4	31.4	6.0	6.0	-181.9	-19.1	2.6	5.327e+04	1.004e+04	1917.5
2953	ok	0.07	0.7	1.39e-02	22.6	22.6	6.0	6.0	-168.9	-13.8	2.2	4.156e+04	7315.1	2501.8
2954	ok	0.07	0.5	1.28e-02	22.6	22.6	6.0	6.0	-156.5	-8.8	1.2	3.196e+04	5024.8	2932.4
2955	ok	0.07	0.4	1.17e-02	22.6	22.6	6.0	6.0	-143.2	-5.5	0.3	2.415e+04	3176.7	3229.2
2956	ok	0.07	0.3	1.05e-02	22.6	22.6	6.0	6.0	-129.2	-3.5	-0.4	1.784e+04	1723.5	3392.4
2957	ok	0.07	0.2	9.38e-03	22.6	22.6	6.0	6.0	-115.0	-2.3	-0.8	1.282e+04	600.0	3425.3
2958	ok	0.07	0.2	8.21e-03	22.6	22.6	6.0	6.0	-100.4	0.2	-1.6	8910.4	-410.8	3327.7
2959	ok	0.07	0.1	7.06e-03	22.6	22.6	6.0	6.0	-86.6	-1.6	-0.9	6081.2	-892.9	3165.6
2960	ok	0.06	0.8	1.56e-02	31.4	31.4	6.0	6.0	-199.3	-29.5	6.0	6.865e+04	1.313e+04	983.4
2961	ok	0.07	0.6	1.48e-02	31.4	31.4	6.0	6.0	-189.8	-19.5	5.7	5.412e+04	9687.3	1488.1
2962	ok	0.07	0.7	1.46e-02	22.6	22.6	6.0	6.0	-178.7	-12.1	3.9	4.218e+04	6778.4	2095.7
2963	ok	0.07	0.5	1.35e-02	22.6	22.6	6.0	6.0	-165.9	-7.4	1.9	3.247e+04	4483.0	2655.8
2964	ok	0.07	0.4	1.24e-02	22.6	22.6	6.0	6.0	-152.0	-4.6	0.2	2.449e+04	2714.9	3083.7
2965	ok	0.07	0.3	1.12e-02	22.6	22.6	6.0	6.0	-137.7	-3.0	-0.9	1.799e+04	1361.9	3335.2
2966	ok	0.07	0.2	1.01e-02	22.6	22.6	6.0	6.0	-123.5	-2.1	-1.3	1.280e+04	334.3	3416.1
2967	ok	0.07	0.2	8.91e-03	22.6	22.6	6.0	6.0	-108.9	-5.68e-03	-1.9	8771.8	-396.0	3394.3
2968	ok	0.07	0.1	7.75e-03	22.6	22.6	6.0	6.0	-95.1	-1.5	-1.3	5695.2	-1036.1	3110.1
2969	ok	0.06	0.7	1.63e-02	31.4	31.4	6.0	6.0	-208.8	-28.2	10.8	6.919e+04	1.236e+04	98.8
2970	ok	0.07	0.7	1.55e-02	31.4	31.4	6.0	6.0	-200.1	-16.5	9.0	5.474e+04	8513.0	789.4
2971	ok	0.07	0.7	1.54e-02	22.6	22.6	6.0	6.0	-188.7	-9.3	5.3	4.303e+04	5658.2	1727.7
2972	ok	0.07	0.5	1.42e-02	22.6	22.6	6.0	6.0	-174.3	-5.5	1.8	3.317e+04	3628.5	2587.4
2973	ok	0.07	0.4	1.30e-02	22.6	22.6	6.0	6.0	-159.6	-3.5	-0.3	2.496e+04	2133.2	3165.9
2974	ok	0.07	0.3	1.18e-02	22.6	22.6	6.0	6.0	-145.2	-2.4	-1.4	1.822e+04	1020.7	3482.1
2975	ok	0.07	0.2	1.07e-02	22.6	22.6	6.0	6.0	-130.9	-0.5	-1.7	1.283e+04	211.0	3636.0
2976	ok	0.07	0.2	9.57e-03	22.6	22.6	6.0	6.0	-117.5	-1.8	-1.7	8618.0	-424.9	3489.5
2977	ok	0.07	0.1	8.46e-03	22.6	22.6	6.0	6.0	-103.9	-1.8	-1.6	5466.3	-861.6	3280.6
2978	ok	0.06	0.7	1.71e-02	31.4	31.4	6.0	6.0	-219.9	-23.8	17.4	6.788e+04	9534.2	-2227.9
2979	ok	0.07	0.7	1.66e-02	31.4	31.4	6.0	6.0	-213.9	-10.9	11.9	5.604e+04	5896.2	18.2
2980	ok	0.07	0.7	1.60e-02	22.6	22.6	6.0	6.0	-196.2	-5.7	4.6	4.425e+04	3886.6	1856.0
2981	ok	0.07	0.5	1.46e-02	22.6	22.6	6.0	6.0	-179.7	-3.4	0.8	3.405e+04	2485.2	2933.6
2982	ok	0.07	0.4	1.34e-02	22.6	22.6	6.0	6.0	-165.0	-2.4	-1.0	2.546e+04	1491.8	3566.1
2983	ok	0.07	0.3	1.23e-02	22.6	22.6	6.0	6.0	-151.4	-2.0	-1.6	1.844e+04	758.2	3849.9
2984	ok	0.07	0.3	1.13e-02	22.6	22.6	6.0	6.0	-138.3	-1.9	-1.7	1.283e+04	210.5	3881.4
2985	ok	0.07	0.2	1.02e-02	22.6	22.6	6.0	6.0	-125.3	-1.9	-1.6	8462.6	-196.3	3728.3
2986	ok	0.07	0.1	9.15e-03	22.6	22.6	6.0	6.0	-112.2	-2.0	-1.3	5177.4	-488.0	3435.8
2987	ok	0.06	0.7	2.00e-02	31.4	31.4	6.0	6.0	-254.9	-11.1	26.4	6.512e+04	2801.7	-6989.8
2988	ok	0.07	0.7	1.69e-02	31.4	31.4	6.0	6.0	-218.3	-5.6	6.9	5.638e+04	2890.2	381.9
2989	ok	0.07	0.7	1.59e-02	22.6	22.6	6.0	6.0	-194.6	-2.2	1.4	4.439e+04	1900.3	1545.9
2990	ok	0.07	0.5	1.47e-02	22.6	22.6	6.0	6.0	-180.4	-1.7	-0.3	3.412e+04	1368.4	2345.0
2991	ok	0.07	0.4	1.37e-02	22.6	22.6	6.0	6.0	-168.4	-1.7	-0.8	2.555e+04	956.6	2709.5
2992	ok	0.07	0.3	1.28e-02	22.6	22.6	6.0	6.0	-156.8	-1.8	-0.9	1.853e+04	637.2	2835.7
2993	ok	0.07	0.2	1.18e-02	22.6	22.6	6.0	6.0	-145.2	-1.9	-0.9	1.291e+04	384.4	2793.5
2994	ok	0.07	0.2	1.09e-02	22.6	22.6	6.0	6.0	-133.3	-2.1	-0.8	8525.8	185.2	2635.4
2995	ok	0.07	0.1	9.86e-03	22.6	22.6	6.0	6.0	-121.0	-2.2	-0.6	5234.9	38.1	2400.3
2996	ok	0.07	6.13e-04	5.13e-04	22.6	22.6	6.0	6.0	-6.3	8.12e-02	1.57e-02	-10.0	-6.3	-0.9
2997	ok	0.07	9.39e-02	8.79e-03	22.6	22.6	6.0	6.0	-107.8	-2.4	-0.4	2833.8	-46.4	2112.3
2998	ok	0.07	6.92e-02	7.67e-03	22.6	22.6	6.0	6.0	-94.1	-2.7	-0.4	1215.4	-71.9	1819.1
2999	ok	0.07	4.99e-02	6.52e-03	22.6	22.6	6.0	6.0	-80.1	-2.7	-0.2	238.3	-312.1	1438.6
3000	ok	0.07	4.41e-02	5.35e-03	22.6	22.6	6.0	6.0	-65.6	-2.0	-0.2	-341.7	-409.9	1012.9
3001	ok	0.07	3.19e-02	4.15e-03	22.6	22.6	6.0	6.0	-51.0	-2.2	0.1	-344.3	-303.7	663.1
3002	ok	0.07	1.83e-02	2.88e-03	22.6	22.6	6.0	6.0	-35.3	-2.0	0.2	-182.0	-204.2	319.3
3003	ok	0.07	7.26e-03	1.82e-03	22.6	22.6	6.0	6.0	-22.4	-2.0	0.5	-59.3	-81.7	113.6
3004	ok	0.07	9.11e-03	4.18e-04	22.6	22.6	6.0	6.0	-4.7	2.1	1.1	40.8	-147.5	67.5
3005	ok	0.07	2.41e-02	7.41e-04	22.6	22.6	6.0	6.0	-7.6	-3.9	-2.6	92.9	-316.1	123.1
3006	ok	0.07	4.94e-02	8.88e-04	22.6	22.6	6.0	6.0	-3.0	7.5	4.8	239.4	-632.5	194.2
3007	ok	0.07	7.43e-02	1.07e-03	22.6	22.6	6.0	6.0	-2.6	9.5	6.1	391.2	-939.3	327.3
3008	ok	0.07	8.42e-02	1.31e-03	22.6	22.6	6.0	6.0	-11.1	-7.7	-5.7	764.6	-1017.2	543.1
3009	ok	0.07	8.45e-02	1.46e-03	22.6	22.6	6.0	6.0	-12.2	-8.9	-6.4	1280.5	-848.8	817.0
3010	ok	0.07	6.92e-02	1.49e-03	22.6	22.6	6.0	6.0	-12.0	-9.1	-6.8	1791.6	-455.8	1137.6

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
3011	ok	0.07	8.88e-02	1.49e-03	22.6	22.6	6.0	6.0	-11.1	-8.0	-6.8	2178.3	-25.5	1490.7
3012	ok	0.07	0.1	1.39e-03	22.6	22.6	6.0	6.0	1.2	11.8	9.7	2133.6	313.8	1876.6
3013	ok	0.07	0.2	1.27e-03	22.6	22.6	6.0	6.0	-12.2	-4.8	-5.7	2834.1	799.1	2275.3
3014	ok	0.07	0.2	1.25e-03	22.6	22.6	6.0	6.0	-11.4	-4.7	-6.0	2962.2	1184.0	2035.4
3015	ok	0.07	0.2	1.27e-03	22.6	22.6	6.0	6.0	-11.2	-2.0	-2.3	3456.6	1164.1	2497.2
3016	ok	0.07	0.2	7.36e-04	22.6	22.6	6.0	6.0	-7.1	-1.5	-3.6	2961.7	1844.7	2200.4
3017	ok	0.07	4.25e-02	2.44e-03	22.6	22.6	6.0	6.0	-30.0	-0.1	-0.1	499.2	-520.0	784.0
3018	ok	0.07	0.1	2.58e-03	22.6	22.6	6.0	6.0	-31.1	0.2	-1.3	4424.3	-490.6	2932.0
3019	ok	0.07	0.1	3.74e-03	22.6	22.6	6.0	6.0	-45.7	0.2	2.48e-02	3022.0	-1610.7	2473.7
3020	ok	0.07	0.1	3.24e-03	22.6	22.6	6.0	6.0	-33.2	-3.9	-8.0	2884.2	-1161.1	1895.9
3021	ok	0.07	7.93e-02	4.40e-03	22.6	22.6	6.0	6.0	-43.0	0.2	-0.1	-444.5	-1028.3	1220.4
3022	ok	0.07	5.77e-02	3.46e-03	22.6	22.6	6.0	6.0	-42.4	-2.3	-0.1	-304.6	-709.4	977.0
3023	ok	0.07	4.95e-02	2.26e-03	22.6	22.6	6.0	6.0	-27.2	-0.5	0.1	-169.5	-740.9	489.5
3024	ok	0.07	0.1	5.67e-03	22.6	22.6	6.0	6.0	-54.6	1.0	-0.4	-373.6	-1380.3	1778.9
3025	ok	0.07	0.1	6.91e-03	22.6	22.6	6.0	6.0	-84.8	-3.0	-0.9	1147.9	-952.7	2487.3
3026	ok	0.07	0.1	8.06e-03	22.6	22.6	6.0	6.0	-99.0	-2.6	-1.1	2797.0	-698.0	3032.2
3027	ok	0.07	7.58e-02	1.92e-03	22.6	22.6	6.0	6.0	-21.6	3.0	1.5	297.2	-1234.9	598.9
3028	ok	0.07	0.1	7.31e-03	22.6	22.6	6.0	6.0	-89.7	-1.6	-1.1	3115.1	-1231.9	2915.9
3029	ok	0.07	0.1	2.16e-03	22.6	22.6	6.0	6.0	-26.5	4.7	1.4	667.6	-1689.2	929.1
3030	ok	0.07	0.1	6.69e-03	22.6	22.6	6.0	6.0	-82.1	-2.6	-1.6	3551.9	-1409.8	2797.1
3031	ok	0.07	0.1	2.62e-03	22.6	22.6	6.0	6.0	-32.1	2.2	0.6	985.8	-2028.6	1330.0
3032	ok	0.07	0.1	5.75e-03	22.6	22.6	6.0	6.0	-70.4	-0.6	-0.6	3862.5	-1414.4	2797.4
3033	ok	0.07	0.1	2.71e-03	22.6	22.6	6.0	6.0	-32.4	2.1	0.7	1243.3	-2308.4	1444.6
3034	ok	0.07	0.1	5.05e-03	22.6	22.6	6.0	6.0	-61.8	1.1	-1.1	4350.9	-1328.2	2801.8
3035	ok	0.07	0.1	2.45e-03	22.6	22.6	6.0	6.0	-24.7	-6.4	-6.8	2049.7	-1286.4	1627.2
3036	ok	0.07	0.1	4.32e-03	22.6	22.6	6.0	6.0	-52.8	0.8	-0.8	4854.8	-1095.2	2940.0
3037	ok	0.07	0.1	2.12e-03	22.6	22.6	6.0	6.0	-22.5	-5.1	-7.0	2683.5	-816.4	1952.6
3038	ok	0.07	0.1	3.51e-03	22.6	22.6	6.0	6.0	-43.1	-0.8	6.95e-02	5254.3	-494.7	3190.5
3039	ok	0.07	0.1	2.03e-03	22.6	22.6	6.0	6.0	-19.5	5.2	3.3	4283.5	-712.5	2795.5
3040	ok	0.07	0.2	2.58e-03	22.6	22.6	6.0	6.0	-31.2	2.0	1.6	5488.0	-344.8	3348.7
3041	ok	0.07	0.2	2.10e-03	22.6	22.6	6.0	6.0	-23.0	-6.0	-5.3	4257.4	1463.9	2988.9
3042	ok	0.07	0.1	4.50e-03	22.6	22.6	6.0	6.0	-52.4	-0.8	-0.8	2209.1	-1893.2	2248.1
3043	ok	0.07	8.01e-02	3.17e-03	22.6	22.6	6.0	6.0	-33.8	-3.8	-3.9	842.4	-892.3	1216.8
3044	ok	0.07	0.1	6.02e-03	22.6	22.6	6.0	6.0	-73.4	-1.5	-0.5	1564.1	-1467.2	2477.2
3045	ok	0.07	0.1	5.61e-03	22.6	22.6	6.0	6.0	-68.5	-2.0	-4.9	2260.0	-1423.2	2443.2
3046	ok	0.07	0.1	4.64e-03	22.6	22.6	6.0	6.0	-54.8	2.1	-0.2	746.1	-1887.7	1891.3
3047	ok	0.07	3.95e-03	8.91e-04	22.6	22.6	6.0	6.0	-10.9	-0.3	-0.6	44.1	-17.5	36.5
Nodo		**x/d**	**V N/M**	**ver. rid**	**Af pr-**	**Af pr+**	**Af sec-**	**Af sec+**	**N z**	**N o**	**N zo**	**M z**	**M o**	**M zo**
									-260.92	-52.42	-23.19	-444.50	-2308.44	-6989.82
		0.07	0.86	0.02	31.42	31.42	6.00	6.00	1.22	11.85	26.42	6.949e+04	1.389e+04	5019.22

La verifica a taglio è effettuata per la massima sollecitazione in direzione ortogonale.







La sollecitazione è divisa per la larghezza per avere un valore al metro.
Muro andatore nord-est: V_{Ed}=1614kN; v_{Ed}=V_{Ed}/b=1614/6.685=241.4kN/m

Muro andatore sud-ovest: V_{Ed}=1551kN; v_{Ed}=V_{Ed}/b=1551/5.975=259.6kN/m
A favore di sicurezza si trascura il contributo positivo alla resistenza dato dallo sforzo normale.

resistenza a taglio di elementi quali solai e piastre, privi di armatura trasversale

V_{Rd} **304.92** kN; pari a 4.1 kg/cm^2 ρ_l = 0.003 ; k = 1.518

VEd<VRd; non è necessaria armatura specifica a taglio

14.2 Sle

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.
In particolare vengono riportati i risultati relativi alle tre categorie di combinazione considerate:

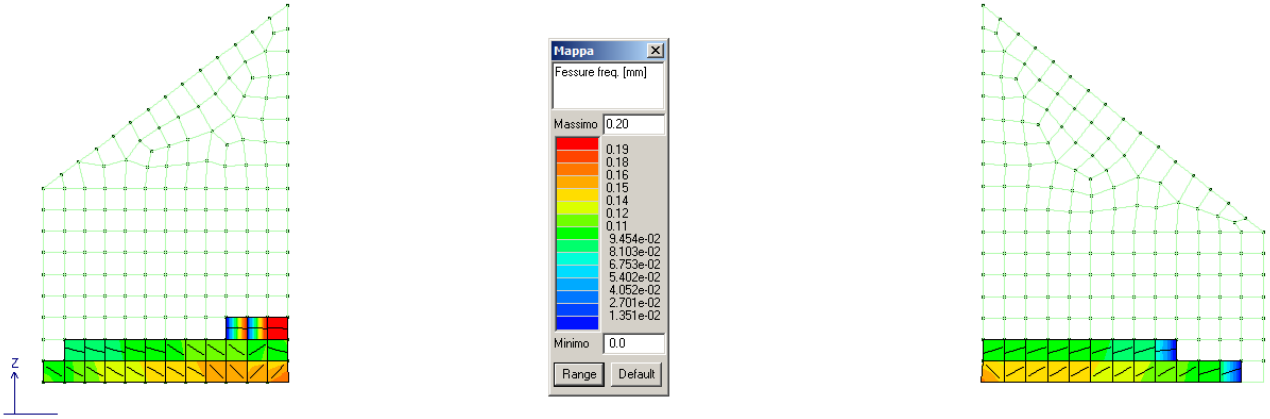
- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

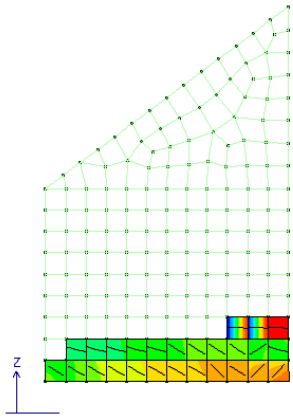
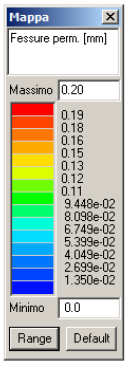
I valori di interesse sono i seguenti:

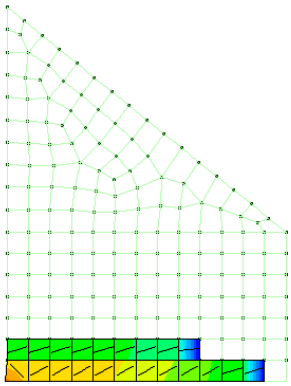
rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare	[*normalizzato a 1*]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare	[*normalizzato a 1*]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti	[*normalizzato a 1*]
wR	apertura caratteristica delle fessure in combinazioni rare	[*mm*]
wF	apertura caratteristica delle fessure in combinazioni frequenti	[*mm*]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti	[*mm*]

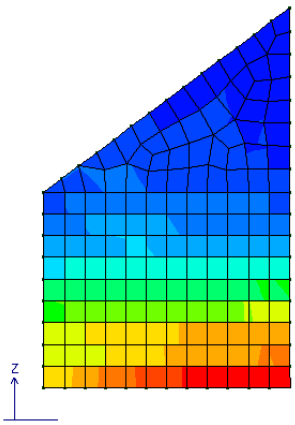
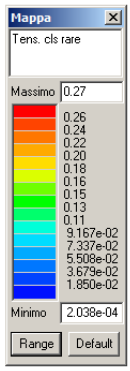
Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.
In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

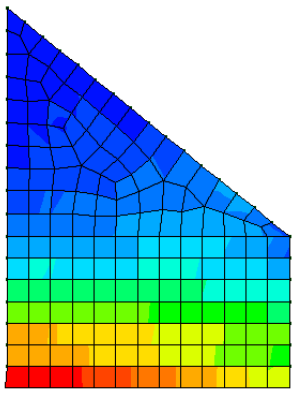
setti e gusci	**rRfck**	**rRfyk**	**rPfck**	massimi nei nodi dell'elemento
	wR	**wF**	**wP**	massimi nei nodi dell'elemento

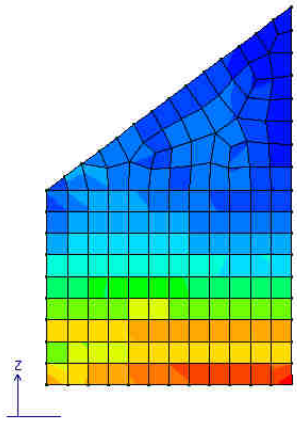
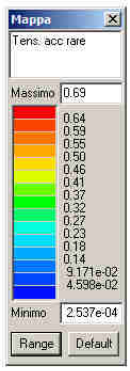


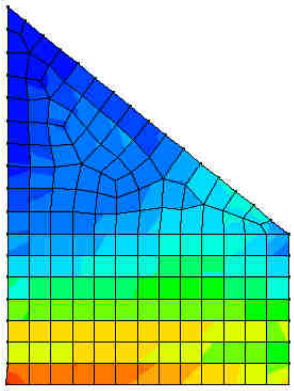



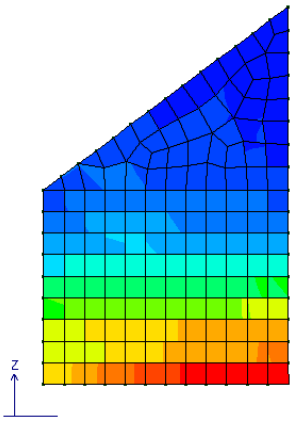
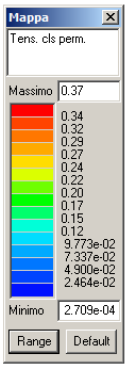


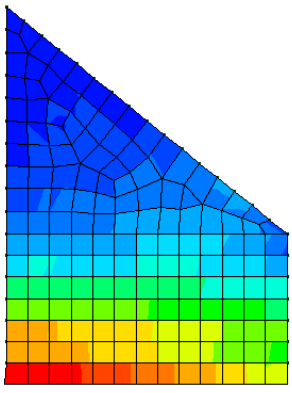









Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
					mm	mm	
1400	0.27	0.66	0.36	271,319,347	0.17	0.17	319,341,348
1401	0.22	0.46	0.29	281,289,347	0.10	0.10	289,333,347

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1402	0.21	0.50	0.28	281,288,347	0.0	0.0	0,0,0
1403	0.16	0.38	0.22	281,296,347	0.0	0.0	0,0,0
1404	0.12	0.28	0.16	281,288,347	0.0	0.0	0,0,0
1405	0.09	0.20	0.12	281,289,347	0.0	0.0	0,0,0
1406	0.07	0.15	0.09	281,289,349	0.0	0.0	0,0,0
1407	0.07	0.24	0.10	324,320,349	0.0	0.0	0,0,0
1408	0.07	0.21	0.10	316,320,348	0.0	0.0	0,0,0
1409	0.06	0.22	0.08	307,320,348	0.0	0.0	0,0,0
1410	0.17	0.49	0.23	276,320,347	0.0	0.0	0,0,0
1411	0.21	0.50	0.28	316,320,348	0.11	0.11	320,342,348
1412	0.24	0.57	0.31	320,320,348	0.13	0.13	313,339,348
1413	0.19	0.47	0.25	320,320,348	0.09	0.09	267,330,347
1414	0.19	0.50	0.25	320,310,348	0.0	0.0	0,0,0
1415	0.15	0.41	0.20	320,310,348	0.0	0.0	0,0,0
1416	0.26	0.59	0.35	278,310,347	0.15	0.15	267,330,347
1417	0.22	0.46	0.29	312,319,348	0.10	0.10	319,341,348
1418	0.21	0.51	0.28	281,296,347	0.0	0.0	0,0,0
1419	0.16	0.39	0.22	281,289,347	0.0	0.0	0,0,0
1420	0.13	0.30	0.17	281,289,347	0.0	0.0	0,0,0
1421	0.09	0.23	0.13	281,289,347	0.0	0.0	0,0,0
1422	0.07	0.17	0.09	280,280,347	0.0	0.0	0,0,0
1423	0.12	0.33	0.16	320,319,348	0.0	0.0	0,0,0
1424	0.09	0.28	0.12	304,319,348	0.0	0.0	0,0,0
1425	0.08	0.23	0.10	313,319,348	0.0	0.0	0,0,0
1426	0.17	0.42	0.23	316,320,348	0.0	0.0	0,0,0
1427	0.17	0.46	0.23	316,320,348	0.0	0.0	0,0,0
1428	0.14	0.39	0.18	316,320,348	0.0	0.0	0,0,0
1429	0.11	0.33	0.15	316,320,348	0.0	0.0	0,0,0
1430	0.09	0.28	0.12	313,320,348	0.0	0.0	0,0,0
1431	0.08	0.25	0.10	304,320,348	0.0	0.0	0,0,0
1432	0.26	0.59	0.35	281,310,347	0.14	0.14	267,330,347
1433	0.21	0.46	0.28	281,281,347	0.10	0.10	281,329,347
1434	0.20	0.49	0.27	281,281,347	0.0	0.0	0,0,0
1435	0.16	0.38	0.21	281,281,347	0.0	0.0	0,0,0
1436	0.12	0.30	0.16	281,281,347	0.0	0.0	0,0,0
1437	0.09	0.23	0.12	281,281,347	0.0	0.0	0,0,0
1438	0.07	0.17	0.09	280,271,347	0.0	0.0	0,0,0
1439	0.15	0.35	0.20	324,320,349	0.0	0.0	0,0,0
1440	0.15	0.42	0.21	324,320,349	0.0	0.0	0,0,0
1441	0.13	0.34	0.17	316,320,348	0.0	0.0	0,0,0
1442	0.23	0.55	0.30	320,320,348	0.13	0.13	316,342,348
1443	0.18	0.46	0.24	320,320,348	0.09	0.09	267,343,349
1444	0.18	0.49	0.24	320,320,348	0.0	0.0	0,0,0
1445	0.15	0.41	0.19	320,320,348	0.0	0.0	0,0,0
1446	0.12	0.34	0.15	320,320,348	0.0	0.0	0,0,0
1447	0.09	0.29	0.12	313,320,348	0.0	0.0	0,0,0
1448	0.26	0.60	0.35	319,310,348	0.15	0.15	273,330,347
1449	0.21	0.47	0.27	319,309,348	0.10	0.10	273,330,347
1450	0.20	0.50	0.27	327,281,349	0.0	0.0	0,0,0
1451	0.15	0.38	0.21	288,267,347	0.0	0.0	0,0,0
1452	0.12	0.30	0.16	279,267,347	0.0	0.0	0,0,0
1453	0.09	0.23	0.12	279,267,347	0.0	0.0	0,0,0
1454	0.07	0.18	0.09	311,281,348	0.0	0.0	0,0,0
1455	0.08	0.25	0.10	313,319,348	0.0	0.0	0,0,0
1456	0.10	0.27	0.13	316,320,348	0.0	0.0	0,0,0
1457	0.19	0.45	0.25	316,320,348	0.10	0.10	320,342,348
1458	0.15	0.38	0.21	324,320,349	0.0	0.0	0,0,0
1459	0.16	0.43	0.21	316,320,348	0.0	0.0	0,0,0
1460	0.13	0.36	0.17	316,320,348	0.0	0.0	0,0,0
1461	0.10	0.29	0.14	316,320,348	0.0	0.0	0,0,0
1462	0.20	0.47	0.26	320,320,348	0.10	0.10	320,342,348
1463	0.16	0.39	0.22	316,320,348	0.0	0.0	0,0,0
1464	0.25	0.59	0.34	319,310,348	0.14	0.14	267,330,347
1465	0.20	0.48	0.27	319,310,348	0.10	0.10	273,330,347
1466	0.20	0.50	0.26	319,290,348	0.0	0.0	0,0,0
1467	0.15	0.39	0.20	319,267,348	0.0	0.0	0,0,0
1468	0.12	0.31	0.16	319,290,348	0.0	0.0	0,0,0
1469	0.09	0.24	0.12	288,290,347	0.0	0.0	0,0,0
1470	0.07	0.19	0.09	297,290,350	0.0	0.0	0,0,0
1471	0.16	0.44	0.22	316,320,348	0.0	0.0	0,0,0
1472	0.22	0.52	0.29	316,320,348	0.12	0.12	320,342,348
1473	0.18	0.44	0.24	320,320,348	0.08	0.08	321,343,349
1474	0.18	0.48	0.24	316,320,348	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1475	0.14	0.40	0.19	316,320,348	0.0	0.0	0,0,0
1476	0.11	0.33	0.15	313,320,348	0.0	0.0	0,0,0
1477	0.09	0.29	0.12	313,320,348	0.0	0.0	0,0,0
1478	0.08	0.25	0.10	313,320,348	0.0	0.0	0,0,0
1479	0.13	0.37	0.18	316,320,348	0.0	0.0	0,0,0
1480	0.24	0.58	0.33	319,319,348	0.14	0.14	298,343,349
1481	0.20	0.48	0.26	319,319,348	0.10	0.10	273,330,347
1482	0.19	0.50	0.26	319,304,348	0.0	0.0	0,0,0
1483	0.15	0.40	0.20	320,304,348	0.0	0.0	0,0,0
1484	0.12	0.32	0.16	320,304,348	0.0	0.0	0,0,0
1485	0.09	0.26	0.12	305,310,348	0.0	0.0	0,0,0
1486	0.07	0.21	0.10	304,310,348	0.0	0.0	0,0,0
1487	0.11	0.31	0.14	316,320,348	0.0	0.0	0,0,0
1488	0.09	0.27	0.12	316,320,348	0.0	0.0	0,0,0
1489	0.07	0.25	0.10	304,320,348	0.0	0.0	0,0,0
1490	0.08	0.25	0.11	316,320,348	0.0	0.0	0,0,0
1491	0.03	0.12	0.04	289,289,347	0.0	0.0	0,0,0
1492	0.06	0.27	0.08	304,297,348	0.0	0.0	0,0,0
1493	0.06	0.21	0.08	282,319,347	0.0	0.0	0,0,0
1494	8.21e-03	0.03	0.01	311,328,348	0.0	0.0	0,0,0
1495	0.03	0.07	0.04	281,276,347	0.0	0.0	0,0,0
1496	3.60e-03	0.02	4.80e-03	324,276,349	0.0	0.0	0,0,0
1497	0.03	0.12	0.04	285,328,347	0.0	0.0	0,0,0
1498	0.04	0.10	0.05	289,289,347	0.0	0.0	0,0,0
1499	0.03	0.13	0.04	285,289,347	0.0	0.0	0,0,0
1500	0.03	0.15	0.04	289,289,347	0.0	0.0	0,0,0
1501	0.02	0.10	0.03	320,320,348	0.0	0.0	0,0,0
1502	0.01	0.08	0.02	320,320,348	0.0	0.0	0,0,0
1503	0.03	0.10	0.03	290,328,350	0.0	0.0	0,0,0
1504	0.03	0.13	0.04	312,289,348	0.0	0.0	0,0,0
1505	0.05	0.10	0.06	281,289,347	0.0	0.0	0,0,0
1506	0.04	0.11	0.05	280,320,347	0.0	0.0	0,0,0
1507	0.06	0.15	0.07	293,290,350	0.0	0.0	0,0,0
1508	0.06	0.24	0.08	304,319,348	0.0	0.0	0,0,0
1509	0.04	0.12	0.05	281,328,347	0.0	0.0	0,0,0
1510	0.05	0.21	0.07	304,310,348	0.0	0.0	0,0,0
1511	3.51e-04	2.71e-03	4.67e-04	312,307,348	0.0	0.0	0,0,0
1512	0.01	0.08	0.02	320,316,348	0.0	0.0	0,0,0
1513	0.04	0.11	0.05	290,289,350	0.0	0.0	0,0,0
1514	1.61e-03	0.01	2.14e-03	307,307,348	0.0	0.0	0,0,0
1515	1.59e-03	8.61e-03	2.12e-03	312,312,348	0.0	0.0	0,0,0
1516	0.06	0.24	0.07	313,328,348	0.0	0.0	0,0,0
1517	0.07	0.23	0.09	304,320,348	0.0	0.0	0,0,0
1518	0.07	0.24	0.09	282,320,347	0.0	0.0	0,0,0
1519	0.02	0.09	0.03	289,289,347	0.0	0.0	0,0,0
1520	0.05	0.14	0.07	280,273,347	0.0	0.0	0,0,0
1521	0.02	0.07	0.02	328,324,349	0.0	0.0	0,0,0
1522	0.02	0.10	0.03	320,289,348	0.0	0.0	0,0,0
1523	0.04	0.16	0.06	290,308,350	0.0	0.0	0,0,0
1524	2.72e-03	0.01	3.63e-03	307,307,348	0.0	0.0	0,0,0
1525	0.05	0.13	0.07	297,293,350	0.0	0.0	0,0,0
1526	0.05	0.16	0.07	290,296,350	0.0	0.0	0,0,0
1527	0.07	0.23	0.09	313,320,348	0.0	0.0	0,0,0
1528	0.02	0.05	0.03	297,320,350	0.0	0.0	0,0,0
1529	0.01	0.06	0.01	289,289,347	0.0	0.0	0,0,0
1530	0.04	0.13	0.05	290,296,350	0.0	0.0	0,0,0
1531	0.03	0.13	0.04	272,320,350	0.0	0.0	0,0,0
1532	0.05	0.25	0.07	313,320,348	0.0	0.0	0,0,0
1533	0.07	0.24	0.09	304,320,348	0.0	0.0	0,0,0
1534	0.03	0.14	0.04	297,320,350	0.0	0.0	0,0,0
1535	5.56e-03	0.02	7.41e-03	281,303,349	0.0	0.0	0,0,0
1536	7.07e-03	0.04	9.42e-03	324,324,349	0.0	0.0	0,0,0
1537	0.04	0.12	0.05	290,320,350	0.0	0.0	0,0,0
1538	0.01	0.05	0.02	280,320,347	0.0	0.0	0,0,0
1539	0.02	0.10	0.03	297,316,350	0.0	0.0	0,0,0
1540	0.01	0.06	0.02	328,328,349	0.0	0.0	0,0,0
1541	0.02	0.09	0.02	311,311,348	0.0	0.0	0,0,0
1542	0.03	0.10	0.04	328,289,349	0.0	0.0	0,0,0
1543	0.05	0.13	0.07	297,312,350	0.0	0.0	0,0,0
1544	7.67e-03	0.04	0.01	280,280,347	0.0	0.0	0,0,0
1545	0.03	0.15	0.04	289,289,347	0.0	0.0	0,0,0
1546	0.02	0.13	0.03	289,289,347	0.0	0.0	0,0,0
1547	0.02	0.12	0.03	328,320,349	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1548	0.05	0.13	0.06	273,278,347	0.0	0.0	0,0,0
1549	0.06	0.17	0.08	312,310,348	0.0	0.0	0,0,0
1550	0.03	0.14	0.04	328,328,349	0.0	0.0	0,0,0
1551	0.04	0.11	0.06	311,304,348	0.0	0.0	0,0,0
1552	0.04	0.12	0.06	272,272,350	0.0	0.0	0,0,0
1553	0.01	0.04	0.02	328,328,349	0.0	0.0	0,0,0
1554	0.06	0.18	0.07	304,310,348	0.0	0.0	0,0,0
1555	0.06	0.19	0.08	313,310,348	0.0	0.0	0,0,0
1556	0.02	0.09	0.02	291,289,350	0.0	0.0	0,0,0
1557	0.03	0.14	0.04	289,289,347	0.0	0.0	0,0,0
1558	0.05	0.18	0.07	304,310,348	0.0	0.0	0,0,0
2726	0.20	0.55	0.27	282,320,347	0.12	0.12	320,342,348
2727	0.17	0.39	0.23	282,320,347	0.0	0.0	0,0,0
2728	0.18	0.47	0.24	313,320,348	0.0	0.0	0,0,0
2729	0.15	0.39	0.20	313,320,348	0.0	0.0	0,0,0
2730	0.12	0.31	0.16	313,320,348	0.0	0.0	0,0,0
2731	0.09	0.24	0.12	290,320,350	0.0	0.0	0,0,0
2732	0.07	0.18	0.09	290,297,350	0.0	0.0	0,0,0
2733	0.05	0.13	0.06	290,297,350	0.0	0.0	0,0,0
2734	0.04	0.14	0.05	283,285,347	0.0	0.0	0,0,0
2735	0.21	0.51	0.28	316,320,348	0.12	0.12	320,342,348
2736	0.18	0.43	0.23	313,320,348	0.09	0.09	320,342,348
2737	0.18	0.48	0.24	313,320,348	0.0	0.0	0,0,0
2738	0.15	0.40	0.20	313,320,348	0.0	0.0	0,0,0
2739	0.12	0.32	0.16	313,320,348	0.0	0.0	0,0,0
2740	0.09	0.25	0.12	290,320,350	0.0	0.0	0,0,0
2741	0.07	0.20	0.09	290,320,350	0.0	0.0	0,0,0
2742	0.05	0.16	0.07	290,297,350	0.0	0.0	0,0,0
2743	0.05	0.16	0.06	304,293,350	0.0	0.0	0,0,0
2744	0.22	0.53	0.30	316,320,348	0.12	0.12	320,342,348
2745	0.18	0.43	0.24	282,320,347	0.09	0.09	320,342,348
2746	0.19	0.49	0.25	316,320,348	0.0	0.0	0,0,0
2747	0.15	0.40	0.20	313,320,348	0.0	0.0	0,0,0
2748	0.12	0.33	0.16	290,320,350	0.0	0.0	0,0,0
2749	0.09	0.26	0.13	290,320,350	0.0	0.0	0,0,0
2750	0.07	0.21	0.10	290,297,350	0.0	0.0	0,0,0
2751	0.06	0.17	0.08	290,297,350	0.0	0.0	0,0,0
2752	0.05	0.15	0.06	282,297,347	0.0	0.0	0,0,0
2753	0.23	0.55	0.31	320,320,348	0.13	0.13	320,342,348
2754	0.19	0.46	0.25	316,320,348	0.10	0.10	316,342,348
2755	0.19	0.50	0.25	316,320,348	0.0	0.0	0,0,0
2756	0.15	0.41	0.20	316,320,348	0.0	0.0	0,0,0
2757	0.12	0.33	0.16	313,320,348	0.0	0.0	0,0,0
2758	0.09	0.27	0.13	290,320,350	0.0	0.0	0,0,0
2759	0.07	0.21	0.10	290,320,350	0.0	0.0	0,0,0
2760	0.06	0.17	0.08	313,320,350	0.0	0.0	0,0,0
2761	0.05	0.15	0.06	314,320,348	0.0	0.0	0,0,0
2762	0.24	0.58	0.32	316,320,348	0.14	0.14	316,342,348
2763	0.20	0.48	0.26	320,320,348	0.10	0.10	313,339,348
2764	0.20	0.51	0.26	320,320,348	0.0	0.0	0,0,0
2765	0.16	0.42	0.21	316,320,348	0.0	0.0	0,0,0
2766	0.12	0.34	0.16	316,320,348	0.0	0.0	0,0,0
2767	0.10	0.27	0.13	316,320,348	0.0	0.0	0,0,0
2768	0.07	0.21	0.10	313,320,348	0.0	0.0	0,0,0
2769	0.06	0.17	0.08	313,320,348	0.0	0.0	0,0,0
2770	0.05	0.15	0.06	314,320,348	0.0	0.0	0,0,0
2771	0.25	0.60	0.33	320,320,348	0.14	0.14	313,339,348
2772	0.20	0.49	0.27	320,320,348	0.10	0.10	313,339,348
2773	0.20	0.52	0.27	320,320,348	0.0	0.0	0,0,0
2774	0.16	0.42	0.21	320,320,348	0.0	0.0	0,0,0
2775	0.12	0.33	0.16	297,320,350	0.0	0.0	0,0,0
2776	0.09	0.26	0.13	293,320,350	0.0	0.0	0,0,0
2777	0.07	0.21	0.10	314,320,348	0.0	0.0	0,0,0
2778	0.06	0.17	0.08	314,320,348	0.0	0.0	0,0,0
2779	0.05	0.13	0.06	305,320,348	0.0	0.0	0,0,0
2780	0.26	0.61	0.34	320,320,348	0.15	0.15	313,339,348
2781	0.21	0.50	0.28	320,320,348	0.11	0.11	313,339,348
2782	0.20	0.52	0.27	320,307,348	0.0	0.0	0,0,0
2783	0.16	0.41	0.21	297,307,350	0.0	0.0	0,0,0
2784	0.12	0.32	0.16	297,320,350	0.0	0.0	0,0,0
2785	0.09	0.25	0.13	289,320,347	0.0	0.0	0,0,0
2786	0.07	0.20	0.10	291,320,350	0.0	0.0	0,0,0
2787	0.06	0.15	0.07	291,297,350	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2788	0.04	0.12	0.06	291,297,350	0.0	0.0	0,0,0
2789	0.27	0.62	0.35	320,320,348	0.15	0.15	313,339,348
2790	0.21	0.50	0.28	320,320,348	0.11	0.11	282,330,347
2791	0.21	0.52	0.27	297,282,350	0.0	0.0	0,0,0
2792	0.16	0.40	0.21	289,290,347	0.0	0.0	0,0,0
2793	0.12	0.31	0.17	289,291,347	0.0	0.0	0,0,0
2794	0.09	0.24	0.13	289,291,347	0.0	0.0	0,0,0
2795	0.07	0.18	0.09	289,291,347	0.0	0.0	0,0,0
2796	0.05	0.14	0.07	293,292,350	0.0	0.0	0,0,0
2797	0.04	0.10	0.05	293,293,350	0.0	0.0	0,0,0
2798	0.27	0.62	0.36	312,320,348	0.16	0.16	313,339,348
2799	0.22	0.49	0.29	281,311,347	0.11	0.11	282,330,347
2800	0.21	0.51	0.28	281,282,347	0.0	0.0	0,0,0
2801	0.16	0.40	0.22	281,282,347	0.0	0.0	0,0,0
2802	0.13	0.30	0.17	280,282,347	0.0	0.0	0,0,0
2803	0.10	0.23	0.13	281,282,347	0.0	0.0	0,0,0
2804	0.07	0.17	0.09	281,290,347	0.0	0.0	0,0,0
2805	0.05	0.13	0.07	289,290,347	0.0	0.0	0,0,0
2806	0.04	0.09	0.05	289,291,347	0.0	0.0	0,0,0
2807	0.27	0.62	0.37	281,320,347	0.16	0.15	313,339,350
2808	0.22	0.47	0.29	281,282,347	0.11	0.11	282,330,347
2809	0.21	0.52	0.28	277,282,347	0.19	0.19	280,333,347
2810	0.17	0.40	0.22	277,282,347	0.0	0.0	0,0,0
2811	0.13	0.30	0.17	281,282,347	0.0	0.0	0,0,0
2812	0.10	0.23	0.13	281,282,347	0.0	0.0	0,0,0
2813	0.07	0.17	0.09	281,282,347	0.0	0.0	0,0,0
2814	0.05	0.12	0.07	289,282,347	0.0	0.0	0,0,0
2815	0.04	0.09	0.05	289,328,347	0.0	0.0	0,0,0
2816	0.27	0.62	0.37	281,320,347	0.16	0.16	320,342,348
2817	0.22	0.48	0.30	282,289,347	0.11	0.11	289,333,347
2818	0.22	0.53	0.29	286,289,347	0.20	0.20	297,337,350
2819	0.17	0.41	0.23	282,289,347	0.0	0.0	0,0,0
2820	0.13	0.31	0.17	286,289,347	0.0	0.0	0,0,0
2821	0.10	0.23	0.13	277,286,347	0.0	0.0	0,0,0
2822	0.07	0.17	0.10	281,286,347	0.0	0.0	0,0,0
2823	0.05	0.13	0.07	280,289,347	0.0	0.0	0,0,0
2824	0.04	0.09	0.05	289,293,347	0.0	0.0	0,0,0
2825	0.27	0.69	0.37	282,320,347	0.18	0.18	289,333,347
2826	0.22	0.48	0.30	313,320,348	0.11	0.11	320,342,348
2827	0.22	0.53	0.29	313,320,348	0.20	0.20	320,342,348
2828	0.17	0.40	0.23	282,297,347	0.0	0.0	0,0,0
2829	0.13	0.29	0.17	286,289,347	0.0	0.0	0,0,0
2830	0.10	0.21	0.13	278,280,347	0.0	0.0	0,0,0
2831	0.07	0.15	0.09	281,277,347	0.0	0.0	0,0,0
2832	0.05	0.10	0.06	281,286,347	0.0	0.0	0,0,0
2833	0.03	0.07	0.04	281,286,347	0.0	0.0	0,0,0
2834	0.02	0.07	0.03	291,290,350	0.0	0.0	0,0,0
2835	0.02	0.11	0.03	278,320,347	0.0	0.0	0,0,0
2836	0.04	0.13	0.05	314,311,348	0.0	0.0	0,0,0
2837	9.43e-03	0.05	0.01	303,325,349	0.0	0.0	0,0,0
2838	0.02	0.12	0.03	316,324,348	0.0	0.0	0,0,0
2839	0.02	0.09	0.03	320,320,348	0.0	0.0	0,0,0
2840	0.03	0.09	0.04	274,291,347	0.0	0.0	0,0,0
2841	0.03	0.12	0.04	291,284,350	0.0	0.0	0,0,0
2842	0.02	0.12	0.03	280,280,347	0.0	0.0	0,0,0
2843	0.02	0.05	0.03	285,289,347	0.0	0.0	0,0,0
2844	8.03e-03	0.04	0.01	289,276,347	0.0	0.0	0,0,0
2845	0.02	0.12	0.03	328,328,349	0.0	0.0	0,0,0
2846	0.02	0.11	0.03	328,320,349	0.0	0.0	0,0,0
2847	0.02	0.12	0.03	289,289,347	0.0	0.0	0,0,0
2848	0.01	0.06	0.02	311,308,348	0.0	0.0	0,0,0
2849	0.03	0.10	0.04	285,328,347	0.0	0.0	0,0,0
2850	0.01	0.06	0.02	280,280,347	0.0	0.0	0,0,0
2851	0.01	0.07	0.02	316,316,348	0.0	0.0	0,0,0
2852	0.01	0.04	0.01	280,277,347	0.0	0.0	0,0,0
2853	0.01	0.04	0.01	285,280,347	0.0	0.0	0,0,0
2854	0.03	0.09	0.04	291,272,350	0.0	0.0	0,0,0
2855	0.03	0.08	0.03	283,320,347	0.0	0.0	0,0,0
2856	0.03	0.14	0.04	291,291,350	0.0	0.0	0,0,0
2857	0.03	0.09	0.04	280,328,347	0.0	0.0	0,0,0
2858	0.02	0.08	0.03	324,324,349	0.0	0.0	0,0,0
2859	0.02	0.05	0.02	291,320,350	0.0	0.0	0,0,0
2860	3.38e-03	0.02	4.50e-03	316,320,348	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
2861	0.02	0.10	0.03	328,328,349	0.0	0.0	0,0,0
2862	0.02	0.09	0.03	328,328,349	0.0	0.0	0,0,0
2863	0.05	0.19	0.06	314,306,348	0.0	0.0	0,0,0
2864	0.03	0.10	0.04	291,320,350	0.0	0.0	0,0,0
2865	0.03	0.09	0.04	316,297,348	0.0	0.0	0,0,0
2866	4.44e-03	0.03	5.91e-03	307,307,348	0.0	0.0	0,0,0
2867	3.48e-04	2.51e-03	4.65e-04	326,307,349	0.0	0.0	0,0,0
2868	2.29e-03	0.01	3.05e-03	316,316,348	0.0	0.0	0,0,0
2869	0.03	0.10	0.04	278,328,347	0.0	0.0	0,0,0
2870	0.01	0.08	0.02	281,277,347	0.0	0.0	0,0,0
2871	0.01	0.04	0.02	297,320,350	0.0	0.0	0,0,0
2872	0.03	0.10	0.04	285,320,347	0.0	0.0	0,0,0
2873	0.04	0.14	0.05	314,307,348	0.0	0.0	0,0,0
2874	0.02	0.09	0.02	311,308,348	0.0	0.0	0,0,0
2875	2.11e-03	0.02	2.81e-03	278,278,347	0.0	0.0	0,0,0
2876	0.04	0.11	0.05	305,311,348	0.0	0.0	0,0,0
2877	7.39e-03	0.03	9.86e-03	324,316,349	0.0	0.0	0,0,0
2878	0.02	0.12	0.03	289,289,347	0.0	0.0	0,0,0
2879	0.04	0.17	0.05	291,314,350	0.0	0.0	0,0,0
2880	0.03	0.13	0.04	314,305,348	0.0	0.0	0,0,0
2881	0.02	0.08	0.03	291,305,350	0.0	0.0	0,0,0

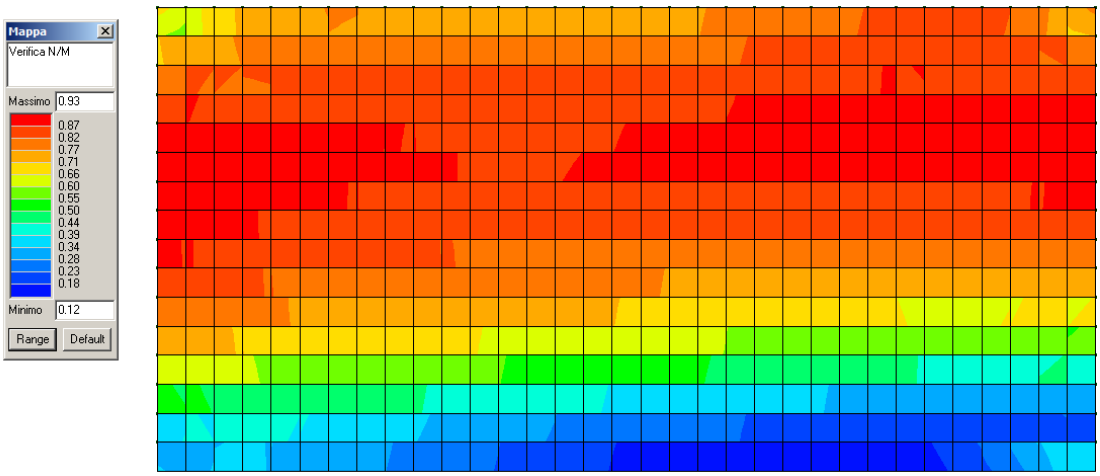
15 Verifica della spalla

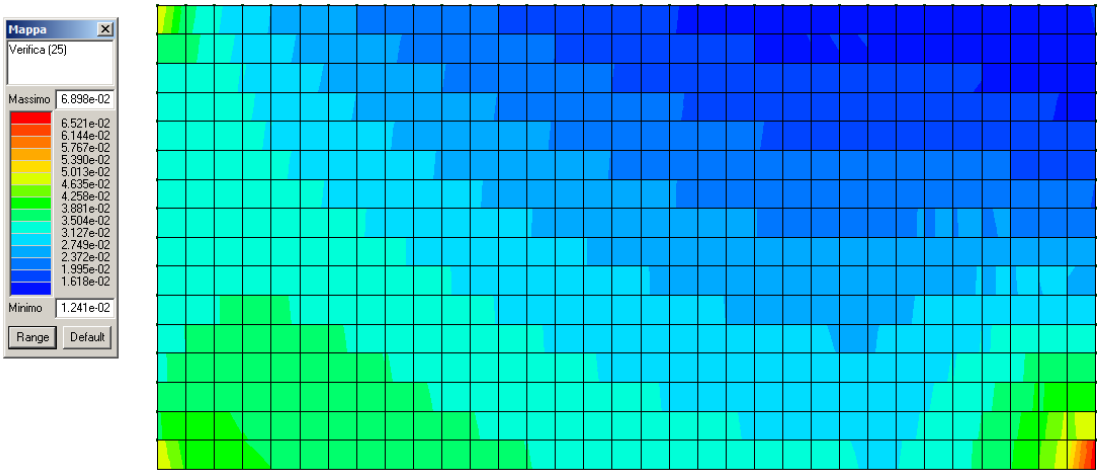
15.1 SLU

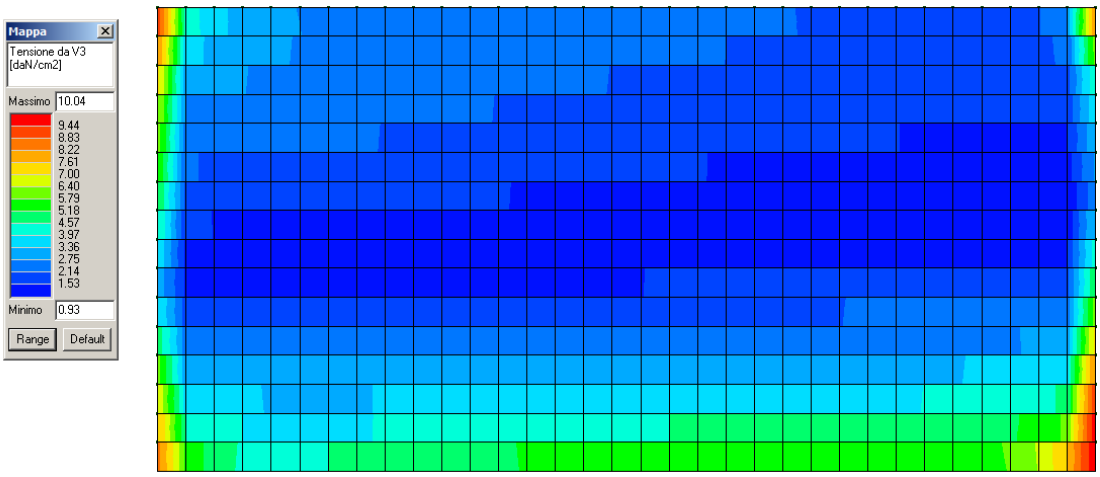
Si produce una tabella nella quale vengono riportati per ogni macroelemento il numero dello stesso ed il codice di verifica. Vengono riportati il rapporto x/d, la verifica per sollecitazioni ultime e la verifica per compressione media. Per ogni elemento viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso (diametri in mm, passi in cm). Le quantità di armature necessarie sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

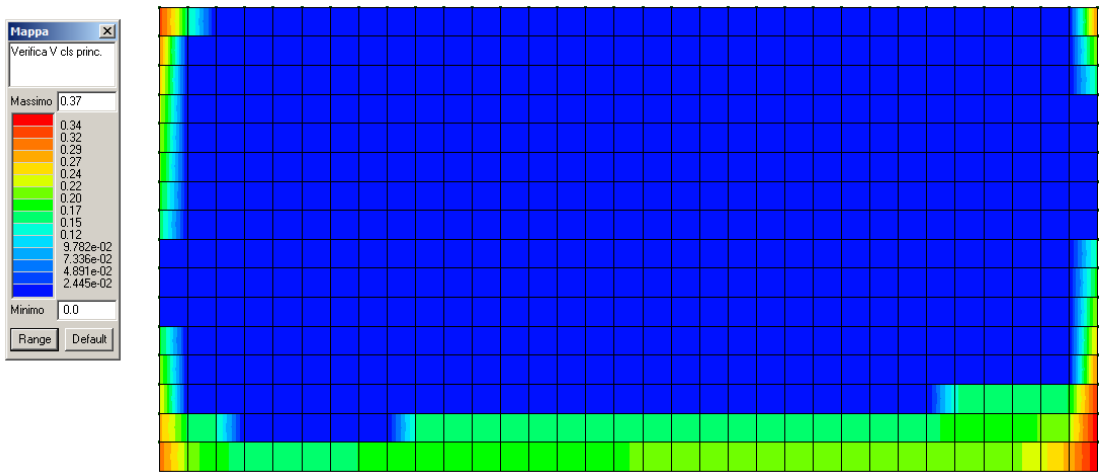
In particolare i simboli utilizzati assumono il seguente significato:

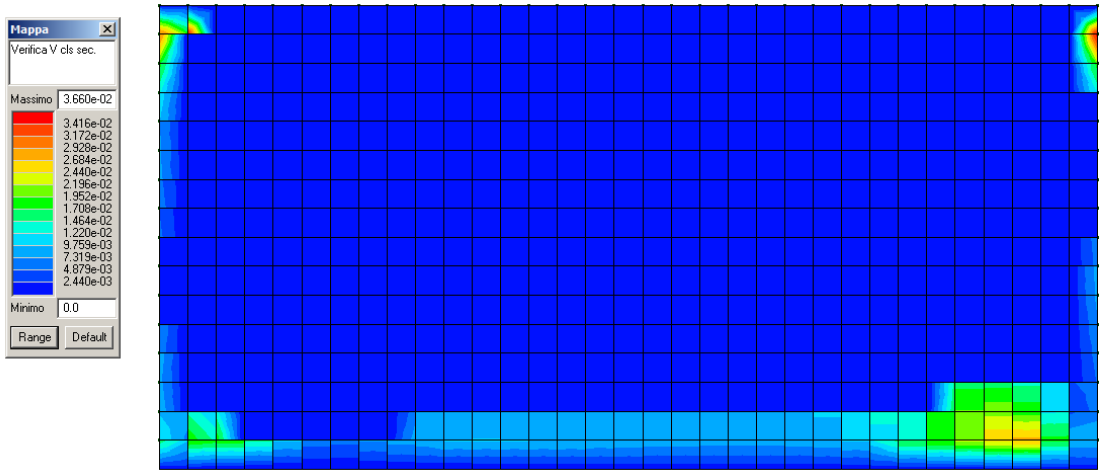
M_S		macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà)
Stato		codice di verifica dell'elemento
Nodo		numero del nodo
x/d		rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
verif.		rapporto Sd/Su con sollecitazioni ultime: valore minore o uguale a 1 per verifica positiva
Ver.rd		rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd): valore minore o uguale a 1 per verifica positiva
Af pr-		quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr+		quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	**Af sec+**	valori analoghi a quelli soprariportati ma relativi alla armatura secondaria
N	**M**	azioni membranali e flessionali (in direzione dell'armatura principale e secondaria) estratte, poiché rappresentative, tra quelle utilizzate per il progetto e la verifica


Mappa
Verifica N/M
Massimo 0.93
0.87
0.82
0.77
0.71
0.66
0.60
0.55
0.50
0.44
0.39
0.34
0.28
0.23
0.18
Minimo 0.12
Range
Default


Mappa
Verifica (25)
Massimo 6.898e-02
6.521e-02
6.144e-02
5.767e-02
5.390e-02
5.013e-02
4.635e-02
4.258e-02
3.881e-02
3.504e-02
3.127e-02
2.749e-02
2.372e-02
1.995e-02
1.618e-02
Minimo 1.241e-02
Range
Default


Mappa
Tensione da V3 [daN/cm2]
Massimo 10.04
9.44
8.83
8.22
7.61
7.00
6.40
5.79
5.18
4.57
3.97
3.36
2.75
2.14
1.53
Minimo 0.93
Range
Default





Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
8	80.00	4	7	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
852	ok	0.06	0.3	5.02e-02	31.4	31.4	10.1	10.1	-639.5	-126.3	-65.1	-1.667e+04	-3346.5	-4071.9
853	ok	0.06	0.3	4.21e-02	31.4	31.4	10.1	10.1	-533.2	-105.5	-53.8	-1.630e+04	-3270.9	-2394.8
855	ok	0.06	0.3	4.04e-02	31.4	31.4	10.1	10.1	-514.3	-102.2	-39.4	-1.922e+04	-3870.1	-1260.2
857	ok	0.06	0.3	3.94e-02	31.4	31.4	10.1	10.1	-505.4	-100.8	-28.1	-2.054e+04	-4139.5	-500.6
859	ok	0.06	0.3	3.89e-02	31.4	31.4	10.1	10.1	-500.3	-100.1	-18.5	-2.085e+04	-4208.0	-50.1
861	ok	0.06	0.3	3.84e-02	31.4	31.4	10.1	10.1	-495.9	-99.5	-10.3	-2.053e+04	-4150.0	207.9
863	ok	0.06	0.3	3.80e-02	31.4	31.4	10.1	10.1	-491.5	-98.9	-3.1	-1.984e+04	-4016.8	353.8
865	ok	0.06	0.3	3.76e-02	31.4	31.4	10.1	10.1	-486.8	-98.1	3.2	-1.893e+04	-3840.5	434.8
867	ok	0.06	0.3	3.73e-02	31.4	31.4	10.1	10.1	-481.6	-97.3	8.7	-1.790e+04	-3640.8	477.9
869	ok	0.06	0.3	3.69e-02	31.4	31.4	10.1	10.1	-476.1	-96.3	13.5	-1.682e+04	-3430.0	498.7
871	ok	0.06	0.3	3.64e-02	31.4	31.4	10.1	10.1	-468.3	-95.2	19.9	-1.639e+04	-3351.4	471.8
873	ok	0.06	0.2	3.60e-02	31.4	31.4	10.1	10.1	-461.6	-94.1	24.7	-1.573e+04	-3225.2	454.7
875	ok	0.06	0.2	3.56e-02	31.4	31.4	10.1	10.1	-455.7	-93.0	28.1	-1.475e+04	-3034.4	450.7
877	ok	0.06	0.2	3.51e-02	31.4	31.4	10.1	10.1	-449.8	-91.9	31.1	-1.380e+04	-2848.4	444.3
879	ok	0.06	0.2	3.47e-02	31.4	31.4	10.1	10.1	-443.9	-90.8	33.8	-1.288e+04	-2668.0	436.6
881	ok	0.06	0.2	3.43e-02	31.4	31.4	10.1	10.1	-438.0	-89.7	36.2	-1.200e+04	-2493.6	428.2
883	ok	0.06	0.2	3.38e-02	31.4	31.4	10.1	10.1	-432.4	-88.5	38.4	-1.114e+04	-2325.3	419.6
885	ok	0.06	0.2	3.34e-02	31.4	31.4	10.1	10.1	-426.8	-87.4	40.5	-1.032e+04	-2163.1	410.9
887	ok	0.06	0.2	3.31e-02	31.4	31.4	10.1	10.1	-421.5	-86.3	42.4	-9523.8	-2006.9	402.3
889	ok	0.06	0.1	3.27e-02	31.4	31.4	10.1	10.1	-416.5	-85.2	44.3	-8762.6	-1856.3	394.2
891	ok	0.06	0.1	3.24e-02	31.4	31.4	10.1	10.1	-411.7	-84.2	46.1	-8029.2	-1710.9	387.3
893	ok	0.06	0.1	3.21e-02	31.4	31.4	10.1	10.1	-407.2	-83.2	47.9	-7319.2	-1569.7	382.7
895	ok	0.06	0.1	3.18e-02	31.4	31.4	10.1	10.1	-403.0	-82.3	49.7	-6624.9	-1431.1	382.1
897	ok	0.06	0.1	3.16e-02	31.4	31.4	10.1	10.1	-399.3	-81.5	51.6	-5933.4	-1292.7	388.7
899	ok	0.06	0.1	3.14e-02	31.4	31.4	10.1	10.1	-396.0	-80.7	53.7	-5223.9	-1150.2	407.1
901	ok	0.06	0.1	3.13e-02	31.4	31.4	10.1	10.1	-348.1	-72.9	99.1	-1.224e+04	-2502.7	-121.2
903	ok	0.06	0.1	3.12e-02	31.4	31.4	10.1	10.1	-362.9	-75.9	99.1	-1.259e+04	-2572.7	-89.0
905	ok	0.06	0.2	3.22e-02	31.4	31.4	10.1	10.1	-380.5	-79.5	100.8	-1.284e+04	-2622.6	-26.0
907	ok	0.06	0.2	3.38e-02	31.4	31.4	10.1	10.1	-401.9	-83.8	104.6	-1.294e+04	-2637.7	87.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
909	ok	0.06	0.2	3.59e-02	31.4	31.4	10.1	10.1	-429.1	-89.2	107.1	-1.275e+04	-2598.3	280.2
911	ok	0.06	0.3	3.87e-02	31.4	31.4	10.1	10.1	-465.5	-96.3	110.4	-1.209e+04	-2465.6	609.0
913	ok	0.06	0.3	4.29e-02	31.4	31.4	10.1	10.1	-519.3	-107.0	110.4	-1.072e+04	-2191.9	1139.7
915	ok	0.06	0.4	4.93e-02	31.4	31.4	10.1	10.1	-606.9	-124.3	116.4	-8250.6	-1687.7	1880.4
917	ok	0.06	0.4	6.90e-02	31.4	31.4	10.1	10.1	-871.1	-176.8	114.1	-8419.3	-1719.3	2867.0
919	ok	0.06	0.4	4.85e-02	31.4	31.4	10.1	10.1	-498.2	-1.8	-16.2	-3.116e+04	-2100.4	-2859.0
920	ok	0.06	0.4	4.13e-02	31.4	31.4	10.1	10.1	-531.1	-56.9	-37.2	-3.189e+04	-3630.6	-3152.8
921	ok	0.06	0.5	3.87e-02	31.4	31.4	10.1	10.1	-462.5	-0.2	-4.3	-4.267e+04	-1792.3	-2323.8
922	ok	0.06	0.5	4.08e-02	31.4	31.4	10.1	10.1	-493.5	-16.7	-15.0	-4.300e+04	-3524.7	-2720.0
923	ok	0.06	0.6	3.58e-02	31.4	31.4	10.1	10.1	-445.6	2.4	1.23e-02	-5.080e+04	-1550.4	-1552.2
924	ok	0.06	0.6	3.81e-02	31.4	31.4	10.1	10.1	-470.1	-6.6	-3.3	-5.106e+04	-3503.1	-1838.6
925	ok	0.06	0.7	3.45e-02	31.4	31.4	10.1	10.1	-435.3	2.1	2.0	-5.620e+04	-1319.6	-685.3
926	ok	0.06	0.7	3.63e-02	31.4	31.4	10.1	10.1	-454.1	-2.5	3.3	-5.645e+04	-3368.4	-751.0
927	ok	0.06	0.8	3.37e-02	31.4	31.4	10.1	10.1	-428.1	1.8	3.2	-5.920e+04	-1082.7	195.3
928	ok	0.06	0.8	3.51e-02	31.4	31.4	10.1	10.1	-442.7	-1.0	7.4	-5.946e+04	-3152.5	402.6
929	ok	0.06	0.9	3.31e-02	31.4	31.4	10.1	10.1	-422.6	1.4	4.1	-6.003e+04	-840.4	1053.4
930	ok	0.06	0.9	3.43e-02	31.4	31.4	10.1	10.1	-434.1	-0.6	10.4	-6.028e+04	-2866.7	1549.5
931	ok	0.06	0.9	3.27e-02	31.4	31.4	10.1	10.1	-422.9	0.2	4.1	-6.003e+04	-828.0	1120.0
932	ok	0.06	0.9	3.36e-02	31.4	31.4	10.1	10.1	-434.4	-2.0	10.4	-6.026e+04	-2754.0	2049.3
933	ok	0.06	0.9	3.24e-02	31.4	31.4	10.1	10.1	-418.7	0.1	4.8	-5.893e+04	-962.5	1924.5
934	ok	0.06	0.9	3.31e-02	31.4	31.4	10.1	10.1	-428.0	-2.0	12.8	-5.914e+04	-2741.2	3105.2
935	ok	0.06	0.9	3.22e-02	31.4	31.4	10.1	10.1	-415.9	5.75e-02	5.5	-5.599e+04	-1063.9	2654.6
936	ok	0.06	0.9	3.28e-02	31.4	31.4	10.1	10.1	-423.5	-2.3	15.3	-5.618e+04	-2652.1	4053.1
937	ok	0.06	0.9	3.21e-02	31.4	31.4	10.1	10.1	-414.6	-3.05e-02	6.4	-5.133e+04	-1134.2	3290.0
938	ok	0.06	0.9	3.26e-02	31.4	31.4	10.1	10.1	-420.9	-3.0	18.1	-5.151e+04	-2490.8	4859.5
939	ok	0.06	0.9	3.24e-02	31.4	31.4	10.1	10.1	-415.4	-0.1	7.5	-4.510e+04	-1174.4	3809.3
940	ok	0.06	0.9	3.29e-02	31.4	31.4	10.1	10.1	-420.6	-4.2	21.6	-4.526e+04	-2256.7	5487.3
941	ok	0.06	0.9	3.31e-02	31.4	31.4	10.1	10.1	-419.1	-0.4	9.3	-3.739e+04	-1182.9	4185.8
942	ok	0.06	0.9	3.35e-02	31.4	31.4	10.1	10.1	-423.5	-6.6	26.6	-3.753e+04	-1945.2	5889.0
943	ok	0.06	0.9	3.45e-02	31.4	31.4	10.1	10.1	-427.6	-0.8	12.1	-2.826e+04	-1167.3	4381.3
944	ok	0.06	0.9	3.48e-02	31.4	31.4	10.1	10.1	-430.4	-11.8	35.0	-2.745e+04	-1491.0	5782.3
945	ok	0.06	0.8	3.80e-02	31.4	31.4	10.1	10.1	-445.7	-4.5	18.0	-1.663e+04	-1044.9	4167.3
946	ok	0.06	0.8	3.69e-02	31.4	31.4	10.1	10.1	-445.6	-22.6	47.5	-1.682e+04	-971.8	5462.2
947	ok	0.06	0.7	4.89e-02	31.4	31.4	10.1	10.1	-619.9	-34.1	79.9	1.101e+04	1657.9	2113.1
948	ok	0.06	0.8	3.75e-02	31.4	31.4	10.1	10.1	-448.8	-56.3	79.8	1.087e+04	2947.3	3796.1
949	ok	0.06	0.7	5.05e-02	31.4	31.4	10.1	10.1	-638.6	-127.6	79.9	1.113e+04	2221.5	1943.6
950	ok	0.06	0.6	3.67e-02	31.4	31.4	10.1	10.1	-455.8	-91.4	79.8	1.071e+04	2144.8	2168.0
951	ok	0.06	0.4	3.97e-02	31.4	31.4	10.1	10.1	-510.8	-68.6	-31.7	-3.202e+04	-4587.1	-1537.2
952	ok	0.06	0.5	3.92e-02	31.4	31.4	10.1	10.1	-499.6	-38.6	-18.4	-4.253e+04	-5228.5	-1509.3
953	ok	0.06	0.6	3.84e-02	31.4	31.4	10.1	10.1	-481.2	-19.6	-5.6	-5.034e+04	-5414.6	-911.1
954	ok	0.06	0.7	3.71e-02	31.4	31.4	10.1	10.1	-465.3	-10.9	3.4	-5.566e+04	-5407.4	-87.0
955	ok	0.06	0.8	3.60e-02	31.4	31.4	10.1	10.1	-452.3	-6.6	9.9	-5.866e+04	-5236.6	825.4
956	ok	0.06	0.8	3.50e-02	31.4	31.4	10.1	10.1	-441.9	-4.7	14.9	-5.952e+04	-4932.1	1748.3
957	ok	0.06	0.9	3.42e-02	31.4	31.4	10.1	10.1	-442.1	-5.8	14.9	-5.948e+04	-4726.7	2169.8
958	ok	0.06	0.9	3.36e-02	31.4	31.4	10.1	10.1	-433.8	-5.7	19.1	-5.842e+04	-4582.6	3022.1
959	ok	0.06	0.9	3.32e-02	31.4	31.4	10.1	10.1	-427.4	-6.4	23.2	-5.555e+04	-4320.1	3781.1
960	ok	0.06	0.9	3.29e-02	31.4	31.4	10.1	10.1	-422.8	-8.0	27.6	-5.100e+04	-3948.0	4413.3
961	ok	0.06	0.9	3.27e-02	31.4	31.4	10.1	10.1	-420.1	-10.8	32.9	-4.491e+04	-3471.0	4881.4
962	ok	0.06	0.9	3.29e-02	31.4	31.4	10.1	10.1	-419.5	-15.9	39.8	-3.739e+04	-2886.9	5136.5
963	ok	0.06	0.9	3.32e-02	31.4	31.4	10.1	10.1	-419.9	-25.0	49.9	-2.761e+04	-2107.1	4898.7
964	ok	0.06	0.8	3.35e-02	31.4	31.4	10.1	10.1	-416.9	-16.9	47.5	-1.738e+04	-1085.1	4804.7
965	ok	0.06	0.8	3.32e-02	31.4	31.4	10.1	10.1	-392.7	-61.1	73.5	6966.0	2583.3	3135.7
966	ok	0.06	0.7	3.24e-02	31.4	31.4	10.1	10.1	-396.5	-79.9	73.5	6719.4	1350.5	1857.9
967	ok	0.06	0.4	3.89e-02	31.4	31.4	10.1	10.1	-502.1	-74.5	-23.5	-3.242e+04	-5426.6	-526.6
968	ok	0.06	0.5	3.86e-02	31.4	31.4	10.1	10.1	-494.3	-50.2	-14.8	-4.222e+04	-6399.3	-422.9
969	ok	0.06	0.6	3.80e-02	31.4	31.4	10.1	10.1	-482.6	-32.0	-4.7	-4.977e+04	-6878.6	-24.7
970	ok	0.06	0.7	3.72e-02	31.4	31.4	10.1	10.1	-469.2	-20.4	4.5	-5.499e+04	-7018.3	576.9
971	ok	0.06	0.8	3.62e-02	31.4	31.4	10.1	10.1	-456.5	-13.9	12.0	-5.797e+04	-6922.4	1265.3
972	ok	0.06	0.8	3.53e-02	31.4	31.4	10.1	10.1	-445.3	-10.5	18.3	-5.887e+04	-6633.7	1972.1
973	ok	0.06	0.9	3.45e-02	31.4	31.4	10.1	10.1	-445.4	-11.1	18.3	-5.881e+04	-6379.7	2296.0
974	ok	0.06	0.9	3.38e-02	31.4	31.4	10.1	10.1	-435.8	-10.8	23.8	-5.782e+04	-6153.6	2948.0
975	ok	0.06	0.9	3.32e-02	31.4	31.4	10.1	10.1	-427.6	-11.8	29.1	-5.504e+04	-5775.3	3520.4
976	ok	0.06	0.9	3.28e-02	31.4	31.4	10.1	10.1	-420.7	-14.2	34.6	-5.061e+04	-5260.7	3981.2
977	ok	0.06	0.9	3.24e-02	31.4	31.4	10.1	10.1	-414.8	-18.3	40.8	-4.468e+04	-4622.5	4294.5
978	ok	0.06	0.9	3.22e-02	31.4	31.4	10.1	10.1	-407.3	-13.4	39.8	-3.719e+04	-2846.8	4760.8
979	ok	0.06	0.9	3.20e-02	31.4	31.4	10.1	10.1	-402.7	-35.6	57.1	-2.791e+04	-2881.3	4064.8
980	ok	0.06	0.8	3.15e-02	31.4	31.4	10.1	10.1	-393.3	-49.9	65.2	-1.771e+04	-1760.1	3460.4
981	ok	0.06	0.8	3.07e-02	31.4	31.4	10.1	10.1	-378.0	-58.1	71.9	-7169.0	-243.7	2770.9
982	ok	0.06	0.7	2.95e-02	31.4	31.4	10.1	10.1	-360.7	-72.9	69.0	3585.2	726.3	1378.7
983	ok	0.06	0.4	3.84e-02	31.4	31.4	10.1	10.1	-495.7	-78.0	-15.4	-3.249e+04	-5916.1	139.7
984	ok	0.06	0.5	3.81e-02	31.4	31.4	10.1	10.1	-488.8	-57.8	-9.2	-4.200e+04	-7180.7	362.7
985	ok	0.06	0.6	3.76e-02	31.4	31.4	10.1	10.1	-479.3	-41.3	-1.4	-4.935e+04	-7905.8	705.1
986	ok	0.06	0.7	3.69e-02	31.4	31.4	10.1	10.1	-468.1	-29.4	6.7	-5.448e+04	-8222.9	1160.5

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
987	ok	0.06	0.8	3.61e-02	31.4	31.4	10.1	10.1	-456.3	-21.7	14.3	-5.745e+04	-8229.9	1680.4
988	ok	0.06	0.8	3.53e-02	31.4	31.4	10.1	10.1	-444.8	-17.2	21.1	-5.837e+04	-7989.5	2214.2
989	ok	0.06	0.8	3.45e-02	31.4	31.4	10.1	10.1	-444.8	-17.2	21.1	-5.832e+04	-7726.5	2457.1
990	ok	0.06	0.9	3.37e-02	31.4	31.4	10.1	10.1	-434.3	-16.7	27.3	-5.738e+04	-7460.9	2941.8
991	ok	0.06	0.9	3.31e-02	31.4	31.4	10.1	10.1	-424.6	-17.8	33.2	-5.468e+04	-7014.9	3355.1
992	ok	0.06	0.9	3.25e-02	31.4	31.4	10.1	10.1	-415.4	-20.6	39.1	-5.038e+04	-6411.1	3667.0
993	ok	0.06	0.9	3.19e-02	31.4	31.4	10.1	10.1	-404.7	-16.3	40.8	-4.439e+04	-4563.8	4070.9
994	ok	0.06	0.9	3.13e-02	31.4	31.4	10.1	10.1	-395.7	-32.5	53.2	-3.665e+04	-4681.0	3630.0
995	ok	0.06	0.9	3.07e-02	31.4	31.4	10.1	10.1	-383.1	-31.7	57.1	-2.820e+04	-2937.8	3725.5
996	ok	0.06	0.8	2.99e-02	31.4	31.4	10.1	10.1	-371.2	-52.8	64.4	-1.858e+04	-2438.2	2772.2
997	ok	0.06	0.8	2.88e-02	31.4	31.4	10.1	10.1	-354.9	-62.6	66.3	-8740.6	-1096.1	1870.2
998	ok	0.06	0.7	2.75e-02	31.4	31.4	10.1	10.1	-336.7	-68.2	65.0	1239.6	258.5	999.4
999	ok	0.06	0.4	3.81e-02	31.4	31.4	10.1	10.1	-490.2	-80.5	-8.0	-3.227e+04	-6151.1	558.2
1000	ok	0.06	0.5	3.77e-02	31.4	31.4	10.1	10.1	-483.2	-63.2	-3.4	-4.174e+04	-7647.9	910.9
1001	ok	0.06	0.6	3.72e-02	31.4	31.4	10.1	10.1	-474.3	-48.5	2.8	-4.900e+04	-8593.3	1259.8
1002	ok	0.06	0.7	3.65e-02	31.4	31.4	10.1	10.1	-464.0	-37.1	9.7	-5.408e+04	-9085.2	1640.5
1003	ok	0.06	0.8	3.58e-02	31.4	31.4	10.1	10.1	-452.8	-29.1	16.7	-5.705e+04	-9213.8	2045.2
1004	ok	0.06	0.8	3.50e-02	31.4	31.4	10.1	10.1	-441.3	-24.0	23.4	-5.801e+04	-9045.9	2448.6
1005	ok	0.06	0.8	3.42e-02	31.4	31.4	10.1	10.1	-441.2	-23.5	23.4	-5.796e+04	-8803.3	2627.9
1006	ok	0.06	0.9	3.34e-02	31.4	31.4	10.1	10.1	-430.1	-22.8	29.7	-5.708e+04	-8530.6	2977.0
1007	ok	0.06	0.9	3.27e-02	31.4	31.4	10.1	10.1	-419.1	-23.9	35.8	-5.447e+04	-8051.4	3257.5
1008	ok	0.06	0.9	3.19e-02	31.4	31.4	10.1	10.1	-406.2	-26.7	43.4	-4.960e+04	-7293.2	3215.5
1009	ok	0.06	0.9	3.12e-02	31.4	31.4	10.1	10.1	-395.0	-31.4	49.0	-4.387e+04	-6457.9	3279.3
1010	ok	0.06	0.9	3.04e-02	31.4	31.4	10.1	10.1	-382.3	-37.8	55.1	-3.643e+04	-5409.0	3080.2
1011	ok	0.06	0.9	2.95e-02	31.4	31.4	10.1	10.1	-368.9	-45.6	59.4	-2.834e+04	-4289.9	2787.8
1012	ok	0.06	0.8	2.85e-02	31.4	31.4	10.1	10.1	-353.6	-53.8	62.2	-1.943e+04	-3024.8	2244.1
1013	ok	0.06	0.8	2.74e-02	31.4	31.4	10.1	10.1	-336.6	-60.7	62.9	-1.004e+04	-1583.0	1446.2
1014	ok	0.06	0.8	2.61e-02	31.4	31.4	10.1	10.1	-318.8	-64.6	61.4	-504.0	-89.9	739.6
1015	ok	0.06	0.4	3.78e-02	31.4	31.4	10.1	10.1	-484.8	-82.3	-1.5	-3.181e+04	-6223.9	812.1
1016	ok	0.06	0.5	3.73e-02	31.4	31.4	10.1	10.1	-477.2	-67.2	2.1	-4.137e+04	-7899.6	1274.0
1017	ok	0.06	0.6	3.67e-02	31.4	31.4	10.1	10.1	-468.4	-54.1	7.1	-4.866e+04	-9027.8	1658.5
1018	ok	0.06	0.7	3.61e-02	31.4	31.4	10.1	10.1	-458.3	-43.6	13.0	-5.375e+04	-9680.2	2010.1
1019	ok	0.06	0.8	3.54e-02	31.4	31.4	10.1	10.1	-447.3	-35.7	19.2	-5.674e+04	-9932.6	2344.6
1020	ok	0.06	0.8	3.46e-02	31.4	31.4	10.1	10.1	-435.6	-30.4	25.4	-5.775e+04	-9850.1	2655.2
1021	ok	0.06	0.8	3.38e-02	31.4	31.4	10.1	10.1	-435.5	-29.7	25.4	-5.771e+04	-9645.9	2787.1
1022	ok	0.06	0.9	3.30e-02	31.4	31.4	10.1	10.1	-423.9	-28.8	31.4	-5.689e+04	-9388.0	3029.8
1023	ok	0.06	0.9	3.22e-02	31.4	31.4	10.1	10.1	-410.0	-29.6	39.2	-5.381e+04	-8806.6	2970.6
1024	ok	0.06	0.9	3.13e-02	31.4	31.4	10.1	10.1	-396.9	-32.1	45.4	-4.926e+04	-8034.7	2938.1
1025	ok	0.06	0.9	3.04e-02	31.4	31.4	10.1	10.1	-384.1	-36.2	50.4	-4.361e+04	-7131.6	2910.2
1026	ok	0.06	0.9	2.95e-02	31.4	31.4	10.1	10.1	-370.4	-41.5	54.6	-3.675e+04	-6070.9	2740.4
1027	ok	0.06	0.9	2.85e-02	31.4	31.4	10.1	10.1	-355.4	-47.7	57.7	-2.888e+04	-4861.0	2397.8
1028	ok	0.06	0.8	2.73e-02	31.4	31.4	10.1	10.1	-339.3	-53.9	59.5	-2.025e+04	-3495.7	1861.5
1029	ok	0.06	0.8	2.62e-02	31.4	31.4	10.1	10.1	-322.1	-58.9	59.5	-1.114e+04	-1962.7	1156.6
1030	ok	0.06	0.8	2.49e-02	31.4	31.4	10.1	10.1	-304.7	-61.8	58.1	-1828.3	-355.3	572.1
1031	ok	0.06	0.4	3.74e-02	31.4	31.4	10.1	10.1	-479.2	-83.6	4.3	-3.119e+04	-6196.7	959.9
1032	ok	0.06	0.5	3.69e-02	31.4	31.4	10.1	10.1	-471.0	-70.3	7.1	-4.092e+04	-8010.0	1502.8
1033	ok	0.06	0.6	3.63e-02	31.4	31.4	10.1	10.1	-461.9	-58.6	11.2	-4.829e+04	-9284.7	1929.0
1034	ok	0.06	0.7	3.56e-02	31.4	31.4	10.1	10.1	-451.7	-49.0	16.2	-5.344e+04	-1.007e+04	2277.9
1035	ok	0.06	0.8	3.49e-02	31.4	31.4	10.1	10.1	-440.6	-41.5	21.6	-5.649e+04	-1.044e+04	2574.2
1036	ok	0.06	0.8	3.41e-02	31.4	31.4	10.1	10.1	-428.7	-36.2	27.1	-5.756e+04	-1.045e+04	2823.4
1037	ok	0.06	0.8	3.33e-02	31.4	31.4	10.1	10.1	-426.5	-35.3	29.3	-5.724e+04	-1.024e+04	2695.8
1038	ok	0.06	0.9	3.24e-02	31.4	31.4	10.1	10.1	-414.5	-34.2	34.7	-5.635e+04	-9983.0	2851.9
1039	ok	0.06	0.9	3.15e-02	31.4	31.4	10.1	10.1	-401.1	-34.7	40.9	-5.350e+04	-9421.2	2821.5
1040	ok	0.06	0.9	3.06e-02	31.4	31.4	10.1	10.1	-387.9	-36.7	45.6	-4.934e+04	-8672.5	2824.0
1041	ok	0.06	0.9	2.96e-02	31.4	31.4	10.1	10.1	-374.0	-40.0	49.8	-4.382e+04	-7726.2	2721.5
1042	ok	0.06	0.9	2.86e-02	31.4	31.4	10.1	10.1	-359.3	-44.2	53.2	-3.712e+04	-6603.3	2492.6
1043	ok	0.06	0.9	2.75e-02	31.4	31.4	10.1	10.1	-343.6	-49.0	55.5	-2.944e+04	-5315.6	2120.0
1044	ok	0.06	0.8	2.64e-02	31.4	31.4	10.1	10.1	-327.1	-53.6	56.6	-2.101e+04	-3866.4	1600.3
1045	ok	0.06	0.8	2.52e-02	31.4	31.4	10.1	10.1	-310.0	-57.2	56.3	-1.208e+04	-2259.7	969.4
1046	ok	0.06	0.8	2.39e-02	31.4	31.4	10.1	10.1	-292.8	-59.4	55.0	-2875.9	-565.7	469.2
1047	ok	0.06	0.4	3.71e-02	31.4	31.4	10.1	10.1	-473.3	-84.5	9.4	-3.045e+04	-6108.6	1040.2
1048	ok	0.06	0.5	3.65e-02	31.4	31.4	10.1	10.1	-464.5	-72.7	11.6	-4.038e+04	-8028.9	1637.6
1049	ok	0.06	0.6	3.58e-02	31.4	31.4	10.1	10.1	-454.9	-62.3	14.9	-4.789e+04	-9419.5	2101.0
1050	ok	0.06	0.7	3.51e-02	31.4	31.4	10.1	10.1	-444.4	-53.5	19.1	-5.314e+04	-1.032e+04	2459.4
1051	ok	0.06	0.8	3.44e-02	31.4	31.4	10.1	10.1	-431.2	-46.3	25.9	-5.612e+04	-1.077e+04	2532.7
1052	ok	0.06	0.8	3.36e-02	31.4	31.4	10.1	10.1	-418.2	-41.1	31.8	-5.699e+04	-1.080e+04	2616.0
1053	ok	0.06	0.8	3.27e-02	31.4	31.4	10.1	10.1	-418.1	-40.4	31.8	-5.697e+04	-1.069e+04	2683.8
1054	ok	0.06	0.8	3.18e-02	31.4	31.4	10.1	10.1	-405.7	-39.0	36.5	-5.609e+04	-1.045e+04	2780.5
1055	ok	0.06	0.9	3.09e-02	31.4	31.4	10.1	10.1	-392.7	-39.0	41.0	-5.354e+04	-9934.3	2806.4
1056	ok	0.06	0.9	2.99e-02	31.4	31.4	10.1	10.1	-378.9	-40.5	45.1	-4.948e+04	-9172.9	2748.4
1057	ok	0.06	0.9	2.89e-02	31.4	31.4	10.1	10.1	-364.3	-42.9	48.6	-4.408e+04	-8194.6	2591.7
1058	ok	0.06	0.9	2.78e-02	31.4	31.4	10.1	10.1	-349.0	-46.2	51.3	-3.752e+04	-7022.3	2323.0
1059	ok	0.06	0.9	2.66e-02	31.4	31.4	10.1	10.1	-333.0	-49.7	53.0	-3.000e+04	-5673.0	1935.0

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1060	ok	0.06	0.8	2.55e-02	31.4	31.4	10.1	10.1	-316.4	-53.1	53.7	-2.172e+04	-4159.5	1433.7
1061	ok	0.06	0.8	2.43e-02	31.4	31.4	10.1	10.1	-299.4	-55.8	53.3	-1.291e+04	-2497.8	856.3
1062	ok	0.06	0.8	2.30e-02	31.4	31.4	10.1	10.1	-282.5	-57.4	52.0	-3750.2	-741.7	410.2
1063	ok	0.06	0.3	3.67e-02	31.4	31.4	10.1	10.1	-467.2	-85.0	13.9	-2.964e+04	-5983.9	1077.9
1064	ok	0.06	0.4	3.60e-02	31.4	31.4	10.1	10.1	-455.8	-74.3	17.8	-4.010e+04	-8052.5	1593.2
1065	ok	0.06	0.6	3.53e-02	31.4	31.4	10.1	10.1	-445.8	-65.0	20.5	-4.762e+04	-9505.5	2047.6
1066	ok	0.06	0.7	3.46e-02	31.4	31.4	10.1	10.1	-434.2	-56.9	25.0	-5.286e+04	-1.048e+04	2296.4
1067	ok	0.06	0.7	3.38e-02	31.4	31.4	10.1	10.1	-422.7	-50.4	28.9	-5.587e+04	-1.099e+04	2536.7
1068	ok	0.06	0.8	3.30e-02	31.4	31.4	10.1	10.1	-410.4	-45.5	33.0	-5.689e+04	-1.110e+04	2703.4
1069	ok	0.06	0.8	3.21e-02	31.4	31.4	10.1	10.1	-410.3	-44.7	33.0	-5.688e+04	-1.103e+04	2758.0
1070	ok	0.06	0.8	3.12e-02	31.4	31.4	10.1	10.1	-397.6	-43.1	37.0	-5.608e+04	-1.083e+04	2818.1
1071	ok	0.06	0.9	3.02e-02	31.4	31.4	10.1	10.1	-384.1	-42.7	40.9	-5.362e+04	-1.032e+04	2802.5
1072	ok	0.06	0.9	2.92e-02	31.4	31.4	10.1	10.1	-369.9	-43.5	44.2	-4.967e+04	-9556.9	2702.7
1073	ok	0.06	0.9	2.81e-02	31.4	31.4	10.1	10.1	-355.0	-45.2	47.1	-4.438e+04	-8556.9	2509.9
1074	ok	0.06	0.9	2.70e-02	31.4	31.4	10.1	10.1	-339.5	-47.6	49.2	-3.794e+04	-7348.9	2216.8
1075	ok	0.06	0.9	2.58e-02	31.4	31.4	10.1	10.1	-323.3	-50.1	50.4	-3.055e+04	-5954.8	1822.6
1076	ok	0.06	0.8	2.47e-02	31.4	31.4	10.1	10.1	-306.7	-52.5	50.8	-2.239e+04	-4395.6	1337.3
1077	ok	0.06	0.8	2.34e-02	31.4	31.4	10.1	10.1	-289.9	-54.4	50.3	-1.365e+04	-2695.8	795.2
1078	ok	0.06	0.8	2.22e-02	31.4	31.4	10.1	10.1	-273.1	-55.6	49.2	-4523.5	-897.5	380.8
1079	ok	0.06	0.3	3.63e-02	31.4	31.4	10.1	10.1	-457.9	-85.1	21.1	-2.956e+04	-5994.5	982.3
1080	ok	0.06	0.4	3.56e-02	31.4	31.4	10.1	10.1	-448.2	-75.7	22.5	-3.969e+04	-8020.2	1564.4
1081	ok	0.06	0.6	3.48e-02	31.4	31.4	10.1	10.1	-437.8	-67.2	24.6	-4.729e+04	-9529.1	2019.4
1082	ok	0.06	0.7	3.41e-02	31.4	31.4	10.1	10.1	-426.8	-59.9	27.4	-5.257e+04	-1.055e+04	2358.9
1083	ok	0.06	0.7	3.33e-02	31.4	31.4	10.1	10.1	-415.0	-53.9	30.6	-5.568e+04	-1.113e+04	2601.6
1084	ok	0.06	0.8	3.24e-02	31.4	31.4	10.1	10.1	-402.5	-49.1	34.0	-5.680e+04	-1.131e+04	2759.6
1085	ok	0.06	0.8	3.15e-02	31.4	31.4	10.1	10.1	-402.3	-48.4	34.0	-5.680e+04	-1.127e+04	2807.7
1086	ok	0.06	0.8	3.05e-02	31.4	31.4	10.1	10.1	-389.4	-46.5	37.3	-5.609e+04	-1.110e+04	2846.7
1087	ok	0.06	0.9	2.95e-02	31.4	31.4	10.1	10.1	-375.6	-45.8	40.4	-5.373e+04	-1.061e+04	2805.6
1088	ok	0.06	0.9	2.85e-02	31.4	31.4	10.1	10.1	-361.2	-46.0	43.2	-4.988e+04	-9846.5	2680.2
1089	ok	0.06	0.9	2.74e-02	31.4	31.4	10.1	10.1	-346.1	-47.0	45.4	-4.470e+04	-8834.4	2465.7
1090	ok	0.06	0.9	2.62e-02	31.4	31.4	10.1	10.1	-330.4	-48.6	47.0	-3.838e+04	-7603.2	2159.5
1091	ok	0.06	0.9	2.51e-02	31.4	31.4	10.1	10.1	-314.3	-50.3	47.9	-3.109e+04	-6179.9	1764.3
1092	ok	0.06	0.8	2.39e-02	31.4	31.4	10.1	10.1	-297.8	-51.9	48.1	-2.302e+04	-4591.2	1291.0
1093	ok	0.06	0.8	2.27e-02	31.4	31.4	10.1	10.1	-281.1	-53.2	47.5	-1.435e+04	-2867.3	769.7
1094	ok	0.06	0.8	2.14e-02	31.4	31.4	10.1	10.1	-264.5	-54.0	46.4	-5244.8	-1042.7	371.1
1095	ok	0.06	0.3	3.59e-02	31.4	31.4	10.1	10.1	-451.7	-85.2	24.7	-2.878e+04	-5853.5	977.7
1096	ok	0.06	0.4	3.51e-02	31.4	31.4	10.1	10.1	-441.4	-76.8	25.7	-3.909e+04	-7932.4	1566.4
1097	ok	0.06	0.6	3.44e-02	31.4	31.4	10.1	10.1	-430.7	-69.1	27.3	-4.685e+04	-9498.2	2034.0
1098	ok	0.06	0.7	3.35e-02	31.4	31.4	10.1	10.1	-419.3	-62.3	29.5	-5.226e+04	-1.058e+04	2384.9
1099	ok	0.06	0.7	3.27e-02	31.4	31.4	10.1	10.1	-407.3	-56.6	32.0	-5.549e+04	-1.122e+04	2633.7
1100	ok	0.06	0.8	3.18e-02	31.4	31.4	10.1	10.1	-394.6	-52.1	34.7	-5.672e+04	-1.145e+04	2791.1
1101	ok	0.06	0.8	3.09e-02	31.4	31.4	10.1	10.1	-394.4	-51.3	34.7	-5.671e+04	-1.143e+04	2837.4
1102	ok	0.06	0.8	2.99e-02	31.4	31.4	10.1	10.1	-381.2	-49.2	37.4	-5.611e+04	-1.129e+04	2867.1
1103	ok	0.06	0.9	2.89e-02	31.4	31.4	10.1	10.1	-367.3	-48.1	39.8	-5.385e+04	-1.082e+04	2813.4
1104	ok	0.06	0.9	2.78e-02	31.4	31.4	10.1	10.1	-352.8	-47.9	42.0	-5.010e+04	-1.006e+04	2674.8
1105	ok	0.06	0.9	2.67e-02	31.4	31.4	10.1	10.1	-337.6	-48.3	43.7	-4.502e+04	-9046.1	2449.7
1106	ok	0.06	0.9	2.55e-02	31.4	31.4	10.1	10.1	-321.9	-49.2	44.9	-3.880e+04	-7803.1	2138.4
1107	ok	0.06	0.9	2.44e-02	31.4	31.4	10.1	10.1	-305.8	-50.3	45.4	-3.162e+04	-6363.4	1745.0
1108	ok	0.06	0.8	2.32e-02	31.4	31.4	10.1	10.1	-289.4	-51.3	45.4	-2.363e+04	-4758.5	1279.6
1109	ok	0.06	0.8	2.20e-02	31.4	31.4	10.1	10.1	-272.8	-52.1	44.8	-1.502e+04	-3022.3	768.1
1110	ok	0.06	0.7	2.07e-02	31.4	31.4	10.1	10.1	-256.3	-52.5	43.8	-5946.2	-1183.7	374.7
1111	ok	0.06	0.3	3.55e-02	31.4	31.4	10.1	10.1	-445.4	-85.1	27.9	-2.800e+04	-5706.7	963.3
1112	ok	0.06	0.4	3.47e-02	31.4	31.4	10.1	10.1	-434.7	-77.5	28.5	-3.848e+04	-7829.8	1550.9
1113	ok	0.06	0.6	3.39e-02	31.4	31.4	10.1	10.1	-423.6	-70.4	29.7	-4.639e+04	-9442.1	2025.3
1114	ok	0.06	0.7	3.30e-02	31.4	31.4	10.1	10.1	-412.0	-64.2	31.3	-5.193e+04	-1.057e+04	2385.5
1115	ok	0.06	0.7	3.21e-02	31.4	31.4	10.1	10.1	-399.7	-58.8	33.2	-5.529e+04	-1.126e+04	2642.3
1116	ok	0.06	0.8	3.12e-02	31.4	31.4	10.1	10.1	-386.8	-54.4	35.3	-5.663e+04	-1.153e+04	2804.2
1117	ok	0.06	0.8	3.03e-02	31.4	31.4	10.1	10.1	-386.7	-53.6	35.3	-5.663e+04	-1.152e+04	2852.0
1118	ok	0.06	0.8	2.93e-02	31.4	31.4	10.1	10.1	-373.3	-51.3	37.3	-5.613e+04	-1.141e+04	2881.0
1119	ok	0.06	0.9	2.82e-02	31.4	31.4	10.1	10.1	-359.3	-49.9	39.2	-5.397e+04	-1.097e+04	2824.2
1120	ok	0.06	0.9	2.71e-02	31.4	31.4	10.1	10.1	-344.7	-49.3	40.8	-5.032e+04	-1.022e+04	2681.8
1121	ok	0.06	0.9	2.60e-02	31.4	31.4	10.1	10.1	-329.5	-49.2	42.0	-4.535e+04	-9208.5	2454.2
1122	ok	0.06	0.9	2.49e-02	31.4	31.4	10.1	10.1	-313.8	-49.6	42.7	-3.923e+04	-7962.8	2143.0
1123	ok	0.06	0.9	2.37e-02	31.4	31.4	10.1	10.1	-297.7	-50.1	43.0	-3.213e+04	-6517.4	1752.6
1124	ok	0.06	0.8	2.25e-02	31.4	31.4	10.1	10.1	-281.4	-50.6	42.8	-2.423e+04	-4906.9	1291.7
1125	ok	0.06	0.8	2.13e-02	31.4	31.4	10.1	10.1	-264.9	-51.0	42.2	-1.568e+04	-3167.5	782.2
1126	ok	0.06	0.7	2.00e-02	31.4	31.4	10.1	10.1	-248.4	-51.0	41.1	-6648.4	-1324.6	387.1
1127	ok	0.06	0.3	3.51e-02	31.4	31.4	10.1	10.1	-438.9	-83.8	27.9	-2.722e+04	-5550.7	952.2
1128	ok	0.06	0.4	3.42e-02	31.4	31.4	10.1	10.1	-428.1	-77.8	31.0	-3.786e+04	-7718.4	1524.6
1129	ok	0.06	0.5	3.34e-02	31.4	31.4	10.1	10.1	-416.7	-71.3	31.8	-4.592e+04	-9369.6	2001.6
1130	ok	0.06	0.6	3.25e-02	31.4	31.4	10.1	10.1	-404.8	-65.5	32.9	-5.159e+04	-1.054e+04	2369.2
1131	ok	0.06	0.7	3.16e-02	31.4	31.4	10.1	10.1	-392.3	-60.4	34.3	-5.507e+04	-1.126e+04	2634.5
1132	ok	0.06	0.8	3.07e-02	31.4	31.4	10.1	10.1	-379.3	-56.0	35.7	-5.652e+04	-1.157e+04	2804.3

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1133	ok	0.06	0.8	2.97e-02	31.4	31.4	10.1	10.1	-379.1	-55.3	35.7	-5.652e+04	-1.158e+04	2855.8
1134	ok	0.06	0.8	2.87e-02	31.4	31.4	10.1	10.1	-365.7	-52.9	37.2	-5.614e+04	-1.150e+04	2890.1
1135	ok	0.06	0.9	2.76e-02	31.4	31.4	10.1	10.1	-351.6	-51.2	38.4	-5.408e+04	-1.107e+04	2836.9
1136	ok	0.06	0.9	2.65e-02	31.4	31.4	10.1	10.1	-336.9	-50.2	39.5	-5.053e+04	-1.034e+04	2697.5
1137	ok	0.06	0.9	2.54e-02	31.4	31.4	10.1	10.1	-321.7	-49.7	40.2	-4.567e+04	-9334.6	2472.9
1138	ok	0.06	0.9	2.42e-02	31.4	31.4	10.1	10.1	-306.0	-49.7	40.6	-3.965e+04	-8093.6	2165.2
1139	ok	0.06	0.8	2.31e-02	31.4	31.4	10.1	10.1	-290.0	-49.8	40.6	-3.264e+04	-6650.9	1778.3
1140	ok	0.06	0.8	2.19e-02	31.4	31.4	10.1	10.1	-273.8	-49.9	40.3	-2.482e+04	-5042.9	1319.0
1141	ok	0.06	0.8	2.06e-02	31.4	31.4	10.1	10.1	-257.4	-49.9	39.5	-1.634e+04	-3307.6	806.3
1142	ok	0.06	0.7	1.94e-02	31.4	31.4	10.1	10.1	-240.9	-49.7	38.5	-7364.0	-1467.8	405.4
1143	ok	0.06	0.3	3.46e-02	31.4	31.4	10.1	10.1	-432.7	-83.5	30.8	-2.645e+04	-5404.5	929.8
1144	ok	0.06	0.4	3.38e-02	31.4	31.4	10.1	10.1	-421.3	-76.5	31.0	-3.724e+04	-7594.2	1508.6
1145	ok	0.06	0.5	3.29e-02	31.4	31.4	10.1	10.1	-409.5	-69.9	31.8	-4.544e+04	-9272.6	1986.6
1146	ok	0.06	0.6	3.20e-02	31.4	31.4	10.1	10.1	-397.8	-66.3	34.3	-5.124e+04	-1.049e+04	2342.1
1147	ok	0.06	0.7	3.11e-02	31.4	31.4	10.1	10.1	-385.2	-61.4	35.2	-5.483e+04	-1.125e+04	2616.2
1148	ok	0.06	0.8	3.01e-02	31.4	31.4	10.1	10.1	-372.0	-57.2	36.1	-5.640e+04	-1.159e+04	2795.7
1149	ok	0.06	0.8	2.91e-02	31.4	31.4	10.1	10.1	-371.9	-56.4	36.1	-5.641e+04	-1.160e+04	2852.3
1150	ok	0.06	0.8	2.81e-02	31.4	31.4	10.1	10.1	-358.3	-53.8	36.9	-5.613e+04	-1.154e+04	2895.7
1151	ok	0.06	0.9	2.70e-02	31.4	31.4	10.1	10.1	-344.2	-51.9	37.7	-5.418e+04	-1.114e+04	2850.7
1152	ok	0.06	0.9	2.59e-02	31.4	31.4	10.1	10.1	-329.5	-50.7	38.2	-5.074e+04	-1.042e+04	2718.7
1153	ok	0.06	0.9	2.48e-02	31.4	31.4	10.1	10.1	-314.3	-49.9	38.5	-4.597e+04	-9434.0	2500.8
1154	ok	0.06	0.9	2.36e-02	31.4	31.4	10.1	10.1	-298.6	-49.5	38.6	-4.005e+04	-8203.7	2198.7
1155	ok	0.06	0.8	2.24e-02	31.4	31.4	10.1	10.1	-282.7	-49.3	38.3	-3.314e+04	-6770.1	1815.4
1156	ok	0.06	0.8	2.12e-02	31.4	31.4	10.1	10.1	-266.5	-49.1	37.7	-2.541e+04	-5171.2	1355.9
1157	ok	0.06	0.8	2.00e-02	31.4	31.4	10.1	10.1	-250.1	-48.9	36.9	-1.701e+04	-3445.7	836.7
1158	ok	0.06	0.7	1.87e-02	31.4	31.4	10.1	10.1	-233.6	-48.4	35.8	-8100.4	-1615.0	427.5
1159	ok	0.06	0.3	3.42e-02	31.4	31.4	10.1	10.1	-426.6	-83.0	33.3	-2.570e+04	-5259.3	905.3
1160	ok	0.06	0.4	3.33e-02	31.4	31.4	10.1	10.1	-415.0	-76.6	33.3	-3.662e+04	-7478.6	1473.8
1161	ok	0.06	0.5	3.24e-02	31.4	31.4	10.1	10.1	-403.1	-70.5	33.7	-4.495e+04	-9188.3	1950.6
1162	ok	0.06	0.6	3.15e-02	31.4	31.4	10.1	10.1	-390.8	-64.9	34.3	-5.087e+04	-1.042e+04	2326.8
1163	ok	0.06	0.7	3.06e-02	31.4	31.4	10.1	10.1	-378.4	-61.9	35.9	-5.459e+04	-1.121e+04	2591.5
1164	ok	0.06	0.8	2.96e-02	31.4	31.4	10.1	10.1	-365.1	-57.8	36.3	-5.627e+04	-1.158e+04	2781.7
1165	ok	0.06	0.8	2.86e-02	31.4	31.4	10.1	10.1	-365.0	-57.0	36.3	-5.627e+04	-1.160e+04	2844.2
1166	ok	0.06	0.8	2.76e-02	31.4	31.4	10.1	10.1	-351.3	-54.3	36.7	-5.610e+04	-1.156e+04	2899.1
1167	ok	0.06	0.9	2.65e-02	31.4	31.4	10.1	10.1	-337.1	-52.2	36.9	-5.427e+04	-1.118e+04	2865.2
1168	ok	0.06	0.9	2.54e-02	31.4	31.4	10.1	10.1	-322.4	-50.7	37.0	-5.093e+04	-1.049e+04	2743.3
1169	ok	0.06	0.9	2.42e-02	31.4	31.4	10.1	10.1	-307.2	-49.7	36.8	-4.627e+04	-9513.7	2534.3
1170	ok	0.06	0.9	2.31e-02	31.4	31.4	10.1	10.1	-291.6	-49.0	36.5	-4.045e+04	-8298.7	2239.2
1171	ok	0.06	0.9	2.19e-02	31.4	31.4	10.1	10.1	-275.7	-48.6	36.0	-3.364e+04	-6879.5	1859.6
1172	ok	0.06	0.8	2.06e-02	31.4	31.4	10.1	10.1	-259.5	-48.2	35.2	-2.600e+04	-5294.9	1398.5
1173	ok	0.06	0.8	1.94e-02	31.4	31.4	10.1	10.1	-243.1	-47.8	34.2	-1.769e+04	-3583.7	870.8
1174	ok	0.06	0.7	1.81e-02	31.4	31.4	10.1	10.1	-226.6	-47.1	33.2	-8861.9	-1766.8	452.0
1175	ok	0.06	0.3	3.38e-02	31.4	31.4	10.1	10.1	-420.8	-82.5	35.6	-2.497e+04	-5116.4	880.0
1176	ok	0.06	0.4	3.29e-02	31.4	31.4	10.1	10.1	-409.0	-76.5	35.3	-3.601e+04	-7361.1	1436.9
1177	ok	0.06	0.5	3.20e-02	31.4	31.4	10.1	10.1	-396.9	-70.7	35.4	-4.446e+04	-9097.0	1911.1
1178	ok	0.06	0.6	3.10e-02	31.4	31.4	10.1	10.1	-384.5	-65.4	35.6	-5.050e+04	-1.035e+04	2291.6
1179	ok	0.06	0.7	3.01e-02	31.4	31.4	10.1	10.1	-371.6	-60.6	35.9	-5.432e+04	-1.116e+04	2579.1
1180	ok	0.06	0.8	2.91e-02	31.4	31.4	10.1	10.1	-358.3	-56.4	36.3	-5.612e+04	-1.155e+04	2775.0
1181	ok	0.06	0.8	2.81e-02	31.4	31.4	10.1	10.1	-358.4	-57.0	36.5	-5.612e+04	-1.157e+04	2833.6
1182	ok	0.06	0.8	2.71e-02	31.4	31.4	10.1	10.1	-344.7	-54.2	36.4	-5.606e+04	-1.156e+04	2901.1
1183	ok	0.06	0.9	2.60e-02	31.4	31.4	10.1	10.1	-330.5	-52.0	36.1	-5.433e+04	-1.121e+04	2879.6
1184	ok	0.06	0.9	2.48e-02	31.4	31.4	10.1	10.1	-315.7	-50.3	35.7	-5.110e+04	-1.053e+04	2769.5
1185	ok	0.06	0.9	2.37e-02	31.4	31.4	10.1	10.1	-300.5	-49.1	35.1	-4.655e+04	-9577.6	2570.7
1186	ok	0.06	0.9	2.25e-02	31.4	31.4	10.1	10.1	-284.9	-48.3	34.4	-4.084e+04	-8382.1	2283.3
1187	ok	0.06	0.9	2.13e-02	31.4	31.4	10.1	10.1	-269.0	-47.7	33.6	-3.413e+04	-6981.8	1907.3
1188	ok	0.06	0.8	2.01e-02	31.4	31.4	10.1	10.1	-252.8	-47.2	32.6	-2.659e+04	-5415.7	1444.1
1189	ok	0.06	0.8	1.88e-02	31.4	31.4	10.1	10.1	-236.4	-46.6	31.6	-1.838e+04	-3722.9	906.9
1190	ok	0.06	0.7	1.75e-02	31.4	31.4	10.1	10.1	-219.9	-45.9	30.4	-9650.6	-1923.8	478.0
1191	ok	0.06	0.3	3.34e-02	31.4	31.4	10.1	10.1	-415.1	-81.8	37.7	-2.426e+04	-4976.2	854.5
1192	ok	0.06	0.4	3.25e-02	31.4	31.4	10.1	10.1	-403.2	-76.1	37.2	-3.541e+04	-7242.7	1399.6
1193	ok	0.06	0.5	3.15e-02	31.4	31.4	10.1	10.1	-391.1	-70.6	36.9	-4.396e+04	-9000.7	1870.7
1194	ok	0.06	0.6	3.06e-02	31.4	31.4	10.1	10.1	-378.5	-65.5	36.7	-5.011e+04	-1.028e+04	2254.9
1195	ok	0.06	0.7	2.96e-02	31.4	31.4	10.1	10.1	-365.6	-60.7	36.6	-5.404e+04	-1.111e+04	2550.7
1196	ok	0.06	0.8	2.87e-02	31.4	31.4	10.1	10.1	-352.2	-56.6	36.5	-5.595e+04	-1.152e+04	2757.7
1197	ok	0.06	0.8	2.76e-02	31.4	31.4	10.1	10.1	-338.3	-53.0	36.4	-5.600e+04	-1.155e+04	2875.9
1198	ok	0.06	0.8	2.66e-02	31.4	31.4	10.1	10.1	-338.3	-52.9	36.4	-5.600e+04	-1.155e+04	2900.1
1199	ok	0.06	0.9	2.55e-02	31.4	31.4	10.1	10.1	-324.2	-51.3	35.3	-5.438e+04	-1.121e+04	2893.6
1200	ok	0.06	0.9	2.43e-02	31.4	31.4	10.1	10.1	-309.4	-49.5	34.4	-5.126e+04	-1.056e+04	2795.7
1201	ok	0.06	0.9	2.32e-02	31.4	31.4	10.1	10.1	-294.2	-48.2	33.4	-4.682e+04	-9627.3	2607.6
1202	ok	0.06	0.9	2.20e-02	31.4	31.4	10.1	10.1	-278.6	-47.3	32.4	-4.121e+04	-8455.1	2328.2
1203	ok	0.06	0.9	2.08e-02	31.4	31.4	10.1	10.1	-262.6	-46.6	31.2	-3.462e+04	-7077.9	1956.1
1204	ok	0.06	0.8	1.95e-02	31.4	31.4	10.1	10.1	-246.4	-46.0	30.0	-2.719e+04	-5534.3	1490.7
1205	ok	0.06	0.8	1.82e-02	31.4	31.4	10.1	10.1	-229.9	-45.4	28.8	-1.909e+04	-3863.6	943.8

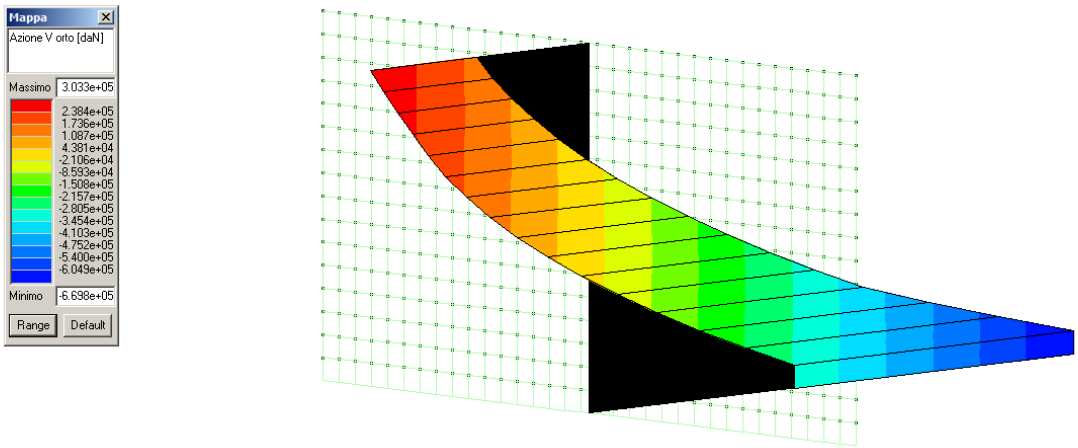
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1206	ok	0.06	0.7	1.70e-02	31.4	31.4	10.1	10.1	-213.4	-44.7	27.6	-1.047e+04	-2086.2	505.0
1207	ok	0.06	0.2	3.30e-02	31.4	31.4	10.1	10.1	-409.7	-81.0	39.6	-2.356e+04	-4838.6	829.7
1208	ok	0.06	0.4	3.21e-02	31.4	31.4	10.1	10.1	-397.7	-75.6	38.9	-3.481e+04	-7123.2	1363.4
1209	ok	0.06	0.5	3.12e-02	31.4	31.4	10.1	10.1	-385.5	-70.2	38.3	-4.346e+04	-8899.4	1831.6
1210	ok	0.06	0.6	3.02e-02	31.4	31.4	10.1	10.1	-372.9	-65.2	37.8	-4.971e+04	-1.020e+04	2219.3
1211	ok	0.06	0.7	2.92e-02	31.4	31.4	10.1	10.1	-360.0	-60.5	37.3	-5.375e+04	-1.105e+04	2523.0
1212	ok	0.06	0.8	2.82e-02	31.4	31.4	10.1	10.1	-346.5	-56.3	36.7	-5.576e+04	-1.148e+04	2740.6
1213	ok	0.06	0.8	2.72e-02	31.4	31.4	10.1	10.1	-332.6	-52.6	36.0	-5.593e+04	-1.153e+04	2870.8
1214	ok	0.06	0.8	2.61e-02	31.4	31.4	10.1	10.1	-332.6	-52.5	36.0	-5.593e+04	-1.153e+04	2901.3
1215	ok	0.06	0.9	2.50e-02	31.4	31.4	10.1	10.1	-318.3	-50.1	35.3	-5.441e+04	-1.121e+04	2898.8
1216	ok	0.06	0.9	2.39e-02	31.4	31.4	10.1	10.1	-303.5	-48.3	34.4	-5.141e+04	-1.059e+04	2806.8
1217	ok	0.06	0.9	2.27e-02	31.4	31.4	10.1	10.1	-288.3	-47.0	33.4	-4.707e+04	-9678.4	2624.2
1218	ok	0.06	0.9	2.15e-02	31.4	31.4	10.1	10.1	-272.6	-45.9	30.2	-4.158e+04	-8517.2	2371.3
1219	ok	0.06	0.9	2.02e-02	31.4	31.4	10.1	10.1	-256.6	-45.2	28.8	-3.510e+04	-7167.4	2003.6
1220	ok	0.06	0.8	1.90e-02	31.4	31.4	10.1	10.1	-240.3	-44.7	27.3	-2.779e+04	-5650.6	1536.6
1221	ok	0.06	0.8	1.77e-02	31.4	31.4	10.1	10.1	-223.8	-44.2	26.0	-1.981e+04	-4005.9	980.5
1222	ok	0.06	0.8	1.64e-02	31.4	31.4	10.1	10.1	-207.2	-43.5	24.7	-1.131e+04	-2254.0	532.2
1223	ok	0.06	0.2	3.27e-02	31.4	31.4	10.1	10.1	-404.6	-80.1	41.5	-2.288e+04	-4702.8	806.5
1224	ok	0.06	0.4	3.17e-02	31.4	31.4	10.1	10.1	-392.6	-74.8	40.6	-3.421e+04	-7001.9	1330.0
1225	ok	0.06	0.5	3.08e-02	31.4	31.4	10.1	10.1	-380.3	-69.6	39.7	-4.295e+04	-8792.0	1796.2
1226	ok	0.06	0.6	2.98e-02	31.4	31.4	10.1	10.1	-367.7	-64.5	38.8	-4.931e+04	-1.010e+04	2187.6
1227	ok	0.06	0.7	2.88e-02	31.4	31.4	10.1	10.1	-354.7	-59.8	37.8	-5.345e+04	-1.097e+04	2498.7
1228	ok	0.06	0.8	2.78e-02	31.4	31.4	10.1	10.1	-341.2	-55.5	36.8	-5.556e+04	-1.142e+04	2725.6
1229	ok	0.06	0.8	2.68e-02	31.4	31.4	10.1	10.1	-327.3	-51.8	35.6	-5.583e+04	-1.148e+04	2866.3
1230	ok	0.06	0.8	2.57e-02	31.4	31.4	10.1	10.1	-327.2	-51.5	35.6	-5.583e+04	-1.149e+04	2902.5
1231	ok	0.06	0.9	2.46e-02	31.4	31.4	10.1	10.1	-312.9	-49.1	34.4	-5.443e+04	-1.119e+04	2911.0
1232	ok	0.06	0.9	2.34e-02	31.4	31.4	10.1	10.1	-298.1	-47.2	33.1	-5.153e+04	-1.059e+04	2829.9
1233	ok	0.06	0.9	2.22e-02	31.4	31.4	10.1	10.1	-282.8	-45.8	31.7	-4.731e+04	-9710.5	2657.3
1234	ok	0.06	0.9	2.10e-02	31.4	31.4	10.1	10.1	-267.1	-44.8	30.2	-4.194e+04	-8589.0	2390.5
1235	ok	0.06	0.9	1.98e-02	31.4	31.4	10.1	10.1	-250.9	-43.7	26.3	-3.558e+04	-7248.4	2047.0
1236	ok	0.06	0.8	1.85e-02	31.4	31.4	10.1	10.1	-234.6	-43.3	24.6	-2.839e+04	-5763.3	1579.6
1237	ok	0.06	0.8	1.72e-02	31.4	31.4	10.1	10.1	-218.0	-42.9	23.1	-2.054e+04	-4149.0	1015.8
1238	ok	0.06	0.8	1.59e-02	31.4	31.4	10.1	10.1	-201.2	-42.4	21.7	-1.218e+04	-2427.2	558.8
1239	ok	0.06	0.2	3.24e-02	31.4	31.4	10.1	10.1	-399.8	-79.2	43.2	-2.221e+04	-4567.8	786.3
1240	ok	0.06	0.4	3.14e-02	31.4	31.4	10.1	10.1	-387.8	-73.9	42.2	-3.361e+04	-6876.6	1302.1
1241	ok	0.06	0.5	3.05e-02	31.4	31.4	10.1	10.1	-375.5	-68.6	41.0	-4.244e+04	-8675.6	1767.8
1242	ok	0.06	0.6	2.95e-02	31.4	31.4	10.1	10.1	-362.9	-63.5	39.8	-4.889e+04	-9995.4	2163.3
1243	ok	0.06	0.7	2.85e-02	31.4	31.4	10.1	10.1	-349.8	-58.7	38.4	-5.313e+04	-1.087e+04	2480.6
1244	ok	0.06	0.8	2.75e-02	31.4	31.4	10.1	10.1	-336.3	-54.3	36.8	-5.535e+04	-1.133e+04	2714.8
1245	ok	0.06	0.8	2.64e-02	31.4	31.4	10.1	10.1	-322.3	-50.5	35.2	-5.572e+04	-1.141e+04	2863.2
1246	ok	0.06	0.8	2.53e-02	31.4	31.4	10.1	10.1	-322.3	-50.1	35.2	-5.572e+04	-1.142e+04	2903.8
1247	ok	0.06	0.9	2.42e-02	31.4	31.4	10.1	10.1	-307.9	-47.6	33.5	-5.443e+04	-1.115e+04	2920.5
1248	ok	0.06	0.9	2.30e-02	31.4	31.4	10.1	10.1	-293.0	-45.7	31.7	-5.164e+04	-1.057e+04	2848.1
1249	ok	0.06	0.9	2.18e-02	31.4	31.4	10.1	10.1	-277.6	-44.3	29.8	-4.754e+04	-9724.2	2684.3
1250	ok	0.06	0.9	2.06e-02	31.4	31.4	10.1	10.1	-261.9	-43.3	28.0	-4.228e+04	-8635.6	2425.3
1251	ok	0.06	0.9	1.93e-02	31.4	31.4	10.1	10.1	-245.7	-42.6	26.3	-3.605e+04	-7343.3	2065.7
1252	ok	0.06	0.8	1.80e-02	31.4	31.4	10.1	10.1	-229.1	-41.6	21.8	-2.900e+04	-5870.4	1617.3
1253	ok	0.06	0.8	1.67e-02	31.4	31.4	10.1	10.1	-212.4	-41.5	20.0	-2.129e+04	-4291.7	1048.0
1254	ok	0.06	0.8	1.54e-02	31.4	31.4	10.1	10.1	-195.6	-41.2	18.6	-1.308e+04	-2605.5	583.7
1255	ok	0.06	0.2	3.21e-02	31.4	31.4	10.1	10.1	-395.3	-78.2	45.0	-2.155e+04	-4431.2	771.4
1256	ok	0.06	0.4	3.11e-02	31.4	31.4	10.1	10.1	-383.3	-72.8	43.7	-3.302e+04	-6744.1	1283.3
1257	ok	0.06	0.5	3.02e-02	31.4	31.4	10.1	10.1	-371.1	-67.4	42.3	-4.193e+04	-8545.5	1751.0
1258	ok	0.06	0.6	2.92e-02	31.4	31.4	10.1	10.1	-358.5	-62.1	40.7	-4.846e+04	-9867.5	2150.9
1259	ok	0.06	0.7	2.82e-02	31.4	31.4	10.1	10.1	-345.4	-57.2	38.9	-5.280e+04	-1.074e+04	2472.7
1260	ok	0.06	0.8	2.71e-02	31.4	31.4	10.1	10.1	-331.9	-52.6	36.9	-5.512e+04	-1.121e+04	2710.8
1261	ok	0.06	0.8	2.61e-02	31.4	31.4	10.1	10.1	-317.8	-48.7	34.7	-5.560e+04	-1.131e+04	2862.4
1262	ok	0.06	0.8	2.50e-02	31.4	31.4	10.1	10.1	-317.7	-48.2	34.7	-5.560e+04	-1.131e+04	2905.3
1263	ok	0.06	0.9	2.38e-02	31.4	31.4	10.1	10.1	-303.3	-45.7	32.5	-5.442e+04	-1.107e+04	2925.9
1264	ok	0.06	0.9	2.26e-02	31.4	31.4	10.1	10.1	-288.3	-43.7	30.2	-5.174e+04	-1.053e+04	2858.5
1265	ok	0.06	0.9	2.14e-02	31.4	31.4	10.1	10.1	-272.8	-42.4	28.0	-4.775e+04	-9713.5	2701.1
1266	ok	0.06	0.9	2.01e-02	31.4	31.4	10.1	10.1	-256.9	-41.5	25.8	-4.262e+04	-8663.7	2449.4
1267	ok	0.06	0.9	1.89e-02	31.4	31.4	10.1	10.1	-240.7	-40.9	23.7	-3.651e+04	-7411.0	2096.2
1268	ok	0.06	0.9	1.76e-02	31.4	31.4	10.1	10.1	-224.1	-40.6	21.8	-2.960e+04	-5991.7	1632.7
1269	ok	0.06	0.8	1.62e-02	31.4	31.4	10.1	10.1	-207.3	-40.4	20.0	-2.205e+04	-4443.5	1063.2
1270	ok	0.06	0.8	1.51e-02	31.4	31.4	10.1	10.1	-149.4	-29.7	81.0	-888.3	-175.2	57.8
1271	ok	0.06	0.2	3.18e-02	31.4	31.4	10.1	10.1	-391.2	-77.2	46.7	-2.089e+04	-4289.6	765.4
1272	ok	0.06	0.3	3.08e-02	31.4	31.4	10.1	10.1	-379.3	-71.6	45.3	-3.241e+04	-6599.4	1279.2
1273	ok	0.06	0.5	2.99e-02	31.4	31.4	10.1	10.1	-367.1	-65.9	43.6	-4.140e+04	-8394.8	1752.2
1274	ok	0.06	0.6	2.89e-02	31.4	31.4	10.1	10.1	-354.5	-60.4	41.6	-4.802e+04	-9710.4	2156.5
1275	ok	0.06	0.7	2.79e-02	31.4	31.4	10.1	10.1	-341.4	-55.2	39.3	-5.246e+04	-1.058e+04	2479.9
1276	ok	0.06	0.7	2.68e-02	31.4	31.4	10.1	10.1	-327.8	-50.5	36.8	-5.489e+04	-1.106e+04	2716.5
1277	ok	0.06	0.8	2.58e-02	31.4	31.4	10.1	10.1	-313.6	-46.3	34.2	-5.547e+04	-1.116e+04	2864.9
1278	ok	0.06	0.8	2.46e-02	31.4	31.4	10.1	10.1	-313.5	-45.8	34.2	-5.547e+04	-1.116e+04	2906.9

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1279	ok	0.06	0.9	2.35e-02	31.4	31.4	10.1	10.1	-299.0	-43.3	31.4	-5.439e+04	-1.095e+04	2924.7
1280	ok	0.06	0.9	2.22e-02	31.4	31.4	10.1	10.1	-283.9	-41.4	28.7	-5.183e+04	-1.044e+04	2856.8
1281	ok	0.06	0.9	2.10e-02	31.4	31.4	10.1	10.1	-268.3	-40.1	26.0	-4.795e+04	-9669.7	2702.3
1282	ok	0.06	0.9	1.97e-02	31.4	31.4	10.1	10.1	-252.3	-39.3	23.4	-4.293e+04	-8666.1	2456.6
1283	ok	0.06	0.9	1.84e-02	31.4	31.4	10.1	10.1	-235.9	-39.0	21.0	-3.696e+04	-7461.1	2111.1
1284	ok	0.06	0.9	1.71e-02	31.4	31.4	10.1	10.1	-181.6	-22.6	81.8	-1.400e+04	-2792.4	-317.2
1285	ok	0.06	0.8	1.61e-02	31.4	31.4	10.1	10.1	-168.3	-26.2	79.6	-7487.8	-1490.5	-124.4
1286	ok	0.06	0.8	1.53e-02	31.4	31.4	10.1	10.1	-154.7	-30.9	78.0	-650.6	-127.2	51.7
1287	ok	0.06	0.2	3.15e-02	31.4	31.4	10.1	10.1	-387.6	-76.1	48.5	-2.021e+04	-4138.2	774.1
1288	ok	0.06	0.3	3.06e-02	31.4	31.4	10.1	10.1	-375.7	-70.2	46.9	-3.179e+04	-6435.2	1298.0
1289	ok	0.06	0.5	2.96e-02	31.4	31.4	10.1	10.1	-363.6	-64.2	45.0	-4.086e+04	-8213.7	1780.5
1290	ok	0.06	0.6	2.86e-02	31.4	31.4	10.1	10.1	-351.0	-58.3	42.5	-4.758e+04	-9512.2	2188.6
1291	ok	0.06	0.7	2.76e-02	31.4	31.4	10.1	10.1	-337.9	-52.8	39.8	-5.212e+04	-1.037e+04	2508.5
1292	ok	0.06	0.7	2.66e-02	31.4	31.4	10.1	10.1	-324.1	-47.8	36.7	-5.465e+04	-1.084e+04	2735.8
1293	ok	0.06	0.8	2.55e-02	31.4	31.4	10.1	10.1	-309.8	-43.5	33.5	-5.534e+04	-1.095e+04	2871.6
1294	ok	0.06	0.8	2.43e-02	31.4	31.4	10.1	10.1	-309.7	-42.9	33.5	-5.534e+04	-1.095e+04	2908.2
1295	ok	0.06	0.9	2.31e-02	31.4	31.4	10.1	10.1	-295.0	-40.4	30.2	-5.437e+04	-1.077e+04	2914.0
1296	ok	0.06	0.9	2.19e-02	31.4	31.4	10.1	10.1	-279.7	-38.5	27.0	-5.191e+04	-1.030e+04	2837.9
1297	ok	0.06	0.9	2.06e-02	31.4	31.4	10.1	10.1	-226.1	-17.5	88.3	-3.018e+04	-5929.1	-805.8
1298	ok	0.06	0.9	1.93e-02	31.4	31.4	10.1	10.1	-213.7	-17.6	85.1	-2.536e+04	-4987.5	-676.7
1299	ok	0.06	0.9	1.83e-02	31.4	31.4	10.1	10.1	-200.9	-19.1	81.9	-1.984e+04	-3908.4	-515.4
1300	ok	0.06	0.9	1.72e-02	31.4	31.4	10.1	10.1	-187.5	-22.0	78.9	-1.376e+04	-2713.5	-329.5
1301	ok	0.06	0.8	1.62e-02	31.4	31.4	10.1	10.1	-173.7	-26.4	76.3	-7242.2	-1426.8	-133.7
1302	ok	0.06	0.8	1.53e-02	31.4	31.4	10.1	10.1	-159.4	-32.1	74.4	-418.5	-80.2	39.3
1303	ok	0.06	0.2	3.13e-02	31.4	31.4	10.1	10.1	-384.4	-75.0	50.4	-1.952e+04	-3969.3	805.8
1304	ok	0.06	0.3	3.04e-02	31.4	31.4	10.1	10.1	-372.7	-68.7	48.6	-3.115e+04	-6241.2	1351.5
1305	ok	0.06	0.5	2.94e-02	31.4	31.4	10.1	10.1	-360.6	-62.1	46.3	-4.030e+04	-7989.0	1848.2
1306	ok	0.06	0.6	2.84e-02	31.4	31.4	10.1	10.1	-359.8	-58.1	46.3	-4.028e+04	-7887.3	2065.4
1307	ok	0.06	0.7	2.74e-02	31.4	31.4	10.1	10.1	-347.3	-52.3	43.4	-4.711e+04	-9158.8	2426.6
1308	ok	0.06	0.7	2.63e-02	31.4	31.4	10.1	10.1	-281.3	-33.2	98.2	-3.985e+04	-7754.5	-939.6
1309	ok	0.06	0.8	2.52e-02	31.4	31.4	10.1	10.1	-280.5	-29.0	98.2	-3.984e+04	-7700.8	-954.2
1310	ok	0.06	0.8	2.40e-02	31.4	31.4	10.1	10.1	-269.5	-23.8	96.0	-3.910e+04	-7520.7	-969.4
1311	ok	0.06	0.9	2.28e-02	31.4	31.4	10.1	10.1	-258.0	-19.8	93.1	-3.713e+04	-7120.0	-958.2
1312	ok	0.06	0.9	2.17e-02	31.4	31.4	10.1	10.1	-245.9	-17.0	89.8	-3.407e+04	-6524.6	-915.4
1313	ok	0.06	0.9	2.06e-02	31.4	31.4	10.1	10.1	-233.2	-15.6	86.2	-3.004e+04	-5757.3	-835.7
1314	ok	0.06	0.9	1.96e-02	31.4	31.4	10.1	10.1	-220.2	-15.8	82.6	-2.517e+04	-4838.2	-715.8
1315	ok	0.06	0.9	1.85e-02	31.4	31.4	10.1	10.1	-206.7	-17.6	78.9	-1.961e+04	-3785.5	-556.4
1316	ok	0.06	0.9	1.74e-02	31.4	31.4	10.1	10.1	-192.8	-21.0	75.5	-1.350e+04	-2616.9	-364.9
1317	ok	0.06	0.8	1.63e-02	31.4	31.4	10.1	10.1	-178.4	-26.2	72.5	-6983.6	-1353.2	-159.0
1318	ok	0.06	0.8	1.53e-02	31.4	31.4	10.1	10.1	-163.5	-33.0	70.2	-178.9	-31.6	17.4
1319	ok	0.06	0.2	3.12e-02	31.4	31.4	10.1	10.1	-340.0	-68.9	99.7	-2.126e+04	-4271.6	-329.5
1320	ok	0.06	0.3	3.02e-02	31.4	31.4	10.1	10.1	-331.8	-63.0	101.4	-2.835e+04	-5634.7	-513.7
1321	ok	0.06	0.5	2.93e-02	31.4	31.4	10.1	10.1	-323.2	-55.7	102.0	-3.364e+04	-6606.3	-641.0
1322	ok	0.06	0.6	2.83e-02	31.4	31.4	10.1	10.1	-313.7	-47.6	101.4	-3.726e+04	-7220.1	-735.7
1323	ok	0.06	0.7	2.72e-02	31.4	31.4	10.1	10.1	-303.3	-39.5	99.9	-3.929e+04	-7515.1	-813.3
1324	ok	0.06	0.7	2.62e-02	31.4	31.4	10.1	10.1	-291.9	-31.9	97.6	-3.987e+04	-7530.1	-878.8
1325	ok	0.06	0.8	2.53e-02	31.4	31.4	10.1	10.1	-291.0	-27.4	97.6	-3.985e+04	-7453.1	-903.4
1326	ok	0.06	0.8	2.43e-02	31.4	31.4	10.1	10.1	-279.0	-21.9	94.7	-3.908e+04	-7259.5	-944.9
1327	ok	0.06	0.9	2.32e-02	31.4	31.4	10.1	10.1	-266.4	-17.6	91.2	-3.708e+04	-6858.3	-962.5
1328	ok	0.06	0.9	2.21e-02	31.4	31.4	10.1	10.1	-253.3	-14.7	87.4	-3.398e+04	-6274.5	-947.7
1329	ok	0.06	0.9	2.09e-02	31.4	31.4	10.1	10.1	-239.7	-13.3	83.5	-2.990e+04	-5529.8	-891.9
1330	ok	0.06	0.9	1.98e-02	31.4	31.4	10.1	10.1	-225.9	-13.6	79.4	-2.499e+04	-4642.1	-788.1
1331	ok	0.06	0.9	1.86e-02	31.4	31.4	10.1	10.1	-211.7	-15.6	75.3	-1.938e+04	-3626.3	-633.3
1332	ok	0.06	0.9	1.74e-02	31.4	31.4	10.1	10.1	-197.1	-19.6	71.4	-1.323e+04	-2494.9	-433.1
1333	ok	0.06	0.8	1.63e-02	31.4	31.4	10.1	10.1	-182.1	-25.7	68.0	-6697.6	-1263.6	-207.7
1334	ok	0.06	0.8	1.52e-02	31.4	31.4	10.1	10.1	-166.6	-33.7	59.7	88.5	23.1	-25.2
1335	ok	0.06	0.2	3.11e-02	31.4	31.4	10.1	10.1	-354.9	-71.8	101.6	-2.147e+04	-4270.4	-265.8
1336	ok	0.06	0.3	3.03e-02	31.4	31.4	10.1	10.1	-346.7	-65.1	103.0	-2.847e+04	-5567.7	-410.7
1337	ok	0.06	0.4	2.96e-02	31.4	31.4	10.1	10.1	-337.7	-56.6	103.0	-3.373e+04	-6467.5	-514.4
1338	ok	0.06	0.6	2.89e-02	31.4	31.4	10.1	10.1	-327.4	-47.3	101.6	-3.732e+04	-7011.9	-606.4
1339	ok	0.06	0.7	2.80e-02	31.4	31.4	10.1	10.1	-315.8	-38.2	99.1	-3.934e+04	-7247.4	-700.1
1340	ok	0.06	0.7	2.71e-02	31.4	31.4	10.1	10.1	-303.0	-29.8	96.0	-3.990e+04	-7217.3	-795.1
1341	ok	0.06	0.8	2.60e-02	31.4	31.4	10.1	10.1	-302.0	-25.2	96.0	-3.988e+04	-7114.7	-836.1
1342	ok	0.06	0.8	2.48e-02	31.4	31.4	10.1	10.1	-288.6	-19.4	92.4	-3.909e+04	-6910.1	-917.7
1343	ok	0.06	0.9	2.36e-02	31.4	31.4	10.1	10.1	-274.5	-15.0	88.3	-3.706e+04	-6512.9	-977.2
1344	ok	0.06	0.9	2.23e-02	31.4	31.4	10.1	10.1	-260.0	-12.1	84.1	-3.392e+04	-5947.1	-1002.8
1345	ok	0.06	0.9	2.11e-02	31.4	31.4	10.1	10.1	-245.3	-10.6	79.8	-2.979e+04	-5232.7	-982.1
1346	ok	0.06	0.9	1.98e-02	31.4	31.4	10.1	10.1	-230.5	-11.0	75.4	-2.482e+04	-4386.2	-903.5
1347	ok	0.06	0.9	1.86e-02	31.4	31.4	10.1	10.1	-215.4	-13.3	71.0	-1.915e+04	-3418.8	-758.4
1348	ok	0.06	0.9	1.74e-02	31.4	31.4	10.1	10.1	-200.2	-17.8	66.7	-1.294e+04	-2337.1	-547.2
1349	ok	0.06	0.9	1.62e-02	31.4	31.4	10.1	10.1	-184.5	-24.7	62.8	-6365.1	-1149.3	-290.3
1350	ok	0.06	0.8	1.50e-02	31.4	31.4	10.1	10.1	-168.3	-34.0	53.5	414.0	88.6	-81.4
1351	ok	0.06	0.2	3.21e-02	31.4	31.4	10.1	10.1	-372.6	-75.0	103.4	-2.159e+04	-4224.4	-152.6

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1352	ok	0.06	0.3	3.15e-02	31.4	31.4	10.1	10.1	-364.3	-66.9	104.4	-2.854e+04	-5434.9	-240.8
1353	ok	0.06	0.4	3.09e-02	31.4	31.4	10.1	10.1	-354.5	-56.7	103.3	-3.379e+04	-6242.3	-319.4
1354	ok	0.06	0.6	3.01e-02	31.4	31.4	10.1	10.1	-342.9	-45.9	100.7	-3.739e+04	-6701.8	-419.5
1355	ok	0.06	0.7	2.90e-02	31.4	31.4	10.1	10.1	-329.3	-35.7	97.1	-3.942e+04	-6869.2	-545.6
1356	ok	0.06	0.7	2.79e-02	31.4	31.4	10.1	10.1	-314.4	-26.8	92.9	-3.997e+04	-6791.4	-687.7
1357	ok	0.06	0.8	2.66e-02	31.4	31.4	10.1	10.1	-313.5	-22.3	92.9	-3.995e+04	-6664.0	-753.3
1358	ok	0.06	0.8	2.53e-02	31.4	31.4	10.1	10.1	-298.0	-16.5	88.6	-3.914e+04	-6454.0	-891.2
1359	ok	0.06	0.9	2.39e-02	31.4	31.4	10.1	10.1	-282.0	-12.1	84.1	-3.709e+04	-6067.8	-1007.6
1360	ok	0.06	0.9	2.25e-02	31.4	31.4	10.1	10.1	-265.7	-9.2	79.6	-3.390e+04	-5527.7	-1087.3
1361	ok	0.06	0.9	2.12e-02	31.4	31.4	10.1	10.1	-249.6	-7.8	75.1	-2.972e+04	-4852.3	-1114.6
1362	ok	0.06	0.9	1.98e-02	31.4	31.4	10.1	10.1	-233.5	-8.1	70.5	-2.467e+04	-4056.7	-1072.6
1363	ok	0.06	0.9	1.85e-02	31.4	31.4	10.1	10.1	-217.6	-10.6	65.9	-1.891e+04	-3149.3	-945.2
1364	ok	0.06	0.9	1.72e-02	31.4	31.4	10.1	10.1	-201.6	-15.6	61.4	-1.261e+04	-2130.5	-722.9
1365	ok	0.06	0.9	1.59e-02	31.4	31.4	10.1	10.1	-185.3	-23.3	57.1	-5961.9	-998.6	-420.8
1366	ok	0.06	0.8	1.47e-02	31.4	31.4	10.1	10.1	-168.5	-34.0	46.5	842.8	174.4	-166.4
1367	ok	0.06	0.2	3.37e-02	31.4	31.4	10.1	10.1	-394.4	-78.4	105.2	-2.160e+04	-4106.2	37.8
1368	ok	0.06	0.3	3.31e-02	31.4	31.4	10.1	10.1	-385.7	-68.1	105.3	-2.855e+04	-5202.3	24.3
1369	ok	0.06	0.4	3.24e-02	31.4	31.4	10.1	10.1	-374.5	-55.4	102.6	-3.384e+04	-5893.4	-36.4
1370	ok	0.06	0.6	3.14e-02	31.4	31.4	10.1	10.1	-360.3	-42.8	98.2	-3.748e+04	-6253.5	-165.2
1371	ok	0.06	0.7	3.01e-02	31.4	31.4	10.1	10.1	-343.9	-31.7	93.0	-3.954e+04	-6348.0	-347.5
1372	ok	0.06	0.7	2.87e-02	31.4	31.4	10.1	10.1	-325.9	-22.5	87.8	-4.009e+04	-6224.5	-559.3
1373	ok	0.06	0.8	2.72e-02	31.4	31.4	10.1	10.1	-325.2	-18.9	87.8	-4.006e+04	-6078.3	-659.4
1374	ok	0.06	0.8	2.56e-02	31.4	31.4	10.1	10.1	-306.9	-13.3	82.9	-3.925e+04	-5872.4	-872.3
1375	ok	0.06	0.9	2.41e-02	31.4	31.4	10.1	10.1	-288.4	-9.1	78.0	-3.717e+04	-5507.9	-1061.9
1376	ok	0.06	0.9	2.25e-02	31.4	31.4	10.1	10.1	-270.0	-6.3	73.5	-3.394e+04	-5004.1	-1210.2
1377	ok	0.06	0.9	2.11e-02	31.4	31.4	10.1	10.1	-252.1	-4.9	69.1	-2.969e+04	-4377.9	-1298.6
1378	ok	0.06	0.9	1.96e-02	31.4	31.4	10.1	10.1	-234.6	-5.2	64.7	-2.456e+04	-3642.6	-1306.1
1379	ok	0.06	0.9	1.82e-02	31.4	31.4	10.1	10.1	-217.6	-7.7	60.1	-1.868e+04	-2805.2	-1207.4
1380	ok	0.06	0.9	1.68e-02	31.4	31.4	10.1	10.1	-200.8	-12.9	55.3	-1.224e+04	-1861.1	-977.7
1381	ok	0.06	0.9	1.55e-02	31.4	31.4	10.1	10.1	-183.9	-21.4	50.6	-5459.8	-797.0	-616.9
1382	ok	0.06	0.8	1.42e-02	31.4	31.4	10.1	10.1	-166.4	-33.5	38.9	1439.4	293.2	-293.0
1383	ok	0.06	0.2	3.57e-02	31.4	31.4	10.1	10.1	-422.1	-82.0	107.0	-2.143e+04	-3873.8	345.9
1384	ok	0.06	0.3	3.51e-02	31.4	31.4	10.1	10.1	-412.4	-68.0	105.3	-2.850e+04	-4821.3	418.7
1385	ok	0.06	0.4	3.42e-02	31.4	31.4	10.1	10.1	-398.1	-51.9	99.9	-3.391e+04	-5372.7	352.6
1386	ok	0.06	0.6	3.29e-02	31.4	31.4	10.1	10.1	-379.8	-37.4	93.0	-3.763e+04	-5624.8	161.6
1387	ok	0.06	0.7	3.13e-02	31.4	31.4	10.1	10.1	-358.8	-25.9	86.0	-3.973e+04	-5648.0	-109.1
1388	ok	0.06	0.7	2.95e-02	31.4	31.4	10.1	10.1	-336.9	-17.2	79.8	-4.029e+04	-5486.8	-417.4
1389	ok	0.06	0.8	2.77e-02	31.4	31.4	10.1	10.1	-336.4	-14.9	79.8	-4.026e+04	-5333.8	-563.5
1390	ok	0.06	0.8	2.59e-02	31.4	31.4	10.1	10.1	-314.7	-10.0	74.6	-3.943e+04	-5146.6	-872.2
1391	ok	0.06	0.9	2.41e-02	31.4	31.4	10.1	10.1	-293.2	-6.2	69.7	-3.732e+04	-4819.5	-1152.4
1392	ok	0.06	0.9	2.24e-02	31.4	31.4	10.1	10.1	-272.3	-3.7	65.5	-3.404e+04	-4368.0	-1384.0
1393	ok	0.06	0.9	2.08e-02	31.4	31.4	10.1	10.1	-252.3	-2.3	61.5	-2.972e+04	-3805.5	-1546.4
1394	ok	0.06	0.9	1.92e-02	31.4	31.4	10.1	10.1	-233.1	-2.4	57.5	-2.449e+04	-3142.2	-1615.1
1395	ok	0.06	0.9	1.77e-02	31.4	31.4	10.1	10.1	-214.8	-4.6	53.3	-1.847e+04	-2382.6	-1556.8
1396	ok	0.06	0.9	1.63e-02	31.4	31.4	10.1	10.1	-197.1	-9.8	48.5	-1.184e+04	-1519.3	-1328.1
1397	ok	0.06	0.8	1.49e-02	31.4	31.4	10.1	10.1	-179.6	-18.9	43.6	-4831.3	-529.5	-898.9
1398	ok	0.06	0.8	1.35e-02	31.4	31.4	10.1	10.1	-161.6	-32.4	30.6	2292.9	462.7	-477.4
1399	ok	0.06	0.3	3.84e-02	31.4	31.4	10.1	10.1	-459.2	-85.5	108.6	-2.108e+04	-3469.4	827.2
1400	ok	0.06	0.3	3.77e-02	31.4	31.4	10.1	10.1	-446.3	-65.1	103.1	-2.843e+04	-4233.3	976.3
1401	ok	0.06	0.4	3.65e-02	31.4	31.4	10.1	10.1	-425.7	-44.6	93.4	-3.405e+04	-4630.4	860.4
1402	ok	0.06	0.6	3.46e-02	31.4	31.4	10.1	10.1	-399.9	-28.9	83.4	-3.788e+04	-4771.8	557.5
1403	ok	0.06	0.7	3.24e-02	31.4	31.4	10.1	10.1	-372.9	-18.3	75.0	-4.001e+04	-4733.3	160.7
1404	ok	0.06	0.7	3.01e-02	31.4	31.4	10.1	10.1	-346.2	-10.9	68.4	-4.058e+04	-4547.7	-274.5
1405	ok	0.06	0.8	2.79e-02	31.4	31.4	10.1	10.1	-346.2	-10.9	68.4	-4.056e+04	-4405.9	-479.1
1406	ok	0.06	0.8	2.59e-02	31.4	31.4	10.1	10.1	-320.6	-6.9	63.2	-3.972e+04	-4257.3	-906.8
1407	ok	0.06	0.9	2.39e-02	31.4	31.4	10.1	10.1	-296.0	-3.8	58.9	-3.757e+04	-3989.9	-1297.0
1408	ok	0.06	0.9	2.20e-02	31.4	31.4	10.1	10.1	-272.3	-1.7	55.3	-3.423e+04	-3615.0	-1627.6
1409	ok	0.06	0.9	2.02e-02	31.4	31.4	10.1	10.1	-249.8	-0.4	52.1	-2.983e+04	-3140.4	-1876.2
1410	ok	0.06	0.9	1.85e-02	31.4	31.4	10.1	10.1	-228.5	-0.2	48.9	-2.448e+04	-2570.9	-2016.1
1411	ok	0.06	0.9	1.70e-02	31.4	31.4	10.1	10.1	-208.6	-1.8	45.4	-1.831e+04	-1903.7	-2007.2
1412	ok	0.06	0.9	1.54e-02	31.4	31.4	10.1	10.1	-177.9	-10.6	-10.0	-3.587e+04	-3751.0	-892.1
1413	ok	0.06	0.8	1.40e-02	31.4	31.4	10.1	10.1	-180.5	-23.5	-10.0	-3.618e+04	-5289.7	-781.0
1414	ok	0.06	0.8	1.27e-02	31.4	31.4	10.1	10.1	-162.3	-32.9	-12.2	-3.073e+04	-6132.2	-260.5
1415	ok	0.06	0.3	4.23e-02	31.4	31.4	10.1	10.1	-511.0	-87.4	108.8	-2.050e+04	-2849.6	1541.6
1416	ok	0.06	0.3	4.13e-02	31.4	31.4	10.1	10.1	-489.8	-55.7	95.5	-2.845e+04	-3414.5	1741.3
1417	ok	0.06	0.4	3.93e-02	31.4	31.4	10.1	10.1	-453.5	-30.7	79.6	-3.431e+04	-3619.2	1478.3
1418	ok	0.06	0.6	3.62e-02	31.4	31.4	10.1	10.1	-417.7	-17.5	67.6	-3.825e+04	-3660.2	1009.1
1419	ok	0.06	0.7	3.32e-02	31.4	31.4	10.1	10.1	-384.0	-9.6	59.0	-4.043e+04	-3571.3	446.9
1420	ok	0.06	0.7	3.05e-02	31.4	31.4	10.1	10.1	-352.6	-4.6	52.9	-4.100e+04	-3376.8	-146.8
1421	ok	0.06	0.8	2.80e-02	31.4	31.4	10.1	10.1	-353.1	-7.2	52.9	-4.098e+04	-3268.4	-422.3
1422	ok	0.06	0.8	2.57e-02	31.4	31.4	10.1	10.1	-323.9	-4.4	48.7	-4.012e+04	-3183.4	-993.9
1423	ok	0.06	0.9	2.35e-02	31.4	31.4	10.1	10.1	-296.1	-2.2	45.2	-3.792e+04	-3005.6	-1515.4
1424	ok	0.06	0.9	2.14e-02	31.4	31.4	10.1	10.1	-269.7	-0.6	42.6	-3.452e+04	-2742.0	-1962.8

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1425	ok	0.06	0.9	1.95e-02	31.4	31.4	10.1	10.1	-244.5	0.6	40.5	-3.003e+04	-2395.1	-2311.6
1426	ok	0.06	0.9	1.76e-02	31.4	31.4	10.1	10.1	-220.6	1.1	38.5	-2.456e+04	-1961.3	-2531.7
1427	ok	0.06	0.9	1.64e-02	31.4	31.4	10.1	10.1	-197.0	-2.0	-5.6	-4.172e+04	-1643.1	-1549.7
1428	ok	0.06	0.9	1.54e-02	31.4	31.4	10.1	10.1	-198.2	-7.8	-5.6	-4.201e+04	-3057.8	-1868.0
1429	ok	0.06	0.8	1.43e-02	31.4	31.4	10.1	10.1	-183.9	-24.2	-10.0	-3.590e+04	-5235.2	-1385.0
1430	ok	0.06	0.8	1.30e-02	31.4	31.4	10.1	10.1	-165.5	-33.4	-18.0	-2.940e+04	-5870.3	-1075.4
1431	ok	0.06	0.4	4.85e-02	31.4	31.4	10.1	10.1	-598.0	-82.5	102.0	-2.013e+04	-2261.9	2667.8
1432	ok	0.06	0.3	4.72e-02	31.4	31.4	10.1	10.1	-527.6	-28.4	72.2	-2.863e+04	-2317.6	2597.4
1433	ok	0.06	0.5	4.16e-02	31.4	31.4	10.1	10.1	-473.0	-12.9	54.8	-3.471e+04	-2346.5	2114.9
1434	ok	0.06	0.6	3.72e-02	31.4	31.4	10.1	10.1	-428.1	-5.4	44.3	-3.874e+04	-2283.7	1447.3
1435	ok	0.06	0.7	3.36e-02	31.4	31.4	10.1	10.1	-389.5	-1.7	37.8	-4.094e+04	-2150.4	702.5
1436	ok	0.06	0.8	3.05e-02	31.4	31.4	10.1	10.1	-354.9	0.5	33.6	-4.150e+04	-1960.8	-59.1
1437	ok	0.06	0.8	2.78e-02	31.4	31.4	10.1	10.1	-355.9	-4.5	33.6	-4.149e+04	-1909.6	-393.8
1438	ok	0.06	0.9	2.53e-02	31.4	31.4	10.1	10.1	-323.8	-2.9	31.0	-4.061e+04	-1916.4	-1114.6
1439	ok	0.06	0.9	2.29e-02	31.4	31.4	10.1	10.1	-293.6	-1.6	28.8	-3.836e+04	-1862.8	-1771.5
1440	ok	0.06	0.9	2.07e-02	31.4	31.4	10.1	10.1	-264.6	-0.6	27.4	-3.489e+04	-1752.8	-2340.1
1441	ok	0.06	0.9	1.86e-02	31.4	31.4	10.1	10.1	-220.4	0.6	1.1	-5.060e+04	-163.2	-449.5
1442	ok	0.06	0.9	1.71e-02	31.4	31.4	10.1	10.1	-221.1	-2.8	1.1	-5.080e+04	-1136.1	-515.0
1443	ok	0.06	0.9	1.61e-02	31.4	31.4	10.1	10.1	-208.0	-2.8	-0.4	-4.836e+04	-1239.2	-928.6
1444	ok	0.06	0.9	1.53e-02	31.4	31.4	10.1	10.1	-197.8	-7.7	-5.6	-4.279e+04	-3214.0	-2423.3
1445	ok	0.06	0.8	1.49e-02	31.4	31.4	10.1	10.1	-115.6	2.0	-30.9	-4.792e+04	-656.2	-2282.5
1446	ok	0.06	0.7	1.37e-02	31.4	31.4	10.1	10.1	-173.4	-34.8	-22.2	-2.643e+04	-5278.6	-2369.9
1447	ok	0.06	0.4	6.68e-02	31.4	31.4	10.1	10.1	-625.7	-7.9	46.0	-1.967e+04	-1504.8	2390.9
1448	ok	0.06	0.3	4.89e-02	31.4	31.4	10.1	10.1	-532.8	-3.4	27.1	-2.837e+04	-1239.8	2091.0
1449	ok	0.06	0.4	4.14e-02	31.4	31.4	10.1	10.1	-473.2	2.0	19.3	-3.451e+04	-1081.1	1622.1
1450	ok	0.06	0.6	3.68e-02	31.4	31.4	10.1	10.1	-427.2	2.7	15.3	-3.855e+04	-915.9	1058.4
1451	ok	0.06	0.7	3.32e-02	31.4	31.4	10.1	10.1	-388.0	3.1	13.0	-4.076e+04	-746.2	469.3
1452	ok	0.06	0.7	3.01e-02	31.4	31.4	10.1	10.1	-352.5	3.4	11.6	-4.133e+04	-572.2	-115.0
1453	ok	0.06	0.8	2.74e-02	31.4	31.4	10.1	10.1	-353.9	-3.3	11.6	-4.133e+04	-580.8	-157.2
1454	ok	0.06	0.8	2.48e-02	31.4	31.4	10.1	10.1	-320.4	-2.6	10.8	-4.046e+04	-685.3	-713.3
1455	ok	0.06	0.9	2.23e-02	31.4	31.4	10.1	10.1	-288.5	-2.1	10.1	-3.823e+04	-762.6	-1222.6
1456	ok	0.06	0.9	2.00e-02	31.4	31.4	10.1	10.1	-257.7	-1.6	9.6	-3.477e+04	-814.6	-1670.2
1457	ok	0.06	0.9	1.77e-02	31.4	31.4	10.1	10.1	-211.9	2.3	1.1	-5.076e+04	-195.3	-831.5
1458	ok	0.06	0.9	1.65e-02	31.4	31.4	10.1	10.1	-212.6	-1.1	1.1	-5.096e+04	-1168.3	-897.0
1459	ok	0.06	0.9	1.54e-02	31.4	31.4	10.1	10.1	-199.2	-1.0	-0.4	-4.853e+04	-1273.6	-1369.4
1460	ok	0.06	0.9	1.45e-02	31.4	31.4	10.1	10.1	-187.8	-2.0	-2.0	-4.252e+04	-1472.8	-1997.7
1461	ok	0.06	0.8	1.62e-02	31.4	31.4	10.1	10.1	-201.1	-15.1	-30.9	-4.863e+04	-797.2	-5927.2
1462	ok	0.06	0.8	1.68e-02	31.4	31.4	10.1	10.1	-206.4	-41.5	-30.9	-5.049e+04	-1.008e+04	-6214.5

La verifica a taglio è effettuata per la massima sollecitazione in direzione ortogonale.



La sollecitazione è divisa per la larghezza per avere un valore al metro.

V_{Ed}=6698kN; $v_{Ed}=V_{Ed}/b$=6698/16.45=407.17kN/m

A favore di sicurezza si trascura il contributo positivo alla resistenza dato dallo sforzo normale.

resistenza a taglio di elementi quali solai e piastre, privi di armatura trasversale

V_{Rd} **327.11** kN; pari a 4.4 kg/cm^2 ρ_l = 0.004 ; k = 1.518

Ved>VRd; è necessaria armatura specifica a taglio

armatura a taglio							
Staffe	**3**	braccia ϕ	**10**	/	**33**	(Asw/s	**0.71** mm^2/mm)

L'armatura a taglio è data dalle legatura (9ϕ10/mq corrispondente ad una maglia 33x33cm)

resistenza a taglio				cotg θ	**2.5**
V_{Rsd}	**468.33** kN	V_{Rcd}	**2174.89** kN	**verificato**	**1.15**

15.2 SLE

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

I valori di interesse sono i seguenti:

rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare	[*normalizzato a 1*]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare	[*normalizzato a 1*]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti	[*normalizzato a 1*]
wR	apertura caratteristica delle fessure in combinazioni rare	[*mm*]
wF	apertura caratteristica delle fessure in combinazioni frequenti	[*mm*]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti	[*mm*]

Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

setti e gusci	**rRfck rRfyk rPfck**	massimi nei nodi dell'elemento
	wR wF wP	massimi nei nodi dell'elemento

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
					mm	mm	
826	0.09	0.11	0.09	287,281,347	0.0	0.0	0,0,0
827	0.14	0.26	0.17	287,289,348	0.0	0.0	0,0,0
828	0.18	0.40	0.23	317,289,348	0.0	0.0	289,0,0
829	0.22	0.51	0.27	320,289,348	0.13	0.12	289,333,347
830	0.25	0.59	0.31	320,320,348	0.16	0.14	320,342,348
831	0.28	0.65	0.33	320,320,348	0.17	0.15	320,342,348
832	0.29	0.68	0.33	320,320,348	0.19	0.15	320,342,348
833	0.29	0.70	0.33	320,320,348	0.19	0.15	320,342,348
834	0.29	0.69	0.32	320,320,348	0.19	0.15	320,342,348
835	0.28	0.66	0.30	320,320,348	0.18	0.14	320,342,348
836	0.26	0.62	0.27	320,320,348	0.16	0.12	320,342,348
837	0.23	0.55	0.24	320,320,348	0.14	0.10	320,342,348
838	0.20	0.47	0.20	320,320,348	0.11	0.0	320,342,0
839	0.16	0.37	0.15	320,320,348	0.0	0.0	0,0,0
840	0.11	0.24	0.09	320,320,348	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
841	0.08	0.12	0.03	283,283,347	0.0	0.0	0,0,0
842	0.09	0.10	0.10	287,279,347	0.0	0.0	0,0,0
843	0.14	0.25	0.17	287,289,349	0.0	0.0	0,0,0
844	0.19	0.39	0.23	317,289,348	0.0	0.0	289,0,0
845	0.22	0.50	0.28	320,289,348	0.13	0.11	289,333,347
846	0.25	0.58	0.31	320,320,348	0.16	0.13	289,333,347
847	0.28	0.64	0.33	320,320,348	0.17	0.15	320,342,348
848	0.29	0.68	0.34	320,320,348	0.18	0.15	320,342,348
849	0.30	0.70	0.33	320,320,348	0.19	0.16	320,342,348
850	0.29	0.69	0.32	320,320,348	0.19	0.15	320,342,348
851	0.28	0.67	0.30	320,320,348	0.18	0.14	320,342,348
852	0.26	0.63	0.28	320,320,348	0.17	0.12	320,342,348
853	0.24	0.57	0.24	320,320,348	0.15	0.10	320,342,348
854	0.21	0.49	0.20	320,320,348	0.11	0.0	320,342,0
855	0.17	0.39	0.15	320,320,348	0.0	0.0	0,0,0
856	0.12	0.27	0.10	320,320,348	0.0	0.0	0,0,0
857	0.08	0.16	0.05	283,320,347	0.0	0.0	0,0,0
858	0.10	0.11	0.11	287,279,347	0.0	0.0	0,0,0
859	0.14	0.24	0.17	287,280,347	0.0	0.0	0,0,0
860	0.18	0.38	0.23	317,289,348	0.0	0.0	0,0,0
861	0.22	0.49	0.27	320,289,348	0.12	0.11	289,333,347
862	0.25	0.57	0.30	320,320,348	0.15	0.13	320,333,348
863	0.28	0.63	0.32	320,320,348	0.17	0.14	320,342,348
864	0.29	0.67	0.33	320,320,348	0.18	0.15	320,342,348
865	0.29	0.68	0.33	320,320,348	0.19	0.15	320,342,348
866	0.29	0.68	0.32	320,320,348	0.18	0.15	320,342,348
867	0.28	0.66	0.30	320,320,348	0.18	0.14	320,342,348
868	0.26	0.62	0.28	320,320,348	0.16	0.12	320,342,348
869	0.24	0.56	0.24	320,320,348	0.14	0.10	320,342,348
870	0.21	0.48	0.20	320,320,348	0.11	0.0	320,342,0
871	0.17	0.39	0.16	320,320,348	0.0	0.0	0,0,0
872	0.13	0.29	0.10	320,320,348	0.0	0.0	0,0,0
873	0.08	0.18	0.05	320,320,348	0.0	0.0	0,0,0
874	0.10	0.11	0.11	287,279,347	0.0	0.0	0,0,0
875	0.14	0.23	0.17	287,280,347	0.0	0.0	0,0,0
876	0.18	0.36	0.23	286,289,347	0.0	0.0	0,0,0
877	0.22	0.47	0.27	320,289,348	0.12	0.11	289,333,347
878	0.25	0.56	0.30	320,320,348	0.15	0.13	320,342,348
879	0.27	0.62	0.32	320,320,348	0.16	0.14	320,342,348
880	0.29	0.66	0.33	320,320,348	0.18	0.15	320,342,348
881	0.29	0.67	0.33	320,320,348	0.18	0.15	320,342,348
882	0.29	0.67	0.32	320,320,348	0.18	0.14	320,342,348
883	0.28	0.65	0.30	320,320,348	0.17	0.13	320,342,348
884	0.26	0.61	0.27	320,320,348	0.16	0.12	320,342,348
885	0.24	0.55	0.24	320,320,348	0.14	0.10	320,342,348
886	0.21	0.48	0.20	320,320,348	0.11	0.0	320,342,0
887	0.17	0.39	0.16	320,320,348	0.0	0.0	0,0,0
888	0.13	0.30	0.11	320,320,348	0.0	0.0	0,0,0
889	0.09	0.21	0.06	320,320,348	0.0	0.0	0,0,0
890	0.10	0.11	0.11	287,279,347	0.0	0.0	0,0,0
891	0.14	0.23	0.17	287,279,347	0.0	0.0	0,0,0
892	0.18	0.35	0.23	286,289,347	0.0	0.0	0,0,0
893	0.22	0.46	0.27	320,289,348	0.12	0.10	289,333,347
894	0.25	0.55	0.30	320,320,348	0.14	0.12	320,342,348
895	0.27	0.61	0.32	320,320,348	0.16	0.14	320,342,348
896	0.28	0.65	0.33	320,320,348	0.17	0.15	320,342,348
897	0.29	0.66	0.33	320,320,348	0.18	0.15	320,342,348
898	0.29	0.66	0.32	320,320,348	0.18	0.14	320,342,348
899	0.28	0.64	0.30	320,320,348	0.17	0.13	320,342,348
900	0.26	0.60	0.27	320,320,348	0.16	0.12	320,342,348
901	0.24	0.55	0.24	320,320,348	0.14	0.09	320,342,348
902	0.21	0.48	0.20	320,320,348	0.11	0.0	320,342,0
903	0.17	0.40	0.16	320,320,348	0.0	0.0	320,0,0
904	0.14	0.31	0.12	320,320,348	0.0	0.0	0,0,0
905	0.10	0.23	0.07	320,320,348	0.0	0.0	0,0,0
906	0.10	0.11	0.11	287,279,347	0.0	0.0	0,0,0
907	0.14	0.22	0.17	286,279,347	0.0	0.0	0,0,0
908	0.18	0.35	0.23	286,289,347	0.0	0.0	0,0,0
909	0.22	0.46	0.27	320,289,348	0.11	0.10	289,333,347
910	0.25	0.54	0.30	320,320,348	0.14	0.12	320,342,348
911	0.27	0.60	0.32	320,320,348	0.16	0.14	320,342,348
912	0.28	0.64	0.33	320,320,348	0.17	0.14	320,342,348
913	0.29	0.66	0.33	320,320,348	0.18	0.14	320,342,348

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
914	0.29	0.66	0.32	320,320,348	0.18	0.14	320,342,348
915	0.28	0.64	0.30	320,320,348	0.17	0.13	320,342,348
916	0.26	0.60	0.27	320,320,348	0.16	0.12	320,342,348
917	0.24	0.55	0.24	320,320,348	0.14	0.09	320,342,348
918	0.21	0.48	0.20	320,320,348	0.11	0.0	320,342,0
919	0.18	0.41	0.16	320,320,348	0.0	0.0	320,0,0
920	0.14	0.32	0.12	320,320,348	0.0	0.0	0,0,0
921	0.11	0.24	0.08	320,320,348	0.0	0.0	0,0,0
922	0.09	0.10	0.11	287,279,347	0.0	0.0	0,0,0
923	0.14	0.22	0.17	286,279,347	0.0	0.0	0,0,0
924	0.18	0.34	0.23	286,289,347	0.0	0.0	0,0,0
925	0.21	0.45	0.27	289,289,347	0.11	0.10	289,333,347
926	0.25	0.53	0.30	320,320,348	0.14	0.12	320,342,348
927	0.27	0.60	0.32	320,320,348	0.16	0.13	320,342,348
928	0.28	0.64	0.33	320,320,348	0.17	0.14	320,342,348
929	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
930	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
931	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
932	0.26	0.60	0.27	320,320,348	0.16	0.12	320,342,348
933	0.24	0.55	0.24	320,320,348	0.14	0.10	320,342,348
934	0.21	0.49	0.21	320,320,348	0.12	0.0	320,342,0
935	0.18	0.41	0.17	320,320,348	0.0	0.0	320,0,0
936	0.15	0.33	0.13	320,320,348	0.0	0.0	0,0,0
937	0.11	0.25	0.08	320,320,348	0.0	0.0	0,0,0
938	0.09	0.09	0.10	287,279,347	0.0	0.0	0,0,0
939	0.14	0.21	0.17	286,279,347	0.0	0.0	0,0,0
940	0.18	0.34	0.23	286,289,347	0.0	0.0	0,0,0
941	0.21	0.44	0.27	289,289,347	0.11	0.10	289,333,347
942	0.25	0.53	0.30	320,320,348	0.14	0.12	320,342,348
943	0.27	0.59	0.32	320,320,348	0.16	0.13	320,342,348
944	0.28	0.63	0.33	320,320,348	0.17	0.14	320,342,348
945	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
946	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
947	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
948	0.26	0.60	0.27	320,320,348	0.16	0.12	320,342,348
949	0.24	0.55	0.25	320,320,348	0.14	0.10	320,342,348
950	0.21	0.49	0.21	320,320,348	0.12	0.0	320,342,0
951	0.18	0.42	0.17	320,320,348	0.0	0.0	320,0,0
952	0.15	0.34	0.13	320,320,348	0.0	0.0	0,0,0
953	0.12	0.26	0.09	320,320,348	0.0	0.0	0,0,0
954	0.08	0.08	0.10	287,279,347	0.0	0.0	0,0,0
955	0.14	0.20	0.17	286,281,347	0.0	0.0	0,0,0
956	0.18	0.33	0.22	286,289,347	0.0	0.0	0,0,0
957	0.21	0.44	0.27	289,289,347	0.11	0.10	289,333,347
958	0.24	0.52	0.30	320,320,348	0.14	0.12	320,342,348
959	0.27	0.59	0.32	320,320,348	0.16	0.13	320,342,348
960	0.28	0.63	0.32	320,320,348	0.17	0.14	320,342,348
961	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
962	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
963	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
964	0.26	0.60	0.28	320,320,348	0.16	0.12	320,342,348
965	0.24	0.55	0.25	320,320,348	0.14	0.10	320,342,348
966	0.22	0.50	0.21	320,320,348	0.12	0.0	320,342,0
967	0.19	0.43	0.18	320,320,348	0.0	0.0	320,0,0
968	0.16	0.35	0.14	320,320,348	0.0	0.0	0,0,0
969	0.12	0.27	0.09	320,320,348	0.0	0.0	0,0,0
970	0.08	0.07	0.09	286,279,347	0.0	0.0	0,0,0
971	0.13	0.20	0.17	286,281,347	0.0	0.0	0,0,0
972	0.17	0.32	0.22	286,289,347	0.0	0.0	0,0,0
973	0.21	0.43	0.26	289,289,347	0.11	0.10	289,333,347
974	0.24	0.52	0.29	320,320,348	0.14	0.12	320,342,348
975	0.27	0.58	0.31	320,320,348	0.16	0.13	320,342,348
976	0.28	0.63	0.32	320,320,348	0.17	0.14	320,342,348
977	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
978	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
979	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
980	0.27	0.60	0.28	320,320,348	0.16	0.12	320,342,348
981	0.25	0.56	0.25	320,320,348	0.14	0.10	320,342,348
982	0.22	0.50	0.22	320,320,348	0.12	0.0	320,342,0
983	0.19	0.43	0.18	320,320,348	0.10	0.0	320,342,0
984	0.16	0.36	0.14	320,320,348	0.0	0.0	0,0,0
985	0.12	0.27	0.10	320,320,348	0.0	0.0	0,0,0
986	0.08	0.06	0.09	286,281,347	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
987	0.13	0.19	0.16	286,281,347	0.0	0.0	0,0,0
988	0.17	0.31	0.22	286,289,347	0.0	0.0	0,0,0
989	0.21	0.43	0.26	289,289,347	0.10	0.09	289,333,347
990	0.24	0.51	0.29	320,320,347	0.14	0.12	320,342,348
991	0.27	0.58	0.31	320,320,348	0.16	0.13	320,342,348
992	0.28	0.62	0.32	320,320,348	0.17	0.14	320,342,348
993	0.29	0.65	0.33	320,320,348	0.18	0.14	320,342,348
994	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
995	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
996	0.27	0.61	0.28	320,320,348	0.16	0.12	320,342,348
997	0.25	0.56	0.25	320,320,348	0.14	0.10	320,342,348
998	0.22	0.50	0.22	320,320,348	0.12	0.0	320,342,0
999	0.19	0.44	0.18	320,320,348	0.10	0.0	320,342,0
1000	0.16	0.36	0.14	320,320,348	0.0	0.0	0,0,0
1001	0.13	0.28	0.10	320,320,348	0.0	0.0	0,0,0
1002	0.07	0.06	0.08	286,286,347	0.0	0.0	0,0,0
1003	0.13	0.18	0.16	286,281,347	0.0	0.0	0,0,0
1004	0.17	0.30	0.22	286,289,347	0.0	0.0	0,0,0
1005	0.21	0.42	0.26	289,289,347	0.10	0.09	289,333,347
1006	0.24	0.51	0.29	289,320,347	0.13	0.12	320,342,348
1007	0.27	0.58	0.31	320,320,348	0.16	0.13	320,342,348
1008	0.28	0.62	0.32	320,320,348	0.17	0.14	320,342,348
1009	0.29	0.64	0.33	320,320,348	0.18	0.14	320,342,348
1010	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1011	0.28	0.64	0.30	320,320,348	0.17	0.13	320,342,348
1012	0.27	0.61	0.28	320,320,348	0.16	0.12	320,342,348
1013	0.25	0.57	0.26	320,320,348	0.14	0.10	320,342,348
1014	0.23	0.51	0.22	320,320,348	0.12	0.0	320,342,0
1015	0.20	0.44	0.19	320,320,348	0.10	0.0	320,342,0
1016	0.17	0.37	0.15	320,320,348	0.0	0.0	0,0,0
1017	0.13	0.29	0.10	320,320,348	0.0	0.0	0,0,0
1018	0.07	0.05	0.08	286,286,347	0.0	0.0	0,0,0
1019	0.12	0.17	0.15	286,281,347	0.0	0.0	0,0,0
1020	0.17	0.30	0.21	286,289,347	0.0	0.0	0,0,0
1021	0.21	0.41	0.26	289,289,347	0.10	0.09	289,333,347
1022	0.24	0.50	0.29	289,289,347	0.13	0.11	289,342,348
1023	0.27	0.57	0.31	320,320,348	0.15	0.13	320,342,348
1024	0.28	0.62	0.32	320,320,348	0.17	0.14	320,342,348
1025	0.29	0.64	0.33	320,320,348	0.18	0.14	320,342,348
1026	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1027	0.28	0.64	0.31	320,320,348	0.17	0.13	320,342,348
1028	0.27	0.61	0.28	320,320,348	0.16	0.12	320,342,348
1029	0.25	0.57	0.26	320,320,348	0.15	0.10	320,342,348
1030	0.23	0.51	0.23	320,320,348	0.13	0.0	320,342,0
1031	0.20	0.45	0.19	320,320,348	0.10	0.0	320,342,0
1032	0.17	0.37	0.15	320,320,348	0.0	0.0	0,0,0
1033	0.13	0.29	0.11	320,320,348	0.0	0.0	0,0,0
1034	0.06	0.05	0.07	286,286,347	0.0	0.0	0,0,0
1035	0.12	0.16	0.15	286,281,347	0.0	0.0	0,0,0
1036	0.16	0.29	0.21	286,289,347	0.0	0.0	0,0,0
1037	0.20	0.40	0.26	289,289,347	0.10	0.09	289,333,347
1038	0.24	0.50	0.29	289,289,347	0.13	0.11	289,342,347
1039	0.26	0.57	0.31	320,320,348	0.15	0.13	320,342,348
1040	0.28	0.61	0.32	320,320,348	0.17	0.14	320,342,348
1041	0.29	0.64	0.33	320,320,348	0.18	0.14	320,342,348
1042	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1043	0.28	0.64	0.31	320,320,348	0.17	0.13	320,342,348
1044	0.27	0.61	0.29	320,320,348	0.16	0.12	320,342,348
1045	0.25	0.57	0.26	320,320,348	0.15	0.10	320,342,348
1046	0.23	0.52	0.23	320,320,348	0.13	0.0	320,342,0
1047	0.20	0.45	0.19	320,320,348	0.10	0.0	320,342,0
1048	0.17	0.38	0.15	320,320,348	0.0	0.0	0,0,0
1049	0.14	0.30	0.11	320,320,348	0.0	0.0	0,0,0
1050	0.06	0.05	0.07	286,286,347	0.0	0.0	0,0,0
1051	0.12	0.16	0.15	286,281,347	0.0	0.0	0,0,0
1052	0.16	0.28	0.21	286,289,347	0.0	0.0	0,0,0
1053	0.20	0.40	0.25	289,289,347	0.10	0.0	289,333,0
1054	0.24	0.49	0.29	289,289,347	0.13	0.11	289,342,347
1055	0.26	0.56	0.31	320,320,348	0.15	0.13	320,342,348
1056	0.28	0.61	0.32	320,320,348	0.17	0.14	320,342,348
1057	0.29	0.64	0.33	320,320,348	0.18	0.14	320,342,348
1058	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1059	0.29	0.64	0.31	320,320,348	0.17	0.13	320,342,348

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1060	0.27	0.62	0.29	320,320,348	0.16	0.12	320,342,348
1061	0.26	0.58	0.26	320,320,348	0.15	0.11	320,342,348
1062	0.23	0.52	0.23	320,320,348	0.13	0.0	320,342,0
1063	0.21	0.46	0.20	320,320,348	0.11	0.0	320,342,0
1064	0.17	0.39	0.16	320,320,348	0.0	0.0	320,0,0
1065	0.14	0.31	0.11	320,320,348	0.0	0.0	0,0,0
1066	0.06	0.04	0.06	286,286,347	0.0	0.0	0,0,0
1067	0.11	0.15	0.14	286,281,347	0.0	0.0	0,0,0
1068	0.16	0.27	0.20	286,280,347	0.0	0.0	0,0,0
1069	0.20	0.39	0.25	289,289,347	0.09	0.0	289,333,0
1070	0.24	0.49	0.29	289,289,347	0.13	0.11	289,342,347
1071	0.26	0.56	0.31	320,320,348	0.15	0.13	320,342,348
1072	0.28	0.61	0.32	320,320,348	0.17	0.14	320,342,348
1073	0.29	0.64	0.33	320,320,348	0.18	0.14	320,342,348
1074	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1075	0.29	0.64	0.31	320,320,348	0.17	0.13	320,342,348
1076	0.28	0.62	0.29	320,320,348	0.17	0.12	320,342,348
1077	0.26	0.58	0.26	320,320,348	0.15	0.11	320,342,348
1078	0.24	0.53	0.23	320,320,348	0.13	0.0	320,342,0
1079	0.21	0.47	0.20	320,320,348	0.11	0.0	320,342,0
1080	0.18	0.39	0.16	320,320,348	0.0	0.0	320,0,0
1081	0.14	0.32	0.12	320,320,348	0.0	0.0	0,0,0
1082	0.05	0.04	0.06	286,286,347	0.0	0.0	0,0,0
1083	0.11	0.14	0.14	286,281,347	0.0	0.0	0,0,0
1084	0.16	0.26	0.20	286,280,347	0.0	0.0	0,0,0
1085	0.20	0.38	0.25	289,289,347	0.09	0.0	289,333,0
1086	0.23	0.48	0.28	289,289,347	0.12	0.11	289,342,347
1087	0.26	0.55	0.31	320,320,348	0.15	0.12	320,342,348
1088	0.28	0.60	0.32	320,320,348	0.17	0.14	320,342,348
1089	0.29	0.64	0.33	320,320,348	0.18	0.14	320,342,348
1090	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1091	0.29	0.64	0.31	320,320,348	0.18	0.13	320,342,348
1092	0.28	0.62	0.29	320,320,348	0.17	0.12	320,342,348
1093	0.26	0.58	0.27	320,320,348	0.15	0.11	320,342,348
1094	0.24	0.53	0.24	320,320,348	0.13	0.0	320,342,0
1095	0.21	0.47	0.20	320,320,348	0.11	0.0	320,342,0
1096	0.18	0.40	0.16	320,320,348	0.0	0.0	320,0,0
1097	0.15	0.32	0.12	320,320,348	0.0	0.0	0,0,0
1098	0.05	0.04	0.05	286,282,347	0.0	0.0	0,0,0
1099	0.11	0.13	0.13	277,281,347	0.0	0.0	0,0,0
1100	0.15	0.25	0.20	277,280,347	0.0	0.0	0,0,0
1101	0.20	0.38	0.25	289,289,347	0.09	0.0	289,333,0
1102	0.23	0.47	0.28	289,289,347	0.12	0.10	289,342,347
1103	0.26	0.55	0.31	328,320,350	0.15	0.12	320,342,348
1104	0.28	0.60	0.32	320,320,348	0.16	0.14	320,342,348
1105	0.29	0.63	0.33	320,320,348	0.18	0.14	320,342,348
1106	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1107	0.29	0.64	0.31	320,320,348	0.18	0.13	320,342,348
1108	0.28	0.62	0.29	320,320,348	0.17	0.12	320,342,348
1109	0.26	0.59	0.27	320,320,348	0.15	0.11	320,342,348
1110	0.24	0.54	0.24	320,320,348	0.14	0.0	320,342,0
1111	0.22	0.48	0.21	320,320,348	0.11	0.0	320,342,0
1112	0.19	0.41	0.17	320,320,348	0.0	0.0	320,0,0
1113	0.15	0.33	0.13	320,320,348	0.0	0.0	0,0,0
1114	0.05	0.04	0.05	282,282,347	0.0	0.0	0,0,0
1115	0.10	0.13	0.13	277,281,347	0.0	0.0	0,0,0
1116	0.15	0.25	0.19	277,280,347	0.0	0.0	0,0,0
1117	0.19	0.37	0.24	289,289,347	0.0	0.0	289,0,0
1118	0.23	0.47	0.28	289,289,347	0.12	0.10	289,346,347
1119	0.26	0.54	0.30	289,320,347	0.14	0.12	320,342,348
1120	0.28	0.60	0.32	320,320,348	0.16	0.13	320,342,348
1121	0.29	0.63	0.32	320,320,348	0.17	0.14	320,342,348
1122	0.29	0.65	0.32	320,320,348	0.18	0.14	320,342,348
1123	0.29	0.64	0.31	320,320,348	0.18	0.14	320,342,348
1124	0.28	0.62	0.29	320,320,348	0.17	0.13	320,342,348
1125	0.26	0.59	0.27	320,320,348	0.15	0.11	320,342,348
1126	0.24	0.54	0.24	320,320,348	0.14	0.09	320,342,348
1127	0.22	0.49	0.21	320,320,348	0.12	0.0	320,342,0
1128	0.19	0.42	0.17	320,320,348	0.0	0.0	320,0,0
1129	0.16	0.34	0.13	320,320,348	0.0	0.0	0,0,0
1130	0.04	0.03	0.05	282,282,347	0.0	0.0	0,0,0
1131	0.10	0.12	0.13	277,281,347	0.0	0.0	0,0,0
1132	0.15	0.24	0.19	277,280,347	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1133	0.19	0.36	0.24	289,289,347	0.0	0.0	0,0,0
1134	0.23	0.46	0.28	289,289,347	0.12	0.10	289,333,347
1135	0.26	0.54	0.30	289,320,347	0.14	0.12	320,342,348
1136	0.28	0.59	0.32	320,320,348	0.16	0.13	320,342,348
1137	0.29	0.63	0.32	320,320,348	0.17	0.14	320,342,348
1138	0.29	0.64	0.32	320,320,348	0.18	0.14	320,342,348
1139	0.29	0.64	0.31	320,320,348	0.18	0.14	320,342,348
1140	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1141	0.27	0.59	0.27	320,320,348	0.16	0.11	320,342,348
1142	0.25	0.55	0.24	320,320,348	0.14	0.09	320,342,348
1143	0.22	0.49	0.21	320,320,348	0.12	0.0	320,342,0
1144	0.19	0.43	0.18	320,320,348	0.09	0.0	320,342,0
1145	0.16	0.35	0.14	320,320,348	0.0	0.0	0,0,0
1146	0.04	0.03	0.04	282,282,347	0.0	0.0	0,0,0
1147	0.10	0.11	0.12	277,281,347	0.0	0.0	0,0,0
1148	0.15	0.23	0.19	277,280,347	0.0	0.0	0,0,0
1149	0.19	0.35	0.24	289,289,347	0.0	0.0	0,0,0
1150	0.23	0.45	0.28	289,289,347	0.11	0.10	289,333,347
1151	0.26	0.53	0.30	289,320,347	0.14	0.12	320,342,348
1152	0.28	0.59	0.32	320,320,348	0.16	0.13	320,342,348
1153	0.29	0.63	0.32	320,320,348	0.17	0.14	320,342,348
1154	0.29	0.64	0.32	320,320,348	0.18	0.14	320,342,348
1155	0.29	0.64	0.31	320,320,348	0.18	0.14	320,342,348
1156	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1157	0.27	0.60	0.27	320,320,348	0.16	0.11	320,342,348
1158	0.25	0.55	0.25	320,320,348	0.14	0.09	320,342,348
1159	0.22	0.50	0.22	320,320,348	0.12	0.0	320,342,0
1160	0.20	0.44	0.18	320,320,348	0.10	0.0	320,342,0
1161	0.17	0.36	0.14	320,320,348	0.0	0.0	0,0,0
1162	0.04	0.03	0.04	273,282,347	0.0	0.0	0,0,0
1163	0.10	0.11	0.12	277,281,347	0.0	0.0	0,0,0
1164	0.14	0.22	0.19	277,281,347	0.0	0.0	0,0,0
1165	0.19	0.35	0.24	289,289,347	0.0	0.0	0,0,0
1166	0.23	0.45	0.27	289,289,347	0.11	0.10	289,333,347
1167	0.25	0.53	0.30	289,320,347	0.14	0.12	320,342,348
1168	0.27	0.58	0.32	320,320,348	0.16	0.13	320,342,348
1169	0.29	0.62	0.32	320,320,348	0.17	0.14	320,342,348
1170	0.29	0.64	0.32	320,320,348	0.18	0.14	320,342,348
1171	0.29	0.64	0.31	320,320,348	0.18	0.14	320,342,348
1172	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1173	0.27	0.60	0.28	320,320,348	0.16	0.11	320,342,348
1174	0.25	0.56	0.25	320,320,348	0.14	0.10	320,342,348
1175	0.23	0.51	0.22	320,320,348	0.12	0.0	320,342,0
1176	0.20	0.44	0.18	320,320,348	0.10	0.0	320,342,0
1177	0.17	0.38	0.15	320,320,348	0.0	0.0	0,0,0
1178	0.04	0.03	0.04	273,273,347	0.0	0.0	0,0,0
1179	0.09	0.10	0.12	273,277,347	0.0	0.0	0,0,0
1180	0.14	0.22	0.18	277,281,347	0.0	0.0	0,0,0
1181	0.18	0.34	0.23	289,289,347	0.0	0.0	0,0,0
1182	0.22	0.44	0.27	289,289,347	0.11	0.09	289,333,347
1183	0.25	0.52	0.30	289,320,347	0.14	0.11	320,342,348
1184	0.27	0.58	0.31	320,320,348	0.16	0.13	320,342,348
1185	0.29	0.62	0.32	320,320,348	0.17	0.14	320,342,348
1186	0.29	0.64	0.32	320,320,348	0.18	0.14	320,342,348
1187	0.29	0.64	0.31	320,320,348	0.18	0.14	320,342,348
1188	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1189	0.27	0.60	0.28	320,320,348	0.16	0.11	320,342,348
1190	0.25	0.56	0.25	320,320,348	0.14	0.10	320,342,348
1191	0.23	0.51	0.22	320,320,348	0.13	0.0	320,342,0
1192	0.20	0.45	0.19	320,320,348	0.10	0.0	320,342,0
1193	0.18	0.39	0.15	320,320,348	0.0	0.0	320,0,0
1194	0.04	0.03	0.04	320,320,347	0.0	0.0	0,0,0
1195	0.09	0.10	0.11	273,277,347	0.0	0.0	0,0,0
1196	0.14	0.21	0.18	277,281,347	0.0	0.0	0,0,0
1197	0.18	0.33	0.23	289,289,347	0.0	0.0	0,0,0
1198	0.22	0.43	0.27	289,289,347	0.11	0.09	289,333,347
1199	0.25	0.51	0.30	289,328,347	0.13	0.11	328,342,348
1200	0.27	0.58	0.31	320,320,348	0.16	0.13	320,342,348
1201	0.29	0.62	0.32	320,320,348	0.17	0.14	320,342,348
1202	0.29	0.64	0.32	320,320,348	0.17	0.14	320,342,348
1203	0.29	0.64	0.31	320,320,348	0.18	0.13	320,342,348
1204	0.28	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1205	0.27	0.61	0.28	320,320,348	0.16	0.11	320,342,348

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1206	0.25	0.57	0.25	320,320,348	0.15	0.10	320,342,348
1207	0.23	0.52	0.22	320,320,348	0.13	0.0	320,342,0
1208	0.21	0.46	0.19	320,320,348	0.11	0.0	320,342,0
1209	0.18	0.40	0.16	320,320,348	0.0	0.0	320,0,0
1210	0.04	0.03	0.03	320,320,347	0.0	0.0	0,0,0
1211	0.09	0.09	0.11	273,277,347	0.0	0.0	0,0,0
1212	0.14	0.20	0.18	277,281,347	0.0	0.0	0,0,0
1213	0.18	0.32	0.23	289,289,347	0.0	0.0	0,0,0
1214	0.22	0.43	0.27	289,289,347	0.10	0.09	289,333,347
1215	0.25	0.51	0.29	289,289,347	0.13	0.11	289,342,348
1216	0.27	0.57	0.31	320,320,348	0.15	0.13	320,342,348
1217	0.29	0.61	0.32	320,320,348	0.17	0.13	320,342,348
1218	0.29	0.64	0.32	320,320,348	0.17	0.14	320,342,348
1219	0.29	0.64	0.31	320,320,348	0.17	0.13	320,342,348
1220	0.29	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1221	0.27	0.61	0.28	320,320,348	0.16	0.11	320,342,348
1222	0.26	0.57	0.26	320,320,348	0.15	0.10	320,342,348
1223	0.24	0.52	0.23	320,320,348	0.13	0.0	320,342,0
1224	0.21	0.47	0.20	320,320,348	0.11	0.0	320,342,0
1225	0.19	0.41	0.16	320,320,348	0.0	0.0	320,0,0
1226	0.05	0.04	0.03	320,320,347	0.0	0.0	0,0,0
1227	0.08	0.08	0.11	273,277,347	0.0	0.0	0,0,0
1228	0.13	0.20	0.17	277,281,347	0.0	0.0	0,0,0
1229	0.18	0.31	0.23	289,289,347	0.0	0.0	0,0,0
1230	0.22	0.42	0.27	289,289,347	0.10	0.09	289,333,347
1231	0.25	0.50	0.29	289,289,347	0.13	0.11	289,342,347
1232	0.27	0.57	0.31	320,320,348	0.15	0.12	320,342,348
1233	0.29	0.61	0.32	320,320,348	0.17	0.13	320,342,348
1234	0.29	0.63	0.32	320,320,348	0.17	0.14	320,342,348
1235	0.29	0.64	0.31	320,320,348	0.17	0.13	320,342,348
1236	0.29	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1237	0.27	0.61	0.28	320,320,348	0.16	0.11	320,342,348
1238	0.26	0.57	0.26	320,320,348	0.15	0.10	320,342,348
1239	0.24	0.53	0.23	320,320,348	0.13	0.0	320,342,0
1240	0.21	0.48	0.20	320,320,348	0.11	0.0	320,342,0
1241	0.19	0.42	0.17	320,320,348	0.0	0.0	320,0,0
1242	0.05	0.05	0.03	320,320,347	0.0	0.0	0,0,0
1243	0.08	0.08	0.10	273,277,347	0.0	0.0	0,0,0
1244	0.13	0.19	0.17	273,277,347	0.0	0.0	0,0,0
1245	0.17	0.31	0.22	289,289,347	0.0	0.0	0,0,0
1246	0.22	0.42	0.26	289,289,347	0.10	0.09	289,333,347
1247	0.25	0.50	0.29	289,289,347	0.13	0.11	289,342,347
1248	0.27	0.56	0.31	320,320,348	0.15	0.12	320,342,348
1249	0.29	0.61	0.32	320,320,348	0.17	0.13	320,342,348
1250	0.29	0.63	0.32	320,320,348	0.17	0.14	320,342,348
1251	0.29	0.64	0.32	320,320,348	0.17	0.13	320,342,348
1252	0.29	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1253	0.28	0.61	0.28	320,320,348	0.16	0.12	320,342,348
1254	0.26	0.57	0.26	320,320,348	0.15	0.10	320,342,348
1255	0.24	0.53	0.23	320,320,348	0.13	0.0	320,342,0
1256	0.22	0.48	0.20	320,320,348	0.11	0.0	320,342,0
1257	0.19	0.43	0.17	320,320,348	0.09	0.0	320,342,0
1258	0.06	0.08	0.03	320,320,348	0.0	0.0	0,0,0
1259	0.08	0.07	0.10	273,277,347	0.0	0.0	0,0,0
1260	0.13	0.18	0.17	273,277,347	0.0	0.0	0,0,0
1261	0.17	0.30	0.22	289,289,347	0.0	0.0	0,0,0
1262	0.21	0.41	0.26	289,289,347	0.10	0.09	289,333,347
1263	0.25	0.50	0.29	289,289,347	0.13	0.11	289,342,347
1264	0.27	0.56	0.31	297,320,348	0.15	0.12	320,342,348
1265	0.29	0.61	0.32	320,320,348	0.16	0.13	320,342,348
1266	0.29	0.64	0.32	320,320,348	0.17	0.14	320,342,348
1267	0.29	0.64	0.32	320,320,348	0.17	0.13	320,342,348
1268	0.29	0.63	0.30	320,320,348	0.17	0.13	320,342,348
1269	0.28	0.61	0.28	320,320,348	0.16	0.12	320,342,348
1270	0.26	0.57	0.26	320,320,348	0.15	0.10	320,342,348
1271	0.24	0.53	0.23	320,320,348	0.13	0.0	320,342,0
1272	0.22	0.48	0.20	320,320,348	0.11	0.0	320,342,0
1273	0.20	0.44	0.18	320,320,348	0.10	0.0	320,342,0
1274	0.07	0.11	0.04	320,320,348	0.0	0.0	0,0,0
1275	0.07	0.06	0.09	273,277,347	0.0	0.0	0,0,0
1276	0.12	0.17	0.16	273,277,347	0.0	0.0	0,0,0
1277	0.17	0.29	0.22	280,289,347	0.0	0.0	0,0,0
1278	0.21	0.41	0.26	289,289,347	0.10	0.08	289,333,347

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1279	0.25	0.50	0.29	289,289,347	0.13	0.11	289,342,347
1280	0.27	0.57	0.31	320,320,347	0.15	0.12	320,342,348
1281	0.29	0.61	0.32	320,320,348	0.17	0.13	320,342,348
1282	0.29	0.64	0.32	320,320,348	0.17	0.14	320,342,348
1283	0.30	0.64	0.32	320,320,348	0.17	0.13	320,342,348
1284	0.29	0.63	0.31	320,320,348	0.17	0.13	320,342,348
1285	0.28	0.61	0.29	320,320,348	0.16	0.12	320,342,348
1286	0.26	0.58	0.26	320,320,348	0.14	0.10	320,342,348
1287	0.24	0.53	0.23	320,320,348	0.13	0.0	320,342,0
1288	0.22	0.49	0.21	320,320,348	0.11	0.0	320,342,0
1289	0.20	0.44	0.18	320,320,348	0.10	0.0	320,342,0
1290	0.09	0.16	0.06	320,320,348	0.0	0.0	0,0,0
1291	0.07	0.06	0.08	273,320,347	0.0	0.0	0,0,0
1292	0.12	0.17	0.16	273,277,347	0.0	0.0	0,0,0
1293	0.17	0.29	0.22	289,289,347	0.0	0.0	0,0,0
1294	0.21	0.41	0.26	289,289,347	0.10	0.0	289,333,0
1295	0.25	0.50	0.29	289,320,347	0.13	0.11	289,342,347
1296	0.27	0.57	0.31	320,320,348	0.15	0.12	320,342,348
1297	0.29	0.62	0.32	320,320,348	0.17	0.13	320,342,348
1298	0.30	0.64	0.33	320,320,348	0.17	0.14	320,342,348
1299	0.30	0.65	0.32	320,320,348	0.17	0.13	320,342,348
1300	0.29	0.64	0.31	320,320,348	0.17	0.13	320,342,348
1301	0.28	0.62	0.29	320,320,348	0.16	0.12	320,342,348
1302	0.26	0.58	0.26	320,320,348	0.15	0.10	320,342,348
1303	0.24	0.53	0.23	320,320,348	0.13	0.0	320,342,0
1304	0.22	0.48	0.20	320,320,348	0.11	0.0	320,342,0
1305	0.20	0.44	0.18	320,320,348	0.10	0.0	320,342,0
1306	0.11	0.21	0.08	320,320,348	0.0	0.0	0,0,0
1307	0.06	0.10	0.08	273,320,347	0.0	0.0	0,0,0
1308	0.12	0.17	0.16	273,277,347	0.0	0.0	0,0,0
1309	0.17	0.30	0.22	280,289,347	0.0	0.0	0,0,0
1310	0.21	0.42	0.26	289,289,347	0.10	0.08	289,333,347
1311	0.25	0.51	0.29	289,320,347	0.13	0.11	320,342,348
1312	0.27	0.58	0.31	320,320,348	0.15	0.13	320,342,348
1313	0.29	0.62	0.33	320,320,348	0.17	0.14	320,342,348
1314	0.30	0.65	0.33	320,320,348	0.17	0.14	320,342,348
1315	0.30	0.66	0.32	320,320,348	0.18	0.14	320,342,348
1316	0.30	0.65	0.31	320,320,348	0.17	0.13	320,342,348
1317	0.28	0.62	0.29	320,320,348	0.16	0.12	320,342,348
1318	0.27	0.59	0.27	320,320,348	0.15	0.10	320,342,348
1319	0.24	0.54	0.24	320,320,348	0.13	0.0	320,342,0
1320	0.22	0.48	0.20	320,320,348	0.11	0.0	320,342,0
1321	0.20	0.43	0.18	320,320,348	0.10	0.0	320,342,0
1322	0.13	0.25	0.11	320,320,348	0.0	0.0	0,0,0
1323	0.06	0.14	0.07	273,320,347	0.0	0.0	0,0,0
1324	0.12	0.18	0.15	273,277,347	0.0	0.0	0,0,0
1325	0.17	0.31	0.22	276,289,347	0.0	0.0	0,0,0
1326	0.22	0.43	0.26	289,289,347	0.10	0.09	289,333,347
1327	0.25	0.52	0.30	289,320,347	0.14	0.11	320,342,348
1328	0.28	0.59	0.32	320,320,348	0.16	0.13	320,342,348
1329	0.29	0.63	0.33	320,320,348	0.17	0.14	320,342,348
1330	0.30	0.66	0.33	320,320,348	0.18	0.14	320,342,348
1331	0.30	0.66	0.33	320,320,348	0.18	0.14	320,342,348
1332	0.30	0.66	0.31	320,320,348	0.17	0.13	320,342,348
1333	0.29	0.63	0.29	320,320,348	0.16	0.12	320,342,348
1334	0.27	0.60	0.27	320,320,348	0.15	0.11	320,342,348
1335	0.25	0.55	0.24	320,320,348	0.14	0.0	320,342,0
1336	0.22	0.49	0.20	320,320,348	0.11	0.0	320,342,0
1337	0.19	0.42	0.17	320,320,348	0.0	0.0	320,0,0
1338	0.13	0.20	0.10	320,320,348	0.0	0.0	0,0,0
1339	0.06	0.12	0.07	273,320,347	0.0	0.0	0,0,0
1340	0.11	0.17	0.15	273,277,347	0.0	0.0	0,0,0
1341	0.16	0.30	0.21	276,289,347	0.0	0.0	0,0,0
1342	0.21	0.41	0.26	289,289,347	0.10	0.08	289,333,347
1343	0.25	0.51	0.29	289,289,347	0.13	0.11	289,333,347
1344	0.27	0.58	0.31	289,320,347	0.15	0.13	320,342,348
1345	0.29	0.62	0.33	320,320,348	0.17	0.14	320,342,348
1346	0.30	0.65	0.33	320,320,348	0.17	0.14	320,342,348
1347	0.30	0.66	0.33	320,320,348	0.18	0.14	320,342,348
1348	0.30	0.66	0.31	320,320,348	0.17	0.13	320,342,348
1349	0.29	0.63	0.29	320,320,348	0.16	0.12	320,342,348
1350	0.27	0.60	0.27	320,320,348	0.15	0.11	320,342,348
1351	0.25	0.54	0.24	320,320,348	0.13	0.0	320,342,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
1352	0.22	0.47	0.20	320,320,348	0.11	0.0	320,342,0
1353	0.19	0.42	0.16	320,320,348	0.0	0.0	320,0,0
Setto	**rRfck**	**rRfyk**	**rPfck**		**wF**	**wP**	
	0.30	0.70	0.34		0.19	0.16	

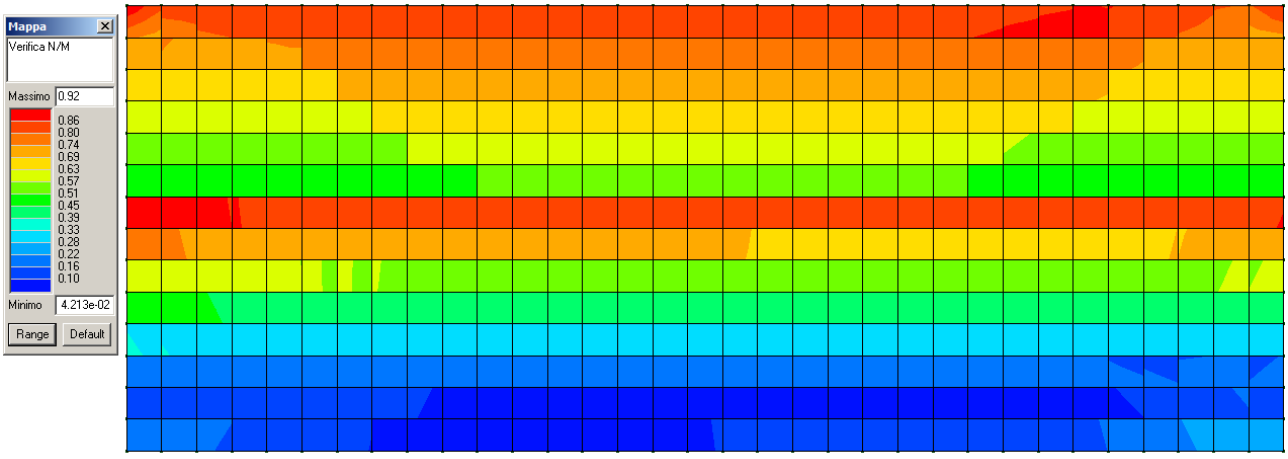
16 Verifica del setto

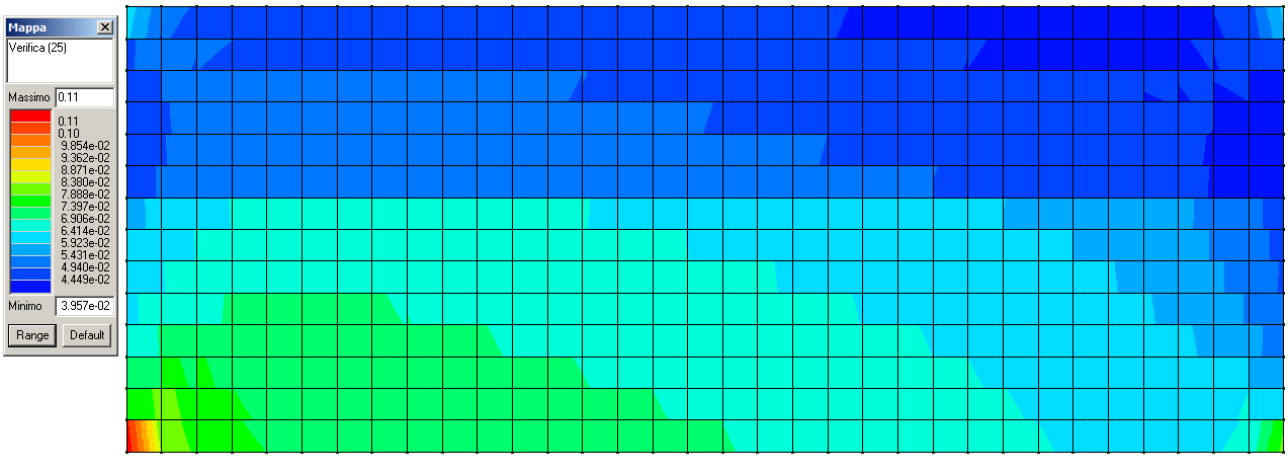
16.1 SLU

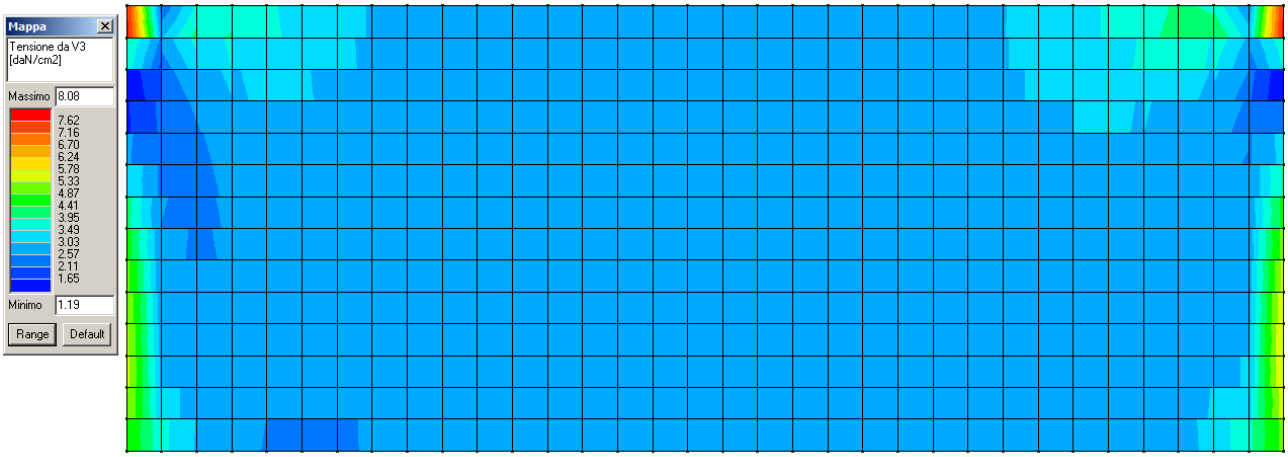
Si produce una tabella nella quale vengono riportati per ogni macroelemento il numero dello stesso ed il codice di verifica. Vengono riportati il rapporto x/d, la verifica per sollecitazioni ultime e la verifica per compressione media. Per ogni elemento viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso (diametri in mm, passi in cm). Le quantità di armature necessarie sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

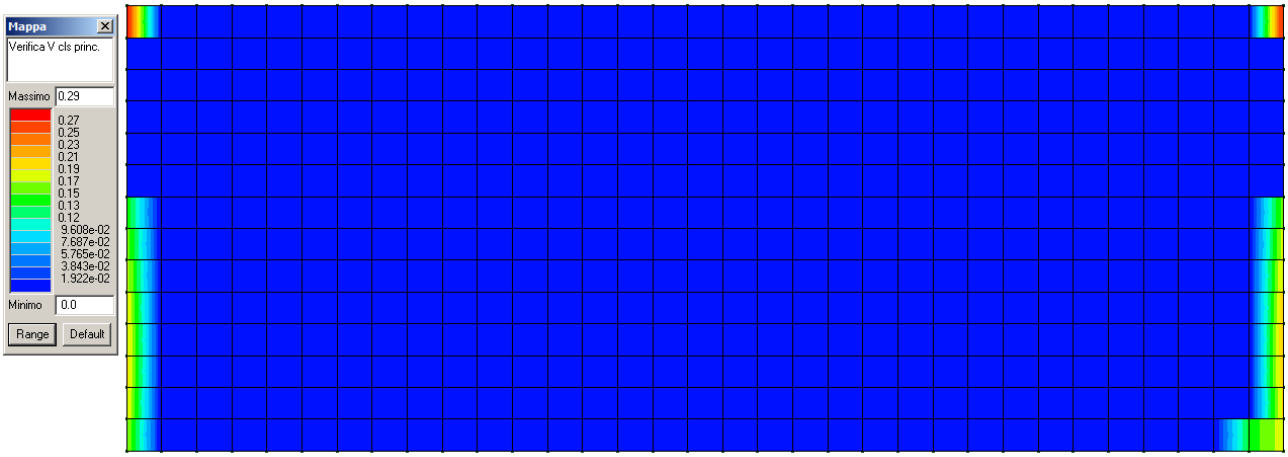
In particolare i simboli utilizzati assumono il seguente significato:

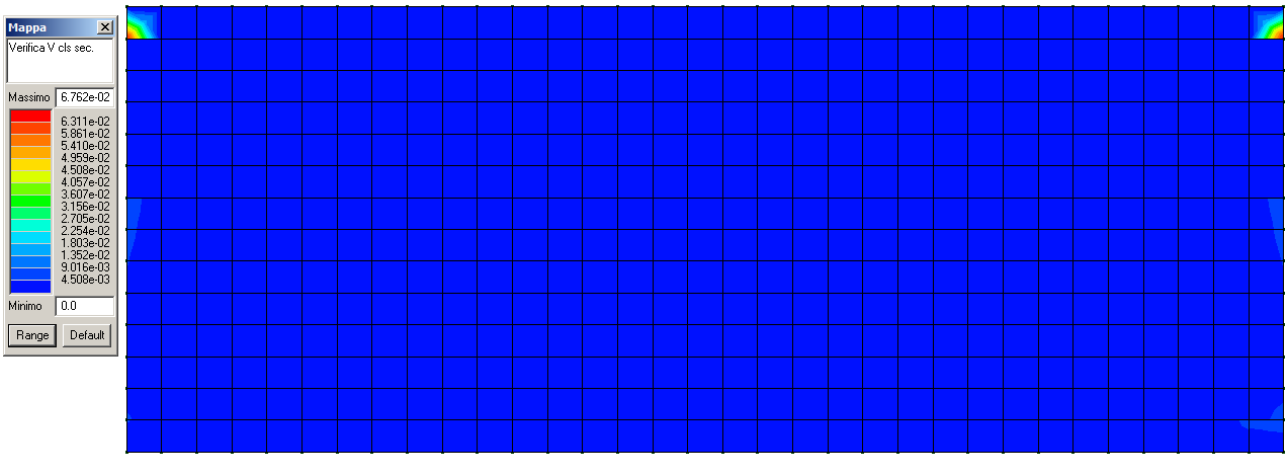
M_S		macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà)
Stato		codice di verifica dell'elemento
Nodo		numero del nodo
x/d		rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
verif.		rapporto Sd/Su con sollecitazioni ultime: valore minore o uguale a 1 per verifica positiva
Ver.rd		rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd): valore minore o uguale a 1 per verifica positiva
Af pr-		quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr+		quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	**Af sec+**	valori analoghi a quelli soprariportati ma relativi alla armatura secondaria
N	**M**	azioni membranali e flessionali (in direzione dell'armatura principale e secondaria) estratte, poiché rappresentative, tra quelle utilizzate per il progetto e la verifica


Mappa
Verifica N/M
Massimo 0.92
0.86
0.80
0.74
0.69
0.63
0.57
0.51
0.45
0.39
0.33
0.28
0.22
0.16
0.10
Minimo 4.213e-02
Range
Default


Mappa
Verifica (25)
Massimo 0.11
0.11
0.10
9.854e-02
9.362e-02
8.871e-02
8.380e-02
7.888e-02
7.397e-02
6.906e-02
6.414e-02
5.923e-02
5.431e-02
4.940e-02
4.449e-02
Minimo 3.957e-02
Range
Default


Mappa
Tensione da V3
[daN/cm2]
Massimo 8.08
7.62
7.16
6.70
6.24
5.78
5.33
4.87
4.41
3.95
3.49
3.03
2.57
2.11
1.65
Minimo 1.19
Range
Default





Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
2	80.00	4	5	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
2	ok	0.06	0.2	0.1	22.6	22.6	10.1	10.1	-1374.6	-274.4	-126.7	5961.3	1190.2	-809.3
3	ok	0.06	0.2	8.33e-02	22.6	22.6	10.1	10.1	-995.2	-198.3	-140.6	6855.0	1371.7	-898.3
5	ok	0.06	0.2	7.82e-02	22.6	22.6	10.1	10.1	-931.9	-185.5	-121.6	5263.5	1055.9	-704.1
7	ok	0.06	0.1	7.54e-02	22.6	22.6	10.1	10.1	-903.2	-179.6	-107.4	4215.6	847.9	-407.9
9	ok	0.06	0.1	7.39e-02	22.6	22.6	10.1	10.1	-890.2	-176.9	-95.2	3674.7	740.7	-163.8
11	ok	0.06	0.1	7.31e-02	22.6	22.6	10.1	10.1	-883.6	-175.5	-84.7	3528.6	712.1	10.8
13	ok	0.06	0.1	7.26e-02	22.6	22.6	10.1	10.1	-880.1	-174.7	-75.5	3663.7	739.5	127.2
15	ok	0.06	0.1	7.23e-02	22.6	22.6	10.1	10.1	-878.1	-174.2	-67.2	3985.9	804.1	200.2
17	ok	0.06	9.63e-02	7.20e-02	22.6	22.6	10.1	10.1	-876.5	-173.9	-59.7	4423.7	891.7	242.2
19	ok	0.06	9.36e-02	7.17e-02	22.6	22.6	10.1	10.1	-875.0	-173.5	-52.9	4925.2	992.0	262.8
21	ok	0.06	9.13e-02	7.15e-02	22.6	22.6	10.1	10.1	-873.3	-173.2	-46.8	5454.6	1097.7	269.2
23	ok	0.06	8.99e-02	7.13e-02	22.6	22.6	10.1	10.1	-871.2	-172.7	-41.2	5988.4	1204.3	266.8
25	ok	0.06	9.13e-02	7.10e-02	22.6	22.6	10.1	10.1	-868.7	-172.2	-36.0	6511.9	1308.8	259.1
27	ok	0.06	9.23e-02	7.07e-02	22.6	22.6	10.1	10.1	-865.7	-171.6	-36.0	7016.8	1409.8	248.4
29	ok	0.06	9.31e-02	7.04e-02	22.6	22.6	10.1	10.1	-862.3	-171.0	-31.2	7498.3	1505.9	236.4
31	ok	0.06	9.34e-02	7.00e-02	22.6	22.6	10.1	10.1	-858.4	-170.2	-26.6	7954.5	1596.8	223.8
33	ok	0.06	9.69e-02	6.97e-02	22.6	22.6	10.1	10.1	-854.1	-169.4	-22.3	8384.1	1682.5	210.8
35	ok	0.06	0.1	6.92e-02	22.6	22.6	10.1	10.1	-849.4	-168.5	-18.0	8786.9	1762.9	197.5
37	ok	0.06	0.1	6.88e-02	22.6	22.6	10.1	10.1	-844.2	-167.4	-13.8	9162.5	1837.8	183.9
39	ok	0.06	0.1	6.83e-02	22.6	22.6	10.1	10.1	-838.6	-166.4	-9.5	9510.7	1907.2	170.2
41	ok	0.06	0.1	6.78e-02	22.6	22.6	10.1	10.1	-832.5	-165.2	-5.1	9832.0	1971.3	156.6
43	ok	0.06	0.1	6.74e-02	22.6	22.6	10.1	10.1	-826.7	-163.9	2.9	9555.4	1915.8	166.6
45	ok	0.06	0.1	6.68e-02	22.6	22.6	10.1	10.1	-820.2	-162.7	7.9	9876.6	1979.8	157.4
47	ok	0.06	0.1	6.63e-02	22.6	22.6	10.1	10.1	-813.2	-161.3	13.3	1.019e+04	2041.7	153.9
49	ok	0.06	0.1	6.57e-02	22.6	22.6	10.1	10.1	-805.6	-159.9	19.1	1.050e+04	2104.9	160.2
51	ok	0.06	0.1	6.51e-02	22.6	22.6	10.1	10.1	-797.5	-158.3	25.7	1.085e+04	2174.4	182.3
53	ok	0.06	0.1	6.45e-02	22.6	22.6	10.1	10.1	-788.8	-156.6	32.9	1.127e+04	2258.3	228.6
55	ok	0.06	0.1	6.39e-02	22.6	22.6	10.1	10.1	-779.8	-154.9	41.0	1.182e+04	2367.9	309.4
57	ok	0.06	0.2	6.33e-02	22.6	22.6	10.1	10.1	-771.0	-153.2	50.2	1.258e+04	2518.5	437.1

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
59	ok	0.06	0.2	6.29e-02	22.6	22.6	10.1	10.1	-763.2	-151.7	60.4	1.364e+04	2728.9	622.0
61	ok	0.06	0.2	6.29e-02	22.6	22.6	10.1	10.1	-758.6	-150.9	72.2	1.509e+04	3018.7	859.7
63	ok	0.06	0.2	6.37e-02	22.6	22.6	10.1	10.1	-763.4	-152.0	85.9	1.701e+04	3400.1	1081.6
65	ok	0.06	0.3	6.62e-02	22.6	22.6	10.1	10.1	-790.9	-157.6	103.4	1.923e+04	3843.1	977.7
67	ok	0.06	0.3	8.11e-02	22.6	22.6	10.1	10.1	-977.3	-195.0	113.2	1.963e+04	3919.8	55.6
69	ok	0.06	0.2	0.1	22.6	22.6	10.1	10.1	-1335.8	-80.3	-126.7	5919.8	983.0	-854.5
70	ok	0.06	0.2	8.23e-02	22.6	22.6	10.1	10.1	-978.5	-114.9	-140.6	6954.3	1868.3	-1551.5
71	ok	0.06	0.2	7.66e-02	22.6	22.6	10.1	10.1	-854.1	-0.5	-22.2	-1.064e+04	-742.0	-1961.3
72	ok	0.06	0.2	8.11e-02	22.6	22.6	10.1	10.1	-907.7	-34.0	-64.3	-1.067e+04	-652.4	-2229.1
73	ok	0.06	0.3	6.97e-02	22.6	22.6	10.1	10.1	-806.7	4.8	-12.9	-1.882e+04	-894.7	-1984.8
74	ok	0.06	0.3	7.42e-02	22.6	22.6	10.1	10.1	-853.5	-14.9	-39.7	-1.882e+04	-1072.0	-2262.2
75	ok	0.06	0.5	6.59e-02	22.6	22.6	10.1	10.1	-773.4	4.6	-8.1	-2.683e+04	-990.1	-1856.3
76	ok	0.06	0.5	6.97e-02	22.6	22.6	10.1	10.1	-814.6	-6.0	-25.4	-2.685e+04	-1445.2	-2087.7
77	ok	0.06	0.6	6.31e-02	22.6	22.6	10.1	10.1	-747.5	4.5	-5.1	-3.475e+04	-1081.5	-1621.4
78	ok	0.06	0.6	6.65e-02	22.6	22.6	10.1	10.1	-785.2	-2.4	-16.2	-3.479e+04	-1787.3	-1741.2
79	ok	0.06	0.8	6.10e-02	22.6	22.6	10.1	10.1	-726.1	4.3	-3.1	-4.258e+04	-1171.3	-1287.0
80	ok	0.06	0.8	6.41e-02	22.6	22.6	10.1	10.1	-761.8	-0.7	-9.6	-4.264e+04	-2134.7	-1243.3
81	ok	0.06	0.9	5.92e-02	22.6	22.6	10.1	10.1	-707.9	4.0	-1.4	-5.031e+04	-1266.4	-849.7
82	ok	0.06	0.9	6.22e-02	22.6	22.6	10.1	10.1	-743.2	-0.3	-4.1	-5.039e+04	-2512.6	-594.0
83	ok	0.07	0.9	5.77e-02	54.3	54.3	10.1	10.1	-692.8	3.7	0.3	-5.787e+04	-1373.0	-296.7
84	ok	0.07	0.9	6.07e-02	54.3	54.3	10.1	10.1	-728.6	-0.8	2.1	-5.733e+04	-2909.0	276.6
85	ok	0.07	0.6	4.74e-02	54.3	54.3	10.1	10.1	-681.4	3.2	2.7	-6.437e+04	-1472.8	431.9
86	ok	0.07	0.6	4.99e-02	54.3	54.3	10.1	10.1	-719.5	-2.5	9.2	-6.454e+04	-3434.0	1255.9
87	ok	0.07	0.6	4.66e-02	54.3	54.3	10.1	10.1	-675.7	2.1	6.2	-7.110e+04	-1629.4	1282.9
88	ok	0.07	0.6	4.92e-02	54.3	54.3	10.1	10.1	-717.1	-6.2	19.6	-7.133e+04	-4112.5	2439.7
89	ok	0.07	0.7	4.65e-02	54.3	54.3	10.1	10.1	-680.7	-2.85e-02	13.5	-7.681e+04	-1776.8	2408.9
90	ok	0.07	0.7	4.96e-02	54.3	54.3	10.1	10.1	-724.3	-14.6	37.1	-7.730e+04	-5088.1	3757.8
91	ok	0.07	0.7	4.91e-02	54.3	54.3	10.1	10.1	-716.6	-10.9	31.6	-7.947e+04	-1980.5	3802.4
92	ok	0.07	0.7	5.13e-02	54.3	54.3	10.1	10.1	-743.7	-31.6	68.6	-8.219e+04	-6480.2	5513.7
93	ok	0.07	0.8	6.03e-02	54.3	54.3	10.1	10.1	-867.4	-36.7	101.7	-8.063e+04	-2077.1	1.062e+04
94	ok	0.07	0.8	5.21e-02	54.3	54.3	10.1	10.1	-714.8	-75.9	90.4	-8.157e+04	-9521.8	7678.8
95	ok	0.07	0.9	6.25e-02	54.3	54.3	10.1	10.1	-895.7	-178.1	101.7	-8.355e+04	-1.668e+04	1.085e+04
96	ok	0.07	0.8	5.13e-02	54.3	54.3	10.1	10.1	-728.6	-144.7	101.7	-8.298e+04	-1.657e+04	5155.3
97	ok	0.06	0.2	7.71e-02	22.6	22.6	10.1	10.1	-921.6	-133.8	-121.6	5414.8	1812.4	-1134.1
98	ok	0.06	0.2	7.61e-02	22.6	22.6	10.1	10.1	-901.6	-32.8	-64.3	-1.076e+04	-671.1	-1737.2
99	ok	0.06	0.3	7.44e-02	22.6	22.6	10.1	10.1	-873.2	-41.7	-58.9	-1.874e+04	-1407.5	-1435.8
100	ok	0.06	0.5	7.13e-02	22.6	22.6	10.1	10.1	-840.0	-24.0	-40.1	-2.662e+04	-2026.4	-1239.6
101	ok	0.06	0.6	6.85e-02	22.6	22.6	10.1	10.1	-812.1	-14.7	-26.4	-3.445e+04	-2630.7	-897.6
102	ok	0.06	0.7	6.62e-02	22.6	22.6	10.1	10.1	-789.2	-10.1	-15.8	-4.220e+04	-3257.7	-425.4
103	ok	0.06	0.9	6.44e-02	22.6	22.6	10.1	10.1	-770.6	-8.3	-6.6	-4.984e+04	-3947.3	171.3
104	ok	0.07	0.9	6.28e-02	54.3	54.3	10.1	10.1	-755.7	-8.8	3.4	-5.668e+04	-4685.2	938.7
105	ok	0.07	0.5	5.17e-02	54.3	54.3	10.1	10.1	-745.3	-11.8	14.2	-6.379e+04	-5638.2	1760.5
106	ok	0.07	0.6	5.10e-02	54.3	54.3	10.1	10.1	-738.5	-18.4	28.0	-7.053e+04	-6864.5	2645.4
107	ok	0.07	0.7	5.07e-02	54.3	54.3	10.1	10.1	-733.2	-30.8	46.4	-7.678e+04	-8517.7	3489.6
108	ok	0.07	0.7	5.07e-02	54.3	54.3	10.1	10.1	-716.3	-54.3	64.6	-8.234e+04	-1.095e+04	3805.7
109	ok	0.07	0.8	5.01e-02	54.3	54.3	10.1	10.1	-690.7	-91.2	73.9	-8.848e+04	-1.432e+04	3709.7
110	ok	0.07	0.8	4.91e-02	54.3	54.3	10.1	10.1	-700.1	-137.9	90.4	-8.918e+04	-1.781e+04	2385.1
111	ok	0.06	0.2	7.48e-02	22.6	22.6	10.1	10.1	-892.9	-128.0	-121.6	4366.6	1602.8	-839.0
112	ok	0.06	0.2	7.40e-02	22.6	22.6	10.1	10.1	-893.9	-101.0	-86.2	-1.087e+04	-983.9	-764.7
113	ok	0.06	0.3	7.31e-02	22.6	22.6	10.1	10.1	-875.4	-66.6	-67.1	-1.863e+04	-1837.8	-712.1
114	ok	0.06	0.5	7.15e-02	22.6	22.6	10.1	10.1	-851.6	-43.5	-49.0	-2.639e+04	-2650.5	-509.7
115	ok	0.06	0.6	6.95e-02	22.6	22.6	10.1	10.1	-828.5	-29.9	-33.7	-3.412e+04	-3470.6	-193.4
116	ok	0.06	0.7	6.76e-02	22.6	22.6	10.1	10.1	-807.7	-22.4	-20.8	-4.178e+04	-4338.8	217.0
117	ok	0.06	0.9	6.59e-02	22.6	22.6	10.1	10.1	-789.6	-19.2	-9.2	-4.935e+04	-5297.2	708.7
118	ok	0.07	0.9	6.44e-02	54.3	54.3	10.1	10.1	-773.7	-19.4	3.4	-5.614e+04	-6319.0	1305.1
119	ok	0.07	0.5	5.30e-02	54.3	54.3	10.1	10.1	-760.4	-23.3	15.8	-6.326e+04	-7608.0	1873.0
120	ok	0.07	0.6	5.21e-02	54.3	54.3	10.1	10.1	-747.6	-31.7	29.7	-7.015e+04	-9200.1	2376.1
121	ok	0.07	0.7	5.14e-02	54.3	54.3	10.1	10.1	-731.6	-46.3	44.0	-7.688e+04	-1.123e+04	2610.8
122	ok	0.07	0.7	5.06e-02	54.3	54.3	10.1	10.1	-710.3	-68.9	55.6	-8.402e+04	-1.380e+04	2285.9
123	ok	0.07	0.8	4.94e-02	54.3	54.3	10.1	10.1	-684.3	-98.1	61.3	-9.214e+04	-1.676e+04	1728.4
124	ok	0.07	0.8	4.81e-02	54.3	54.3	10.1	10.1	-691.7	-135.4	73.9	-9.248e+04	-1.847e+04	994.9
125	ok	0.06	0.1	7.35e-02	22.6	22.6	10.1	10.1	-882.4	-138.2	-107.4	3799.1	1362.7	-386.9
126	ok	0.06	0.2	7.28e-02	22.6	22.6	10.1	10.1	-882.7	-113.3	-81.4	-1.091e+04	-1304.1	-241.7
127	ok	0.06	0.3	7.22e-02	22.6	22.6	10.1	10.1	-871.0	-83.7	-67.5	-1.852e+04	-2285.7	-146.2
128	ok	0.06	0.4	7.11e-02	22.6	22.6	10.1	10.1	-854.8	-60.9	-52.3	-2.618e+04	-3254.8	49.7
129	ok	0.06	0.6	6.97e-02	22.6	22.6	10.1	10.1	-836.6	-45.4	-37.7	-3.384e+04	-4252.9	322.6
130	ok	0.06	0.7	6.82e-02	22.6	22.6	10.1	10.1	-818.5	-36.0	-24.2	-4.146e+04	-5316.8	652.7
131	ok	0.06	0.9	6.67e-02	22.6	22.6	10.1	10.1	-801.2	-31.5	-11.5	-4.901e+04	-6485.9	1018.8
132	ok	0.07	0.9	6.53e-02	54.3	54.3	10.1	10.1	-784.3	-31.4	2.0	-5.583e+04	-7713.7	1429.4
133	ok	0.07	0.5	5.37e-02	54.3	54.3	10.1	10.1	-768.5	-35.5	14.5	-6.305e+04	-9216.2	1744.1
134	ok	0.07	0.6	5.27e-02	54.3	54.3	10.1	10.1	-751.7	-44.4	26.8	-7.021e+04	-1.099e+04	1912.0
135	ok	0.07	0.7	5.17e-02	54.3	54.3	10.1	10.1	-732.3	-58.8	38.0	-7.752e+04	-1.308e+04	1796.5
136	ok	0.07	0.7	5.05e-02	54.3	54.3	10.1	10.1	-709.6	-78.8	46.4	-8.540e+04	-1.547e+04	1306.9

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
137	ok	0.07	0.8	4.92e-02	54.3	54.3	10.1	10.1	-685.0	-102.9	50.6	-9.416e+04	-1.800e+04	707.6
138	ok	0.07	0.8	4.78e-02	54.3	54.3	10.1	10.1	-691.4	-134.8	61.3	-9.433e+04	-1.883e+04	307.4
139	ok	0.06	0.1	7.27e-02	22.6	22.6	10.1	10.1	-877.3	-143.9	-95.2	3617.4	1156.3	-50.3
140	ok	0.06	0.2	7.21e-02	22.6	22.6	10.1	10.1	-875.2	-121.4	-74.8	-1.088e+04	-1570.8	156.4
141	ok	0.06	0.3	7.15e-02	22.6	22.6	10.1	10.1	-866.4	-96.0	-64.3	-1.840e+04	-2681.5	283.4
142	ok	0.06	0.4	7.07e-02	22.6	22.6	10.1	10.1	-854.1	-75.0	-51.9	-2.600e+04	-3790.4	463.2
143	ok	0.06	0.6	6.97e-02	22.6	22.6	10.1	10.1	-839.4	-59.5	-38.9	-3.363e+04	-4936.9	683.9
144	ok	0.06	0.7	6.84e-02	22.6	22.6	10.1	10.1	-823.5	-49.4	-26.1	-4.124e+04	-6154.8	927.0
145	ok	0.06	0.8	6.71e-02	22.6	22.6	10.1	10.1	-807.2	-44.2	-13.6	-4.882e+04	-7477.5	1168.0
146	ok	0.07	0.8	6.58e-02	54.3	54.3	10.1	10.1	-790.5	-43.5	-1.6	-5.635e+04	-8940.6	1371.6
147	ok	0.07	0.5	5.41e-02	54.3	54.3	10.1	10.1	-772.7	-47.4	11.3	-6.310e+04	-1.045e+04	1521.0
148	ok	0.07	0.6	5.30e-02	54.3	54.3	10.1	10.1	-754.1	-55.8	22.1	-7.055e+04	-1.226e+04	1471.7
149	ok	0.07	0.7	5.18e-02	54.3	54.3	10.1	10.1	-733.6	-68.9	31.3	-7.825e+04	-1.428e+04	1201.9
150	ok	0.07	0.8	5.05e-02	54.3	54.3	10.1	10.1	-711.2	-86.3	37.9	-8.645e+04	-1.644e+04	716.0
151	ok	0.07	0.8	4.92e-02	54.3	54.3	10.1	10.1	-687.7	-106.8	41.4	-9.526e+04	-1.864e+04	197.1
152	ok	0.07	0.9	4.77e-02	54.3	54.3	10.1	10.1	-693.3	-134.8	41.4	-9.534e+04	-1.903e+04	-47.6
153	ok	0.06	0.1	7.21e-02	22.6	22.6	10.1	10.1	-874.7	-147.7	-84.7	3722.9	1035.4	181.7
154	ok	0.06	0.2	7.16e-02	22.6	22.6	10.1	10.1	-870.2	-127.2	-67.8	-1.077e+04	-1764.5	441.1
155	ok	0.06	0.3	7.11e-02	22.6	22.6	10.1	10.1	-862.3	-105.1	-59.6	-1.827e+04	-2995.7	594.1
156	ok	0.06	0.4	7.04e-02	22.6	22.6	10.1	10.1	-851.9	-86.3	-49.5	-2.586e+04	-4229.8	756.4
157	ok	0.06	0.6	6.95e-02	22.6	22.6	10.1	10.1	-839.2	-71.6	-38.3	-3.348e+04	-5500.3	925.9
158	ok	0.06	0.7	6.84e-02	22.6	22.6	10.1	10.1	-824.9	-61.6	-26.8	-4.112e+04	-6836.6	1088.1
159	ok	0.06	0.8	6.72e-02	22.6	22.6	10.1	10.1	-809.3	-56.1	-15.3	-4.876e+04	-8265.1	1220.5
160	ok	0.07	0.8	6.60e-02	54.3	54.3	10.1	10.1	-792.7	-55.0	-4.2	-5.639e+04	-9809.4	1291.9
161	ok	0.07	0.5	5.42e-02	54.3	54.3	10.1	10.1	-774.4	-58.4	7.6	-6.332e+04	-1.135e+04	1301.9
162	ok	0.07	0.6	5.31e-02	54.3	54.3	10.1	10.1	-755.4	-65.8	17.0	-7.099e+04	-1.313e+04	1133.6
163	ok	0.07	0.7	5.19e-02	54.3	54.3	10.1	10.1	-734.8	-77.3	24.6	-7.891e+04	-1.504e+04	813.5
164	ok	0.07	0.8	5.06e-02	54.3	54.3	10.1	10.1	-713.1	-92.4	30.1	-8.721e+04	-1.701e+04	381.8
165	ok	0.07	0.9	4.92e-02	54.3	54.3	10.1	10.1	-690.6	-110.1	33.1	-9.590e+04	-1.897e+04	-54.6
166	ok	0.07	0.8	4.78e-02	54.3	54.3	10.1	10.1	-695.6	-135.3	33.1	-9.594e+04	-1.915e+04	-215.1
167	ok	0.06	0.1	7.19e-02	22.6	22.6	10.1	10.1	-873.3	-150.5	-75.5	4022.9	989.1	331.6
168	ok	0.06	0.2	7.13e-02	22.6	22.6	10.1	10.1	-866.5	-131.7	-61.0	-1.062e+04	-1890.7	630.6
169	ok	0.06	0.3	7.07e-02	22.6	22.6	10.1	10.1	-858.7	-112.2	-54.6	-1.813e+04	-3226.4	804.5
170	ok	0.06	0.4	7.01e-02	22.6	22.6	10.1	10.1	-849.0	-95.4	-46.3	-2.574e+04	-4567.5	952.7
171	ok	0.06	0.6	6.92e-02	22.6	22.6	10.1	10.1	-837.3	-81.9	-36.8	-3.340e+04	-5939.3	1079.3
172	ok	0.06	0.7	6.83e-02	22.6	22.6	10.1	10.1	-823.9	-72.4	-26.8	-4.108e+04	-7364.9	1175.5
173	ok	0.06	0.8	6.72e-02	22.6	22.6	10.1	10.1	-809.0	-66.9	-16.6	-4.880e+04	-8863.7	1224.1
174	ok	0.07	0.8	6.60e-02	54.3	54.3	10.1	10.1	-792.7	-65.5	-6.8	-5.655e+04	-1.045e+04	1202.9
175	ok	0.07	0.6	5.42e-02	54.3	54.3	10.1	10.1	-774.4	-68.1	3.8	-6.362e+04	-1.198e+04	1128.8
176	ok	0.07	0.6	5.31e-02	54.3	54.3	10.1	10.1	-755.5	-74.5	11.9	-7.145e+04	-1.372e+04	904.5
177	ok	0.07	0.7	5.18e-02	54.3	54.3	10.1	10.1	-735.4	-84.5	18.5	-7.948e+04	-1.552e+04	581.4
178	ok	0.07	0.8	5.05e-02	54.3	54.3	10.1	10.1	-714.4	-97.5	23.1	-8.778e+04	-1.735e+04	204.9
179	ok	0.07	0.9	4.92e-02	54.3	54.3	10.1	10.1	-692.8	-113.1	25.7	-9.632e+04	-1.916e+04	-171.9
180	ok	0.07	0.8	4.78e-02	54.3	54.3	10.1	10.1	-697.3	-135.8	25.7	-9.633e+04	-1.923e+04	-296.6
181	ok	0.06	0.1	7.16e-02	22.6	22.6	10.1	10.1	-872.3	-152.6	-67.2	4444.9	997.5	421.1
182	ok	0.06	0.2	7.10e-02	22.6	22.6	10.1	10.1	-863.4	-135.3	-54.8	-1.041e+04	-1961.2	746.0
183	ok	0.06	0.3	7.04e-02	22.6	22.6	10.1	10.1	-855.3	-117.9	-49.5	-1.799e+04	-3383.5	935.4
184	ok	0.06	0.4	6.97e-02	22.6	22.6	10.1	10.1	-845.7	-102.7	-42.8	-2.564e+04	-4812.0	1074.1
185	ok	0.06	0.6	6.89e-02	22.6	22.6	10.1	10.1	-834.5	-90.5	-34.9	-3.335e+04	-6264.2	1169.3
186	ok	0.06	0.7	6.80e-02	22.6	22.6	10.1	10.1	-821.6	-81.6	-26.3	-4.111e+04	-7756.5	1217.7
187	ok	0.06	0.8	6.70e-02	22.6	22.6	10.1	10.1	-807.1	-76.3	-17.6	-4.890e+04	-9301.6	1208.7
188	ok	0.07	0.8	6.58e-02	54.3	54.3	10.1	10.1	-791.2	-74.6	-9.1	-5.676e+04	-1.091e+04	1129.3
189	ok	0.07	0.6	5.41e-02	54.3	54.3	10.1	10.1	-773.9	-76.5	-1.1	-6.470e+04	-1.257e+04	969.1
190	ok	0.07	0.6	5.30e-02	54.3	54.3	10.1	10.1	-754.7	-82.1	7.2	-7.188e+04	-1.411e+04	765.8
191	ok	0.07	0.7	5.18e-02	54.3	54.3	10.1	10.1	-735.2	-90.6	12.8	-7.997e+04	-1.583e+04	456.5
192	ok	0.07	0.8	5.05e-02	54.3	54.3	10.1	10.1	-714.8	-102.0	16.8	-8.824e+04	-1.756e+04	122.0
193	ok	0.07	0.9	4.91e-02	54.3	54.3	10.1	10.1	-693.9	-115.6	19.0	-9.663e+04	-1.928e+04	-218.8
194	ok	0.07	0.8	4.78e-02	54.3	54.3	10.1	10.1	-698.1	-136.2	19.0	-9.664e+04	-1.929e+04	-333.7
195	ok	0.06	9.59e-02	7.14e-02	22.6	22.6	10.1	10.1	-871.2	-154.4	-59.7	4935.5	1043.4	468.0
196	ok	0.06	0.2	7.08e-02	22.6	22.6	10.1	10.1	-860.5	-138.2	-49.0	-1.018e+04	-1989.0	807.0
197	ok	0.06	0.3	7.02e-02	22.6	22.6	10.1	10.1	-852.0	-122.5	-44.8	-1.784e+04	-3480.5	1007.1
198	ok	0.06	0.4	6.95e-02	22.6	22.6	10.1	10.1	-842.2	-108.7	-39.3	-2.556e+04	-4978.3	1140.5
199	ok	0.06	0.6	6.87e-02	22.6	22.6	10.1	10.1	-831.1	-97.5	-32.8	-3.334e+04	-6492.9	1216.0
200	ok	0.06	0.7	6.77e-02	22.6	22.6	10.1	10.1	-818.4	-89.3	-25.7	-4.116e+04	-8034.6	1234.0
201	ok	0.06	0.8	6.67e-02	22.6	22.6	10.1	10.1	-804.2	-84.2	-18.3	-4.904e+04	-9611.2	1190.1
202	ok	0.07	0.8	6.56e-02	54.3	54.3	10.1	10.1	-788.6	-82.4	-11.1	-5.699e+04	-1.123e+04	1078.8
203	ok	0.07	0.6	5.39e-02	54.3	54.3	10.1	10.1	-771.7	-83.8	-4.4	-6.502e+04	-1.288e+04	898.1
204	ok	0.07	0.7	5.28e-02	54.3	54.3	10.1	10.1	-753.0	-88.5	3.0	-7.228e+04	-1.438e+04	693.3
205	ok	0.07	0.7	5.16e-02	54.3	54.3	10.1	10.1	-734.0	-95.9	7.7	-8.040e+04	-1.604e+04	401.0
206	ok	0.07	0.8	5.04e-02	54.3	54.3	10.1	10.1	-714.2	-105.8	11.1	-8.862e+04	-1.770e+04	93.7
207	ok	0.07	0.9	4.91e-02	54.3	54.3	10.1	10.1	-694.0	-117.8	12.9	-9.692e+04	-1.936e+04	-228.8
208	ok	0.07	0.8	4.77e-02	54.3	54.3	10.1	10.1	-697.7	-136.5	12.9	-9.692e+04	-1.935e+04	-347.2
209	ok	0.06	9.15e-02	7.12e-02	22.6	22.6	10.1	10.1	-869.8	-155.8	-52.9	5457.7	1113.3	486.0

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
210	ok	0.06	0.2	7.06e-02	22.6	22.6	10.1	10.1	-857.5	-140.5	-43.8	-9919.9	-1985.5	830.3
211	ok	0.06	0.3	6.99e-02	22.6	22.6	10.1	10.1	-848.5	-126.1	-40.4	-1.767e+04	-3531.4	1037.0
212	ok	0.06	0.4	6.92e-02	22.6	22.6	10.1	10.1	-838.5	-113.6	-36.0	-2.548e+04	-5083.0	1168.8
213	ok	0.06	0.6	6.83e-02	22.6	22.6	10.1	10.1	-827.3	-103.3	-30.7	-3.333e+04	-6645.6	1234.1
214	ok	0.06	0.7	6.74e-02	22.6	22.6	10.1	10.1	-814.6	-95.7	-24.9	-4.124e+04	-8224.5	1236.2
215	ok	0.06	0.8	6.64e-02	22.6	22.6	10.1	10.1	-800.6	-90.8	-18.8	-4.920e+04	-9823.7	1174.9
216	ok	0.07	0.8	6.53e-02	54.3	54.3	10.1	10.1	-785.3	-88.9	-12.9	-5.723e+04	-1.144e+04	1050.0
217	ok	0.07	0.6	5.37e-02	54.3	54.3	10.1	10.1	-768.8	-90.0	-7.3	-6.533e+04	-1.308e+04	864.3
218	ok	0.07	0.7	5.26e-02	54.3	54.3	10.1	10.1	-751.1	-93.8	-2.4	-7.351e+04	-1.473e+04	627.0
219	ok	0.07	0.7	5.14e-02	54.3	54.3	10.1	10.1	-731.9	-100.3	3.0	-8.078e+04	-1.618e+04	388.4
220	ok	0.07	0.8	5.02e-02	54.3	54.3	10.1	10.1	-712.7	-109.0	5.8	-8.898e+04	-1.781e+04	96.6
221	ok	0.07	0.8	4.89e-02	54.3	54.3	10.1	10.1	-693.0	-119.6	7.3	-9.721e+04	-1.944e+04	-219.6
222	ok	0.07	0.8	4.76e-02	54.3	54.3	10.1	10.1	-696.4	-136.6	7.3	-9.720e+04	-1.941e+04	-348.1
223	ok	0.06	9.00e-02	7.10e-02	22.6	22.6	10.1	10.1	-868.0	-156.8	-46.8	5987.0	1197.4	485.5
224	ok	0.06	0.2	7.03e-02	22.6	22.6	10.1	10.1	-854.3	-142.3	-39.0	-9648.1	-1960.3	828.7
225	ok	0.06	0.3	6.96e-02	22.6	22.6	10.1	10.1	-844.9	-129.0	-36.4	-1.750e+04	-3548.7	1039.0
226	ok	0.06	0.4	6.88e-02	22.6	22.6	10.1	10.1	-834.6	-117.4	-32.9	-2.540e+04	-5142.0	1171.6
227	ok	0.06	0.6	6.80e-02	22.6	22.6	10.1	10.1	-823.2	-107.9	-28.7	-3.333e+04	-6741.5	1234.2
228	ok	0.06	0.7	6.71e-02	22.6	22.6	10.1	10.1	-810.5	-100.8	-24.1	-4.132e+04	-8349.2	1231.1
229	ok	0.06	0.8	6.61e-02	22.6	22.6	10.1	10.1	-796.6	-96.2	-19.2	-4.936e+04	-9966.2	1165.0
230	ok	0.07	0.8	6.50e-02	54.3	54.3	10.1	10.1	-781.5	-94.3	-14.4	-5.746e+04	-1.159e+04	1038.4
231	ok	0.07	0.6	5.34e-02	54.3	54.3	10.1	10.1	-765.2	-95.0	-9.9	-6.562e+04	-1.322e+04	856.5
232	ok	0.07	0.7	5.24e-02	54.3	54.3	10.1	10.1	-747.9	-98.2	-5.9	-7.385e+04	-1.486e+04	628.6
233	ok	0.07	0.7	5.12e-02	54.3	54.3	10.1	10.1	-729.7	-103.8	-2.7	-8.213e+04	-1.649e+04	368.6
234	ok	0.07	0.8	5.00e-02	54.3	54.3	10.1	10.1	-710.8	-111.5	-0.5	-9.044e+04	-1.812e+04	91.7
235	ok	0.07	0.8	4.87e-02	54.3	54.3	10.1	10.1	-691.0	-121.0	2.1	-9.752e+04	-1.951e+04	-200.8
236	ok	0.07	0.8	4.74e-02	54.3	54.3	10.1	10.1	-694.1	-136.5	2.1	-9.752e+04	-1.947e+04	-342.1
237	ok	0.06	9.13e-02	7.07e-02	22.6	22.6	10.1	10.1	-865.7	-157.6	-41.2	6507.9	1288.6	473.7
238	ok	0.06	0.2	7.00e-02	22.6	22.6	10.1	10.1	-850.9	-143.6	-34.6	-9369.2	-1920.9	811.6
239	ok	0.06	0.3	6.93e-02	22.6	22.6	10.1	10.1	-841.1	-131.2	-32.7	-1.732e+04	-3542.7	1023.3
240	ok	0.06	0.4	6.85e-02	22.6	22.6	10.1	10.1	-830.5	-120.4	-30.1	-2.531e+04	-5168.7	1158.5
241	ok	0.06	0.6	6.77e-02	22.6	22.6	10.1	10.1	-818.9	-111.5	-26.9	-3.333e+04	-6797.3	1223.4
242	ok	0.06	0.7	6.67e-02	22.6	22.6	10.1	10.1	-806.2	-104.8	-23.4	-4.139e+04	-8428.0	1222.7
243	ok	0.06	0.8	6.57e-02	22.6	22.6	10.1	10.1	-792.3	-100.4	-19.6	-4.951e+04	-1.006e+04	1159.9
244	ok	0.07	0.8	6.46e-02	54.3	54.3	10.1	10.1	-777.2	-98.5	-15.9	-5.768e+04	-1.169e+04	1039.1
245	ok	0.07	0.6	5.32e-02	54.3	54.3	10.1	10.1	-761.1	-99.0	-12.4	-6.589e+04	-1.332e+04	865.7
246	ok	0.07	0.7	5.21e-02	54.3	54.3	10.1	10.1	-744.0	-101.8	-9.3	-7.416e+04	-1.495e+04	647.9
247	ok	0.07	0.7	5.09e-02	54.3	54.3	10.1	10.1	-726.2	-106.7	-6.8	-8.247e+04	-1.658e+04	396.1
248	ok	0.07	0.8	4.97e-02	54.3	54.3	10.1	10.1	-707.6	-113.6	-5.1	-9.078e+04	-1.820e+04	120.6
249	ok	0.07	0.8	4.85e-02	54.3	54.3	10.1	10.1	-688.7	-122.1	-4.3	-9.909e+04	-1.982e+04	-195.7
250	ok	0.07	0.8	4.72e-02	54.3	54.3	10.1	10.1	-691.5	-136.4	-4.3	-9.908e+04	-1.979e+04	-344.4
251	ok	0.06	9.23e-02	7.05e-02	22.6	22.6	10.1	10.1	-863.0	-158.0	-36.0	7011.3	1382.1	455.5
252	ok	0.06	0.2	6.97e-02	22.6	22.6	10.1	10.1	-846.9	-142.8	-34.6	-9086.2	-1864.3	799.0
253	ok	0.06	0.3	6.90e-02	22.6	22.6	10.1	10.1	-837.1	-132.7	-29.3	-1.714e+04	-3521.9	997.1
254	ok	0.06	0.4	6.82e-02	22.6	22.6	10.1	10.1	-826.2	-122.5	-27.5	-2.521e+04	-5173.8	1135.9
255	ok	0.06	0.6	6.73e-02	22.6	22.6	10.1	10.1	-814.4	-114.1	-25.3	-3.332e+04	-6826.0	1206.3
256	ok	0.06	0.7	6.64e-02	22.6	22.6	10.1	10.1	-801.5	-107.8	-22.7	-4.146e+04	-8476.3	1212.7
257	ok	0.06	0.8	6.53e-02	22.6	22.6	10.1	10.1	-787.6	-103.6	-20.0	-4.964e+04	-1.012e+04	1158.5
258	ok	0.07	0.8	6.42e-02	54.3	54.3	10.1	10.1	-772.7	-101.7	-17.3	-5.788e+04	-1.176e+04	1047.8
259	ok	0.07	0.6	5.29e-02	54.3	54.3	10.1	10.1	-756.7	-102.0	-14.7	-6.615e+04	-1.340e+04	885.2
260	ok	0.07	0.7	5.18e-02	54.3	54.3	10.1	10.1	-739.8	-104.4	-12.5	-7.446e+04	-1.503e+04	677.2
261	ok	0.07	0.7	5.07e-02	54.3	54.3	10.1	10.1	-722.1	-108.9	-10.7	-8.280e+04	-1.665e+04	431.2
262	ok	0.07	0.8	4.95e-02	54.3	54.3	10.1	10.1	-703.8	-115.1	-9.5	-9.113e+04	-1.827e+04	153.6
263	ok	0.07	0.8	4.82e-02	54.3	54.3	10.1	10.1	-684.8	-121.3	-4.3	-9.945e+04	-1.989e+04	-181.7
264	ok	0.07	0.8	4.70e-02	54.3	54.3	10.1	10.1	-687.7	-136.0	-9.1	-9.944e+04	-1.986e+04	-332.0
265	ok	0.06	9.30e-02	7.02e-02	22.6	22.6	10.1	10.1	-859.7	-158.2	-31.2	7492.1	1474.7	434.0
266	ok	0.06	0.2	6.94e-02	22.6	22.6	10.1	10.1	-842.9	-143.6	-30.5	-8806.5	-1817.0	769.9
267	ok	0.06	0.3	6.86e-02	22.6	22.6	10.1	10.1	-832.4	-131.8	-29.3	-1.695e+04	-3483.6	981.9
268	ok	0.06	0.4	6.78e-02	22.6	22.6	10.1	10.1	-821.7	-123.8	-25.1	-2.511e+04	-5165.6	1107.7
269	ok	0.06	0.6	6.69e-02	22.6	22.6	10.1	10.1	-809.7	-115.8	-23.7	-3.329e+04	-6837.7	1185.7
270	ok	0.06	0.7	6.60e-02	22.6	22.6	10.1	10.1	-796.8	-109.8	-22.2	-4.151e+04	-8505.1	1202.0
271	ok	0.06	0.8	6.50e-02	22.6	22.6	10.1	10.1	-782.8	-105.8	-20.4	-4.976e+04	-1.017e+04	1159.5
272	ok	0.07	0.8	6.39e-02	54.3	54.3	10.1	10.1	-767.8	-103.9	-18.7	-5.806e+04	-1.182e+04	1061.2
273	ok	0.07	0.6	5.25e-02	54.3	54.3	10.1	10.1	-751.9	-104.1	-17.0	-6.639e+04	-1.346e+04	910.7
274	ok	0.07	0.7	5.15e-02	54.3	54.3	10.1	10.1	-735.1	-106.3	-15.5	-7.475e+04	-1.510e+04	712.0
275	ok	0.07	0.7	5.03e-02	54.3	54.3	10.1	10.1	-717.6	-110.4	-14.4	-8.313e+04	-1.672e+04	470.0
276	ok	0.07	0.8	4.92e-02	54.3	54.3	10.1	10.1	-699.5	-116.0	-13.8	-9.150e+04	-1.835e+04	188.3
277	ok	0.07	0.8	4.79e-02	54.3	54.3	10.1	10.1	-680.7	-121.9	-9.1	-9.984e+04	-1.998e+04	-155.2
278	ok	0.07	0.8	4.67e-02	54.3	54.3	10.1	10.1	-683.4	-135.5	-13.7	-9.984e+04	-1.994e+04	-317.8
279	ok	0.06	9.33e-02	6.98e-02	22.6	22.6	10.1	10.1	-856.0	-158.0	-26.6	7947.9	1564.1	410.9
280	ok	0.06	0.2	6.91e-02	22.6	22.6	10.1	10.1	-838.7	-144.0	-26.7	-8529.2	-1765.7	737.1
281	ok	0.06	0.3	6.83e-02	22.6	22.6	10.1	10.1	-828.1	-132.6	-26.1	-1.675e+04	-3453.0	947.8
282	ok	0.06	0.4	6.74e-02	22.6	22.6	10.1	10.1	-816.7	-122.8	-25.1	-2.499e+04	-5142.3	1093.3

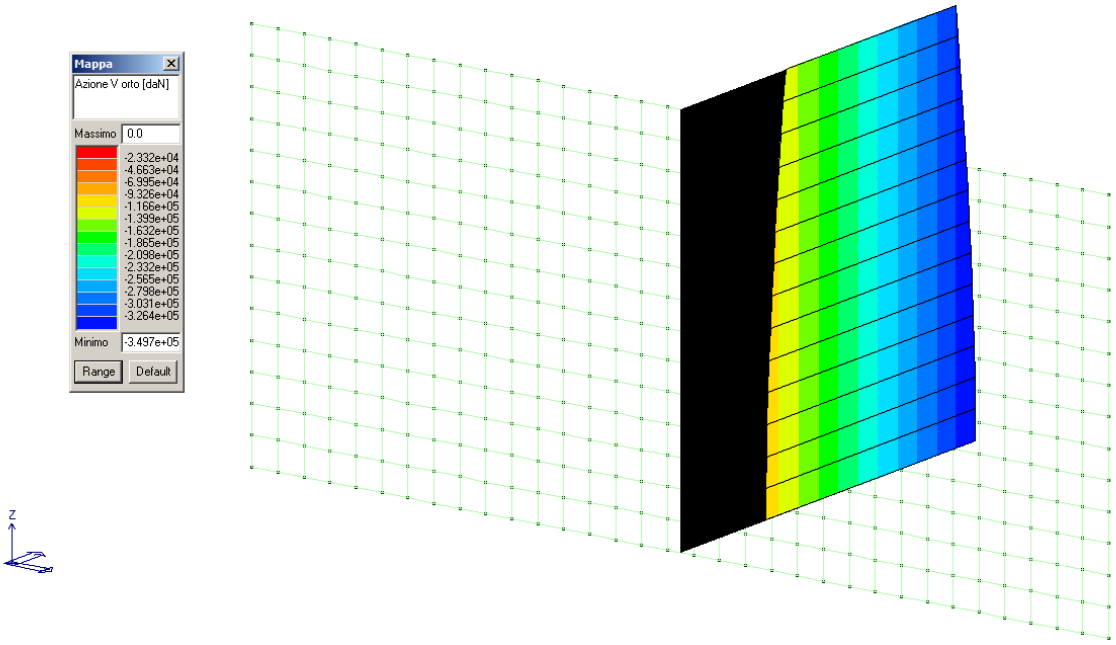
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
283	ok	0.06	0.6	6.65e-02	22.6	22.6	10.1	10.1	-804.5	-114.8	-23.7	-3.325e+04	-6829.3	1175.9
284	ok	0.06	0.7	6.56e-02	22.6	22.6	10.1	10.1	-791.8	-110.9	-21.7	-4.154e+04	-8522.3	1190.9
285	ok	0.06	0.8	6.46e-02	22.6	22.6	10.1	10.1	-777.8	-107.0	-20.9	-4.986e+04	-1.020e+04	1161.8
286	ok	0.07	0.8	6.34e-02	54.3	54.3	10.1	10.1	-762.8	-105.2	-20.1	-5.823e+04	-1.186e+04	1077.3
287	ok	0.07	0.6	5.22e-02	54.3	54.3	10.1	10.1	-746.9	-105.3	-19.3	-6.662e+04	-1.351e+04	939.2
288	ok	0.07	0.7	5.11e-02	54.3	54.3	10.1	10.1	-730.2	-107.4	-18.6	-7.504e+04	-1.516e+04	749.6
289	ok	0.07	0.7	5.00e-02	54.3	54.3	10.1	10.1	-712.7	-111.2	-18.1	-8.346e+04	-1.679e+04	510.6
290	ok	0.07	0.8	4.88e-02	54.3	54.3	10.1	10.1	-694.7	-116.5	-17.9	-9.188e+04	-1.843e+04	223.9
291	ok	0.07	0.8	4.76e-02	54.3	54.3	10.1	10.1	-676.1	-122.2	-13.7	-1.003e+05	-2.006e+04	-127.7
292	ok	0.07	0.8	4.64e-02	54.3	54.3	10.1	10.1	-678.6	-134.6	-13.7	-1.003e+05	-2.002e+04	-302.7
293	ok	0.06	9.75e-02	6.95e-02	22.6	22.6	10.1	10.1	-851.8	-157.6	-22.3	8377.4	1649.0	387.1
294	ok	0.06	0.2	6.87e-02	22.6	22.6	10.1	10.1	-834.2	-143.9	-23.1	-8255.8	-1713.3	702.4
295	ok	0.06	0.3	6.79e-02	22.6	22.6	10.1	10.1	-823.5	-132.9	-23.1	-1.656e+04	-3417.8	911.3
296	ok	0.06	0.4	6.70e-02	22.6	22.6	10.1	10.1	-812.0	-123.4	-22.8	-2.487e+04	-5124.2	1061.1
297	ok	0.06	0.6	6.61e-02	22.6	22.6	10.1	10.1	-799.7	-115.7	-22.3	-3.319e+04	-6827.8	1152.6
298	ok	0.06	0.7	6.52e-02	22.6	22.6	10.1	10.1	-786.8	-111.1	-21.3	-4.156e+04	-8531.9	1179.4
299	ok	0.06	0.8	6.41e-02	22.6	22.6	10.1	10.1	-772.7	-107.3	-21.4	-4.995e+04	-1.022e+04	1164.6
300	ok	0.07	0.8	6.30e-02	54.3	54.3	10.1	10.1	-757.7	-105.5	-21.5	-5.838e+04	-1.190e+04	1094.5
301	ok	0.07	0.6	5.18e-02	54.3	54.3	10.1	10.1	-741.7	-105.7	-21.6	-6.683e+04	-1.356e+04	969.2
302	ok	0.07	0.7	5.08e-02	54.3	54.3	10.1	10.1	-725.0	-107.7	-21.6	-7.531e+04	-1.522e+04	788.4
303	ok	0.07	0.7	4.97e-02	54.3	54.3	10.1	10.1	-707.6	-111.3	-21.8	-8.380e+04	-1.687e+04	552.2
304	ok	0.07	0.8	4.85e-02	54.3	54.3	10.1	10.1	-689.6	-116.5	-22.1	-9.227e+04	-1.851e+04	260.3
305	ok	0.07	0.8	4.73e-02	54.3	54.3	10.1	10.1	-671.1	-122.1	-18.2	-1.007e+05	-2.016e+04	-99.2
306	ok	0.07	0.8	4.61e-02	54.3	54.3	10.1	10.1	-673.5	-133.9	-18.2	-1.007e+05	-2.012e+04	-286.2
307	ok	0.06	0.1	6.91e-02	22.6	22.6	10.1	10.1	-847.1	-156.9	-18.0	8780.1	1728.7	362.8
308	ok	0.06	0.2	6.83e-02	22.6	22.6	10.1	10.1	-829.4	-143.4	-19.6	-7986.9	-1661.1	666.8
309	ok	0.06	0.3	6.75e-02	22.6	22.6	10.1	10.1	-818.6	-132.6	-20.2	-1.635e+04	-3380.0	873.4
310	ok	0.06	0.4	6.66e-02	22.6	22.6	10.1	10.1	-807.1	-123.3	-20.7	-2.473e+04	-5101.2	1027.5
311	ok	0.06	0.6	6.57e-02	22.6	22.6	10.1	10.1	-794.8	-115.7	-21.0	-3.313e+04	-6819.5	1128.3
312	ok	0.06	0.7	6.48e-02	22.6	22.6	10.1	10.1	-781.6	-110.0	-21.3	-4.155e+04	-8531.3	1175.2
313	ok	0.06	0.8	6.37e-02	22.6	22.6	10.1	10.1	-767.5	-106.7	-22.0	-5.001e+04	-1.024e+04	1166.9
314	ok	0.07	0.8	6.26e-02	54.3	54.3	10.1	10.1	-752.4	-105.0	-23.0	-5.851e+04	-1.193e+04	1111.6
315	ok	0.07	0.6	5.15e-02	54.3	54.3	10.1	10.1	-736.5	-105.2	-23.9	-6.704e+04	-1.361e+04	999.4
316	ok	0.07	0.7	5.04e-02	54.3	54.3	10.1	10.1	-719.7	-107.2	-24.7	-7.558e+04	-1.528e+04	827.9
317	ok	0.07	0.7	4.93e-02	54.3	54.3	10.1	10.1	-702.3	-110.9	-25.5	-8.414e+04	-1.694e+04	594.7
318	ok	0.07	0.8	4.82e-02	54.3	54.3	10.1	10.1	-684.3	-115.9	-26.3	-9.269e+04	-1.860e+04	298.0
319	ok	0.07	0.8	4.70e-02	54.3	54.3	10.1	10.1	-665.8	-121.7	-22.6	-1.012e+05	-2.026e+04	-69.0
320	ok	0.07	0.8	4.57e-02	54.3	54.3	10.1	10.1	-668.1	-133.1	-22.6	-1.012e+05	-2.021e+04	-267.7
321	ok	0.06	0.1	6.86e-02	22.6	22.6	10.1	10.1	-841.9	-155.9	-13.8	9155.5	1803.0	338.0
322	ok	0.06	0.2	6.78e-02	22.6	22.6	10.1	10.1	-824.4	-142.4	-16.1	-7723.0	-1609.6	630.7
323	ok	0.06	0.3	6.71e-02	22.6	22.6	10.1	10.1	-813.6	-131.7	-17.4	-1.615e+04	-3340.6	835.0
324	ok	0.06	0.4	6.62e-02	22.6	22.6	10.1	10.1	-802.1	-122.5	-18.6	-2.458e+04	-5074.2	993.2
325	ok	0.06	0.6	6.53e-02	22.6	22.6	10.1	10.1	-789.8	-115.0	-19.8	-3.304e+04	-6805.7	1103.1
326	ok	0.06	0.7	6.43e-02	22.6	22.6	10.1	10.1	-776.5	-109.3	-20.9	-4.153e+04	-8531.2	1162.6
327	ok	0.06	0.8	6.33e-02	22.6	22.6	10.1	10.1	-762.2	-105.2	-22.7	-5.006e+04	-1.025e+04	1168.1
328	ok	0.07	0.8	6.22e-02	54.3	54.3	10.1	10.1	-747.1	-103.6	-24.5	-5.862e+04	-1.196e+04	1127.7
329	ok	0.07	0.6	5.11e-02	54.3	54.3	10.1	10.1	-731.1	-103.9	-26.3	-6.722e+04	-1.366e+04	1029.0
330	ok	0.07	0.7	5.01e-02	54.3	54.3	10.1	10.1	-714.3	-106.1	-27.9	-7.585e+04	-1.534e+04	867.5
331	ok	0.07	0.7	4.90e-02	54.3	54.3	10.1	10.1	-696.8	-109.8	-29.3	-8.449e+04	-1.702e+04	638.1
332	ok	0.07	0.8	4.78e-02	54.3	54.3	10.1	10.1	-678.7	-115.0	-30.5	-9.312e+04	-1.869e+04	337.3
333	ok	0.07	0.8	4.66e-02	54.3	54.3	10.1	10.1	-660.3	-121.0	-27.1	-1.017e+05	-2.036e+04	-36.5
334	ok	0.07	0.8	4.54e-02	54.3	54.3	10.1	10.1	-662.6	-132.2	-27.1	-1.017e+05	-2.031e+04	-246.7
335	ok	0.06	0.1	6.81e-02	22.6	22.6	10.1	10.1	-836.2	-154.6	-9.5	9503.7	1872.0	313.0
336	ok	0.06	0.2	6.74e-02	22.6	22.6	10.1	10.1	-819.0	-141.0	-12.6	-7463.7	-1558.1	594.8
337	ok	0.06	0.3	6.66e-02	22.6	22.6	10.1	10.1	-808.4	-130.1	-14.5	-1.594e+04	-3298.5	796.9
338	ok	0.06	0.4	6.58e-02	22.6	22.6	10.1	10.1	-797.0	-120.9	-16.5	-2.443e+04	-5042.1	959.0
339	ok	0.06	0.6	6.49e-02	22.6	22.6	10.1	10.1	-784.7	-113.4	-18.6	-3.294e+04	-6784.9	1077.4
340	ok	0.06	0.7	6.39e-02	22.6	22.6	10.1	10.1	-771.5	-107.8	-20.6	-4.149e+04	-8523.4	1148.7
341	ok	0.06	0.8	6.29e-02	22.6	22.6	10.1	10.1	-757.2	-104.2	-22.7	-5.009e+04	-1.026e+04	1169.8
342	ok	0.07	0.8	6.18e-02	54.3	54.3	10.1	10.1	-741.7	-101.2	-26.2	-5.872e+04	-1.198e+04	1141.2
343	ok	0.07	0.6	5.08e-02	54.3	54.3	10.1	10.1	-725.6	-101.8	-28.8	-6.740e+04	-1.369e+04	1056.5
344	ok	0.07	0.7	4.97e-02	54.3	54.3	10.1	10.1	-708.7	-104.1	-31.1	-7.611e+04	-1.540e+04	906.0
345	ok	0.07	0.7	4.86e-02	54.3	54.3	10.1	10.1	-691.2	-108.1	-33.1	-8.483e+04	-1.710e+04	682.1
346	ok	0.07	0.8	4.75e-02	54.3	54.3	10.1	10.1	-673.1	-113.5	-34.8	-9.356e+04	-1.879e+04	378.5
347	ok	0.07	0.8	4.63e-02	54.3	54.3	10.1	10.1	-654.6	-119.9	-36.3	-1.023e+05	-2.048e+04	15.2
348	ok	0.07	0.8	4.51e-02	54.3	54.3	10.1	10.1	-656.9	-131.2	-31.7	-1.023e+05	-2.042e+04	-223.0
349	ok	0.06	0.1	6.76e-02	22.6	22.6	10.1	10.1	-830.1	-153.0	-5.1	9825.1	1936.8	288.5
350	ok	0.06	0.2	6.69e-02	22.6	22.6	10.1	10.1	-813.5	-139.1	-9.0	-7208.0	-1504.9	560.6
351	ok	0.06	0.3	6.61e-02	22.6	22.6	10.1	10.1	-803.0	-128.0	-11.6	-1.573e+04	-3251.0	760.8
352	ok	0.06	0.4	6.53e-02	22.6	22.6	10.1	10.1	-791.8	-118.5	-14.4	-2.426e+04	-5001.4	926.2
353	ok	0.06	0.5	6.44e-02	22.6	22.6	10.1	10.1	-779.5	-110.9	-17.3	-3.283e+04	-6752.9	1051.7
354	ok	0.06	0.7	6.35e-02	22.6	22.6	10.1	10.1	-766.3	-105.3	-20.4	-4.144e+04	-8503.1	1133.3
355	ok	0.06	0.8	6.25e-02	22.6	22.6	10.1	10.1	-752.0	-101.7	-23.3	-5.010e+04	-1.025e+04	1167.1

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
356	ok	0.07	0.8	6.14e-02	54.3	54.3	10.1	10.1	-736.7	-100.2	-26.2	-5.880e+04	-1.199e+04	1148.3
357	ok	0.07	0.6	5.05e-02	54.3	54.3	10.1	10.1	-720.5	-100.7	-28.8	-6.756e+04	-1.372e+04	1070.6
358	ok	0.07	0.7	4.94e-02	54.3	54.3	10.1	10.1	-703.1	-101.5	-34.4	-7.635e+04	-1.545e+04	941.7
359	ok	0.07	0.7	4.83e-02	54.3	54.3	10.1	10.1	-685.5	-105.8	-37.1	-8.518e+04	-1.717e+04	725.5
360	ok	0.07	0.8	4.72e-02	54.3	54.3	10.1	10.1	-667.3	-111.6	-39.3	-9.402e+04	-1.889e+04	421.5
361	ok	0.07	0.8	4.60e-02	54.3	54.3	10.1	10.1	-648.7	-118.3	-41.0	-1.028e+05	-2.060e+04	55.4
362	ok	0.07	0.8	4.47e-02	54.3	54.3	10.1	10.1	-651.1	-130.1	-36.3	-1.028e+05	-2.053e+04	-196.2
363	ok	0.06	0.1	6.71e-02	22.6	22.6	10.1	10.1	-823.9	-150.2	7.9	9550.8	1892.5	298.2
364	ok	0.06	0.2	6.64e-02	22.6	22.6	10.1	10.1	-807.9	-135.1	2.5	-6932.2	-1424.3	593.3
365	ok	0.06	0.3	6.57e-02	22.6	22.6	10.1	10.1	-797.4	-125.2	-8.5	-1.551e+04	-3193.6	729.5
366	ok	0.06	0.4	6.49e-02	22.6	22.6	10.1	10.1	-786.3	-115.4	-12.1	-2.409e+04	-4946.0	897.2
367	ok	0.06	0.5	6.40e-02	22.6	22.6	10.1	10.1	-774.3	-107.6	-16.0	-3.271e+04	-6702.5	1027.5
368	ok	0.06	0.7	6.31e-02	22.6	22.6	10.1	10.1	-761.1	-101.9	-20.1	-4.137e+04	-8462.4	1116.3
369	ok	0.06	0.8	6.21e-02	22.6	22.6	10.1	10.1	-746.8	-98.3	-24.1	-5.008e+04	-1.022e+04	1159.9
370	ok	0.07	0.8	6.10e-02	54.3	54.3	10.1	10.1	-731.5	-97.0	-27.9	-5.886e+04	-1.199e+04	1153.7
371	ok	0.07	0.6	5.01e-02	54.3	54.3	10.1	10.1	-715.1	-97.8	-31.3	-6.770e+04	-1.374e+04	1090.3
372	ok	0.07	0.7	4.91e-02	54.3	54.3	10.1	10.1	-697.9	-100.4	-34.4	-7.659e+04	-1.550e+04	959.1
373	ok	0.07	0.7	4.80e-02	54.3	54.3	10.1	10.1	-679.7	-102.9	-41.2	-8.553e+04	-1.724e+04	765.6
374	ok	0.07	0.8	4.68e-02	54.3	54.3	10.1	10.1	-661.4	-109.2	-43.8	-9.448e+04	-1.898e+04	464.9
375	ok	0.07	0.8	4.56e-02	54.3	54.3	10.1	10.1	-642.7	-116.5	-45.8	-1.034e+05	-2.072e+04	99.0
376	ok	0.07	0.8	4.44e-02	54.3	54.3	10.1	10.1	-645.2	-128.9	-41.0	-1.034e+05	-2.065e+04	-166.5
377	ok	0.06	0.1	6.66e-02	22.6	22.6	10.1	10.1	-817.2	-147.8	13.3	9874.8	1971.0	284.8
378	ok	0.06	0.2	6.59e-02	22.6	22.6	10.1	10.1	-802.6	-134.0	2.5	-6652.3	-1368.4	584.3
379	ok	0.06	0.3	6.52e-02	22.6	22.6	10.1	10.1	-791.6	-121.7	-5.2	-1.529e+04	-3119.7	707.8
380	ok	0.06	0.4	6.44e-02	22.6	22.6	10.1	10.1	-780.8	-111.4	-9.7	-2.391e+04	-4867.1	875.9
381	ok	0.06	0.5	6.36e-02	22.6	22.6	10.1	10.1	-768.9	-103.3	-14.6	-3.257e+04	-6623.1	1007.0
382	ok	0.06	0.7	6.27e-02	22.6	22.6	10.1	10.1	-755.8	-97.4	-19.7	-4.129e+04	-8389.3	1097.8
383	ok	0.06	0.8	6.17e-02	22.6	22.6	10.1	10.1	-741.6	-93.9	-24.8	-5.006e+04	-1.017e+04	1146.3
384	ok	0.07	0.8	6.06e-02	54.3	54.3	10.1	10.1	-726.2	-92.8	-29.6	-5.890e+04	-1.195e+04	1149.1
385	ok	0.07	0.6	4.98e-02	54.3	54.3	10.1	10.1	-709.7	-93.9	-34.0	-6.781e+04	-1.374e+04	1099.0
386	ok	0.07	0.7	4.88e-02	54.3	54.3	10.1	10.1	-692.4	-97.0	-37.9	-7.680e+04	-1.552e+04	983.4
387	ok	0.07	0.7	4.76e-02	54.3	54.3	10.1	10.1	-674.3	-101.8	-41.2	-8.586e+04	-1.731e+04	784.8
388	ok	0.07	0.8	4.65e-02	54.3	54.3	10.1	10.1	-655.4	-106.4	-48.5	-9.496e+04	-1.907e+04	505.7
389	ok	0.07	0.9	4.53e-02	54.3	54.3	10.1	10.1	-636.6	-114.4	-50.8	-1.041e+05	-2.085e+04	144.8
390	ok	0.07	0.8	4.41e-02	54.3	54.3	10.1	10.1	-639.2	-127.5	-45.8	-1.041e+05	-2.078e+04	-134.1
391	ok	0.06	0.1	6.60e-02	22.6	22.6	10.1	10.1	-809.9	-145.0	19.1	1.019e+04	2058.2	283.7
392	ok	0.06	0.2	6.54e-02	22.6	22.6	10.1	10.1	-796.6	-130.7	6.9	-6364.8	-1280.2	579.6
393	ok	0.06	0.3	6.47e-02	22.6	22.6	10.1	10.1	-787.2	-117.7	2.3	-1.470e+04	-2947.4	800.8
394	ok	0.06	0.4	6.40e-02	22.6	22.6	10.1	10.1	-775.0	-106.5	-7.1	-2.372e+04	-4753.2	868.7
395	ok	0.06	0.5	6.32e-02	22.6	22.6	10.1	10.1	-763.4	-97.9	-13.1	-3.243e+04	-6500.7	994.2
396	ok	0.06	0.7	6.23e-02	22.6	22.6	10.1	10.1	-750.5	-91.9	-19.3	-4.120e+04	-8267.9	1078.9
397	ok	0.06	0.8	6.13e-02	22.6	22.6	10.1	10.1	-736.2	-88.4	-25.5	-5.002e+04	-1.006e+04	1124.1
398	ok	0.07	0.8	6.02e-02	54.3	54.3	10.1	10.1	-720.8	-87.5	-31.4	-5.891e+04	-1.187e+04	1129.4
399	ok	0.07	0.6	4.95e-02	54.3	54.3	10.1	10.1	-704.3	-89.1	-36.8	-6.790e+04	-1.369e+04	1089.3
400	ok	0.07	0.7	4.84e-02	54.3	54.3	10.1	10.1	-686.7	-92.8	-41.5	-7.699e+04	-1.552e+04	990.6
401	ok	0.07	0.7	4.73e-02	54.3	54.3	10.1	10.1	-668.5	-98.3	-45.5	-8.618e+04	-1.735e+04	810.8
402	ok	0.07	0.8	4.62e-02	54.3	54.3	10.1	10.1	-649.7	-105.2	-48.5	-9.544e+04	-1.917e+04	525.0
403	ok	0.07	0.9	4.50e-02	54.3	54.3	10.1	10.1	-630.3	-112.1	-55.9	-1.047e+05	-2.098e+04	190.3
404	ok	0.07	0.8	4.38e-02	54.3	54.3	10.1	10.1	-633.2	-126.1	-50.8	-1.047e+05	-2.091e+04	-100.1
405	ok	0.06	0.1	6.54e-02	22.6	22.6	10.1	10.1	-802.0	-141.8	25.7	1.052e+04	2162.0	303.2
406	ok	0.06	0.2	6.48e-02	22.6	22.6	10.1	10.1	-790.3	-126.8	11.8	-6068.0	-1168.7	600.4
407	ok	0.06	0.3	6.42e-02	22.6	22.6	10.1	10.1	-781.3	-112.7	6.3	-1.445e+04	-2809.2	823.5
408	ok	0.06	0.4	6.35e-02	22.6	22.6	10.1	10.1	-769.0	-100.6	-4.1	-2.354e+04	-4589.9	884.7
409	ok	0.06	0.5	6.27e-02	22.6	22.6	10.1	10.1	-757.6	-91.5	-11.3	-3.230e+04	-6317.9	995.7
410	ok	0.06	0.7	6.18e-02	22.6	22.6	10.1	10.1	-744.9	-85.2	-18.8	-4.111e+04	-8077.9	1062.4
411	ok	0.06	0.8	6.09e-02	22.6	22.6	10.1	10.1	-730.7	-81.7	-26.2	-4.997e+04	-9875.5	1091.5
412	ok	0.07	0.8	5.98e-02	54.3	54.3	10.1	10.1	-715.3	-81.2	-33.3	-5.891e+04	-1.171e+04	1088.2
413	ok	0.07	0.6	4.92e-02	54.3	54.3	10.1	10.1	-698.7	-83.3	-39.7	-6.796e+04	-1.358e+04	1051.4
414	ok	0.07	0.7	4.81e-02	54.3	54.3	10.1	10.1	-681.0	-87.7	-45.3	-7.714e+04	-1.547e+04	968.8
415	ok	0.07	0.7	4.70e-02	54.3	54.3	10.1	10.1	-662.6	-94.1	-49.9	-8.646e+04	-1.736e+04	814.0
416	ok	0.07	0.8	4.59e-02	54.3	54.3	10.1	10.1	-643.6	-102.0	-53.4	-9.590e+04	-1.924e+04	551.7
417	ok	0.07	0.9	4.47e-02	54.3	54.3	10.1	10.1	-624.3	-110.8	-55.9	-1.054e+05	-2.112e+04	217.1
418	ok	0.07	0.8	4.35e-02	54.3	54.3	10.1	10.1	-627.0	-124.7	-55.9	-1.054e+05	-2.105e+04	-66.7
419	ok	0.06	0.1	6.48e-02	22.6	22.6	10.1	10.1	-793.4	-138.2	32.9	1.088e+04	2293.2	354.9
420	ok	0.06	0.2	6.42e-02	22.6	22.6	10.1	10.1	-783.6	-122.3	17.2	-5755.4	-1023.7	660.4
421	ok	0.06	0.3	6.36e-02	22.6	22.6	10.1	10.1	-775.2	-106.9	10.7	-1.420e+04	-2622.6	887.2
422	ok	0.06	0.4	6.30e-02	22.6	22.6	10.1	10.1	-765.4	-94.0	3.1	-2.270e+04	-4233.7	1049.0
423	ok	0.06	0.5	6.22e-02	22.6	22.6	10.1	10.1	-751.5	-83.8	-9.3	-3.219e+04	-6054.8	1021.2
424	ok	0.06	0.7	6.14e-02	22.6	22.6	10.1	10.1	-738.9	-77.2	-18.1	-4.104e+04	-7795.3	1054.2
425	ok	0.06	0.8	6.04e-02	22.6	22.6	10.1	10.1	-724.9	-73.8	-26.8	-4.994e+04	-9592.9	1049.4
426	ok	0.07	0.8	5.94e-02	54.3	54.3	10.1	10.1	-709.6	-73.6	-35.1	-5.891e+04	-1.145e+04	1019.8
427	ok	0.07	0.6	4.88e-02	54.3	54.3	10.1	10.1	-693.0	-76.4	-42.7	-6.799e+04	-1.337e+04	972.5
428	ok	0.07	0.7	4.78e-02	54.3	54.3	10.1	10.1	-675.3	-81.7	-49.2	-7.724e+04	-1.533e+04	900.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
429	ok	0.07	0.7	4.67e-02	54.3	54.3	10.1	10.1	-656.7	-89.3	-54.5	-8.668e+04	-1.731e+04	776.6
430	ok	0.07	0.8	4.56e-02	54.3	54.3	10.1	10.1	-637.4	-98.3	-58.5	-9.633e+04	-1.928e+04	552.6
431	ok	0.07	0.9	4.44e-02	54.3	54.3	10.1	10.1	-618.0	-108.3	-61.2	-1.061e+05	-2.124e+04	250.4
432	ok	0.07	0.9	4.32e-02	54.3	54.3	10.1	10.1	-620.9	-123.1	-61.2	-1.061e+05	-2.119e+04	-38.8
433	ok	0.06	0.1	6.41e-02	22.6	22.6	10.1	10.1	-784.3	-134.1	41.0	1.132e+04	2465.6	454.1
434	ok	0.06	0.2	6.36e-02	22.6	22.6	10.1	10.1	-776.6	-117.0	23.2	-5419.6	-834.3	776.6
435	ok	0.06	0.3	6.31e-02	22.6	22.6	10.1	10.1	-768.7	-100.0	15.5	-1.395e+04	-2374.5	1008.9
436	ok	0.06	0.4	6.24e-02	22.6	22.6	10.1	10.1	-759.2	-85.9	6.6	-2.254e+04	-3927.7	1150.2
437	ok	0.06	0.5	6.17e-02	22.6	22.6	10.1	10.1	-744.7	-74.8	-7.1	-3.211e+04	-5692.0	1085.5
438	ok	0.06	0.7	6.09e-02	22.6	22.6	10.1	10.1	-732.3	-67.9	-17.2	-4.100e+04	-7395.0	1065.8
439	ok	0.06	0.8	5.99e-02	22.6	22.6	10.1	10.1	-718.5	-64.6	-27.2	-4.993e+04	-9176.4	1003.7
440	ok	0.07	0.8	5.89e-02	54.3	54.3	10.1	10.1	-703.5	-64.9	-36.8	-5.891e+04	-1.105e+04	921.9
441	ok	0.07	0.6	4.85e-02	54.3	54.3	10.1	10.1	-687.2	-68.4	-45.6	-6.801e+04	-1.301e+04	839.7
442	ok	0.07	0.6	4.75e-02	54.3	54.3	10.1	10.1	-669.6	-74.8	-53.2	-7.729e+04	-1.505e+04	763.4
443	ok	0.07	0.7	4.64e-02	54.3	54.3	10.1	10.1	-650.9	-83.7	-59.3	-8.683e+04	-1.714e+04	670.8
444	ok	0.07	0.8	4.53e-02	54.3	54.3	10.1	10.1	-631.5	-94.2	-63.8	-9.668e+04	-1.925e+04	504.1
445	ok	0.07	0.9	4.41e-02	54.3	54.3	10.1	10.1	-611.8	-105.6	-66.7	-1.068e+05	-2.134e+04	256.2
446	ok	0.07	0.9	4.29e-02	54.3	54.3	10.1	10.1	-615.0	-121.6	-66.7	-1.068e+05	-2.132e+04	-26.0
447	ok	0.06	0.1	6.35e-02	22.6	22.6	10.1	10.1	-774.7	-129.4	50.2	1.189e+04	2695.0	619.4
448	ok	0.06	0.2	6.30e-02	22.6	22.6	10.1	10.1	-769.4	-110.9	29.8	-5053.1	-589.9	968.2
449	ok	0.06	0.3	6.25e-02	22.6	22.6	10.1	10.1	-761.7	-91.9	20.7	-1.371e+04	-2055.0	1207.6
450	ok	0.06	0.4	6.19e-02	22.6	22.6	10.1	10.1	-752.2	-76.3	10.3	-2.241e+04	-3531.9	1321.3
451	ok	0.06	0.5	6.11e-02	22.6	22.6	10.1	10.1	-740.0	-64.6	-2.1	-3.143e+04	-5106.8	1284.6
452	ok	0.06	0.7	6.03e-02	22.6	22.6	10.1	10.1	-724.5	-57.3	-16.1	-4.103e+04	-6854.4	1117.8
453	ok	0.06	0.8	5.93e-02	22.6	22.6	10.1	10.1	-711.1	-54.2	-27.4	-4.998e+04	-8591.9	971.6
454	ok	0.07	0.8	5.84e-02	54.3	54.3	10.1	10.1	-696.7	-54.9	-38.2	-5.896e+04	-1.045e+04	802.3
455	ok	0.07	0.5	4.81e-02	54.3	54.3	10.1	10.1	-681.0	-59.2	-48.2	-6.803e+04	-1.244e+04	645.3
456	ok	0.07	0.6	4.71e-02	54.3	54.3	10.1	10.1	-664.0	-66.8	-57.1	-7.728e+04	-1.457e+04	529.8
457	ok	0.07	0.7	4.61e-02	54.3	54.3	10.1	10.1	-645.5	-77.2	-64.2	-8.686e+04	-1.680e+04	455.8
458	ok	0.07	0.8	4.51e-02	54.3	54.3	10.1	10.1	-626.0	-89.6	-69.2	-9.690e+04	-1.909e+04	365.3
459	ok	0.07	0.9	4.39e-02	54.3	54.3	10.1	10.1	-606.1	-102.7	-72.3	-1.074e+05	-2.137e+04	201.6
460	ok	0.07	0.9	4.27e-02	54.3	54.3	10.1	10.1	-609.6	-120.1	-72.3	-1.074e+05	-2.145e+04	-48.7
461	ok	0.06	0.2	6.29e-02	22.6	22.6	10.1	10.1	-765.1	-123.7	60.4	1.267e+04	2992.1	870.3
462	ok	0.06	0.2	6.24e-02	22.6	22.6	10.1	10.1	-761.0	-95.5	54.5	4200.2	1747.4	1244.4
463	ok	0.06	0.3	6.19e-02	22.6	22.6	10.1	10.1	-754.3	-82.1	26.0	-1.349e+04	-1663.9	1502.1
464	ok	0.06	0.4	6.13e-02	22.6	22.6	10.1	10.1	-743.9	-65.0	13.8	-2.233e+04	-3047.5	1584.2
465	ok	0.06	0.5	6.05e-02	22.6	22.6	10.1	10.1	-731.9	-52.9	1.2	-3.114e+04	-4473.4	1529.0
466	ok	0.06	0.7	5.95e-02	22.6	22.6	10.1	10.1	-718.1	-45.5	-12.4	-4.032e+04	-6034.4	1321.9
467	ok	0.06	0.8	5.86e-02	22.6	22.6	10.1	10.1	-705.0	-42.6	-24.5	-4.913e+04	-7653.6	1072.2
468	ok	0.07	0.8	5.76e-02	54.3	54.3	10.1	10.1	-688.6	-43.8	-38.8	-5.910e+04	-9603.7	689.8
469	ok	0.07	0.5	4.75e-02	54.3	54.3	10.1	10.1	-674.4	-48.8	-50.1	-6.811e+04	-1.158e+04	398.8
470	ok	0.07	0.6	4.67e-02	54.3	54.3	10.1	10.1	-658.7	-57.4	-60.4	-7.726e+04	-1.377e+04	178.3
471	ok	0.07	0.7	4.59e-02	54.3	54.3	10.1	10.1	-641.0	-69.6	-69.0	-8.677e+04	-1.616e+04	76.6
472	ok	0.07	0.8	4.49e-02	54.3	54.3	10.1	10.1	-621.6	-84.3	-74.9	-9.691e+04	-1.869e+04	67.5
473	ok	0.07	0.9	4.38e-02	54.3	54.3	10.1	10.1	-601.5	-99.8	-78.1	-1.078e+05	-2.125e+04	19.9
474	ok	0.07	0.9	4.27e-02	54.3	54.3	10.1	10.1	-605.4	-118.9	-78.1	-1.078e+05	-2.153e+04	-149.4
475	ok	0.06	0.2	6.25e-02	22.6	22.6	10.1	10.1	-756.1	-116.5	72.2	1.376e+04	3337.7	1218.7
476	ok	0.06	0.2	6.19e-02	22.6	22.6	10.1	10.1	-752.9	-82.6	64.4	4955.2	2135.7	1658.9
477	ok	0.06	0.3	6.14e-02	22.6	22.6	10.1	10.1	-746.1	-69.9	30.7	-1.327e+04	-1224.9	1908.8
478	ok	0.06	0.4	6.06e-02	22.6	22.6	10.1	10.1	-733.5	-51.6	16.5	-2.229e+04	-2499.6	1966.0
479	ok	0.06	0.5	5.96e-02	22.6	22.6	10.1	10.1	-719.8	-39.6	2.8	-3.124e+04	-3796.5	1855.7
480	ok	0.06	0.7	5.86e-02	22.6	22.6	10.1	10.1	-705.4	-32.9	-11.1	-4.052e+04	-5206.4	1565.3
481	ok	0.06	0.8	5.76e-02	22.6	22.6	10.1	10.1	-693.0	-30.5	-23.4	-4.941e+04	-6677.2	1192.1
482	ok	0.07	0.8	5.67e-02	54.3	54.3	10.1	10.1	-681.4	-31.9	-35.7	-5.823e+04	-8302.7	733.1
483	ok	0.07	0.5	4.68e-02	54.3	54.3	10.1	10.1	-669.7	-37.1	-48.1	-6.700e+04	-1.014e+04	240.7
484	ok	0.07	0.6	4.62e-02	54.3	54.3	10.1	10.1	-654.0	-46.6	-62.5	-7.732e+04	-1.251e+04	-284.4
485	ok	0.07	0.7	4.56e-02	54.3	54.3	10.1	10.1	-638.4	-60.4	-73.2	-8.658e+04	-1.502e+04	-525.4
486	ok	0.07	0.7	4.48e-02	54.3	54.3	10.1	10.1	-619.6	-77.9	-80.7	-9.658e+04	-1.784e+04	-501.6
487	ok	0.07	0.8	4.39e-02	54.3	54.3	10.1	10.1	-601.1	-96.9	-82.0	-1.056e+05	-2.042e+04	-380.8
488	ok	0.07	0.9	4.28e-02	54.3	54.3	10.1	10.1	-605.5	-118.8	-82.0	-1.058e+05	-2.112e+04	-391.5
489	ok	0.06	0.2	6.23e-02	22.6	22.6	10.1	10.1	-749.6	-105.7	85.9	1.520e+04	3587.1	1645.3
490	ok	0.06	0.2	6.17e-02	22.6	22.6	10.1	10.1	-747.2	-63.5	74.1	5830.1	2324.1	2163.1
491	ok	0.06	0.3	6.10e-02	22.6	22.6	10.1	10.1	-732.5	-35.9	30.8	-1.302e+04	-594.6	2771.7
492	ok	0.06	0.4	5.99e-02	22.6	22.6	10.1	10.1	-718.9	-36.0	17.2	-2.229e+04	-1947.7	2504.8
493	ok	0.06	0.6	5.85e-02	22.6	22.6	10.1	10.1	-702.6	-25.5	3.3	-3.141e+04	-3063.8	2356.2
494	ok	0.06	0.7	5.72e-02	22.6	22.6	10.1	10.1	-688.6	-20.2	-8.9	-4.042e+04	-4211.8	2028.8
495	ok	0.06	0.8	5.61e-02	22.6	22.6	10.1	10.1	-677.1	-18.6	-20.4	-4.934e+04	-5442.9	1537.5
496	ok	0.07	0.8	5.53e-02	54.3	54.3	10.1	10.1	-667.1	-20.2	-32.9	-5.873e+04	-6882.9	856.4
497	ok	0.07	0.5	4.58e-02	54.3	54.3	10.1	10.1	-659.8	-25.0	-45.6	-6.749e+04	-8494.6	106.9
498	ok	0.07	0.6	4.55e-02	54.3	54.3	10.1	10.1	-652.4	-33.9	-59.6	-7.614e+04	-1.044e+04	-669.1
499	ok	0.07	0.7	4.53e-02	54.3	54.3	10.1	10.1	-641.3	-48.4	-73.7	-8.478e+04	-1.286e+04	-1271.0
500	ok	0.07	0.7	4.49e-02	54.3	54.3	10.1	10.1	-624.6	-69.2	-84.3	-9.407e+04	-1.589e+04	-1412.1
501	ok	0.07	0.8	4.42e-02	54.3	54.3	10.1	10.1	-603.8	-93.5	-88.9	-1.046e+05	-1.933e+04	-1353.1

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
502	ok	0.07	0.8	4.33e-02	54.3	54.3	10.1	10.1	-608.9	-119.3	-88.9	-1.049e+05	-2.095e+04	-1014.1
503	ok	0.06	0.2	6.28e-02	22.6	22.6	10.1	10.1	-754.3	-106.6	85.9	1.712e+04	3970.4	1867.7
504	ok	0.06	0.2	6.20e-02	22.6	22.6	10.1	10.1	-752.7	-64.6	74.1	6918.1	2541.7	2411.7
505	ok	0.06	0.3	6.08e-02	22.6	22.6	10.1	10.1	-716.6	-16.7	21.0	-1.288e+04	-639.0	3458.5
506	ok	0.06	0.4	5.86e-02	22.6	22.6	10.1	10.1	-696.5	-19.1	14.7	-2.232e+04	-1476.0	3247.9
507	ok	0.06	0.6	5.67e-02	22.6	22.6	10.1	10.1	-677.8	-11.9	2.5	-3.163e+04	-2335.4	3085.3
508	ok	0.06	0.7	5.52e-02	22.6	22.6	10.1	10.1	-663.6	-8.8	-7.5	-4.082e+04	-3194.0	2702.4
509	ok	0.06	0.8	5.41e-02	22.6	22.6	10.1	10.1	-653.5	-8.1	-16.7	-4.991e+04	-4106.9	2109.6
510	ok	0.07	0.8	5.33e-02	54.3	54.3	10.1	10.1	-647.2	-9.6	-26.3	-5.886e+04	-5131.9	1309.3
511	ok	0.07	0.5	4.44e-02	54.3	54.3	10.1	10.1	-644.8	-13.3	-37.7	-6.765e+04	-6344.1	305.0
512	ok	0.07	0.6	4.45e-02	54.3	54.3	10.1	10.1	-645.2	-20.6	-52.9	-7.690e+04	-7932.2	-915.8
513	ok	0.07	0.7	4.49e-02	54.3	54.3	10.1	10.1	-647.1	-33.3	-71.7	-8.520e+04	-9951.1	-2164.4
514	ok	0.07	0.7	4.53e-02	54.3	54.3	10.1	10.1	-634.7	-56.2	-90.8	-9.476e+04	-1.310e+04	-3105.9
515	ok	0.07	0.8	4.52e-02	54.3	54.3	10.1	10.1	-617.8	-89.0	-96.5	-1.018e+05	-1.686e+04	-3390.7
516	ok	0.07	0.8	4.47e-02	54.3	54.3	10.1	10.1	-624.4	-122.4	-96.5	-1.026e+05	-2.048e+04	-2408.3
517	ok	0.06	0.3	6.51e-02	22.6	22.6	10.1	10.1	-777.1	-88.5	103.4	1.918e+04	3580.5	1891.8
518	ok	0.06	0.2	6.41e-02	22.6	22.6	10.1	10.1	-778.6	-37.9	77.9	8242.5	2251.1	3031.4
519	ok	0.06	0.3	5.94e-02	22.6	22.6	10.1	10.1	-688.7	-11.1	21.0	-1.267e+04	-596.7	4013.8
520	ok	0.06	0.4	5.61e-02	22.6	22.6	10.1	10.1	-661.9	-3.8	8.8	-2.237e+04	-1170.9	4127.9
521	ok	0.06	0.6	5.40e-02	22.6	22.6	10.1	10.1	-643.2	-1.1	0.7	-3.188e+04	-1671.9	3962.9
522	ok	0.06	0.7	5.25e-02	22.6	22.6	10.1	10.1	-630.2	-0.2	-5.5	-4.126e+04	-2162.3	3555.3
523	ok	0.06	0.9	5.14e-02	22.6	22.6	10.1	10.1	-621.7	-0.3	-11.1	-5.052e+04	-2678.2	2912.2
524	ok	0.07	0.9	5.07e-02	54.3	54.3	10.1	10.1	-617.6	-1.4	-17.3	-5.966e+04	-3257.0	2022.9
525	ok	0.07	0.5	4.23e-02	54.3	54.3	10.1	10.1	-618.8	-3.6	-25.1	-6.865e+04	-3948.2	864.2
526	ok	0.07	0.6	4.30e-02	54.3	54.3	10.1	10.1	-627.1	-7.9	-36.6	-7.734e+04	-4820.4	-605.5
527	ok	0.07	0.7	4.45e-02	54.3	54.3	10.1	10.1	-645.5	-16.8	-55.5	-8.619e+04	-6095.9	-2389.9
528	ok	0.07	0.7	4.71e-02	54.3	54.3	10.1	10.1	-674.9	-34.4	-88.7	-9.534e+04	-7968.3	-4943.8
529	ok	0.07	0.8	4.79e-02	54.3	54.3	10.1	10.1	-655.5	-77.5	-107.8	-9.705e+04	-1.172e+04	-7954.1
530	ok	0.07	0.8	4.75e-02	54.3	54.3	10.1	10.1	-666.2	-131.0	-107.8	-9.864e+04	-1.970e+04	-5573.6
531	ok	0.06	0.3	7.84e-02	22.6	22.6	10.1	10.1	-737.2	-3.1	34.8	7546.3	-761.0	2572.2
532	ok	0.06	0.2	6.04e-02	22.6	22.6	10.1	10.1	-739.3	-13.6	34.8	8000.1	1508.1	2532.1
533	ok	0.06	0.3	5.45e-02	22.6	22.6	10.1	10.1	-634.3	5.3	6.2	-1.268e+04	-885.2	3180.4
534	ok	0.06	0.4	5.18e-02	22.6	22.6	10.1	10.1	-613.3	5.1	2.1	-2.236e+04	-1027.3	3215.7
535	ok	0.06	0.6	5.01e-02	22.6	22.6	10.1	10.1	-598.8	4.9	-0.4	-3.185e+04	-1161.0	3081.9
536	ok	0.06	0.7	4.89e-02	22.6	22.6	10.1	10.1	-588.5	4.4	-2.3	-4.121e+04	-1290.1	2794.9
537	ok	0.06	0.9	4.81e-02	22.6	22.6	10.1	10.1	-581.7	4.0	-4.0	-5.044e+04	-1426.1	2355.9
538	ok	0.07	0.9	4.75e-02	54.3	54.3	10.1	10.1	-578.4	3.4	-5.9	-5.956e+04	-1578.1	1752.1
539	ok	0.07	0.5	3.96e-02	54.3	54.3	10.1	10.1	-579.5	2.5	-8.5	-6.849e+04	-1755.1	954.1
540	ok	0.07	0.6	4.01e-02	54.3	54.3	10.1	10.1	-587.5	1.0	-12.6	-7.713e+04	-1981.7	-74.9
541	ok	0.07	0.7	4.16e-02	54.3	54.3	10.1	10.1	-608.3	-1.9	-20.6	-8.570e+04	-2230.2	-1511.8
542	ok	0.07	0.7	4.56e-02	54.3	54.3	10.1	10.1	-664.1	-13.7	-39.5	-9.058e+04	-2568.2	-3278.2
543	ok	0.07	0.7	5.90e-02	54.3	54.3	10.1	10.1	-845.4	-43.3	-109.1	-9.626e+04	-2768.8	-1.179e+04
544	ok	0.07	0.9	6.10e-02	54.3	54.3	10.1	10.1	-871.3	-173.1	-109.1	-9.969e+04	-1.990e+04	-1.223e+04
Nodo		**x/d**	**V N/M**	**ver. rid**	**Af pr-**	**Af pr+**	**Af sec-**	**Af sec+**	**N z**	**N o**	**N zo**	**M z**	**M o**	**M zo**
									-1374.63	-274.39	-140.63	-1.078e+05	-2.153e+04	-1.223e+04
		0.07	0.92	0.11	54.30	54.30	10.05	10.05	-578.35	5.31	113.22	1.963e+04	3970.38	1.085e+04

La verifica a taglio è effettuata per la massima sollecitazione in direzione ortogonale.



La sollecitazione è divisa per la larghezza per avere un valore al metro.
V_{Ed}=3497kN; $v_{Ed}=V_{Ed}/b$=3497/16.45=212.6kN/m
A favore di sicurezza si trascura il contributo positivo alla resistenza dato dallo sforzo normale.

resistenza a taglio di elementi quali solai e piastre, privi di armatura trasversale

V_{Rd} **293.18** kN; pari a 3.9 kg/cm^2 ρ_l = 0.003 ; k = 1.518

VEd<VRd; non è necessaria armatura specifica a taglio

16.2 SLE

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.
In particolare vengono riportati i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

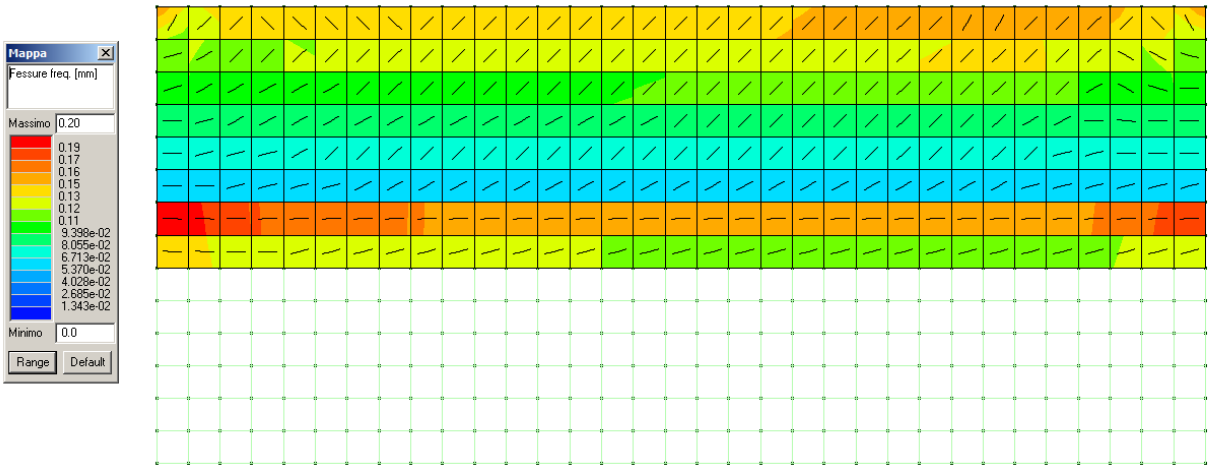
I valori di interesse sono i seguenti:

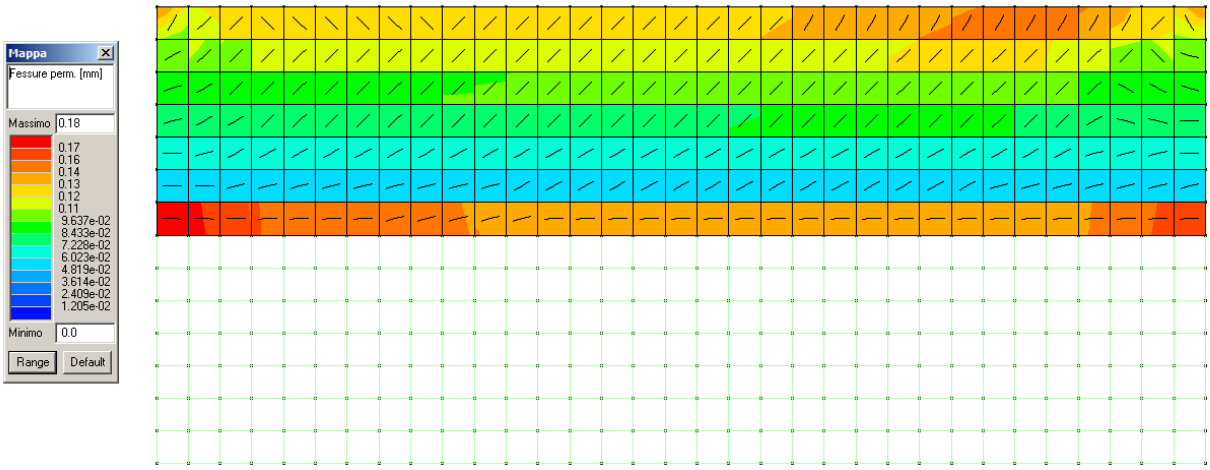
rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare	[*normalizzato a 1*]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare	[*normalizzato a 1*]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti	[*normalizzato a 1*]
wR	apertura caratteristica delle fessure in combinazioni rare	[*mm*]
wF	apertura caratteristica delle fessure in combinazioni frequenti	[*mm*]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti	[*mm*]

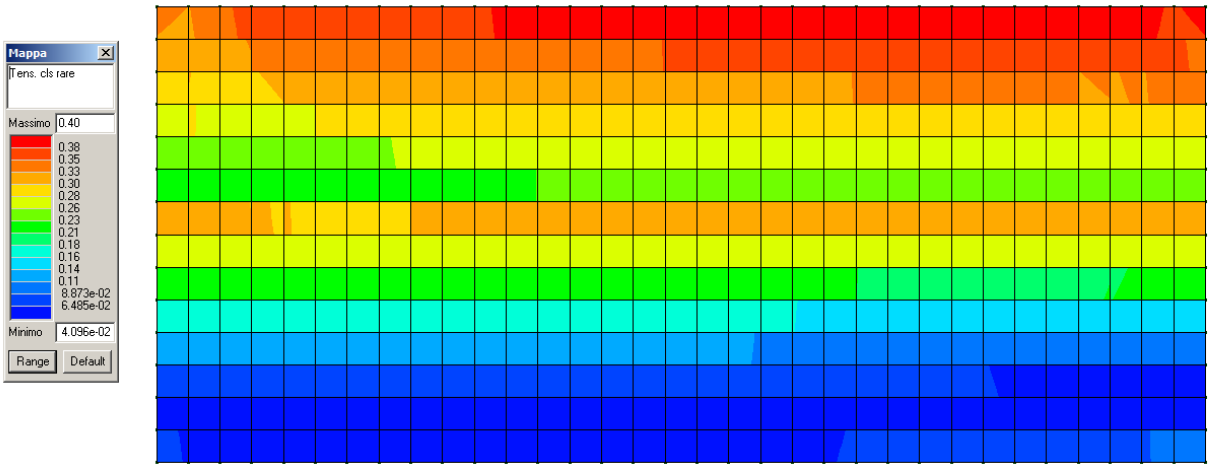
Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

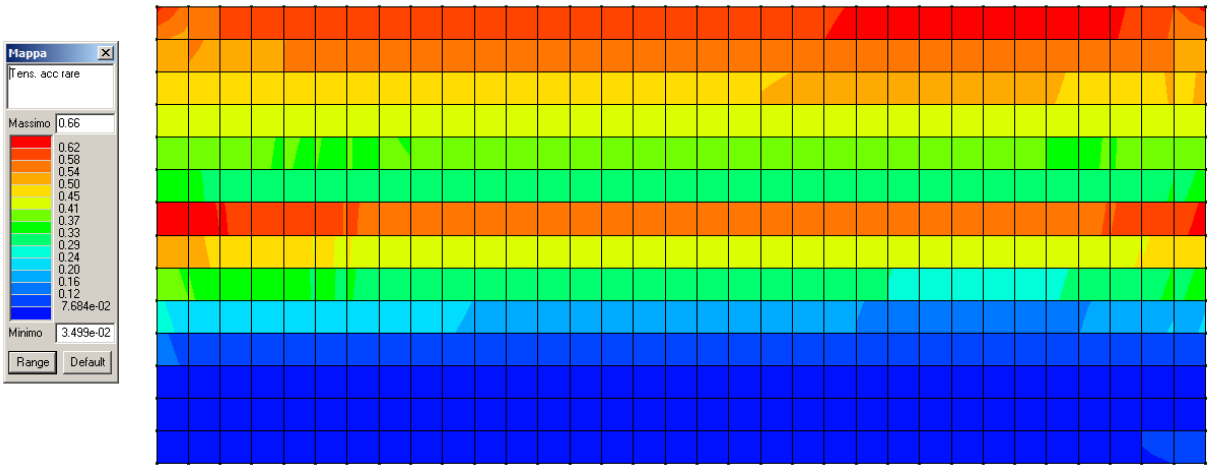
In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

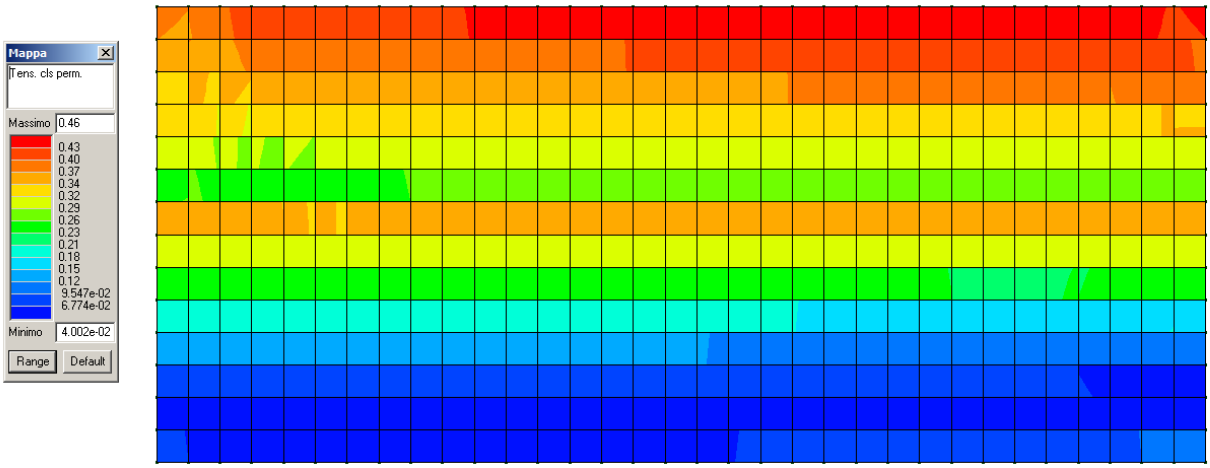
setti e gusci	**rRfck**	**rRfyk**	**rPfck**	massimi nei nodi dell'elemento
	wR	**wF**	**wP**	massimi nei nodi dell'elemento











Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
					mm	mm	
34	0.08	0.06	0.08	323,323,349	0.0	0.0	0,0,0
35	0.06	0.05	0.05	314,314,348	0.0	0.0	0,0,0
36	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
37	0.13	0.13	0.14	314,320,348	0.0	0.0	0,0,0
38	0.18	0.26	0.20	283,328,347	0.0	0.0	0,0,0
39	0.22	0.39	0.25	283,289,347	0.0	0.0	0,0,0
40	0.27	0.53	0.30	285,285,347	0.14	0.0	285,333,0
41	0.31	0.66	0.35	285,285,347	0.20	0.18	285,333,347
42	0.23	0.34	0.26	285,285,347	0.06	0.06	285,333,347
43	0.25	0.39	0.29	285,285,347	0.08	0.07	285,333,347
44	0.28	0.45	0.32	285,285,347	0.09	0.08	285,333,347
45	0.30	0.49	0.34	285,285,347	0.11	0.09	285,333,347
46	0.32	0.52	0.36	285,285,347	0.11	0.10	285,333,347
47	0.34	0.64	0.39	285,285,347	0.16	0.15	285,333,347
48	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
49	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
50	0.09	0.07	0.09	314,314,348	0.0	0.0	0,0,0
51	0.13	0.12	0.14	314,320,348	0.0	0.0	0,0,0
52	0.18	0.24	0.20	283,328,347	0.0	0.0	0,0,0
53	0.22	0.37	0.25	283,289,347	0.0	0.0	0,0,0
54	0.27	0.51	0.30	285,285,347	0.14	0.0	285,333,0
55	0.31	0.65	0.36	285,285,347	0.20	0.17	285,333,347
56	0.23	0.33	0.26	285,285,347	0.06	0.06	285,333,347
57	0.26	0.39	0.29	285,285,347	0.08	0.07	285,333,347
58	0.28	0.45	0.32	285,285,347	0.09	0.08	285,333,347
59	0.30	0.49	0.35	285,285,347	0.11	0.10	285,333,347
60	0.33	0.55	0.37	285,285,347	0.12	0.11	285,333,347
61	0.35	0.58	0.40	285,285,347	0.14	0.12	285,333,347
62	0.06	0.05	0.06	284,284,347	0.0	0.0	0,0,0
63	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
64	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
65	0.13	0.10	0.14	314,320,348	0.0	0.0	0,0,0
66	0.17	0.22	0.19	283,328,347	0.0	0.0	0,0,0
67	0.22	0.36	0.25	283,289,347	0.0	0.0	0,0,0
68	0.26	0.49	0.30	285,289,347	0.13	0.0	289,333,0
69	0.31	0.63	0.35	285,285,347	0.19	0.17	285,333,347
70	0.23	0.33	0.26	285,285,347	0.06	0.05	285,333,347
71	0.25	0.38	0.29	285,285,347	0.08	0.07	285,333,347
72	0.28	0.44	0.32	285,285,347	0.09	0.08	285,333,347
73	0.30	0.49	0.35	285,285,347	0.11	0.10	285,333,347
74	0.33	0.53	0.38	285,285,347	0.12	0.11	285,333,347
75	0.36	0.59	0.41	285,285,347	0.14	0.12	285,333,347
76	0.05	0.04	0.05	284,284,347	0.0	0.0	0,0,0
77	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
78	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
79	0.12	0.10	0.13	314,314,348	0.0	0.0	0,0,0
80	0.17	0.21	0.19	283,328,347	0.0	0.0	0,0,0
81	0.22	0.34	0.25	283,289,347	0.0	0.0	0,0,0
82	0.26	0.48	0.30	285,289,347	0.13	0.0	289,333,0
83	0.31	0.61	0.35	285,285,347	0.18	0.16	285,333,347
84	0.23	0.32	0.26	285,285,347	0.06	0.05	285,333,347
85	0.25	0.38	0.29	285,285,347	0.07	0.07	285,333,347
86	0.28	0.43	0.32	285,285,347	0.09	0.08	285,333,347
87	0.30	0.48	0.35	285,285,347	0.10	0.10	285,333,347
88	0.33	0.54	0.38	285,285,347	0.12	0.11	285,333,347
89	0.37	0.60	0.42	285,285,347	0.14	0.13	285,333,347
90	0.05	0.04	0.05	284,284,347	0.0	0.0	0,0,0
91	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
92	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
93	0.12	0.10	0.13	314,320,348	0.0	0.0	0,0,0
94	0.17	0.21	0.19	283,328,347	0.0	0.0	0,0,0
95	0.21	0.33	0.24	283,289,347	0.0	0.0	0,0,0
96	0.26	0.46	0.30	285,289,347	0.13	0.0	289,333,0
97	0.30	0.60	0.35	285,285,347	0.17	0.15	285,333,347
98	0.23	0.32	0.26	285,285,347	0.06	0.05	285,333,347
99	0.25	0.37	0.29	285,285,347	0.07	0.07	285,333,347
100	0.28	0.43	0.32	285,285,347	0.09	0.08	285,333,347
101	0.31	0.48	0.35	285,285,347	0.10	0.10	285,333,347
102	0.34	0.54	0.39	285,285,347	0.12	0.11	285,333,347
103	0.37	0.61	0.42	285,285,347	0.14	0.13	285,333,347
104	0.05	0.04	0.05	284,284,347	0.0	0.0	0,0,0
105	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
106	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
107	0.12	0.10	0.13	314,320,348	0.0	0.0	0,0,0
108	0.17	0.21	0.19	283,289,347	0.0	0.0	0,0,0
109	0.21	0.33	0.24	283,289,347	0.0	0.0	0,0,0
110	0.26	0.46	0.29	285,289,347	0.13	0.0	289,333,0
111	0.30	0.59	0.35	285,285,347	0.17	0.15	285,333,347
112	0.23	0.32	0.26	285,285,347	0.06	0.05	285,333,347
113	0.25	0.37	0.29	285,285,347	0.07	0.07	285,333,347
114	0.28	0.42	0.32	285,285,347	0.09	0.08	285,333,347
115	0.31	0.48	0.35	285,285,347	0.10	0.10	285,333,347
116	0.34	0.54	0.39	285,285,347	0.12	0.11	285,333,347
117	0.37	0.61	0.42	285,285,347	0.14	0.13	285,333,347
118	0.05	0.04	0.05	284,284,347	0.0	0.0	0,0,0
119	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
120	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
121	0.12	0.11	0.13	314,320,348	0.0	0.0	0,0,0
122	0.17	0.21	0.19	283,289,347	0.0	0.0	0,0,0
123	0.21	0.33	0.24	283,289,347	0.0	0.0	0,0,0
124	0.26	0.45	0.29	285,289,347	0.12	0.0	289,333,0
125	0.30	0.58	0.35	285,289,347	0.16	0.15	285,333,347
126	0.23	0.32	0.26	285,285,347	0.06	0.05	285,333,347
127	0.26	0.37	0.29	285,285,347	0.07	0.07	285,333,347
128	0.28	0.42	0.32	285,285,347	0.09	0.08	285,333,347
129	0.31	0.48	0.36	285,285,347	0.10	0.10	285,333,347
130	0.34	0.54	0.39	285,285,347	0.12	0.11	285,333,347
131	0.37	0.61	0.43	285,285,347	0.14	0.13	285,333,347
132	0.05	0.04	0.05	284,284,347	0.0	0.0	0,0,0
133	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
134	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
135	0.12	0.11	0.13	314,320,348	0.0	0.0	0,0,0
136	0.17	0.21	0.19	283,289,347	0.0	0.0	0,0,0
137	0.21	0.33	0.24	283,289,347	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
138	0.26	0.45	0.29	285,289,347	0.12	0.0	289,333,0
139	0.30	0.58	0.35	285,289,347	0.16	0.15	285,333,347
140	0.23	0.32	0.26	285,289,347	0.06	0.05	285,333,347
141	0.26	0.37	0.29	285,285,347	0.07	0.07	285,333,347
142	0.29	0.42	0.33	285,285,347	0.09	0.08	285,333,347
143	0.31	0.48	0.36	285,285,347	0.10	0.10	285,333,347
144	0.34	0.54	0.39	285,285,347	0.12	0.11	285,333,347
145	0.37	0.61	0.43	285,285,347	0.14	0.13	285,333,347
146	0.05	0.04	0.05	284,284,347	0.0	0.0	0,0,0
147	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
148	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
149	0.12	0.11	0.13	291,320,350	0.0	0.0	0,0,0
150	0.17	0.21	0.19	283,289,347	0.0	0.0	0,0,0
151	0.21	0.32	0.24	283,289,347	0.0	0.0	0,0,0
152	0.26	0.45	0.29	285,289,347	0.12	0.0	289,333,0
153	0.30	0.58	0.35	285,289,347	0.16	0.15	285,333,347
154	0.23	0.32	0.26	285,289,347	0.06	0.05	285,333,347
155	0.26	0.37	0.30	285,285,347	0.07	0.07	285,333,347
156	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
157	0.32	0.48	0.36	285,285,347	0.11	0.10	285,333,347
158	0.34	0.54	0.39	285,285,347	0.12	0.11	285,333,347
159	0.37	0.61	0.43	285,285,347	0.14	0.13	285,333,347
160	0.05	0.05	0.06	284,284,347	0.0	0.0	0,0,0
161	0.06	0.05	0.06	314,314,348	0.0	0.0	0,0,0
162	0.08	0.07	0.09	314,314,348	0.0	0.0	0,0,0
163	0.12	0.10	0.13	283,320,347	0.0	0.0	0,0,0
164	0.17	0.20	0.19	283,289,347	0.0	0.0	0,0,0
165	0.21	0.32	0.24	283,289,347	0.0	0.0	0,0,0
166	0.26	0.45	0.29	285,289,347	0.12	0.0	289,333,0
167	0.31	0.58	0.35	285,289,347	0.16	0.14	285,333,347
168	0.23	0.32	0.26	285,289,347	0.06	0.05	285,333,347
169	0.26	0.37	0.30	285,285,347	0.07	0.07	285,333,347
170	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
171	0.32	0.48	0.36	285,285,347	0.11	0.10	285,333,347
172	0.35	0.54	0.40	285,285,347	0.12	0.11	285,333,347
173	0.37	0.60	0.43	285,285,347	0.14	0.13	285,333,347
174	0.05	0.05	0.06	284,284,347	0.0	0.0	0,0,0
175	0.05	0.05	0.05	314,314,348	0.0	0.0	0,0,0
176	0.08	0.07	0.08	314,314,348	0.0	0.0	0,0,0
177	0.12	0.10	0.13	283,328,347	0.0	0.0	0,0,0
178	0.17	0.20	0.19	283,289,347	0.0	0.0	0,0,0
179	0.21	0.32	0.24	283,289,347	0.0	0.0	0,0,0
180	0.26	0.45	0.30	285,289,347	0.12	0.0	289,333,0
181	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
182	0.23	0.32	0.27	285,289,347	0.06	0.05	285,333,347
183	0.26	0.38	0.30	285,285,347	0.07	0.07	285,333,347
184	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
185	0.32	0.48	0.36	285,285,347	0.11	0.10	285,333,347
186	0.35	0.54	0.40	285,285,347	0.12	0.11	285,333,347
187	0.38	0.60	0.43	285,285,347	0.14	0.13	285,333,347
188	0.06	0.05	0.06	284,284,347	0.0	0.0	0,0,0
189	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
190	0.08	0.07	0.08	314,314,348	0.0	0.0	0,0,0
191	0.12	0.10	0.13	283,328,347	0.0	0.0	0,0,0
192	0.17	0.20	0.19	283,289,347	0.0	0.0	0,0,0
193	0.21	0.32	0.24	283,289,347	0.0	0.0	0,0,0
194	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
195	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
196	0.23	0.32	0.27	285,289,347	0.06	0.05	285,333,347
197	0.26	0.38	0.30	285,285,347	0.07	0.07	285,333,347
198	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
199	0.32	0.48	0.36	285,285,347	0.11	0.10	285,333,347
200	0.35	0.54	0.40	285,285,347	0.12	0.11	285,333,347
201	0.38	0.60	0.43	285,285,347	0.14	0.13	285,333,347
202	0.06	0.05	0.06	284,284,347	0.0	0.0	0,0,0
203	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
204	0.08	0.06	0.08	314,314,348	0.0	0.0	0,0,0
205	0.12	0.09	0.13	283,283,347	0.0	0.0	0,0,0
206	0.17	0.20	0.18	283,289,347	0.0	0.0	0,0,0
207	0.21	0.32	0.24	283,289,347	0.0	0.0	0,0,0
208	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
209	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
210	0.23	0.32	0.27	285,289,347	0.06	0.05	285,333,347

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
211	0.26	0.38	0.30	285,285,347	0.07	0.07	285,333,347
212	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
213	0.32	0.49	0.37	285,285,347	0.11	0.10	285,333,347
214	0.35	0.54	0.40	285,285,347	0.12	0.11	285,333,347
215	0.38	0.60	0.43	285,285,347	0.14	0.13	285,333,347
216	0.06	0.05	0.06	284,284,347	0.0	0.0	0,0,0
217	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
218	0.08	0.06	0.08	314,314,348	0.0	0.0	0,0,0
219	0.12	0.09	0.13	283,283,347	0.0	0.0	0,0,0
220	0.17	0.19	0.18	283,289,347	0.0	0.0	0,0,0
221	0.21	0.31	0.24	283,289,347	0.0	0.0	0,0,0
222	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
223	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
224	0.23	0.32	0.27	285,289,347	0.06	0.05	285,333,347
225	0.26	0.38	0.30	285,285,347	0.07	0.07	285,333,347
226	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
227	0.32	0.49	0.37	285,285,347	0.11	0.10	285,333,347
228	0.35	0.54	0.40	285,285,347	0.12	0.11	285,333,347
229	0.38	0.60	0.43	285,285,347	0.14	0.13	285,333,347
230	0.06	0.05	0.06	284,284,347	0.0	0.0	0,0,0
231	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
232	0.08	0.06	0.08	314,314,348	0.0	0.0	0,0,0
233	0.12	0.09	0.13	283,283,347	0.0	0.0	0,0,0
234	0.16	0.19	0.18	283,289,347	0.0	0.0	0,0,0
235	0.21	0.31	0.24	285,289,347	0.0	0.0	0,0,0
236	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
237	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
238	0.23	0.32	0.27	285,289,347	0.06	0.05	289,333,347
239	0.26	0.38	0.30	285,285,347	0.07	0.07	285,333,347
240	0.29	0.43	0.33	285,285,347	0.09	0.08	285,333,347
241	0.32	0.49	0.37	285,285,347	0.11	0.10	285,333,347
242	0.35	0.55	0.40	285,285,347	0.13	0.11	285,333,347
243	0.38	0.61	0.43	285,285,347	0.14	0.13	285,333,347
244	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
245	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
246	0.08	0.06	0.08	314,314,348	0.0	0.0	0,0,0
247	0.12	0.09	0.13	283,283,347	0.0	0.0	0,0,0
248	0.16	0.18	0.18	283,289,347	0.0	0.0	0,0,0
249	0.21	0.31	0.24	285,289,347	0.0	0.0	0,0,0
250	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
251	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
252	0.23	0.32	0.27	285,289,347	0.06	0.05	289,333,347
253	0.26	0.38	0.30	285,289,347	0.07	0.07	285,333,347
254	0.29	0.43	0.34	285,285,347	0.09	0.08	285,333,347
255	0.32	0.49	0.37	285,285,347	0.11	0.10	285,333,347
256	0.35	0.55	0.40	285,285,347	0.13	0.11	285,333,347
257	0.38	0.61	0.43	285,285,347	0.14	0.13	285,333,347
258	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
259	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
260	0.07	0.06	0.08	314,314,348	0.0	0.0	0,0,0
261	0.12	0.09	0.12	283,283,347	0.0	0.0	0,0,0
262	0.16	0.18	0.18	283,289,347	0.0	0.0	0,0,0
263	0.21	0.31	0.24	285,289,347	0.0	0.0	0,0,0
264	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
265	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
266	0.23	0.32	0.27	285,289,347	0.06	0.05	289,333,347
267	0.26	0.38	0.30	285,289,347	0.07	0.07	285,333,347
268	0.29	0.43	0.34	285,285,347	0.09	0.08	285,333,347
269	0.32	0.49	0.37	285,285,347	0.11	0.10	285,333,347
270	0.35	0.55	0.40	285,285,347	0.13	0.12	285,333,347
271	0.38	0.61	0.44	285,285,347	0.14	0.13	285,333,347
272	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
273	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
274	0.07	0.06	0.08	314,314,348	0.0	0.0	0,0,0
275	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
276	0.16	0.18	0.18	283,289,347	0.0	0.0	0,0,0
277	0.21	0.30	0.24	285,289,347	0.0	0.0	0,0,0
278	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
279	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
280	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
281	0.26	0.38	0.30	285,289,347	0.07	0.07	285,333,347
282	0.29	0.44	0.34	285,285,347	0.09	0.08	285,333,347
283	0.32	0.49	0.37	285,285,347	0.11	0.10	285,333,347

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
284	0.35	0.55	0.40	285,285,347	0.13	0.12	285,333,347
285	0.38	0.61	0.44	285,285,347	0.15	0.13	285,333,347
286	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
287	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
288	0.07	0.06	0.08	314,314,348	0.0	0.0	0,0,0
289	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
290	0.16	0.17	0.18	283,289,347	0.0	0.0	0,0,0
291	0.21	0.30	0.24	285,289,347	0.0	0.0	0,0,0
292	0.26	0.43	0.30	285,289,347	0.12	0.0	289,333,0
293	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
294	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
295	0.27	0.38	0.30	285,289,347	0.07	0.07	285,333,347
296	0.30	0.44	0.34	285,285,347	0.09	0.08	285,333,347
297	0.33	0.50	0.37	285,285,347	0.11	0.10	285,333,347
298	0.35	0.55	0.41	285,285,347	0.13	0.12	285,333,347
299	0.38	0.61	0.44	285,285,347	0.15	0.13	285,333,347
300	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
301	0.05	0.04	0.05	314,314,348	0.0	0.0	0,0,0
302	0.07	0.06	0.08	314,314,348	0.0	0.0	0,0,0
303	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
304	0.16	0.17	0.18	283,289,347	0.0	0.0	0,0,0
305	0.21	0.30	0.24	285,289,347	0.0	0.0	0,0,0
306	0.26	0.43	0.30	285,289,347	0.12	0.0	289,333,0
307	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
308	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
309	0.27	0.38	0.30	285,289,347	0.07	0.07	285,333,347
310	0.30	0.44	0.34	285,285,347	0.09	0.09	285,333,347
311	0.33	0.50	0.37	285,285,347	0.11	0.10	285,333,347
312	0.36	0.56	0.41	285,285,347	0.13	0.12	285,333,347
313	0.39	0.62	0.44	285,285,347	0.15	0.13	285,333,347
314	0.06	0.05	0.07	284,284,347	0.0	0.0	0,0,0
315	0.04	0.04	0.05	314,314,348	0.0	0.0	0,0,0
316	0.07	0.06	0.08	314,314,348	0.0	0.0	0,0,0
317	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
318	0.16	0.17	0.18	283,289,347	0.0	0.0	0,0,0
319	0.21	0.30	0.24	285,289,347	0.0	0.0	0,0,0
320	0.26	0.43	0.30	285,289,347	0.12	0.0	289,333,0
321	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
322	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
323	0.27	0.38	0.30	285,289,347	0.07	0.07	285,333,347
324	0.30	0.44	0.34	285,285,347	0.09	0.09	285,333,347
325	0.33	0.50	0.37	285,285,347	0.11	0.10	285,333,347
326	0.36	0.56	0.41	285,285,347	0.13	0.12	285,333,347
327	0.39	0.62	0.44	285,285,347	0.15	0.14	285,333,347
328	0.07	0.05	0.07	284,284,347	0.0	0.0	0,0,0
329	0.04	0.04	0.04	314,314,348	0.0	0.0	0,0,0
330	0.07	0.06	0.08	283,283,347	0.0	0.0	0,0,0
331	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
332	0.16	0.16	0.18	283,289,347	0.0	0.0	0,0,0
333	0.21	0.29	0.24	285,289,347	0.0	0.0	0,0,0
334	0.26	0.43	0.30	285,289,347	0.12	0.0	289,333,0
335	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
336	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
337	0.27	0.39	0.31	285,289,347	0.07	0.07	285,333,347
338	0.30	0.44	0.34	285,285,347	0.09	0.09	285,333,347
339	0.33	0.50	0.37	285,285,347	0.11	0.10	285,333,347
340	0.36	0.56	0.41	285,285,347	0.13	0.12	285,333,347
341	0.39	0.62	0.44	285,285,347	0.15	0.14	285,333,347
342	0.07	0.05	0.07	284,284,347	0.0	0.0	0,0,0
343	0.04	0.04	0.04	314,314,348	0.0	0.0	0,0,0
344	0.07	0.06	0.08	283,283,347	0.0	0.0	0,0,0
345	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
346	0.16	0.16	0.18	283,289,347	0.0	0.0	0,0,0
347	0.21	0.29	0.24	285,289,347	0.0	0.0	0,0,0
348	0.26	0.43	0.29	285,289,347	0.12	0.0	289,333,0
349	0.31	0.56	0.35	285,289,347	0.16	0.14	289,333,347
350	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
351	0.27	0.39	0.31	285,285,347	0.07	0.07	285,333,347
352	0.30	0.45	0.34	285,285,347	0.09	0.09	285,333,347
353	0.33	0.51	0.38	285,285,347	0.11	0.10	285,333,347
354	0.36	0.57	0.41	285,285,347	0.13	0.12	285,333,347
355	0.39	0.63	0.45	285,285,347	0.15	0.14	285,333,347
356	0.07	0.05	0.07	284,284,347	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
357	0.04	0.04	0.04	314,314,348	0.0	0.0	0,0,0
358	0.07	0.06	0.07	283,283,347	0.0	0.0	0,0,0
359	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
360	0.16	0.16	0.18	283,289,347	0.0	0.0	0,0,0
361	0.21	0.29	0.24	285,289,347	0.0	0.0	0,0,0
362	0.26	0.42	0.29	285,289,347	0.12	0.0	289,0,0
363	0.31	0.56	0.35	285,289,347	0.16	0.14	289,333,347
364	0.24	0.33	0.27	285,289,347	0.06	0.05	289,333,347
365	0.27	0.39	0.31	285,285,347	0.07	0.07	285,333,347
366	0.30	0.45	0.34	285,285,347	0.09	0.09	285,333,347
367	0.33	0.51	0.38	285,285,347	0.11	0.10	285,333,347
368	0.36	0.57	0.41	285,285,347	0.13	0.12	285,333,347
369	0.39	0.63	0.45	285,285,347	0.15	0.14	285,333,347
370	0.07	0.06	0.07	284,284,347	0.0	0.0	0,0,0
371	0.04	0.04	0.04	284,284,348	0.0	0.0	0,0,0
372	0.07	0.06	0.07	283,283,347	0.0	0.0	0,0,0
373	0.11	0.09	0.12	283,283,347	0.0	0.0	0,0,0
374	0.16	0.16	0.17	283,289,347	0.0	0.0	0,0,0
375	0.21	0.28	0.23	285,289,347	0.0	0.0	0,0,0
376	0.26	0.42	0.29	285,289,347	0.12	0.0	289,0,0
377	0.31	0.56	0.35	285,289,347	0.16	0.14	289,333,347
378	0.24	0.32	0.27	285,289,347	0.06	0.05	289,333,347
379	0.27	0.38	0.31	285,285,347	0.07	0.07	285,333,347
380	0.30	0.45	0.34	285,285,347	0.09	0.09	285,333,347
381	0.33	0.51	0.38	285,285,347	0.11	0.10	285,333,347
382	0.36	0.57	0.41	285,285,347	0.14	0.12	285,333,347
383	0.39	0.64	0.45	285,285,347	0.16	0.15	285,333,347
384	0.07	0.06	0.07	284,284,347	0.0	0.0	0,0,0
385	0.04	0.04	0.04	284,284,348	0.0	0.0	0,0,0
386	0.07	0.05	0.07	283,283,347	0.0	0.0	0,0,0
387	0.11	0.08	0.11	283,283,347	0.0	0.0	0,0,0
388	0.16	0.15	0.17	283,287,347	0.0	0.0	0,0,0
389	0.21	0.28	0.23	285,289,347	0.0	0.0	0,0,0
390	0.26	0.42	0.29	285,289,347	0.11	0.0	285,0,0
391	0.31	0.56	0.35	285,289,347	0.15	0.14	289,333,347
392	0.24	0.32	0.27	285,289,347	0.06	0.05	289,333,347
393	0.27	0.38	0.31	285,285,347	0.07	0.07	285,333,347
394	0.30	0.44	0.34	285,285,347	0.09	0.09	285,333,347
395	0.33	0.51	0.38	285,285,347	0.11	0.10	285,333,347
396	0.36	0.57	0.41	285,285,347	0.14	0.12	285,333,347
397	0.40	0.64	0.45	285,285,347	0.16	0.15	285,333,347
398	0.07	0.06	0.07	284,284,347	0.0	0.0	0,0,0
399	0.04	0.04	0.04	315,315,348	0.0	0.0	0,0,0
400	0.07	0.05	0.07	283,283,347	0.0	0.0	0,0,0
401	0.10	0.08	0.11	283,283,347	0.0	0.0	0,0,0
402	0.15	0.15	0.17	283,287,347	0.0	0.0	0,0,0
403	0.21	0.28	0.23	285,289,347	0.0	0.0	0,0,0
404	0.26	0.42	0.29	285,289,347	0.11	0.0	285,0,0
405	0.31	0.56	0.35	285,289,347	0.16	0.14	289,333,347
406	0.24	0.31	0.27	285,289,347	0.05	0.05	289,333,347
407	0.27	0.38	0.30	285,285,347	0.07	0.07	285,333,347
408	0.30	0.44	0.34	285,285,347	0.09	0.09	285,333,347
409	0.33	0.51	0.38	285,285,347	0.11	0.10	285,333,347
410	0.36	0.57	0.42	285,285,347	0.14	0.12	285,333,347
411	0.40	0.65	0.45	285,285,347	0.16	0.15	285,333,347
412	0.07	0.06	0.08	284,284,347	0.0	0.0	0,0,0
413	0.04	0.04	0.04	315,315,348	0.0	0.0	0,0,0
414	0.06	0.05	0.07	283,283,347	0.0	0.0	0,0,0
415	0.10	0.08	0.11	283,283,347	0.0	0.0	0,0,0
416	0.15	0.16	0.17	283,287,347	0.0	0.0	0,0,0
417	0.21	0.28	0.23	285,289,347	0.0	0.0	0,0,0
418	0.26	0.42	0.29	285,289,347	0.12	0.0	289,0,0
419	0.31	0.56	0.35	285,289,347	0.16	0.14	289,333,347
420	0.24	0.31	0.27	285,289,347	0.05	0.05	289,333,347
421	0.27	0.37	0.31	285,285,347	0.07	0.07	285,333,347
422	0.30	0.43	0.34	285,285,347	0.09	0.08	285,333,347
423	0.33	0.50	0.38	285,285,347	0.11	0.10	285,333,347
424	0.36	0.57	0.41	285,285,347	0.14	0.12	285,333,347
425	0.40	0.65	0.46	285,285,347	0.16	0.15	285,333,347
426	0.07	0.06	0.08	284,284,347	0.0	0.0	0,0,0
427	0.05	0.04	0.05	315,315,348	0.0	0.0	0,0,0
428	0.06	0.05	0.07	283,283,347	0.0	0.0	0,0,0
429	0.10	0.08	0.11	283,283,347	0.0	0.0	0,0,0

Setto	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
430	0.16	0.16	0.17	283,287,347	0.0	0.0	0,0,0
431	0.21	0.29	0.24	285,289,347	0.0	0.0	0,0,0
432	0.26	0.43	0.30	285,289,347	0.12	0.0	289,333,0
433	0.31	0.57	0.35	285,289,347	0.16	0.14	289,333,347
434	0.24	0.31	0.27	285,289,347	0.06	0.05	289,333,347
435	0.27	0.37	0.31	285,285,347	0.07	0.07	285,333,347
436	0.30	0.43	0.34	285,285,347	0.09	0.08	285,333,347
437	0.33	0.50	0.38	285,285,347	0.11	0.10	285,333,347
438	0.36	0.57	0.41	285,285,347	0.13	0.12	285,333,347
439	0.40	0.65	0.46	285,285,347	0.16	0.15	285,333,347
440	0.08	0.06	0.09	288,288,347	0.0	0.0	0,0,0
441	0.05	0.04	0.05	315,315,348	0.0	0.0	0,0,0
442	0.06	0.05	0.07	283,283,347	0.0	0.0	0,0,0
443	0.10	0.08	0.11	283,283,347	0.0	0.0	0,0,0
444	0.16	0.17	0.17	283,287,347	0.0	0.0	0,0,0
445	0.21	0.30	0.24	285,289,347	0.0	0.0	0,0,0
446	0.26	0.44	0.30	285,289,347	0.12	0.0	289,333,0
447	0.31	0.58	0.36	285,289,347	0.17	0.15	289,333,347
448	0.24	0.31	0.27	285,289,347	0.06	0.05	289,333,347
449	0.27	0.37	0.31	285,285,347	0.07	0.07	285,333,347
450	0.30	0.43	0.34	285,285,347	0.09	0.08	285,333,347
451	0.33	0.49	0.38	285,285,347	0.11	0.10	285,333,347
452	0.36	0.56	0.41	285,285,347	0.13	0.12	285,333,347
453	0.40	0.64	0.46	285,285,347	0.16	0.15	285,333,347
454	0.09	0.07	0.10	288,289,347	0.0	0.0	0,0,0
455	0.05	0.05	0.05	315,289,348	0.0	0.0	0,0,0
456	0.06	0.05	0.07	283,283,347	0.0	0.0	0,0,0
457	0.10	0.08	0.11	283,283,347	0.0	0.0	0,0,0
458	0.16	0.18	0.18	283,287,347	0.0	0.0	0,0,0
459	0.21	0.32	0.24	285,289,347	0.0	0.0	0,0,0
460	0.26	0.46	0.30	285,289,347	0.13	0.0	289,333,0
461	0.32	0.60	0.36	285,289,347	0.17	0.16	289,333,347
462	0.24	0.32	0.27	285,285,347	0.06	0.05	285,333,347
463	0.27	0.38	0.31	285,285,347	0.07	0.07	285,333,347
464	0.30	0.44	0.34	285,285,347	0.09	0.08	285,333,347
465	0.33	0.49	0.38	285,285,347	0.11	0.09	285,333,347
466	0.36	0.55	0.41	285,285,347	0.12	0.11	285,333,347
467	0.40	0.63	0.45	285,285,347	0.15	0.14	285,333,347
468	0.10	0.10	0.11	289,289,347	0.0	0.0	0,0,0
469	0.06	0.07	0.06	315,289,348	0.0	0.0	0,0,0
470	0.06	0.05	0.07	283,283,347	0.0	0.0	0,0,0
471	0.11	0.09	0.11	283,287,347	0.0	0.0	0,0,0
472	0.16	0.21	0.18	283,287,347	0.0	0.0	0,0,0
473	0.21	0.34	0.24	285,289,347	0.0	0.0	0,0,0
474	0.27	0.48	0.30	285,289,347	0.13	0.0	289,333,0
475	0.32	0.62	0.36	285,289,347	0.18	0.16	289,333,347
476	0.24	0.33	0.28	285,285,347	0.06	0.06	285,333,347
477	0.27	0.39	0.31	285,285,347	0.08	0.07	285,333,347
478	0.30	0.45	0.35	285,285,347	0.09	0.08	285,333,347
479	0.33	0.50	0.38	285,285,347	0.11	0.10	285,333,347
480	0.36	0.55	0.42	285,285,347	0.13	0.11	285,333,347
481	0.39	0.61	0.44	285,285,347	0.14	0.13	285,333,347
482	0.10	0.09	0.12	284,289,347	0.0	0.0	0,0,0
483	0.06	0.05	0.06	315,289,348	0.0	0.0	0,0,0
484	0.06	0.05	0.06	283,283,347	0.0	0.0	0,0,0
485	0.10	0.10	0.11	283,287,347	0.0	0.0	0,0,0
486	0.16	0.21	0.18	283,287,347	0.0	0.0	0,0,0
487	0.21	0.34	0.24	285,287,347	0.0	0.0	0,0,0
488	0.27	0.48	0.30	285,289,347	0.13	0.0	289,333,0
489	0.32	0.63	0.36	285,289,347	0.19	0.17	289,333,347
490	0.24	0.33	0.28	285,285,347	0.06	0.06	285,333,347
491	0.27	0.39	0.31	285,285,347	0.08	0.07	285,333,347
492	0.30	0.45	0.35	285,285,347	0.09	0.08	285,333,347
493	0.33	0.50	0.38	285,285,347	0.11	0.09	285,333,347
494	0.36	0.54	0.41	285,285,347	0.12	0.10	285,333,347
495	0.39	0.64	0.45	285,285,347	0.16	0.15	285,333,347

17 Verifica delle fondazioni

17.1 SLU

Si produce una tabella nella quale vengono riportati per ogni macroelemento il numero dello stesso ed il codice di verifica.

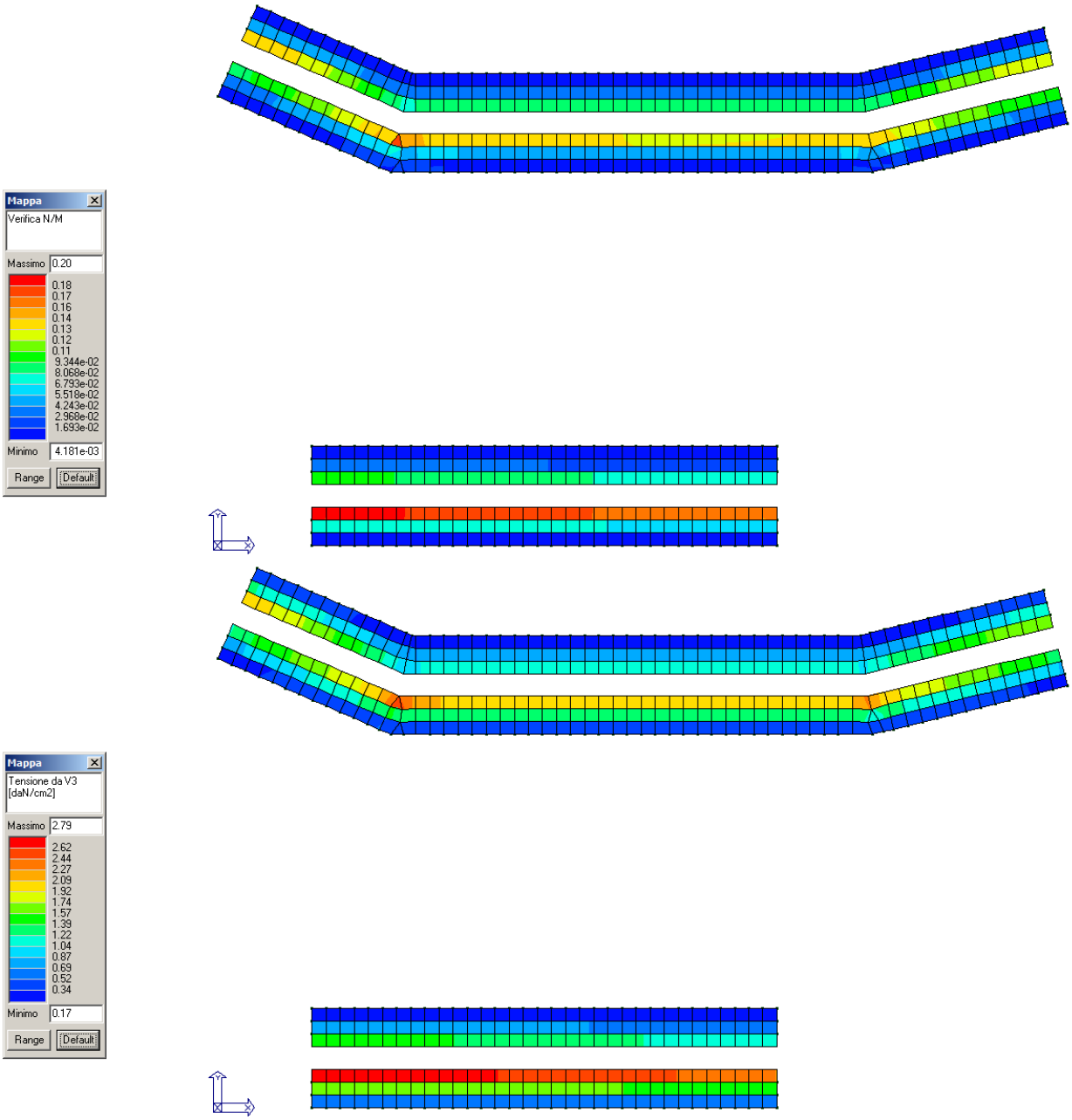
Vengono riportati il rapporto x/d, la verifica per sollecitazioni ultime e la verifica per compressione media con l'indicazione delle due combinazioni in cui si sono attinti i rispettivi valori.

Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

Per ogni elemento viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso (diametri in mm, passi in cm). Le quantità di armature necessarie sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

In particolare i simboli utilizzati assumono il seguente significato:

Nodo		numero del nodo
x/d		rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
verif.		rapporto Sd/Su con sollecitazioni ultime: valore minore o uguale a 1 per verifica positiva
Ver.rd		rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd): valore minore o uguale a 1 per verifica positiva
Af pr-		quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr+		quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	**Af sec+**	valori analoghi a quelli soprariportati ma relativi alla armatura secondaria
N	**M**	azioni membranali e flessionali (in direzione dell'armatura principale e secondaria) estratte, poiché rappresentative, tra quelle utilizzate per il progetto e la verifica



Suola setto sud-est

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
5	150.00	4	2	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
579	ok	0.03	0.2	4.12e-03	10.1	10.1	22.6	22.6	-7.4	-36.7	-2.9	-4937.0	-2.476e+04	2002.1
580	ok	0.03	0.2	3.10e-03	10.1	10.1	22.6	22.6	-9.1	-45.2	-2.9	-4844.4	-2.430e+04	680.4
581	ok	0.03	0.2	3.03e-03	10.1	10.1	22.6	22.6	-9.6	-47.6	-5.9	-4860.0	-2.441e+04	203.5
582	ok	0.03	0.2	3.00e-03	10.1	10.1	22.6	22.6	-10.0	-48.4	-7.1	-4840.9	-2.436e+04	4.0
583	ok	0.03	0.2	3.00e-03	10.1	10.1	22.6	22.6	-10.2	-48.8	-7.6	-4813.4	-2.426e+04	-92.5
584	ok	0.03	0.2	3.01e-03	10.1	10.1	22.6	22.6	-10.4	-49.1	-7.8	-4781.1	-2.413e+04	-141.9
585	ok	0.03	0.2	3.01e-03	10.1	10.1	22.6	22.6	-10.6	-49.4	-7.9	-4747.7	-2.400e+04	-168.0
586	ok	0.03	0.2	3.02e-03	10.1	10.1	22.6	22.6	-10.8	-49.7	-7.9	-4715.3	-2.386e+04	-182.4
587	ok	0.03	0.2	3.03e-03	10.1	10.1	22.6	22.6	-10.9	-50.1	-7.9	-4681.6	-2.373e+04	-195.6
588	ok	0.03	0.2	3.04e-03	10.1	10.1	22.6	22.6	-11.0	-50.5	-7.8	-4653.9	-2.360e+04	-202.1
589	ok	0.03	0.2	3.05e-03	10.1	10.1	22.6	22.6	-11.1	-50.9	-7.7	-4627.8	-2.348e+04	-207.7
590	ok	0.03	0.2	3.06e-03	10.1	10.1	22.6	22.6	-11.2	-51.3	-7.6	-4602.9	-2.335e+04	-212.8
591	ok	0.03	0.2	3.07e-03	10.1	10.1	22.6	22.6	-11.2	-51.6	-7.5	-4579.0	-2.324e+04	-217.4
592	ok	0.03	0.2	3.08e-03	10.1	10.1	22.6	22.6	-11.2	-52.0	-7.4	-4555.6	-2.312e+04	-221.3

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
593	ok	0.03	0.2	3.09e-03	10.1	10.1	22.6	22.6	-11.3	-52.4	-7.2	-4532.8	-2.300e+04	-224.5
594	ok	0.03	0.2	3.10e-03	10.1	10.1	22.6	22.6	-11.3	-52.7	-7.1	-4510.2	-2.288e+04	-226.9
595	ok	0.03	0.2	3.11e-03	10.1	10.1	22.6	22.6	-11.4	-53.1	-6.9	-4487.7	-2.276e+04	-228.4
596	ok	0.03	0.2	3.11e-03	10.1	10.1	22.6	22.6	-11.4	-53.5	-6.7	-4465.5	-2.265e+04	-229.1
597	ok	0.03	0.2	3.12e-03	10.1	10.1	22.6	22.6	-11.5	-53.8	-6.6	-4443.3	-2.253e+04	-228.9
598	ok	0.03	0.2	3.13e-03	10.1	10.1	22.6	22.6	-11.5	-54.2	-6.4	-4421.1	-2.241e+04	-227.9
599	ok	0.03	0.2	3.13e-03	10.1	10.1	22.6	22.6	-11.5	-54.5	-6.3	-4399.1	-2.229e+04	-226.1
600	ok	0.03	0.2	3.14e-03	10.1	10.1	22.6	22.6	-11.6	-54.8	-6.1	-4377.3	-2.218e+04	-223.3
601	ok	0.03	0.2	3.15e-03	10.1	10.1	22.6	22.6	-11.6	-55.2	-6.0	-4355.8	-2.206e+04	-219.5
602	ok	0.03	0.2	3.15e-03	10.1	10.1	22.6	22.6	-11.7	-55.5	-5.9	-4334.8	-2.194e+04	-214.4
603	ok	0.03	0.2	3.16e-03	10.1	10.1	22.6	22.6	-11.7	-55.8	-5.9	-4314.6	-2.183e+04	-207.9
604	ok	0.03	0.2	3.17e-03	10.1	10.1	22.6	22.6	-11.7	-56.1	-5.9	-4295.6	-2.172e+04	-200.1
605	ok	0.03	0.2	3.18e-03	10.1	10.1	22.6	22.6	-11.7	-56.4	-6.0	-4277.9	-2.162e+04	-191.7
606	ok	0.03	0.2	3.19e-03	10.1	10.1	22.6	22.6	-11.7	-56.7	-6.1	-4261.8	-2.153e+04	-184.7
607	ok	0.03	0.2	3.19e-03	10.1	10.1	22.6	22.6	-11.6	-56.9	-6.3	-4246.8	-2.144e+04	-184.2
608	ok	0.03	0.2	3.20e-03	10.1	10.1	22.6	22.6	-11.7	-57.2	-6.3	-4227.9	-2.134e+04	-203.5
609	ok	0.03	0.2	3.23e-03	10.1	10.1	22.6	22.6	-13.8	-67.6	-10.1	-4244.5	-2.138e+04	-153.6
610	ok	0.03	0.2	3.34e-03	10.1	10.1	22.6	22.6	-13.9	-69.2	-10.4	-4242.7	-2.136e+04	-304.4
611	ok	0.03	0.2	3.60e-03	10.1	10.1	22.6	22.6	-14.5	-72.6	-11.1	-4216.6	-2.120e+04	-700.4
612	ok	0.03	0.2	5.35e-03	10.1	10.1	22.6	22.6	-17.8	-89.4	-11.8	-4316.1	-2.166e+04	-1840.0
647	ok	0.03	0.2	4.01e-03	10.1	10.1	22.6	22.6	-1.6	-35.6	-2.9	-1955.2	-2.417e+04	1834.9
648	ok	0.03	0.2	3.05e-03	10.1	10.1	22.6	22.6	-6.4	-44.7	-5.9	-3755.9	-2.408e+04	723.3
649	ok	0.03	7.07e-02	1.77e-03	10.1	10.1	22.6	22.6	-2.4	-24.2	-2.8	-787.9	-9033.6	-601.4
650	ok	0.03	7.73e-02	1.93e-03	10.1	10.1	22.6	22.6	-3.0	-27.3	-2.8	-978.0	-9984.2	256.9
651	ok	0.03	1.58e-02	5.89e-04	10.1	10.1	22.6	22.6	-2.3	-9.3	-0.7	-21.8	-1943.8	-259.2
652	ok	0.03	1.59e-02	7.20e-04	10.1	10.1	22.6	22.6	-4.0	-9.4	-1.9	199.5	-1985.9	-226.4
653	ok	0.03	0.2	3.01e-03	10.1	10.1	22.6	22.6	-8.8	-47.4	-7.1	-4406.3	-2.432e+04	182.8
654	ok	0.03	7.49e-02	1.83e-03	10.1	10.1	22.6	22.6	-5.9	-29.1	-4.7	-1330.5	-9696.2	22.0
655	ok	0.03	1.62e-02	7.63e-04	10.1	10.1	22.6	22.6	-3.8	-10.0	-1.9	207.5	-2070.1	-50.2
656	ok	0.03	0.2	3.00e-03	10.1	10.1	22.6	22.6	-10.1	-48.4	-7.6	-4623.4	-2.431e+04	-34.1
657	ok	0.03	7.45e-02	1.82e-03	10.1	10.1	22.6	22.6	-6.9	-29.4	-4.8	-1581.4	-9643.7	-56.1
658	ok	0.03	1.56e-02	7.60e-04	10.1	10.1	22.6	22.6	-3.8	-10.0	-1.9	231.3	-1951.4	-56.1
659	ok	0.03	0.2	3.00e-03	10.1	10.1	22.6	22.6	-10.8	-48.9	-7.8	-4704.9	-2.424e+04	-142.0
660	ok	0.03	7.42e-02	1.82e-03	10.1	10.1	22.6	22.6	-7.6	-29.5	-4.8	-1718.9	-9599.0	-115.9
661	ok	0.03	1.56e-02	6.61e-04	10.1	10.1	22.6	22.6	-4.3	-10.0	-1.6	-181.1	-1990.0	-61.2
662	ok	0.03	0.2	3.01e-03	10.1	10.1	22.6	22.6	-11.3	-49.2	-7.9	-4727.3	-2.412e+04	-195.7
663	ok	0.03	7.38e-02	1.82e-03	10.1	10.1	22.6	22.6	-8.1	-29.7	-4.8	-1787.1	-9554.5	-151.1
664	ok	0.03	1.55e-02	6.20e-04	10.1	10.1	22.6	22.6	-4.8	-10.0	-1.6	-265.4	-1975.1	-72.6
665	ok	0.03	0.2	3.02e-03	10.1	10.1	22.6	22.6	-11.6	-49.6	-7.9	-4721.0	-2.399e+04	-222.0
666	ok	0.03	7.34e-02	1.82e-03	10.1	10.1	22.6	22.6	-8.5	-29.9	-4.8	-1811.8	-9502.9	-167.4
667	ok	0.03	1.54e-02	6.24e-04	10.1	10.1	22.6	22.6	-5.3	-10.1	-1.6	-301.4	-1962.1	-77.2
668	ok	0.03	0.2	3.04e-03	10.1	10.1	22.6	22.6	-11.9	-50.0	-7.9	-4700.7	-2.386e+04	-234.7
669	ok	0.03	7.30e-02	1.83e-03	10.1	10.1	22.6	22.6	-8.8	-30.1	-4.8	-1814.0	-9449.9	-174.6
670	ok	0.03	1.53e-02	6.29e-04	10.1	10.1	22.6	22.6	-5.7	-10.1	-1.6	-313.3	-1949.9	-79.0
671	ok	0.03	0.2	3.05e-03	10.1	10.1	22.6	22.6	-12.1	-50.3	-7.9	-4675.0	-2.373e+04	-241.7
672	ok	0.03	7.26e-02	1.84e-03	10.1	10.1	22.6	22.6	-9.0	-30.3	-4.8	-1806.3	-9398.0	-178.4
673	ok	0.03	1.52e-02	6.33e-04	10.1	10.1	22.6	22.6	-6.0	-10.2	-1.6	-314.6	-1938.8	-80.2
674	ok	0.03	0.2	3.06e-03	10.1	10.1	22.6	22.6	-12.2	-50.7	-7.8	-4648.2	-2.360e+04	-246.8
675	ok	0.03	7.22e-02	1.85e-03	10.1	10.1	22.6	22.6	-9.2	-30.5	-4.8	-1795.5	-9348.0	-181.2
676	ok	0.03	1.51e-02	6.37e-04	10.1	10.1	22.6	22.6	-6.1	-10.3	-1.6	-312.2	-1928.5	-81.3
677	ok	0.03	0.2	3.07e-03	10.1	10.1	22.6	22.6	-12.3	-51.1	-7.7	-4622.1	-2.347e+04	-251.3
678	ok	0.03	7.18e-02	1.85e-03	10.1	10.1	22.6	22.6	-9.3	-30.7	-4.8	-1786.0	-9300.2	-182.4
679	ok	0.03	1.50e-02	6.40e-04	10.1	10.1	22.6	22.6	-6.3	-10.3	-1.6	-309.2	-1918.8	-82.5
680	ok	0.03	0.2	3.08e-03	10.1	10.1	22.6	22.6	-12.4	-51.5	-7.6	-4597.3	-2.335e+04	-255.8
681	ok	0.03	7.15e-02	1.86e-03	10.1	10.1	22.6	22.6	-9.4	-31.0	-4.7	-1774.7	-9253.3	-186.9
682	ok	0.03	1.50e-02	6.43e-04	10.1	10.1	22.6	22.6	-6.3	-10.4	-1.6	-306.8	-1909.5	-83.8
683	ok	0.03	0.2	3.09e-03	10.1	10.1	22.6	22.6	-12.5	-51.9	-7.5	-4573.7	-2.323e+04	-260.0
684	ok	0.03	7.11e-02	1.86e-03	10.1	10.1	22.6	22.6	-9.5	-31.2	-4.6	-1765.9	-9207.5	-189.7
685	ok	0.03	1.49e-02	6.44e-04	10.1	10.1	22.6	22.6	-6.3	-10.5	-1.6	-305.3	-1900.4	-85.0
686	ok	0.03	0.2	3.10e-03	10.1	10.1	22.6	22.6	-12.5	-52.3	-7.4	-4551.1	-2.312e+04	-263.8
687	ok	0.03	7.08e-02	1.87e-03	10.1	10.1	22.6	22.6	-9.5	-31.4	-4.5	-1758.2	-9162.2	-192.3
688	ok	0.03	1.48e-02	6.46e-04	10.1	10.1	22.6	22.6	-6.3	-10.5	-1.6	-304.7	-1891.5	-86.2
689	ok	0.03	0.2	3.11e-03	10.1	10.1	22.6	22.6	-12.6	-52.6	-7.2	-4529.2	-2.300e+04	-267.0
690	ok	0.03	7.04e-02	1.88e-03	10.1	10.1	22.6	22.6	-9.5	-31.6	-4.5	-1751.2	-9117.2	-194.4
691	ok	0.03	1.48e-02	6.47e-04	10.1	10.1	22.6	22.6	-6.3	-10.6	-1.5	-304.8	-1882.5	-87.1
692	ok	0.03	0.2	3.11e-03	10.1	10.1	22.6	22.6	-12.6	-53.0	-7.1	-4507.7	-2.288e+04	-269.4
693	ok	0.03	7.00e-02	1.88e-03	10.1	10.1	22.6	22.6	-9.5	-31.8	-4.4	-1744.7	-9072.2	-196.1
694	ok	0.03	1.47e-02	6.49e-04	10.1	10.1	22.6	22.6	-6.2	-10.7	-1.5	-305.3	-1873.6	-87.7
695	ok	0.03	0.2	3.12e-03	10.1	10.1	22.6	22.6	-12.6	-53.4	-6.9	-4486.5	-2.276e+04	-271.0
696	ok	0.03	6.97e-02	1.88e-03	10.1	10.1	22.6	22.6	-9.5	-32.1	-4.3	-1738.5	-9027.3	-197.2
697	ok	0.03	1.46e-02	6.49e-04	10.1	10.1	22.6	22.6	-6.1	-10.8	-1.5	-306.1	-1864.6	-88.1
698	ok	0.03	0.2	3.13e-03	10.1	10.1	22.6	22.6	-12.7	-53.7	-6.7	-4465.4	-2.265e+04	-271.7
699	ok	0.03	6.93e-02	1.89e-03	10.1	10.1	22.6	22.6	-9.4	-32.3	-4.2	-1732.4	-8982.2	-197.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
700	ok	0.03	1.45e-02	6.50e-04	10.1	10.1	22.6	22.6	-6.1	-10.8	-1.4	-307.2	-1855.6	-88.2
701	ok	0.03	0.2	3.14e-03	10.1	10.1	22.6	22.6	-12.7	-54.1	-6.6	-4444.4	-2.253e+04	-271.6
702	ok	0.03	6.90e-02	1.89e-03	10.1	10.1	22.6	22.6	-9.4	-32.5	-4.1	-1726.6	-8937.2	-197.6
703	ok	0.03	1.45e-02	6.51e-04	10.1	10.1	22.6	22.6	-6.0	-10.9	-1.4	-308.4	-1846.6	-88.1
704	ok	0.03	0.2	3.14e-03	10.1	10.1	22.6	22.6	-12.7	-54.4	-6.4	-4423.7	-2.241e+04	-270.6
705	ok	0.03	6.86e-02	1.90e-03	10.1	10.1	22.6	22.6	-9.3	-32.7	-4.0	-1721.1	-8892.1	-196.8
706	ok	0.03	1.44e-02	6.51e-04	10.1	10.1	22.6	22.6	-5.9	-11.0	-1.4	-310.0	-1837.6	-87.7
707	ok	0.03	0.2	3.15e-03	10.1	10.1	22.6	22.6	-12.7	-54.7	-6.3	-4403.4	-2.229e+04	-268.7
708	ok	0.03	6.83e-02	1.90e-03	10.1	10.1	22.6	22.6	-9.3	-32.9	-3.9	-1716.1	-8847.1	-195.4
709	ok	0.03	1.44e-02	6.52e-04	10.1	10.1	22.6	22.6	-5.7	-11.0	-1.4	-312.0	-1828.7	-87.0
710	ok	0.03	0.2	3.15e-03	10.1	10.1	22.6	22.6	-12.7	-55.1	-6.1	-4383.6	-2.218e+04	-265.6
711	ok	0.03	6.79e-02	1.90e-03	10.1	10.1	22.6	22.6	-9.2	-33.1	-3.8	-1711.8	-8802.3	-193.2
712	ok	0.03	1.43e-02	6.53e-04	10.1	10.1	22.6	22.6	-5.6	-11.1	-1.3	-314.7	-1819.8	-85.9
713	ok	0.03	0.2	3.16e-03	10.1	10.1	22.6	22.6	-12.6	-55.4	-6.0	-4364.6	-2.206e+04	-261.1
714	ok	0.03	6.76e-02	1.91e-03	10.1	10.1	22.6	22.6	-9.0	-33.3	-3.8	-1708.4	-8758.1	-189.8
715	ok	0.03	1.42e-02	6.53e-04	10.1	10.1	22.6	22.6	-5.4	-11.1	-1.3	-318.0	-1811.0	-84.3
716	ok	0.03	0.2	3.17e-03	10.1	10.1	22.6	22.6	-12.5	-55.7	-5.9	-4346.5	-2.195e+04	-255.0
717	ok	0.03	6.72e-02	1.91e-03	10.1	10.1	22.6	22.6	-8.9	-33.4	-3.7	-1705.8	-8714.6	-185.2
718	ok	0.03	1.42e-02	6.54e-04	10.1	10.1	22.6	22.6	-5.1	-11.2	-1.3	-321.9	-1802.4	-81.9
719	ok	0.03	0.2	3.17e-03	10.1	10.1	22.6	22.6	-12.4	-56.0	-5.9	-4328.9	-2.183e+04	-246.9
720	ok	0.03	6.69e-02	1.91e-03	10.1	10.1	22.6	22.6	-8.6	-33.6	-3.7	-1703.4	-8672.5	-178.9
721	ok	0.03	1.41e-02	6.54e-04	10.1	10.1	22.6	22.6	-4.8	-11.2	-1.3	-325.4	-1794.0	-78.8
722	ok	0.03	0.2	3.18e-03	10.1	10.1	22.6	22.6	-12.3	-56.2	-5.9	-4310.8	-2.173e+04	-237.1
723	ok	0.03	6.66e-02	1.92e-03	10.1	10.1	22.6	22.6	-8.7	-33.9	-3.7	-1695.1	-8631.1	-175.7
724	ok	0.03	1.40e-02	6.55e-04	10.1	10.1	22.6	22.6	-4.8	-11.4	-1.3	-323.6	-1785.1	-79.8
725	ok	0.03	0.2	3.18e-03	10.1	10.1	22.6	22.6	-12.3	-56.5	-5.9	-4290.3	-2.163e+04	-230.3
726	ok	0.03	6.63e-02	1.92e-03	10.1	10.1	22.6	22.6	-8.4	-34.0	-3.8	-1691.2	-8593.5	-167.8
727	ok	0.03	1.40e-02	6.55e-04	10.1	10.1	22.6	22.6	-4.4	-11.4	-1.3	-324.7	-1778.2	-76.2
728	ok	0.03	0.2	3.19e-03	10.1	10.1	22.6	22.6	-12.1	-56.8	-6.0	-4269.6	-2.153e+04	-221.6
729	ok	0.03	6.60e-02	1.93e-03	10.1	10.1	22.6	22.6	-7.9	-34.2	-3.8	-1679.9	-8558.2	-160.4
730	ok	0.03	1.39e-02	6.56e-04	10.1	10.1	22.6	22.6	-3.8	-11.5	-1.4	-317.4	-1772.5	-72.3
731	ok	0.03	0.2	3.19e-03	10.1	10.1	22.6	22.6	-11.8	-56.9	-6.1	-4238.4	-2.143e+04	-220.3
732	ok	0.03	6.57e-02	1.93e-03	10.1	10.1	22.6	22.6	-7.4	-34.3	-4.0	-1650.8	-8523.9	-157.8
733	ok	0.03	1.39e-02	6.56e-04	10.1	10.1	22.6	22.6	-3.0	-11.6	-1.4	-290.0	-1768.0	-69.6
734	ok	0.03	0.2	3.20e-03	10.1	10.1	22.6	22.6	-11.5	-57.2	-6.3	-4184.4	-2.133e+04	-237.6
735	ok	0.03	6.55e-02	1.93e-03	10.1	10.1	22.6	22.6	-6.6	-34.4	-4.2	-1585.3	-8486.8	-168.0
736	ok	0.03	1.39e-02	6.55e-04	10.1	10.1	22.6	22.6	-1.9	-11.6	-1.5	-220.5	-1766.1	-71.3
737	ok	0.03	0.2	3.22e-03	10.1	10.1	22.6	22.6	-11.1	-57.6	-6.5	-4081.8	-2.121e+04	-295.6
738	ok	0.03	6.56e-02	1.95e-03	10.1	10.1	22.6	22.6	-5.8	-34.7	-4.4	-1460.1	-8455.5	-195.4
739	ok	0.03	1.39e-02	6.54e-04	10.1	10.1	22.6	22.6	-0.3	-11.6	-1.7	-75.2	-1761.6	-82.4
740	ok	0.03	0.2	3.31e-03	10.1	10.1	22.6	22.6	-12.7	-69.0	-10.4	-3890.9	-2.129e+04	-312.7
741	ok	0.03	6.57e-02	2.00e-03	10.1	10.1	22.6	22.6	-5.5	-41.7	-6.9	-1226.2	-8560.4	-133.0
742	ok	0.03	1.44e-02	6.73e-04	10.1	10.1	22.6	22.6	3.6	-13.9	-1.7	147.9	-1842.5	-22.9
743	ok	0.03	0.2	3.57e-03	10.1	10.1	22.6	22.6	-11.3	-71.9	-11.1	-3306.6	-2.102e+04	-757.1
744	ok	0.03	6.76e-02	2.29e-03	10.1	10.1	22.6	22.6	-3.6	-45.9	-2.4	-875.4	-8804.8	-276.1
745	ok	0.03	1.41e-02	7.03e-04	10.1	10.1	22.6	22.6	3.5	-14.7	-1.7	161.7	-1773.3	154.4
746	ok	0.03	0.2	5.22e-03	10.1	10.1	22.6	22.6	-6.9	-87.3	-11.8	-1722.4	-2.114e+04	-1674.7
747	ok	0.03	6.14e-02	2.04e-03	10.1	10.1	22.6	22.6	-3.1	-43.1	-2.4	-705.3	-7953.9	472.1
748	ok	0.03	1.38e-02	6.08e-04	10.1	10.1	22.6	22.6	1.5	-13.4	9.03e-02	-17.3	-1718.8	210.1

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
6	150.00	4	2	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
613	ok	0.03	1.00e-01	2.58e-04	10.1	10.1	22.6	22.6	9.8	48.7	3.4	-2410.9	-1.211e+04	-925.7
614	ok	0.03	9.63e-02	4.75e-04	10.1	10.1	22.6	22.6	9.2	46.1	3.4	-2371.5	-1.191e+04	-293.0
615	ok	0.03	9.62e-02	6.56e-04	10.1	10.1	22.6	22.6	9.4	46.1	2.0	-2363.3	-1.194e+04	-69.8
616	ok	0.03	9.57e-02	7.10e-04	10.1	10.1	22.6	22.6	9.5	46.2	1.4	-2336.5	-1.187e+04	15.3
617	ok	0.03	9.50e-02	7.05e-04	10.1	10.1	22.6	22.6	9.7	46.6	1.1	-2307.0	-1.179e+04	47.4
618	ok	0.03	9.42e-02	6.67e-04	10.1	10.1	22.6	22.6	10.0	47.0	1.1	-2276.6	-1.168e+04	54.8
619	ok	0.03	9.33e-02	6.21e-04	10.1	10.1	22.6	22.6	10.2	47.4	1.1	-2246.8	-1.156e+04	50.1
620	ok	0.03	9.23e-02	5.79e-04	10.1	10.1	22.6	22.6	10.3	47.9	1.2	-2218.3	-1.145e+04	39.9
621	ok	0.03	9.14e-02	5.44e-04	10.1	10.1	22.6	22.6	10.5	48.3	1.3	-2191.3	-1.133e+04	28.1
622	ok	0.03	9.05e-02	5.13e-04	10.1	10.1	22.6	22.6	10.6	48.8	1.5	-2165.8	-1.121e+04	16.5
623	ok	0.03	8.96e-02	4.86e-04	10.1	10.1	22.6	22.6	10.7	49.2	1.7	-2141.5	-1.109e+04	6.2
624	ok	0.03	8.87e-02	4.62e-04	10.1	10.1	22.6	22.6	10.8	49.6	2.2	-2118.6	-1.098e+04	-5.3
625	ok	0.03	8.77e-02	4.40e-04	10.1	10.1	22.6	22.6	10.9	50.0	2.5	-2096.8	-1.086e+04	-12.1
626	ok	0.03	8.69e-02	4.20e-04	10.1	10.1	22.6	22.6	11.0	50.4	2.9	-2075.4	-1.075e+04	-17.4
627	ok	0.03	8.60e-02	4.00e-04	10.1	10.1	22.6	22.6	11.1	50.8	3.2	-2054.3	-1.064e+04	-21.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
628	ok	0.03	8.51e-02	3.81e-04	10.1	10.1	22.6	22.6	11.1	51.2	3.5	-2033.5	-1.052e+04	-24.2
629	ok	0.03	8.42e-02	3.63e-04	10.1	10.1	22.6	22.6	11.2	51.7	3.9	-2013.1	-1.041e+04	-25.9
630	ok	0.03	8.33e-02	3.45e-04	10.1	10.1	22.6	22.6	11.3	52.1	4.2	-1992.9	-1.030e+04	-26.6
631	ok	0.03	8.24e-02	3.28e-04	10.1	10.1	22.6	22.6	11.3	52.4	4.5	-1972.7	-1.019e+04	-26.4
632	ok	0.03	8.15e-02	3.16e-04	10.1	10.1	22.6	22.6	11.4	52.8	4.9	-1952.5	-1.008e+04	-25.4
633	ok	0.03	8.06e-02	3.15e-04	10.1	10.1	22.6	22.6	11.4	53.2	5.2	-1932.4	-9965.6	-23.7
634	ok	0.03	7.98e-02	3.14e-04	10.1	10.1	22.6	22.6	11.5	53.6	5.5	-1912.6	-9854.5	-21.6
635	ok	0.03	7.89e-02	3.12e-04	10.1	10.1	22.6	22.6	11.6	54.0	5.8	-1893.0	-9743.9	-18.9
636	ok	0.03	7.80e-02	3.12e-04	10.1	10.1	22.6	22.6	11.6	54.3	6.1	-1873.6	-9634.0	-15.9
637	ok	0.03	7.72e-02	3.12e-04	10.1	10.1	22.6	22.6	11.6	54.7	6.4	-1854.7	-9524.9	-12.7
638	ok	0.03	7.63e-02	3.14e-04	10.1	10.1	22.6	22.6	11.6	55.1	6.6	-1836.2	-9417.0	-9.0
639	ok	0.03	7.54e-02	3.17e-04	10.1	10.1	22.6	22.6	11.6	55.4	6.8	-1818.6	-9310.7	-4.7
640	ok	0.03	7.46e-02	3.20e-04	10.1	10.1	22.6	22.6	11.6	55.8	7.0	-1802.4	-9205.9	1.4
641	ok	0.03	7.38e-02	3.20e-04	10.1	10.1	22.6	22.6	11.6	56.2	7.1	-1787.6	-9102.3	11.5
642	ok	0.03	7.30e-02	3.11e-04	10.1	10.1	22.6	22.6	11.5	56.6	7.1	-1774.4	-8998.7	29.6
643	ok	0.03	7.21e-02	3.04e-04	10.1	10.1	22.6	22.6	11.5	57.0	6.7	-1762.4	-8893.8	63.8
644	ok	0.03	7.13e-02	3.14e-04	10.1	10.1	22.6	22.6	11.4	57.0	5.5	-1750.3	-8791.1	133.3
645	ok	0.03	7.06e-02	3.65e-04	10.1	10.1	22.6	22.6	11.1	55.4	2.2	-1728.1	-8662.0	296.5
646	ok	0.03	7.31e-02	8.35e-04	10.1	10.1	22.6	22.6	9.7	48.7	2.2	-1761.3	-8827.6	750.9
749	ok	0.03	9.66e-02	3.65e-04	10.1	10.1	22.6	22.6	3.4	47.4	3.4	-983.5	-1.183e+04	-854.6
750	ok	0.03	9.53e-02	5.53e-04	10.1	10.1	22.6	22.6	7.3	45.7	2.0	-1850.0	-1.181e+04	-303.7
751	ok	0.03	3.28e-02	1.69e-04	10.1	10.1	22.6	22.6	2.3	26.1	-0.2	-358.0	-4047.9	324.0
752	ok	0.03	3.59e-02	4.32e-04	10.1	10.1	22.6	22.6	2.8	28.6	-0.2	-447.2	-4493.7	-105.4
753	ok	0.03	6.60e-03	2.72e-04	10.1	10.1	22.6	22.6	0.6	8.8	-0.3	-9.3	-796.3	125.1
754	ok	0.03	6.58e-03	5.72e-04	10.1	10.1	22.6	22.6	1.0	9.5	-0.1	101.8	-802.6	121.5
755	ok	0.03	9.58e-02	6.53e-04	10.1	10.1	22.6	22.6	9.0	46.1	1.4	-2150.5	-1.189e+04	-51.2
756	ok	0.03	3.47e-02	5.89e-04	10.1	10.1	22.6	22.6	5.3	28.1	0.8	-579.0	-4349.3	17.0
757	ok	0.03	6.74e-03	5.98e-04	10.1	10.1	22.6	22.6	1.7	9.6	0.2	121.8	-847.6	37.0
758	ok	0.03	9.56e-02	7.25e-04	10.1	10.1	22.6	22.6	9.9	46.3	1.1	-2242.4	-1.185e+04	42.1
759	ok	0.03	3.44e-02	5.93e-04	10.1	10.1	22.6	22.6	6.4	28.0	0.8	-691.7	-4312.0	47.2
760	ok	0.03	6.42e-03	5.34e-04	10.1	10.1	22.6	22.6	1.6	9.2	0.2	133.1	-791.0	37.2
761	ok	0.03	9.50e-02	7.21e-04	10.1	10.1	22.6	22.6	10.5	46.7	1.1	-2269.6	-1.178e+04	80.1
762	ok	0.03	3.41e-02	5.43e-04	10.1	10.1	22.6	22.6	7.3	28.2	0.7	-751.2	-4275.6	66.9
763	ok	0.03	6.37e-03	3.40e-04	10.1	10.1	22.6	22.6	4.1	9.6	0.3	-47.7	-804.4	33.3
764	ok	0.03	9.42e-02	6.90e-04	10.1	10.1	22.6	22.6	11.0	47.2	1.1	-2268.5	-1.168e+04	90.7
765	ok	0.03	3.38e-02	4.67e-04	10.1	10.1	22.6	22.6	8.0	28.5	0.7	-778.1	-4237.1	73.7
766	ok	0.03	6.29e-03	2.09e-04	10.1	10.1	22.6	22.6	5.0	9.6	0.2	-84.4	-794.0	34.3
767	ok	0.03	9.33e-02	6.40e-04	10.1	10.1	22.6	22.6	11.4	47.7	1.2	-2253.3	-1.157e+04	87.5
768	ok	0.03	3.35e-02	3.98e-04	10.1	10.1	22.6	22.6	8.6	28.7	0.7	-783.9	-4193.6	71.0
769	ok	0.03	6.21e-03	1.34e-04	10.1	10.1	22.6	22.6	5.7	9.7	0.2	-98.5	-784.0	31.9
770	ok	0.03	9.24e-02	5.89e-04	10.1	10.1	22.6	22.6	11.5	48.1	1.2	-2229.8	-1.145e+04	82.4
771	ok	0.03	3.31e-02	3.46e-04	10.1	10.1	22.6	22.6	8.6	28.9	0.7	-774.6	-4147.2	68.7
772	ok	0.03	6.13e-03	9.15e-05	10.1	10.1	22.6	22.6	6.2	9.8	0.2	-101.0	-774.1	28.2
773	ok	0.03	9.15e-02	5.45e-04	10.1	10.1	22.6	22.6	11.8	48.6	1.3	-2207.4	-1.133e+04	70.7
774	ok	0.03	3.28e-02	3.07e-04	10.1	10.1	22.6	22.6	9.1	29.2	0.7	-769.4	-4102.2	60.5
775	ok	0.03	6.05e-03	6.51e-05	10.1	10.1	22.6	22.6	6.2	9.8	0.2	-99.1	-764.7	29.5
776	ok	0.03	9.05e-02	5.09e-04	10.1	10.1	22.6	22.6	12.1	49.1	1.5	-2182.2	-1.121e+04	58.8
777	ok	0.03	3.24e-02	2.77e-04	10.1	10.1	22.6	22.6	9.4	29.5	0.8	-759.0	-4056.8	52.0
778	ok	0.03	5.98e-03	4.73e-05	10.1	10.1	22.6	22.6	6.5	9.9	0.2	-96.6	-755.9	25.5
779	ok	0.03	8.96e-02	4.78e-04	10.1	10.1	22.6	22.6	12.3	49.5	1.7	-2156.4	-1.110e+04	48.1
780	ok	0.03	3.20e-02	2.54e-04	10.1	10.1	22.6	22.6	9.6	29.8	0.9	-746.8	-4011.7	44.4
781	ok	0.03	5.91e-03	3.45e-05	10.1	10.1	22.6	22.6	6.8	10.0	0.3	-92.0	-746.9	21.9
782	ok	0.03	8.87e-02	4.51e-04	10.1	10.1	22.6	22.6	12.5	49.9	1.9	-2131.0	-1.098e+04	38.8
783	ok	0.03	3.17e-02	2.35e-04	10.1	10.1	22.6	22.6	9.8	30.0	1.1	-734.5	-3966.9	37.8
784	ok	0.03	5.83e-03	2.50e-05	10.1	10.1	22.6	22.6	6.9	10.1	0.3	-87.2	-737.9	18.8
785	ok	0.03	8.78e-02	4.27e-04	10.1	10.1	22.6	22.6	12.6	50.3	2.2	-2106.3	-1.087e+04	31.3
786	ok	0.03	3.13e-02	2.19e-04	10.1	10.1	22.6	22.6	9.9	30.3	1.2	-722.6	-3922.5	32.5
787	ok	0.03	5.76e-03	1.80e-05	10.1	10.1	22.6	22.6	7.0	10.2	0.4	-82.8	-728.9	16.3
788	ok	0.03	8.69e-02	4.06e-04	10.1	10.1	22.6	22.6	12.7	50.8	2.5	-2082.3	-1.075e+04	25.3
789	ok	0.03	3.10e-02	2.05e-04	10.1	10.1	22.6	22.6	10.0	30.5	1.4	-711.5	-3878.4	28.3
790	ok	0.03	5.69e-03	1.28e-05	10.1	10.1	22.6	22.6	7.0	10.2	0.4	-79.0	-720.0	14.3
791	ok	0.03	8.60e-02	3.86e-04	10.1	10.1	22.6	22.6	12.8	51.2	2.9	-2059.0	-1.064e+04	20.7
792	ok	0.03	3.06e-02	1.93e-04	10.1	10.1	22.6	22.6	10.1	30.8	1.6	-701.2	-3834.6	25.0
793	ok	0.03	5.62e-03	8.90e-06	10.1	10.1	22.6	22.6	7.0	10.3	0.5	-75.8	-711.2	12.8
794	ok	0.03	8.51e-02	3.67e-04	10.1	10.1	22.6	22.6	12.8	51.6	3.2	-2036.2	-1.053e+04	17.4
795	ok	0.03	3.03e-02	1.82e-04	10.1	10.1	22.6	22.6	10.1	31.0	1.8	-691.4	-3790.9	22.7
796	ok	0.03	5.55e-03	6.75e-06	10.1	10.1	22.6	22.6	7.0	10.5	0.5	-73.3	-702.4	11.7
797	ok	0.03	8.42e-02	3.50e-04	10.1	10.1	22.6	22.6	12.9	52.0	3.9	-2014.6	-1.041e+04	14.7
798	ok	0.03	3.00e-02	1.72e-04	10.1	10.1	22.6	22.6	10.1	31.3	2.0	-682.2	-3747.4	21.1
799	ok	0.03	5.48e-03	5.11e-06	10.1	10.1	22.6	22.6	7.0	10.5	0.6	-71.2	-693.7	10.9
800	ok	0.03	8.33e-02	3.33e-04	10.1	10.1	22.6	22.6	12.9	52.4	4.2	-1993.0	-1.030e+04	13.9
801	ok	0.03	2.96e-02	1.62e-04	10.1	10.1	22.6	22.6	10.0	31.5	2.4	-673.8	-3704.1	20.1
802	ok	0.03	5.41e-03	3.88e-06	10.1	10.1	22.6	22.6	6.9	10.6	0.7	-70.0	-685.0	10.3

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
803	ok	0.03	8.24e-02	3.16e-04	10.1	10.1	22.6	22.6	13.0	52.7	4.5	-1971.7	-1.019e+04	14.1
804	ok	0.03	2.93e-02	1.54e-04	10.1	10.1	22.6	22.6	10.0	31.7	2.6	-665.7	-3660.9	20.3
805	ok	0.03	5.35e-03	2.97e-06	10.1	10.1	22.6	22.6	6.8	10.7	0.8	-69.0	-676.4	10.4
806	ok	0.03	8.15e-02	3.00e-04	10.1	10.1	22.6	22.6	13.0	53.1	4.9	-1950.6	-1.008e+04	15.0
807	ok	0.03	2.89e-02	1.45e-04	10.1	10.1	22.6	22.6	10.0	31.9	2.8	-657.9	-3617.8	20.9
808	ok	0.03	5.28e-03	2.36e-06	10.1	10.1	22.6	22.6	6.6	10.7	0.9	-68.2	-667.8	10.8
809	ok	0.03	8.07e-02	2.84e-04	10.1	10.1	22.6	22.6	13.0	53.5	5.2	-1929.8	-9965.0	16.5
810	ok	0.03	2.86e-02	1.37e-04	10.1	10.1	22.6	22.6	9.9	32.1	3.0	-650.6	-3574.8	22.0
811	ok	0.03	5.21e-03	2.05e-06	10.1	10.1	22.6	22.6	6.5	10.7	1.0	-67.8	-659.3	11.4
812	ok	0.03	7.98e-02	2.75e-04	10.1	10.1	22.6	22.6	13.0	53.9	5.5	-1909.4	-9853.9	18.5
813	ok	0.03	2.82e-02	1.29e-04	10.1	10.1	22.6	22.6	9.8	32.4	3.2	-643.6	-3532.1	23.4
814	ok	0.03	5.14e-03	2.06e-06	10.1	10.1	22.6	22.6	6.5	10.9	1.0	-67.8	-650.7	12.0
815	ok	0.03	7.89e-02	2.74e-04	10.1	10.1	22.6	22.6	13.0	54.2	5.8	-1889.5	-9743.2	21.0
816	ok	0.03	2.79e-02	1.22e-04	10.1	10.1	22.6	22.6	9.7	32.6	3.3	-637.1	-3489.5	25.0
817	ok	0.03	5.08e-03	2.43e-06	10.1	10.1	22.6	22.6	6.3	10.9	1.0	-68.1	-642.2	12.8
818	ok	0.03	7.80e-02	2.74e-04	10.1	10.1	22.6	22.6	12.9	54.6	6.1	-1869.9	-9633.2	23.7
819	ok	0.03	2.76e-02	1.15e-04	10.1	10.1	22.6	22.6	9.6	32.8	3.5	-631.0	-3447.3	26.8
820	ok	0.03	5.01e-03	3.24e-06	10.1	10.1	22.6	22.6	6.0	11.0	1.1	-68.7	-633.8	13.5
821	ok	0.03	7.71e-02	2.76e-04	10.1	10.1	22.6	22.6	12.9	54.9	6.4	-1850.6	-9524.1	26.5
822	ok	0.03	2.72e-02	1.11e-04	10.1	10.1	22.6	22.6	9.4	33.0	3.6	-624.9	-3405.4	28.6
823	ok	0.03	4.95e-03	4.52e-06	10.1	10.1	22.6	22.6	5.7	11.0	1.1	-69.3	-625.4	14.3
824	ok	0.03	7.63e-02	2.78e-04	10.1	10.1	22.6	22.6	12.8	55.3	6.6	-1831.1	-9416.0	29.6
825	ok	0.03	2.69e-02	1.14e-04	10.1	10.1	22.6	22.6	9.2	33.2	3.8	-618.2	-3363.9	30.5
826	ok	0.03	4.88e-03	6.17e-06	10.1	10.1	22.6	22.6	5.4	11.1	1.2	-69.0	-617.1	15.0
827	ok	0.03	7.54e-02	2.80e-04	10.1	10.1	22.6	22.6	12.6	55.6	6.8	-1810.6	-9309.1	33.5
828	ok	0.03	2.66e-02	1.17e-04	10.1	10.1	22.6	22.6	8.9	33.4	3.9	-609.2	-3322.7	32.8
829	ok	0.03	4.82e-03	7.51e-06	10.1	10.1	22.6	22.6	5.4	11.3	1.2	-67.3	-608.8	15.0
830	ok	0.03	7.46e-02	2.84e-04	10.1	10.1	22.6	22.6	12.7	56.0	6.8	-1789.5	-9203.4	37.0
831	ok	0.03	2.63e-02	1.19e-04	10.1	10.1	22.6	22.6	8.9	33.7	3.9	-601.2	-3282.7	34.7
832	ok	0.03	4.76e-03	2.07e-05	10.1	10.1	22.6	22.6	5.0	11.4	1.2	-64.5	-601.2	16.0
833	ok	0.03	7.38e-02	2.93e-04	10.1	10.1	22.6	22.6	12.5	56.4	7.0	-1766.1	-9097.9	46.0
834	ok	0.03	2.60e-02	1.25e-04	10.1	10.1	22.6	22.6	8.6	34.0	4.0	-586.5	-3242.9	40.4
835	ok	0.03	4.70e-03	7.62e-05	10.1	10.1	22.6	22.6	4.5	11.4	1.2	-55.0	-594.0	17.8
836	ok	0.03	7.29e-02	3.10e-04	10.1	10.1	22.6	22.6	12.1	56.7	7.1	-1735.8	-8991.0	63.1
837	ok	0.03	2.56e-02	1.39e-04	10.1	10.1	22.6	22.6	8.1	34.2	4.1	-559.9	-3202.6	51.4
838	ok	0.03	4.66e-03	1.67e-04	10.1	10.1	22.6	22.6	3.9	11.6	1.3	-30.9	-588.0	21.7
839	ok	0.03	7.20e-02	3.37e-04	10.1	10.1	22.6	22.6	11.5	57.0	7.1	-1689.7	-8879.2	96.2
840	ok	0.03	2.54e-02	1.78e-04	10.1	10.1	22.6	22.6	7.5	34.6	4.2	-513.4	-3167.1	68.8
841	ok	0.03	4.61e-03	2.96e-04	10.1	10.1	22.6	22.6	-2.6	5.9	-2.9	102.9	-536.4	-55.0
842	ok	0.03	7.11e-02	3.73e-04	10.1	10.1	22.6	22.6	10.3	56.7	6.7	-1602.8	-8761.6	163.0
843	ok	0.03	2.52e-02	2.04e-04	10.1	10.1	22.6	22.6	6.5	34.8	4.2	-432.3	-3143.5	88.6
844	ok	0.03	4.79e-03	3.41e-04	10.1	10.1	22.6	22.6	-2.5	6.7	-2.9	94.7	-577.2	-59.4
845	ok	0.03	7.00e-02	4.92e-04	10.1	10.1	22.6	22.6	7.8	54.8	5.5	-1370.4	-8590.5	337.0
846	ok	0.03	2.60e-02	2.53e-04	10.1	10.1	22.6	22.6	3.5	33.7	2.8	-332.3	-3227.9	127.4
847	ok	0.03	4.63e-03	3.28e-04	10.1	10.1	22.6	22.6	-3.8	7.4	-2.1	71.6	-545.3	-110.1
848	ok	0.03	7.06e-02	9.21e-04	10.1	10.1	22.6	22.6	2.4	47.2	2.2	-736.1	-8622.6	691.1
849	ok	0.03	2.35e-02	1.34e-04	10.1	10.1	22.6	22.6	3.3	32.9	3.4	-257.9	-2895.7	-217.0
850	ok	0.03	4.61e-03	1.54e-04	10.1	10.1	22.6	22.6	2.8	12.5	0.8	-1.5	-555.9	-83.2

Suola spalla-muri andatori

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
19	150.00	4	2	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
3049	ok	0.03	0.1	2.22e-03	10.1	10.1	22.6	22.6	-0.3	3.5	-39.7	3430.0	1.708e+04	1194.1
3050	ok	0.03	0.1	8.98e-04	10.1	10.1	22.6	22.6	9.6	48.8	24.2	2998.8	1.506e+04	-1017.1
3052	ok	0.03	8.09e-02	0.0	10.1	10.1	22.6	22.6	9.6	112.8	-16.4	2409.4	9547.3	625.7
3053	ok	0.03	8.63e-02	1.62e-04	10.1	10.1	22.6	22.6	1.5	116.0	14.8	2174.0	1.010e+04	-787.6
3057	ok	0.03	8.64e-02	9.12e-04	10.1	10.1	22.6	22.6	5.7	91.7	-45.7	2431.8	1.026e+04	-360.4
3058	ok	0.03	7.68e-02	1.02e-03	10.1	10.1	22.6	22.6	7.9	107.5	-16.6	2267.2	8846.5	715.9
3061	ok	0.03	8.95e-02	6.70e-04	10.1	10.1	22.6	22.6	2.8	106.1	37.7	2238.5	1.072e+04	35.2
3062	ok	0.03	8.34e-02	7.61e-04	10.1	10.1	22.6	22.6	0.6	111.8	14.8	2098.2	9719.3	-808.0
3064	ok	0.03	8.30e-02	1.75e-05	10.1	10.1	22.6	22.6	8.9	113.7	-16.9	2395.7	9869.9	459.0
3065	ok	0.03	8.45e-02	6.88e-05	10.1	10.1	22.6	22.6	7.6	114.1	-16.4	2426.4	1.007e+04	295.1
3066	ok	0.03	8.57e-02	1.20e-04	10.1	10.1	22.6	22.6	6.4	114.6	-15.9	2461.3	1.022e+04	161.4
3067	ok	0.03	8.65e-02	1.68e-04	10.1	10.1	22.6	22.6	5.0	115.1	-15.5	2482.6	1.031e+04	54.3
3068	ok	0.03	8.69e-02	2.17e-04	10.1	10.1	22.6	22.6	2.2	115.1	-14.4	2489.2	1.036e+04	-49.6
3069	ok	0.03	8.73e-02	2.63e-04	10.1	10.1	22.6	22.6	0.9	115.6	-13.7	2489.1	1.038e+04	-116.7
3070	ok	0.03	8.75e-02	3.04e-04	10.1	10.1	22.6	22.6	-0.2	115.9	-12.9	2484.8	1.040e+04	-172.1

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3071	ok	0.03	8.77e-02	3.41e-04	10.1	10.1	22.6	22.6	-1.4	116.2	-12.1	2478.0	1.041e+04	-219.7
3072	ok	0.03	8.78e-02	3.73e-04	10.1	10.1	22.6	22.6	-2.4	116.6	-11.2	2469.7	1.041e+04	-261.8
3073	ok	0.03	8.79e-02	4.00e-04	10.1	10.1	22.6	22.6	-3.4	116.9	-10.3	2460.2	1.042e+04	-299.9
3074	ok	0.03	8.80e-02	4.23e-04	10.1	10.1	22.6	22.6	-3.3	117.4	-10.3	2461.8	1.043e+04	-322.0
3075	ok	0.03	8.81e-02	4.41e-04	10.1	10.1	22.6	22.6	-4.1	117.6	-9.2	2451.4	1.043e+04	-355.2
3076	ok	0.03	8.81e-02	4.54e-04	10.1	10.1	22.6	22.6	-4.9	117.8	-8.2	2440.3	1.044e+04	-385.7
3077	ok	0.03	8.83e-02	4.62e-04	10.1	10.1	22.6	22.6	-5.5	118.0	-7.1	2428.9	1.044e+04	-413.9
3078	ok	0.03	8.84e-02	4.74e-04	10.1	10.1	22.6	22.6	-6.1	118.3	-6.0	2417.3	1.045e+04	-439.8
3079	ok	0.03	8.85e-02	4.82e-04	10.1	10.1	22.6	22.6	-6.5	118.4	-4.8	2405.3	1.045e+04	-463.6
3080	ok	0.03	8.86e-02	4.85e-04	10.1	10.1	22.6	22.6	-6.8	118.5	-3.6	2393.1	1.046e+04	-485.3
3081	ok	0.03	8.87e-02	4.85e-04	10.1	10.1	22.6	22.6	-7.0	118.7	-2.5	2380.8	1.046e+04	-505.0
3082	ok	0.03	8.88e-02	4.83e-04	10.1	10.1	22.6	22.6	-7.0	118.8	-1.3	2368.8	1.047e+04	-522.7
3083	ok	0.03	8.89e-02	4.77e-04	10.1	10.1	22.6	22.6	-7.0	118.9	-6.11e-02	2356.9	1.047e+04	-538.8
3084	ok	0.03	8.89e-02	4.66e-04	10.1	10.1	22.6	22.6	-6.8	118.9	1.2	2345.2	1.048e+04	-553.2
3085	ok	0.03	8.90e-02	4.50e-04	10.1	10.1	22.6	22.6	-6.5	119.0	2.4	2333.8	1.048e+04	-566.0
3086	ok	0.03	8.90e-02	4.29e-04	10.1	10.1	22.6	22.6	-6.1	119.0	3.6	2322.8	1.049e+04	-577.7
3087	ok	0.03	8.91e-02	4.04e-04	10.1	10.1	22.6	22.6	-5.5	119.0	4.7	2312.3	1.049e+04	-588.9
3088	ok	0.03	8.91e-02	3.78e-04	10.1	10.1	22.6	22.6	-4.8	119.0	6.0	2301.6	1.049e+04	-600.7
3089	ok	0.03	8.91e-02	3.49e-04	10.1	10.1	22.6	22.6	-4.0	119.0	7.2	2290.0	1.049e+04	-614.8
3090	ok	0.03	8.90e-02	3.16e-04	10.1	10.1	22.6	22.6	-3.1	118.9	8.3	2276.2	1.048e+04	-633.4
3091	ok	0.03	8.88e-02	2.79e-04	10.1	10.1	22.6	22.6	-2.2	118.8	9.4	2258.2	1.044e+04	-659.5
3092	ok	0.03	8.83e-02	2.42e-04	10.1	10.1	22.6	22.6	-1.2	118.3	10.5	2233.7	1.037e+04	-695.1
3093	ok	0.03	8.76e-02	2.03e-04	10.1	10.1	22.6	22.6	-0.1	117.2	11.7	2202.4	1.027e+04	-740.7
3124	ok	0.03	9.44e-02	9.10e-04	10.1	10.1	22.6	22.6	9.5	98.4	-50.6	2484.6	1.121e+04	-305.5
3125	ok	0.03	0.1	8.99e-04	10.1	10.1	22.6	22.6	11.0	101.4	-53.7	2605.2	1.209e+04	-245.3
3126	ok	0.03	0.1	9.11e-04	10.1	10.1	22.6	22.6	12.1	102.1	-55.2	2727.1	1.290e+04	-228.5
3127	ok	0.03	0.1	9.29e-04	10.1	10.1	22.6	22.6	12.9	101.9	-56.5	2843.3	1.365e+04	-238.5
3128	ok	0.03	0.1	9.45e-04	10.1	10.1	22.6	22.6	13.9	101.5	-57.6	2952.6	1.434e+04	-260.9
3129	ok	0.03	0.1	9.49e-04	10.1	10.1	22.6	22.6	15.0	101.4	-58.7	3057.3	1.501e+04	-280.6
3130	ok	0.03	0.1	9.44e-04	10.1	10.1	22.6	22.6	16.0	101.5	-59.4	3157.7	1.563e+04	-279.9
3131	ok	0.03	0.1	9.33e-04	10.1	10.1	22.6	22.6	16.8	101.1	-59.5	3250.8	1.619e+04	-234.8
3132	ok	0.03	0.1	9.46e-04	10.1	10.1	22.6	22.6	17.3	96.2	-53.3	3322.4	1.665e+04	-115.3
3133	ok	0.03	0.1	1.05e-03	10.1	10.1	22.6	22.6	14.1	80.1	-53.4	3380.4	1.691e+04	242.3
3144	ok	0.03	9.38e-02	6.25e-04	10.1	10.1	22.6	22.6	8.2	110.4	42.2	2294.2	1.121e+04	65.2
3145	ok	0.03	9.80e-02	5.94e-04	10.1	10.1	22.6	22.6	10.2	112.5	42.6	2385.2	1.169e+04	79.1
3146	ok	0.03	0.1	5.61e-04	10.1	10.1	22.6	22.6	12.3	112.9	42.9	2468.6	1.215e+04	108.8
3147	ok	0.03	0.1	5.25e-04	10.1	10.1	22.6	22.6	14.0	112.6	43.1	2546.5	1.258e+04	149.1
3148	ok	0.03	0.1	4.92e-04	10.1	10.1	22.6	22.6	15.5	112.2	43.2	2620.5	1.298e+04	192.4
3149	ok	0.03	0.1	4.59e-04	10.1	10.1	22.6	22.6	17.1	112.1	43.2	2692.2	1.338e+04	232.3
3150	ok	0.03	0.1	4.18e-04	10.1	10.1	22.6	22.6	18.4	112.1	43.0	2763.2	1.377e+04	261.3
3151	ok	0.03	0.1	3.78e-04	10.1	10.1	22.6	22.6	19.6	112.3	42.3	2831.5	1.414e+04	267.1
3152	ok	0.03	0.1	3.41e-04	10.1	10.1	22.6	22.6	20.8	112.2	40.4	2893.5	1.447e+04	232.7
3153	ok	0.03	0.1	3.09e-04	10.1	10.1	22.6	22.6	21.1	109.2	36.0	2944.5	1.474e+04	120.9
3154	ok	0.03	0.1	3.29e-04	10.1	10.1	22.6	22.6	19.0	98.5	35.9	2965.5	1.486e+04	-180.9
3166	ok	0.03	1.04e-02	4.07e-03	10.1	10.1	22.6	22.6	-58.2	15.9	11.2	299.4	830.1	119.4
3168	ok	0.03	1.09e-02	3.00e-03	10.1	10.1	22.6	22.6	-52.1	9.0	-22.0	522.8	873.2	-251.1
3170	ok	0.03	9.09e-03	3.47e-03	10.1	10.1	22.6	22.6	-69.4	12.8	2.6	355.2	930.9	-42.4
3171	ok	0.03	1.14e-02	4.47e-03	10.1	10.1	22.6	22.6	-89.3	18.7	1.7	81.6	970.9	-230.5
3174	ok	0.03	8.22e-02	9.74e-04	10.1	10.1	22.6	22.6	-3.8	110.4	-15.6	2083.1	9476.0	1043.2
3175	ok	0.03	8.26e-02	1.12e-03	10.1	10.1	22.6	22.6	-3.9	111.1	-16.9	2078.5	9806.5	576.9
3176	ok	0.03	3.55e-02	1.97e-03	10.1	10.1	22.6	22.6	-21.5	65.3	-10.5	710.1	4142.2	574.5
3177	ok	0.03	3.31e-02	2.26e-03	10.1	10.1	22.6	22.6	-30.6	64.8	-10.7	752.1	3981.5	333.2
3178	ok	0.03	8.21e-03	3.10e-03	10.1	10.1	22.6	22.6	-63.6	17.4	-3.5	378.4	717.8	58.5
3179	ok	0.03	8.40e-02	1.25e-03	10.1	10.1	22.6	22.6	-10.0	110.5	-15.9	2175.1	1.002e+04	328.1
3180	ok	0.03	3.31e-02	2.44e-03	10.1	10.1	22.6	22.6	-35.1	65.3	-10.6	842.6	4034.3	228.2
3181	ok	0.03	8.72e-03	3.31e-03	10.1	10.1	22.6	22.6	-68.3	17.7	-3.8	491.4	724.6	22.7
3182	ok	0.03	8.52e-02	1.36e-03	10.1	10.1	22.6	22.6	-13.0	110.7	-15.5	2268.9	1.018e+04	173.7
3183	ok	0.03	3.35e-02	2.61e-03	10.1	10.1	22.6	22.6	-39.5	65.5	-10.4	952.5	4099.5	119.1
3184	ok	0.03	9.31e-03	3.55e-03	10.1	10.1	22.6	22.6	-73.7	17.6	-3.8	582.3	730.5	-4.7
3185	ok	0.03	8.60e-02	1.47e-03	10.1	10.1	22.6	22.6	-15.8	110.9	-15.0	2336.5	1.028e+04	52.6
3186	ok	0.03	3.38e-02	2.78e-03	10.1	10.1	22.6	22.6	-43.8	65.5	-10.1	1037.0	4144.0	33.6
3187	ok	0.03	1.03e-02	3.79e-03	10.1	10.1	22.6	22.6	-79.0	17.5	-3.6	644.9	734.1	-22.9
3188	ok	0.03	8.65e-02	1.57e-03	10.1	10.1	22.6	22.6	-18.6	111.0	-14.4	2379.1	1.034e+04	-39.6
3189	ok	0.03	3.40e-02	2.94e-03	10.1	10.1	22.6	22.6	-48.1	65.5	-9.7	1092.2	4170.2	-30.4
3190	ok	0.03	1.08e-02	4.02e-03	10.1	10.1	22.6	22.6	-84.1	17.4	-3.5	683.8	735.3	-34.9
3191	ok	0.03	8.69e-02	1.67e-03	10.1	10.1	22.6	22.6	-21.3	111.1	-13.7	2402.7	1.037e+04	-111.0
3192	ok	0.03	3.42e-02	3.09e-03	10.1	10.1	22.6	22.6	-52.2	65.4	-9.2	1124.5	4184.4	-79.0
3193	ok	0.03	1.11e-02	4.23e-03	10.1	10.1	22.6	22.6	-88.9	17.3	-3.3	705.7	735.2	-43.1
3194	ok	0.03	8.71e-02	1.76e-03	10.1	10.1	22.6	22.6	-23.8	111.2	-12.9	2413.6	1.038e+04	-168.4
3195	ok	0.03	3.43e-02	3.23e-03	10.1	10.1	22.6	22.6	-56.2	65.4	-8.7	1141.1	4192.2	-117.8
3196	ok	0.03	1.13e-02	4.42e-03	10.1	10.1	22.6	22.6	-93.3	17.2	-3.1	715.7	734.5	-49.3
3197	ok	0.03	8.73e-02	1.84e-03	10.1	10.1	22.6	22.6	-26.3	111.3	-12.1	2416.6	1.039e+04	-216.7
3198	ok	0.03	3.44e-02	3.36e-03	10.1	10.1	22.6	22.6	-60.0	65.4	-8.2	1147.8	4196.7	-150.4

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3199	ok	0.03	1.17e-02	4.60e-03	10.1	10.1	22.6	22.6	-97.4	17.1	-2.9	717.9	733.6	-54.4
3200	ok	0.03	8.74e-02	1.92e-03	10.1	10.1	22.6	22.6	-28.6	111.4	-11.2	2414.9	1.040e+04	-259.0
3201	ok	0.03	3.45e-02	3.48e-03	10.1	10.1	22.6	22.6	-63.5	65.4	-7.6	1148.3	4199.9	-178.9
3202	ok	0.03	1.21e-02	4.76e-03	10.1	10.1	22.6	22.6	-101.2	17.1	-2.7	714.7	732.7	-58.8
3203	ok	0.03	8.75e-02	1.98e-03	10.1	10.1	22.6	22.6	-30.7	111.4	-10.3	2410.3	1.041e+04	-297.0
3204	ok	0.03	3.46e-02	3.58e-03	10.1	10.1	22.6	22.6	-66.7	65.4	-6.9	1145.3	4202.6	-204.7
3205	ok	0.03	1.24e-02	4.90e-03	10.1	10.1	22.6	22.6	-101.0	17.7	-2.7	714.9	733.2	-58.0
3206	ok	0.03	8.76e-02	2.04e-03	10.1	10.1	22.6	22.6	-32.6	111.5	-9.2	2403.9	1.041e+04	-331.9
3207	ok	0.03	3.47e-02	3.68e-03	10.1	10.1	22.6	22.6	-69.7	65.4	-6.2	1140.1	4205.3	-228.3
3208	ok	0.03	1.28e-02	5.07e-03	10.1	10.1	22.6	22.6	-104.4	17.5	-2.5	708.1	733.0	-62.1
3209	ok	0.03	8.77e-02	2.08e-03	10.1	10.1	22.6	22.6	-34.2	111.6	-8.2	2396.4	1.042e+04	-364.0
3210	ok	0.03	3.48e-02	3.79e-03	10.1	10.1	22.6	22.6	-72.3	65.4	-5.5	1133.6	4207.9	-250.0
3211	ok	0.03	1.31e-02	5.22e-03	10.1	10.1	22.6	22.6	-107.4	17.4	-2.2	698.7	732.7	-66.0
3212	ok	0.03	8.77e-02	2.12e-03	10.1	10.1	22.6	22.6	-34.2	112.0	-8.2	2398.1	1.043e+04	-382.7
3213	ok	0.03	3.49e-02	3.88e-03	10.1	10.1	22.6	22.6	-74.6	65.5	-4.8	1126.3	4210.6	-270.2
3214	ok	0.03	1.34e-02	5.36e-03	10.1	10.1	22.6	22.6	-109.8	17.3	-1.9	687.4	732.3	-69.8
3215	ok	0.03	8.78e-02	2.16e-03	10.1	10.1	22.6	22.6	-35.6	112.0	-7.1	2389.9	1.044e+04	-410.9
3216	ok	0.03	3.50e-02	3.96e-03	10.1	10.1	22.6	22.6	-74.5	65.9	-4.8	1127.2	4215.0	-278.8
3217	ok	0.03	1.37e-02	5.47e-03	10.1	10.1	22.6	22.6	-112.1	17.2	-0.5	669.8	728.2	-90.9
3218	ok	0.03	8.79e-02	2.19e-03	10.1	10.1	22.6	22.6	-36.9	112.1	-6.0	2381.3	1.044e+04	-436.8
3219	ok	0.03	3.51e-02	4.03e-03	10.1	10.1	22.6	22.6	-76.4	65.9	-4.1	1119.3	4217.7	-296.7
3220	ok	0.03	1.39e-02	5.55e-03	10.1	10.1	22.6	22.6	-114.3	17.1	-0.3	664.6	730.2	-95.2
3221	ok	0.03	8.80e-02	2.21e-03	10.1	10.1	22.6	22.6	-37.9	112.2	-4.8	2372.3	1.045e+04	-460.7
3222	ok	0.03	3.52e-02	4.07e-03	10.1	10.1	22.6	22.6	-78.0	65.8	-3.3	1111.0	4220.3	-313.2
3223	ok	0.03	1.40e-02	5.62e-03	10.1	10.1	22.6	22.6	-115.9	17.0	-1.04e-02	658.3	732.2	-99.1
3224	ok	0.03	8.81e-02	2.22e-03	10.1	10.1	22.6	22.6	-38.6	112.2	-3.6	2363.0	1.045e+04	-482.5
3225	ok	0.03	3.52e-02	4.11e-03	10.1	10.1	22.6	22.6	-79.1	65.8	-2.5	1102.5	4222.8	-328.2
3226	ok	0.03	1.41e-02	5.66e-03	10.1	10.1	22.6	22.6	-117.0	17.0	0.3	651.2	734.1	-102.5
3227	ok	0.03	8.82e-02	2.23e-03	10.1	10.1	22.6	22.6	-39.1	112.2	-2.5	2353.6	1.046e+04	-502.2
3228	ok	0.03	3.53e-02	4.12e-03	10.1	10.1	22.6	22.6	-79.9	65.8	-1.7	1093.8	4225.2	-341.9
3229	ok	0.03	1.41e-02	5.68e-03	10.1	10.1	22.6	22.6	-117.6	16.9	0.5	643.2	736.0	-105.5
3230	ok	0.03	8.83e-02	2.23e-03	10.1	10.1	22.6	22.6	-39.3	112.4	-1.3	2344.2	1.046e+04	-520.1
3231	ok	0.03	3.54e-02	4.12e-03	10.1	10.1	22.6	22.6	-80.3	65.8	-0.9	1085.1	4227.5	-354.3
3232	ok	0.03	1.41e-02	5.68e-03	10.1	10.1	22.6	22.6	-117.8	16.8	0.8	634.4	737.9	-108.0
3233	ok	0.03	8.83e-02	2.23e-03	10.1	10.1	22.6	22.6	-39.2	112.4	-6.11e-02	2334.8	1.047e+04	-536.1
3234	ok	0.03	3.54e-02	4.11e-03	10.1	10.1	22.6	22.6	-80.3	65.9	-3.48e-02	1076.4	4229.8	-365.4
3235	ok	0.03	1.41e-02	5.68e-03	10.1	10.1	22.6	22.6	-117.4	16.8	1.1	625.0	739.7	-110.2
3236	ok	0.03	8.84e-02	2.21e-03	10.1	10.1	22.6	22.6	-38.9	112.5	1.2	2325.5	1.047e+04	-550.5
3237	ok	0.03	3.54e-02	4.09e-03	10.1	10.1	22.6	22.6	-79.9	65.9	0.8	1067.6	4232.2	-375.4
3238	ok	0.03	1.41e-02	5.65e-03	10.1	10.1	22.6	22.6	-116.5	16.8	1.4	614.8	741.6	-112.0
3239	ok	0.03	8.85e-02	2.18e-03	10.1	10.1	22.6	22.6	-38.3	112.6	2.4	2316.1	1.048e+04	-563.3
3240	ok	0.03	3.55e-02	4.06e-03	10.1	10.1	22.6	22.6	-79.0	66.0	1.6	1058.6	4234.5	-384.2
3241	ok	0.03	1.40e-02	5.60e-03	10.1	10.1	22.6	22.6	-115.0	16.8	1.6	603.9	743.5	-113.5
3242	ok	0.03	8.85e-02	2.15e-03	10.1	10.1	22.6	22.6	-37.5	112.7	3.6	2306.4	1.049e+04	-575.0
3243	ok	0.03	3.55e-02	4.00e-03	10.1	10.1	22.6	22.6	-77.8	66.0	2.4	1048.8	4236.8	-392.3
3244	ok	0.03	1.38e-02	5.53e-03	10.1	10.1	22.6	22.6	-113.1	16.9	1.9	591.7	745.4	-114.6
3245	ok	0.03	8.86e-02	2.10e-03	10.1	10.1	22.6	22.6	-36.4	112.8	4.7	2295.5	1.049e+04	-586.5
3246	ok	0.03	3.56e-02	3.93e-03	10.1	10.1	22.6	22.6	-76.1	66.1	3.2	1037.3	4238.6	-400.1
3247	ok	0.03	1.36e-02	5.43e-03	10.1	10.1	22.6	22.6	-110.7	16.8	2.1	577.7	747.3	-115.6
3248	ok	0.03	8.86e-02	2.04e-03	10.1	10.1	22.6	22.6	-35.0	113.0	6.0	2282.1	1.049e+04	-599.1
3249	ok	0.03	3.56e-02	3.84e-03	10.1	10.1	22.6	22.6	-74.0	66.2	4.1	1022.1	4239.2	-408.7
3250	ok	0.03	1.33e-02	5.31e-03	10.1	10.1	22.6	22.6	-107.9	16.9	2.4	560.8	749.2	-116.7
3251	ok	0.03	8.86e-02	1.97e-03	10.1	10.1	22.6	22.6	-33.4	113.1	7.2	2263.6	1.049e+04	-615.2
3252	ok	0.03	3.56e-02	3.73e-03	10.1	10.1	22.6	22.6	-71.6	66.3	4.9	1000.5	4236.7	-419.9
3253	ok	0.03	1.30e-02	5.16e-03	10.1	10.1	22.6	22.6	-104.4	17.0	2.7	539.0	750.8	-118.2
3254	ok	0.03	8.86e-02	1.89e-03	10.1	10.1	22.6	22.6	-31.5	113.3	8.3	2237.0	1.047e+04	-638.0
3255	ok	0.03	3.56e-02	3.60e-03	10.1	10.1	22.6	22.6	-68.7	66.4	5.7	968.6	4228.1	-436.2
3256	ok	0.03	1.26e-02	4.98e-03	10.1	10.1	22.6	22.6	-100.5	17.1	2.9	510.0	751.6	-121.0
3257	ok	0.03	8.83e-02	1.80e-03	10.1	10.1	22.6	22.6	-29.4	113.3	9.4	2198.7	1.043e+04	-671.7
3258	ok	0.03	3.55e-02	3.46e-03	10.1	10.1	22.6	22.6	-65.5	66.5	6.5	922.9	4209.8	-461.0
3259	ok	0.03	1.22e-02	4.78e-03	10.1	10.1	22.6	22.6	-96.2	17.1	3.2	471.0	751.0	-126.3
3260	ok	0.03	8.79e-02	1.70e-03	10.1	10.1	22.6	22.6	-27.1	113.1	10.5	2147.6	1.035e+04	-718.9
3261	ok	0.03	3.54e-02	3.30e-03	10.1	10.1	22.6	22.6	-62.0	66.3	7.2	864.7	4178.6	-495.8
3262	ok	0.03	1.16e-02	4.55e-03	10.1	10.1	22.6	22.6	-91.4	17.1	3.4	420.9	749.1	-135.2
3263	ok	0.03	8.73e-02	1.58e-03	10.1	10.1	22.6	22.6	-20.4	113.1	13.0	2079.7	1.024e+04	-795.3
3264	ok	0.03	3.53e-02	3.13e-03	10.1	10.1	22.6	22.6	-58.2	65.5	7.7	817.6	4150.2	-526.1
3265	ok	0.03	1.11e-02	4.32e-03	10.1	10.1	22.6	22.6	-86.5	16.9	3.4	363.0	741.7	-149.7
3266	ok	0.03	8.66e-02	1.41e-03	10.1	10.1	22.6	22.6	-16.1	112.5	14.7	2118.6	1.009e+04	-953.4
3267	ok	0.03	3.58e-02	2.88e-03	10.1	10.1	22.6	22.6	-53.2	63.6	8.0	836.7	4216.8	-530.8
3369	ok	0.03	1.16e-02	4.56e-03	10.1	10.1	22.6	22.6	-89.7	11.8	-0.6	332.1	829.8	-94.5
3370	ok	0.03	3.61e-02	2.30e-03	10.1	10.1	22.6	22.6	-35.3	57.7	27.8	848.5	4419.8	152.2
3371	ok	0.03	8.96e-02	1.18e-03	10.1	10.1	22.6	22.6	-8.0	103.9	41.1	2130.9	1.070e+04	238.7
3372	ok	0.03	3.75e-02	2.45e-03	10.1	10.1	22.6	22.6	-46.0	62.8	8.2	808.6	4375.9	-614.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3373	ok	0.03	8.32e-02	1.21e-03	10.1	10.1	22.6	22.6	-16.8	108.1	14.7	2037.8	9678.7	-972.5
3374	ok	0.03	1.01e-02	3.63e-03	10.1	10.1	22.6	22.6	-54.7	5.1	-21.8	506.8	796.9	-216.9
3375	ok	0.03	8.90e-02	9.72e-04	10.1	10.1	22.6	22.6	21.3	95.5	-45.3	2023.7	1.017e+04	-1002.0
3376	ok	0.03	3.88e-02	1.47e-03	10.1	10.1	22.6	22.6	0.6	50.6	-37.1	818.2	4343.0	-707.6
3377	ok	0.03	3.58e-02	1.48e-03	10.1	10.1	22.6	22.6	-0.7	43.2	-36.2	744.0	4007.0	-667.0
3378	ok	0.03	7.70e-02	8.60e-04	10.1	10.1	22.6	22.6	-4.3	104.3	-16.0	1948.7	8633.5	1103.7
3388	ok	0.03	9.39e-02	1.12e-03	10.1	10.1	22.6	22.6	-6.6	107.4	42.3	2263.4	1.120e+04	232.1
3389	ok	0.03	9.83e-02	1.04e-03	10.1	10.1	22.6	22.6	-3.2	109.8	42.7	2392.5	1.169e+04	234.9
3390	ok	0.03	0.1	9.22e-04	10.1	10.1	22.6	22.6	0.4	110.6	43.0	2503.2	1.215e+04	254.8
3391	ok	0.03	0.1	8.44e-04	10.1	10.1	22.6	22.6	3.9	110.6	43.2	2594.0	1.258e+04	288.9
3392	ok	0.03	0.1	7.62e-04	10.1	10.1	22.6	22.6	7.1	110.6	43.2	2665.8	1.299e+04	328.9
3393	ok	0.03	0.1	6.80e-04	10.1	10.1	22.6	22.6	7.0	110.1	43.2	2746.1	1.339e+04	350.7
3394	ok	0.03	0.1	6.00e-04	10.1	10.1	22.6	22.6	10.0	110.4	43.2	2796.3	1.378e+04	378.0
3395	ok	0.03	0.1	5.26e-04	10.1	10.1	22.6	22.6	12.6	110.9	43.0	2819.8	1.414e+04	379.8
3396	ok	0.03	0.1	4.80e-04	10.1	10.1	22.6	22.6	14.1	110.8	42.3	2799.6	1.445e+04	334.8
3397	ok	0.03	0.1	4.98e-04	10.1	10.1	22.6	22.6	13.2	107.6	40.4	2692.8	1.469e+04	206.0
3398	ok	0.03	0.1	6.42e-04	10.1	10.1	22.6	22.6	8.9	96.5	36.0	2322.3	1.473e+04	-141.0
3399	ok	0.03	0.1	1.12e-03	10.1	10.1	22.6	22.6	-2.3	46.4	24.2	1208.6	1.470e+04	-945.7
3400	ok	0.03	3.72e-02	2.17e-03	10.1	10.1	22.6	22.6	-30.2	63.6	26.7	902.0	4523.9	190.3
3401	ok	0.03	3.87e-02	1.95e-03	10.1	10.1	22.6	22.6	-24.8	65.6	26.5	987.8	4699.0	196.6
3402	ok	0.03	4.02e-02	1.71e-03	10.1	10.1	22.6	22.6	-19.7	66.2	26.7	1060.0	4877.7	207.7
3403	ok	0.03	4.17e-02	1.48e-03	10.1	10.1	22.6	22.6	-14.8	66.3	26.9	1106.7	5044.3	229.7
3404	ok	0.03	4.31e-02	1.26e-03	10.1	10.1	22.6	22.6	-10.1	66.3	27.0	1127.5	5200.9	256.8
3405	ok	0.03	4.44e-02	1.04e-03	10.1	10.1	22.6	22.6	-10.2	65.5	27.0	1159.0	5357.9	267.1
3406	ok	0.03	4.57e-02	8.38e-04	10.1	10.1	22.6	22.6	-5.6	65.9	27.0	1151.4	5505.7	286.5
3407	ok	0.03	4.67e-02	6.48e-04	10.1	10.1	22.6	22.6	-1.2	66.5	27.1	1106.2	5641.4	288.1
3408	ok	0.03	4.76e-02	4.85e-04	10.1	10.1	22.6	22.6	2.8	67.3	27.2	1009.2	5765.0	262.6
3409	ok	0.03	4.81e-02	3.90e-04	10.1	10.1	22.6	22.6	5.4	66.6	27.0	835.4	5871.7	206.4
3410	ok	0.03	4.94e-02	4.24e-04	10.1	10.1	22.6	22.6	5.6	57.2	25.0	565.9	6068.8	187.5
3411	ok	0.03	4.59e-02	1.80e-04	10.1	10.1	22.6	22.6	4.0	48.0	14.4	473.4	5559.6	486.7
3412	ok	0.03	8.22e-03	3.13e-03	10.1	10.1	22.6	22.6	-48.3	17.7	9.1	302.4	827.9	148.2
3413	ok	0.03	8.13e-03	2.63e-03	10.1	10.1	22.6	22.6	-42.2	18.5	8.9	329.9	871.6	151.4
3414	ok	0.03	8.52e-03	2.33e-03	10.1	10.1	22.6	22.6	-36.5	18.7	9.0	342.3	914.9	158.4
3415	ok	0.03	8.85e-03	2.04e-03	10.1	10.1	22.6	22.6	-36.7	17.6	8.9	351.2	959.6	153.7
3416	ok	0.03	9.11e-03	1.74e-03	10.1	10.1	22.6	22.6	-31.1	17.6	9.0	345.9	1003.0	165.1
3417	ok	0.03	9.36e-03	1.45e-03	10.1	10.1	22.6	22.6	-25.2	17.8	9.0	322.8	1045.3	176.6
3418	ok	0.03	9.62e-03	1.17e-03	10.1	10.1	22.6	22.6	-19.3	18.1	9.0	277.7	1086.3	185.4
3419	ok	0.03	9.76e-03	9.00e-04	10.1	10.1	22.6	22.6	-15.0	21.5	9.5	201.9	1180.0	132.3
3420	ok	0.03	9.86e-03	6.22e-04	10.1	10.1	22.6	22.6	-7.9	22.0	10.0	78.0	1205.1	125.2
3421	ok	0.03	1.02e-02	3.32e-04	10.1	10.1	22.6	22.6	1.9	19.1	10.3	-87.7	1218.6	178.5
3422	ok	0.03	1.02e-02	1.49e-04	10.1	10.1	22.6	22.6	10.0	20.0	9.7	-105.3	1209.7	222.0
3423	ok	0.03	1.02e-02	3.01e-05	10.1	10.1	22.6	22.6	7.7	21.5	2.9	21.9	1207.1	203.7
3460	ok	0.03	0.1	1.31e-03	10.1	10.1	22.6	22.6	4.8	78.3	-53.3	2616.9	1.676e+04	157.4
3461	ok	0.03	0.1	2.32e-03	10.1	10.1	22.6	22.6	-8.0	1.9	-39.7	1376.9	1.667e+04	1141.4
3462	ok	0.03	0.1	1.09e-03	10.1	10.1	22.6	22.6	11.0	95.0	-57.8	3017.1	1.659e+04	-261.9
3463	ok	0.03	0.1	1.01e-03	10.1	10.1	22.6	22.6	13.5	100.4	-59.5	3118.0	1.616e+04	-427.6
3464	ok	0.03	0.1	1.00e-03	10.1	10.1	22.6	22.6	13.4	101.0	-59.4	3114.9	1.562e+04	-494.2
3465	ok	0.03	0.1	1.00e-03	10.1	10.1	22.6	22.6	12.0	100.8	-58.6	3053.9	1.501e+04	-509.0
3466	ok	0.03	0.1	1.01e-03	10.1	10.1	22.6	22.6	10.4	100.8	-57.6	2951.2	1.435e+04	-502.0
3467	ok	0.03	0.1	1.00e-03	10.1	10.1	22.6	22.6	10.5	101.4	-57.6	2810.4	1.364e+04	-505.2
3468	ok	0.03	0.1	1.02e-03	10.1	10.1	22.6	22.6	8.8	101.5	-56.4	2661.8	1.289e+04	-513.1
3469	ok	0.03	0.1	1.03e-03	10.1	10.1	22.6	22.6	7.2	100.7	-55.2	2477.1	1.207e+04	-551.8
3470	ok	0.03	9.54e-02	1.08e-03	10.1	10.1	22.6	22.6	10.5	98.6	-50.6	2302.9	1.118e+04	-635.0
3471	ok	0.03	5.54e-02	8.16e-04	10.1	10.1	22.6	22.6	7.0	44.2	-35.9	602.2	6835.4	-266.0
3472	ok	0.03	5.17e-02	3.86e-04	10.1	10.1	22.6	22.6	3.8	33.9	-19.8	514.4	6297.7	-562.5
3473	ok	0.03	5.43e-02	6.68e-04	10.1	10.1	22.6	22.6	8.1	59.7	-38.1	905.0	6592.0	-310.1
3474	ok	0.03	5.33e-02	6.68e-04	10.1	10.1	22.6	22.6	6.7	61.4	-37.8	1102.6	6413.9	-387.7
3475	ok	0.03	5.19e-02	7.09e-04	10.1	10.1	22.6	22.6	4.0	60.8	-36.8	1208.1	6203.9	-427.6
3476	ok	0.03	5.00e-02	7.97e-04	10.1	10.1	22.6	22.6	1.2	60.2	-35.8	1245.0	5970.3	-438.1
3477	ok	0.03	4.79e-02	8.90e-04	10.1	10.1	22.6	22.6	-1.3	60.1	-34.9	1224.1	5713.3	-433.9
3478	ok	0.03	4.58e-02	9.74e-04	10.1	10.1	22.6	22.6	-1.2	60.6	-34.9	1169.2	5439.0	-436.6
3479	ok	0.03	4.35e-02	1.08e-03	10.1	10.1	22.6	22.6	-3.2	60.7	-34.0	1094.9	5145.3	-443.7
3480	ok	0.03	4.11e-02	1.23e-03	10.1	10.1	22.6	22.6	-5.1	60.0	-33.1	977.8	4823.8	-473.8
3481	ok	0.03	3.86e-02	1.32e-03	10.1	10.1	22.6	22.6	-6.9	57.0	-32.8	853.2	4495.6	-516.6
3482	ok	0.03	1.17e-02	0.0	10.1	10.1	22.6	22.6	17.1	14.9	-12.4	-116.3	1321.8	-350.3
3483	ok	0.03	1.17e-02	0.0	10.1	10.1	22.6	22.6	11.1	17.4	-3.2	37.9	1360.6	-261.1
3484	ok	0.03	1.17e-02	1.20e-04	10.1	10.1	22.6	22.6	8.3	18.1	-14.0	-119.3	1379.9	-270.7
3485	ok	0.03	1.14e-02	4.20e-04	10.1	10.1	22.6	22.6	8.7	20.3	-14.0	-143.0	1259.7	-251.9
3486	ok	0.03	1.14e-02	6.62e-04	10.1	10.1	22.6	22.6	-8.3	17.6	-11.9	215.3	1246.4	-290.7
3487	ok	0.03	1.14e-02	8.62e-04	10.1	10.1	22.6	22.6	-13.1	17.3	-11.4	309.7	1182.0	-293.8
3488	ok	0.03	1.12e-02	1.04e-03	10.1	10.1	22.6	22.6	-16.9	17.2	-11.1	358.4	1114.3	-291.2
3489	ok	0.03	1.09e-02	1.19e-03	10.1	10.1	22.6	22.6	-20.1	17.3	-10.7	373.3	1042.9	-288.9
3490	ok	0.03	1.04e-02	1.31e-03	10.1	10.1	22.6	22.6	-22.5	17.3	-10.4	362.9	968.2	-290.0

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3491	ok	0.03	9.99e-03	1.48e-03	10.1	10.1	22.6	22.6	-22.4	17.6	-10.4	347.4	891.8	-298.0
3492	ok	0.03	9.61e-03	2.04e-03	10.1	10.1	22.6	22.6	-25.4	16.4	-10.8	326.3	817.3	-312.3

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
20	150.00	4	2	Singolo elemento

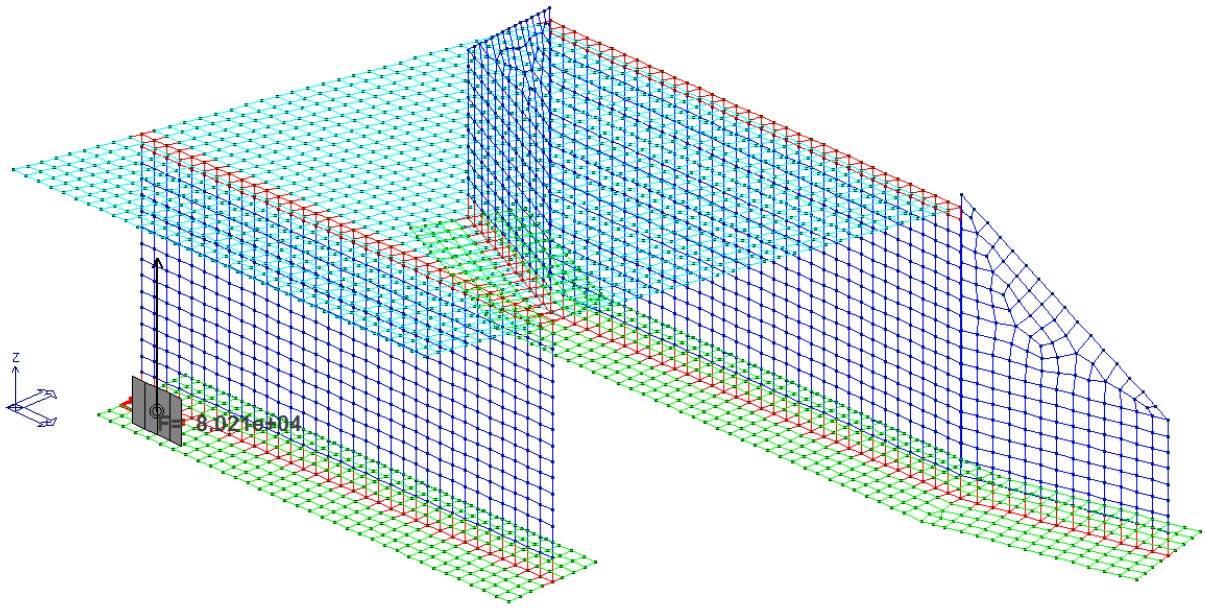
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1497	ok	0.03	1.41e-02	9.22e-04	10.1	10.1	22.6	22.6	14.9	-15.6	8.6	-539.7	-1284.8	377.8
1498	ok	0.03	1.67e-02	9.14e-04	10.1	10.1	22.6	22.6	15.7	-15.7	8.5	-714.8	-1344.2	434.7
2877	ok	0.03	2.10e-02	9.05e-04	10.1	10.1	22.6	22.6	16.5	-15.7	8.4	-1002.9	-1424.1	504.2
2878	ok	0.03	2.73e-02	9.04e-04	10.1	10.1	22.6	22.6	17.4	-15.6	8.4	-1411.8	-1518.5	505.0
3048	ok	0.03	9.42e-02	8.98e-03	10.1	10.1	22.6	22.6	-31.7	-164.1	41.3	-2490.9	-1.263e+04	1335.3
3051	ok	0.03	9.86e-02	7.82e-03	10.1	10.1	22.6	22.6	-28.4	-143.3	-20.2	-2627.0	-1.313e+04	-1365.0
3054	ok	0.03	0.1	5.12e-03	10.1	10.1	22.6	22.6	-13.8	-95.4	8.8	-3957.3	-1.978e+04	-281.5
3055	ok	0.03	0.1	5.26e-03	10.1	10.1	22.6	22.6	-4.1	-116.8	3.9	-3567.1	-1.801e+04	-90.8
3056	ok	0.03	0.1	5.31e-03	10.1	10.1	22.6	22.6	-12.6	-82.2	41.2	-3748.4	-1.882e+04	1809.4
3059	ok	0.03	0.2	5.72e-03	10.1	10.1	22.6	22.6	-11.2	-86.0	45.8	-6947.6	-2.034e+04	3679.9
3060	ok	0.03	0.1	5.17e-03	10.1	10.1	22.6	22.6	-6.9	-111.9	-21.9	-3487.2	-1.757e+04	-1481.0
3063	ok	0.03	0.1	5.93e-03	10.1	10.1	22.6	22.6	-7.0	-134.1	3.7	-3896.3	-1.966e+04	369.5
3094	ok	0.03	0.1	4.96e-03	10.1	10.1	22.6	22.6	-12.5	-92.0	6.8	-3811.6	-1.891e+04	9.1
3095	ok	0.03	0.1	4.92e-03	10.1	10.1	22.6	22.6	-12.3	-91.3	6.8	-3736.1	-1.854e+04	186.6
3096	ok	0.03	0.1	4.93e-03	10.1	10.1	22.6	22.6	-11.6	-91.6	5.2	-3702.1	-1.827e+04	259.9
3097	ok	0.03	0.1	4.96e-03	10.1	10.1	22.6	22.6	-10.9	-92.2	3.8	-3686.9	-1.811e+04	277.4
3098	ok	0.03	0.1	4.99e-03	10.1	10.1	22.6	22.6	-10.2	-92.8	2.6	-3682.6	-1.801e+04	258.0
3099	ok	0.03	0.1	5.01e-03	10.1	10.1	22.6	22.6	-9.4	-93.2	1.7	-3683.6	-1.796e+04	216.7
3100	ok	0.03	0.1	5.03e-03	10.1	10.1	22.6	22.6	-8.6	-93.6	1.0	-3686.5	-1.792e+04	163.7
3101	ok	0.03	0.1	5.04e-03	10.1	10.1	22.6	22.6	-7.9	-94.0	0.4	-3689.0	-1.788e+04	105.8
3102	ok	0.03	0.1	5.05e-03	10.1	10.1	22.6	22.6	-7.1	-94.3	1.27e-02	-3690.2	-1.785e+04	46.8
3103	ok	0.03	0.1	5.07e-03	10.1	10.1	22.6	22.6	-5.7	-94.5	-0.5	-3694.4	-1.782e+04	-32.4
3104	ok	0.03	0.1	5.07e-03	10.1	10.1	22.6	22.6	-5.1	-94.7	-0.6	-3691.1	-1.779e+04	-87.6
3105	ok	0.03	0.1	5.08e-03	10.1	10.1	22.6	22.6	-4.5	-94.9	-0.7	-3686.3	-1.775e+04	-140.7
3106	ok	0.03	0.1	5.09e-03	10.1	10.1	22.6	22.6	-4.0	-95.2	-0.8	-3679.9	-1.772e+04	-191.5
3107	ok	0.03	0.1	5.10e-03	10.1	10.1	22.6	22.6	-3.6	-95.4	-0.7	-3672.2	-1.768e+04	-240.1
3108	ok	0.03	0.1	5.10e-03	10.1	10.1	22.6	22.6	-3.2	-95.6	-0.7	-3663.2	-1.765e+04	-286.6
3109	ok	0.03	0.1	5.11e-03	10.1	10.1	22.6	22.6	5.1	-114.4	-0.8	-3390.2	-1.777e+04	-466.5
3110	ok	0.03	0.1	5.11e-03	10.1	10.1	22.6	22.6	5.4	-114.6	-0.3	-3401.8	-1.777e+04	-490.4
3111	ok	0.03	0.1	5.12e-03	10.1	10.1	22.6	22.6	5.6	-114.8	0.1	-3412.8	-1.777e+04	-512.4
3112	ok	0.03	0.1	5.12e-03	10.1	10.1	22.6	22.6	5.7	-114.9	0.6	-3423.3	-1.777e+04	-532.5
3113	ok	0.03	0.1	5.13e-03	10.1	10.1	22.6	22.6	5.7	-115.0	1.0	-3433.3	-1.777e+04	-550.9
3114	ok	0.03	0.1	5.14e-03	10.1	10.1	22.6	22.6	5.5	-115.1	1.5	-3442.6	-1.777e+04	-567.6
3115	ok	0.03	0.1	5.14e-03	10.1	10.1	22.6	22.6	5.2	-115.1	1.9	-3451.1	-1.777e+04	-582.3
3116	ok	0.03	0.1	5.15e-03	10.1	10.1	22.6	22.6	4.7	-115.2	2.3	-3458.5	-1.777e+04	-594.4
3117	ok	0.03	0.1	5.15e-03	10.1	10.1	22.6	22.6	4.2	-115.2	2.7	-3465.3	-1.777e+04	-602.5
3118	ok	0.03	0.1	5.16e-03	10.1	10.1	22.6	22.6	3.5	-115.2	3.1	-3471.9	-1.777e+04	-604.2
3119	ok	0.03	0.1	5.16e-03	10.1	10.1	22.6	22.6	2.7	-115.1	3.4	-3479.2	-1.779e+04	-595.6
3120	ok	0.03	0.1	5.16e-03	10.1	10.1	22.6	22.6	1.8	-115.1	3.8	-3488.6	-1.782e+04	-570.3
3121	ok	0.03	0.1	5.17e-03	10.1	10.1	22.6	22.6	1.9	-114.7	3.8	-3503.0	-1.790e+04	-521.1
3122	ok	0.03	0.1	5.19e-03	10.1	10.1	22.6	22.6	0.7	-114.9	4.1	-3527.6	-1.802e+04	-437.6
3123	ok	0.03	0.1	5.25e-03	10.1	10.1	22.6	22.6	-0.7	-116.3	4.6	-3577.8	-1.827e+04	-308.9
3134	ok	0.03	9.15e-02	6.07e-03	10.1	10.1	22.6	22.6	-17.3	-95.9	46.9	-2414.9	-1.223e+04	692.5
3135	ok	0.03	9.56e-02	5.55e-03	10.1	10.1	22.6	22.6	-14.2	-83.4	47.5	-2507.5	-1.272e+04	537.8
3136	ok	0.03	9.94e-02	5.38e-03	10.1	10.1	22.6	22.6	-12.9	-79.2	47.4	-2599.2	-1.322e+04	529.1
3137	ok	0.03	0.1	5.35e-03	10.1	10.1	22.6	22.6	-12.3	-79.1	46.5	-2698.1	-1.374e+04	570.3
3138	ok	0.03	0.1	5.33e-03	10.1	10.1	22.6	22.6	-12.0	-79.9	45.5	-2800.9	-1.428e+04	636.1
3139	ok	0.03	0.1	5.31e-03	10.1	10.1	22.6	22.6	-11.6	-80.7	44.7	-2908.6	-1.484e+04	720.0
3140	ok	0.03	0.1	5.28e-03	10.1	10.1	22.6	22.6	-11.2	-81.3	44.2	-3023.9	-1.543e+04	825.3
3141	ok	0.03	0.1	5.26e-03	10.1	10.1	22.6	22.6	-11.1	-81.6	43.8	-3151.5	-1.606e+04	962.9
3142	ok	0.03	0.1	5.25e-03	10.1	10.1	22.6	22.6	-11.0	-81.7	43.4	-3303.1	-1.678e+04	1149.1
3143	ok	0.03	0.1	5.26e-03	10.1	10.1	22.6	22.6	-11.2	-81.8	43.0	-3477.8	-1.756e+04	1409.1
3155	ok	0.03	0.1	5.12e-03	10.1	10.1	22.6	22.6	-6.5	-110.5	-22.8	-3394.4	-1.725e+04	-1148.7
3156	ok	0.03	0.1	5.07e-03	10.1	10.1	22.6	22.6	-7.9	-109.2	-23.0	-3261.5	-1.662e+04	-949.3
3157	ok	0.03	0.1	5.06e-03	10.1	10.1	22.6	22.6	-9.4	-108.6	-23.2	-3159.5	-1.611e+04	-808.3
3158	ok	0.03	0.1	5.06e-03	10.1	10.1	22.6	22.6	-11.2	-108.1	-23.7	-3068.7	-1.563e+04	-702.9
3159	ok	0.03	0.1	5.08e-03	10.1	10.1	22.6	22.6	-12.8	-107.8	-24.6	-2986.2	-1.519e+04	-620.7
3160	ok	0.03	0.1	5.10e-03	10.1	10.1	22.6	22.6	-14.2	-107.4	-25.8	-2908.5	-1.476e+04	-555.4
3161	ok	0.03	0.1	5.11e-03	10.1	10.1	22.6	22.6	-15.7	-106.7	-27.3	-2833.2	-1.435e+04	-502.5
3162	ok	0.03	0.1	5.14e-03	10.1	10.1	22.6	22.6	-16.9	-106.2	-29.0	-2759.8	-1.395e+04	-464.5
3163	ok	0.03	0.1	5.19e-03	10.1	10.1	22.6	22.6	-18.1	-106.3	-30.6	-2687.9	-1.355e+04	-451.2

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3164	ok	0.03	9.76e-02	5.36e-03	10.1	10.1	22.6	22.6	-21.2	-111.2	-23.3	-2628.4	-1.318e+04	-475.0
3165	ok	0.03	9.51e-02	5.71e-03	10.1	10.1	22.6	22.6	-22.2	-116.1	-18.4	-2552.2	-1.279e+04	-669.7
3167	ok	0.03	1.89e-02	9.71e-04	10.1	10.1	22.6	22.6	64.2	-21.1	-4.9	-820.0	-1342.9	-436.5
3169	ok	0.03	2.77e-02	9.50e-04	10.1	10.1	22.6	22.6	17.3	-16.1	8.4	-1381.7	-1379.3	629.8
3172	ok	0.03	2.29e-02	1.13e-03	10.1	10.1	22.6	22.6	31.4	-20.3	1.2	-1253.7	-1686.6	-131.5
3173	ok	0.03	2.11e-02	1.04e-03	10.1	10.1	22.6	22.6	70.4	-22.8	6.3	-1056.8	-1378.4	-249.3
3268	ok	0.03	5.52e-02	2.98e-03	10.1	10.1	22.6	22.6	16.6	-56.4	2.2	-2443.3	-7252.9	23.1
3269	ok	0.03	5.80e-02	2.87e-03	10.1	10.1	22.6	22.6	15.8	-54.0	5.1	-2252.8	-7612.6	-35.1
3270	ok	0.03	2.24e-02	9.06e-04	10.1	10.1	22.6	22.6	32.1	-17.2	1.2	-1228.4	-1559.8	-45.6
3271	ok	0.03	0.1	4.94e-03	10.1	10.1	22.6	22.6	-1.9	-93.0	8.8	-4665.0	-1.992e+04	-594.6
3272	ok	0.03	0.1	4.79e-03	10.1	10.1	22.6	22.6	-1.3	-89.7	8.8	-4491.5	-1.905e+04	-280.9
3273	ok	0.03	5.64e-02	2.83e-03	10.1	10.1	22.6	22.6	15.0	-53.3	4.4	-2059.9	-7390.3	-22.1
3274	ok	0.03	1.80e-02	8.95e-04	10.1	10.1	22.6	22.6	31.7	-17.2	1.7	-989.4	-1565.9	-0.9
3275	ok	0.03	0.1	4.75e-03	10.1	10.1	22.6	22.6	-1.9	-89.2	6.8	-4136.4	-1.862e+04	50.3
3276	ok	0.03	5.54e-02	2.83e-03	10.1	10.1	22.6	22.6	15.3	-53.5	3.3	-1846.3	-7267.2	85.7
3277	ok	0.03	1.30e-02	8.96e-04	10.1	10.1	22.6	22.6	31.1	-17.4	1.2	-702.8	-1510.6	31.9
3278	ok	0.03	0.1	4.76e-03	10.1	10.1	22.6	22.6	-1.4	-89.5	5.2	-3927.2	-1.831e+04	160.0
3279	ok	0.03	5.47e-02	2.84e-03	10.1	10.1	22.6	22.6	16.1	-53.9	2.2	-1655.5	-7174.8	135.9
3280	ok	0.03	1.18e-02	9.00e-04	10.1	10.1	22.6	22.6	31.6	-17.6	0.7	-523.9	-1487.3	62.2
3281	ok	0.03	0.1	4.78e-03	10.1	10.1	22.6	22.6	-0.6	-90.1	3.8	-3788.0	-1.813e+04	218.5
3282	ok	0.03	5.43e-02	2.85e-03	10.1	10.1	22.6	22.6	17.3	-54.2	1.3	-1532.3	-7119.7	147.6
3283	ok	0.03	1.16e-02	9.00e-04	10.1	10.1	22.6	22.6	33.2	-17.6	0.3	-409.8	-1470.4	69.3
3284	ok	0.03	0.1	4.79e-03	10.1	10.1	22.6	22.6	0.4	-90.6	2.6	-3699.6	-1.802e+04	223.3
3285	ok	0.03	5.40e-02	2.85e-03	10.1	10.1	22.6	22.6	18.9	-54.4	0.6	-1461.8	-7086.4	132.2
3286	ok	0.03	1.15e-02	8.97e-04	10.1	10.1	22.6	22.6	35.4	-17.7	4.21e-02	-346.1	-1460.5	63.9
3287	ok	0.03	0.1	4.81e-03	10.1	10.1	22.6	22.6	1.6	-91.0	1.7	-3649.0	-1.795e+04	195.2
3288	ok	0.03	5.39e-02	2.85e-03	10.1	10.1	22.6	22.6	20.7	-54.6	9.47e-02	-1426.8	-7065.3	101.9
3289	ok	0.03	1.13e-02	8.93e-04	10.1	10.1	22.6	22.6	38.0	-17.7	-0.2	-315.1	-1454.3	50.8
3290	ok	0.03	0.1	4.82e-03	10.1	10.1	22.6	22.6	2.8	-91.3	1.0	-3623.6	-1.790e+04	148.6
3291	ok	0.03	5.37e-02	2.85e-03	10.1	10.1	22.6	22.6	22.7	-54.6	-0.3	-1413.2	-7050.1	64.4
3292	ok	0.03	1.13e-02	8.88e-04	10.1	10.1	22.6	22.6	40.8	-17.6	-0.3	-303.9	-1450.2	34.3
3293	ok	0.03	0.1	4.82e-03	10.1	10.1	22.6	22.6	4.1	-91.6	0.4	-3612.7	-1.787e+04	93.3
3294	ok	0.03	5.36e-02	2.85e-03	10.1	10.1	22.6	22.6	24.7	-54.7	-0.5	-1411.1	-7037.4	24.4
3295	ok	0.03	1.13e-02	8.83e-04	10.1	10.1	22.6	22.6	43.6	-17.6	-0.4	-303.4	-1447.1	16.4
3296	ok	0.03	0.1	4.82e-03	10.1	10.1	22.6	22.6	5.5	-91.8	1.27e-02	-3609.2	-1.784e+04	35.1
3297	ok	0.03	5.36e-02	2.85e-03	10.1	10.1	22.6	22.6	28.8	-54.3	-0.8	-1422.3	-7027.1	-37.2
3298	ok	0.03	1.14e-02	8.77e-04	10.1	10.1	22.6	22.6	49.2	-17.0	-0.4	-315.4	-1446.1	-23.1
3299	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	8.2	-91.7	-0.5	-3615.6	-1.781e+04	-44.4
3300	ok	0.03	5.35e-02	2.85e-03	10.1	10.1	22.6	22.6	30.7	-54.4	-0.8	-1427.5	-7015.2	-75.3
3301	ok	0.03	1.14e-02	8.72e-04	10.1	10.1	22.6	22.6	51.8	-17.0	-0.4	-322.0	-1443.7	-39.5
3302	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	9.5	-91.8	-0.6	-3615.3	-1.777e+04	-100.0
3303	ok	0.03	5.35e-02	2.84e-03	10.1	10.1	22.6	22.6	32.5	-54.4	-0.9	-1431.6	-7002.9	-111.8
3304	ok	0.03	1.14e-02	8.67e-04	10.1	10.1	22.6	22.6	54.3	-17.0	-0.5	-327.6	-1441.2	-55.1
3305	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	10.6	-91.9	-0.7	-3613.7	-1.774e+04	-153.3
3306	ok	0.03	5.35e-02	2.84e-03	10.1	10.1	22.6	22.6	34.1	-54.4	-0.9	-1434.3	-6990.1	-146.6
3307	ok	0.03	1.15e-02	8.62e-04	10.1	10.1	22.6	22.6	56.5	-16.9	-0.4	-332.0	-1438.5	-70.1
3308	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	11.7	-92.1	-0.8	-3610.6	-1.771e+04	-204.3
3309	ok	0.03	5.36e-02	2.84e-03	10.1	10.1	22.6	22.6	35.6	-54.5	-0.8	-1435.5	-6976.9	-179.8
3310	ok	0.03	1.16e-02	8.58e-04	10.1	10.1	22.6	22.6	58.5	-16.9	-0.4	-334.8	-1435.8	-84.3
3311	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	12.6	-92.2	-0.7	-3605.9	-1.767e+04	-253.1
3312	ok	0.03	5.37e-02	2.84e-03	10.1	10.1	22.6	22.6	36.9	-54.5	-0.8	-1435.1	-6963.4	-211.7
3313	ok	0.03	1.16e-02	8.54e-04	10.1	10.1	22.6	22.6	60.3	-16.9	-0.4	-336.3	-1433.0	-98.0
3314	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	36.6	-107.8	-1.2	-3340.9	-1.776e+04	-440.7
3315	ok	0.03	5.38e-02	2.83e-03	10.1	10.1	22.6	22.6	38.0	-54.6	-0.7	-1433.4	-6949.7	-242.2
3316	ok	0.03	1.16e-02	8.50e-04	10.1	10.1	22.6	22.6	61.8	-16.9	-0.4	-336.5	-1430.2	-111.1
3317	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	37.4	-108.0	-0.8	-3355.8	-1.776e+04	-466.8
3318	ok	0.03	5.39e-02	2.83e-03	10.1	10.1	22.6	22.6	38.9	-54.6	-0.6	-1430.5	-6935.8	-271.5
3319	ok	0.03	1.17e-02	8.47e-04	10.1	10.1	22.6	22.6	63.1	-16.9	-0.3	-335.5	-1427.3	-123.6
3320	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	38.0	-108.1	-0.3	-3370.1	-1.776e+04	-490.8
3321	ok	0.03	5.40e-02	2.83e-03	10.1	10.1	22.6	22.6	39.6	-54.7	-0.5	-1426.3	-6921.7	-299.7
3322	ok	0.03	1.17e-02	8.45e-04	10.1	10.1	22.6	22.6	64.1	-16.9	-0.2	-333.4	-1424.4	-135.8
3323	ok	0.03	0.1	4.83e-03	10.1	10.1	22.6	22.6	38.4	-108.2	0.1	-3383.7	-1.776e+04	-512.9
3324	ok	0.03	5.41e-02	2.83e-03	10.1	10.1	22.6	22.6	40.1	-54.8	-0.5	-1421.3	-6907.4	-326.9
3325	ok	0.03	1.17e-02	8.43e-04	10.1	10.1	22.6	22.6	64.7	-17.0	-0.2	-330.5	-1421.5	-147.5
3326	ok	0.03	0.1	4.84e-03	10.1	10.1	22.6	22.6	38.5	-108.3	0.6	-3396.7	-1.776e+04	-533.3
3327	ok	0.03	5.41e-02	2.84e-03	10.1	10.1	22.6	22.6	78.9	-63.6	0.7	-1253.6	-7043.5	-381.0
3328	ok	0.03	1.18e-02	8.46e-04	10.1	10.1	22.6	22.6	65.2	-17.0	-0.2	-327.1	-1418.6	-158.9
3329	ok	0.03	0.1	4.84e-03	10.1	10.1	22.6	22.6	38.4	-108.4	1.0	-3409.3	-1.776e+04	-551.8
3330	ok	0.03	5.42e-02	2.85e-03	10.1	10.1	22.6	22.6	78.2	-63.7	1.0	-1267.6	-7043.9	-392.4
3331	ok	0.03	1.18e-02	8.50e-04	10.1	10.1	22.6	22.6	65.4	-17.0	-0.1	-324.0	-1415.7	-169.8
3332	ok	0.03	0.1	4.85e-03	10.1	10.1	22.6	22.6	37.9	-108.6	1.5	-3421.7	-1.776e+04	-568.6
3333	ok	0.03	5.42e-02	2.85e-03	10.1	10.1	22.6	22.6	77.2	-63.8	1.4	-1282.9	-7044.3	-402.3
3334	ok	0.03	1.19e-02	8.54e-04	10.1	10.1	22.6	22.6	65.2	-17.1	-6.52e-02	-322.2	-1412.9	-180.1

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3335	ok	0.03	0.1	4.86e-03	10.1	10.1	22.6	22.6	37.3	-108.7	1.9	-3434.7	-1.776e+04	-583.1
3336	ok	0.03	5.43e-02	2.86e-03	10.1	10.1	22.6	22.6	75.8	-63.9	1.8	-1301.5	-7045.3	-409.9
3337	ok	0.03	1.19e-02	8.60e-04	10.1	10.1	22.6	22.6	64.8	-17.1	-9.46e-03	-323.9	-1410.5	-189.6
3338	ok	0.03	0.1	4.87e-03	10.1	10.1	22.6	22.6	36.3	-108.9	2.3	-3449.5	-1.777e+04	-594.6
3339	ok	0.03	5.43e-02	2.87e-03	10.1	10.1	22.6	22.6	74.0	-64.1	2.1	-1326.8	-7048.1	-413.7
3340	ok	0.03	1.20e-02	8.65e-04	10.1	10.1	22.6	22.6	64.1	-17.2	-6.05e-03	-332.3	-1408.7	-197.3
3341	ok	0.03	0.1	4.88e-03	10.1	10.1	22.6	22.6	35.2	-109.0	2.7	-3468.8	-1.777e+04	-601.0
3342	ok	0.03	5.44e-02	2.87e-03	10.1	10.1	22.6	22.6	71.8	-64.2	2.3	-1364.5	-7054.4	-411.1
3343	ok	0.03	1.21e-02	8.72e-04	10.1	10.1	22.6	22.6	63.2	-17.3	-1.75e-02	-352.8	-1408.2	-202.0
3344	ok	0.03	0.1	4.89e-03	10.1	10.1	22.6	22.6	33.7	-109.1	3.1	-3496.4	-1.778e+04	-598.9
3345	ok	0.03	5.44e-02	2.88e-03	10.1	10.1	22.6	22.6	69.3	-64.3	2.6	-1422.2	-7067.7	-397.4
3346	ok	0.03	1.22e-02	8.78e-04	10.1	10.1	22.6	22.6	62.3	-17.3	-1.18e-02	-393.3	-1410.2	-201.5
3347	ok	0.03	0.1	4.90e-03	10.1	10.1	22.6	22.6	32.0	-109.3	3.4	-3537.7	-1.780e+04	-582.8
3348	ok	0.03	5.46e-02	2.89e-03	10.1	10.1	22.6	22.6	66.5	-64.4	2.8	-1508.8	-7093.8	-367.2
3349	ok	0.03	1.25e-02	8.83e-04	10.1	10.1	22.6	22.6	61.1	-17.3	-4.74e-02	-464.8	-1415.4	-191.7
3350	ok	0.03	0.1	4.91e-03	10.1	10.1	22.6	22.6	30.0	-109.4	3.8	-3599.6	-1.785e+04	-544.3
3351	ok	0.03	5.47e-02	2.90e-03	10.1	10.1	22.6	22.6	63.3	-64.6	3.0	-1628.7	-7135.2	-310.7
3352	ok	0.03	1.33e-02	8.89e-04	10.1	10.1	22.6	22.6	60.1	-17.4	-0.2	-583.9	-1431.5	-178.1
3353	ok	0.03	0.1	4.93e-03	10.1	10.1	22.6	22.6	27.7	-109.6	4.1	-3688.7	-1.793e+04	-476.2
3354	ok	0.03	5.52e-02	2.92e-03	10.1	10.1	22.6	22.6	59.5	-65.0	3.5	-1825.2	-7218.6	-255.8
3355	ok	0.03	1.37e-02	8.89e-04	10.1	10.1	22.6	22.6	59.3	-17.3	-0.2	-666.5	-1413.8	-136.4
3356	ok	0.03	0.1	4.96e-03	10.1	10.1	22.6	22.6	25.2	-110.0	4.6	-3807.8	-1.807e+04	-341.4
3357	ok	0.03	5.43e-02	2.95e-03	10.1	10.1	22.6	22.6	55.9	-65.4	4.4	-1925.4	-7166.0	-59.2
3358	ok	0.03	1.45e-02	9.42e-04	10.1	10.1	22.6	22.6	56.6	-18.1	0.6	-708.4	-1462.6	-155.9
3359	ok	0.03	0.1	5.03e-03	10.1	10.1	22.6	22.6	23.4	-111.4	4.5	-3969.9	-1.835e+04	-403.6
3360	ok	0.03	5.97e-02	3.24e-03	10.1	10.1	22.6	22.6	54.7	-71.5	4.4	-2074.5	-7911.2	29.6
3361	ok	0.03	0.1	5.01e-03	10.1	10.1	22.6	22.6	28.0	-110.2	3.6	-4360.2	-1.816e+04	364.1
3362	ok	0.03	2.04e-02	1.06e-03	10.1	10.1	22.6	22.6	70.4	-23.2	6.3	-1062.3	-1402.5	42.3
3363	ok	0.03	0.1	4.99e-03	10.1	10.1	22.6	22.6	11.8	-108.4	-22.8	-4124.5	-1.769e+04	-1565.4
3364	ok	0.03	6.09e-02	3.13e-03	10.1	10.1	22.6	22.6	37.9	-68.0	-13.2	-1946.7	-7485.1	-949.3
3365	ok	0.03	2.08e-02	1.09e-03	10.1	10.1	22.6	22.6	66.2	-21.3	-6.4	-968.1	-1350.6	-404.2
3366	ok	0.03	5.50e-02	3.20e-03	10.1	10.1	22.6	22.6	45.5	-68.6	-18.0	-2522.1	-5589.3	-948.6
3367	ok	0.03	0.1	5.53e-03	10.1	10.1	22.6	22.6	24.6	-124.4	3.4	-4604.6	-1.951e+04	725.1
3368	ok	0.03	5.50e-02	3.20e-03	10.1	10.1	22.6	22.6	45.5	-68.6	-18.0	-2522.1	-5589.3	-948.6
3379	ok	0.03	2.28e-02	9.07e-04	10.1	10.1	22.6	22.6	16.5	-12.0	11.0	-1278.5	-859.2	-46.6
3380	ok	0.03	6.08e-02	2.97e-03	10.1	10.1	22.6	22.6	6.5	-48.3	25.3	-2222.2	-6913.6	1240.6
3381	ok	0.03	0.1	5.15e-03	10.1	10.1	22.6	22.6	-5.4	-80.9	43.0	-4561.6	-1.899e+04	2230.0
3382	ok	0.03	2.28e-02	9.07e-04	10.1	10.1	22.6	22.6	16.5	-12.0	11.0	-1278.5	-859.2	-46.6
3383	ok	0.03	2.58e-02	1.26e-03	10.1	10.1	22.6	22.6	16.8	-18.9	9.0	-1332.0	-1744.3	441.9
3384	ok	0.03	0.2	5.72e-03	10.1	10.1	22.6	22.6	-11.2	-86.0	45.8	-6947.6	-2.034e+04	3679.9
3385	ok	0.03	5.79e-02	3.23e-03	10.1	10.1	22.6	22.6	8.3	-49.3	25.9	-2362.7	-6576.8	1081.3
3386	ok	0.03	0.2	5.72e-03	10.1	10.1	22.6	22.6	-11.2	-86.0	45.8	-6947.6	-2.034e+04	3679.9
3387	ok	0.03	6.73e-02	3.19e-03	10.1	10.1	22.6	22.6	8.5	-49.3	26.0	-2553.6	-7068.4	1611.1
3424	ok	0.03	1.91e-02	9.49e-04	10.1	10.1	22.6	22.6	64.5	-19.6	-4.9	-849.4	-1491.5	-385.5
3425	ok	0.03	5.67e-02	2.92e-03	10.1	10.1	22.6	22.6	38.9	-62.8	-13.1	-1808.9	-6794.0	-1013.2
3426	ok	0.03	1.63e-02	9.37e-04	10.1	10.1	22.6	22.6	59.4	-19.0	-3.9	-650.0	-1366.3	-386.3
3427	ok	0.03	5.43e-02	2.90e-03	10.1	10.1	22.6	22.6	33.6	-62.5	-12.8	-1785.8	-6674.7	-814.5
3428	ok	0.03	1.43e-02	9.49e-04	10.1	10.1	22.6	22.6	52.1	-19.3	-3.9	-552.5	-1347.9	-319.6
3429	ok	0.03	5.16e-02	2.90e-03	10.1	10.1	22.6	22.6	28.9	-62.5	-12.8	-1577.1	-6444.6	-717.8
3430	ok	0.03	1.26e-02	9.56e-04	10.1	10.1	22.6	22.6	45.0	-19.6	-4.1	-438.9	-1300.6	-285.4
3431	ok	0.03	4.92e-02	2.91e-03	10.1	10.1	22.6	22.6	24.2	-62.6	-13.2	-1439.4	-6250.4	-628.9
3432	ok	0.03	1.16e-02	9.62e-04	10.1	10.1	22.6	22.6	38.6	-19.9	-4.3	-369.4	-1262.4	-255.0
3433	ok	0.03	4.74e-02	2.92e-03	10.1	10.1	22.6	22.6	19.6	-62.7	-13.8	-1342.9	-6070.5	-563.3
3434	ok	0.03	1.09e-02	9.67e-04	10.1	10.1	22.6	22.6	32.6	-20.1	-4.6	-326.4	-1227.6	-231.9
3435	ok	0.03	4.60e-02	2.95e-03	10.1	10.1	22.6	22.6	15.3	-62.7	-14.7	-1273.5	-5902.7	-511.9
3436	ok	0.03	1.04e-02	9.68e-04	10.1	10.1	22.6	22.6	27.5	-20.2	-5.1	-292.3	-1195.9	-213.3
3437	ok	0.03	4.46e-02	2.97e-03	10.1	10.1	22.6	22.6	11.6	-62.6	-15.8	-1215.0	-5742.4	-471.2
3438	ok	0.03	1.00e-02	9.66e-04	10.1	10.1	22.6	22.6	23.7	-20.3	-5.7	-245.0	-1167.9	-199.2
3439	ok	0.03	4.33e-02	2.99e-03	10.1	10.1	22.6	22.6	8.5	-62.3	-17.2	-1148.5	-5586.4	-442.1
3440	ok	0.03	9.56e-03	9.59e-04	10.1	10.1	22.6	22.6	21.8	-20.2	-6.6	-152.0	-1139.1	-194.1
3441	ok	0.03	4.21e-02	3.03e-03	10.1	10.1	22.6	22.6	6.0	-62.4	-18.8	-1052.7	-5440.6	-426.2
3442	ok	0.03	9.37e-03	1.00e-03	10.1	10.1	22.6	22.6	20.3	-21.6	-5.6	85.3	-1135.7	-116.4
3443	ok	0.03	4.10e-02	3.09e-03	10.1	10.1	22.6	22.6	3.5	-64.4	-20.0	-897.9	-5317.7	-419.5
3444	ok	0.03	8.86e-03	1.13e-03	10.1	10.1	22.6	22.6	19.9	-23.2	-5.6	89.1	-1118.8	-51.8
3445	ok	0.03	4.12e-02	3.57e-03	10.1	10.1	22.6	22.6	1.2	-76.0	-19.8	-640.5	-5417.5	-349.9
3446	ok	0.03	8.07e-03	9.28e-04	10.1	10.1	22.6	22.6	8.8	-20.4	-0.3	13.5	-1031.5	72.2
3447	ok	0.03	3.67e-02	3.25e-03	10.1	10.1	22.6	22.6	-2.2	-72.5	-8.9	-457.2	-4841.1	114.3
3448	ok	0.03	0.1	4.95e-03	10.1	10.1	22.6	22.6	12.2	-106.8	-22.8	-4061.6	-1.738e+04	-1251.8
3449	ok	0.03	0.1	4.91e-03	10.1	10.1	22.6	22.6	8.7	-105.9	-23.1	-3621.5	-1.669e+04	-1161.6
3450	ok	0.03	0.1	4.91e-03	10.1	10.1	22.6	22.6	5.7	-105.6	-23.2	-3399.8	-1.615e+04	-984.8
3451	ok	0.03	0.1	4.92e-03	10.1	10.1	22.6	22.6	2.7	-105.4	-23.7	-3238.9	-1.566e+04	-864.8
3452	ok	0.03	0.1	4.95e-03	10.1	10.1	22.6	22.6	-0.3	-105.3	-24.6	-3111.1	-1.521e+04	-772.4
3453	ok	0.03	0.1	4.98e-03	10.1	10.1	22.6	22.6	-3.1	-105.1	-25.8	-3004.3	-1.478e+04	-700.7

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
3454	ok	0.03	0.1	5.01e-03	10.1	10.1	22.6	22.6	-5.7	-104.7	-27.3	-2906.5	-1.436e+04	-643.7
3455	ok	0.03	0.1	5.05e-03	10.1	10.1	22.6	22.6	-8.1	-104.5	-29.0	-2806.3	-1.395e+04	-602.7
3456	ok	0.03	0.1	5.11e-03	10.1	10.1	22.6	22.6	-10.7	-104.9	-30.6	-2686.7	-1.355e+04	-587.2
3457	ok	0.03	9.79e-02	5.27e-03	10.1	10.1	22.6	22.6	-13.7	-108.3	-32.0	-2511.9	-1.315e+04	-620.5
3458	ok	0.03	9.48e-02	5.63e-03	10.1	10.1	22.6	22.6	-15.7	-117.0	-33.4	-2125.4	-1.268e+04	-820.0
3459	ok	0.03	9.55e-02	7.61e-03	10.1	10.1	22.6	22.6	-10.5	-139.7	-20.2	-1137.7	-1.283e+04	-1252.7
3493	ok	0.03	9.13e-02	6.01e-03	10.1	10.1	22.6	22.6	-13.9	-95.2	46.8	-2054.7	-1.216e+04	859.9
3494	ok	0.03	9.13e-02	8.75e-03	10.1	10.1	22.6	22.6	-14.9	-160.7	41.2	-1089.3	-1.235e+04	1193.0
3495	ok	0.03	9.57e-02	5.48e-03	10.1	10.1	22.6	22.6	-11.1	-82.8	47.5	-2450.3	-1.272e+04	706.3
3496	ok	0.03	9.98e-02	5.31e-03	10.1	10.1	22.6	22.6	-8.5	-78.3	47.3	-2643.8	-1.323e+04	709.5
3497	ok	0.03	0.1	5.26e-03	10.1	10.1	22.6	22.6	-7.3	-78.1	46.4	-2790.2	-1.376e+04	756.3
3498	ok	0.03	0.1	5.22e-03	10.1	10.1	22.6	22.6	-6.8	-78.9	45.4	-2927.5	-1.431e+04	828.3
3499	ok	0.03	0.1	5.19e-03	10.1	10.1	22.6	22.6	-6.4	-79.7	44.7	-3077.1	-1.488e+04	921.6
3500	ok	0.03	0.1	5.16e-03	10.1	10.1	22.6	22.6	-6.1	-80.2	44.2	-3257.9	-1.548e+04	1042.9
3501	ok	0.03	0.1	5.13e-03	10.1	10.1	22.6	22.6	-5.8	-80.5	43.8	-3490.0	-1.614e+04	1207.4
3502	ok	0.03	0.1	5.11e-03	10.1	10.1	22.6	22.6	-5.6	-80.6	43.4	-3811.5	-1.688e+04	1417.6
3503	ok	0.03	0.1	5.11e-03	10.1	10.1	22.6	22.6	-5.4	-80.7	43.0	-4317.8	-1.774e+04	1842.3
3504	ok	0.03	4.00e-02	3.82e-03	10.1	10.1	22.6	22.6	2.2	-63.6	28.9	-652.1	-5214.1	419.9
3505	ok	0.03	3.51e-02	3.36e-03	10.1	10.1	22.6	22.6	-1.3	-62.3	13.6	-455.1	-4615.9	-78.5
3506	ok	0.03	4.03e-02	3.21e-03	10.1	10.1	22.6	22.6	3.5	-48.4	30.3	-911.9	-5132.3	522.4
3507	ok	0.03	4.17e-02	3.12e-03	10.1	10.1	22.6	22.6	4.0	-46.3	29.5	-1071.5	-5296.4	555.5
3508	ok	0.03	4.35e-02	3.08e-03	10.1	10.1	22.6	22.6	3.8	-46.6	28.3	-1179.5	-5491.0	594.5
3509	ok	0.03	4.54e-02	3.05e-03	10.1	10.1	22.6	22.6	3.8	-47.2	27.3	-1270.9	-5701.7	646.9
3510	ok	0.03	4.75e-02	3.02e-03	10.1	10.1	22.6	22.6	4.1	-47.7	26.6	-1374.3	-5923.2	715.2
3511	ok	0.03	5.00e-02	3.00e-03	10.1	10.1	22.6	22.6	4.5	-47.9	26.3	-1518.9	-6162.5	804.6
3512	ok	0.03	5.32e-02	2.97e-03	10.1	10.1	22.6	22.6	5.1	-48.1	26.0	-1733.4	-6430.0	924.9
3513	ok	0.03	5.70e-02	2.95e-03	10.1	10.1	22.6	22.6	5.7	-48.1	25.7	-1994.2	-6723.1	1087.9
3514	ok	0.03	6.15e-02	2.94e-03	10.1	10.1	22.6	22.6	6.5	-48.1	25.3	-2255.9	-7079.4	1211.8
3515	ok	0.03	8.56e-03	1.10e-03	10.1	10.1	22.6	22.6	23.3	-18.7	8.9	75.4	-1079.6	101.8
3516	ok	0.03	7.59e-03	8.28e-04	10.1	10.1	22.6	22.6	11.5	-14.8	1.0	16.4	-970.6	-52.4
3517	ok	0.03	9.45e-03	9.85e-04	10.1	10.1	22.6	22.6	21.3	-16.0	11.3	-26.2	-1110.5	241.7
3518	ok	0.03	9.98e-03	9.31e-04	10.1	10.1	22.6	22.6	16.2	-15.1	10.4	-192.6	-1106.6	266.3
3519	ok	0.03	1.08e-02	9.30e-04	10.1	10.1	22.6	22.6	13.9	-15.4	9.5	-293.5	-1145.6	281.5
3520	ok	0.03	1.16e-02	9.34e-04	10.1	10.1	22.6	22.6	13.5	-15.5	9.0	-358.6	-1185.8	305.9
3521	ok	0.03	1.26e-02	9.29e-04	10.1	10.1	22.6	22.6	14.0	-15.6	8.7	-429.7	-1232.0	337.2

Massimo taglio sulla suola di fondazione del setto lato ferrovia esistente su una larghezza di 2m di impalcato nella combinazione SLUa18:



V_{Ed}=80210daN=802.1kN; $v_{Ed}=V_{ED}/b$=802.1/2=401.1kN/m

Per tutte le combinazioni si riportano I valori in tabella:

CMB	Fz	SLUa 2	6.95E+04	SLUa 4	6.71E+04
SLUa 1	6.71E+04	SLUa 3	7.64E+04	SLUa 5	6.39E+04

SLUa 6	6.33E+04	SLUa 52	6.89E+04	SLUb 36	4.61E+04
SLUa 7	6.71E+04	SLUa 53	7.81E+04	SLUb 37	4.66E+04
SLUa 8	6.94E+04	SLUa 54	6.58E+04	SLUb 38	4.87E+04
SLUa 9	7.63E+04	SLUa 55	6.68E+04	SLUb 39	5.10E+04
SLUa 10	6.71E+04	SLUa 56	6.99E+04	SLUb 40	5.79E+04
SLUa 11	6.66E+04	SLUa 57	7.92E+04	SLUb 41	4.87E+04
SLUa 12	6.89E+04	SLUa 58	6.68E+04	SLUb 42	4.81E+04
SLUa 13	7.58E+04	SLUa 59	6.63E+04	SLUb 43	5.05E+04
SLUa 14	6.66E+04	SLUa 60	6.94E+04	SLUb 44	5.74E+04
SLUa 15	6.38E+04	SLUa 61	7.86E+04	SLUb 45	4.81E+04
SLUa 16	6.79E+04	SLUa 62	6.63E+04	SLUb 46	4.54E+04
SLUa 17	7.10E+04	SLUb 1	5.10E+04	SLUb 47	5.01E+04
SLUa 18	8.02E+04	SLUb 2	5.33E+04	SLUb 48	5.32E+04
SLUa 19	6.79E+04	SLUb 3	6.02E+04	SLUb 49	6.25E+04
SLUa 20	6.73E+04	SLUb 4	5.10E+04	SLUb 50	5.01E+04
SLUa 21	7.04E+04	SLUb 5	4.77E+04	SLUb 51	4.96E+04
SLUa 22	7.97E+04	SLUb 6	4.72E+04	SLUb 52	5.27E+04
SLUa 23	6.73E+04	SLUb 7	5.09E+04	SLUb 53	6.19E+04
SLUa 24	6.74E+04	SLUb 8	5.33E+04	SLUb 54	4.96E+04
SLUa 25	7.05E+04	SLUb 9	6.02E+04	SLUb 55	5.07E+04
SLUa 26	7.97E+04	SLUb 10	5.09E+04	SLUb 56	5.38E+04
SLUa 27	6.74E+04	SLUb 11	5.04E+04	SLUb 57	6.30E+04
SLUa 28	6.68E+04	SLUb 12	5.27E+04	SLUb 58	5.06E+04
SLUa 29	6.99E+04	SLUb 13	5.96E+04	SLUb 59	5.01E+04
SLUa 30	7.91E+04	SLUb 14	5.04E+04	SLUb 60	5.32E+04
SLUa 31	6.68E+04	SLUb 15	4.76E+04	SLUb 61	6.24E+04
SLUa 32	6.56E+04	SLUb 16	5.17E+04	SLUb 62	5.01E+04
SLUa 33	6.79E+04	SLUb 17	5.48E+04	SLUc 1	5.81E+04
SLUa 34	7.48E+04	SLUb 18	6.40E+04	SLUc 2	6.05E+04
SLUa 35	6.56E+04	SLUb 19	5.17E+04	SLUc 3	6.74E+04
SLUa 36	6.23E+04	SLUb 20	5.11E+04	SLUc 4	5.81E+04
SLUa 37	6.28E+04	SLUb 21	5.42E+04	SLUc 5	5.49E+04
SLUa 38	6.49E+04	SLUb 22	6.35E+04	SLUc 6	5.43E+04
SLUa 39	6.72E+04	SLUb 23	5.11E+04	SLUc 7	5.81E+04
SLUa 40	7.41E+04	SLUb 24	5.12E+04	SLUc 8	6.04E+04
SLUa 41	6.49E+04	SLUb 25	5.43E+04	SLUc 9	6.73E+04
SLUa 42	6.43E+04	SLUb 26	6.35E+04	SLUc 10	5.81E+04
SLUa 43	6.66E+04	SLUb 27	5.12E+04	SLUc 11	5.76E+04
SLUa 44	7.35E+04	SLUb 28	5.06E+04	SLUc 12	5.99E+04
SLUa 45	6.43E+04	SLUb 29	5.37E+04	SLUc 13	6.68E+04
SLUa 46	6.16E+04	SLUb 30	6.30E+04	SLUc 14	5.76E+04
SLUa 47	6.63E+04	SLUb 31	5.06E+04	SLUc 15	5.48E+04
SLUa 48	6.94E+04	SLUb 32	4.94E+04	SLUc 16	5.89E+04
SLUa 49	7.86E+04	SLUb 33	5.17E+04	SLUc 17	6.20E+04
SLUa 50	6.63E+04	SLUb 34	5.86E+04	SLUc 18	7.12E+04
SLUa 51	6.58E+04	SLUb 35	4.94E+04	SLUc 19	5.89E+04

SLUc 20	5.83E+04	SLUc 49	6.96E+04	SLV 8	3.70E+04
SLUc 21	6.14E+04	SLUc 50	5.73E+04	SLV 9	4.13E+04
SLUc 22	7.06E+04	SLUc 51	5.68E+04	SLV 10	5.80E+04
SLUc 23	5.83E+04	SLUc 52	5.99E+04	SLV 11	5.59E+04
SLUc 24	5.84E+04	SLUc 53	6.91E+04	SLV 12	6.01E+04
SLUc 25	6.15E+04	SLUc 54	5.68E+04	SLV 13	3.84E+04
SLUc 26	7.07E+04	SLUc 55	5.78E+04	SLV 14	3.63E+04
SLUc 27	5.84E+04	SLUc 56	6.09E+04	SLV 15	4.19E+04
SLUc 28	5.78E+04	SLUc 57	7.02E+04	SLV 16	5.25E+04
SLUc 29	6.09E+04	SLUc 58	5.78E+04	SLV 17	5.04E+04
SLUc 30	7.01E+04	SLUc 59	5.73E+04	SLV 18	5.60E+04
SLUc 31	5.78E+04	SLUc 60	6.04E+04	SLV 19	3.83E+04
SLUc 32	5.66E+04	SLUc 61	6.96E+04	SLV 20	3.62E+04
SLUc 33	5.89E+04	SLUc 62	5.73E+04	SLV 21	4.05E+04
SLUc 34	6.58E+04	SLUecc 1	4.25E+04	SLV 22	5.72E+04
SLUc 35	5.66E+04	SLUecc 2	4.37E+04	SLV 23	5.51E+04
SLUc 36	5.33E+04	SLUecc 3	4.74E+04	SLV 24	5.93E+04
SLUc 37	5.38E+04	SLUecc 4	4.86E+04	SLV 25	3.95E+04
SLUc 38	5.59E+04	SLUecc 5	3.97E+04	SLV 26	3.74E+04
SLUc 39	5.82E+04	SLUecc 6	4.08E+04	SLV 27	4.31E+04
SLUc 40	6.51E+04	SLUecc 7	4.16E+04	SLV 28	5.36E+04
SLUc 41	5.59E+04	SLUecc 8	4.27E+04	SLV 29	5.15E+04
SLUc 42	5.53E+04	SLV 1	3.92E+04	SLV 30	5.72E+04
SLUc 43	5.76E+04	SLV 2	3.71E+04	SLV 31	3.95E+04
SLUc 44	6.45E+04	SLV 3	4.27E+04	SLV 32	3.74E+04
SLUc 45	5.53E+04	SLV 4	5.33E+04	SLV 33	4.16E+04
SLUc 46	5.26E+04	SLV 5	5.12E+04	SLV 34	5.84E+04
SLUc 47	5.73E+04	SLV 6	5.68E+04	SLV 35	5.63E+04
SLUc 48	6.04E+04	SLV 7	3.92E+04	SLV 36	6.05E+04

Dunque si conduce la verifica per la massima sollecitazione di taglio v_{Ed}=401.1kN/m.

ARMATURA LONGITUDINALE TESA

n°	ϕ[mm]	Area
5	**24**	22.62
	Af	**22.62** cm^2

Copriferro all'asse delle armature tese

c **7.8** cm

resistenza a taglio di elementi quali solai e piastre, privi di armatura trasversale

V_{Rd} **462.39** kN; pari a 3.3 kg/cm^2 ρ_l = 0.002 ; k = 1.375

$V_{Ed}<V_{Rd}$; non è necessaria armatura specifica a taglio.

17.2 SLE

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati i risultati relativi alle tre categorie di combinazione

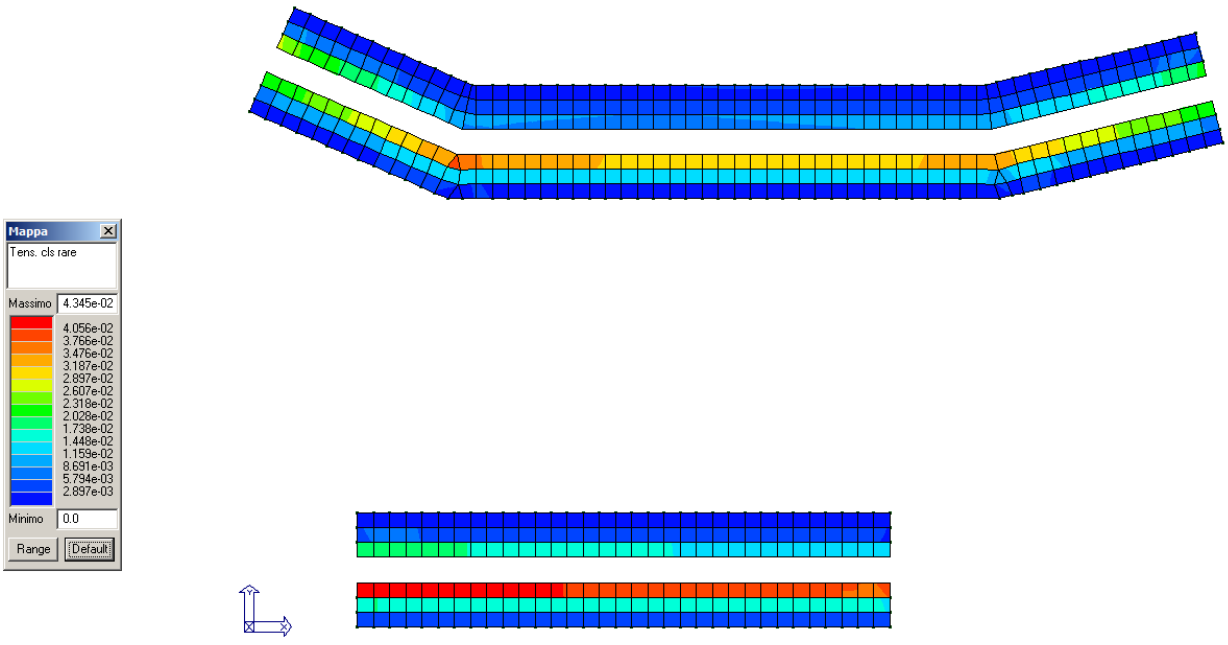
considerate:

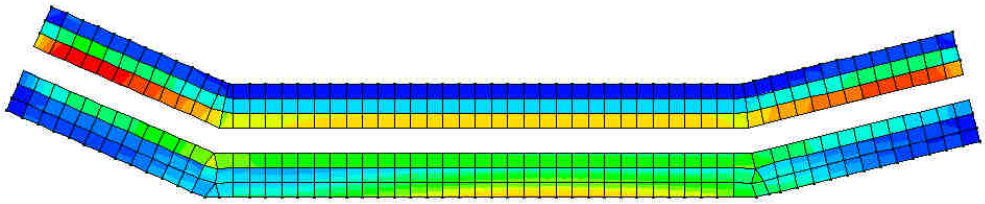
- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

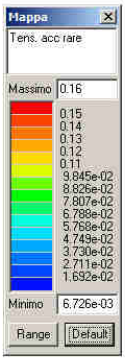
I valori di interesse sono i seguenti:

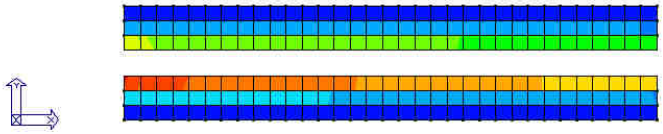
rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare	[*normalizzato a 1*]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare	[*normalizzato a 1*]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti	[*normalizzato a 1*]
wR	apertura caratteristica delle fessure in combinazioni rare	[*mm*]
wF	apertura caratteristica delle fessure in combinazioni frequenti	[*mm*]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti	[*mm*]

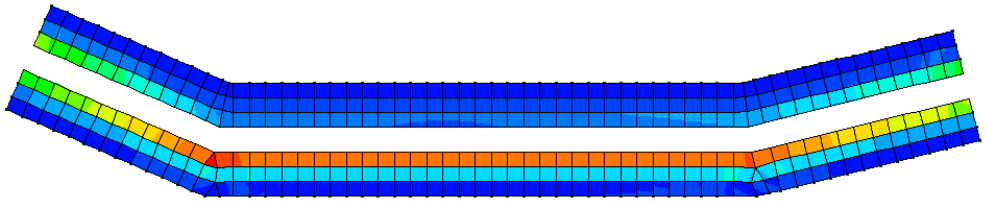
Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

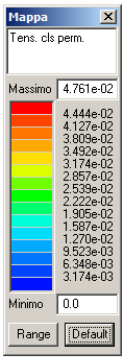


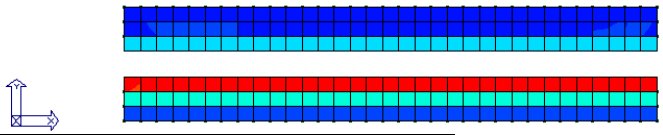












Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
					mm	mm	
595	0.04	0.15	0.05	284,284,347	0.0	0.0	0,0,0
596	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
597	3.62e-03	0.01	3.87e-03	284,315,347	0.0	0.0	0,0,0
598	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
599	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
600	3.69e-03	0.01	3.93e-03	284,315,347	0.0	0.0	0,0,0
601	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
602	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
603	3.69e-03	9.74e-03	3.94e-03	284,284,347	0.0	0.0	0,0,0
604	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
605	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
606	3.57e-03	9.31e-03	3.83e-03	284,315,347	0.0	0.0	0,0,0
607	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
608	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
609	3.55e-03	9.22e-03	3.81e-03	284,315,347	0.0	0.0	0,0,0
610	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
611	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
612	3.52e-03	9.11e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
613	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
614	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
615	3.50e-03	9.01e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
616	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
617	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
618	3.48e-03	8.91e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
619	0.04	0.14	0.05	284,284,347	0.0	0.0	0,0,0
620	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
621	3.46e-03	8.82e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
622	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
623	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
624	3.44e-03	8.72e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
625	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
626	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
627	3.43e-03	8.63e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
628	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
629	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
630	3.41e-03	8.54e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
631	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
632	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
633	3.39e-03	8.46e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
634	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
635	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
636	3.38e-03	8.36e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
637	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
638	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
639	3.36e-03	8.28e-03	3.78e-03	284,315,347	0.0	0.0	0,0,0
640	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
641	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
642	3.35e-03	8.21e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
643	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
644	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
645	3.33e-03	8.13e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
646	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
647	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
648	3.31e-03	8.04e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
649	0.04	0.13	0.05	284,284,347	0.0	0.0	0,0,0
650	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
651	3.30e-03	7.96e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
652	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
653	0.02	0.05	0.02	284,284,347	0.0	0.0	0,0,0
654	3.28e-03	7.85e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
655	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
656	0.02	0.04	0.02	284,284,347	0.0	0.0	0,0,0
657	3.26e-03	7.77e-03	3.79e-03	284,315,347	0.0	0.0	0,0,0
658	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
659	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
660	3.25e-03	7.72e-03	3.80e-03	284,315,347	0.0	0.0	0,0,0
661	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
662	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
663	3.23e-03	7.64e-03	3.80e-03	284,315,347	0.0	0.0	0,0,0
664	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
665	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
666	3.22e-03	7.56e-03	3.80e-03	284,315,347	0.0	0.0	0,0,0
667	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
668	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
669	3.20e-03	7.46e-03	3.81e-03	284,315,347	0.0	0.0	0,0,0
670	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
671	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
672	3.18e-03	7.44e-03	3.81e-03	284,315,347	0.0	0.0	0,0,0
673	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
674	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
675	3.17e-03	7.45e-03	3.82e-03	284,315,347	0.0	0.0	0,0,0
676	0.04	0.12	0.05	284,284,347	0.0	0.0	0,0,0
677	0.02	0.04	0.02	284,315,347	0.0	0.0	0,0,0
678	3.15e-03	7.44e-03	3.83e-03	284,306,347	0.0	0.0	0,0,0
679	0.04	0.12	0.05	285,284,347	0.0	0.0	0,0,0
680	0.02	0.04	0.02	285,315,347	0.0	0.0	0,0,0
681	3.16e-03	7.64e-03	3.85e-03	285,307,347	0.0	0.0	0,0,0
682	0.04	0.12	0.05	285,284,347	0.0	0.0	0,0,0
683	0.02	0.04	0.02	285,315,347	0.0	0.0	0,0,0
684	3.17e-03	7.95e-03	3.87e-03	285,307,347	0.0	0.0	0,0,0
685	0.04	0.12	0.05	285,284,347	0.0	0.0	0,0,0
686	0.02	0.04	0.02	285,315,347	0.0	0.0	0,0,0
687	3.26e-03	9.51e-03	3.99e-03	285,311,347	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
688	0.04	0.11	0.05	285,284,347	0.0	0.0	0,0,0
689	0.02	0.04	0.02	285,284,347	0.0	0.0	0,0,0
690	3.26e-03	0.01	3.98e-03	285,307,347	0.0	0.0	0,0,0
691	0.04	0.11	0.05	285,284,347	0.0	0.0	0,0,0
692	0.02	0.04	0.02	285,284,347	0.0	0.0	0,0,0
693	3.19e-03	0.01	3.90e-03	285,316,347	0.0	0.0	0,0,0
694	0.02	0.11	0.01	315,284,348	0.0	0.0	0,0,0
695	6.18e-03	0.04	3.08e-03	315,284,348	0.0	0.0	0,0,0
696	8.56e-04	9.93e-03	6.35e-04	284,284,348	0.0	0.0	0,0,0
697	0.02	0.10	0.01	315,284,348	0.0	0.0	0,0,0
698	6.14e-03	0.04	3.40e-03	315,284,347	0.0	0.0	0,0,0
699	9.30e-04	9.77e-03	7.19e-04	292,315,349	0.0	0.0	0,0,0
700	0.02	0.10	0.01	315,284,348	0.0	0.0	0,0,0
701	5.95e-03	0.04	3.55e-03	315,284,347	0.0	0.0	0,0,0
702	8.86e-04	0.01	5.09e-04	284,283,347	0.0	0.0	0,0,0
703	0.02	0.10	0.01	315,315,348	0.0	0.0	0,0,0
704	5.88e-03	0.04	3.55e-03	315,315,347	0.0	0.0	0,0,0
705	8.16e-04	9.61e-03	4.34e-04	284,283,347	0.0	0.0	0,0,0
706	0.02	0.10	0.01	315,315,348	0.0	0.0	0,0,0
707	5.80e-03	0.04	3.46e-03	315,315,347	0.0	0.0	0,0,0
708	7.72e-04	9.49e-03	2.48e-04	284,315,347	0.0	0.0	0,0,0
709	0.02	0.10	0.01	315,315,348	0.0	0.0	0,0,0
710	5.70e-03	0.04	3.36e-03	315,315,347	0.0	0.0	0,0,0
711	7.21e-04	9.49e-03	0.0	284,283,0	0.0	0.0	0,0,0
712	0.02	0.10	0.01	315,315,348	0.0	0.0	0,0,0
713	5.60e-03	0.04	3.25e-03	315,315,347	0.0	0.0	0,0,0
714	6.65e-04	9.59e-03	0.0	284,283,0	0.0	0.0	0,0,0
715	0.02	0.10	0.01	315,315,348	0.0	0.0	0,0,0
716	5.49e-03	0.04	3.15e-03	315,315,347	0.0	0.0	0,0,0
717	6.03e-04	9.64e-03	0.0	284,283,0	0.0	0.0	0,0,0
718	0.02	0.10	0.01	315,315,348	0.0	0.0	0,0,0
719	5.39e-03	0.04	3.06e-03	315,315,347	0.0	0.0	0,0,0
720	5.40e-04	9.88e-03	0.0	284,314,0	0.0	0.0	0,0,0
721	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
722	5.28e-03	0.04	3.04e-03	315,315,348	0.0	0.0	0,0,0
723	4.77e-04	0.01	0.0	284,305,0	0.0	0.0	0,0,0
724	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
725	5.17e-03	0.04	3.02e-03	315,315,348	0.0	0.0	0,0,0
726	4.14e-04	0.01	0.0	284,305,0	0.0	0.0	0,0,0
727	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
728	5.06e-03	0.04	3.01e-03	315,315,348	0.0	0.0	0,0,0
729	3.52e-04	0.01	0.0	284,305,0	0.0	0.0	0,0,0
730	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
731	4.96e-03	0.04	3.01e-03	315,315,348	0.0	0.0	0,0,0
732	2.97e-04	0.01	0.0	315,305,0	0.0	0.0	0,0,0
733	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
734	4.85e-03	0.04	3.01e-03	315,315,348	0.0	0.0	0,0,0
735	2.49e-04	0.01	0.0	315,305,0	0.0	0.0	0,0,0
736	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
737	4.74e-03	0.04	3.01e-03	315,315,348	0.0	0.0	0,0,0
738	1.84e-04	0.01	0.0	315,305,0	0.0	0.0	0,0,0
739	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
740	4.63e-03	0.04	3.02e-03	315,315,348	0.0	0.0	0,0,0
741	9.49e-05	0.01	0.0	315,305,0	0.0	0.0	0,0,0
742	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
743	4.52e-03	0.04	3.02e-03	315,315,348	0.0	0.0	0,0,0
744	1.51e-05	0.01	0.0	315,305,0	0.0	0.0	0,0,0
745	0.02	0.09	0.01	315,315,348	0.0	0.0	0,0,0
746	4.41e-03	0.04	3.03e-03	315,315,348	0.0	0.0	0,0,0
747	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
748	0.01	0.09	0.01	315,315,348	0.0	0.0	0,0,0
749	4.31e-03	0.04	3.04e-03	315,314,348	0.0	0.0	0,0,0
750	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
751	0.01	0.09	0.01	315,315,348	0.0	0.0	0,0,0
752	4.20e-03	0.04	3.06e-03	315,314,348	0.0	0.0	0,0,0
753	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
754	0.01	0.09	0.01	315,315,348	0.0	0.0	0,0,0
755	4.09e-03	0.04	3.07e-03	315,314,348	0.0	0.0	0,0,0
756	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
757	0.01	0.09	0.01	315,315,348	0.0	0.0	0,0,0
758	3.99e-03	0.04	3.08e-03	315,314,348	0.0	0.0	0,0,0
759	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
760	0.01	0.09	0.01	315,315,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
761	3.90e-03	0.04	3.09e-03	315,314,348	0.0	0.0	0,0,0
762	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
763	0.01	0.09	0.01	315,315,348	0.0	0.0	0,0,0
764	3.81e-03	0.04	3.10e-03	315,314,348	0.0	0.0	0,0,0
765	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
766	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
767	3.72e-03	0.04	3.12e-03	315,314,348	0.0	0.0	0,0,0
768	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
769	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
770	3.62e-03	0.04	3.13e-03	315,314,348	0.0	0.0	0,0,0
771	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
772	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
773	3.53e-03	0.04	3.14e-03	315,314,348	0.0	0.0	0,0,0
774	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
775	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
776	3.43e-03	0.04	3.15e-03	315,314,348	0.0	0.0	0,0,0
777	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
778	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
779	3.33e-03	0.04	3.17e-03	315,314,348	0.0	0.0	0,0,0
780	0.0	0.01	0.0	0,305,0	0.0	0.0	0,0,0
781	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
782	3.24e-03	0.04	3.24e-03	315,314,348	0.0	0.0	0,0,0
783	5.79e-05	0.01	0.0	275,305,0	0.0	0.0	0,0,0
784	0.01	0.09	0.01	315,314,348	0.0	0.0	0,0,0
785	3.19e-03	0.04	3.38e-03	306,314,348	0.0	0.0	0,0,0
786	2.41e-04	0.01	2.85e-04	281,305,347	0.0	0.0	0,0,0
787	0.01	0.09	0.01	306,314,348	0.0	0.0	0,0,0
788	3.51e-03	0.04	3.77e-03	306,314,348	0.0	0.0	0,0,0
789	6.57e-04	0.01	8.27e-04	298,305,348	0.0	0.0	0,0,0
790	0.01	0.08	0.02	306,314,348	0.0	0.0	0,0,0
791	3.45e-03	0.04	3.72e-03	306,314,348	0.0	0.0	0,0,0
792	5.93e-04	9.63e-03	7.29e-04	304,314,348	0.0	0.0	0,0,0
2998	9.22e-03	0.11	8.94e-03	320,320,348	0.0	0.0	0,0,0
2999	4.60e-03	0.05	4.44e-03	320,320,348	0.0	0.0	0,0,0
3000	1.55e-03	0.02	1.76e-03	320,320,347	0.0	0.0	0,0,0
3001	9.16e-03	0.11	8.68e-03	320,320,348	0.0	0.0	0,0,0
3002	4.44e-03	0.05	4.09e-03	320,320,350	0.0	0.0	0,0,0
3003	1.46e-03	0.02	1.38e-03	289,320,347	0.0	0.0	0,0,0
3004	9.18e-03	0.11	8.63e-03	320,320,348	0.0	0.0	0,0,0
3005	4.45e-03	0.05	4.05e-03	320,320,350	0.0	0.0	0,0,0
3006	1.68e-03	0.02	1.30e-03	289,320,348	0.0	0.0	0,0,0
3007	9.17e-03	0.11	8.56e-03	320,320,348	0.0	0.0	0,0,0
3008	4.48e-03	0.06	4.03e-03	320,320,348	0.0	0.0	0,0,0
3009	1.89e-03	0.02	1.30e-03	289,320,347	0.0	0.0	0,0,0
3010	9.15e-03	0.11	8.46e-03	320,320,348	0.0	0.0	0,0,0
3011	4.49e-03	0.06	3.98e-03	320,320,348	0.0	0.0	0,0,0
3012	2.08e-03	0.02	1.44e-03	289,320,347	0.0	0.0	0,0,0
3013	9.11e-03	0.11	8.34e-03	320,320,348	0.0	0.0	0,0,0
3014	4.50e-03	0.06	3.96e-03	320,320,348	0.0	0.0	0,0,0
3015	2.25e-03	0.02	1.57e-03	289,320,347	0.0	0.0	0,0,0
3016	9.05e-03	0.11	8.21e-03	320,320,348	0.0	0.0	0,0,0
3017	4.48e-03	0.06	3.96e-03	320,320,348	0.0	0.0	0,0,0
3018	2.39e-03	0.02	1.69e-03	289,320,347	0.0	0.0	0,0,0
3019	8.99e-03	0.11	8.06e-03	320,320,348	0.0	0.0	0,0,0
3020	4.45e-03	0.06	3.95e-03	320,320,348	0.0	0.0	0,0,0
3021	2.52e-03	0.02	1.79e-03	289,320,347	0.0	0.0	0,0,0
3022	8.92e-03	0.11	7.92e-03	320,320,348	0.0	0.0	0,0,0
3023	4.42e-03	0.06	3.93e-03	320,320,348	0.0	0.0	0,0,0
3024	2.63e-03	0.02	1.88e-03	289,320,347	0.0	0.0	0,0,0
3025	8.85e-03	0.11	7.77e-03	320,320,348	0.0	0.0	0,0,0
3026	4.57e-03	0.06	3.90e-03	289,320,350	0.0	0.0	0,0,0
3027	2.74e-03	0.02	1.96e-03	289,320,347	0.0	0.0	0,0,0
3028	8.77e-03	0.11	7.62e-03	320,320,348	0.0	0.0	0,0,0
3029	4.70e-03	0.06	3.88e-03	289,320,350	0.0	0.0	0,0,0
3030	2.83e-03	0.02	2.03e-03	289,320,347	0.0	0.0	0,0,0
3031	8.68e-03	0.11	7.44e-03	320,320,348	0.0	0.0	0,0,0
3032	4.81e-03	0.06	3.95e-03	297,320,348	0.0	0.0	0,0,0
3033	2.91e-03	0.02	2.10e-03	289,320,347	0.0	0.0	0,0,0
3034	8.71e-03	0.11	7.41e-03	289,320,347	0.0	0.0	0,0,0
3035	4.92e-03	0.06	4.00e-03	320,320,348	0.0	0.0	0,0,0
3036	2.98e-03	0.02	2.16e-03	289,320,347	0.0	0.0	0,0,0
3037	8.89e-03	0.11	7.62e-03	289,320,347	0.0	0.0	0,0,0
3038	5.04e-03	0.06	4.07e-03	320,320,347	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
3039	3.04e-03	0.02	2.22e-03	289,320,347	0.0	0.0	0,0,0
3040	9.06e-03	0.11	7.82e-03	297,320,350	0.0	0.0	0,0,0
3041	5.13e-03	0.06	4.24e-03	320,320,347	0.0	0.0	0,0,0
3042	3.09e-03	0.02	2.26e-03	289,320,347	0.0	0.0	0,0,0
3043	9.27e-03	0.11	8.05e-03	320,320,348	0.0	0.0	0,0,0
3044	5.21e-03	0.06	4.40e-03	320,320,347	0.0	0.0	0,0,0
3045	3.12e-03	0.02	2.30e-03	289,320,347	0.0	0.0	0,0,0
3046	9.48e-03	0.11	8.29e-03	320,320,348	0.0	0.0	0,0,0
3047	5.28e-03	0.06	4.55e-03	320,320,348	0.0	0.0	0,0,0
3048	3.15e-03	0.02	2.33e-03	289,320,347	0.0	0.0	0,0,0
3049	9.66e-03	0.11	8.49e-03	320,320,348	0.0	0.0	0,0,0
3050	5.33e-03	0.06	4.71e-03	320,320,348	0.0	0.0	0,0,0
3051	3.17e-03	0.02	2.36e-03	289,320,347	0.0	0.0	0,0,0
3052	9.82e-03	0.11	8.68e-03	320,320,348	0.0	0.0	0,0,0
3053	5.37e-03	0.06	4.86e-03	320,320,348	0.0	0.0	0,0,0
3054	3.17e-03	0.02	2.37e-03	289,320,347	0.0	0.0	0,0,0
3055	9.97e-03	0.11	8.86e-03	320,320,348	0.0	0.0	0,0,0
3056	5.41e-03	0.06	4.99e-03	320,320,348	0.0	0.0	0,0,0
3057	3.16e-03	0.02	2.38e-03	289,320,347	0.0	0.0	0,0,0
3058	0.01	0.11	9.12e-03	320,320,348	0.0	0.0	0,0,0
3059	5.44e-03	0.06	5.11e-03	320,320,348	0.0	0.0	0,0,0
3060	3.14e-03	0.02	2.37e-03	289,320,347	0.0	0.0	0,0,0
3061	0.01	0.11	9.34e-03	320,320,348	0.0	0.0	0,0,0
3062	5.46e-03	0.06	5.20e-03	320,320,348	0.0	0.0	0,0,0
3063	3.11e-03	0.02	2.36e-03	289,320,347	0.0	0.0	0,0,0
3064	0.01	0.11	9.55e-03	320,320,348	0.0	0.0	0,0,0
3065	5.48e-03	0.06	5.29e-03	320,320,348	0.0	0.0	0,0,0
3066	3.06e-03	0.02	2.34e-03	289,320,347	0.0	0.0	0,0,0
3067	0.01	0.11	9.73e-03	320,320,348	0.0	0.0	0,0,0
3068	5.50e-03	0.06	5.36e-03	320,320,348	0.0	0.0	0,0,0
3069	3.00e-03	0.02	2.31e-03	289,320,347	0.0	0.0	0,0,0
3070	0.01	0.11	9.91e-03	320,320,348	0.0	0.0	0,0,0
3071	5.50e-03	0.06	5.43e-03	320,320,348	0.0	0.0	0,0,0
3072	2.93e-03	0.02	2.27e-03	289,320,347	0.0	0.0	0,0,0
3073	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3074	5.51e-03	0.06	5.48e-03	320,320,348	0.0	0.0	0,0,0
3075	2.84e-03	0.02	2.22e-03	289,320,347	0.0	0.0	0,0,0
3076	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3077	5.50e-03	0.06	5.52e-03	320,320,348	0.0	0.0	0,0,0
3078	2.74e-03	0.02	2.15e-03	289,320,347	0.0	0.0	0,0,0
3079	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3080	5.49e-03	0.06	5.54e-03	320,320,348	0.0	0.0	0,0,0
3081	2.61e-03	0.02	2.08e-03	289,320,347	0.0	0.0	0,0,0
3082	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3083	5.46e-03	0.06	5.56e-03	320,320,348	0.0	0.0	0,0,0
3084	2.45e-03	0.02	1.99e-03	289,320,347	0.0	0.0	0,0,0
3085	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3086	5.44e-03	0.06	5.59e-03	320,320,348	0.0	0.0	0,0,0
3087	2.29e-03	0.02	1.89e-03	289,320,347	0.0	0.0	0,0,0
3088	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3089	5.51e-03	0.06	5.71e-03	320,320,348	0.0	0.0	0,0,0
3090	2.20e-03	0.02	1.88e-03	289,320,347	0.0	0.0	0,0,0
3091	3.22e-03	0.07	3.73e-03	313,293,348	0.0	0.0	0,0,0
3092	0.01	0.06	0.02	313,316,348	0.0	0.0	0,0,0
3093	0.04	0.10	0.04	313,313,348	0.0	0.0	0,0,0
3094	2.73e-03	0.07	3.22e-03	313,297,348	0.0	0.0	0,0,0
3095	0.01	0.06	0.02	313,316,348	0.0	0.0	0,0,0
3096	0.03	0.09	0.04	313,313,348	0.0	0.0	0,0,0
3097	2.59e-03	0.07	3.03e-03	313,289,348	0.0	0.0	0,0,0
3098	0.01	0.06	0.02	313,316,348	0.0	0.0	0,0,0
3099	0.03	0.09	0.04	313,313,348	0.0	0.0	0,0,0
3100	2.56e-03	0.07	2.98e-03	313,289,348	0.0	0.0	0,0,0
3101	0.01	0.06	0.02	313,316,348	0.0	0.0	0,0,0
3102	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3103	2.52e-03	0.08	2.95e-03	313,289,348	0.0	0.0	0,0,0
3104	0.01	0.06	0.02	313,293,348	0.0	0.0	0,0,0
3105	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3106	2.50e-03	0.08	2.93e-03	313,297,348	0.0	0.0	0,0,0
3107	0.01	0.06	0.02	313,316,348	0.0	0.0	0,0,0
3108	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3109	2.48e-03	0.08	2.93e-03	313,297,348	0.0	0.0	0,0,0
3110	0.01	0.07	0.02	313,316,348	0.0	0.0	0,0,0
3111	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
3112	2.47e-03	0.09	2.93e-03	313,297,348	0.0	0.0	0,0,0
3113	0.01	0.07	0.02	313,316,348	0.0	0.0	0,0,0
3114	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3115	2.47e-03	0.09	2.94e-03	316,320,348	0.0	0.0	0,0,0
3116	0.01	0.07	0.02	313,316,348	0.0	0.0	0,0,0
3117	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3118	2.49e-03	0.10	2.94e-03	316,320,348	0.0	0.0	0,0,0
3119	0.01	0.08	0.02	313,320,348	0.0	0.0	0,0,0
3120	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3121	2.51e-03	0.10	2.96e-03	316,320,348	0.0	0.0	0,0,0
3122	0.01	0.08	0.02	313,320,348	0.0	0.0	0,0,0
3123	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3124	2.53e-03	0.11	2.99e-03	316,320,348	0.0	0.0	0,0,0
3125	0.01	0.09	0.02	313,320,348	0.0	0.0	0,0,0
3126	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3127	2.55e-03	0.11	3.02e-03	316,320,348	0.0	0.0	0,0,0
3128	0.01	0.09	0.02	313,320,348	0.0	0.0	0,0,0
3129	0.03	0.08	0.04	313,316,348	0.0	0.0	0,0,0
3130	2.56e-03	0.11	3.04e-03	316,320,348	0.0	0.0	0,0,0
3131	0.01	0.09	0.02	313,320,348	0.0	0.0	0,0,0
3132	0.03	0.08	0.04	316,316,348	0.0	0.0	0,0,0
3133	2.57e-03	0.12	3.07e-03	316,320,348	0.0	0.0	0,0,0
3134	0.01	0.09	0.02	316,320,348	0.0	0.0	0,0,0
3135	0.03	0.08	0.04	316,316,348	0.0	0.0	0,0,0
3136	2.58e-03	0.12	3.08e-03	316,320,348	0.0	0.0	0,0,0
3137	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3138	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3139	2.60e-03	0.12	3.10e-03	316,320,348	0.0	0.0	0,0,0
3140	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3141	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3142	2.61e-03	0.12	3.12e-03	316,320,348	0.0	0.0	0,0,0
3143	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3144	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3145	2.61e-03	0.12	3.14e-03	316,320,348	0.0	0.0	0,0,0
3146	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3147	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3148	2.62e-03	0.13	3.15e-03	316,320,348	0.0	0.0	0,0,0
3149	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3150	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3151	2.63e-03	0.13	3.17e-03	316,320,348	0.0	0.0	0,0,0
3152	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3153	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3154	2.63e-03	0.12	3.18e-03	316,320,348	0.0	0.0	0,0,0
3155	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3156	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3157	2.64e-03	0.12	3.19e-03	316,320,348	0.0	0.0	0,0,0
3158	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3159	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3160	2.64e-03	0.12	3.20e-03	316,320,348	0.0	0.0	0,0,0
3161	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3162	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3163	2.65e-03	0.12	3.21e-03	316,320,348	0.0	0.0	0,0,0
3164	0.01	0.10	0.02	316,320,348	0.0	0.0	0,0,0
3165	0.03	0.09	0.04	316,293,348	0.0	0.0	0,0,0
3166	2.65e-03	0.12	3.22e-03	316,320,348	0.0	0.0	0,0,0
3167	0.01	0.09	0.02	316,320,348	0.0	0.0	0,0,0
3168	0.03	0.09	0.04	316,285,348	0.0	0.0	0,0,0
3169	2.66e-03	0.11	3.24e-03	316,320,348	0.0	0.0	0,0,0
3170	0.01	0.09	0.02	316,320,348	0.0	0.0	0,0,0
3171	0.03	0.09	0.04	316,285,348	0.0	0.0	0,0,0
3172	2.67e-03	0.11	3.25e-03	316,320,348	0.0	0.0	0,0,0
3173	0.01	0.09	0.02	316,320,348	0.0	0.0	0,0,0
3174	0.03	0.09	0.04	316,285,348	0.0	0.0	0,0,0
3175	2.69e-03	0.11	3.29e-03	316,320,348	0.0	0.0	0,0,0
3176	0.01	0.09	0.02	316,320,348	0.0	0.0	0,0,0
3177	0.03	0.09	0.04	316,285,348	0.0	0.0	0,0,0
3178	2.74e-03	0.11	3.46e-03	313,320,348	0.0	0.0	0,0,0
3179	0.01	0.09	0.02	316,320,348	0.0	0.0	0,0,0
3180	0.03	0.09	0.04	316,285,348	0.0	0.0	0,0,0
3181	2.73e-03	0.10	3.35e-03	316,320,348	0.0	0.0	0,0,0
3182	0.01	0.09	0.02	316,316,348	0.0	0.0	0,0,0
3183	0.03	0.09	0.04	316,285,348	0.0	0.0	0,0,0
3184	3.99e-03	0.08	5.01e-03	313,320,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
3185	0.03	0.09	0.04	316,316,348	0.0	0.0	0,0,0
3186	0.03	0.08	0.04	316,285,348	0.0	0.0	0,0,0
3187	3.06e-03	0.08	3.88e-03	313,297,348	0.0	0.0	0,0,0
3188	0.01	0.08	0.02	316,316,348	0.0	0.0	0,0,0
3189	0.01	0.07	0.02	316,316,348	0.0	0.0	0,0,0
3190	2.75e-03	0.09	3.45e-03	313,320,348	0.0	0.0	0,0,0
3191	0.01	0.08	0.01	316,316,348	0.0	0.0	0,0,0
3192	0.01	0.12	0.01	320,320,348	0.0	0.0	0,0,0
3193	2.39e-03	0.02	2.09e-03	289,320,347	0.0	0.0	0,0,0
3194	5.64e-03	0.06	6.00e-03	320,320,348	0.0	0.0	0,0,0
3195	5.44e-03	0.06	5.59e-03	320,320,348	0.0	0.0	0,0,0
3196	0.01	0.11	0.01	320,320,348	0.0	0.0	0,0,0
3197	2.14e-03	0.02	1.90e-03	289,320,347	0.0	0.0	0,0,0
3198	0.01	0.12	0.01	320,320,348	0.0	0.0	0,0,0
3199	4.64e-03	0.05	4.81e-03	320,320,348	0.0	0.0	0,0,0
3200	9.68e-03	0.10	9.67e-03	320,320,348	0.0	0.0	0,0,0
3201	1.67e-03	0.02	1.73e-03	289,320,347	0.0	0.0	0,0,0
3202	1.39e-03	0.02	1.33e-03	289,316,347	0.0	0.0	0,0,0
3203	4.30e-03	0.07	4.22e-03	320,320,348	0.0	0.0	0,0,0
3204	3.31e-03	0.06	3.74e-03	313,289,348	0.0	0.0	0,0,0
3205	0.04	0.10	0.04	313,313,348	0.0	0.0	0,0,0
3206	0.01	0.06	0.02	313,316,348	0.0	0.0	0,0,0
3207	4.17e-03	0.05	4.75e-03	313,285,348	0.0	0.0	0,0,0
3208	0.02	0.06	0.02	313,285,348	0.0	0.0	0,0,0
3209	0.01	0.05	0.02	313,316,348	0.0	0.0	0,0,0
3210	0.03	0.09	0.04	313,313,348	0.0	0.0	0,0,0
3211	4.08e-03	0.05	4.77e-03	313,289,348	0.0	0.0	0,0,0
3212	2.55e-03	0.05	2.66e-03	313,285,348	0.0	0.0	0,0,0
3213	0.04	0.10	0.05	313,282,348	0.0	0.0	0,0,0
3214	0.01	0.12	0.01	320,320,348	0.0	0.0	0,0,0
3215	0.01	0.13	0.01	320,320,348	0.0	0.0	0,0,0
3216	0.01	0.13	0.01	320,320,348	0.0	0.0	0,0,0
3217	0.01	0.13	0.01	320,320,348	0.0	0.0	0,0,0
3218	0.01	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3219	0.02	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3220	0.02	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3221	0.02	0.15	0.02	320,320,348	0.0	0.0	0,0,0
3222	0.02	0.15	0.02	320,320,348	0.0	0.0	0,0,0
3223	0.02	0.15	0.02	320,320,348	0.0	0.0	0,0,0
3224	0.02	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3225	0.02	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3226	5.08e-03	0.06	5.36e-03	320,320,348	0.0	0.0	0,0,0
3227	4.97e-03	0.06	5.45e-03	320,320,348	0.0	0.0	0,0,0
3228	5.11e-03	0.06	5.61e-03	320,320,348	0.0	0.0	0,0,0
3229	5.28e-03	0.07	5.75e-03	320,320,348	0.0	0.0	0,0,0
3230	5.42e-03	0.07	5.84e-03	320,320,348	0.0	0.0	0,0,0
3231	5.54e-03	0.07	5.89e-03	320,320,348	0.0	0.0	0,0,0
3232	5.63e-03	0.07	5.94e-03	320,320,348	0.0	0.0	0,0,0
3233	5.70e-03	0.07	6.03e-03	320,320,348	0.0	0.0	0,0,0
3234	5.85e-03	0.07	6.20e-03	320,320,348	0.0	0.0	0,0,0
3235	6.14e-03	0.07	6.55e-03	320,320,348	0.0	0.0	0,0,0
3236	6.87e-03	0.07	7.44e-03	320,320,348	0.0	0.0	0,0,0
3237	6.33e-03	0.06	6.61e-03	320,320,348	0.0	0.0	0,0,0
3238	1.66e-03	0.02	1.44e-03	289,320,347	0.0	0.0	0,0,0
3239	1.47e-03	0.02	1.40e-03	289,320,348	0.0	0.0	0,0,0
3240	1.38e-03	0.02	1.43e-03	289,320,348	0.0	0.0	0,0,0
3241	1.41e-03	0.02	1.45e-03	328,320,348	0.0	0.0	0,0,0
3242	1.45e-03	0.02	1.45e-03	289,320,348	0.0	0.0	0,0,0
3243	1.42e-03	0.02	1.40e-03	289,320,348	0.0	0.0	0,0,0
3244	1.28e-03	0.02	1.35e-03	320,320,349	0.0	0.0	0,0,0
3245	1.17e-03	0.02	1.24e-03	297,320,348	0.0	0.0	0,0,0
3246	1.01e-03	0.02	1.15e-03	320,320,348	0.0	0.0	0,0,0
3247	1.10e-03	0.02	1.13e-03	311,311,348	0.0	0.0	0,0,0
3248	1.01e-03	0.02	1.08e-03	320,311,348	0.0	0.0	0,0,0
3249	1.06e-03	0.02	1.15e-03	320,320,348	0.0	0.0	0,0,0
3250	3.17e-03	0.08	3.97e-03	316,297,348	0.0	0.0	0,0,0
3251	2.96e-03	0.07	3.73e-03	316,320,348	0.0	0.0	0,0,0
3252	2.71e-03	0.06	3.41e-03	316,320,348	0.0	0.0	0,0,0
3253	2.57e-03	0.05	3.19e-03	316,320,348	0.0	0.0	0,0,0
3254	2.40e-03	0.04	2.98e-03	316,320,348	0.0	0.0	0,0,0
3255	2.25e-03	0.04	2.79e-03	293,320,347	0.0	0.0	0,0,0
3256	2.11e-03	0.03	2.62e-03	285,320,347	0.0	0.0	0,0,0
3257	1.96e-03	0.03	2.45e-03	285,320,347	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
3258	1.84e-03	0.03	2.31e-03	316,311,348	0.0	0.0	0,0,0
3259	1.84e-03	0.03	2.30e-03	316,311,347	0.0	0.0	0,0,0
3260	1.77e-03	0.02	2.22e-03	316,311,348	0.0	0.0	0,0,0
3261	1.75e-03	0.01	2.17e-03	316,311,348	0.0	0.0	0,0,0
3262	0.01	0.07	0.02	316,316,348	0.0	0.0	0,0,0
3263	0.01	0.06	0.02	316,316,348	0.0	0.0	0,0,0
3264	0.01	0.05	0.01	316,316,348	0.0	0.0	0,0,0
3265	0.01	0.05	0.01	316,316,348	0.0	0.0	0,0,0
3266	0.01	0.04	0.01	316,316,348	0.0	0.0	0,0,0
3267	0.01	0.04	0.01	316,316,348	0.0	0.0	0,0,0
3268	0.01	0.03	0.01	316,307,348	0.0	0.0	0,0,0
3269	9.87e-03	0.03	0.01	316,307,348	0.0	0.0	0,0,0
3270	9.54e-03	0.03	0.01	316,311,348	0.0	0.0	0,0,0
3271	9.21e-03	0.02	0.01	316,311,348	0.0	0.0	0,0,0
3272	8.97e-03	0.02	0.01	285,307,347	0.0	0.0	0,0,0
3273	8.95e-03	0.01	0.01	285,316,347	0.0	0.0	0,0,0
3274	0.03	0.08	0.04	316,285,348	0.0	0.0	0,0,0
3275	0.03	0.07	0.04	316,313,348	0.0	0.0	0,0,0
3276	0.03	0.07	0.04	316,304,348	0.0	0.0	0,0,0
3277	0.03	0.07	0.04	316,304,348	0.0	0.0	0,0,0
3278	0.03	0.06	0.03	316,304,348	0.0	0.0	0,0,0
3279	0.03	0.06	0.03	316,304,348	0.0	0.0	0,0,0
3280	0.03	0.06	0.03	316,304,348	0.0	0.0	0,0,0
3281	0.03	0.06	0.03	316,304,348	0.0	0.0	0,0,0
3282	0.02	0.06	0.03	316,304,348	0.0	0.0	0,0,0
3283	0.02	0.06	0.03	316,304,348	0.0	0.0	0,0,0
3284	0.02	0.05	0.03	285,304,347	0.0	0.0	0,0,0
3285	0.02	0.04	0.03	285,304,347	0.0	0.0	0,0,0
3286	0.03	0.14	0.03	320,320,348	0.0	0.0	0,0,0
3287	0.02	0.16	0.03	320,320,348	0.0	0.0	0,0,0
3288	0.02	0.16	0.02	320,320,348	0.0	0.0	0,0,0
3289	0.02	0.16	0.02	320,320,348	0.0	0.0	0,0,0
3290	0.02	0.16	0.02	320,320,348	0.0	0.0	0,0,0
3291	0.02	0.15	0.02	320,320,348	0.0	0.0	0,0,0
3292	0.02	0.15	0.02	320,320,348	0.0	0.0	0,0,0
3293	0.02	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3294	0.02	0.14	0.02	320,320,348	0.0	0.0	0,0,0
3295	0.01	0.13	0.01	320,320,348	0.0	0.0	0,0,0
3296	0.01	0.13	0.01	320,320,348	0.0	0.0	0,0,0
3297	8.90e-03	0.06	9.42e-03	320,320,348	0.0	0.0	0,0,0
3298	9.31e-03	0.08	9.95e-03	320,320,348	0.0	0.0	0,0,0
3299	7.98e-03	0.08	8.57e-03	320,320,348	0.0	0.0	0,0,0
3300	7.54e-03	0.08	8.07e-03	320,316,348	0.0	0.0	0,0,0
3301	7.15e-03	0.08	7.64e-03	320,320,348	0.0	0.0	0,0,0
3302	6.78e-03	0.08	7.23e-03	320,320,348	0.0	0.0	0,0,0
3303	6.39e-03	0.07	6.79e-03	320,320,348	0.0	0.0	0,0,0
3304	5.95e-03	0.07	6.28e-03	320,320,348	0.0	0.0	0,0,0
3305	5.45e-03	0.07	5.70e-03	320,320,348	0.0	0.0	0,0,0
3306	4.94e-03	0.07	5.05e-03	320,320,348	0.0	0.0	0,0,0
3307	4.61e-03	0.07	4.68e-03	320,320,348	0.0	0.0	0,0,0
3308	1.24e-03	0.02	1.30e-03	316,316,349	0.0	0.0	0,0,0
3309	1.36e-03	0.03	1.44e-03	316,307,348	0.0	0.0	0,0,0
3310	1.43e-03	0.03	1.56e-03	320,307,348	0.0	0.0	0,0,0
3311	1.33e-03	0.02	1.43e-03	320,307,348	0.0	0.0	0,0,0
3312	1.30e-03	0.02	1.37e-03	320,316,348	0.0	0.0	0,0,0
3313	1.36e-03	0.02	1.37e-03	289,316,348	0.0	0.0	0,0,0
3314	1.47e-03	0.02	1.32e-03	289,316,347	0.0	0.0	0,0,0
3315	1.42e-03	0.02	1.29e-03	297,316,347	0.0	0.0	0,0,0
3316	1.30e-03	0.02	1.10e-03	293,316,347	0.0	0.0	0,0,0
3317	1.15e-03	0.02	9.43e-04	289,316,350	0.0	0.0	0,0,0
3318	1.08e-03	0.02	1.10e-03	289,320,347	0.0	0.0	0,0,0
3319	0.02	0.05	0.02	282,313,348	0.0	0.0	0,0,0
3320	0.02	0.06	0.03	313,313,348	0.0	0.0	0,0,0
3321	0.02	0.07	0.03	313,313,348	0.0	0.0	0,0,0
3322	0.02	0.07	0.03	313,313,348	0.0	0.0	0,0,0
3323	0.03	0.07	0.03	313,313,348	0.0	0.0	0,0,0
3324	0.03	0.07	0.03	313,313,348	0.0	0.0	0,0,0
3325	0.03	0.08	0.03	313,313,348	0.0	0.0	0,0,0
3326	0.03	0.08	0.03	313,313,348	0.0	0.0	0,0,0
3327	0.03	0.08	0.04	313,313,348	0.0	0.0	0,0,0
3328	0.03	0.09	0.04	313,313,348	0.0	0.0	0,0,0
3329	0.03	0.09	0.04	313,313,348	0.0	0.0	0,0,0
3330	8.76e-03	0.01	9.53e-03	313,313,348	0.0	0.0	0,0,0

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wF	wP	Rif. cmb
3331	8.85e-03	0.03	9.79e-03	313,304,348	0.0	0.0	0,0,0
3332	9.28e-03	0.03	0.01	313,304,348	0.0	0.0	0,0,0
3333	9.70e-03	0.03	0.01	313,304,348	0.0	0.0	0,0,0
3334	0.01	0.03	0.01	313,304,348	0.0	0.0	0,0,0
3335	0.01	0.03	0.01	313,304,348	0.0	0.0	0,0,0
3336	0.01	0.03	0.01	313,304,348	0.0	0.0	0,0,0
3337	0.01	0.03	0.01	313,307,348	0.0	0.0	0,0,0
3338	0.01	0.04	0.01	313,316,348	0.0	0.0	0,0,0
3339	0.01	0.04	0.02	313,316,348	0.0	0.0	0,0,0
3340	0.01	0.05	0.02	313,316,348	0.0	0.0	0,0,0
3341	1.70e-03	0.01	1.93e-03	313,307,348	0.0	0.0	0,0,0
3342	1.79e-03	0.03	1.97e-03	313,307,348	0.0	0.0	0,0,0
3343	1.86e-03	0.03	2.13e-03	313,307,348	0.0	0.0	0,0,0
3344	1.93e-03	0.02	2.20e-03	313,307,348	0.0	0.0	0,0,0
3345	2.06e-03	0.02	2.37e-03	313,316,348	0.0	0.0	0,0,0
3346	2.21e-03	0.02	2.57e-03	313,316,347	0.0	0.0	0,0,0
3347	2.39e-03	0.03	2.82e-03	313,320,350	0.0	0.0	0,0,0
3348	2.65e-03	0.03	3.14e-03	313,289,348	0.0	0.0	0,0,0
3349	3.02e-03	0.04	3.57e-03	313,289,348	0.0	0.0	0,0,0
3350	3.61e-03	0.04	4.24e-03	313,289,348	0.0	0.0	0,0,0
3351	4.24e-03	0.05	4.83e-03	313,289,348	0.0	0.0	0,0,0

17.3 Verifiche geotecniche

Si verifica la fondazione del setto sud-est, per il quale le pressioni sul terreno risultano maggiori rispetto a quelle della fondazione della spalla. Le verifiche vengono svolte all'interfaccia magrone-terreno. Il magrone, di spessore 20cm, sborda di 20cm per parte rispetto alla suola di fondazione in c.a.; per questo motivo nei fogli di calcolo, per la fondazione del setto sud-est di dimensioni 16.45x3.5m, la larghezza è 3.5+0.2x2=3.9m e la lunghezza è 16.45+0.2x2=16.85m.

17.3.1 Verifica di capacità portante

La valutazione della capacità portante di fondazioni superficiali viene condotta in accordo all'equazione seguente:

$$q_{lim} = 0.5\ \gamma_c\ B'\ N_\gamma\ s_\gamma\ i_\gamma\ b_\gamma\ g_\gamma\ + c'\ N_c\ s_c\ d_c\ i_c\ b_c\ g_c + q'\ N_q\ s_q\ d_q\ i_q\ b_q\ g_q$$

Le espressioni che forniscono i valori dei fattori di capacità portante (N) e dei fattori correttivi (s, i, b, g) sono riportate nel foglio "fattori di capacità portante" allegato.

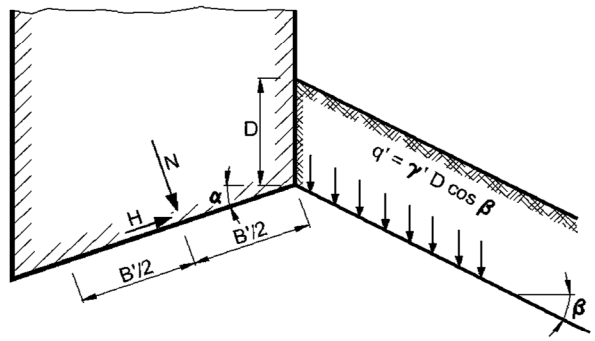
Le formule utilizzate nei fogli di calcolo allegati, si riferiscono alla fondazione efficace equivalente ovvero quella fondazione rispetto alla quale il carico verticale N risulta centrato; la fondazione equivalente è caratterizzata dalle dimensioni B' e L', valutate mediante i criteri indicati nel foglio "fondazione equivalente" e riferiti a fondazioni rettangolari e circolari.

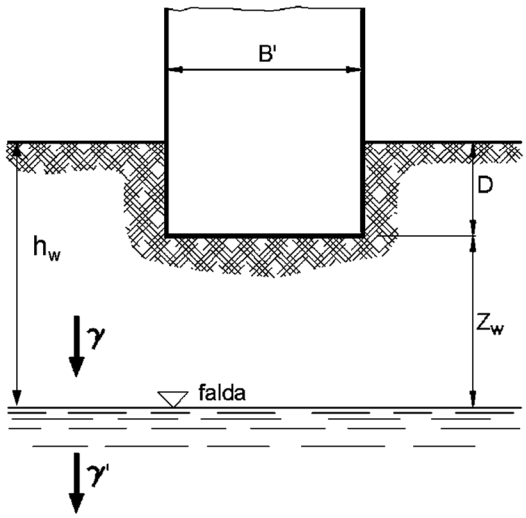
Il valore della portata ammissibile q_{amm} è ricavato mediante l'espressione seguente:

$$q_{amm} = \frac{(q_{lim} - q')}{FS} + q'$$

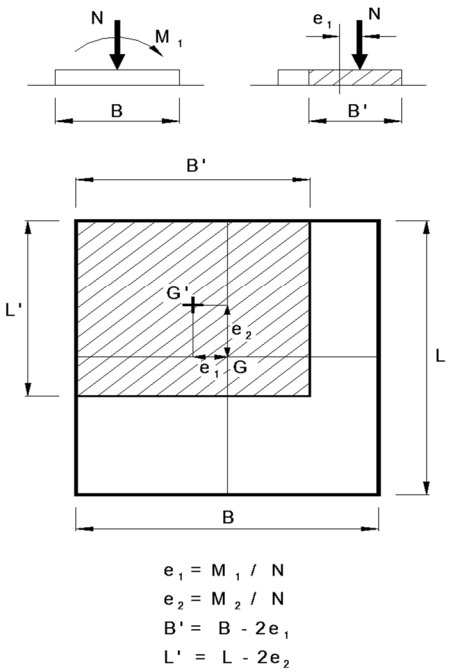
dove:
q' = pressione verticale efficace agente alla quota di imposta della fondazione
FS = coefficiente di sicurezza

$$\gamma_c = \gamma' + \left(\frac{Z_w}{B}\right)(\gamma - \gamma')$$





Verifica in condizioni drenate $q_{lim} = 0.5\ \gamma_c\ B'\ N_\gamma\ s_\gamma\ i_\gamma\ b_\gamma\ g_\gamma + c'\ N_c\ s_c\ d_c\ i_c\ b_c\ g_c + q'\ N_q\ s_q\ d_q\ i_q\ b_q\ g_q$			
fattori di capacità portante	N_c	$(N_q-1)\cot\phi'$	
	N_γ	$2(N_q+1)\tan\phi'$	Vesic (1970)
	N_q	$\tan^2(45+\phi'/2)\ e^{\pi\tan\phi'}$	Prandtl (1921) Reissner (1924)
fattori correttivi	forma		
	s_c	$1 + (N_q / N_c)\,(B' / L')$	Vesic (1973-1975)
	s_γ	$1 - 0{,}4\,(B' / L')$	"
	s_q	$1 + \tan(\phi)\,(B' / L')$	"
	approfondimento		
	d_c	$d_q-[(1-d_q)/(N_c\tan\phi')]$	De Beer e Ladanyi (1961)
	d_q	$1+[2\,(D/B')\tan\phi'\,(1-\sin\phi')^2]$ per D/B' <1 $1+[2\tan\phi'\,(1-\sin\phi')^2\tan^{-1}(D/B')]$ per D/B'>1	Brinch-Hansen (1970) e Vesic (1973)
	inclinazione carico		
	i_c	$i_q-[(1-i_q)/(N_c\tan\phi')]$	Vesic (1970)
	i_γ	$[1-(H/(N+B'L'\,c'\cot\phi'))]^{(m+1)}$	"
	i_q	$[1-(H/(N+B'L'\,c'\cot\phi'))]^{m}$ $m= [2+(B'/L')]/[1+(B'/L')]$	"
	inclinazione fondazione		
	b_q	$(1-\alpha\tan\phi')^2$	Brinch-Hansen (1970)
	b_γ	$(1-\alpha\tan\phi')^2$	"
	b_c	$b_q-[(1-b_q)/(N_c\tan\phi')]$	"
	inclinazione piano campagna		
	g_q	$(1-\tan\omega)^2$	Brinch-Hansen (1970)
	g_γ	$(1-\tan\omega)^2$	"
	g_c	$g_q-[(1-g_q)/(N_c\tan\phi')]$	"



$e_1 = M_1 / N$
$e_2 = M_2 / N$
$B' = B - 2e_1$
$L' = L - 2e_2$

FONDAZIONE RETTANGOLARE

DATI DI INGRESSO

N	**carico verticale**	17184	(kN)
M_B	**momento flettente nel senso della larghezza**	2707	(kNm)
M_L	**momento flettente nel senso della lunghezza**	4616	(kNm)
B	**larghezza della fondazione**	3.90	(m)
L	**lunghezza della fondazione**	16.85	(m)

RISULTATI

B'	**larghezza della fondazione equivalente**	3.58	(m)
L'	**lunghezza della fondazione equivalente**	16.31	(m)
q	**pressione**	294	(kPa)

DATI DI INGRESSO

γ_w	peso di volume acqua	9.807	(kN/m^3)
γ_n	peso di volume naturale terreno	19.0	(kN/m^3)
γ_{sat}	peso di volume saturo del terreno	20.0	(kN/m^3)
ϕ'	angolo di attrito	25.0	(°)
c'	coesione drenata	0.0	(kPa)
B'	larghezza della fondazione equivalente	3.58	(m)
L'	lunghezza della fondazione equivalente	16.31	(m)
D	approfondimento della fondazione *valore minimo tra sinistra e destra della fondazione* *(è opportuno essere conservativi: vedi l'influenza sul termine "contributo del sovraccarico"; a tal fine si introduce il coefficiente "δ")*	2.60	(m)
δ	percentuale dell'approfondimento D adottata nel calcolo	85	(%)
h_w	profondità falda da p.c. ($h_w = z_w + D$)	6.00	(m)
α	inclinazione della fondazione *(valore positivo: vedi foglio "figura")*	0.0	(°)
β	pendenza piano campagna *(valore positivo: vedi foglio "figura")*	0.0	(°)
N	carico verticale	17184	(kN)
H	carico orizzontale *(N e H sono necessari per il calcolo dei fattori i. Se H non è noto, porre H = 0.1 N)*	2702	(kN)
FS	coefficiente di sicurezza	2.30	(-)

fattori di capacità portante	N_c	20.72
	N_γ	10.88
	N_q	10.66
fattori di forma	s_c	1.11
	s_γ	0.91
	s_q	1.10
fattori di approfondimento	d_c	1.21
	d_γ	1.00
	d_q	1.19
fattori di inclinazione del carico	i_c	0.70
	i_γ	0.62
	i_q	0.73
fattori di inclinazione della fondazione	b_c	1.00
	b_γ	1.00
	b_q	1.00
fattori di inclinazione del piano campagna	g_c	1.00
	g_γ	1.00
	g_q	1.00

RISULTATI

capacità portante limite:

componente dovuta alla coesione	0	(kPa)
contributo delle forze di attrito	209	(kPa)
contributo del sovraccarico	431	(kPa)

q_{lim}	=	**639**	**kPa**
q_{amm}	=	**302**	**kPa**

17.3.2 Verifiche dei cedimenti

Metodo di Burland Burbidge

DESCRIZIONE

Il metodo consente una stima del valore del cedimento **s** di una fondazione rettangolare in terreni granulari, a partire dai risultati di una prova penetrometrica dinamica standard (**SPT**).

Il metodo utilizzato per il calcolo è basato su correlazioni statistiche che legano i valori di cedimenti calcolati con quelli verificatisi in oltre 200 casi reali.

L'espressione generale adottata per il calcolo è la seguente:

$$s = f_s \cdot f_H \cdot f_t \cdot \left(\frac{\sigma'_{v0\,max} \cdot a_f}{3} + \left(q' - \sigma'_{v0\,max}\right) \cdot a_f \right)$$

dove:

- **f_s, f_H, f_t** coefficienti legati, rispettivamente: alla forma della fondazione, allo spessore dello strato comprimibile al di sotto della fondazione e al tempo per il quale si vuole calcolare il cedimento.
- **a_f** coefficiente che correla statisticamente i valori di N_{spt} misurati con un indice di compressibilità
- **$\sigma'_{vo\,max}$** pressione di sovraconsolidazione (valutata attraverso il valore del grado di sovraconsolidazione, OCR)

Per terreni normalconsolidati (**$q' = \sigma'_{vo,max}$**) l'espressione viene ridotta alla seguente:

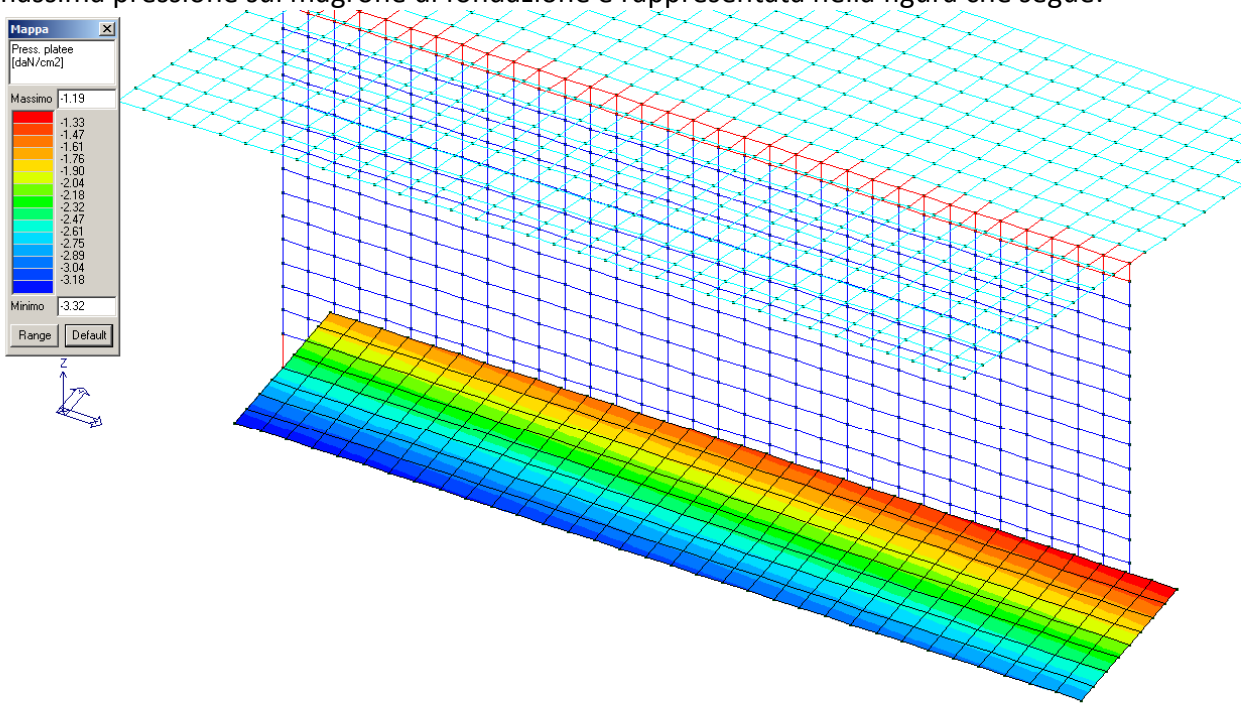
$$s = f_s \cdot f_H \cdot f_t \cdot \left(\frac{q' \cdot a_f}{3} \right)$$

Essendo il calcolo dei cedimenti basato su delle correlazioni statistiche, è possibile associare al cedimento una probabilità.
Tale valore di probabilità indica la percentuale di cedimenti che statisticamente supererebbero il valore calcolato (di default viene fornito il valore associato a p = 50%)

RIFERIMENTI BIBLIOGRAFICI

- Burland, J.B. e Burbidge, M.C. (1984)
  "Settlement of Foundations on Sand and Gravel",
  Glasgow and West of Schotland Association, Centenary Literature

La massima pressione sul magrone di fondazione è rappresentata nella figura che segue:



Ai quattro vertici della fondazione si hanno i seguenti valori di pressione:
vertice sud: p_{sud}=332kPa
vertice est: p_{est}=289kPa
vertice nord: p_{nord}=142kPa
vertice ovest: p_{ovest}=185kPa
pressione media p=(p_{sud} + p_{est} + p_{nord} + p_{ovest})/4=(332+289+142+185)/4=237
all'interfaccia magrone-terreno la pressione media è:
$p_{magrone}$=[237*(16.45*3.5)+0.2*24*16.85*3.9]/(16.85*3.9)=213kPa

DATI DI INGRESSO

B	larghezza della fondazione	3.9	(m)
L	lunghezza della fondazione	16.9	(m)
z_w	profondità della falda da piano campagna	6.00	(m)
h_f	quota della fondazione da piano campagna	2.60	(m)
q'	pressione efficace lorda alla quota d'imposta della fondazione	213	(kPa)
p	probabilità che il cedimento superi quello calcolato (valore max < 100%)	20	(%)
R_3; R	fattori di carico: 0 = carichi statici, 1 = carichi pulsanti	0	(-)
t	Istante di tempo nel quale si vuole calcolare il cedimento a lungo termine (t > 3 anni)	30	(anni)
OCR	grado di sovraconsolidazione	1.0	(-)

n° strato	ΔH (m)	H (m)	γ_n (kN/m^3)	N_{SPT} (colpi / piede)	Sabbie limose = 0 Sabbie = 1 Sabbia-Ghiaiosa; Ghiaia = 2
1	3.0	3.0	19.0	25	2
2	3.0	6.0	19.0	33	2
3	3.0	9.0	19.0	40	2
4	10.0	19.0	19.0	50	2
5	10.0	29.0	19.0	60	2

ΔH	spessore strato i-esimo
H	quota del letto strato i-esimo
γ_n	peso di volume naturale
N_{SPT}	numero di colpi/piede

RISULTATI

	Cedimento immediato (cm)	Cedimento al tempo t (cm)	Cedimento totale (cm)
Probabilità 50%	**0.6**	**0.3**	**1.0**
Probabilità 20%	**1.1**	**0.5**	**1.6**
Profondità significativa (diffusione di q' al di sotto del piano di fondazione):			2.69 (m)

Il cedimento calcolato, nella combinazione a SLE rare, risulta compatibile con la struttura, in quanto Il rapporto tra il cedimento e la luce (distanza della fondazione da quella più prossima) è

$$c/L = 1.6/1320=1/825$$

inferiore al limite di 1/400 (valore, a favore di sicurezza, ricavato per analogia alle deformazioni totali indicate al paragrafo 4.2.4.2 delle NTC ’08 per strutture metalliche).

18 Verifiche di resistenza al fuoco

Le verifiche tabellari di resistenza al fuoco sono condotte in ottemperanza al D.M. 16/02/07 «Classificazione di resistenza al fuoco di prodotti ed elementi costruttivi di opere da costruzione.» e alla UNI EN 1992-1-2:2005.
In particolare si fanno riferimento alle seguenti tabelle dell'allegato D del D.M. 16/02/07:

D.5.1 La tabella seguente riporta i valori minimi (mm) dello spessore totale H di solette e solai, della distanza a dall'asse delle armature alla superficie esposta sufficienti a garantire il requisito R per le classi indicate.

Classe	30	60	90	120	180	240
Solette piene con armatura monodirezionale	H = 80/ a = 10	120/20	120/30	160/40	200/55	240/65
Solai misti di lamiera di acciaio con riempimento di calcestruzzo (1)	H = 80/a = 10	120/20	120/30	160/40	200/55	240/65
Solai a travetti con alleggerimento (2)	H = 160/a = 15	200/30	240/35	240/45	300/60	300/75
Solai a lastra con alleggerimento (3)	H = 160/a = 15	200/30	240/35	240/45	300/60	300/75
I valori di a devono essere non inferiori ai minimi di regolamento per le opere di c.a. e c.a.p. In caso di armatura pre-tesa aumentare i valori di a di 15 mm. In presenza di intonaco i valori di H e a ne devono tenere conto nella seguente maniera: 10 mm di intonaco normale (definizione in D.4.1) equivale ad 10 mm di calcestruzzo; 10 mm di intonaco protettivo antincendio (definizione in D.4.1) equivale a 20 mm di calcestruzzo. Per ricoprimenti di calcestruzzo superiori a 50 mm prevedere una armatura diffusa aggiuntiva che assicuri la stabilità del ricoprimento. (1) In caso di lamiera grecata H rappresenta lo spessore medio della soletta. Il valore di a non comprende lo spessore della lamiera. La lamiera ha unicamente funzione di cassero. In caso contrario la lamiera va protetta secondo quanto indicato in D.7.1 (2) Deve essere sempre presente uno strato di intonaco normale di spessore non inferiore a 20 mm ovvero uno strato di intonaco isolante di spessore non inferiore a 10 mm. (3) In caso di alleggerimento in polistirene o materiali affini prevedere opportuni sfoghi delle sovrapressioni						

D.6.3 La tabella seguente riporta i valori minimi (mm) dello spessore s e della distanza a dall'asse delle armature alla superficie esposta sufficienti a garantire il requisito REI per le classi indicate di pareti portanti esposte su uno o due lati che rispettano le seguenti limitazioni;
- altezza effettiva della parete (da nodo a nodo) ≤ 6 m (per pareti di piani intermedi) ovvero ≤ 4,5 m (per pareti dell'ultimo piano);

Classe	Esposto su un lato	Esposto su due lati
30	s=120 / a=10	120/10
60	s=130 / a=10	140/10
90	s=140 / a=25	170/25
120	s=160 / a=35	220/35
180	s=210 / a=50	270/55
240	s=270 / a=60	350/60
I valori di a devono essere non inferiori ai minimi di regolamento per le opere di c.a. e c.a.p. In caso di armatura pre-tesa aumentare i valori di a di 15 mm. In presenza di intonaco i valori di a ne possono tenere conto nella maniera indicata nella tabella D.5.1. Per ricoprimenti di calcestruzzo superiori a 50 mm prevedere una armatura diffusa aggiuntiva che assicuri la stabilità del ricoprimento.		

18.1 Impalcato

L'impalcato è una soletta piena monodirezionale in cemento armato in appoggio da una parte sul muro controterra e dall'altra sulla spalla, ha spessore 80cm, armatura longitudinale minima Φ18, copriferro 5cm, distanza minima dell'asse delle barre dello strato inferiore

dalla superficie esposta pari a 5.9cm. Rispondendo alle caratteristiche minime richieste dalla tabella D.5.1 l'impalcato è classificato R180.

D.5.1 La tabella seguente riporta i valori minimi (mm) dello spessore totale H di solette e solai, della distanza a dall'asse delle armature alla superficie esposta sufficienti a garantire il requisito R per le classi indicate.

Classe	30	60	90	120	180	240
Solette piene con armatura monodirezionale	H = 80/ a = 10	120/20	120/30	160/40	200/55	240/65
Solai misti di lamiera di acciaio con riempimento di calcestruzzo (1)	H = 80/a = 10	120/20	120/30	160/40	200/55	240/65
Solai a travetti con alleggerimento (2)	H = 160/a = 15	200/30	240/35	240/45	300/60	300/75
Solai a lastra con alleggerimento (3)	H = 160/a = 15	200/30	240/35	240/45	300/60	300/75

I valori di a devono essere non inferiori ai minimi di regolamento per le opere di c.a. e c.a.p. In caso di armatura pre-tesa aumentare i valori di a di 15 mm. In presenza di intonaco i valori di H e a ne devono tenere conto nella seguente maniera: 10 mm di intonaco normale (definizione in D.4.1) equivale ad 10 mm di calcestruzzo; 10 mm di intonaco protettivo antincendio (definizione in D.4.1) equivale a 20 mm di calcestruzzo. Per ricoprimenti di calcestruzzo superiori a 50 mm prevedere una armatura diffusa aggiuntiva che assicuri la stabilità del ricoprimento.

(1) In caso di lamiera grecata H rappresenta lo spessore medio della soletta. Il valore di a non comprende lo spessore della lamiera. La lamiera ha unicamente funzione di cassero. In caso contrario la lamiera va protetta secondo quanto indicato in D.7.1

(2) Deve essere sempre presente uno strato di intonaco normale di spessore non inferiore a 20 mm ovvero uno strato di intonaco isolante di spessore non inferiore a 10 mm.

(3) In caso di alleggerimento in polistirene o materiali affini prevedere opportuni sfoghi delle sovrapressioni

18.2 Muro controterra

Il muro controterra presenta spessore 80cm, copriferro armatura orizzontale 5cm e distanza minima dell'asse delle barre verticali dalla superficie esposta pari a $a=c+\phi_{oriz}+½\phi_{vert}=5+1.2+½*1.8=7.1$cm.

Esso è esposto al fuoco da un solo lato e rispondendo alle caratteristiche minime richieste dalla tabella D.6.3 è classificato R180.

D.6.3 La tabella seguente riporta i valori minimi (mm) dello spessore s e della distanza a dall'asse delle armature alla superficie esposta sufficienti a garantire il requisito REI per le classi indicate di pareti portanti esposte su uno o due lati che rispettano le seguenti limitazioni:
- altezza effettiva della parete (da nodo a nodo) ≤ 6 m (per pareti di piani intermedi) ovvero ≤ 4,5 m (per pareti dell'ultimo piano);

Classe	Esposto su un lato	Esposto su due lati
30	s=120 / a=10	120/10
60	s=130 / a=10	140/10
90	s=140 / a=25	170/25
120	s=160 / a=35	220/35
180	s=210 / a=50	270/55
240	s=270 / a=60	350/60

I valori di a devono essere non inferiori ai minimi di regolamento per le opere di c.a. e c.a.p. In caso di armatura pre-tesa aumentare i valori di a di 15 mm. In presenza di intonaco i valori di a ne possono tenere conto nella maniera indicata nella tabella D.5.1. Per ricoprimenti di calcestruzzo superiori a 50 mm prevedere una armatura diffusa aggiuntiva che assicuri la stabilità del ricoprimento.

18.3 Spalla

La spalla presenta spessore 80cm, copriferro armatura orizzontale 5cm e distanza minima dell'asse delle barre verticali dalla superficie esposta pari a $a=c+\phi_{oriz}+½\phi_{vert}=5+1.6+½*2.4=7.8$cm.
Essa è esposta al fuoco da entrambi i lati e rispondendo alle caratteristiche minime richieste dalla tabella D.6.3 è classificata R180.

D.6.3 La tabella seguente riporta i valori minimi (mm) dello spessore s e della distanza a dall'asse delle armature alla superficie esposta sufficienti a garantire il requisito REI per le classi indicate di pareti portanti esposte su uno o due lati che rispettano le seguenti limitazioni;
- altezza effettiva della parete (da nodo a nodo) ≤ 6 m (per pareti di piani intermedi) ovvero ≤ 4,5 m (per pareti dell'ultimo piano);

Classe	Esposto su un lato	Esposto su due lati
30	s=120 / a=10	120/10
60	s=130 / a=10	140/10
90	s=140 / a=25	170/25
120	s=160 / a=35	220/35
180	s=210 / a=50	270/55
240	s=270 / a=60	350/60
I valori di a devono essere non inferiori ai minimi di regolamento per le opere di c.a. e c.a.p. In caso di armatura pre-tesa aumentare i valori di a di 15 mm. In presenza di intonaco i valori di a ne possono tenere conto nella maniera indicata nella tabella D.5.1. Per ricoprimenti di calcestruzzo superiori a 50 mm prevedere una armatura diffusa aggiuntiva che assicuri la stabilità del ricoprimento.		