

ARCHITETTO

Benedetto Bavaro

C.so Novara, 7
10155 Torino
Tel. 338/4262843
Tel. 011/2359376
benedetto.bavaro@gmail.com



Provincia di Torino
COMUNE DI VENAUS



CIG	CUP	PROGETTO PRELIMINARE ☐	PROGETTO DEFINITIVO/ESECUTIVO ☒	aggiornamenti
PROGETTO COPERTURA TRIBUNA DEL CAMPO SPORTIVO NELL'AREA ATTREZZATA LUNGO LA STRADA PROVINCIALE n. 210 A VENAUS				
Committente Comune di Venaus				controllo
Proprietà Comune di Venaus				
Progettista architettonico Arch. Benedetto Bavaro Coordinatore sicurezza in fase di progettazione				scale
Progettista strutture Ing. Sergio VIGHETTO				arc.
Progetto definitivo/esecutivo				tavola n.
Relazione strutturale				DE.St.001
PIANO DI SICUREZZA E COORDINAMENTO	Responsabile dei Lavori		Progettista architettonico	
	Coordinatore sicurezza in fase di progettazione		Progettista strutture	
	Coordinatore sicurezza in fase di esecuzione		Direttore Lavori	
	IL Committente			

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A) RELAZIONE TECNICO - STRUTTURALE

A.1. Descrizione generale dell'opera – Criteri di progetto

Oggetto della presente relazione di calcolo sono le strutture da realizzarsi in opera per la realizzazione della copertura del in legno della tribuna esistente presso il campo sportivo Comunale sito in strada Provinciale n° 210 nel Comune di Venaus (TO) di proprietà del Comune di Venaus.

La nuova copertura in oggetto ha massime dimensioni in pianta pari a circa 24,00 x 8,10 m, la massima altezza del fabbricato, misurata a partire dal piano campagna circostante, è pari a circa 7,70m.

Le strutture della copertura in progetto sono costituite da:

- fondazioni: platea in cemento armato parzialmente sovrapposta alla platea di fondazione esistente delle tribune;
- strutture verticali: muro in cemento armato gettato in opera e pilastri in legno.
- copertura: tetto in legno sostenuto dai pilastri in legno e dal muro in cemento armato.

Secondo quanto previsto al **p.to 2** del D.M. 14/01/2008 sono stati attribuiti i seguenti parametri:

- Tipo di costruzione Opere ordinarie
- Vita nominale dell'opera: VN = 50 anni
- Classe d'uso: II
- Coefficiente d'uso: CU = 1,00
- Periodo di riferimento: VR = VN · CU = 50 anni

In riferimento alle prescrizioni di cui al **p.to 3.2** si sono considerati i seguenti parametri:

- Categoria del suolo di fondazione: C (depositi di terreno a grana grossa mediamente addensati o terreni a grana fina mediamente consistenti con spessori superiori a 30 m).
- Coeff. di amplif. stratigrafico: Ss = 1,50
- Categoria topografica: T1 (Pendii con inclinazione media < 15°)
- Coeff. di amplif. topografica: St = 1,00
- Comune: Venaus (TO)
- Zona sismica del sito: Zona 3
- Coordinate località: Longitudine: 7,015275°
Latitudine: 45,155260°

Le strutture sono riconducibili alla tipologia: costruzione in legno aventi bassa capacità di dissipazione energetica. I materiali prescritti, come risulta dal successivo paragrafo A.3, sono conformi alle prescrizioni del D.M. 14/01/2008.

Con riferimento al **p.to 7.2** del D.M. 14/01/2008, si sono utilizzati i seguenti criteri di progettazione e modellazione:

- Classe di duttilità CD "B"
- Regolarità in pianta No
- Regolarità in alzata No
- Tipologia strutturale: Edificio con struttura in legno
Portali isostatici con giunti con mezzi di unione a gambo cilindrico
- Fattore di struttura: $q_0 = 2,00$ (D.M. 14/01/2008 p.to 7.7.3)
- Struttura non regolare in alzata $K_R = 0,8$
 $q = q_0 \cdot K_R = 1,60$
- Considerando la struttura come avente scarse capacità dissipative si è assunto, prudenzialmente, il valore:

$$q = 1,50$$

Conformemente al paragrafo **7.2.6** si ha:

- Edificio isolato, senza giunti
- Tutti gli elementi strutturali presenti sono considerati come resistenti e non sono quindi presenti elementi "secondari".
- Per rappresentare la rigidità degli elementi strutturali si è adottato un modello lineare.
- Le azioni conseguenti al moto sismico sono modellate attraverso analisi modale con fattore di struttura e spettri di risposta.
- Le azioni trasmesse in fondazione derivano dall'analisi del comportamento dell'intera opera alla quale sono applicate le azioni statiche e sismiche. Non sono presenti pali di fondazione e sono stati applicati tutti i criteri di

dimensionamento (definizione delle azioni in fondazione e previsione dei quantitativi minimi di armature) previsti dal D.M. 14/01/2008 al p.to 7.2.5.

-La struttura è stata modellata nella sua interezza discretizzandola come insieme tridimensionale di elementi trave e ed elementi guscio differenziati secondo le caratteristiche dei materiali impiegati. Le azioni verticali e orizzontali tengono quindi in conto dell'effettiva distribuzione delle masse e delle rigidezze.

-Nel calcolo è stata considerata un'eccentricità accidentale del centro di massa rispetto alla sua posizione, quale deriva dal calcolo, pari a 0,05 volte la dimensione dell'edificio misurata perpendicolarmente alla direzione di applicazione dell'azione sismica.

Con riferimento al **p.to 7.3** del D.M. 14/01/2008, si è adottato il seguente metodo di analisi e verifica:

-Analisi lineare dinamica.

-Non sono state considerate le non linearità geometriche in quanto i fattori Θ calcolati valgono:

Quota del piano		511.0	[cm]
2° ordine (theta X)		0.21	[%] ok (< 10%)
2° ordine (theta Y)		0.35	[%] ok (< 10%)

Con riferimento al **p.to 7.1** del D.M. 14/01/2008, si è adottato il seguente metodo di analisi e verifica:

-Classe d'uso: II

-**Stati limite ultimi:** sono state rispettate le indicazioni progettuali e costruttive riportate nel D.M. 14/01/2008 relativamente ai materiali di costruzione impiegati ed alle tipologie strutturali individuate. Avendo considerato un fattore di struttura unitario è stato considerato lo SLV e sono stati verificati gli elementi strutturali in termini di resistenza (p.to 7.3.6.1). Non sono presenti elementi strutturali secondari.

SLV

Probabilità di superamento: 10%
Periodo di ritorno: 475 anni
 $a_g = 0,13381 g$
 $F_o = 2,460$
 $T_{C^*} = 0,260 s$
 $T_B = 0,142 s$
 $T_C = 0,426 s$
 $T_D = 2,135 s$

-**Stati limite di esercizio:** si è verificato che l'azione sismica di progetto alla SLD non generi spostamenti di interpiano (differenza tra gli spostamenti del solaio superiore e quello inferiore) superiori al valore $d_r = 0,005 h$, dove h è l'altezza di piano.

SLD

Probabilità di superamento: 63%
Periodo di ritorno: 50 anni
 $a_g = 0,05223 g$
 $F_o = 2,412$
 $T_{C^*} = 0,230 s$
 $T_B = 0,131 s$
 $T_C = 0,392 s$
 $T_D = 1,809 s$

Per le strutture in legno il calcolo è stato condotto secondo le indicazioni del D.M. 14/01/2008 p.to 4.4 assumendo:

-Classe struttura (Tab.4.4.V): 1
-Legno lamellare incollato (Tab.4.4.III): $\gamma_m = 1,45$
-Condizioni di carico permanenti (Tab.4.4.IV): $k_{mod} = 0,60$
-Condizioni di carico di esercizio: neve – breve (Tab.4.4.IV): $k_{mod} = 0,90$

I dettagli costruttivi delle strutture in cemento armato in progetto sono stati sviluppati in conformità alle indicazioni riportate nei **p.ti 4.1.6** e **7.4.6** del D.M. 14/01/2008.

A.2. Metodo di calcolo

Il metodo di calcolo impiegato è quello detto “degli stati limite”.

A.3. Normative di riferimento

L'analisi della struttura in oggetto è stata fatta con i metodi usuali della Scienza delle Costruzioni ed in conformità alle normative e leggi vigenti:

- Legge 05/11/1971 n° 1086

“Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche”

- Legge 02/02/1974 n° 64

“Norme tecniche per le costruzioni in zone sismiche”

- D.M. 14/01/2008

"Norme Tecniche per le Costruzioni".

- Circolare Ministero delle Infrastrutture e dei Trasporti 02/02/2009 n° 617

"Istruzioni per l'applicazione delle “Norme Tecniche per le Costruzioni” di cui al D.M. 14/01/2008”

A.4. Materiali impiegati

- Cemento per getti in opera tipo 325

- Conglomerato cementizio: C25/30
 $R_{ck} = 30 \text{ N/mm}^2$

- Acciaio in barre: B450C
 $f_{yk} \geq 450 \text{ N/mm}^2$ $f_{tk} \geq 540 \text{ N/mm}^2$
 $1,15 \leq (f_t/f_y)_k < 1,35$
 $(f_{yt}/f_{tnom})_k \leq 1,25$

- Acciaio per reti elettrosaldate: B450A
 $f_{yk} \geq 450 \text{ N/mm}^2$ $f_{tk} \geq 540 \text{ N/mm}^2$
 $(f_t/f_y)_k \geq 1,05$
 $(f_{yt}/f_{tnom})_k < 1,25$

- Acciaio per carpenteria metallica: Tipo S275JR - UNI EN10025
 $f_{yk} \geq 275 \text{ N/mm}^2$ $f_{tk} \geq 430 \text{ N/mm}^2$

- Strutture in legno: Lamellare GL24H
 $f_{m,k} = 24 \text{ N/mm}^2$

Circa le altre prescrizioni esecutive si richiamano le disposizioni di cui alle norme tecniche vigenti emanate dal Ministero dei Lavori Pubblici.

A.5. Analisi dei carichi

I calcoli sono eseguiti in conformità alle vigenti norme tecniche emanate dal Ministero dei Lavori Pubblici ai sensi dell'art. 21 della Legge 05/11/1971 n° 1086, tenendo presenti le caratteristiche, le qualità e le dosature dei materiali da impiegarsi nelle opere da costruire.

Tali dati tecnici sono qui sopra riportati al punto A.3 mentre i criteri e le risultanze di calcolo sono riportati al seguente punto B.

I carichi in base ai quali sono state calcolate le varie parti delle strutture delle opere in oggetto sono quelli indicati dal D.M. 14/01/2008 e cioè:

A.5.1 Carichi permanenti – Tenuti presenti i pesi dei materiali da costruzione e degli elementi costruttivi di cui alla tabella 3.1.1 del predetto D.M., si precisa che quali pesi per unità di volume, per la determinazione dei pesi propri strutturali, sono stati assunti i seguenti:

Calcestruzzi cementizi e malte:

Calcestruzzo ordinario	24,00	kN/m ³
Calcestruzzo ordinario armato (e/o precompresso)	25,00	kN/m ³
Conglomerati "leggeri": da determinarsi	(14,0÷20,0)	kN/m ³
Conglomerati "pesanti": da determinarsi	(28,0÷50,0)	kN/m ³
Malta di calce	18,0	kN/m ³
Malta di cemento	21,0	kN/m ³
Calce in polvere	10,0	kN/m ³
Cemento in polvere	14,0	kN/m ³
Sabbia	17,0	kN/m ³

Metalli e leghe:

Acciaio	78,5	kN/m ³
Ghisa	72,5	kN/m ³
Alluminio	27,0	kN/m ³

Materiale lapideo:

Tufo vulcanico	17,0	kN/m ³
Calcare compatto	26,0	kN/m ³
Calcare tenero	22,0	kN/m ³
Gesso	13,0	kN/m ³
Granito	27,0	kN/m ³
Laterizio (pieno)	18,0	kN/m ³

Legname:

Conifere e pioppo	4,0÷6,0	kN/m ³
Latifoglie (escluso pioppo)	6,0÷8,0	kN /m ³

Sostanza varie:

Acqua dolce (chiara)	9,81	kN/m ³
Acqua di mare (chiara)	10,1	kN/m ³
Carta	10,0	kN/m ³
Vetro	25,0	kN/m ³

A.5.2 Carichi di esercizio - Quali sovraccarichi di esercizio, comprensivi degli effetti dinamici ordinari, sono stati adottati, ai sensi della tabella 3.1.11 del succitato D.M., i valori seguenti:

Cat.	TIPO DI LOCALE	Verticali ripartiti q_k kN/m ²	Verticali concentrati Q_k kN	Orizzontali lineari H_k kN/m
A	Ambienti ad uso residenziale. Sono compresi in questa categoria i locali di abitazione e relativi servizi, gli alberghi. (ad esclusione delle aree suscettibili di affollamento)	2,00	2,00	1,00
B	Uffici Cat.B1: Uffici non aperti al pubblico: Cat.B2: Uffici aperti al pubblico:	2,00 3,00	2,00 2,00	1,00 1,00
C	Ambienti suscettibili di affollamento Cat.C1: Ospedali, ristoranti, caffè, banche, scuole: Cat.C2: Balconi, ballatoi e scale comuni, sale convegni, cinema, teatri, chiese, tribune con posti fissi: Cat.C3: Ambienti privi di ostacoli per il libero movimento delle persone quali musei, sale esposizioni, stazioni ferroviarie, sale da ballo, palestre, tribune libere, edifici per eventi pubblici, sale da concerto, palazzetti per lo sport e relative tribune:	3,00 4,00 5,00	2,00 4,00 5,00	1,00 2,00 3,00
D	Ambienti ad uso commerciale Cat.D1: Negozi:	4,00	4,00	2,00

	Cat.D2: Centri commerciali, mercati, grandi magazzini, librerie....:	5,00	5,00	2,00
E	Biblioteche, archivi, magazzini, e ambienti ad uso industriale Cat.E1: Biblioteche, archivi, magazzini, depositi, laboratori manifatturieri: cat.E2: Ambienti ad uso industriale: da valutarsi caso per caso:	$\geq 6,00$ -	6,00 -	1,00* -
F-G	Rimesse e parcheggi Cat.F: Rimesse e parcheggi per il transito di automezzi di peso a pieno carico fino a 30 kN: Cat.G: Rimesse e parcheggi per il transito di automezzi di peso a pieno superiore a 30 kN: da valutarsi caso per caso:	2,50 -	2 x 10,00 -	1,00** -
H	Coperture e sottotetti: Cat.H1: Coperture e sottotetti accessibili per la sola manutenzione: Cat.H2: Coperture praticabili: Cat.H3 Coperture speciali (impianti, eliporti ed altri): da valutarsi caso per caso:	0,50 *** -	1,20 *** -	1,00 *** -

* Non comprende le azioni orizzontali eventualmente esercitate dai materiali immagazzinati.

** per i soli parapetti o partizioni delle zone pedonali. Le azioni sulle barriere esercitate dagli automezzi dovranno essere valutate caso per caso.

*** Secondo la categoria di appartenenza

I sovraccarichi verticali concentrati formano oggetto di verifiche locali distinte e non vanno sovrapposti ai corrispondenti carichi verticali ripartiti; essi devono essere applicati su impronte di carico appropriate all'utilizzo ed alla forma dell'orizzontamento, In assenza di precise indicazioni può essere considerata una forma dell'impronta di carico quadrata pari a 50x50 mm, salvo che per le rimesse ed i parcheggi, per i quali si applicano su due impronte di 200x200 mm, distanti assialmente 1,80 m.

I sovraccarichi orizzontali lineari devono essere utilizzati per verifiche locali e non si sommano ai carichi utilizzati nelle verifiche dell'edificio nel suo insieme. Sono applicati a pareti - alla quota di 1,20 m dal rispettivo piano di calpestio - ed a parapetti o mancorrenti - alla quota di bordo superiore.

A.5.3 Carico di neve - Il valore di carico di riferimento della neve al suolo, considerate l'altitudine e l'ubicazione regionale della località in cui sorgerà la costruzione di cui si tratta (Zona I Alpina $a_s = 595$ m.s.l.m.) viene fissato in:

$$q_{sk} = 1,39 [1 + (a_s / 728)^2] = 2,32 \text{ kN/m}^2$$

con $\alpha = 16^\circ$:

$$\mu_1 = 0,8$$

$$\mu_2 = 0,8 + 0,8 \cdot \alpha / 30 = 1,23$$

$$C_E = 1,0$$

$$C_t = 1,0$$

$$q_s = \mu_1 q_{sk} C_E C_t = 1,85 \text{ kN/m}^2$$

Nel seguito si assume:

$$q_s = \mu_1 q_{sk} C_E C_t = 1,90 \text{ kN/m}^2$$

A.5.4 Carico del vento - La pressione cinetica, considerata l'altitudine e l'ubicazione regionale della località in cui sorgerà la costruzione di cui si tratta (entroterra della Zona 1 $a_s = 595$ m.s.l.m. Categoria IV) viene fissata in:

$$v_{b,o} = 25 \text{ m/s}$$

$$a_o = 1000 \text{ m}$$

$$k_a = 0,010 \text{ 1/s}$$

$$v_b = v_{b,o} + k_s (a_s - a_o) = 25,0 \text{ m/s}$$

$$\rho = 1,25 \text{ kg/m}^3$$

$$q_b = (1/2) \rho v_{ref}^2 = 391 \text{ N/m}^2$$

$$k_r = 0,22$$

$$z_0 = 0,30 \text{ m}$$

$$z_{min} = 8 \text{ m}$$

$$c_t = 1$$

per $z < z_{min}$

$$c_e = c_e(z_{min}) = k_r^2 c_t \ln(z_{min}/z_0) [7 + c_t \ln(z_{min}/z_0)] = 1,634$$

$$c_p = 1,00$$

$$c_d = 1,00$$

$$p_f = q_b c_e c_p c_d = 0,64 \text{ kN/m}^2$$

Il coefficiente di di forma si assume pari a (CNR-DT 207/2008):

$c_p = 0,2$ Valori positivi

$c_p = -0,5$ Valori negativi

A.6. Sovraccarichi considerati (D.M. 14/01/2008)

- Copertura:	Permanenti:	0,40 kN/m ²
	Variabili:	1,90 kN/m ² (Neve – $z < 1000$ m.s.l.m.)

B) RELAZIONE DI CALCOLO

Per i fabbricati in progetto l'azione sismica e le azioni, verticali ed orizzontali, sono affidate integralmente alle strutture in cemento armato ed in legno di nuova costruzione. Si riporta qui di seguito il calcolo delle stesse considerate come insieme tridimensionale di telai costituiti dalle travi di fondazione, dai pilastri e dalla copertura in legno.

Il modello strutturale si riferisce all'intero edificio per simulare correttamente le azioni verticali ed orizzontali.

B.1 Dati di calcolo

Materiali:

Calcestruzzo

-C25/30

$$R_{ck} = 30 \text{ N/mm}^2$$

$$f_{ck} = 0,83 R_{ck} = 24,9 \text{ N/mm}^2$$

$$f_{cd} = 0,85 f_{ck} / 1,5 = 14,1 \text{ N/mm}^2$$

$$f_{cm} = f_{ck} + 8 = 32,9 \text{ N/mm}^2$$

$$E_c = 22.000 (f_{cm} / 10)^{0,3} = 31.447 \text{ N/mm}^2$$

$$v = 0,15$$

$$f_{bd} = 2,25 \cdot 1,0 \cdot 0,7 \cdot 0,30 \cdot f_{ck}^{(2/3)} / 1,5 = 2,69 \text{ N/mm}^2$$

-Sollecitazioni massime in condizioni di esercizio:

$$+\text{Combinazione rara: } \sigma_{cmax} = 0,60 \cdot f_{ck} = 14,9 \text{ N/mm}^2$$

$$+\text{Comb. quasi perm: } \sigma_{cmax} = 0,45 \cdot f_{ck} = 11,2 \text{ N/mm}^2$$

Acciaio in barre ad aderenza migliorata

-B450C

$$E_s = 200000 \text{ N/mm}^2$$

$$f_{yk} = 450 \text{ N/mm}^2$$

$$f_{yd} = f_{yk} / 1,15 = 391 \text{ N/mm}^2$$

-Sollecitazioni massime in condizioni di esercizio:

$$+\text{Combinazione rara: } \sigma_{fmax} = 0,80 \cdot f_{yk} = 360 \text{ N/mm}^2$$

Acciaio per reti elettrosaldate:

-B450A

$$E_s = 200000 \text{ N/mm}^2$$

$$f_{yk} \geq 450 \text{ N/mm}^2 \quad f_{tk} \geq 540 \text{ N/mm}^2$$

$$(f_t/f_y)_k \geq 1,05$$

$$(f_{yt}/f_{tnom})_k < 1,25$$

-Sollecitazioni massime in condizioni di esercizio:

$$+\text{Combinazione rara: } \sigma_{fmax} = 0,80 \cdot f_{yk} = 360 \text{ N/mm}^2$$

Acciaio per carpenteria metallica per strutture saldate:

S 235 JR - EN 10025-2 (Fe360 B)

$$E_s = 206000 \text{ N/mm}^2$$

-Tensione caratteristica di

$$\text{snervamento} \quad f_d = 235 \text{ N/mm}^2$$

Bulloni:

Vite: Classe 8.8

Dado: Classe 8

$$\text{Resistenze di progetto} \quad f_{d/N} = 560 \text{ N/mm}^2$$

$$f_{d/V} = 396 \text{ N/mm}^2$$

Saldature:

$$\text{Resistenza di confronto} \quad \sigma_{id} = 0,85 \cdot 235 = 200 \text{ N/mm}^2$$

Legname

-Lamellare

G24

$$f_{m,k} = 24 \text{ N/mm}^2$$

$$f_{c0k} = 24 \text{ N/mm}^2$$

$$f_{t,0k} = 16,5 \text{ N/mm}^2$$

$$f_{c,90k} = 2,7 \text{ N/mm}^2$$

$$f_{t,90k} = 0,4 \text{ N/mm}^2$$

$$f_{tvk} = 2,7 \text{ N/mm}^2$$

$$\begin{array}{lll}
 E_{0,medio} = 11600 \text{ N/mm}^2 & E_{005} = 9400 \text{ N/mm}^2 & E_{90,medio} = 390 \text{ N/mm}^2 \\
 G_{medio} = 720 \text{ N/mm}^2 & \rho_k = 380 \text{ kg/m}^3 & \rho_m = 440 \text{ kg/m}^3
 \end{array}$$

Carichi:

Copertura

Peso proprio:	Tetto in legno:	0,25 kN/m ²
Carichi permanenti:		0,40 kN/m ²
Carichi di esercizio:		1,90 kN/m ²
Coefficiente di riduzione carico esercizio:		0,00 (Neve z < 000 m.s.l.m.)

B.2 Schematizzazione della struttura e dei vincoli

Le strutture sono state schematizzate considerando l'orditura tridimensionale costituita dalle travi continue in cemento armato gettato in opera, dai pilastri in cemento armato e dalla copertura in legno.

Le travi di fondazione sono state schematizzate con elementi trave su suolo elastico avente rigidezza alla Winkler pari a: $K_w = 30 \text{ N/cm}^3 = 30.000 \text{ kN/m}^3$

B.2.1 Modellazione della struttura e dei vincoli

La struttura è modellata con il metodo degli elementi finiti, applicato a sistemi tridimensionali. Gli elementi utilizzati sono sia monodimensionali (trave con eventuali sconnessioni interne), che bidimensionali (piastre e membrane triangolari e quadrangolari). I vincoli sono considerati puntuali ed inseriti tramite le sei costanti di rigidezza elastica, oppure come elementi asta poggianti su suolo elastico. Le sezioni oggetto di verifica nelle travi sono stampate a passo costante; dei gusci si conoscono le sollecitazioni nel baricentro dell'elemento stesso.

B.2.2 Schematizzazione delle azioni

In accordo con le sopracitate normative, sono state considerate nei calcoli le seguenti azioni:

- pesi propri strutturali
- carichi permanenti portati dalla struttura
- carichi variabili sui solai, neve, vento.
- forze di piano simulanti il sisma, ricavate tramite analisi dinamica
- distorsioni termiche

Le azioni sono state modellate tramite opportuni carichi concentrati e distribuiti su nodi ed aste.

Le condizioni ed i casi di carico prese in conto nei calcoli sono specificate nella stampa dei dati di input.

B.2.3 Modellazione dei materiali

I materiali costituenti la struttura sono considerati elastici e con comportamento lineare. Le loro caratteristiche sono specificate nella stampa dei dati di input.

B.2.4 Tipo di analisi

Le analisi strutturali condotte sono statiche in regime lineare. Il metodo di calcolo è ad elementi finiti. Il calcolo sismico è stato effettuato tramite analisi dinamica con fattore di struttura q . Tale analisi consiste nel simulare gli effetti sismici mediante un'analisi dinamica della struttura considerata in campo elastico lineare. Viene eseguita con il metodo dell'analisi modale adottando lo spettro di risposta, in termini di accelerazione, previsto dalla normativa vigente.

B.2.5 Individuazione del codice di calcolo

Per il calcolo delle sollecitazioni e per la verifica di travi, pilastri, setti e pareti in cemento armato ed in legno si è fatto ricorso all'elaboratore elettronico utilizzando il seguente programma di calcolo:

DOLMEN WIN (R), versione 16 del 2016 prodotto, distribuito ed assistito dalla CDM DOLMEN srl, con sede in Torino, Via Drovetti 9/F.

Questa procedura è sviluppata in ambiente Windows, ed è stata scritta utilizzando i linguaggi Fortran e C. DOLMEN WIN permette l'analisi elastica lineare di strutture tridimensionali con nodi a sei gradi di libertà utilizzando un solutore ad elementi finiti. Gli elementi considerati sono la trave, con eventuali svincoli interni o rotazione attorno al proprio asse, ed il guscio, sia rettangolare che triangolare, avente comportamento di membrana e di piastra. I carichi possono essere applicati sia ai nodi, come forze o coppie concentrate, sia sulle travi, come forze distribuite, trapezie, concentrate, come coppie e come distorsioni termiche. I vincoli sono forniti tramite le sei costanti di rigidezza elastica.

A supporto del programma è fornito un ampio manuale d'uso contenente fra l'altro una vasta serie di test di validazione sia su esempi classici di Scienza delle Costruzioni, sia su strutture particolarmente impegnative e reperibili nella bibliografia specializzata.

B.2.6 Grado di affidabilità del codice

L'affidabilità del codice di calcolo è garantita dall'esistenza di un'ampia documentazione di supporto, come indicato nel paragrafo precedente. La presenza di un modulo CAD per l'introduzione di dati permette la visualizzazione dettagliata degli elementi introdotti. E' possibile inoltre ottenere rappresentazioni grafiche di deformate e sollecitazioni della struttura. Al termine dell'elaborazione viene inoltre valutata la qualità della soluzione, in base all'uguaglianza del lavoro esterno e dell'energia di deformazione.

B.2.7 Motivazione della scelta del codice

DOLMEN WIN permette in campo elastico lineare un'analisi dettagliata del comportamento dell'intera struttura, tenendo conto del comportamento irrigidente di setti anche complessi e solai considerati con la loro effettiva rigidità. E' possibile inoltre scegliere il grado di affinamento dell'analisi di elementi complessi utilizzando mesh via via più dettagliate.

B.2.8 Valutazione della correttezza del modello

Il modello di calcolo adottato è da ritenersi appropriato in quanto non sono state riscontrate labilità, le reazioni vincolari equilibrano i carichi applicati, la simmetria di carichi e struttura dà origine a sollecitazioni simmetriche.

B.2.9 Giudizio motivato di accettabilità dei risultati

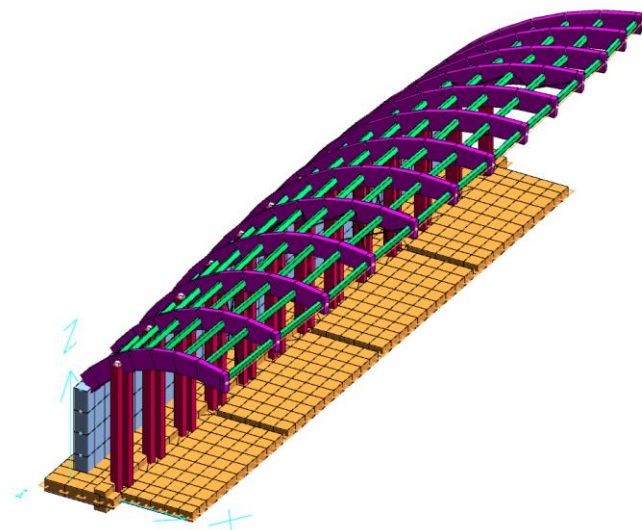
L'analisi critica dei risultati e dei parametri di controllo nonché il confronto con calcolazioni di massima eseguite manualmente porta a confermare la validità dei risultati.

B.3 Calcoli di verifica

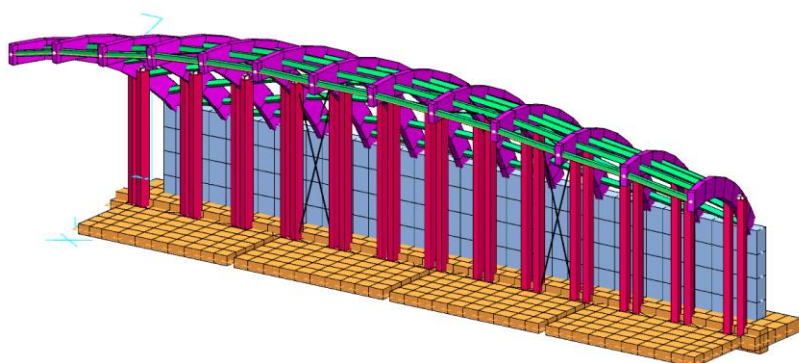
Per l'edificio in esame si sono assunti i parametri sismici riportati al p.to A.1, i materiali ed i carichi riportati al p.to B.1.

Modello

Assonometria : 30,30

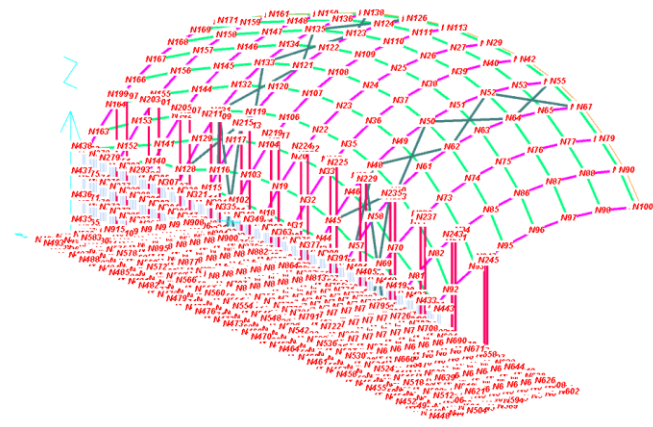


Assonometria : 18,125



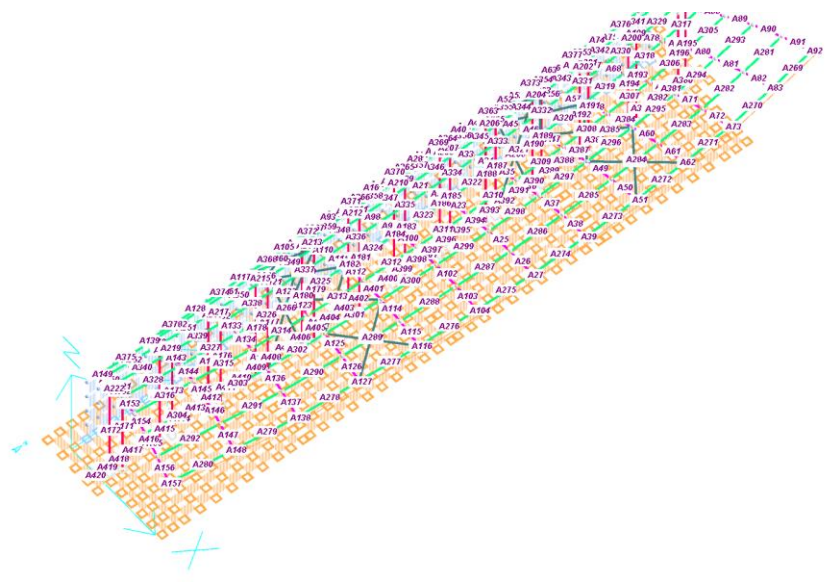
Numerazione nodi

Assonometria : 15, 30



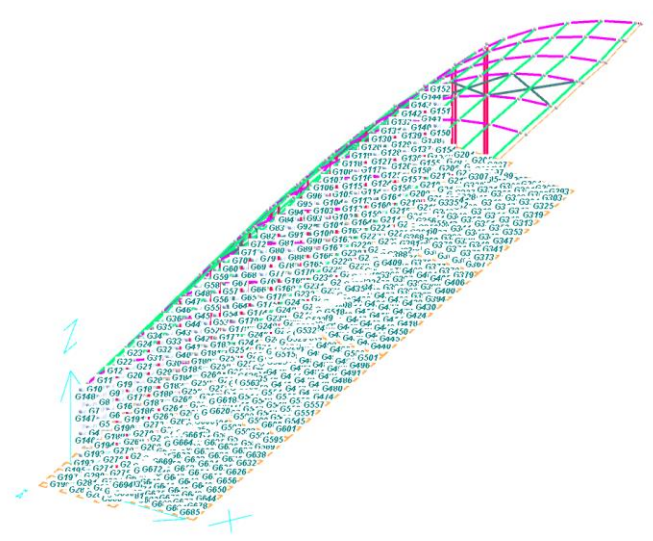
Numerazione aste

Assonometria : 56, 51



Numerazione gusci

Assonometria : 30, 30



Vengono qui di seguito riportate:

- 1) Le caratteristiche geometriche del modello
- 2) Le risultanze dell'analisi dinamica effettuata
- 3) Verifiche strutturali relative agli elementi portanti dell'edificio (controllo delle rigidezze strutturali, verifiche degli spostamenti sismici, verifiche della platea di fondazione, dei pilastri e degli elementi in legno della copertura).

Si dichiara che, su tutti gli elementi strutturali sono state condotte tutte le verifiche richieste dalla Normativa tecnica di riferimento adottata (D.M. 14/01/2008) e che tutte le verifiche eseguite sono state attentamente controllate ed hanno dato esito positivo.

DATI STRUTTURA

*** DATI STRUTTURA

Unita` di misura :
 LUNGHEZZE : cm
 SUPERFICI : cm2
 DATI SEZIONALI : cm
 ANGOLI : gradi
 FORZE : kN
 MOMENTI : kNm
 CARICHI LINEARI : kN/m
 CARICHI SUPERFIC.: kN/m2
 TENSIONI : N/mm2
 PESI DI VOLUME : kN/m3
 COEFF. DI WINKLER: kN/m3
 RIGIDEZZE VINCOL.: kN/cm - kNm/rad

NODI--	-----	-----	-----	-----	-----	num.=
Nome	Coord. X	Coord. Y	Coord. Z			
17	0.000	1105.100	304.100			
18	14.400	1105.100	332.900			
19	58.400	1105.100	407.400			
20	120.200	1105.100	487.400			
21	143.000	1105.100	512.100			
22	192.000	1105.100	558.400			
23	272.600	1105.100	619.300			
24	360.200	1105.100	668.800			
25	454.300	1105.100	706.600			
26	552.200	1105.100	731.400			
27	652.500	1105.100	743.000			
28	753.500	1105.100	741.200			
29	772.000	1105.100	739.400			
30	0.000	1266.700	303.000			
31	14.400	1267.500	333.000			
32	55.900	1269.800	403.500			
33	117.100	1273.100	483.800			
34	142.500	1274.500	511.500			
35	188.400	1277.000	555.200			
36	268.600	1281.400	616.500			
37	356.200	1286.100	666.600			
38	449.600	1291.200	704.700			
39	547.200	1296.600	730.000			
40	647.400	1302.000	742.100			
41	748.200	1307.500	740.800			
42	766.500	1308.500	739.200			
43	0.000	1429.400	302.000			
44	15.400	1431.100	332.300			
45	45.000	1434.300	381.700			
46	105.400	1440.900	462.400			
47	142.100	1444.900	502.200			
48	175.900	1448.600	534.300			
49	255.300	1457.300	596.200			
50	342.100	1466.800	646.900			
51	434.800	1476.900	685.600			
52	531.900	1487.500	711.600			
53	631.500	1498.400	724.400			
54	731.900	1509.400	723.900			
55	749.900	1511.400	722.300			
56	0.000	1593.900	300.200			
57	27.000	1598.400	347.600			
58	86.000	1608.100	429.000			
59	141.600	1617.300	489.000			
60	155.200	1619.500	501.700			
61	233.200	1632.400	564.600			
62	318.800	1646.500	616.300			
63	410.400	1661.600	656.200			
64	506.400	1677.400	683.300			
65	605.100	1693.700	697.300			
66	704.700	1710.100	698.000			
67	722.300	1713.000	696.700			
68	0.000	1761.500	298.000			
69	22.600	1766.500	333.100			
70	56.900	1774.100	379.000			
71	124.600	1789.100	452.400			
72	141.300	1792.800	467.700			
73	201.300	1806.100	516.000			
74	285.500	1824.700	568.500			
75	375.700	1844.700	609.200			
76	470.500	1865.600	637.300			
77	568.000	1887.200	652.200			
78	666.600	1909.100	653.800			
79	683.700	1912.800	652.700			
80	0.000	1933.200	295.900			
81	30.400	1941.700	337.200			
82	87.100	1957.500	400.700			
83	140.900	1972.500	449.400			
84	161.600	1978.300	465.800			
85	243.700	2001.200	520.000			
86	331.900	2025.900	562.400			
87	424.900	2051.800	592.300			
88	520.800	2078.600	609.200			
89	618.000	2105.700	612.700			

90	634.400	2110.300	611.900
91	0.000	2110.100	292.000
92	40.000	2123.700	337.200
93	112.400	2148.200	403.200
94	140.700	2157.800	424.500
95	192.500	2175.400	458.400
96	278.800	2204.600	502.000
97	369.900	2235.500	533.100
98	464.000	2267.400	551.100
99	559.600	2299.800	555.900
100	575.300	2305.100	555.400
101	0.000	943.400	303.000
102	14.400	942.600	333.000
103	55.900	940.400	403.500
104	117.100	937.000	483.800
105	142.500	935.600	511.500
106	188.400	933.100	555.200
107	268.600	928.800	616.500
108	356.200	924.000	666.600
109	449.600	918.900	704.700
110	547.200	913.600	730.000
111	647.400	908.100	742.100
112	748.200	902.600	740.800
113	766.500	901.600	739.200
114	0.000	780.800	302.000
115	15.400	779.100	332.300
116	45.000	775.900	381.700
117	105.400	769.200	462.400
118	142.100	765.200	502.200
119	175.900	761.500	534.300
120	255.300	752.900	596.200
121	342.100	743.400	646.900
122	434.800	733.200	685.600
123	531.900	722.600	711.600
124	631.500	711.700	724.400
125	731.900	700.700	723.900
126	749.900	698.800	722.300
127	0.000	616.200	300.200
128	27.000	611.700	347.600
129	86.000	602.000	429.000
130	141.600	592.800	489.000
131	155.200	590.600	501.700
132	233.200	577.700	564.600
133	318.800	563.600	616.300
134	410.400	548.500	656.200
135	506.400	532.700	683.300
136	605.100	516.400	697.300
137	704.700	500.000	698.000
138	722.300	497.100	696.700
139	0.000	448.600	298.000
140	22.600	443.600	333.100
141	56.900	436.000	379.000
142	124.600	421.000	452.400
143	141.300	417.400	467.700
144	201.300	404.100	516.000
145	285.500	385.400	568.500
146	375.700	365.500	609.200
147	470.500	344.500	637.300
148	568.000	322.900	652.200
149	666.600	301.100	653.800
150	683.700	297.300	652.700
151	0.000	277.000	295.900
152	30.400	268.500	337.200
153	87.100	252.600	400.700
154	140.900	237.600	449.400
155	161.600	231.900	465.800
156	243.700	208.900	520.000
157	331.900	184.300	562.400
158	424.900	158.300	592.300
159	520.800	131.600	609.200
160	618.000	104.400	612.700
161	634.400	99.800	611.900
162	0.000	100.000	292.000
163	40.000	86.400	337.200
164	112.400	61.900	403.200
165	140.700	52.300	424.500
166	192.500	34.800	458.400
167	278.800	5.500	502.000
168	369.900	-25.300	533.100
169	464.000	-57.200	551.100
170	559.600	-89.600	555.900
171	575.300	-94.900	555.400
197	147.100	71.300	424.500
198	147.100	71.300	0.000
199	134.300	33.400	424.500
200	134.300	33.400	0.000
201	146.300	256.900	449.400
202	146.300	256.900	0.000
203	135.600	218.300	449.400
204	135.600	218.300	0.000
205	136.900	397.800	467.700
206	136.900	397.800	0.000
207	145.600	436.900	467.700
208	145.600	436.900	0.000
209	144.900	612.600	489.000

210	144.900	612.600	0.000
211	138.400	573.100	489.000
212	138.400	573.100	0.000
213	144.200	785.100	502.200
214	144.200	785.100	0.000
215	139.900	745.400	502.200
216	139.900	745.400	0.000
217	143.600	955.600	511.500
218	143.600	955.600	0.000
219	141.400	915.700	511.500
220	141.400	915.700	0.000
221	143.000	1125.100	0.000
222	143.000	1125.100	512.100
223	143.000	1085.100	0.000
224	143.000	1085.100	512.100
225	141.400	1294.500	511.500
226	141.400	1294.500	0.000
227	143.600	1254.500	511.500
228	143.600	1254.500	0.000
229	139.900	1464.800	502.200
230	139.900	1464.800	0.000
231	144.200	1425.000	502.200
232	144.200	1425.000	0.000
233	138.400	1637.000	489.000
234	138.400	1637.000	0.000
235	144.900	1597.600	489.000
236	144.900	1597.600	0.000
237	136.900	1812.300	467.700
238	136.900	1812.300	0.000
239	145.600	1773.300	467.700
240	145.600	1773.300	0.000
241	135.600	1991.800	449.400
242	135.600	1991.800	0.000
243	146.300	1953.300	449.400
244	146.300	1953.300	0.000
245	134.300	2176.800	424.500
246	134.300	2176.800	0.000
247	147.100	2138.900	424.500
248	147.100	2138.900	0.000
262	0.000	100.000	0.000
263	0.000	159.000	0.000
264	0.000	159.000	73.300
265	0.000	100.000	73.000
266	0.000	218.000	0.000
267	0.000	218.000	73.700
268	0.000	277.000	0.000
269	0.000	277.000	74.000
270	0.000	159.000	146.700
271	0.000	100.000	146.000
272	0.000	218.000	147.300
273	0.000	277.000	148.000
274	0.000	159.000	220.000
275	0.000	100.000	219.000
276	0.000	218.000	221.000
277	0.000	277.000	221.900
278	0.000	159.000	293.300
279	0.000	218.000	294.600
280	0.000	334.200	0.000
281	0.000	334.200	74.100
282	0.000	391.400	0.000
283	0.000	391.400	74.300
284	0.000	448.600	0.000
285	0.000	448.600	74.500
286	0.000	334.200	148.300
287	0.000	391.400	148.600
288	0.000	448.600	149.000
289	0.000	334.200	222.400
290	0.000	391.400	223.000
291	0.000	448.600	223.500
292	0.000	334.200	296.600
293	0.000	391.400	297.300
294	0.000	504.500	0.000
295	0.000	504.500	74.700
296	0.000	560.300	0.000
297	0.000	560.300	74.900
298	0.000	616.200	0.000
299	0.000	616.200	75.100
300	0.000	504.500	149.400
301	0.000	560.300	149.700
302	0.000	616.200	150.100
303	0.000	504.500	224.000
304	0.000	560.300	224.600
305	0.000	616.200	225.200
306	0.000	504.500	298.700
307	0.000	560.300	299.500
308	0.000	671.000	0.000
309	0.000	671.000	75.200
310	0.000	725.900	0.000
311	0.000	725.900	75.300
312	0.000	780.800	0.000
313	0.000	780.800	75.500
314	0.000	671.000	150.400
315	0.000	725.900	150.700
316	0.000	780.800	151.000
317	0.000	671.000	225.600

318	0.000	725.900	226.000
319	0.000	780.800	226.500
320	0.000	671.000	300.800
321	0.000	725.900	301.400
322	0.000	835.000	0.000
323	0.000	835.000	75.600
324	0.000	889.200	0.000
325	0.000	889.200	75.700
326	0.000	943.400	0.000
327	0.000	943.400	75.800
328	0.000	835.000	151.200
329	0.000	889.200	151.300
330	0.000	943.400	151.500
331	0.000	835.000	226.700
332	0.000	889.200	227.000
333	0.000	943.400	227.300
334	0.000	835.000	302.300
335	0.000	889.200	302.700
336	0.000	997.300	0.000
337	0.000	997.300	75.800
338	0.000	1051.200	0.000
339	0.000	1051.200	75.900
340	0.000	1105.100	0.000
341	0.000	1105.100	76.000
342	0.000	997.300	151.700
343	0.000	1051.200	151.900
344	0.000	1105.100	152.000
345	0.000	997.300	227.500
346	0.000	1051.200	227.800
347	0.000	1105.100	228.000
348	0.000	997.300	303.400
349	0.000	1051.200	303.700
350	0.000	1159.000	0.000
351	0.000	1159.000	75.900
352	0.000	1212.800	0.000
353	0.000	1212.800	75.800
354	0.000	1266.700	0.000
355	0.000	1266.700	75.800
356	0.000	1159.000	151.900
357	0.000	1212.800	151.700
358	0.000	1266.700	151.500
359	0.000	1159.000	227.800
360	0.000	1212.800	227.500
361	0.000	1266.700	227.300
362	0.000	1159.000	303.700
363	0.000	1212.800	303.400
364	0.000	1320.900	0.000
365	0.000	1320.900	75.700
366	0.000	1375.200	0.000
367	0.000	1375.200	75.600
368	0.000	1429.400	0.000
369	0.000	1429.400	75.500
370	0.000	1320.900	151.300
371	0.000	1375.200	151.200
372	0.000	1429.400	151.000
373	0.000	1320.900	227.000
374	0.000	1375.200	226.700
375	0.000	1429.400	226.500
376	0.000	1320.900	302.700
377	0.000	1375.200	302.300
378	0.000	1484.200	0.000
379	0.000	1484.200	75.300
380	0.000	1539.100	0.000
381	0.000	1539.100	75.200
382	0.000	1593.900	0.000
383	0.000	1593.900	75.100
384	0.000	1484.200	150.700
385	0.000	1539.100	150.400
386	0.000	1593.900	150.100
387	0.000	1484.200	226.000
388	0.000	1539.100	225.600
389	0.000	1593.900	225.200
390	0.000	1484.200	301.400
391	0.000	1539.100	300.800
392	0.000	1649.800	0.000
393	0.000	1649.800	74.900
394	0.000	1705.700	0.000
395	0.000	1705.700	74.700
396	0.000	1761.500	0.000
397	0.000	1761.500	74.500
398	0.000	1649.800	149.700
399	0.000	1705.700	149.400
400	0.000	1761.500	149.000
401	0.000	1649.800	224.600
402	0.000	1705.700	224.000
403	0.000	1761.500	223.500
404	0.000	1649.800	299.500
405	0.000	1705.700	298.700
406	0.000	1818.700	0.000
407	0.000	1818.700	74.300
408	0.000	1876.000	0.000
409	0.000	1876.000	74.100
410	0.000	1933.200	0.000
411	0.000	1933.200	74.000
412	0.000	1818.700	148.600

413	0.000	1876.000	148.300
414	0.000	1933.200	148.000
415	0.000	1818.700	223.000
416	0.000	1876.000	222.400
417	0.000	1933.200	221.900
418	0.000	1818.700	297.300
419	0.000	1876.000	296.600
420	0.000	1992.200	0.000
421	0.000	1992.200	73.700
422	0.000	2051.100	0.000
423	0.000	2051.100	73.300
424	0.000	2110.100	0.000
425	0.000	2110.100	73.000
426	0.000	1992.200	147.300
427	0.000	2051.100	146.700
428	0.000	2110.100	146.000
429	0.000	1992.200	221.000
430	0.000	2051.100	220.000
431	0.000	2110.100	219.000
432	0.000	1992.200	294.600
433	0.000	2051.100	293.300
434	0.000	57.600	0.000
435	0.000	57.600	73.000
436	0.000	57.600	146.000
437	0.000	57.600	219.000
438	0.000	57.600	292.000
439	0.000	2152.600	0.000
440	0.000	2152.600	73.000
441	0.000	2152.600	146.000
442	0.000	2152.600	219.000
443	0.000	2152.600	292.000
444	-68.000	2152.600	0.000
445	0.000	2197.600	0.000
446	-68.000	2197.600	0.000
447	0.000	2242.600	0.000
448	-68.000	2242.600	0.000
449	-68.000	2110.100	0.000
450	-68.000	1933.200	0.000
451	-68.000	1992.200	0.000
452	-68.000	2051.100	0.000
453	-68.000	1761.500	0.000
454	-68.000	1818.700	0.000
455	-68.000	1876.000	0.000
456	-68.000	1593.900	0.000
457	-68.000	1649.800	0.000
458	-68.000	1705.700	0.000
459	-68.000	1429.400	0.000
460	-68.000	1484.200	0.000
461	-68.000	1539.100	0.000
462	-68.000	1266.700	0.000
463	-68.000	1320.900	0.000
464	-68.000	1375.200	0.000
468	-68.000	1105.100	0.000
469	-68.000	1159.000	0.000
470	-68.000	1212.800	0.000
471	-68.000	943.400	0.000
472	-68.000	997.300	0.000
473	-68.000	1051.200	0.000
474	-68.000	780.800	0.000
475	-68.000	835.000	0.000
476	-68.000	889.200	0.000
477	-68.000	616.200	0.000
478	-68.000	671.000	0.000
479	-68.000	725.900	0.000
480	-68.000	448.600	0.000
481	-68.000	504.500	0.000
482	-68.000	560.300	0.000
483	-68.000	277.000	0.000
484	-68.000	334.200	0.000
485	-68.000	391.400	0.000
486	-68.000	100.000	0.000
487	-68.000	159.000	0.000
488	-68.000	218.000	0.000
489	-68.000	57.600	0.000
490	-68.000	-32.400	0.000
491	0.000	-32.400	0.000
492	0.000	12.600	0.000
493	-68.000	12.600	0.000
500	58.000	2152.600	0.000
501	58.000	2197.600	0.000
502	116.000	2152.600	0.000
503	116.000	2197.600	0.000
504	58.000	2242.600	0.000
505	116.000	2242.600	0.000
506	58.000	2110.100	0.000
507	116.000	2110.100	0.000
508	58.000	1933.200	0.000
509	58.000	1992.200	0.000
510	116.000	1933.200	0.000
511	116.000	1992.200	0.000
512	58.000	2051.100	0.000
513	116.000	2051.100	0.000
514	58.000	1761.500	0.000
515	58.000	1818.700	0.000
516	116.000	1761.500	0.000

517	116.000	1818.700	0.000
518	58.000	1876.000	0.000
519	116.000	1876.000	0.000
520	58.000	1593.900	0.000
521	58.000	1649.800	0.000
522	116.000	1593.900	0.000
523	116.000	1649.800	0.000
524	58.000	1705.700	0.000
525	116.000	1705.700	0.000
526	58.000	1429.400	0.000
527	58.000	1484.200	0.000
528	116.000	1429.400	0.000
529	116.000	1484.200	0.000
530	58.000	1539.100	0.000
531	116.000	1539.100	0.000
532	58.000	1266.700	0.000
533	58.000	1320.900	0.000
534	116.000	1266.700	0.000
535	116.000	1320.900	0.000
536	58.000	1375.200	0.000
537	116.000	1375.200	0.000
538	58.000	1105.100	0.000
539	58.000	1159.000	0.000
540	116.000	1105.100	0.000
541	116.000	1159.000	0.000
542	58.000	1212.800	0.000
543	116.000	1212.800	0.000
544	58.000	943.400	0.000
545	58.000	997.300	0.000
546	116.000	943.400	0.000
547	116.000	997.300	0.000
548	58.000	1051.200	0.000
549	116.000	1051.200	0.000
550	58.000	780.800	0.000
551	58.000	835.000	0.000
552	116.000	780.800	0.000
553	116.000	835.000	0.000
554	58.000	889.200	0.000
555	116.000	889.200	0.000
556	58.000	616.200	0.000
557	58.000	671.000	0.000
558	116.000	616.200	0.000
559	116.000	671.000	0.000
560	58.000	725.900	0.000
561	116.000	725.900	0.000
562	58.000	448.600	0.000
563	58.000	504.500	0.000
564	116.000	448.600	0.000
565	116.000	504.500	0.000
566	58.000	560.300	0.000
567	116.000	560.300	0.000
568	58.000	277.000	0.000
569	58.000	334.200	0.000
570	116.000	277.000	0.000
571	116.000	334.200	0.000
572	58.000	391.400	0.000
573	116.000	391.400	0.000
574	58.000	100.000	0.000
575	58.000	159.000	0.000
576	116.000	100.000	0.000
577	116.000	159.000	0.000
578	58.000	218.000	0.000
579	116.000	218.000	0.000
580	58.000	57.600	0.000
581	116.000	57.600	0.000
582	58.000	-32.400	0.000
583	58.000	12.600	0.000
584	116.000	-32.400	0.000
585	116.000	12.600	0.000
588	161.000	2192.600	0.000
589	161.000	2242.600	0.000
590	162.700	2152.600	0.000
593	209.400	2152.600	0.000
594	209.400	2192.600	0.000
595	256.000	2152.600	0.000
596	256.000	2192.600	0.000
597	302.700	2152.600	0.000
598	302.700	2192.600	0.000
599	349.400	2152.600	0.000
600	349.400	2192.600	0.000
601	396.000	2152.600	0.000
602	396.000	2192.600	0.000
603	162.700	2110.100	0.000
604	209.400	2110.100	0.000
605	256.000	2110.100	0.000
606	302.700	2110.100	0.000
607	349.400	2110.100	0.000
608	396.000	2110.100	0.000
609	162.700	1933.200	0.000
610	162.700	1992.200	0.000
611	209.400	1933.200	0.000
612	209.400	1992.200	0.000
613	256.000	1933.200	0.000
614	256.000	1992.200	0.000
615	302.700	1933.200	0.000

616	302.700	1992.200	0.000
617	349.400	1933.200	0.000
618	349.400	1992.200	0.000
619	396.000	1933.200	0.000
620	396.000	1992.200	0.000
621	162.700	2051.100	0.000
622	209.400	2051.100	0.000
623	256.000	2051.100	0.000
624	302.700	2051.100	0.000
625	349.400	2051.100	0.000
626	396.000	2051.100	0.000
627	162.700	1761.500	0.000
628	162.700	1818.700	0.000
629	209.400	1761.500	0.000
630	209.400	1818.700	0.000
631	256.000	1761.500	0.000
632	256.000	1818.700	0.000
633	302.700	1761.500	0.000
634	302.700	1818.700	0.000
635	349.400	1761.500	0.000
636	349.400	1818.700	0.000
637	396.000	1761.500	0.000
638	396.000	1818.700	0.000
639	162.700	1876.000	0.000
640	209.400	1876.000	0.000
641	256.000	1876.000	0.000
642	302.700	1876.000	0.000
643	349.400	1876.000	0.000
644	396.000	1876.000	0.000
646	162.700	1667.600	0.000
647	162.700	1714.500	0.000
649	209.400	1667.600	0.000
650	209.400	1714.500	0.000
651	256.000	1667.600	0.000
652	256.000	1714.500	0.000
653	302.700	1667.600	0.000
654	302.700	1714.500	0.000
655	349.400	1667.600	0.000
656	349.400	1714.500	0.000
657	396.000	1667.600	0.000
658	396.000	1714.500	0.000
659	162.700	1593.900	0.000
660	162.700	1642.600	0.000
662	209.400	1593.900	0.000
663	209.400	1642.600	0.000
664	256.000	1593.900	0.000
665	256.000	1642.600	0.000
666	302.700	1593.900	0.000
667	302.700	1642.600	0.000
668	349.400	1593.900	0.000
669	349.400	1642.600	0.000
670	396.000	1593.900	0.000
671	396.000	1642.600	0.000
673	162.700	1429.400	0.000
674	162.700	1484.200	0.000
675	209.400	1429.400	0.000
676	209.400	1484.200	0.000
677	256.000	1429.400	0.000
678	256.000	1484.200	0.000
679	302.700	1429.400	0.000
680	302.700	1484.200	0.000
681	349.400	1429.400	0.000
682	349.400	1484.200	0.000
683	396.000	1429.400	0.000
684	396.000	1484.200	0.000
685	162.700	1539.100	0.000
686	209.400	1539.100	0.000
687	256.000	1539.100	0.000
688	302.700	1539.100	0.000
689	349.400	1539.100	0.000
690	396.000	1539.100	0.000
691	162.700	1266.700	0.000
692	162.700	1320.900	0.000
693	209.400	1266.700	0.000
694	209.400	1320.900	0.000
695	256.000	1266.700	0.000
696	256.000	1320.900	0.000
697	302.700	1266.700	0.000
698	302.700	1320.900	0.000
699	349.400	1266.700	0.000
700	349.400	1320.900	0.000
701	396.000	1266.700	0.000
702	396.000	1320.900	0.000
703	162.700	1375.200	0.000
704	209.400	1375.200	0.000
705	256.000	1375.200	0.000
706	302.700	1375.200	0.000
707	349.400	1375.200	0.000
708	396.000	1375.200	0.000
709	161.000	1117.600	0.000
710	208.000	1117.600	0.000
711	208.500	1167.300	0.000
712	161.600	1167.300	0.000
713	255.000	1117.600	0.000
714	255.400	1167.300	0.000

715	302.000	1117.600	0.000
716	302.300	1167.300	0.000
717	349.000	1117.600	0.000
718	349.200	1167.300	0.000
719	396.000	1117.600	0.000
720	396.000	1167.300	0.000
721	208.900	1217.000	0.000
722	162.200	1217.000	0.000
723	255.700	1217.000	0.000
724	302.500	1217.000	0.000
725	349.300	1217.000	0.000
726	396.000	1217.000	0.000
754	162.700	780.800	0.000
755	162.700	835.000	0.000
756	209.400	780.800	0.000
757	209.400	835.000	0.000
758	256.000	780.800	0.000
759	256.000	835.000	0.000
760	302.700	780.800	0.000
761	302.700	835.000	0.000
762	349.400	780.800	0.000
763	349.400	835.000	0.000
764	396.000	780.800	0.000
765	396.000	835.000	0.000
766	162.700	889.200	0.000
767	209.400	889.200	0.000
768	256.000	889.200	0.000
769	302.700	889.200	0.000
770	349.400	889.200	0.000
771	396.000	889.200	0.000
772	162.700	943.400	0.000
773	209.400	943.400	0.000
774	256.000	943.400	0.000
775	302.700	943.400	0.000
776	349.400	943.400	0.000
777	396.000	943.400	0.000
778	208.900	993.100	0.000
779	162.200	993.100	0.000
780	255.700	993.100	0.000
781	302.500	993.100	0.000
782	349.300	993.100	0.000
783	396.000	993.100	0.000
784	208.500	1042.800	0.000
785	161.600	1042.800	0.000
786	255.400	1042.800	0.000
787	302.300	1042.800	0.000
788	349.200	1042.800	0.000
789	396.000	1042.800	0.000
790	208.000	1092.600	0.000
791	161.000	1092.600	0.000
792	255.000	1092.600	0.000
793	302.000	1092.600	0.000
794	349.000	1092.600	0.000
795	396.000	1092.600	0.000
796	162.700	616.200	0.000
797	162.700	671.000	0.000
798	209.400	616.200	0.000
799	209.400	671.000	0.000
800	256.000	616.200	0.000
801	256.000	671.000	0.000
802	302.700	616.200	0.000
803	302.700	671.000	0.000
804	349.400	616.200	0.000
805	349.400	671.000	0.000
806	396.000	616.200	0.000
807	396.000	671.000	0.000
808	162.700	725.900	0.000
809	209.400	725.900	0.000
810	256.000	725.900	0.000
811	302.700	725.900	0.000
812	349.400	725.900	0.000
813	396.000	725.900	0.000
838	162.700	448.600	0.000
839	162.700	495.600	0.000
841	209.400	448.600	0.000
842	209.400	495.600	0.000
843	256.000	448.600	0.000
844	256.000	495.600	0.000
845	302.700	448.600	0.000
846	302.700	495.600	0.000
847	349.400	448.600	0.000
848	349.400	495.600	0.000
849	396.000	448.600	0.000
850	396.000	495.600	0.000
851	162.700	542.600	0.000
853	209.400	542.600	0.000
854	256.000	542.600	0.000
855	302.700	542.600	0.000
856	349.400	542.600	0.000
857	396.000	542.600	0.000
859	162.700	567.600	0.000
860	209.400	567.600	0.000
861	256.000	567.600	0.000
862	302.700	567.600	0.000
863	349.400	567.600	0.000

864	396.000	567.600	0.000
865	162.700	277.000	0.000
866	162.700	334.200	0.000
867	209.400	277.000	0.000
868	209.400	334.200	0.000
869	256.000	277.000	0.000
870	256.000	334.200	0.000
871	302.700	277.000	0.000
872	302.700	334.200	0.000
873	349.400	277.000	0.000
874	349.400	334.200	0.000
875	396.000	277.000	0.000
876	396.000	334.200	0.000
877	162.700	391.400	0.000
878	209.400	391.400	0.000
879	256.000	391.400	0.000
880	302.700	391.400	0.000
881	349.400	391.400	0.000
882	396.000	391.400	0.000
883	162.700	100.000	0.000
884	162.700	159.000	0.000
885	209.400	100.000	0.000
886	209.400	159.000	0.000
887	256.000	100.000	0.000
888	256.000	159.000	0.000
889	302.700	100.000	0.000
890	302.700	159.000	0.000
891	349.400	100.000	0.000
892	349.400	159.000	0.000
893	396.000	100.000	0.000
894	396.000	159.000	0.000
895	162.700	218.000	0.000
896	209.400	218.000	0.000
897	256.000	218.000	0.000
898	302.700	218.000	0.000
899	349.400	218.000	0.000
900	396.000	218.000	0.000
901	162.700	57.600	0.000
902	209.400	57.600	0.000
903	256.000	57.600	0.000
904	302.700	57.600	0.000
905	349.400	57.600	0.000
906	396.000	57.600	0.000
908	396.000	17.600	0.000
910	161.000	17.600	0.000
911	209.400	17.600	0.000
912	256.000	17.600	0.000
913	302.700	17.600	0.000
914	349.400	17.600	0.000
915	161.000	-32.400	0.000

ASTE--	-----	-----	-----	-----	-----	num.=	366
Nome	Proprieta`	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.		Orient.
16	1	17	18				0.0
17	1	18	19	RxRyRz			0.0
18	1	19	20				0.0
19	1	20	21				0.0
20	1	21	22				0.0
21	1	22	23				0.0
22	1	23	24				0.0
23	1	24	25				0.0
24	1	25	26				0.0
25	1	26	27				0.0
26	1	27	28				0.0
27	1	28	29				0.0
28	1	30	31	RxRyRz			0.0
29	1	31	32				0.0
30	1	32	33				0.0
31	1	33	34				0.0
32	1	34	35				0.0
33	1	35	36				0.0
34	1	36	37				0.0
35	1	37	38				0.0
36	1	38	39				0.0
37	1	39	40				0.0
38	1	40	41				0.0
39	1	41	42				0.0
40	1	43	44	RxRyRz			0.0
41	1	44	45				0.0
42	1	45	46				0.0
43	1	46	47				0.0
44	1	47	48				0.0
45	1	48	49				0.0
46	1	49	50				0.0
47	1	50	51				0.0
48	1	51	52				0.0
49	1	52	53				0.0
50	1	53	54				0.0
51	1	54	55				0.0
52	1	56	57	RxRyRz			0.0
53	1	57	58				0.0
54	1	58	59				0.0
55	1	59	60				0.0
56	1	60	61				0.0
57	1	61	62				0.0

58	1	62	63		0.0
59	1	63	64		0.0
60	1	64	65		0.0
61	1	65	66		0.0
62	1	66	67		0.0
63	1	68	69	RxRyRz	0.0
64	1	69	70		0.0
65	1	70	71		0.0
66	1	71	72		0.0
67	1	72	73		0.0
68	1	73	74		0.0
69	1	74	75		0.0
70	1	75	76		0.0
71	1	76	77		0.0
72	1	77	78		0.0
73	1	78	79		0.0
74	1	80	81	RxRyRz	0.0
75	1	81	82		0.0
76	1	82	83		0.0
77	1	83	84		0.0
78	1	84	85		0.0
79	1	85	86		0.0
80	1	86	87		0.0
81	1	87	88		0.0
82	1	88	89		0.0
83	1	89	90		0.0
84	1	91	92	RxRyRz	0.0
85	1	92	93		0.0
86	1	93	94		0.0
87	1	94	95		0.0
88	1	95	96		0.0
89	1	96	97		0.0
90	1	97	98		0.0
91	1	98	99		0.0
92	1	99	100		0.0
93	1	101	102	RxRyRz	3.1
94	1	102	103		0.0
95	1	103	104		0.0
96	1	104	105		0.0
97	1	105	106		0.0
98	1	106	107		0.0
99	1	107	108		0.0
100	1	108	109		0.0
101	1	109	110		0.0
102	1	110	111		0.0
103	1	111	112		0.0
104	1	112	113		0.0
105	1	114	115	RxRyRz	3.1
106	1	115	116		3.1
107	1	116	117		3.1
108	1	117	118		3.1
109	1	118	119		0.0
110	1	119	120		0.0
111	1	120	121		0.0
112	1	121	122		0.0
113	1	122	123		0.0
114	1	123	124		0.0
115	1	124	125		3.1
116	1	125	126		3.1
117	1	127	128	RxRyRz	0.0
118	1	128	129		0.0
119	1	129	130		0.0
120	1	130	131		0.0
121	1	131	132		0.0
122	1	132	133		0.0
123	1	133	134		3.1
124	1	134	135		3.1
125	1	135	136		3.1
126	1	136	137		3.1
127	1	137	138		3.1
128	1	139	140	RxRyRz	0.0
129	1	140	141		0.0
130	1	141	142		0.0
131	1	142	143		0.0
132	1	143	144		0.0
133	1	144	145		0.0
134	1	145	146		0.0
135	1	146	147		0.0
136	1	147	148		0.0
137	1	148	149		0.0
138	1	149	150		0.0
139	1	151	152	RxRyRz	0.0
140	1	152	153		0.0
141	1	153	154		0.0
142	1	154	155		0.0
143	1	155	156		0.0
144	1	156	157		0.0
145	1	157	158		0.0
146	1	158	159		0.0
147	1	159	160		0.0
148	1	160	161		0.0
149	1	162	163	RxRyRz	0.0
150	1	163	164		0.0
151	1	164	165		0.0
152	1	165	166		0.0

153	1	166	167			0.0
154	1	167	168			0.0
155	1	168	169			0.0
156	1	169	170			0.0
157	1	170	171			0.0
171	2	198	197			-18.7
172	2	200	199			-18.7
173	2	202	201			-15.6
174	2	204	203			-15.6
175	2	206	205			-12.5
176	2	208	207			-12.5
177	2	210	209			-9.4
178	2	212	211			-9.4
179	2	214	213			-6.2
180	2	216	215			-6.2
181	2	218	217			-3.1
182	2	220	219			-3.1
183	2	221	222			0.0
184	2	223	224			0.0
185	2	226	225			3.1
186	2	228	227			3.1
187	2	230	229			6.2
188	2	232	231			6.2
189	2	234	233			9.4
190	2	236	235			9.4
191	2	238	237			12.5
192	2	240	239			12.5
193	2	242	241			15.6
194	2	244	243			15.6
195	2	246	245			18.7
196	2	248	247			18.7
197	3	94	245		RxRyRz	0.0
198	3	247	94	RxRyRz		0.0
199	3	83	241		RxRyRz	0.0
200	3	243	83	RxRyRz		0.0
201	3	72	237		RxRyRz	0.0
202	3	239	72	RxRyRz		0.0
203	3	59	233		RxRyRz	0.0
204	3	235	59	RxRyRz		0.0
205	3	47	229		RxRyRz	0.0
206	3	231	47	RxRyRz		0.0
207	3	34	225		RxRyRz	0.0
208	3	227	34	RxRyRz		0.0
209	3	21	222		RxRyRz	0.0
210	3	224	21	RxRyRz		0.0
211	3	105	217		RxRyRz	0.0
212	3	219	105	RxRyRz		0.0
213	3	118	213		RxRyRz	0.0
214	3	215	118	RxRyRz		0.0
215	3	211	130	RxRyRz		0.0
216	3	130	209		RxRyRz	0.0
217	3	143	207		RxRyRz	0.0
218	3	205	143	RxRyRz		0.0
219	3	154	201		RxRyRz	0.0
220	3	203	154	RxRyRz		0.0
221	3	165	197		RxRyRz	0.0
222	3	199	165	RxRyRz		0.0
249	4	52	66	RyRz	RxRyRz	0.0
250	4	62	52	RyRz	RxRyRz	0.0
251	4	48	62	RyRz	RxRyRz	0.0
252	4	48	57	RyRz	RxRyRz	0.0
253	4	45	60	RyRz	RxRyRz	0.0
254	4	60	50	RyRz	RxRyRz	0.0
255	4	50	64	RyRz	RxRyRz	0.0
256	4	64	54	RyRz	RxRyRz	0.0
257	4	135	125	RyRz	RxRyRz	0.0
258	4	135	121	RyRz	RxRyRz	0.0
259	4	131	121	RyRz	RxRyRz	0.0
260	4	131	116	RyRz	RxRyRz	0.0
261	4	128	119	RyRz	RxRyRz	0.0
262	4	133	119	RyRz	RxRyRz	0.0
263	4	133	123	RyRz	RxRyRz	0.0
264	4	137	123	RyRz	RxRyRz	0.0
265	4	216	209	RyRz	RxRyRz	0.0
266	4	210	215	RyRz	RxRyRz	0.0
267	4	230	235	RyRz	RxRyRz	0.0
268	4	236	229	RyRz	RxRyRz	0.0
269	5	89	99	RyRz	RxRyRz	4.8
270	5	78	89	RyRz	RxRyRz	4.8
271	5	66	78	RyRz	RxRyRz	4.8
272	5	54	66	RyRz	RxRyRz	4.8
273	5	41	54	RyRz	RxRyRz	4.8
274	5	28	41	RyRz	RxRyRz	4.8
275	5	112	28	RyRz	RxRyRz	4.8
276	5	125	112	RyRz	RxRyRz	4.8
277	5	137	125	RyRz	RxRyRz	4.8
278	5	149	137	RyRz	RxRyRz	4.8
279	5	160	149	RyRz	RxRyRz	4.8
280	5	170	160	RyRz	RxRyRz	4.8
281	5	88	98	RyRz	RxRyRz	-2.8
282	5	77	88	RyRz	RxRyRz	-2.8
283	5	65	77	RyRz	RxRyRz	-2.8
284	5	53	65	RyRz	RxRyRz	-2.8
285	5	40	53	RyRz	RxRyRz	-2.8
286	5	27	40	RyRz	RxRyRz	-2.8

287	5	111	27	RyRz	RxRyRz	-2.8
288	5	124	111	RyRz	RxRyRz	-2.8
289	5	136	124	RyRz	RxRyRz	-2.8
290	5	148	136	RyRz	RxRyRz	-2.8
291	5	159	148	RyRz	RxRyRz	-2.8
292	5	169	159	RyRz	RxRyRz	-2.8
293	5	87	97	RyRz	RxRyRz	-10.4
294	5	76	87	RyRz	RxRyRz	-10.4
295	5	64	76	RyRz	RxRyRz	-10.4
296	5	52	64	RyRz	RxRyRz	-10.4
297	5	39	52	RyRz	RxRyRz	-10.4
298	5	26	39	RyRz	RxRyRz	-10.4
299	5	110	26	RyRz	RxRyRz	-10.4
300	5	123	110	RyRz	RxRyRz	-10.4
301	5	135	123	RyRz	RxRyRz	-10.4
302	5	147	135	RyRz	RxRyRz	-10.4
303	5	158	147	RyRz	RxRyRz	-10.4
304	5	168	158	RyRz	RxRyRz	-10.4
305	5	86	96	RyRz	RxRyRz	-18.0
306	5	75	86	RyRz	RxRyRz	-18.0
307	5	63	75	RyRz	RxRyRz	-18.0
308	5	51	63	RyRz	RxRyRz	-18.0
309	5	38	51	RyRz	RxRyRz	-18.0
310	5	25	38	RyRz	RxRyRz	-18.0
311	5	109	25	RyRz	RxRyRz	-18.0
312	5	122	109	RyRz	RxRyRz	-18.0
313	5	134	122	RyRz	RxRyRz	-18.0
314	5	146	134	RyRz	RxRyRz	-18.0
315	5	157	146	RyRz	RxRyRz	-18.0
316	5	167	157	RyRz	RxRyRz	-18.0
317	5	85	95	RyRz	RxRyRz	-25.6
318	5	74	85	RyRz	RxRyRz	-25.6
319	5	62	74	RyRz	RxRyRz	-25.6
320	5	50	62	RyRz	RxRyRz	-25.6
321	5	37	50	RyRz	RxRyRz	-25.6
322	5	24	37	RyRz	RxRyRz	-25.6
323	5	108	24	RyRz	RxRyRz	-25.6
324	5	121	108	RyRz	RxRyRz	-25.6
325	5	133	121	RyRz	RxRyRz	-25.6
326	5	145	133	RyRz	RxRyRz	-25.6
327	5	156	145	RyRz	RxRyRz	-25.6
328	5	166	156	RyRz	RxRyRz	-25.6
329	5	84	93	RyRz	RxRyRz	-33.3
330	5	73	84	RyRz	RxRyRz	-33.3
331	5	61	73	RyRz	RxRyRz	-33.3
332	5	49	61	RyRz	RxRyRz	-33.3
333	5	36	49	RyRz	RxRyRz	-33.3
334	5	23	36	RyRz	RxRyRz	-33.3
335	5	107	23	RyRz	RxRyRz	-33.3
336	5	120	107	RyRz	RxRyRz	-33.3
337	5	132	120	RyRz	RxRyRz	-33.3
338	5	144	132	RyRz	RxRyRz	-33.3
339	5	155	144	RyRz	RxRyRz	-33.3
340	5	164	155	RyRz	RxRyRz	-33.3
341	5	82	92	RyRz	RxRyRz	-40.9
342	5	71	82	RyRz	RxRyRz	-40.9
343	5	60	71	RyRz	RxRyRz	-40.9
344	5	48	60	RyRz	RxRyRz	-40.9
345	5	35	48	RyRz	RxRyRz	-40.9
346	5	22	35	RyRz	RxRyRz	-40.9
347	5	106	22	RyRz	RxRyRz	-40.9
348	5	119	106	RyRz	RxRyRz	-40.9
349	5	131	119	RyRz	RxRyRz	-40.9
350	5	142	131	RyRz	RxRyRz	-40.9
351	5	153	142	RyRz	RxRyRz	-40.9
352	5	163	153	RyRz	RxRyRz	-40.9
353	5	70	81	RyRz	RxRyRz	-48.5
354	5	58	70	RyRz	RxRyRz	-48.5
355	5	46	58	RyRz	RxRyRz	-48.5
356	5	33	46	RyRz	RxRyRz	-48.5
357	5	20	33	RyRz	RxRyRz	-48.5
358	5	104	20	RyRz	RxRyRz	-48.5
359	5	117	104	RyRz	RxRyRz	-48.5
360	5	129	117	RyRz	RxRyRz	-48.5
361	5	141	129	RyRz	RxRyRz	-48.5
362	5	152	141	RyRz	RxRyRz	-48.5
363	5	45	57	RyRz	RxRyRz	-56.1
364	5	32	45	RyRz	RxRyRz	-56.1
365	5	19	32	RyRz	RxRyRz	-56.1
366	5	103	19	RyRz	RxRyRz	-56.1
367	5	116	103	RyRz	RxRyRz	-56.1
368	5	128	116	RyRz	RxRyRz	-56.1
369	5	31	44	RyRz	RxRyRz	-62.7
370	5	18	31	RyRz	RxRyRz	-62.7
371	5	102	18	RyRz	RxRyRz	-62.7
372	5	115	102	RyRz	RxRyRz	-62.7
373	5	57	69	RyRz	RxRyRz	-56.1
374	5	140	128	RyRz	RxRyRz	-56.1
375	5	162	152	RyRz	RxRyRz	-48.5
376	5	81	91	RyRz	RxRyRz	-48.5
377	5	69	80	RyRz	RxRyRz	-56.1
378	5	151	140	RyRz	RxRyRz	-56.1
379	6	503	505			0.0
380	6	502	503			0.0
381	6	507	502			0.0

382	6	513	507	0.0
383	6	511	513	0.0
384	6	510	511	0.0
385	6	519	510	0.0
386	6	517	519	0.0
387	6	516	517	0.0
388	6	525	516	0.0
389	6	523	525	0.0
390	6	522	523	0.0
391	6	531	522	0.0
392	6	529	531	0.0
393	6	528	529	0.0
394	6	537	528	0.0
395	6	535	537	0.0
396	6	534	535	0.0
397	6	543	534	0.0
398	6	541	543	0.0
399	6	540	541	0.0
400	6	549	540	0.0
401	6	547	549	0.0
402	6	546	547	0.0
403	6	555	546	0.0
404	6	553	555	0.0
405	6	552	553	0.0
406	6	561	552	0.0
407	6	559	561	0.0
408	6	558	559	0.0
409	6	567	558	0.0
410	6	565	567	0.0
411	6	564	565	0.0
412	6	573	564	0.0
413	6	571	573	0.0
414	6	570	571	0.0
415	6	579	570	0.0
416	6	577	579	0.0
417	6	576	577	0.0
418	6	581	576	0.0
419	6	585	581	0.0
420	6	584	585	0.0

GUSCI TRIANGOLARI--|-----|-----|-----|-----| num. = 115

Nome	Proprieta	Nodo 1	Nodo 2	Nodo 3
294	3	503	246	588
295	3	503	502	246
296	3	502	590	246
297	3	246	590	588
304	3	502	248	590
305	3	248	603	590
306	3	507	603	248
307	3	507	248	502
326	3	511	242	513
327	3	513	242	621
328	3	242	610	621
331	3	242	244	610
332	3	610	244	609
333	3	510	609	244
334	3	511	244	242
335	3	511	510	244
354	3	519	238	639
355	3	238	628	639
356	3	517	238	519
357	3	517	516	238
358	3	238	516	240
359	3	238	240	628
360	3	240	627	628
361	3	516	627	240
380	3	525	523	646
381	3	525	646	647
382	3	523	660	646
383	3	523	234	660
384	3	523	522	234
385	3	522	236	234
387	3	660	236	659
388	3	234	236	660
407	3	522	531	236
408	3	236	531	685
409	3	236	685	659
410	3	529	230	674
411	3	529	528	230
412	3	230	673	674
431	3	528	232	230
432	3	230	232	673
433	3	528	537	232
434	3	232	703	673
435	3	537	703	232
502	3	535	226	692
503	3	555	766	220
504	3	546	555	220
505	3	220	766	772
507	3	534	226	535
508	3	226	691	692
509	3	534	691	226
510	3	534	228	691
511	3	546	220	772
512	3	546	772	218

513	3	546	218	547
514	3	547	218	779
515	3	218	772	779
516	3	534	543	228
517	3	543	722	228
518	3	228	722	691
519	3	543	712	722
520	3	547	779	785
521	3	547	785	549
522	3	541	712	543
523	3	541	221	712
524	3	712	221	709
525	3	540	221	541
526	3	549	223	540
528	3	223	785	791
529	3	549	785	223
530	3	540	223	791
531	3	540	791	709
532	3	540	709	221
534	3	553	214	755
535	3	755	214	754
536	3	552	214	553
558	3	561	808	216
559	3	216	808	754
561	3	552	561	216
562	3	552	216	214
563	3	214	216	754
606	3	565	839	851
607	3	565	851	567
608	3	567	851	859
611	3	558	212	210
613	3	558	567	212
615	3	212	796	210
616	3	559	558	210
617	3	210	796	797
618	3	210	797	559
619	3	567	859	212
620	3	212	859	796
657	3	564	208	838
658	3	564	573	206
659	3	206	208	564
660	3	206	877	208
661	3	208	877	838
662	3	573	571	206
663	3	206	571	866
664	3	206	866	877
665	3	570	202	865
666	3	579	202	570
667	3	579	204	202
668	3	202	204	895
669	3	202	895	865
670	3	579	577	204
671	3	577	884	204
672	3	204	884	895
687	3	585	910	200
688	3	585	200	581
689	3	581	200	901
690	3	200	910	901
691	3	581	901	198
692	3	198	901	883
693	3	576	198	883
694	3	576	581	198

GUSCI	RETTANGOLARI	-----	-----	-----	-----	num.=	490
Nome	Proprieta	Nodo 1	Nodo 2	Nodo 3	Nodo 4		
1	1	262	263	264	265		
2	1	263	266	267	264		
3	1	266	268	269	267		
4	1	265	264	270	271		
5	1	264	267	272	270		
6	1	267	269	273	272		
7	1	271	270	274	275		
8	1	270	272	276	274		
9	1	272	273	277	276		
10	1	275	274	278	162		
11	1	274	276	279	278		
12	1	276	277	151	279		
13	1	268	280	281	269		
14	1	280	282	283	281		
15	1	282	284	285	283		
16	1	269	281	286	273		
17	1	281	283	287	286		
18	1	283	285	288	287		
19	1	273	286	289	277		
20	1	286	287	290	289		
21	1	287	288	291	290		
22	1	277	289	292	151		
23	1	289	290	293	292		
24	1	290	291	139	293		
25	1	284	294	295	285		
26	1	294	296	297	295		
27	1	296	298	299	297		
28	1	285	295	300	288		
29	1	295	297	301	300		
30	1	297	299	302	301		

31	1	288	300	303	291
32	1	300	301	304	303
33	1	301	302	305	304
34	1	291	303	306	139
35	1	303	304	307	306
36	1	304	305	127	307
37	1	298	308	309	299
38	1	308	310	311	309
39	1	310	312	313	311
40	1	299	309	314	302
41	1	309	311	315	314
42	1	311	313	316	315
43	1	302	314	317	305
44	1	314	315	318	317
45	1	315	316	319	318
46	1	305	317	320	127
47	1	317	318	321	320
48	1	318	319	114	321
49	1	312	322	323	313
50	1	322	324	325	323
51	1	324	326	327	325
52	1	313	323	328	316
53	1	323	325	329	328
54	1	325	327	330	329
55	1	316	328	331	319
56	1	328	329	332	331
57	1	329	330	333	332
58	1	319	331	334	114
59	1	331	332	335	334
60	1	332	333	101	335
61	1	326	336	337	327
62	1	336	338	339	337
63	1	338	340	341	339
64	1	327	337	342	330
65	1	337	339	343	342
66	1	339	341	344	343
67	1	330	342	345	333
68	1	342	343	346	345
69	1	343	344	347	346
70	1	333	345	348	101
71	1	345	346	349	348
72	1	346	347	17	349
73	1	340	350	351	341
74	1	350	352	353	351
75	1	352	354	355	353
76	1	341	351	356	344
77	1	351	353	357	356
78	1	353	355	358	357
79	1	344	356	359	347
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81	1	357	358	361	360
82	1	347	359	362	17
83	1	359	360	363	362
84	1	360	361	30	363
85	1	354	364	365	355
86	1	364	366	367	365
87	1	366	368	369	367
88	1	355	365	370	358
89	1	365	367	371	370
90	1	367	369	372	371
91	1	358	370	373	361
92	1	370	371	374	373
93	1	371	372	375	374
94	1	361	373	376	30
95	1	373	374	377	376
96	1	374	375	43	377
97	1	368	378	379	369
98	1	378	380	381	379
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108	1	388	389	56	391
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117	1	399	400	403	402
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141	1	427	428	431	430
142	1	417	429	432	80
143	1	429	430	433	432
144	1	430	431	91	433
145	1	434	262	265	435
146	1	435	265	271	436
147	1	436	271	275	437
148	1	437	275	162	438
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155	2	449	424	439	444
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161	2	455	408	410	450
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163	2	457	392	394	458
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167	2	461	380	382	456
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169	2	463	364	366	464
170	2	464	366	368	459
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176	2	470	352	354	462
177	2	471	326	336	472
178	2	472	336	338	473
179	2	473	338	340	468
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182	2	476	324	326	471
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188	2	482	296	298	477
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190	2	484	280	282	485
191	2	485	282	284	480
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193	2	487	263	266	488
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224	2	394	524	514	396
225	2	524	525	516	514
226	2	368	526	527	378
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367	3	655	657	658	656
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370	3	650	652	631	629
371	3	652	654	633	631
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373	3	656	658	637	635
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390	3	673	675	676	674
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445	3	718	720	726	725
446	3	722	721	693	691
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448	3	723	724	697	695
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450	3	725	726	701	699
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471	3	756	758	759	757
472	3	758	760	761	759
473	3	760	762	763	761
474	3	762	764	765	763
475	3	553	755	766	555
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477	3	757	759	768	767
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624	3	869	871	872	870
625	3	871	873	874	872
626	3	873	875	876	874
628	3	866	868	878	877
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634	3	877	878	841	838
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642	3	887	889	890	888
643	3	889	891	892	890
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653	3	896	897	869	867
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656	3	899	900	875	873
674	3	901	902	885	883
675	3	902	903	887	885
676	3	903	904	889	887
677	3	904	905	891	889
678	3	905	906	893	891
681	3	910	911	902	901
682	3	911	912	903	902
683	3	912	913	904	903
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685	3	914	908	906	905
686	3	584	915	910	585

PROPRIETA`	ASTE----	-----	-----	-----	-----	num.=	6
Nome	Materiale	Base Kw vertic.	Altezza Kw orizz.	Area J tors.	Area tag. Y J fless. Y	Area tag. Z J fless. Z	
1	3	20.00 0.00	60.00 0.00	1.20000E+03 1.26434E+05	1.00000E+03 4.00000E+04	1.00000E+03 3.60000E+05	
2	3	20.00 0.00	32.00 0.00	6.40000E+02 5.21600E+04	5.33333E+02 2.13333E+04	5.33333E+02 5.46133E+04	
3	2	20.00 0.00	20.00 0.00	7.60000E+01 6.85900E+03	4.00000E+01 4.58533E+03	4.00000E+01 4.58533E+03	
4	2	2.40 0.00	2.40 0.00	4.52389E+00 3.25720E+00	4.07150E+00 1.62860E+00	4.07150E+00 1.62860E+00	
5	3	12.00 0.00	16.00 0.00	1.92000E+02 4.97620E+03	1.60000E+02 2.30400E+03	1.60000E+02 4.09600E+03	
6	1	40.00	70.00	2.80000E+03	2.33333E+03	2.33333E+03	

		0.00	0.00	9.60501E+05	3.73333E+05	1.14333E+06	
PROPRIETA' GUSCI--						num.=	3
Nome	Materiale	Sp.membr.	Sp. piastra	Kw			
1	1	45.00	45.00	0.00			
2	1	40.00	40.00	30000.00			
3	1	30.00	30.00	50000.00			
MATERIALI-----						num.=	3
Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.		
1	3.00000E+04	1.50000E-01	1.30000E+04	2.50000E+01	1.00000E-05		
2	2.10000E+05	3.00000E-01	8.50000E+04	7.85000E+01	1.00000E-05		
3	1.00000E+04	2.50000E-01	6.00000E+02	6.00000E+00	0.00000E+00		
VINCOLI-----						num.=	464
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220	bloccato	bloccato	libero	libero	libero	libero	
214	bloccato	bloccato	libero	libero	libero	libero	
216	bloccato	bloccato	libero	libero	libero	libero	
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[illegible]

[illegible]

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CARICHI NODI-----|-----|-----|-----|-----|num.= 4692

Nome	Nodo	Direzione	Intensita`
1 - 3989	Forze Dinamiche (Autovettori)		
3990 - 4347	Forze Sismiche (Analisi Semplificata)		
4348 - 4692	Momenti Torcenti Addizionali		

CARICHI ASTE-----|-----|-----|-----|-----|num.= 656

Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4
4693 Permanenti	281	Z	FD	glo	-0.400			
4694 Permanenti	282	Z	FD	glo	-0.400			
4695 Permanenti	283	Z	FD	glo	-0.400			
4696 Permanenti	284	Z	FD	glo	-0.400			
4697 Permanenti	285	Z	FD	glo	-0.400			
4698 Permanenti	286	Z	FD	glo	-0.400			
4699 Permanenti	287	Z	FD	glo	-0.400			
4700 Permanenti	288	Z	FD	glo	-0.400			
4701 Permanenti	289	Z	FD	glo	-0.400			
4702 Permanenti	290	Z	FD	glo	-0.400			
4703 Permanenti	291	Z	FD	glo	-0.400			
4704 Permanenti	292	Z	FD	glo	-0.400			
4705 Permanenti	293	Z	FD	glo	-0.400			
4706 Permanenti	294	Z	FD	glo	-0.400			
4707 Permanenti	295	Z	FD	glo	-0.400			
4708 Permanenti	296	Z	FD	glo	-0.400			
4709 Permanenti	297	Z	FD	glo	-0.400			
4710 Permanenti	298	Z	FD	glo	-0.400			
4711 Permanenti	299	Z	FD	glo	-0.400			
4712 Permanenti	300	Z	FD	glo	-0.400			
4713 Permanenti	301	Z	FD	glo	-0.400			
4714 Permanenti	302	Z	FD	glo	-0.400			
4715 Permanenti	303	Z	FD	glo	-0.400			
4716 Permanenti	304	Z	FD	glo	-0.400			
4717 Permanenti	305	Z	FD	glo	-0.400			
4718 Permanenti	306	Z	FD	glo	-0.400			
4719 Permanenti	307	Z	FD	glo	-0.400			
4720 Permanenti	308	Z	FD	glo	-0.400			
4721 Permanenti	309	Z	FD	glo	-0.400			
4722 Permanenti	310	Z	FD	glo	-0.400			
4723 Permanenti	311	Z	FD	glo	-0.400			
4724 Permanenti	312	Z	FD	glo	-0.400			
4725 Permanenti	313	Z	FD	glo	-0.400			
4726 Permanenti	314	Z	FD	glo	-0.400			
4727 Permanenti	315	Z	FD	glo	-0.400			
4728 Permanenti	316	Z	FD	glo	-0.400			
4729 Permanenti	317	Z	FD	glo	-0.400			
4730 Permanenti	318	Z	FD	glo	-0.400			
4731 Permanenti	319	Z	FD	glo	-0.400			
4732 Permanenti	320	Z	FD	glo	-0.400			
4733 Permanenti	321	Z	FD	glo	-0.400			
4734 Permanenti	322	Z	FD	glo	-0.400			
4735 Permanenti	323	Z	FD	glo	-0.400			
4736 Permanenti	324	Z	FD	glo	-0.400			
4737 Permanenti	325	Z	FD	glo	-0.400			
4738 Permanenti	326	Z	FD	glo	-0.400			
4739 Permanenti	327	Z	FD	glo	-0.400			
4740 Permanenti	328	Z	FD	glo	-0.400			
4741 Permanenti	329	Z	FD	glo	-0.400			
4742 Permanenti	330	Z	FD	glo	-0.400			
4743 Permanenti	331	Z	FD	glo	-0.400			
4744 Permanenti	332	Z	FD	glo	-0.400			
4745 Permanenti	333	Z	FD	glo	-0.400			
4746 Permanenti	334	Z	FD	glo	-0.400			
4747 Permanenti	335	Z	FD	glo	-0.400			
4748 Permanenti	336	Z	FD	glo	-0.400			
4749 Permanenti	337	Z	FD	glo	-0.400			
4750 Permanenti	338	Z	FD	glo	-0.400			
4751 Permanenti	339	Z	FD	glo	-0.400			
4752 Permanenti	340	Z	FD	glo	-0.400			
4753 Permanenti	341	Z	FD	glo	-0.400			
4754 Permanenti	342	Z	FD	glo	-0.400			
4755 Permanenti	343	Z	FD	glo	-0.400			
4756 Permanenti	344	Z	FD	glo	-0.400			
4757 Permanenti	345	Z	FD	glo	-0.400			
4758 Permanenti	346	Z	FD	glo	-0.400			
4759 Permanenti	347	Z	FD	glo	-0.400			
4760 Permanenti	348	Z	FD	glo	-0.400			
4761 Permanenti	349	Z	FD	glo	-0.400			
4762 Permanenti	350	Z	FD	glo	-0.400			
4763 Permanenti	351	Z	FD	glo	-0.400			
4764 Permanenti	352	Z	FD	glo	-0.400			
4765 Permanenti	353	Z	FD	glo	-0.400			
4766 Permanenti	354	Z	FD	glo	-0.400			
4767 Permanenti	355	Z	FD	glo	-0.400			
4768 Permanenti	356	Z	FD	glo	-0.400			
4769 Permanenti	357	Z	FD	glo	-0.400			
4770 Permanenti	358	Z	FD	glo	-0.400			
4771 Permanenti	359	Z	FD	glo	-0.400			
4772 Permanenti	360	Z	FD	glo	-0.400			
4773 Permanenti	361	Z	FD	glo	-0.400			

4774	Permanenti	362	Z	FD glo	-0.400
4775	Permanenti	363	Z	FD glo	-0.400
4776	Permanenti	364	Z	FD glo	-0.400
4777	Permanenti	365	Z	FD glo	-0.400
4778	Permanenti	366	Z	FD glo	-0.400
4779	Permanenti	367	Z	FD glo	-0.400
4780	Permanenti	368	Z	FD glo	-0.400
4781	Permanenti	369	Z	FD glo	-0.400
4782	Permanenti	370	Z	FD glo	-0.400
4783	Permanenti	371	Z	FD glo	-0.400
4784	Permanenti	372	Z	FD glo	-0.400
4785	Permanenti	373	Z	FD glo	-0.400
4786	Permanenti	374	Z	FD glo	-0.400
4787	Permanenti	375	Z	FD glo	-0.400
4788	Permanenti	376	Z	FD glo	-0.400
4789	Permanenti	377	Z	FD glo	-0.400
4790	Permanenti	378	Z	FD glo	-0.400
4791	Perm1	280	Z	FD glo	-0.200
4792	Perm1	279	Z	FD glo	-0.200
4793	Perm1	278	Z	FD glo	-0.200
4794	Perm1	277	Z	FD glo	-0.200
4795	Perm1	276	Z	FD glo	-0.200
4796	Perm1	275	Z	FD glo	-0.200
4797	Perm1	274	Z	FD glo	-0.200
4798	Perm1	273	Z	FD glo	-0.200
4799	Perm1	272	Z	FD glo	-0.200
4800	Perm1	271	Z	FD glo	-0.200
4801	Perm1	270	Z	FD glo	-0.200
4802	Perm1	269	Z	FD glo	-0.200
4803	Neve	281	Z	FD glo	-1.900
4804	Neve	282	Z	FD glo	-1.900
4805	Neve	283	Z	FD glo	-1.900
4806	Neve	284	Z	FD glo	-1.900
4807	Neve	285	Z	FD glo	-1.900
4808	Neve	286	Z	FD glo	-1.900
4809	Neve	287	Z	FD glo	-1.900
4810	Neve	288	Z	FD glo	-1.900
4811	Neve	289	Z	FD glo	-1.900
4812	Neve	290	Z	FD glo	-1.900
4813	Neve	291	Z	FD glo	-1.900
4814	Neve	292	Z	FD glo	-1.900
4815	Neve	293	Z	FD glo	-1.900
4816	Neve	294	Z	FD glo	-1.900
4817	Neve	295	Z	FD glo	-1.900
4818	Neve	296	Z	FD glo	-1.900
4819	Neve	297	Z	FD glo	-1.900
4820	Neve	298	Z	FD glo	-1.900
4821	Neve	299	Z	FD glo	-1.900
4822	Neve	300	Z	FD glo	-1.900
4823	Neve	301	Z	FD glo	-1.900
4824	Neve	302	Z	FD glo	-1.900
4825	Neve	303	Z	FD glo	-1.900
4826	Neve	304	Z	FD glo	-1.900
4827	Neve	305	Z	FD glo	-1.900
4828	Neve	306	Z	FD glo	-1.900
4829	Neve	307	Z	FD glo	-1.900
4830	Neve	308	Z	FD glo	-1.900
4831	Neve	309	Z	FD glo	-1.900
4832	Neve	310	Z	FD glo	-1.900
4833	Neve	311	Z	FD glo	-1.900
4834	Neve	312	Z	FD glo	-1.900
4835	Neve	313	Z	FD glo	-1.900
4836	Neve	314	Z	FD glo	-1.900
4837	Neve	315	Z	FD glo	-1.900
4838	Neve	316	Z	FD glo	-1.900
4839	Neve	317	Z	FD glo	-1.900
4840	Neve	318	Z	FD glo	-1.900
4841	Neve	319	Z	FD glo	-1.900
4842	Neve	320	Z	FD glo	-1.900
4843	Neve	321	Z	FD glo	-1.900
4844	Neve	322	Z	FD glo	-1.900
4845	Neve	323	Z	FD glo	-1.900
4846	Neve	324	Z	FD glo	-1.900
4847	Neve	325	Z	FD glo	-1.900
4848	Neve	326	Z	FD glo	-1.900
4849	Neve	327	Z	FD glo	-1.900
4850	Neve	328	Z	FD glo	-1.900
4851	Neve	329	Z	FD glo	-1.900
4852	Neve	330	Z	FD glo	-1.900
4853	Neve	331	Z	FD glo	-1.900
4854	Neve	332	Z	FD glo	-1.900
4855	Neve	333	Z	FD glo	-1.900
4856	Neve	334	Z	FD glo	-1.900
4857	Neve	335	Z	FD glo	-1.900
4858	Neve	336	Z	FD glo	-1.900
4859	Neve	337	Z	FD glo	-1.900
4860	Neve	338	Z	FD glo	-1.900
4861	Neve	339	Z	FD glo	-1.900
4862	Neve	340	Z	FD glo	-1.900
4863	Neve	341	Z	FD glo	-1.900
4864	Neve	342	Z	FD glo	-1.900
4865	Neve	343	Z	FD glo	-1.900
4866	Neve	344	Z	FD glo	-1.900
4867	Neve	345	Z	FD glo	-1.900
4868	Neve	346	Z	FD glo	-1.900

4869	Neve	347	Z	FD glo	-1.900
4870	Neve	348	Z	FD glo	-1.900
4871	Neve	349	Z	FD glo	-1.900
4872	Neve	350	Z	FD glo	-1.900
4873	Neve	351	Z	FD glo	-1.900
4874	Neve	352	Z	FD glo	-1.900
4875	Neve	353	Z	FD glo	-1.900
4876	Neve	354	Z	FD glo	-1.900
4877	Neve	355	Z	FD glo	-1.900
4878	Neve	356	Z	FD glo	-1.900
4879	Neve	357	Z	FD glo	-1.900
4880	Neve	358	Z	FD glo	-1.900
4881	Neve	359	Z	FD glo	-1.900
4882	Neve	360	Z	FD glo	-1.900
4883	Neve	361	Z	FD glo	-1.900
4884	Neve	362	Z	FD glo	-1.900
4885	Neve	363	Z	FD glo	-1.900
4886	Neve	364	Z	FD glo	-1.900
4887	Neve	365	Z	FD glo	-1.900
4888	Neve	366	Z	FD glo	-1.900
4889	Neve	367	Z	FD glo	-1.900
4890	Neve	368	Z	FD glo	-1.900
4891	Neve	369	Z	FD glo	-1.900
4892	Neve	370	Z	FD glo	-1.900
4893	Neve	371	Z	FD glo	-1.900
4894	Neve	372	Z	FD glo	-1.900
4895	Neve	373	Z	FD glo	-1.900
4896	Neve	374	Z	FD glo	-1.900
4897	Neve	375	Z	FD glo	-1.900
4898	Neve	376	Z	FD glo	-1.900
4899	Neve	377	Z	FD glo	-1.900
4900	Neve	378	Z	FD glo	-1.900
4901	Neve1	269	Z	FD glo	-0.950
4902	Neve1	270	Z	FD glo	-0.950
4903	Neve1	271	Z	FD glo	-0.950
4904	Neve1	272	Z	FD glo	-0.950
4905	Neve1	273	Z	FD glo	-0.950
4906	Neve1	274	Z	FD glo	-0.950
4907	Neve1	275	Z	FD glo	-0.950
4908	Neve1	276	Z	FD glo	-0.950
4909	Neve1	277	Z	FD glo	-0.950
4910	Neve1	278	Z	FD glo	-0.950
4911	Neve1	279	Z	FD glo	-0.950
4912	Neve1	280	Z	FD glo	-0.950
4913	Vebto+x	281	Y	FD loc	-0.137
4914	Vebto+x	282	Y	FD loc	-0.137
4915	Vebto+x	283	Y	FD loc	-0.137
4916	Vebto+x	284	Y	FD loc	-0.137
4917	Vebto+x	285	Y	FD loc	-0.137
4918	Vebto+x	286	Y	FD loc	-0.137
4919	Vebto+x	287	Y	FD loc	-0.137
4920	Vebto+x	288	Y	FD loc	-0.137
4921	Vebto+x	289	Y	FD loc	-0.137
4922	Vebto+x	290	Y	FD loc	-0.137
4923	Vebto+x	291	Y	FD loc	-0.137
4924	Vebto+x	292	Y	FD loc	-0.137
4925	Vebto+x	293	Y	FD loc	-0.137
4926	Vebto+x	294	Y	FD loc	-0.137
4927	Vebto+x	295	Y	FD loc	-0.137
4928	Vebto+x	296	Y	FD loc	-0.137
4929	Vebto+x	297	Y	FD loc	-0.137
4930	Vebto+x	298	Y	FD loc	-0.137
4931	Vebto+x	299	Y	FD loc	-0.137
4932	Vebto+x	300	Y	FD loc	-0.137
4933	Vebto+x	301	Y	FD loc	-0.137
4934	Vebto+x	302	Y	FD loc	-0.137
4935	Vebto+x	303	Y	FD loc	-0.137
4936	Vebto+x	304	Y	FD loc	-0.137
4937	Vebto+x	316	Y	FD loc	-0.137
4938	Vebto+x	315	Y	FD loc	-0.137
4939	Vebto+x	314	Y	FD loc	-0.137
4940	Vebto+x	313	Y	FD loc	-0.137
4941	Vebto+x	312	Y	FD loc	-0.137
4942	Vebto+x	311	Y	FD loc	-0.137
4943	Vebto+x	310	Y	FD loc	-0.137
4944	Vebto+x	309	Y	FD loc	-0.137
4945	Vebto+x	307	Y	FD loc	-0.137
4946	Vebto+x	308	Y	FD loc	-0.137
4947	Vebto+x	306	Y	FD loc	-0.137
4948	Vebto+x	305	Y	FD loc	-0.137
4949	Vebto+x	317	Y	FD loc	-0.137
4950	Vebto+x	318	Y	FD loc	-0.137
4951	Vebto+x	319	Y	FD loc	-0.137
4952	Vebto+x	320	Y	FD loc	-0.137
4953	Vebto+x	321	Y	FD loc	-0.137
4954	Vebto+x	322	Y	FD loc	-0.137
4955	Vebto+x	323	Y	FD loc	-0.137
4956	Vebto+x	324	Y	FD loc	-0.137
4957	Vebto+x	325	Y	FD loc	-0.137
4958	Vebto+x	326	Y	FD loc	-0.137
4959	Vebto+x	327	Y	FD loc	-0.137
4960	Vebto+x	328	Y	FD loc	-0.137
4961	Vebto+x	340	Y	FD loc	-0.137
4962	Vebto+x	339	Y	FD loc	-0.137
4963	Vebto+x	338	Y	FD loc	-0.137

4964	Vepto+x	337	Y	FD	loc	-0.137
4965	Vepto+x	336	Y	FD	loc	-0.137
4966	Vepto+x	335	Y	FD	loc	-0.137
4967	Vepto+x	334	Y	FD	loc	-0.137
4968	Vepto+x	333	Y	FD	loc	-0.137
4969	Vepto+x	332	Y	FD	loc	-0.137
4970	Vepto+x	331	Y	FD	loc	-0.137
4971	Vepto+x	330	Y	FD	loc	-0.137
4972	Vepto+x	329	Y	FD	loc	-0.137
4973	Vepto+x	341	Y	FD	loc	-0.137
4974	Vepto+x	342	Y	FD	loc	-0.137
4975	Vepto+x	343	Y	FD	loc	-0.137
4976	Vepto+x	344	Y	FD	loc	-0.137
4977	Vepto+x	345	Y	FD	loc	-0.137
4978	Vepto+x	346	Y	FD	loc	-0.137
4979	Vepto+x	347	Y	FD	loc	-0.137
4980	Vepto+x	348	Y	FD	loc	-0.137
4981	Vepto+x	349	Y	FD	loc	-0.137
4982	Vepto+x	350	Y	FD	loc	-0.137
4983	Vepto+x	351	Y	FD	loc	-0.137
4984	Vepto+x	352	Y	FD	loc	-0.137
4985	Vepto+x	375	Y	FD	loc	-0.137
4986	Vepto+x	362	Y	FD	loc	-0.137
4987	Vepto+x	361	Y	FD	loc	-0.137
4988	Vepto+x	360	Y	FD	loc	-0.137
4989	Vepto+x	359	Y	FD	loc	-0.137
4990	Vepto+x	358	Y	FD	loc	-0.137
4991	Vepto+x	357	Y	FD	loc	-0.137
4992	Vepto+x	356	Y	FD	loc	-0.137
4993	Vepto+x	355	Y	FD	loc	-0.137
4994	Vepto+x	354	Y	FD	loc	-0.137
4995	Vepto+x	353	Y	FD	loc	-0.137
4996	Vepto+x	376	Y	FD	loc	-0.137
4997	Vepto+x	377	Y	FD	loc	-0.137
4998	Vepto+x	373	Y	FD	loc	-0.137
4999	Vepto+x	363	Y	FD	loc	-0.137
5000	Vepto+x	364	Y	FD	loc	-0.137
5001	Vepto+x	365	Y	FD	loc	-0.137
5002	Vepto+x	366	Y	FD	loc	-0.137
5003	Vepto+x	367	Y	FD	loc	-0.137
5004	Vepto+x	368	Y	FD	loc	-0.137
5005	Vepto+x	374	Y	FD	loc	-0.137
5006	Vepto+x	378	Y	FD	loc	-0.137
5007	Vepto+x	369	Y	FD	loc	-0.137
5008	Vepto+x	370	Y	FD	loc	-0.137
5009	Vepto+x	371	Y	FD	loc	-0.137
5010	Vepto+x	372	Y	FD	loc	-0.137
5011	VentoX1	269	Y	FD	loc	-0.070
5012	VentoX1	270	Y	FD	loc	-0.070
5013	VentoX1	271	Y	FD	loc	-0.070
5014	VentoX1	272	Y	FD	loc	-0.070
5015	VentoX1	273	Y	FD	loc	-0.070
5016	VentoX1	274	Y	FD	loc	-0.070
5017	VentoX1	275	Y	FD	loc	-0.070
5018	VentoX1	276	Y	FD	loc	-0.070
5019	VentoX1	277	Y	FD	loc	-0.070
5020	VentoX1	278	Y	FD	loc	-0.070
5021	VentoX1	279	Y	FD	loc	-0.070
5022	VentoX1	280	Y	FD	loc	-0.070

PESI PROPRI ASTE-- ----- ----- ----- ----- -----	Cond.	Nome Carichi	Aste
1	5023-5306		16-56, 60-65, 70-75, 78-83, 85-157, 171-198, 203-222, 269-306, 308-318, 320-329, 332-340, 343-378
4	5307-5348		379-420

CARICHI DI LINEA	----- ----- ----- ----- num.=	0
numero coordinata		
Nome	inizio fine Cond. Direz. inizio fine Descrizione	

PESI PROPRI GUSCI- ----- ----- ----- ----- -----	Cond.	Nome Carichi	Gusci
4	5349-5801		153-170, 174-197, 202-285, 287, 289-297, 299-307, 309-313, 315-328, 331-335, 337-341, 343-361, 363-373, 375-385, 387-388, 390-400, 402-412, 414-424, 426-450, 470-480, 482-505, 507-526, 528-532, 534-536, 541-551, 553-559, 561-563, 585-589, 591-595, 597-602, 606-608, 611, 613, 615-626, 628-632, 634-644, 646-650, 652-672, 674-678, 681-694

CONDIZIONI DI CARICO----- ----- ----- ----- num.=	38
Nome	
1	Peso_proprio_____ N. carichi: 284 Lista carichi: 5023-5306
2	Permanente_____ N. carichi: 110 Lista carichi: 4693-4802
3	Neve_(<1000m_slm)_____ N. carichi: 110 Lista carichi: 4803-4912
4	PP_Fondazione_____ N. carichi: 495 Lista carichi: 5307-5801

5	VentoY_(positivo)	N.	carichi: 110
	Lista carichi: 4913-5022		
6	Autovett_001_(X)	N.	carichi: 55
	Lista carichi: 1-55		
7	Autovett_001_(Y)	N.	carichi: 166
	Lista carichi: 56-221		
8	Autovett_002_(X)	N.	carichi: 179
	Lista carichi: 222-400		
9	Autovett_002_(Y)	N.	carichi: 10
	Lista carichi: 401-410		
10	Autovett_003_(X)	N.	carichi: 148
	Lista carichi: 411-558		
11	Autovett_003_(Y)	N.	carichi: 162
	Lista carichi: 559-720		
12	Autovett_004_(X)	N.	carichi: 172
	Lista carichi: 721-892		
13	Autovett_005_(X)	N.	carichi: 139
	Lista carichi: 893-1031		
14	Autovett_005_(Y)	N.	carichi: 154
	Lista carichi: 1032-1185		
15	Autovett_006_(X)	N.	carichi: 156
	Lista carichi: 1186-1341		
16	Autovett_006_(Y)	N.	carichi: 159
	Lista carichi: 1342-1500		
17	Autovett_007_(X)	N.	carichi: 153
	Lista carichi: 1501-1653		
18	Autovett_007_(Y)	N.	carichi: 164
	Lista carichi: 1654-1817		
19	Autovett_008_(X)	N.	carichi: 170
	Lista carichi: 1818-1987		
20	Autovett_008_(Y)	N.	carichi: 164
	Lista carichi: 1988-2151		
21	Autovett_009_(X)	N.	carichi: 131
	Lista carichi: 2152-2282		
22	Autovett_009_(Y)	N.	carichi: 161
	Lista carichi: 2283-2443		
23	Autovett_010_(X)	N.	carichi: 150
	Lista carichi: 2444-2593		
24	Autovett_010_(Y)	N.	carichi: 96
	Lista carichi: 2594-2689		
25	Autovett_011_(X)	N.	carichi: 122
	Lista carichi: 2690-2811		
26	Autovett_011_(Y)	N.	carichi: 118
	Lista carichi: 2812-2929		
27	Autovett_012_(X)	N.	carichi: 174
	Lista carichi: 2930-3103		
28	Autovett_012_(Y)	N.	carichi: 11
	Lista carichi: 3104-3114		
29	Autovett_013_(X)	N.	carichi: 108
	Lista carichi: 3115-3222		
30	Autovett_013_(Y)	N.	carichi: 127
	Lista carichi: 3223-3349		
31	Autovett_014_(X)	N.	carichi: 150
	Lista carichi: 3350-3499		
32	Autovett_014_(Y)	N.	carichi: 167
	Lista carichi: 3500-3666		
33	Autovett_015_(X)	N.	carichi: 169
	Lista carichi: 3667-3835		
34	Autovett_015_(Y)	N.	carichi: 154
	Lista carichi: 3836-3989		
35	Sisma_X	N.	carichi: 179
	Lista carichi: 3990-4168		
36	Sisma_Y	N.	carichi: 179

Lista carichi: 4169-4347

37 Torcente_add._X N. carichi: 179
Lista carichi: 4348-4526

38 Torcente_add._Y N. carichi: 166
Lista carichi: 4527-4692

RISULTANTI DEI CARICHI (punto di applicazione nell'origine degli assi):

cond.	FX	FY	FZ	MX	MY	MZ
1	0.000000E+00	0.000000E+00	-1.459484E+02	-1.561505E+03	3.818556E+02	0.000000E+00
2	0.000000E+00	0.000000E+00	-7.683610E+01	-8.490978E+02	2.393036E+02	0.000000E+00
3	0.000000E+00	0.000000E+00	-3.649715E+02	-4.033214E+03	1.136692E+03	0.000000E+00
4	0.000000E+00	0.000000E+00	-1.025354E+03	-1.133714E+04	1.423180E+03	0.000000E+00
5	1.184137E+01	-4.000000E-06	-2.164474E+01	-2.391912E+02	1.332108E+02	-1.308554E+02
6	1.060000E-02	0.000000E+00	0.000000E+00	0.000000E+00	6.375720E-02	8.307439E-01
7	0.000000E+00	2.967600E+01	0.000000E+00	-1.919028E+02	0.000000E+00	1.539867E+02
8	4.742100E+01	0.000000E+00	0.000000E+00	0.000000E+00	2.931004E+02	-5.059540E+02
9	0.000000E+00	6.200000E-03	0.000000E+00	-3.706410E-02	0.000000E+00	3.294320E-02
10	3.050000E-02	0.000000E+00	0.000000E+00	0.000000E+00	1.113688E-01	4.310176E+00
11	0.000000E+00	8.223000E-01	0.000000E+00	-4.189078E+00	0.000000E+00	1.344758E-01
12	2.187500E+00	0.000000E+00	0.000000E+00	0.000000E+00	1.138090E+01	-2.562348E+01
13	9.820000E-02	0.000000E+00	0.000000E+00	0.000000E+00	5.065709E-01	1.929424E+00
14	0.000000E+00	7.312000E-01	0.000000E+00	-3.694073E+00	0.000000E+00	8.332807E-01
15	1.938400E+00	0.000000E+00	0.000000E+00	0.000000E+00	1.051819E+01	-3.118658E+01
16	0.000000E+00	9.736000E-01	0.000000E+00	-5.109360E+00	0.000000E+00	1.580575E+00
17	1.393300E+00	0.000000E+00	0.000000E+00	0.000000E+00	7.048250E+00	-9.199280E+00
18	0.000000E+00	3.751900E+00	0.000000E+00	-1.925198E+01	0.000000E+00	6.114943E+00
19	2.518000E+00	0.000000E+00	0.000000E+00	0.000000E+00	1.225284E+01	-2.899405E+01
20	0.000000E+00	1.815200E+00	0.000000E+00	-9.594226E+00	0.000000E+00	3.407242E+00
21	1.356000E-01	0.000000E+00	0.000000E+00	0.000000E+00	6.963508E-01	-9.081265E+00
22	0.000000E+00	8.407800E+00	0.000000E+00	-4.877641E+01	0.000000E+00	2.426310E+01
23	1.205900E+00	0.000000E+00	0.000000E+00	0.000000E+00	5.219138E+00	-3.057801E+00
24	0.000000E+00	3.435000E-01	0.000000E+00	-2.082155E+00	0.000000E+00	1.251578E+00
25	2.617000E-01	0.000000E+00	0.000000E+00	0.000000E+00	1.137538E+00	-1.027192E+01
26	0.000000E+00	7.940000E-01	0.000000E+00	-4.769084E+00	0.000000E+00	2.870993E+00
27	2.571600E+00	0.000000E+00	0.000000E+00	0.000000E+00	9.646283E+00	-2.426065E+01
28	0.000000E+00	1.200000E-03	0.000000E+00	-8.862500E-03	0.000000E+00	7.561900E-03
29	3.770000E-02	0.000000E+00	0.000000E+00	0.000000E+00	1.647417E-01	-3.783467E+00
30	0.000000E+00	3.434000E-01	0.000000E+00	-2.508105E+00	0.000000E+00	1.843808E+00
31	1.291000E-01	0.000000E+00	0.000000E+00	0.000000E+00	3.160536E-01	1.621373E-01
32	0.000000E+00	5.437700E+00	0.000000E+00	-2.322031E+01	0.000000E+00	1.683805E+00
33	6.459000E-01	0.000000E+00	0.000000E+00	0.000000E+00	1.775903E+00	-8.073355E+00
34	0.000000E+00	3.394000E-01	0.000000E+00	-1.484714E+00	0.000000E+00	1.650097E-01
35	6.846711E+01	0.000000E+00	0.000000E+00	0.000000E+00	3.961351E+02	-7.409455E+02
36	0.000000E+00	6.846711E+01	0.000000E+00	-3.961351E+02	0.000000E+00	2.389074E+02
37	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	-1.225645E-02	-6.387533E+01
38	0.000000E+00	0.000000E+00	0.000000E+00	-5.502008E-01	0.000000E+00	9.471095E+00

DATI ANALISI SISMICA

ANALISI DINAMICA

lavoro : \VENAU3

PARAMETRI DI CALCOLO:

Calcolo secondo NTC 2008
Modello generale
Assi di vibrazione: X Y
Somma quadratica semplice (SRSS)

DATI PROGETTO

Edificio sito in località VENAUS (long. 7.015275 lat. 45.155260)

Categoria del suolo di fondazione = c

Coeff. di amplificazione stratigrafica $S_s = 1.500$

Coeff. di amplificazione topografica $S_T = 1.000$

$S = 1.500$

Vita nominale dell'opera $V_N = 50$ anni

Coefficiente d'uso $C_U = 1.0$

Periodo di riferimento $V_R = 50.0$

PVR : probabilità di superamento in VR = 10 %

Tempo di ritorno = 475

Coeff. di smorzamento viscoso = 5.0

Valori risultanti per :

ag 1.338 [g/10]

Fo 2.460

TC* 0.260

Fattore di struttura $q = 1.500$

Rapporto spettro di esercizio / spettro di progetto = 0.575

CONDIZIONI DI RIFERIMENTO	COEFFICIENTE	PESO RISULTANTE
1.	1.000	[kN] 145.948
2.	1.000	85.863

*** TABELLA AUTOVETTORI ***

n	PERIODO [sec]	MASSA ATTIVATA			COEFFICIENTI DI CORRELAZIONE									
		%X	%Y	%Z	n+1	n+2	n+3	n+4	n+5	n+6	n+7			
1	0.306381	0.015	43.351	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000										
2	0.139697	69.691	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000											
3	0.117231	0.046	1.291	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000												
4	0.112010	3.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000													
5	0.109494	0.152	1.173	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000														
6	0.108220	3.128	1.569	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.102350	2.291	6.153	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
8	0.098692	4.177	3.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
9	0.090714	0.241	14.282	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
10	0.080252	2.121	0.627	0.000	0.000	0.000	0.000	0.000	0.000					
11	0.079495	0.459	1.402	0.000	0.000	0.000	0.000	0.000						
12	0.061165	4.824	0.009	0.000	0.000	0.000	0.000							
13	0.060172	0.061	0.633	0.000	0.000	0.000								
14	0.044475	0.265	10.857	0.000	0.000									
15	0.044206	1.283	0.686	0.000										
MASSA TOTALE		92.240	85.057	0.000										

DESCRIZIONE CASI DI CARICO

NOME	DESCRIZIONE	VERIFICA	TIPO	CONDIZ. INSERITE			CASI INSERITI	
				Num.	Coeff.	Segno	Num.	Coeff.
1	SLU Max Neve	S.L.U.	somma	1	1.300	+		
				2	1.500	+		
				3	1.500	+		
				4	1.300	+		
2	SLU VENTOX 1	S.L.U.	somma	1	1.300	+		
				2	1.500	+		
				3	1.500	+		
				4	1.300	+		
				5	0.900	+		
3	SLU VENTOX 2	S.L.U.	somma	1	1.300	+		
				2	1.500	+		
				3	0.750	+		
				4	1.300	+		
				5	1.500	+		
4	SISMAX SLU	nessuna	somma	6	1.000	quadr.		
				8	1.000	quadr.		
				10	1.000	quadr.		
				12	1.000	quadr.		
				13	1.000	quadr.		
				15	1.000	quadr.		
				17	1.000	quadr.		
				19	1.000	quadr.		
				21	1.000	quadr.		
				23	1.000	quadr.		
				25	1.000	quadr.		
				27	1.000	quadr.		
				29	1.000	quadr.		
				31	1.000	quadr.		
				33	1.000	quadr.		
				37	1.000	±		
5	SISMAY SLU	nessuna	somma	7	1.000	quadr.		
				9	1.000	quadr.		
				11	1.000	quadr.		
				14	1.000	quadr.		
				16	1.000	quadr.		
				18	1.000	quadr.		
				20	1.000	quadr.		
				22	1.000	quadr.		
				24	1.000	quadr.		
				26	1.000	quadr.		
				28	1.000	quadr.		
				30	1.000	quadr.		
				32	1.000	quadr.		
				34	1.000	quadr.		
				38	1.000	±		
6	SLU con SISMAX PRINC	S.L.U.	somma	1	1.000	+	4	1.000
				2	1.000	+	5	0.300
				4	1.000	+		
7	SLU con SISMAY PRINC	S.L.U.	somma	1	1.000	+	5	1.000
				2	1.000	+	4	0.300
				4	1.000	+		
8	SLD con SISMAX PRINC	S.L.Danno	somma	1	1.000	+	4	0.575
				2	1.000	+	5	0.173
				4	1.000	+		
9	SLD con SISMAY PRINC	S.L.Danno	somma	1	1.000	+	5	0.575
				2	1.000	+	4	0.173
				4	1.000	+		
10	SLU FON con SISMAX P	SLU_FON	somma	1	1.000	+	4	1.100
				2	1.000	+	5	0.330
				4	1.000	+		
11	SLU FON con SISMAY P	SLU_FON	somma	1	1.000	+	5	1.100
				2	1.000	+	4	0.330
				4	1.000	+		
12	Rara VentoX 1	Rara	somma	1	1.000	+		
				2	1.000	+		
				3	1.000	+		
				4	1.000	+		
				5	0.600	+		
13	Rara VentoX 2	Rara	somma	1	1.000	+		
				2	1.000	+		
				3	0.500	+		
				4	1.000	+		
				5	1.000	+		

14	Frequente 1	Freq.	somma	1	1.000	+		
				2	1.000	+		
				4	1.000	+		
15	Frequente 2	Freq.	somma	1	1.000	+		
				2	1.000	+		
				3	0.200	+		
				4	1.000	+		
16	Frequente Ventox 3	Freq.	somma	1	1.000	+		
				2	1.000	+		
				4	1.000	+		
				5	0.200	+		
17	Quasi Perm	QuasiPerm.	somma	1	1.000	+		
				2	1.000	+		
				4	1.000	+		

CONTROLLO RIGIDENZE STRUTTURALI

Quota del piano		511.0	[cm]
Rigidizza KX (/1000)		33.245	[kN/m]
Rigidizza KY (/1000)		20.465	[kN/m]
Rigidizza ktors (/1e6)		0.7182	[kNm]
Xk (centro rigidizze)		75.9	[cm]
Yk (centro rigidizze)		1099.7	[cm]
Xg (baricentro)		305.3	[cm]
Yg (baricentro)		1080.4	[cm]
dimensione X		250	[cm]
dimensione Y		1932	[cm]
raggio rigidizza (rx)		592	[cm]
raggio rigidizza (ry)		465	[cm]
raggio giratorio (ls)		562	[cm]
MIN(rx , ry) / ls		0.8267	ok (> 0.8)
(Xg - Xk) / rx		0.3872	> 0.3 !!!!
(Yg - Yk) / ry		0.0416	ok (< 0.3)
2° ordine (theta X)		0.21	[%] ok (< 10%)
2° ordine (theta Y)		0.35	[%] ok (< 10%)
Percentuale dinamica X		100.00	[%]
Percentuale dinamica Y		100.00	[%]

VERIFICA SPOSTAMENTI SISMICI DI ESERCIZIO (NTC 7.3.7.2)

spostamento limite interpiano = 0.5% dell'altezza

CASO n. 8 - SLD con SISMAX PRINC:

Zinf	Zsup	h	spost.max	%h	nodo	sest.	ver.
[cm]	[cm]	[cm]	[cm]				
0.00	502.20	502.20	0.122068	0.024	213	8	SI

CASO n. 9 - SLD con SISMAX PRINC:

Zinf	Zsup	h	spost.max	%h	nodo	sest.	ver.
[cm]	[cm]	[cm]	[cm]				
0.00	424.50	424.50	0.149846	0.035	199	15	SI

VERIFICA SPOSTAMENTI SISMICI DI S.L.V. (NTC 7.3.3.3)

Fattore Mud = 1.687

Quota	DX max	nodo	DY max	nodo
[cm]	[cm]		[cm]	
696.70	1.815613	138	2.308200	100

VERIFICA GUSCI IN C.A.

MACROGUSCIO Fondazione

VERIFICA ARMATURE EFFETTIVE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
1	SLU Max Neve
2	SLU VENTOX 1
3	SLU VENTOX 2
6	SLU con SISMAX PRINC
7	SLU con SISMAX PRINC

DATI:

tensione di snervamento acciaio (fyk):	450	N/mm2
coefficiente sicurezza acciaio	: 1.15	
deformazione ultima acciaio	: 67.5	per mille
deformazione ultima cls	: 3.5	per mille
rapporto rottura/snervamento (k):	1.15	
resistenza cilindrica cls (fck):	24.9	N/mm2
coefficiente sicurezza cls	: 1.5	
coefficiente riduttivo (alfa):	0.85	
copriferro inferiore (asse armatura):	5	cm
copriferro superiore (asse armatura):	5	cm
moltiplicatore sollecitazioni	: 1	

LEGENDA:

spess	= spessore guscio. Verifica effettuata su sezione BxH, con B=1 cm e H="spess" cm
Af	= area disposta al lembo teso, in cm2 al metro
Afc	= area disposta al lembo compresso, in cm2 al metro
Mom	= momento flettente [kNm/m]
Nor	= sforzo normale [kN]
epsC	= deformazione cls [per mille]
epsF	= deformazione acciaio [per mille]

L'armatura è sufficiente se le deformazioni dei materiali sono ovunque minori delle corrispondenti deformazioni ultime.

GUSCI	spess	INFERIORE ORIZZONTALE						INFERIORE VERTICALE					
		Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
153	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
154	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	1.	0.	0.00	0.01
155	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
156	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	4.	0.	0.02	0.07
157	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	3.	0.	0.02	0.06
158	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
159	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	2.	0.	0.01	0.04
160	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	3.	0.	0.02	0.06
161	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	3.	0.	0.01	0.05
162	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	2.	0.	0.01	0.03
163	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	2.	0.	0.01	0.04
164	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.01
165	40	5.75	5.75	0.	0.	0.00	0.01	7.94	5.84	4.	0.	0.02	0.07
166	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	4.	0.	0.02	0.08
167	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	2.	0.	0.01	0.03
168	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	3.	0.	0.01	0.05
169	40	5.75	5.75	0.	0.	0.00	0.01	7.94	5.84	1.	0.	0.01	0.03
170	40	5.75	5.75	0.	0.	0.00	0.01	7.94	5.84	1.	0.	0.00	0.01
174	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	1.	0.	0.01	0.03
175	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	1.	0.	0.00	0.02
176	40	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	1.	0.	0.00	0.01
202	40	5.75	5.75	15.	0.	0.09	0.37	7.94	5.84	0.	0.	0.00	0.01
203	40	5.75	5.75	24.	0.	0.15	0.61	7.94	5.84	2.	0.	0.01	0.04
204	40	5.75	5.75	14.	0.	0.09	0.37	7.94	5.84	1.	0.	0.01	0.02
205	40	5.75	5.75	23.	0.	0.14	0.58	7.94	5.84	3.	0.	0.02	0.06
206	40	5.75	5.75	15.	0.	0.09	0.38	7.94	5.84	0.	0.	0.00	0.00
207	40	5.75	5.75	25.	0.	0.15	0.64	7.94	5.84	2.	0.	0.01	0.03
208	40	5.75	5.75	16.	0.	0.09	0.40	7.94	5.84	5.	0.	0.03	0.09
209	40	5.75	5.75	31.	0.	0.19	0.78	7.94	5.84	6.	0.	0.03	0.11
210	40	5.75	5.75	16.	0.	0.10	0.40	7.94	5.84	6.	0.	0.03	0.10
211	40	5.75	5.75	29.	0.	0.18	0.74	7.94	5.84	6.	0.	0.03	0.11
212	40	5.75	5.75	16.	0.	0.09	0.40	7.94	5.84	0.	0.	0.00	0.00
213	40	5.75	5.75	27.	0.	0.17	0.70	7.94	5.84	0.	0.	0.00	0.00
214	40	5.75	5.75	14.	0.	0.09	0.36	7.94	5.84	5.	0.	0.02	0.09
215	40	5.75	5.75	33.	0.	0.20	0.83	7.94	5.84	7.	0.	0.04	0.14
216	40	5.75	5.75	15.	0.	0.09	0.37	7.94	5.84	5.	0.	0.03	0.10
217	40	5.75	5.75	32.	0.	0.19	0.82	7.94	5.84	7.	0.	0.03	0.12
218	40	5.75	5.75	15.	0.	0.09	0.38	7.94	5.84	3.	0.	0.02	0.06
219	40	5.75	5.75	31.	0.	0.19	0.80	7.94	5.84	3.	0.	0.02	0.06
220	40	5.75	5.75	14.	0.	0.09	0.36	7.94	5.84	5.	0.	0.02	0.08
221	40	5.75	5.75	34.	0.	0.21	0.87	7.94	5.84	6.	0.	0.03	0.11
222	40	5.75	5.75	14.	0.	0.08	0.35	7.94	5.84	4.	0.	0.02	0.08
223	40	5.75	5.75	33.	0.	0.20	0.84	7.94	5.84	8.	0.	0.04	0.14
224	40	5.75	5.75	14.	0.	0.08	0.35	7.94	5.84	2.	0.	0.01	0.04
225	40	5.75	5.75	33.	0.	0.20	0.83	7.94	5.84	2.	0.	0.01	0.05
226	40	5.75	5.75	15.	0.	0.09	0.37	7.94	5.84	6.	0.	0.03	0.11
227	40	5.75	5.75	37.	0.	0.22	0.94	7.94	5.84	8.	0.	0.04	0.14
228	40	5.75	5.75	14.	0.	0.09	0.37	7.94	5.84	6.	0.	0.03	0.11
229	40	5.75	5.75	36.	0.	0.22	0.92	7.94	5.84	6.	0.	0.03	0.11
230	40	5.75	5.75	14.	0.	0.09	0.36	7.94	5.84	3.	0.	0.02	0.05
231	40	5.75	5.75	35.	0.	0.21	0.90	7.94	5.84	3.	0.	0.01	0.05
232	40	5.75	5.75	14.	0.	0.08	0.35	7.94	5.84	6.	0.	0.03	0.10
233	40	5.75	5.75	38.	0.	0.23	0.96	7.94	5.84	8.	0.	0.04	0.14

234	40	5.75	5.75	14.	0.	0.09	0.36	7.94	5.84	3.	0.	0.02	0.06
235	40	5.75	5.75	37.	0.	0.23	0.95	7.94	5.84	3.	0.	0.02	0.06
236	40	5.75	5.75	14.	0.	0.09	0.37	7.94	5.84	3.	0.	0.02	0.05
237	40	5.75	5.75	38.	0.	0.23	0.95	7.94	5.84	5.	0.	0.03	0.10
238	40	5.75	5.75	13.	0.	0.08	0.34	7.94	5.84	5.	0.	0.03	0.09
239	40	5.75	5.75	38.	0.	0.23	0.97	7.94	5.84	8.	0.	0.04	0.15
240	40	5.75	5.75	13.	0.	0.08	0.34	7.94	5.84	3.	0.	0.02	0.06
241	40	5.75	5.75	38.	0.	0.23	0.96	7.94	5.84	3.	0.	0.02	0.06
242	40	5.75	5.75	14.	0.	0.08	0.35	7.94	5.84	3.	0.	0.01	0.05
243	40	5.75	5.75	38.	0.	0.23	0.97	7.94	5.84	5.	0.	0.03	0.09
287	40	5.75	5.75	33.	0.	0.20	0.83	7.94	5.84	5.	0.	0.03	0.09
289	30	5.75	5.75	32.	0.	0.34	1.15	7.94	5.84	3.	0.	0.03	0.09
290	30	5.75	5.75	15.	0.	0.16	0.54	7.94	5.84	2.	0.	0.02	0.06
291	30	5.75	5.75	7.	0.	0.07	0.25	7.94	5.84	0.	0.	0.00	0.01
292	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.01
293	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
294	30	5.75	5.75	31.	0.	0.32	1.11	7.94	5.84	2.	0.	0.02	0.05
295	30	5.75	5.75	27.	0.	0.28	0.97	7.94	5.84	3.	0.	0.03	0.08
296	30	5.75	5.75	32.	0.	0.33	1.14	7.94	5.84	2.	0.	0.02	0.06
297	30	5.75	5.75	33.	0.	0.34	1.17	7.94	5.84	3.	0.	0.03	0.09
299	30	5.75	5.75	30.	0.	0.32	1.08	7.94	5.84	2.	0.	0.02	0.06
300	30	5.75	5.75	15.	0.	0.15	0.53	7.94	5.84	1.	0.	0.01	0.03
301	30	5.75	5.75	6.	0.	0.07	0.23	7.94	5.84	0.	0.	0.00	0.00
302	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
303	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
304	30	5.75	5.75	33.	0.	0.35	1.19	7.94	5.84	2.	0.	0.02	0.05
305	30	5.75	5.75	30.	0.	0.32	1.09	7.94	5.84	2.	0.	0.02	0.06
306	30	5.75	5.75	31.	0.	0.32	1.11	7.94	5.84	2.	0.	0.02	0.04
307	30	5.75	5.75	30.	0.	0.31	1.08	7.94	5.84	2.	0.	0.02	0.07
309	30	5.75	5.75	27.	0.	0.28	0.96	7.94	5.84	6.	0.	0.05	0.15
310	30	5.75	5.75	14.	0.	0.15	0.52	7.94	5.84	3.	0.	0.03	0.09
311	30	5.75	5.75	7.	0.	0.07	0.24	7.94	5.84	1.	0.	0.01	0.03
312	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
313	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
315	30	5.75	5.75	27.	0.	0.28	0.96	7.94	5.84	3.	0.	0.03	0.08
316	30	5.75	5.75	15.	0.	0.15	0.52	7.94	5.84	1.	0.	0.01	0.04
317	30	5.75	5.75	7.	0.	0.07	0.24	7.94	5.84	0.	0.	0.00	0.00
318	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
319	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
320	30	5.75	5.75	33.	0.	0.35	1.20	7.94	5.84	0.	0.	0.00	0.01
321	30	5.75	5.75	27.	0.	0.28	0.97	7.94	5.84	0.	0.	0.00	0.01
322	30	5.75	5.75	14.	0.	0.15	0.51	7.94	5.84	0.	0.	0.00	0.00
323	30	5.75	5.75	6.	0.	0.07	0.23	7.94	5.84	0.	0.	0.00	0.00
324	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
325	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
326	30	5.75	5.75	33.	0.	0.35	1.20	7.94	5.84	6.	0.	0.06	0.17
327	30	5.75	5.75	34.	0.	0.36	1.23	7.94	5.84	2.	0.	0.02	0.07
328	30	5.75	5.75	33.	0.	0.35	1.19	7.94	5.84	4.	0.	0.04	0.12
331	30	5.75	5.75	37.	0.	0.39	1.33	7.94	5.84	5.	0.	0.05	0.14
332	30	5.75	5.75	34.	0.	0.36	1.22	7.94	5.84	6.	0.	0.06	0.17
333	30	5.75	5.75	38.	0.	0.40	1.36	7.94	5.84	7.	0.	0.06	0.18
334	30	5.75	5.75	36.	0.	0.38	1.29	7.94	5.84	6.	0.	0.05	0.16
335	30	5.75	5.75	35.	0.	0.37	1.26	7.94	5.84	7.	0.	0.07	0.19
337	30	5.75	5.75	30.	0.	0.32	1.09	7.94	5.84	8.	0.	0.07	0.20
338	30	5.75	5.75	16.	0.	0.16	0.56	7.94	5.84	5.	0.	0.04	0.12
339	30	5.75	5.75	7.	0.	0.07	0.25	7.94	5.84	1.	0.	0.01	0.03
340	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
341	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
343	30	5.75	5.75	29.	0.	0.31	1.05	7.94	5.84	3.	0.	0.03	0.09
344	30	5.75	5.75	15.	0.	0.16	0.55	7.94	5.84	1.	0.	0.01	0.04
345	30	5.75	5.75	7.	0.	0.07	0.24	7.94	5.84	0.	0.	0.00	0.00
346	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
347	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
348	30	5.75	5.75	40.	0.	0.42	1.43	7.94	5.84	4.	0.	0.03	0.09
349	30	5.75	5.75	28.	0.	0.30	1.02	7.94	5.84	2.	0.	0.02	0.05
350	30	5.75	5.75	15.	0.	0.15	0.53	7.94	5.84	1.	0.	0.01	0.02
351	30	5.75	5.75	7.	0.	0.07	0.24	7.94	5.84	0.	0.	0.00	0.00
352	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
353	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
354	30	5.75	5.75	41.	0.	0.44	1.49	7.94	5.84	4.	0.	0.04	0.12
355	30	5.75	5.75	38.	0.	0.40	1.37	7.94	5.84	6.	0.	0.05	0.15
356	30	5.75	5.75	38.	0.	0.40	1.36	7.94	5.84	7.	0.	0.07	0.20
357	30	5.75	5.75	38.	0.	0.40	1.37	7.94	5.84	8.	0.	0.08	0.22
358	30	5.75	5.75	41.	0.	0.44	1.49	7.94	5.84	8.	0.	0.08	0.22
359	30	5.75	5.75	42.	0.	0.44	1.51	7.94	5.84	8.	0.	0.07	0.21
360	30	5.75	5.75	38.	0.	0.40	1.38	7.94	5.84	8.	0.	0.07	0.21
361	30	5.75	5.75	43.	0.	0.45	1.55	7.94	5.84	5.	0.	0.05	0.14
363	30	5.75	5.75	35.	0.	0.37	1.25	7.94	5.84	2.	0.	0.02	0.06
364	30	5.75	5.75	18.	0.	0.18	0.63	7.94	5.84	0.	0.	0.00	0.00
365	30	5.75	5.75	7.	0.	0.08	0.27	7.94	5.84	0.	0.	0.00	0.00
366	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
367	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
368	30	5.75	5.75	43.	0.	0.45	1.54	7.94	5.84	3.	0.	0.03	0.09
369	30	5.75	5.75	34.	0.	0.36	1.22	7.94	5.84	2.	0.	0.02	0.06
370	30	5.75	5.75	17.	0.	0.18	0.60	7.94	5.84	1.	0.	0.01	0.02
371	30	5.75	5.75	7.	0.	0.08	0.26	7.94	5.84	0.	0.	0.00	0.01
372	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
373	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
375	30	5.75	5.75	36.	0.	0.37	1.28	7.94	5.84	6.	0.	0.05	0.16
376	30	5.75	5.75	19.	0.	0.20	0.68	7.94	5.84	5.	0.	0.04	0.12
377	30	5.75	5.75	8.	0.	0.09	0.30	7.94	5.84	1.	0.	0.01	0.02
378	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
379	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
380	30	5.75	5.75	41.	0.	0.43	1.48	7.94	5.84	5.	0.	0.05	0.14
381	30	5.75	5.75	43.	0.	0.45	1.55	7.94	5.84	1.	0.	0.01	0.04

382	30	5.75	5.75	44.	0.	0.46	1.58	7.94	5.84	12.	0.	0.11	0.33
383	30	5.75	5.75	42.	0.	0.44	1.50	7.94	5.84	6.	0.	0.06	0.16
384	30	5.75	5.75	38.	0.	0.40	1.37	7.94	5.84	7.	0.	0.07	0.19
385	30	5.75	5.75	41.	0.	0.43	1.47	7.94	5.84	7.	0.	0.07	0.19
387	30	5.75	5.75	44.	0.	0.46	1.58	7.94	5.84	6.	0.	0.06	0.16
388	30	5.75	5.75	45.	0.	0.47	1.61	7.94	5.84	6.	0.	0.06	0.17
390	30	5.75	5.75	37.	0.	0.39	1.33	7.94	5.84	8.	0.	0.07	0.21
391	30	5.75	5.75	20.	0.	0.21	0.72	7.94	5.84	5.	0.	0.04	0.12
392	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	1.	0.	0.01	0.03
393	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
394	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
395	30	5.75	5.75	49.	0.	0.51	1.76	7.94	5.84	5.	0.	0.05	0.14
396	30	5.75	5.75	36.	0.	0.38	1.30	7.94	5.84	3.	0.	0.02	0.07
397	30	5.75	5.75	20.	0.	0.21	0.72	7.94	5.84	0.	0.	0.00	0.00
398	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	0.	0.	0.00	0.00
399	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
400	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
402	30	5.75	5.75	36.	0.	0.38	1.31	7.94	5.84	3.	0.	0.03	0.08
403	30	5.75	5.75	20.	0.	0.21	0.71	7.94	5.84	1.	0.	0.01	0.02
404	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	0.	0.	0.00	0.00
405	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
406	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
407	30	5.75	5.75	40.	0.	0.42	1.44	7.94	5.84	3.	0.	0.03	0.08
408	30	5.75	5.75	47.	0.	0.49	1.67	7.94	5.84	3.	0.	0.03	0.08
409	30	5.75	5.75	45.	0.	0.47	1.60	7.94	5.84	3.	0.	0.03	0.08
410	30	5.75	5.75	49.	0.	0.52	1.76	7.94	5.84	8.	0.	0.07	0.21
411	30	5.75	5.75	45.	0.	0.48	1.63	7.94	5.84	9.	0.	0.09	0.25
412	30	5.75	5.75	49.	0.	0.51	1.75	7.94	5.84	9.	0.	0.08	0.23
414	30	5.75	5.75	39.	0.	0.41	1.41	7.94	5.84	8.	0.	0.07	0.20
415	30	5.75	5.75	20.	0.	0.21	0.74	7.94	5.84	5.	0.	0.04	0.12
416	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	1.	0.	0.01	0.04
417	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
418	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
419	30	5.75	5.75	54.	0.	0.78	3.36	7.94	5.84	4.	0.	0.04	0.11
420	30	5.75	5.75	39.	0.	0.41	1.41	7.94	5.84	2.	0.	0.02	0.05
421	30	5.75	5.75	20.	0.	0.21	0.72	7.94	5.84	0.	0.	0.00	0.00
422	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	0.	0.	0.00	0.00
423	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
424	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
426	30	5.75	5.75	38.	0.	0.40	1.37	7.94	5.84	6.	0.	0.06	0.17
427	30	5.75	5.75	20.	0.	0.21	0.71	7.94	5.84	5.	0.	0.04	0.13
428	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	1.	0.	0.01	0.03
429	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
430	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
431	30	5.75	5.75	49.	0.	0.51	1.75	7.94	5.84	8.	0.	0.07	0.21
432	30	5.75	5.75	52.	0.	0.54	1.86	7.94	5.84	8.	0.	0.07	0.21
433	30	5.75	5.75	47.	0.	0.50	1.69	7.94	5.84	7.	0.	0.07	0.19
434	30	5.75	5.75	49.	0.	0.52	1.77	7.94	5.84	7.	0.	0.07	0.20
435	30	5.75	5.75	52.	0.	0.54	1.86	7.94	5.84	4.	0.	0.03	0.10
436	30	5.75	5.75	44.	0.	0.46	1.58	7.94	5.84	7.	0.	0.06	0.18
437	30	5.75	5.75	22.	0.	0.23	0.80	7.94	5.84	3.	0.	0.03	0.08
438	30	5.75	5.75	10.	0.	0.11	0.36	7.94	5.84	0.	0.	0.00	0.01
439	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
440	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
441	30	5.75	5.75	44.	0.	0.46	1.57	7.94	5.84	3.	0.	0.02	0.07
442	30	5.75	5.75	22.	0.	0.23	0.79	7.94	5.84	0.	0.	0.00	0.01
443	30	5.75	5.75	10.	0.	0.10	0.34	7.94	5.84	0.	0.	0.00	0.00
444	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
445	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
446	30	5.75	5.75	41.	0.	0.43	1.48	7.94	5.84	7.	0.	0.06	0.18
447	30	5.75	5.75	21.	0.	0.22	0.76	7.94	5.84	5.	0.	0.04	0.13
448	30	5.75	5.75	9.	0.	0.09	0.32	7.94	5.84	2.	0.	0.01	0.04
449	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
450	30	5.75	5.75	0.	0.	0.00	0.00	7.94	5.84	0.	0.	0.00	0.00
502	30	5.75	5.75	54.	0.	0.79	3.46	7.94	5.84	6.	0.	0.06	0.16
507	30	5.75	5.75	49.	0.	0.51	1.76	7.94	5.84	9.	0.	0.08	0.25
508	30	5.75	5.75	49.	0.	0.52	1.77	7.94	5.84	9.	0.	0.08	0.23
509	30	5.75	5.75	55.	0.	0.87	3.99	7.94	5.84	7.	0.	0.07	0.19
510	30	5.75	5.75	55.	0.	0.85	3.81	7.94	5.84	8.	0.	0.07	0.20
516	30	5.75	5.75	49.	0.	0.52	1.77	7.94	5.84	7.	0.	0.06	0.19
517	30	5.75	5.75	54.	0.	0.76	3.25	7.94	5.84	4.	0.	0.04	0.11
518	30	5.75	5.75	50.	0.	0.52	1.79	7.94	5.84	8.	0.	0.07	0.20
519	30	5.75	5.75	53.	0.	0.59	2.16	7.94	5.84	2.	0.	0.02	0.06
522	30	5.75	5.75	50.	0.	0.53	1.80	7.94	5.84	4.	0.	0.04	0.12
523	30	5.75	5.75	53.	0.	0.65	2.57	7.94	5.84	5.	0.	0.05	0.14
524	30	5.75	5.75	50.	0.	0.53	1.81	7.94	5.84	8.	0.	0.07	0.21
525	30	5.75	5.75	49.	0.	0.52	1.78	7.94	5.84	11.	0.	0.10	0.28
531	30	5.75	5.75	55.	0.	0.96	4.58	7.94	5.84	7.	0.	0.06	0.19
532	30	5.75	5.75	55.	0.	0.87	3.98	7.94	5.84	9.	0.	0.08	0.23

GUSCI	spess	Af	Afc	SUPERIORE ORIZZONTALE				SUPERIORE VERTICALE				epsC	epsF
				Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor		
153	40	5.75	5.75	3.	0.	0.02	0.07	5.84	7.94	4.	0.	0.03	0.11
154	40	5.75	5.75	2.	0.	0.01	0.06	5.84	7.94	1.	0.	0.00	0.02
155	40	5.75	5.75	3.	0.	0.02	0.07	5.84	7.94	6.	0.	0.03	0.14
156	40	5.75	5.75	4.	0.	0.02	0.09	5.84	7.94	1.	0.	0.00	0.02
157	40	5.75	5.75	3.	0.	0.02	0.08	5.84	7.94	0.	0.	0.00	0.00
158	40	5.75	5.75	3.	0.	0.02	0.09	5.84	7.94	3.	0.	0.02	0.07
159	40	5.75	5.75	6.	0.	0.03	0.14	5.84	7.94	0.	0.	0.00	0.00
160	40	5.75	5.75	5.	0.	0.03	0.13	5.84	7.94	2.	0.	0.01	0.05
161	40	5.75	5.75	4.	0.	0.03	0.11	5.84	7.94	1.	0.	0.01	0.03
162	40	5.75	5.75	6.	0.	0.04	0.16	5.84	7.94	0.	0.	0.00	0.00
163	40	5.75	5.75	6.	0.	0.04	0.15	5.84	7.94	0.	0.	0.00	0.00
164	40	5.75	5.75	6.	0.	0.04	0.15	5.84	7.94	0.	0.	0.00	0.00
165	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	2.	0.	0.01	0.05

166	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	3.	0.	0.02	0.07
167	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	1.	0.	0.01	0.03
168	40	5.75	5.75	5.	0.	0.03	0.13	5.84	7.94	0.	0.	0.00	0.00
169	40	5.75	5.75	6.	0.	0.03	0.15	5.84	7.94	0.	0.	0.00	0.00
170	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	2.	0.	0.01	0.04
174	40	5.75	5.75	3.	0.	0.02	0.09	5.84	7.94	0.	0.	0.00	0.00
175	40	5.75	5.75	4.	0.	0.02	0.09	5.84	7.94	1.	0.	0.00	0.01
176	40	5.75	5.75	4.	0.	0.03	0.11	5.84	7.94	0.	0.	0.00	0.00
202	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	2.	0.	0.01	0.05
203	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
204	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
205	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
206	40	5.75	5.75	1.	0.	0.00	0.01	5.84	7.94	3.	0.	0.01	0.06
207	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
208	40	5.75	5.75	2.	0.	0.01	0.05	5.84	7.94	0.	0.	0.00	0.00
209	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
210	40	5.75	5.75	2.	0.	0.01	0.05	5.84	7.94	1.	0.	0.00	0.01
211	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.00	0.02
212	40	5.75	5.75	2.	0.	0.01	0.04	5.84	7.94	1.	0.	0.01	0.04
213	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.00	0.02
214	40	5.75	5.75	3.	0.	0.02	0.09	5.84	7.94	0.	0.	0.00	0.00
215	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
216	40	5.75	5.75	3.	0.	0.02	0.08	5.84	7.94	1.	0.	0.01	0.03
217	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
218	40	5.75	5.75	2.	0.	0.02	0.06	5.84	7.94	0.	0.	0.00	0.00
219	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
220	40	5.75	5.75	6.	0.	0.04	0.16	5.84	7.94	0.	0.	0.00	0.00
221	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
222	40	5.75	5.75	6.	0.	0.03	0.14	5.84	7.94	0.	0.	0.00	0.00
223	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
224	40	5.75	5.75	5.	0.	0.03	0.12	5.84	7.94	0.	0.	0.00	0.00
225	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
226	40	5.75	5.75	7.	0.	0.04	0.18	5.84	7.94	0.	0.	0.00	0.01
227	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
228	40	5.75	5.75	7.	0.	0.04	0.19	5.84	7.94	1.	0.	0.00	0.01
229	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
230	40	5.75	5.75	7.	0.	0.04	0.18	5.84	7.94	0.	0.	0.00	0.00
231	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
232	40	5.75	5.75	6.	0.	0.04	0.16	5.84	7.94	0.	0.	0.00	0.00
233	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
234	40	5.75	5.75	6.	0.	0.04	0.15	5.84	7.94	0.	0.	0.00	0.00
235	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
236	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	0.	0.	0.00	0.00
237	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
238	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	0.	0.	0.00	0.00
239	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
240	40	5.75	5.75	7.	0.	0.04	0.17	5.84	7.94	0.	0.	0.00	0.00
241	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
242	40	5.75	5.75	6.	0.	0.04	0.16	5.84	7.94	0.	0.	0.00	0.00
243	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
287	40	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
289	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
290	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.04
291	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
292	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
293	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
294	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.02
295	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
296	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.02
297	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
299	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
300	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	2.	0.	0.02	0.05
301	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.05
302	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.04
303	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.04
304	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
305	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
306	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
307	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
309	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
310	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
311	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.02
312	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
313	30	5.75	5.75	1.	0.	0.01	0.02	5.84	7.94	1.	0.	0.01	0.05
315	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
316	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.05
317	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.04
318	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.05
319	30	5.75	5.75	0.	0.	0.00	0.02	5.84	7.94	2.	0.	0.02	0.06
320	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
321	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
322	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.05
323	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	2.	0.	0.02	0.06
324	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.02	0.05
325	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	1.	0.	0.01	0.05
326	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
327	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
328	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
331	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
332	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
333	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
334	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
335	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
337	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
338	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00

339	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
340	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
341	30	5.75	5.75	1.	0.	0.01	0.02	5.84	7.94	1.	0.	0.01	0.04
343	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
344	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
345	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
346	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
347	30	5.75	5.75	1.	0.	0.01	0.02	5.84	7.94	1.	0.	0.01	0.04
348	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
349	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
350	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
351	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
352	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
353	30	5.75	5.75	1.	0.	0.01	0.02	5.84	7.94	1.	0.	0.01	0.04
354	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
355	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
356	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
357	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
358	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
359	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
360	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
361	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
363	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
364	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
365	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
366	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
367	30	5.75	5.75	0.	0.	0.00	0.02	5.84	7.94	1.	0.	0.01	0.03
368	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
369	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
370	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
371	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
372	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
373	30	5.75	5.75	1.	0.	0.01	0.02	5.84	7.94	1.	0.	0.01	0.04
375	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
376	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
377	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
378	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
379	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.00
380	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
381	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
382	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
383	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	2.	0.	0.02	0.05
384	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
385	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
387	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
388	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
390	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
391	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
392	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
393	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
394	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.00
395	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
396	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
397	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
398	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
399	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
400	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.00
402	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
403	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
404	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
405	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
406	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.01
407	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
408	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
409	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
410	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
411	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
412	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
414	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
415	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
416	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
417	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
418	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.00
419	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
420	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
421	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
422	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
423	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
424	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.00
426	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
427	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
428	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
429	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
430	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	0.	0.	0.00	0.00
431	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
432	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
433	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
434	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
435	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
436	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.01	0.02
437	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
438	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
439	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02
440	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	1.	0.	0.01	0.03
441	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.02

442	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.04
443	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
444	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	1.	0.	0.01	0.03
445	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	1.	0.	0.01	0.03
446	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
447	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
448	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.01
449	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.02
450	30	5.75	5.75	0.	0.	0.00	0.01	5.84	7.94	1.	0.	0.01	0.03
502	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
507	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
508	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
509	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
510	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
516	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
517	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
518	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
519	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
522	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
523	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
524	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
525	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
531	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00
532	30	5.75	5.75	0.	0.	0.00	0.00	5.84	7.94	0.	0.	0.00	0.00

L'ARMATURA È OVUNQUE > DELLA QUANTITÀ RICHIESTA: IL PUNTO 2.3 DELLE NTC È VERIFICATO ($R_d > E_d$)

MACROGUSCIO Fondazione

VERIFICHE A FESSURAZIONE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
12	Rara VentoX 1 (RARA)
13	Rara VentoX 2 (RARA)
14	Frequente 1 (FREQUENTE)
15	Frequente 2 (FREQUENTE)
16	Frequente VentoX 3 (FREQUENTE)
17	Quasi Perm (QUASI PERMANENTE)

DATI:

copriferro inferiore (asse armatura): 5 cm
copriferro superiore (asse armatura): 5 cm

Af = area effettiva tesa (cm² al metro)

Afc = area effettiva compressa (cm² al metro)

Mom = momento flettente [kNm/m]

Nor = sforzo normale [kN]

σ_c = tensione calcestruzzo [N/mm²]

valore max per combinazione rara = 149.4 N/mm²
frequente = 149.4 N/mm²
quasi permanente = 112 N/mm²

σ_f = tensione acciaio [N/mm²]

valore max per combinazione rara = 3600 N/mm²
frequente = 3600 N/mm²
quasi permanente = 3600 N/mm²

wkR = apertura caratteristica per combinazione rara (mm) - valore max = 0.6 mm

wkF = " " " " frequente (mm) - " " = 0.4 mm

wkP = " " " " quasi permanente (mm) - " " = 0.3 mm

ARMATURA INFERIORE ORIZZONTALE

GUSCI	COMBINAZIONE RARA							COMBINAZIONE FREQUENTE							COMBINAZIONE QUASI PERMANENTE						
	Af	Afc	Mom	Nor	σ_c	σ_f	wkR	Mom	Nor	σ_c	σ_f	wkF	Mom	Nor	σ_c	σ_f	wkP				
153	5.75	5.75	1.17	0.00	0.10	6.	0.007	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
154	5.75	5.75	1.21	0.00	0.10	6.	0.007	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
155	5.75	5.75	1.12	0.00	0.10	6.	0.007	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
156	5.75	5.75	1.10	0.00	0.09	6.	0.007	0.33	0.00	0.03	2.	0.002	0.15	0.00	0.01	1.	0.001				
157	5.75	5.75	1.08	0.00	0.09	6.	0.006	0.27	0.00	0.02	1.	0.002	0.08	0.00	0.01	0.	0.000				
158	5.75	5.75	1.03	0.00	0.09	6.	0.006	0.06	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000				
159	5.75	5.75	1.24	0.00	0.11	7.	0.007	0.53	0.00	0.05	3.	0.003	0.37	0.00	0.03	2.	0.002				
160	5.75	5.75	1.16	0.00	0.10	6.	0.007	0.45	0.00	0.04	2.	0.003	0.29	0.00	0.02	2.	0.002				
161	5.75	5.75	1.11	0.00	0.09	6.	0.007	0.39	0.00	0.03	2.	0.002	0.22	0.00	0.02	1.	0.001				
162	5.75	5.75	1.36	0.00	0.12	7.	0.008	0.68	0.00	0.06	4.	0.004	0.52	0.00	0.04	3.	0.003				
163	5.75	5.75	1.37	0.00	0.12	7.	0.008	0.66	0.00	0.06	4.	0.004	0.49	0.00	0.04	3.	0.003				
164	5.75	5.75	1.31	0.00	0.11	7.	0.008	0.61	0.00	0.05	3.	0.004	0.44	0.00	0.04	2.	0.003				
165	5.75	5.75	0.59	0.00	0.05	3.	0.003	0.38	0.00	0.03	2.	0.002	0.32	0.00	0.03	2.	0.002				
166	5.75	5.75	0.94	0.00	0.08	5.	0.006	0.53	0.00	0.04	3.	0.003	0.42	0.00	0.04	2.	0.003				
167	5.75	5.75	1.21	0.00	0.10	6.	0.007	0.64	0.00	0.05	3.	0.004	0.49	0.00	0.04	3.	0.003				
168	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
169	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.02	0.00	0.00	0.	0.000	0.07	0.00	0.01	0.	0.000				
170	5.75	5.75	0.19	0.00	0.02	1.	0.001	0.20	0.00	0.02	1.	0.001	0.20	0.00	0.02	1.	0.001				
174	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
175	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
176	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000				
202	5.75	5.75	8.35	0.00	0.71	45.	0.050	2.97	0.00	0.25	16.	0.018	1.95	0.00	0.17	10.	0.012				
203	5.75	5.75	15.57	0.00	1.33	83.	0.092	7.59	0.00	0.65	41.	0.045	5.88	0.00	0.50	31.	0.035				
204	5.75	5.75	8.12	0.00	0.69	43.	0.048	2.93	0.00	0.25	16.	0.017	1.89	0.00	0.16	10.	0.011				
205	5.75	5.75	15.01	0.00	1.28	80.	0.089	7.43	0.00	0.63	40.	0.044	5.75	0.00	0.49	31.	0.034				

206	5.75	5.75	8.70	0.00	0.74	46.	0.052	3.22	0.00	0.27	17.	0.019	2.09	0.00	0.18	11.	0.012
207	5.75	5.75	16.43	0.00	1.40	88.	0.098	7.85	0.00	0.67	42.	0.047	6.05	0.00	0.52	32.	0.036
208	5.75	5.75	8.71	0.00	0.74	46.	0.052	3.81	0.00	0.32	20.	0.023	2.85	0.00	0.24	15.	0.017
209	5.75	5.75	19.36	0.00	1.65	103.	0.115	9.04	0.00	0.77	48.	0.054	6.76	0.00	0.58	36.	0.040
210	5.75	5.75	9.01	0.00	0.77	48.	0.054	3.70	0.00	0.31	20.	0.022	2.62	0.00	0.22	14.	0.016
211	5.75	5.75	18.40	0.00	1.57	98.	0.109	8.58	0.00	0.73	46.	0.051	6.40	0.00	0.55	34.	0.038
212	5.75	5.75	8.98	0.00	0.76	48.	0.053	3.47	0.00	0.30	19.	0.021	2.24	0.00	0.19	12.	0.013
213	5.75	5.75	17.33	0.00	1.48	93.	0.103	8.14	0.00	0.69	43.	0.048	6.26	0.00	0.53	33.	0.037
214	5.75	5.75	6.93	0.00	0.59	37.	0.041	3.43	0.00	0.29	18.	0.020	2.80	0.00	0.24	15.	0.017
215	5.75	5.75	20.40	0.00	1.74	109.	0.121	9.76	0.00	0.83	52.	0.058	7.41	0.00	0.63	40.	0.044
216	5.75	5.75	7.37	0.00	0.63	39.	0.044	3.53	0.00	0.30	19.	0.021	2.82	0.00	0.24	15.	0.017
217	5.75	5.75	20.12	0.00	1.71	107.	0.119	9.56	0.00	0.81	51.	0.057	7.23	0.00	0.62	39.	0.043
218	5.75	5.75	8.01	0.00	0.68	43.	0.048	3.69	0.00	0.31	20.	0.022	2.86	0.00	0.24	15.	0.017
219	5.75	5.75	19.76	0.00	1.68	106.	0.117	9.31	0.00	0.79	50.	0.055	7.01	0.00	0.60	37.	0.042
220	5.75	5.75	6.38	0.00	0.54	34.	0.038	3.25	0.00	0.28	17.	0.019	2.71	0.00	0.23	14.	0.016
221	5.75	5.75	21.44	0.00	1.83	114.	0.127	10.39	0.00	0.88	55.	0.062	7.95	0.00	0.68	42.	0.047
222	5.75	5.75	6.33	0.00	0.54	34.	0.038	3.23	0.00	0.28	17.	0.019	2.70	0.00	0.23	14.	0.016
223	5.75	5.75	20.72	0.00	1.76	111.	0.123	10.03	0.00	0.85	54.	0.060	7.67	0.00	0.65	41.	0.046
224	5.75	5.75	6.51	0.00	0.55	35.	0.039	3.29	0.00	0.28	18.	0.020	2.73	0.00	0.23	15.	0.016
225	5.75	5.75	20.44	0.00	1.74	109.	0.121	9.85	0.00	0.84	53.	0.058	7.51	0.00	0.64	40.	0.045
226	5.75	5.75	6.24	0.00	0.53	33.	0.037	3.08	0.00	0.26	16.	0.018	2.54	0.00	0.22	14.	0.015
227	5.75	5.75	22.97	0.00	1.96	123.	0.136	11.14	0.00	0.95	59.	0.066	8.52	0.00	0.73	45.	0.051
228	5.75	5.75	6.26	0.00	0.53	33.	0.037	3.13	0.00	0.27	17.	0.019	2.60	0.00	0.22	14.	0.015
229	5.75	5.75	22.32	0.00	1.90	119.	0.133	10.83	0.00	0.92	58.	0.064	8.29	0.00	0.71	44.	0.049
230	5.75	5.75	6.36	0.00	0.54	34.	0.038	3.22	0.00	0.27	17.	0.019	2.67	0.00	0.23	14.	0.016
231	5.75	5.75	22.07	0.00	1.88	118.	0.131	10.70	0.00	0.91	57.	0.064	8.19	0.00	0.70	44.	0.049
232	5.75	5.75	5.63	0.00	0.48	30.	0.033	2.65	0.00	0.23	14.	0.016	2.16	0.00	0.18	12.	0.013
233	5.75	5.75	23.24	0.00	1.98	124.	0.138	11.27	0.00	0.96	60.	0.067	8.62	0.00	0.73	46.	0.051
234	5.75	5.75	5.79	0.00	0.49	31.	0.034	2.77	0.00	0.24	15.	0.016	2.27	0.00	0.19	12.	0.013
235	5.75	5.75	22.94	0.00	1.95	122.	0.136	11.14	0.00	0.95	59.	0.066	8.53	0.00	0.73	46.	0.051
236	5.75	5.75	6.08	0.00	0.52	32.	0.036	2.95	0.00	0.25	16.	0.018	2.43	0.00	0.21	13.	0.014
237	5.75	5.75	23.17	0.00	1.97	124.	0.138	11.24	0.00	0.96	60.	0.067	8.61	0.00	0.73	46.	0.051
238	5.75	5.75	4.70	0.00	0.40	25.	0.028	2.13	0.00	0.18	11.	0.013	1.73	0.00	0.15	9.	0.010
239	5.75	5.75	22.38	0.00	1.91	119.	0.133	10.88	0.00	0.93	58.	0.065	8.35	0.00	0.71	45.	0.050
240	5.75	5.75	4.82	0.00	0.41	26.	0.029	2.20	0.00	0.19	12.	0.013	1.79	0.00	0.15	10.	0.011
241	5.75	5.75	22.28	0.00	1.90	119.	0.132	10.83	0.00	0.92	58.	0.064	8.31	0.00	0.71	44.	0.049
242	5.75	5.75	5.29	0.00	0.45	28.	0.031	2.45	0.00	0.21	13.	0.015	1.99	0.00	0.17	11.	0.012
243	5.75	5.75	23.16	0.00	1.97	124.	0.138	11.22	0.00	0.96	60.	0.067	8.58	0.00	0.73	46.	0.051
287	5.75	5.75	21.46	0.00	1.83	115.	0.127	11.20	0.00	0.95	60.	0.067	8.88	0.00	0.76	47.	0.053
289	5.75	5.75	19.21	0.00	2.84	145.	0.117	9.09	0.00	1.34	69.	0.056	6.80	0.00	1.01	51.	0.042
290	5.75	5.75	9.26	0.00	1.37	70.	0.057	3.95	0.00	0.58	30.	0.024	2.76	0.00	0.41	21.	0.017
291	5.75	5.75	3.85	0.00	0.57	29.	0.024	1.36	0.00	0.20	10.	0.008	0.81	0.00	0.12	6.	0.005
292	5.75	5.75	1.01	0.00	0.15	8.	0.006	0.14	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000
293	5.75	5.75	0.02	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
294	5.75	5.75	21.35	0.00	3.16	161.	0.131	11.14	0.00	1.65	84.	0.068	8.83	0.00	1.31	67.	0.054
295	5.75	5.75	18.69	0.00	2.77	141.	0.114	9.84	0.00	1.46	74.	0.060	7.84	0.00	1.16	59.	0.048
296	5.75	5.75	22.00	0.00	3.26	166.	0.135	11.41	0.00	1.69	86.	0.070	9.01	0.00	1.33	68.	0.055
297	5.75	5.75	22.62	0.00	3.35	171.	0.138	11.64	0.00	1.72	88.	0.071	9.15	0.00	1.35	69.	0.056
299	5.75	5.75	18.36	0.00	2.72	139.	0.112	8.58	0.00	1.27	65.	0.052	6.36	0.00	0.94	48.	0.039
300	5.75	5.75	8.81	0.00	1.30	67.	0.054	3.65	0.00	0.54	28.	0.022	2.49	0.00	0.37	19.	0.015
301	5.75	5.75	3.60	0.00	0.53	27.	0.022	1.20	0.00	0.18	9.	0.007	0.66	0.00	0.10	5.	0.004
302	5.75	5.75	0.95	0.00	0.14	7.	0.006	0.11	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000
303	5.75	5.75	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
304	5.75	5.75	23.01	0.00	3.41	174.	0.141	11.84	0.00	1.75	90.	0.072	9.31	0.00	1.38	70.	0.057
305	5.75	5.75	20.88	0.00	3.09	158.	0.128	10.50	0.00	1.55	79.	0.064	8.15	0.00	1.21	62.	0.050
306	5.75	5.75	21.31	0.00	3.15	161.	0.130	10.83	0.00	1.60	82.	0.066	8.46	0.00	1.25	64.	0.052
307	5.75	5.75	20.76	0.00	3.07	157.	0.127	10.77	0.00	1.59	81.	0.066	8.51	0.00	1.26	64.	0.052
309	5.75	5.75	17.28	0.00	2.56	131.	0.106	7.52	0.00	1.11	57.	0.046	5.30	0.00	0.78	40.	0.032
310	5.75	5.75	8.67	0.00	1.28	66.	0.053	3.28	0.00	0.48	25.	0.020	2.05	0.00	0.30	16.	0.013
311	5.75	5.75	3.66	0.00	0.54	28.	0.022	0.98	0.00	0.14	7.	0.006	0.41	0.00	0.06	3.	0.002
312	5.75	5.75	1.07	0.00	0.16	8.	0.007	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
313	5.75	5.75	0.18	0.00	0.03	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
315	5.75	5.75	16.22	0.00	2.40	123.	0.099	7.17	0.00	1.06	54.	0.044	5.12	0.00	0.76	39.	0.031
316	5.75	5.75	8.76	0.00	1.30	66.	0.054	3.30	0.00	0.49	25.	0.020	2.07	0.00	0.31	16.	0.013
317	5.75	5.75	3.59	0.00	0.53	27.	0.022	1.00	0.00	0.15	8.	0.006	0.45	0.00	0.07	3.	0.003
318	5.75	5.75	1.00	0.00	0.15	8.	0.006	0.07	0.00	0.01	1.	0.000	0.00	0.00	0.00	0.	0.000
319	5.75	5.75	0.11	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
320	5.75	5.75	22.60	0.00	3.34	171.	0.138	11.38	0.00	1.68	86.	0.070	8.84	0.00	1.31	67.	0.054
321	5.75	5.75	16.83	0.00	2.49	127.	0.103	7.65	0.00	1.13	58.	0.047	5.53	0.00	0.82	42.	0.034
322	5.75	5.75	8.44	0.00	1.25	64.	0.052	3.32	0.00	0.49	25.	0.020	2.18	0.00	0.32	17.	0.013
323	5.75	5.75	3.48	0.00	0.52	26.	0.021	1.07	0.00	0.16	8.	0.007	0.54	0.00	0.08	4.	0.003
324	5.75	5.75	0.96	0.00	0.14	7.	0.006	0.11	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000
325	5.75	5.75	0.06	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
326	5.75	5.75	22.94	0.00	3.39	173.	0.140	11.18	0.00	1.65	85.	0.068	8.51	0.00	1.26	64.	0.052
327	5.75	5.75	23.63	0.00	3.50	179.	0.145	11.47	0.00	1.70	87.	0.070	8.82	0.00	1.31	67.	0.054
328	5.75	5.75	22.77	0.00	3.37	172.	0.139	10.7									

352	5.75	5.75	1.11	0.00	0.16	8.	0.007	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
353	5.75	5.75	0.22	0.00	0.03	2.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
354	5.75	5.75	28.39	0.00	4.20	215.	0.174	13.21	0.00	1.95	100.	0.081	9.76	0.00	1.44	74.	0.060
355	5.75	5.75	26.06	0.00	3.86	197.	0.159	11.84	0.00	1.75	90.	0.072	8.60	0.00	1.27	65.	0.053
356	5.75	5.75	25.90	0.00	3.83	196.	0.158	12.27	0.00	1.82	93.	0.075	9.18	0.00	1.36	69.	0.056
357	5.75	5.75	26.27	0.00	3.89	199.	0.161	12.42	0.00	1.84	94.	0.076	9.28	0.00	1.37	70.	0.057
358	5.75	5.75	28.48	0.00	4.21	215.	0.174	13.31	0.00	1.97	101.	0.081	9.86	0.00	1.46	75.	0.060
359	5.75	5.75	28.78	0.00	4.26	218.	0.176	13.12	0.00	1.94	99.	0.080	9.55	0.00	1.41	72.	0.058
360	5.75	5.75	26.34	0.00	3.90	199.	0.161	11.88	0.00	1.76	90.	0.073	8.58	0.00	1.27	65.	0.052
361	5.75	5.75	29.45	0.00	4.36	223.	0.180	13.55	0.00	2.01	102.	0.083	9.93	0.00	1.47	75.	0.061
363	5.75	5.75	21.93	0.00	3.25	166.	0.134	9.39	0.00	1.39	71.	0.057	6.53	0.00	0.97	49.	0.040
364	5.75	5.75	10.55	0.00	1.56	80.	0.065	4.06	0.00	0.60	31.	0.025	2.59	0.00	0.38	20.	0.016
365	5.75	5.75	4.19	0.00	0.62	32.	0.026	1.32	0.00	0.19	10.	0.008	0.66	0.00	0.10	5.	0.004
366	5.75	5.75	1.09	0.00	0.16	8.	0.007	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
367	5.75	5.75	0.06	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
368	5.75	5.75	29.69	0.00	4.39	224.	0.182	13.74	0.00	2.03	104.	0.084	10.11	0.00	1.50	76.	0.062
369	5.75	5.75	21.02	0.00	3.11	159.	0.129	8.97	0.00	1.33	68.	0.055	6.23	0.00	0.92	47.	0.038
370	5.75	5.75	9.95	0.00	1.47	75.	0.061	3.79	0.00	0.56	29.	0.023	2.40	0.00	0.35	18.	0.015
371	5.75	5.75	4.00	0.00	0.59	30.	0.024	1.22	0.00	0.18	9.	0.007	0.59	0.00	0.09	4.	0.004
372	5.75	5.75	1.06	0.00	0.16	8.	0.007	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
373	5.75	5.75	0.08	0.00	0.01	1.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
375	5.75	5.75	22.53	0.00	3.33	170.	0.138	9.68	0.00	1.43	73.	0.059	6.75	0.00	1.00	51.	0.041
376	5.75	5.75	11.42	0.00	1.69	86.	0.070	4.46	0.00	0.66	34.	0.027	2.87	0.00	0.42	22.	0.018
377	5.75	5.75	4.70	0.00	0.70	36.	0.029	1.56	0.00	0.23	12.	0.010	0.85	0.00	0.13	6.	0.005
378	5.75	5.75	1.32	0.00	0.19	10.	0.008	0.25	0.00	0.04	2.	0.002	0.06	0.00	0.01	0.	0.000
379	5.75	5.75	0.16	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
380	5.75	5.75	28.27	0.00	4.18	214.	0.173	13.21	0.00	1.95	100.	0.081	9.78	0.00	1.45	74.	0.060
381	5.75	5.75	29.48	0.00	4.36	223.	0.180	13.56	0.00	2.01	103.	0.083	9.93	0.00	1.47	75.	0.061
382	5.75	5.75	30.19	0.00	4.47	228.	0.185	13.88	0.00	2.05	105.	0.085	10.16	0.00	1.50	77.	0.062
383	5.75	5.75	28.67	0.00	4.24	217.	0.175	13.33	0.00	1.97	101.	0.082	9.84	0.00	1.46	74.	0.060
384	5.75	5.75	26.17	0.00	3.87	198.	0.160	12.35	0.00	1.83	93.	0.076	9.20	0.00	1.36	70.	0.056
385	5.75	5.75	28.10	0.00	4.16	212.	0.172	13.14	0.00	1.94	99.	0.080	9.73	0.00	1.44	74.	0.060
387	5.75	5.75	30.05	0.00	4.45	227.	0.184	13.69	0.00	2.03	103.	0.084	9.95	0.00	1.47	75.	0.061
388	5.75	5.75	30.74	0.00	4.55	232.	0.188	14.09	0.00	2.08	107.	0.086	10.29	0.00	1.52	78.	0.063
390	5.75	5.75	23.97	0.00	3.55	181.	0.147	10.40	0.00	1.54	79.	0.064	7.30	0.00	1.08	55.	0.045
391	5.75	5.75	11.88	0.00	1.76	90.	0.073	4.72	0.00	0.70	36.	0.029	3.09	0.00	0.46	23.	0.019
392	5.75	5.75	4.97	0.00	0.74	38.	0.030	1.70	0.00	0.25	13.	0.010	0.95	0.00	0.14	7.	0.006
393	5.75	5.75	1.47	0.00	0.22	11.	0.009	0.37	0.00	0.05	3.	0.002	0.12	0.00	0.02	1.	0.001
394	5.75	5.75	0.31	0.00	0.05	2.	0.002	0.05	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000
395	5.75	5.75	33.76	0.00	5.00	255.	0.206	15.50	0.00	2.29	117.	0.095	11.32	0.00	1.68	86.	0.069
396	5.75	5.75	23.55	0.00	3.48	178.	0.144	10.19	0.00	1.51	77.	0.062	7.13	0.00	1.06	54.	0.044
397	5.75	5.75	12.00	0.00	1.77	91.	0.073	4.75	0.00	0.70	36.	0.029	3.10	0.00	0.46	23.	0.019
398	5.75	5.75	5.05	0.00	0.75	38.	0.031	1.73	0.00	0.26	13.	0.011	0.97	0.00	0.14	7.	0.006
399	5.75	5.75	1.52	0.00	0.23	12.	0.009	0.39	0.00	0.06	3.	0.002	0.14	0.00	0.02	1.	0.001
400	5.75	5.75	0.30	0.00	0.04	2.	0.002	0.04	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000
402	5.75	5.75	22.97	0.00	3.40	174.	0.140	9.89	0.00	1.46	75.	0.060	6.90	0.00	1.02	52.	0.042
403	5.75	5.75	11.77	0.00	1.74	89.	0.072	4.63	0.00	0.68	35.	0.028	3.00	0.00	0.44	23.	0.018
404	5.75	5.75	4.92	0.00	0.73	37.	0.030	1.67	0.00	0.25	13.	0.010	0.93	0.00	0.14	7.	0.006
405	5.75	5.75	1.45	0.00	0.22	11.	0.009	0.36	0.00	0.05	3.	0.002	0.12	0.00	0.02	1.	0.001
406	5.75	5.75	0.24	0.00	0.04	2.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
407	5.75	5.75	27.51	0.00	4.07	208.	0.168	12.99	0.00	1.92	98.	0.079	9.69	0.00	1.43	73.	0.059
408	5.75	5.75	31.91	0.00	4.72	241.	0.195	14.73	0.00	2.18	111.	0.090	10.82	0.00	1.60	82.	0.066
409	5.75	5.75	30.54	0.00	4.52	231.	0.187	13.84	0.00	2.05	105.	0.085	10.02	0.00	1.48	76.	0.061
410	5.75	5.75	33.58	0.00	4.97	254.	0.205	15.43	0.00	2.28	117.	0.094	11.27	0.00	1.67	85.	0.069
411	5.75	5.75	31.05	0.00	4.59	235.	0.190	14.60	0.00	2.16	110.	0.089	10.85	0.00	1.61	82.	0.066
412	5.75	5.75	33.26	0.00	4.92	251.	0.203	15.16	0.00	2.24	115.	0.093	11.01	0.00	1.63	83.	0.067
414	5.75	5.75	24.80	0.00	3.67	188.	0.152	10.89	0.00	1.61	82.	0.067	7.71	0.00	1.14	58.	0.047
415	5.75	5.75	12.25	0.00	1.81	93.	0.075	4.89	0.00	0.72	37.	0.030	3.22	0.00	0.48	24.	0.020
416	5.75	5.75	4.96	0.00	0.73	37.	0.030	1.70	0.00	0.25	13.	0.010	0.96	0.00	0.14	7.	0.006
417	5.75	5.75	1.35	0.00	0.20	10.	0.008	0.31	0.00	0.05	2.	0.002	0.07	0.00	0.01	1.	0.000
418	5.75	5.75	0.14	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
419	5.75	5.75	36.12	0.00	5.34	273.	0.221	16.88	0.00	2.50	128.	0.103	12.48	0.00	1.85	94.	0.076
420	5.75	5.75	24.39	0.00	3.61	184.	0.149	10.66	0.00	1.58	81.	0.065	7.53	0.00	1.11	57.	0.046
421	5.75	5.75	12.07	0.00	1.79	91.	0.074	4.82	0.00	0.71	36.	0.029	3.17	0.00	0.47	24.	0.019
422	5.75	5.75	4.93	0.00	0.73	37.	0.030	1.69	0.00	0.25	13.	0.010	0.95	0.00	0.14	7.	0.006
423	5.75	5.75	1.38	0.00	0.20	10.	0.008	0.32	0.00	0.05	2.	0.002	0.09	0.00	0.01	1.	0.001
424	5.75	5.75	0.25	0.00	0.04	2.	0.002	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
426	5.75	5.75	23.94	0.00	3.54	181.	0.146	10.42	0.00	1.54	79.	0.064	7.33	0.00	1.08	55.	0.045
427	5.75	5.75	11.80	0.00	1.75	89.	0.072	4.70	0.00	0.69	36.	0.029	3.08	0.00	0.46	23.	0.019
428	5.75	5.75	4.90	0.00	0.72	37.	0.030	1.67	0.00	0.25	13.	0.010	0.94	0.00	0.14	7.	0.006
429	5.75	5.75	1.41	0.00	0.21	11.	0.009	0.34	0.00	0.05	3.	0.002	0.10	0.00	0.02	1.	0.001
430	5.75	5.75	0.28	0.00	0.04	2.	0.002	0.04	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000
431	5.75	5.75	33.45	0.00	4.95	253.	0.205	15.52	0.00	2.30	117.	0.095	11.41	0.00	1.69	86.	0.070
432	5.75	5.75	35.52	0.00	5.25	269.	0.217	16.31	0.00	2.41	123.	0.100	11.91	0.00	1.76	90.	0.073
433	5.75	5.75	32.35	0.00	4.79	245.	0.198	15.19	0.00	2.25	115.	0.093	11.28	0.00	1.67	85.	0.069
434	5.75	5.75	33.65	0.00													

509	5.75	5.75	37.57	0.00	5.56	284.	0.230	17.61	0.00	2.61	133.	0.108	13.05	0.00	1.93	99.	0.080
510	5.75	5.75	37.47	0.00	5.54	283.	0.229	17.57	0.00	2.60	133.	0.107	13.02	0.00	1.93	98.	0.080
516	5.75	5.75	33.88	0.00	5.01	256.	0.207	16.06	0.00	2.38	121.	0.098	11.99	0.00	1.77	91.	0.073
517	5.75	5.75	37.16	0.00	5.50	281.	0.227	17.46	0.00	2.58	132.	0.107	12.96	0.00	1.92	98.	0.079
518	5.75	5.75	34.14	0.00	5.05	258.	0.209	15.84	0.00	2.34	120.	0.097	11.65	0.00	1.72	88.	0.071
519	5.75	5.75	36.26	0.00	5.36	274.	0.222	17.00	0.00	2.52	129.	0.104	12.60	0.00	1.86	95.	0.077
522	5.75	5.75	34.47	0.00	5.10	261.	0.211	16.30	0.00	2.41	123.	0.100	12.15	0.00	1.80	92.	0.074
523	5.75	5.75	36.68	0.00	5.43	277.	0.224	17.28	0.00	2.56	131.	0.106	12.84	0.00	1.90	97.	0.079
524	5.75	5.75	34.60	0.00	5.12	262.	0.212	16.21	0.00	2.40	123.	0.099	12.00	0.00	1.78	91.	0.073
525	5.75	5.75	33.96	0.00	5.03	257.	0.208	16.11	0.00	2.38	122.	0.098	12.03	0.00	1.78	91.	0.074
531	5.75	5.75	37.86	0.00	5.60	286.	0.232	17.82	0.00	2.64	135.	0.109	13.24	0.00	1.96	100.	0.081
532	5.75	5.75	37.58	0.00	5.56	284.	0.230	17.73	0.00	2.62	134.	0.108	13.19	0.00	1.95	100.	0.081

ARMATURA INFERIORE VERTICALE

	COMBINAZIONE RARA								COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE					
GUSCI	Af	Afc	Mom	Nor	σc	σf	wkR		Mom	Nor	σc	σf	wkF		Mom	Nor	σc	σf	wkP
153	7.94	5.84	0.67	0.00	0.05	3.	0.002		0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000
154	7.94	5.84	1.47	0.00	0.11	6.	0.005		0.15	0.00	0.01	1.	0.001		0.00	0.00	0.00	0.	0.000
155	7.94	5.84	0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000
156	7.94	5.84	2.84	0.00	0.21	11.	0.011		0.98	0.00	0.07	4.	0.004		0.57	0.00	0.04	2.	0.002
157	7.94	5.84	2.84	0.00	0.21	11.	0.011		0.88	0.00	0.07	3.	0.003		0.45	0.00	0.03	2.	0.002
158	7.94	5.84	1.39	0.00	0.10	5.	0.005		0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000
159	7.94	5.84	2.81	0.00	0.21	11.	0.010		1.11	0.00	0.08	4.	0.004		0.80	0.00	0.06	3.	0.003
160	7.94	5.84	2.92	0.00	0.22	11.	0.011		1.17	0.00	0.09	5.	0.004		0.83	0.00	0.06	3.	0.003
161	7.94	5.84	2.34	0.00	0.17	9.	0.009		0.84	0.00	0.06	3.	0.003		0.54	0.00	0.04	2.	0.002
162	7.94	5.84	3.02	0.00	0.22	12.	0.011		1.40	0.00	0.10	5.	0.005		1.04	0.00	0.08	4.	0.004
163	7.94	5.84	3.01	0.00	0.22	12.	0.011		1.37	0.00	0.10	5.	0.005		1.00	0.00	0.07	4.	0.004
164	7.94	5.84	2.47	0.00	0.18	10.	0.009		1.03	0.00	0.08	4.	0.004		0.77	0.00	0.06	3.	0.003
165	7.94	5.84	2.76	0.00	0.20	11.	0.010		1.34	0.00	0.10	5.	0.005		1.03	0.00	0.08	4.	0.004
166	7.94	5.84	2.89	0.00	0.21	11.	0.011		1.38	0.00	0.10	5.	0.005		1.05	0.00	0.08	4.	0.004
167	7.94	5.84	2.56	0.00	0.19	10.	0.009		1.21	0.00	0.09	5.	0.004		0.92	0.00	0.07	4.	0.003
168	7.94	5.84	1.66	0.00	0.12	6.	0.006		0.85	0.00	0.06	3.	0.003		0.68	0.00	0.05	3.	0.003
169	7.94	5.84	1.60	0.00	0.12	6.	0.006		0.82	0.00	0.06	3.	0.003		0.66	0.00	0.05	3.	0.002
170	7.94	5.84	1.73	0.00	0.13	7.	0.006		0.88	0.00	0.06	3.	0.003		0.69	0.00	0.05	3.	0.003
174	7.94	5.84	0.83	0.00	0.06	3.	0.003		0.44	0.00	0.03	2.	0.002		0.36	0.00	0.03	1.	0.001
175	7.94	5.84	0.64	0.00	0.05	3.	0.002		0.36	0.00	0.03	1.	0.001		0.31	0.00	0.02	1.	0.001
176	7.94	5.84	0.79	0.00	0.06	3.	0.003		0.43	0.00	0.03	2.	0.002		0.37	0.00	0.03	1.	0.001
202	7.94	5.84	1.18	0.00	0.09	5.	0.004		0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000
203	7.94	5.84	0.66	0.00	0.05	3.	0.002		0.36	0.00	0.03	1.	0.001		0.36	0.00	0.03	1.	0.001
204	7.94	5.84	1.76	0.00	0.13	7.	0.007		0.42	0.00	0.03	2.	0.002		0.17	0.00	0.01	1.	0.001
205	7.94	5.84	1.43	0.00	0.11	6.	0.005		1.02	0.00	0.08	4.	0.004		0.92	0.00	0.07	4.	0.003
206	7.94	5.84	0.18	0.00	0.01	1.	0.001		0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000
207	7.94	5.84	0.42	0.00	0.03	2.	0.002		0.24	0.00	0.02	1.	0.001		0.29	0.00	0.02	1.	0.001
208	7.94	5.84	3.53	0.00	0.26	14.	0.013		1.27	0.00	0.09	5.	0.005		0.76	0.00	0.06	3.	0.003
209	7.94	5.84	4.53	0.00	0.34	18.	0.017		1.76	0.00	0.13	7.	0.007		1.13	0.00	0.08	4.	0.004
210	7.94	5.84	3.93	0.00	0.29	15.	0.015		1.38	0.00	0.10	5.	0.005		0.80	0.00	0.06	3.	0.003
211	7.94	5.84	3.72	0.00	0.28	15.	0.014		1.31	0.00	0.10	5.	0.005		0.77	0.00	0.06	3.	0.003
212	7.94	5.84	1.56	0.00	0.12	6.	0.006		0.09	0.00	0.01	0.	0.000		0.00	0.00	0.00	0.	0.000
213	7.94	5.84	1.42	0.00	0.11	6.	0.005		0.12	0.00	0.01	0.	0.000		0.16	0.00	0.01	1.	0.001
214	7.94	5.84	3.69	0.00	0.27	14.	0.014		1.50	0.00	0.11	6.	0.006		1.06	0.00	0.08	4.	0.004
215	7.94	5.84	5.21	0.00	0.39	20.	0.019		2.18	0.00	0.16	9.	0.008		1.54	0.00	0.11	6.	0.006
216	7.94	5.84	4.23	0.00	0.31	17.	0.016		1.75	0.00	0.13	7.	0.006		1.22	0.00	0.09	5.	0.005
217	7.94	5.84	4.23	0.00	0.31	17.	0.016		1.75	0.00	0.13	7.	0.006		1.21	0.00	0.09	5.	0.005
218	7.94	5.84	2.78	0.00	0.21	11.	0.010		1.01	0.00	0.08	4.	0.004		0.65	0.00	0.05	3.	0.002
219	7.94	5.84	2.89	0.00	0.21	11.	0.011		1.09	0.00	0.08	4.	0.004		0.71	0.00	0.05	3.	0.003
220	7.94	5.84	4.08	0.00	0.30	16.	0.015		1.90	0.00	0.14	7.	0.007		1.40	0.00	0.10	5.	0.005
221	7.94	5.84	4.76	0.00	0.35	19.	0.018		2.20	0.00	0.16	9.	0.008		1.63	0.00	0.12	6.	0.006
222	7.94	5.84	3.94	0.00	0.29	15.	0.015		1.79	0.00	0.13	7.	0.007		1.31	0.00	0.10	5.	0.005
223	7.94	5.84	4.12	0.00	0.31	16.	0.015		1.85	0.00	0.14	7.	0.007		1.35	0.00	0.10	5.	0.005
224	7.94	5.84	2.96	0.00	0.22	12.	0.011		1.27	0.00	0.09	5.	0.005		0.93	0.00	0.07	4.	0.003
225	7.94	5.84	2.98	0.00	0.22	12.	0.011		1.27	0.00	0.09	5.	0.005		0.94	0.00	0.07	4.	0.003
226	7.94	5.84	4.24	0.00	0.31	17.	0.016		2.04	0.00	0.15	8.	0.008		1.54	0.00	0.11	6.	0.006
227	7.94	5.84	5.59	0.00	0.41	22.	0.021		2.65	0.00	0.20	10.	0.010		1.99	0.00	0.15	8.	0.007
228	7.94	5.84	4.00	0.00	0.30	16.	0.015		1.91	0.00	0.14	7.	0.007		1.44	0.00	0.11	6.	0.005
229	7.94	5.84	3.98	0.00	0.29	16.	0.015		1.88	0.00	0.14	7.	0.007		1.41	0.00	0.10	5.	0.005
230	7.94	5.84	2.83	0.00	0.21	11.	0.010		1.36	0.00	0.10	5.	0.005		1.03	0.00	0.08	4.	0.004
231	7.94	5.84	2.75	0.00	0.20	11.	0.010		1.30	0.00	0.10	5.	0.005		0.98	0.00	0.07	4.	0.004
232	7.94	5.84	3.48	0.00	0.26	14.	0.013		1.73	0.00	0.13	7.	0.006		1.34	0.00	0.10	5.	0.005
233	7.94	5.84	5.19	0.00	0.38	20.	0.019		2.51	0.00	0.19	10.	0.009		1.90	0.00	0.14	7.	0.007
234	7.94	5.84	2.78	0.00	0.21	11.	0.010		1.40	0.00	0.10	5.	0.005		1.09	0.00	0.08	4.	0.004
235	7.94	5.84	3.25	0.00	0.24	13.	0.012		1.59	0.00	0.12	6.	0.006		1.22	0.00	0.09	5.	0.005
236	7.94	5.84	2.25	0.00	0.17	9.	0.008		1.14	0.00	0.08	4.	0.004		0.90	0.00	0.07	3.	0.003
237	7.94	5.84	3.66	0.00	0.27	14.	0.014		1.76	0.00	0.13	7.	0.007		1.34	0.00	0.10	5.	0.005
238	7.94	5.84	3.08	0.00	0.23	12.	0.011		1.51	0.00	0.11	6.	0.006		1.16	0.00	0.09	5.	0.004
239	7.94	5.84	5.57	0.00	0.41	22.	0.021		2.66	0.00	0.20	10.	0.010		2.00	0.00	0.15	8.	0.007
240	7.94	5.84	2.00	0.00	0.15	8.	0.007		1.01	0.00	0.07	4.	0.004		0.80	0.00	0.06	3.	0.003
241	7.94	5.84	2.90	0.00	0.21	11.	0.011		1.41	0.00	0.10	6.	0.005		1.09	0.00	0.08	4.	0.004
242	7.94	5.84	1.77	0.00	0.13	7.	0.007		0.91	0.00	0.07	4.	0.003		0.73	0.00	0.05	3.	0.003
243	7.94	5.84	3.38	0.00	0.25	13.	0.013		1.65	0.00	0.12	6.	0.006		1.26	0.00	0.09	5.	0.005
287	7.94	5.84	2.66	0.00	0.20	10.	0.010		1.67	0.00	0.12	7.	0.006		1.44	0.00	0.11	6.	0.005
289	7.94	5.84	2.20	0.00	0.28	12.	0.008		1.12	0.00	0.14	6.	0.004		0.87	0.00	0.11	5.	0.003
290	7.94	5.84	0.77	0.00	0.10	4.	0.003		0.30	0.00	0.04	2.	0.001		0.19	0.00	0.02	1.	0.001
291	7.94	5.84	0.36	0.00	0.05	2.	0.001		0.18	0.00	0.02	1.	0.001		0.14	0.00	0.02	1.	0.001
292	7.94	5.84	0.18	0.00	0.02	1.	0.001		0.08	0.00	0.01	0.	0.000		0.06	0.00	0.01	0.	0.000
293	7.94	5.84	0.01	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000		0.00	0.00	0.00	0.	0.000
294	7.94	5.84	1.26	0.00	0.16	7.	0.005		0.82	0.00	0.11	5.	0.003		0.72	0.00	0.09	4.	0.003
295	7.94	5.84	1.91	0.00	0.25	11.	0.007		1.16	0.00	0.15	6.	0.004		1.00	0.00	0.13	6.	0.004
296	7.94	5.84	0.97	0.00															

304	7.94	5.84	1.31	0.00	0.17	7.	0.005	0.88	0.00	0.11	5.	0.003	0.78	0.00	0.10	4.	0.003
305	7.94	5.84	1.63	0.00	0.21	9.	0.006	0.93	0.00	0.12	5.	0.004	0.78	0.00	0.10	4.	0.003
306	7.94	5.84	0.51	0.00	0.07	3.	0.002	0.43	0.00	0.06	2.	0.002	0.42	0.00	0.05	2.	0.002
307	7.94	5.84	1.58	0.00	0.20	9.	0.006	1.01	0.00	0.13	6.	0.004	0.88	0.00	0.11	5.	0.003
309	7.94	5.84	3.34	0.00	0.43	19.	0.013	1.36	0.00	0.18	8.	0.005	0.94	0.00	0.12	5.	0.004
310	7.94	5.84	2.12	0.00	0.27	12.	0.008	0.74	0.00	0.10	4.	0.003	0.42	0.00	0.05	2.	0.002
311	7.94	5.84	0.79	0.00	0.10	4.	0.003	0.11	0.00	0.01	1.	0.000	0.00	0.00	0.00	0.	0.000
312	7.94	5.84	0.12	0.00	0.02	1.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
313	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
315	7.94	5.84	1.56	0.00	0.20	9.	0.006	0.59	0.00	0.08	3.	0.002	0.37	0.00	0.05	2.	0.001
316	7.94	5.84	1.48	0.00	0.19	8.	0.006	0.43	0.00	0.06	2.	0.002	0.19	0.00	0.02	1.	0.001
317	7.94	5.84	0.23	0.00	0.03	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
318	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
319	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
320	7.94	5.84	0.79	0.00	0.10	4.	0.003	0.33	0.00	0.04	2.	0.001	0.32	0.00	0.04	2.	0.001
321	7.94	5.84	0.54	0.00	0.07	3.	0.002	0.15	0.00	0.02	1.	0.001	0.07	0.00	0.01	0.	0.000
322	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
323	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
324	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
325	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
326	7.94	5.84	4.35	0.00	0.56	24.	0.017	1.63	0.00	0.21	9.	0.006	1.00	0.00	0.13	6.	0.004
327	7.94	5.84	1.80	0.00	0.23	10.	0.007	0.47	0.00	0.06	3.	0.002	0.17	0.00	0.02	1.	0.001
328	7.94	5.84	3.03	0.00	0.39	17.	0.012	1.09	0.00	0.14	6.	0.004	0.65	0.00	0.08	4.	0.002
331	7.94	5.84	3.70	0.00	0.48	21.	0.014	1.45	0.00	0.19	8.	0.006	0.93	0.00	0.12	5.	0.004
332	7.94	5.84	4.30	0.00	0.55	24.	0.016	1.72	0.00	0.22	10.	0.007	1.14	0.00	0.15	6.	0.004
333	7.94	5.84	4.74	0.00	0.61	26.	0.018	1.98	0.00	0.26	11.	0.008	1.35	0.00	0.17	8.	0.005
334	7.94	5.84	4.06	0.00	0.52	23.	0.016	1.59	0.00	0.20	9.	0.006	1.02	0.00	0.13	6.	0.004
335	7.94	5.84	4.95	0.00	0.64	27.	0.019	1.97	0.00	0.25	11.	0.008	1.29	0.00	0.17	7.	0.005
337	7.94	5.84	4.68	0.00	0.60	26.	0.018	1.97	0.00	0.25	11.	0.008	1.34	0.00	0.17	7.	0.005
338	7.94	5.84	2.27	0.00	0.29	13.	0.009	0.87	0.00	0.11	5.	0.003	0.54	0.00	0.07	3.	0.002
339	7.94	5.84	0.74	0.00	0.10	4.	0.003	0.16	0.00	0.02	1.	0.001	0.03	0.00	0.00	0.	0.000
340	7.94	5.84	0.14	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
341	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
343	7.94	5.84	1.84	0.00	0.24	10.	0.007	0.70	0.00	0.09	4.	0.003	0.44	0.00	0.06	2.	0.002
344	7.94	5.84	1.63	0.00	0.21	9.	0.006	0.52	0.00	0.07	3.	0.002	0.27	0.00	0.03	1.	0.001
345	7.94	5.84	0.53	0.00	0.07	3.	0.002	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
346	7.94	5.84	0.08	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
347	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
348	7.94	5.84	2.90	0.00	0.37	16.	0.011	1.12	0.00	0.14	6.	0.004	0.72	0.00	0.09	4.	0.003
349	7.94	5.84	1.97	0.00	0.25	11.	0.008	0.76	0.00	0.10	4.	0.003	0.48	0.00	0.06	3.	0.002
350	7.94	5.84	0.91	0.00	0.12	5.	0.003	0.28	0.00	0.04	2.	0.001	0.13	0.00	0.02	1.	0.001
351	7.94	5.84	0.23	0.00	0.03	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
352	7.94	5.84	0.01	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
353	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
354	7.94	5.84	3.22	0.00	0.41	18.	0.012	1.27	0.00	0.16	7.	0.005	0.84	0.00	0.11	5.	0.003
355	7.94	5.84	3.85	0.00	0.50	21.	0.015	1.57	0.00	0.20	9.	0.006	1.05	0.00	0.14	6.	0.004
356	7.94	5.84	5.09	0.00	0.66	28.	0.020	2.12	0.00	0.27	12.	0.008	1.45	0.00	0.19	8.	0.006
357	7.94	5.84	5.75	0.00	0.74	32.	0.022	2.46	0.00	0.32	14.	0.009	1.71	0.00	0.22	9.	0.007
358	7.94	5.84	6.06	0.00	0.78	34.	0.023	2.58	0.00	0.33	14.	0.010	1.79	0.00	0.23	10.	0.007
359	7.94	5.84	5.33	0.00	0.69	30.	0.020	2.26	0.00	0.29	13.	0.009	1.56	0.00	0.20	9.	0.006
360	7.94	5.84	5.63	0.00	0.73	31.	0.022	2.38	0.00	0.31	13.	0.009	1.64	0.00	0.21	9.	0.006
361	7.94	5.84	4.36	0.00	0.56	24.	0.017	1.86	0.00	0.24	10.	0.007	1.28	0.00	0.17	7.	0.005
363	7.94	5.84	1.95	0.00	0.25	11.	0.007	0.82	0.00	0.11	5.	0.003	0.56	0.00	0.07	3.	0.002
364	7.94	5.84	0.45	0.00	0.06	3.	0.002	0.11	0.00	0.01	1.	0.000	0.04	0.00	0.00	0.	0.000
365	7.94	5.84	0.44	0.00	0.06	2.	0.002	0.11	0.00	0.01	1.	0.000	0.04	0.00	0.01	0.	0.000
366	7.94	5.84	0.20	0.00	0.03	1.	0.001	0.01	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
367	7.94	5.84	0.06	0.00	0.01	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
368	7.94	5.84	3.17	0.00	0.41	18.	0.012	1.36	0.00	0.18	8.	0.005	0.96	0.00	0.12	5.	0.004
369	7.94	5.84	2.25	0.00	0.29	12.	0.009	0.91	0.00	0.12	5.	0.003	0.61	0.00	0.08	3.	0.002
370	7.94	5.84	1.17	0.00	0.15	6.	0.004	0.39	0.00	0.05	2.	0.002	0.22	0.00	0.03	1.	0.001
371	7.94	5.84	0.25	0.00	0.03	1.	0.001	0.01	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
372	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
373	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
375	7.94	5.84	4.21	0.00	0.54	23.	0.016	1.85	0.00	0.24	10.	0.007	1.31	0.00	0.17	7.	0.005
376	7.94	5.84	2.80	0.00	0.36	16.	0.011	1.19	0.00	0.15	7.	0.005	0.82	0.00	0.11	5.	0.003
377	7.94	5.84	0.55	0.00	0.07	3.	0.002	0.19	0.00	0.02	1.	0.001	0.11	0.00	0.01	1.	0.000
378	7.94	5.84	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
379	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
380	7.94	5.84	4.08	0.00	0.53	23.	0.016	1.82	0.00	0.23	10.	0.007	1.31	0.00	0.17	7.	0.005
381	7.94	5.84	2.56	0.00	0.33	14.	0.010	1.13	0.00	0.15	6.	0.004	0.81	0.00	0.10	4.	0.003
382	7.94	5.84	8.52	0.00	1.10	47.	0.033	3.98	0.00	0.51	22.	0.015	2.95	0.00	0.38	16.	0.011
383	7.94	5.84	1.25	0.00	0.16	7.	0.005	0.66	0.00	0.08	4.	0.003	0.53	0.00	0.07	3.	0.002
384	7.94	5.84	4.98	0.00	0.64	28.	0.019	2.30	0.00	0.30	13.	0.009	1.69	0.00	0.22	9.	0.006
385	7.94	5.84	5.04	0.00	0.65	28.	0.019	2.31	0.00	0.30	13.	0.009	1.69	0.00	0.22	9.	0.006
387	7.94	5.84	4.44	0.00	0.57	25.	0.017	2.02	0.00	0.26	11.	0.008	1.46	0.00	0.19	8.	0.006
388	7.94	5.84	4.42	0.00	0.57	25.	0.017	2.02	0.00	0.26	11.	0.008	1.47	0.00	0.19	8.	0.006
390	7.94	5.84	5.50	0.00	0.71	31.	0.021	2.39	0.00	0.31	13.	0.009	1.66	0.00	0.21		

410	7.94	5.84	5.55	0.00	0.71	31.	0.021	2.58	0.00	0.33	14.	0.010	1.90	0.00	0.25	11.	0.007
411	7.94	5.84	6.45	0.00	0.83	36.	0.025	3.03	0.00	0.39	17.	0.012	2.24	0.00	0.29	12.	0.009
412	7.94	5.84	5.87	0.00	0.76	33.	0.023	2.70	0.00	0.35	15.	0.010	1.97	0.00	0.25	11.	0.008
414	7.94	5.84	4.57	0.00	0.59	25.	0.018	2.09	0.00	0.27	12.	0.008	1.52	0.00	0.20	8.	0.006
415	7.94	5.84	2.99	0.00	0.38	17.	0.011	1.32	0.00	0.17	7.	0.005	0.94	0.00	0.12	5.	0.004
416	7.94	5.84	1.21	0.00	0.16	7.	0.005	0.50	0.00	0.06	3.	0.002	0.34	0.00	0.04	2.	0.001
417	7.94	5.84	0.29	0.00	0.04	2.	0.001	0.10	0.00	0.01	1.	0.000	0.06	0.00	0.01	0.	0.000
418	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
419	7.94	5.84	3.56	0.00	0.46	20.	0.014	1.69	0.00	0.22	9.	0.006	1.27	0.00	0.16	7.	0.005
420	7.94	5.84	2.25	0.00	0.29	12.	0.009	0.98	0.00	0.13	5.	0.004	0.70	0.00	0.09	4.	0.003
421	7.94	5.84	1.36	0.00	0.17	8.	0.005	0.55	0.00	0.07	3.	0.002	0.37	0.00	0.05	2.	0.001
422	7.94	5.84	0.76	0.00	0.10	4.	0.003	0.29	0.00	0.04	2.	0.001	0.18	0.00	0.02	1.	0.001
423	7.94	5.84	0.31	0.00	0.04	2.	0.001	0.11	0.00	0.01	1.	0.000	0.07	0.00	0.01	0.	0.000
424	7.94	5.84	0.12	0.00	0.02	1.	0.000	0.04	0.00	0.00	0.	0.000	0.02	0.00	0.00	0.	0.000
426	7.94	5.84	4.39	0.00	0.56	24.	0.017	1.95	0.00	0.25	11.	0.007	1.39	0.00	0.18	8.	0.005
427	7.94	5.84	3.73	0.00	0.48	21.	0.014	1.58	0.00	0.20	9.	0.006	1.09	0.00	0.14	6.	0.004
428	7.94	5.84	1.14	0.00	0.15	6.	0.004	0.41	0.00	0.05	2.	0.002	0.24	0.00	0.03	1.	0.001
429	7.94	5.84	0.47	0.00	0.06	3.	0.002	0.17	0.00	0.02	1.	0.001	0.11	0.00	0.01	1.	0.000
430	7.94	5.84	0.27	0.00	0.04	2.	0.001	0.10	0.00	0.01	1.	0.000	0.07	0.00	0.01	0.	0.000
431	7.94	5.84	5.32	0.00	0.68	30.	0.020	2.57	0.00	0.33	14.	0.010	1.94	0.00	0.25	11.	0.007
432	7.94	5.84	5.55	0.00	0.71	31.	0.021	2.38	0.00	0.31	13.	0.009	1.79	0.00	0.23	10.	0.007
433	7.94	5.84	5.17	0.00	0.67	29.	0.020	2.43	0.00	0.31	14.	0.009	1.81	0.00	0.23	10.	0.007
434	7.94	5.84	5.21	0.00	0.67	29.	0.020	2.40	0.00	0.31	13.	0.009	1.75	0.00	0.23	10.	0.007
435	7.94	5.84	2.96	0.00	0.38	16.	0.011	1.40	0.00	0.18	8.	0.005	1.05	0.00	0.14	6.	0.004
436	7.94	5.84	3.79	0.00	0.49	21.	0.015	1.74	0.00	0.22	10.	0.007	1.28	0.00	0.16	7.	0.005
437	7.94	5.84	1.93	0.00	0.25	11.	0.007	0.84	0.00	0.11	5.	0.003	0.59	0.00	0.08	3.	0.002
438	7.94	5.84	0.58	0.00	0.08	3.	0.002	0.19	0.00	0.02	1.	0.001	0.11	0.00	0.01	1.	0.000
439	7.94	5.84	0.23	0.00	0.03	1.	0.001	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
440	7.94	5.84	0.04	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
441	7.94	5.84	2.27	0.00	0.29	13.	0.009	1.01	0.00	0.13	6.	0.004	0.73	0.00	0.09	4.	0.003
442	7.94	5.84	0.79	0.00	0.10	4.	0.003	0.28	0.00	0.04	2.	0.001	0.16	0.00	0.02	1.	0.001
443	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
444	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
445	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
446	7.94	5.84	4.60	0.00	0.59	26.	0.018	2.11	0.00	0.27	12.	0.008	1.54	0.00	0.20	9.	0.006
447	7.94	5.84	3.32	0.00	0.43	18.	0.013	1.45	0.00	0.19	8.	0.006	1.03	0.00	0.13	6.	0.004
448	7.94	5.84	0.88	0.00	0.11	5.	0.003	0.33	0.00	0.04	2.	0.001	0.19	0.00	0.02	1.	0.001
449	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
450	7.94	5.84	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
502	7.94	5.84	4.27	0.00	0.55	24.	0.016	2.05	0.00	0.26	11.	0.008	1.55	0.00	0.20	9.	0.006
507	7.94	5.84	6.38	0.00	0.82	35.	0.024	3.05	0.00	0.39	17.	0.012	2.29	0.00	0.30	13.	0.009
508	7.94	5.84	5.90	0.00	0.76	33.	0.023	2.77	0.00	0.36	15.	0.011	2.06	0.00	0.26	11.	0.008
509	7.94	5.84	5.03	0.00	0.65	28.	0.019	2.43	0.00	0.31	13.	0.009	1.83	0.00	0.24	10.	0.007
510	7.94	5.84	5.28	0.00	0.68	29.	0.020	2.55	0.00	0.33	14.	0.010	1.92	0.00	0.25	11.	0.007
516	7.94	5.84	4.99	0.00	0.64	28.	0.019	2.39	0.00	0.31	13.	0.009	1.80	0.00	0.23	10.	0.007
517	7.94	5.84	2.81	0.00	0.36	16.	0.011	1.38	0.00	0.18	8.	0.005	1.06	0.00	0.14	6.	0.004
518	7.94	5.84	5.20	0.00	0.67	29.	0.020	2.45	0.00	0.32	14.	0.009	1.82	0.00	0.23	10.	0.007
519	7.94	5.84	2.68	0.00	0.34	15.	0.010	1.28	0.00	0.17	7.	0.005	0.98	0.00	0.13	5.	0.004
522	7.94	5.84	3.40	0.00	0.44	19.	0.013	1.62	0.00	0.21	9.	0.006	1.23	0.00	0.16	7.	0.005
523	7.94	5.84	4.36	0.00	0.56	24.	0.017	2.09	0.00	0.27	12.	0.008	1.57	0.00	0.20	9.	0.006
524	7.94	5.84	5.65	0.00	0.73	31.	0.022	2.66	0.00	0.34	15.	0.010	1.98	0.00	0.25	11.	0.008
525	7.94	5.84	7.43	0.00	0.96	41.	0.029	3.53	0.00	0.45	20.	0.014	2.64	0.00	0.34	15.	0.010
531	7.94	5.84	4.90	0.00	0.63	27.	0.019	2.59	0.00	0.33	14.	0.010	2.08	0.00	0.27	12.	0.008
532	7.94	5.84	5.92	0.00	0.76	33.	0.023	2.96	0.00	0.38	16.	0.011	2.30	0.00	0.30	13.	0.009

ARMATURA SUPERIORE ORIZZONTALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σC	σf	wkR	Mom	Nor	σC	σf	wkF	Mom	Nor	σC	σf	wkP
153	5.75	5.75	1.75	0.00	0.15	9.	0.010	0.57	0.00	0.05	3.	0.003	0.35	0.00	0.03	2.	0.002
154	5.75	5.75	1.26	0.00	0.11	7.	0.007	0.41	0.00	0.03	2.	0.002	0.27	0.00	0.02	1.	0.002
155	5.75	5.75	2.11	0.00	0.18	11.	0.013	0.67	0.00	0.06	4.	0.004	0.38	0.00	0.03	2.	0.002
156	5.75	5.75	2.99	0.00	0.25	16.	0.018	0.97	0.00	0.08	5.	0.006	0.53	0.00	0.04	3.	0.003
157	5.75	5.75	2.96	0.00	0.25	16.	0.018	0.93	0.00	0.08	5.	0.006	0.50	0.00	0.04	3.	0.003
158	5.75	5.75	2.75	0.00	0.23	15.	0.016	0.88	0.00	0.07	5.	0.005	0.48	0.00	0.04	3.	0.003
159	5.75	5.75	3.36	0.00	0.29	18.	0.020	1.29	0.00	0.11	7.	0.008	0.83	0.00	0.07	4.	0.005
160	5.75	5.75	3.25	0.00	0.28	17.	0.019	1.19	0.00	0.10	6.	0.007	0.73	0.00	0.06	4.	0.004
161	5.75	5.75	3.13	0.00	0.27	17.	0.019	1.08	0.00	0.09	6.	0.006	0.63	0.00	0.05	3.	0.004
162	5.75	5.75	3.77	0.00	0.32	20.	0.022	1.60	0.00	0.14	9.	0.010	1.12	0.00	0.10	6.	0.007
163	5.75	5.75	3.62	0.00	0.31	19.	0.021	1.50	0.00	0.13	8.	0.009	1.02	0.00	0.09	5.	0.006
164	5.75	5.75	3.49	0.00	0.30	19.	0.021	1.40	0.00	0.12	7.	0.008	0.93	0.00	0.08	5.	0.006
165	5.75	5.75	3.94	0.00	0.34	21.	0.023	1.76	0.00	0.15	9.	0.010	1.27	0.00	0.11	7.	0.008
166	5.75	5.75	3.99	0.00	0.34	21.	0.024	1.76	0.00	0.15	9.	0.010	1.26	0.00	0.11	7.	0.007
167	5.75	5.75	3.92	0.00	0.33	21.	0.023	1.70	0.00	0.15	9.	0.010	1.21	0.00	0.10	6.	0.007
168	5.75	5.75	3.15	0.00	0.27	17.	0.019	1.44	0.00	0.12	8.	0.009	1.06	0.00	0.09	6.	0.006
169	5.75	5.75	3.49	0.00	0.30	19.	0.021	1.59	0.00	0.14	8.	0.009	1.16	0.00	0.10	6.	0.007
170	5.75	5.75	3.77	0.00	0.32	20.	0.022	1.70	0.00	0.14	9.	0.010	1.23	0.00	0.11	7.	0.007
174	5.75	5.75	2.39	0.00	0.20	13.	0.014	1.10	0.00	0.09	6.	0.007	0.81	0.00	0.07	4.	0.005
175	5.75	5.75	2.55	0.00	0.22	14.	0.015	1.17	0.00	0.10	6.	0.007	0.87	0.00	0.07	5.	0.005
176	5.75	5.75	2.82	0.00	0.24	15.	0.017	1.29	0.00	0.11	7.	0.008	0.96	0.00	0.08	5.	0.006
202	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
203	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
204	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
205	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
206	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
207	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
208	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
209	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
210	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
211	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
212	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
213	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
214	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
215	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
216	5.75	5.75	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000

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532 | 5.75 5.75 | 0.00 0.00 0.00 0. 0.000 | 0.00 0.00 0.00 0. 0.000 | 0.00 0.00 0.00 0. 0.000 |

ARMATURA SUPERIORE VERTICALE

GUSCI	COMBINAZIONE RARA							COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
	Af	Afc	Mom	Nor	σc	σf	wkR	Mom	Nor	σc	σf	wkF	Mom	Nor	σc	σf	wkP
153	5.84	7.94	2.17	0.00	0.18	11.	0.013	1.14	0.00	0.10	6.	0.007	1.00	0.00	0.08	5.	0.006
154	5.84	7.94	0.32	0.00	0.03	2.	0.002	0.20	0.00	0.02	1.	0.001	0.18	0.00	0.02	1.	0.001
155	5.84	7.94	2.81	0.00	0.24	15.	0.016	1.39	0.00	0.12	7.	0.008	1.19	0.00	0.10	6.	0.007
156	5.84	7.94	1.06	0.00	0.09	6.	0.006	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
157	5.84	7.94	1.56	0.00	0.13	8.	0.009	0.21	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000
158	5.84	7.94	1.67	0.00	0.14	9.	0.010	0.55	0.00	0.05	3.	0.003	0.40	0.00	0.03	2.	0.002
159	5.84	7.94	1.76	0.00	0.15	9.	0.010	0.30	0.00	0.03	2.	0.002	0.13	0.00	0.01	1.	0.001
160	5.84	7.94	2.11	0.00	0.18	11.	0.012	0.48	0.00	0.04	3.	0.003	0.22	0.00	0.02	1.	0.001
161	5.84	7.94	1.24	0.00	0.10	7.	0.007	0.16	0.00	0.01	1.	0.001	0.02	0.00	0.00	0.	0.000
162	5.84	7.94	2.23	0.00	0.19	12.	0.013	0.98	0.00	0.08	5.	0.006	0.68	0.00	0.06	4.	0.004
163	5.84	7.94	2.55	0.00	0.21	13.	0.015	1.10	0.00	0.09	6.	0.006	0.67	0.00	0.06	4.	0.004
164	5.84	7.94	2.22	0.00	0.19	12.	0.013	0.60	0.00	0.05	3.	0.003	0.38	0.00	0.03	2.	0.002
165	5.84	7.94	2.05	0.00	0.17	11.	0.012	0.97	0.00	0.08	5.	0.006	0.71	0.00	0.06	4.	0.004
166	5.84	7.94	2.73	0.00	0.23	14.	0.016	1.27	0.00	0.11	7.	0.007	0.92	0.00	0.08	5.	0.005
167	5.84	7.94	2.46	0.00	0.21	13.	0.014	1.12	0.00	0.09	6.	0.006	0.78	0.00	0.06	4.	0.004
168	5.84	7.94	1.02	0.00	0.09	5.	0.006	0.54	0.00	0.05	3.	0.003	0.36	0.00	0.03	2.	0.002
169	5.84	7.94	1.79	0.00	0.15	9.	0.010	0.88	0.00	0.07	5.	0.005	0.59	0.00	0.05	3.	0.003
170	5.84	7.94	1.65	0.00	0.14	9.	0.010	0.79	0.00	0.07	4.	0.005	0.50	0.00	0.04	3.	0.003
174	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.03	0.00	0.00	0.	0.000	0.01	0.00	0.00	0.	0.000
175	5.84	7.94	0.59	0.00	0.05	3.	0.003	0.32	0.00	0.03	2.	0.002	0.22	0.00	0.02	1.	0.001
176	5.84	7.94	0.31	0.00	0.03	2.	0.002	0.18	0.00	0.02	1.	0.001	0.12	0.00	0.01	1.	0.001
202	5.84	7.94	0.79	0.00	0.07	4.	0.005	0.54	0.00	0.05	3.	0.003	0.53	0.00	0.04	3.	0.003
203	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
204	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
205	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
206	5.84	7.94	1.15	0.00	0.10	6.	0.007	0.77	0.00	0.06	4.	0.004	0.74	0.00	0.06	4.	0.004
207	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.08	0.00	0.01	0.	0.000	0.17	0.00	0.01	1.	0.001
208	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
209	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
210	5.84	7.94	0.21	0.00	0.02	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
211	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
212	5.84	7.94	0.48	0.00	0.04	3.	0.003	0.23	0.00	0.02	1.	0.001	0.22	0.00	0.02	1.	0.001
213	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.01	0.00	0.00	0.	0.000
214	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
215	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
216	5.84	7.94	0.17	0.00	0.01	1.	0.001	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
217	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
218	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
219	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
220	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
221	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
222	5.84	7.94	0.27	0.00	0.02	1.	0.002	0.03	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
223	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
224	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
225	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
226	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
227	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
228	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
229	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
230	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
231	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
232	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
233	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
234	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
235	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
236	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
237	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
238	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
239	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
240	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
241	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.				

317	5.84	7.94	0.64	0.00	0.09	5.	0.004	0.49	0.00	0.07	4.	0.003	0.46	0.00	0.07	3.	0.003
318	5.84	7.94	0.93	0.00	0.14	7.	0.006	0.58	0.00	0.08	4.	0.003	0.50	0.00	0.07	4.	0.003
319	5.84	7.94	1.10	0.00	0.16	8.	0.007	0.64	0.00	0.09	5.	0.004	0.51	0.00	0.07	4.	0.003
320	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
321	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.08	0.00	0.01	1.	0.000	0.13	0.00	0.02	1.	0.001
322	5.84	7.94	0.70	0.00	0.10	5.	0.004	0.52	0.00	0.08	4.	0.003	0.48	0.00	0.07	4.	0.003
323	5.84	7.94	1.07	0.00	0.16	8.	0.006	0.68	0.00	0.10	5.	0.004	0.60	0.00	0.09	4.	0.004
324	5.84	7.94	1.05	0.00	0.15	8.	0.006	0.64	0.00	0.09	5.	0.004	0.58	0.00	0.08	4.	0.003
325	5.84	7.94	1.02	0.00	0.15	8.	0.006	0.62	0.00	0.09	5.	0.004	0.60	0.00	0.09	4.	0.004
326	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
327	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
328	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
331	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
332	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
333	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
334	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
335	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
337	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
338	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
339	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.02	0.00	0.00	0.	0.000
340	5.84	7.94	0.26	0.00	0.04	2.	0.002	0.23	0.00	0.03	2.	0.001	0.22	0.00	0.03	2.	0.001
341	5.84	7.94	0.67	0.00	0.10	5.	0.004	0.39	0.00	0.06	3.	0.002	0.31	0.00	0.04	2.	0.002
343	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
344	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
345	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.15	0.00	0.02	1.	0.001	0.19	0.00	0.03	1.	0.001
346	5.84	7.94	0.43	0.00	0.06	3.	0.003	0.31	0.00	0.05	2.	0.002	0.29	0.00	0.04	2.	0.002
347	5.84	7.94	0.78	0.00	0.11	6.	0.005	0.44	0.00	0.06	3.	0.003	0.34	0.00	0.05	3.	0.002
348	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
349	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
350	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
351	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.11	0.00	0.02	1.	0.001	0.17	0.00	0.02	1.	0.001
352	5.84	7.94	0.37	0.00	0.05	3.	0.002	0.29	0.00	0.04	2.	0.002	0.27	0.00	0.04	2.	0.002
353	5.84	7.94	0.75	0.00	0.11	6.	0.004	0.43	0.00	0.06	3.	0.003	0.33	0.00	0.05	2.	0.002
354	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
355	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
356	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
357	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
358	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
359	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
360	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
361	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
363	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
364	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
365	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.06	0.00	0.01	0.	0.000	0.08	0.00	0.01	1.	0.000
366	5.84	7.94	0.22	0.00	0.03	2.	0.001	0.17	0.00	0.02	1.	0.001	0.17	0.00	0.03	1.	0.001
367	5.84	7.94	0.44	0.00	0.06	3.	0.003	0.26	0.00	0.04	2.	0.002	0.21	0.00	0.03	2.	0.001
368	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
369	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
370	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
371	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.03	0.00	0.00	0.	0.000	0.07	0.00	0.01	1.	0.000
372	5.84	7.94	0.27	0.00	0.04	2.	0.002	0.20	0.00	0.03	1.	0.001	0.18	0.00	0.03	1.	0.001
373	5.84	7.94	0.57	0.00	0.08	4.	0.003	0.34	0.00	0.05	3.	0.002	0.26	0.00	0.04	2.	0.002
375	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
376	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
377	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
378	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.04	0.00	0.01	0.	0.000	0.06	0.00	0.01	0.	0.000
379	5.84	7.94	0.08	0.00	0.01	1.	0.000	0.08	0.00	0.01	1.	0.001	0.10	0.00	0.01	1.	0.001
380	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
381	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
382	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
383	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
384	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
385	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
387	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
388	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
390	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
391	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
392	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
393	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.03	0.00	0.00	0.	0.000
394	5.84	7.94	0.07	0.00	0.01	1.	0.000	0.16	0.00	0.02	1.	0.001	0.16	0.00	0.02	1.	0.001
395	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
396	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
397	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
398	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
399	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.07	0.00	0.01	1.	0.000	0.12	0.00	0.02	1.	0.001
400	5.84	7.94	0.20	0.00	0.03	1.	0.001	0.23	0.00	0.03	2.	0.001	0.20	0.00	0.03	2.	0.001
402	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000
403	5.84	7.94	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00	0.	0.000	0.00	0.00	0.00</		

422	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
423	5.84	7.94	0.00	0.00	0.00	0.0000	0.05	0.00	0.01	0.0000	0.08	0.00	0.01	0.0001
424	5.84	7.94	0.22	0.00	0.03	0.0001	0.22	0.00	0.03	0.0001	0.20	0.00	0.03	0.0001
426	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
427	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
428	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
429	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
430	5.84	7.94	0.05	0.00	0.01	0.0000	0.15	0.00	0.02	0.0001	0.15	0.00	0.02	0.0001
431	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
432	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
433	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
434	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
435	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
436	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
437	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
438	5.84	7.94	0.12	0.00	0.02	0.0001	0.13	0.00	0.02	0.0001	0.13	0.00	0.02	0.0001
439	5.84	7.94	0.36	0.00	0.05	0.0002	0.24	0.00	0.04	0.0001	0.23	0.00	0.03	0.0001
440	5.84	7.94	0.52	0.00	0.08	0.0003	0.35	0.00	0.05	0.0002	0.29	0.00	0.04	0.0002
441	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
442	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
443	5.84	7.94	0.27	0.00	0.04	0.0002	0.20	0.00	0.03	0.0001	0.19	0.00	0.03	0.0001
444	5.84	7.94	0.51	0.00	0.07	0.0003	0.29	0.00	0.04	0.0002	0.24	0.00	0.04	0.0001
445	5.84	7.94	0.65	0.00	0.09	0.0004	0.37	0.00	0.05	0.0002	0.33	0.00	0.05	0.0002
446	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
447	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
448	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
449	5.84	7.94	0.19	0.00	0.03	0.0001	0.13	0.00	0.02	0.0001	0.13	0.00	0.02	0.0001
450	5.84	7.94	0.48	0.00	0.07	0.0003	0.27	0.00	0.04	0.0002	0.26	0.00	0.04	0.0002
502	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
507	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
508	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
509	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
510	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
516	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
517	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
518	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
519	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
522	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
523	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
524	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
525	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
531	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000
532	5.84	7.94	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.0000

MACROGUSCIO Muro

VERIFICA ARMATURE EFFETTIVE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
1	SLU Max Neve
2	SLU VENTOX 1
3	SLU VENTOX 2
6	SLU con SISMAX PRINC
7	SLU con SISMAX PRINC

DATI:

tensione di snervamento acciaio (fyk): 450 N/mm2
 coefficiente sicurezza acciaio : 1.15
 deformazione ultima acciaio : 67.5 per mille
 deformazione ultima cls : 3.5 per mille
 rapporto rottura/snervamento (k): 1.15
 resistenza cilindrica cls (fck): 24.9 N/mm2
 coefficiente sicurezza cls : 1.5
 coefficiente riduttivo (alfa): 0.85
 copriferro inferiore (asse armatura): 5 cm
 copriferro superiore (asse armatura): 5 cm
 moltiplicatore sollecitazioni : 1

LEGENDA:

spess = spessore guscio. Verifica effettuata su sezione BxH, con B=1 cm e H="spess" cm
 Af = area disposta al lembo teso, in cm2 al metro
 Afc = area disposta al lembo compresso, in cm2 al metro
 Mom = momento flettente [kNm/m]
 Nor = sforzo normale [kN]
 epsC = deformazione cls [per mille]
 epsF = deformazione acciaio [per mille]

L'armatura è sufficiente se le deformazioni dei materiali sono ovunque minori delle corrispondenti deformazioni ultime.

GUSCI	spess	INFERIORE ORIZZONTALE						INFERIORE VERTICALE					
		Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
63	45	2.65	2.63	0.	0.	0.00	0.23	5.75	5.75	0.	1.	0.00	0.24
66	45	2.65	2.63	0.	0.	0.00	0.32	5.75	5.75	0.	1.	0.00	0.25
69	45	2.65	2.63	0.	1.	0.00	0.64	5.75	5.75	0.	1.	0.00	0.26
72	45	2.65	2.63	0.	1.	0.00	0.81	5.75	5.75	0.	1.	0.00	0.31
73	45	2.65	2.63	2.	0.	0.00	0.25	5.75	5.75	0.	1.	0.00	0.24
74	45	2.65	2.63	2.	0.	0.00	0.27	5.75	5.75	1.	1.	0.00	0.26

75	45	2.65	2.63	2.	0.	0.00	0.28	5.75	5.75	1.	1.	0.00	0.29
76	45	2.65	2.63	0.	0.	0.00	0.33	5.75	5.75	0.	1.	0.00	0.25
77	45	2.65	2.63	1.	0.	0.00	0.37	5.75	5.75	0.	1.	0.00	0.26
78	45	2.65	2.63	1.	0.	0.00	0.33	5.75	5.75	1.	1.	0.00	0.30
79	45	2.65	2.63	0.	1.	0.00	0.64	5.75	5.75	0.	1.	0.00	0.25
80	45	2.65	2.63	0.	1.	0.00	0.49	5.75	5.75	0.	1.	0.00	0.26
81	45	2.65	2.63	0.	1.	0.00	0.61	5.75	5.75	1.	1.	0.00	0.28
82	45	2.65	2.63	0.	1.	0.00	0.81	5.75	5.75	0.	1.	0.00	0.30
83	45	2.65	2.63	0.	1.	0.00	0.59	5.75	5.75	0.	1.	0.00	0.32
84	45	2.65	2.63	0.	1.	0.00	0.78	5.75	5.75	0.	1.	0.00	0.29
85	45	2.65	2.63	3.	0.	0.00	0.32	5.75	5.75	2.	1.	0.00	0.32
86	45	2.65	2.63	2.	0.	0.00	0.37	5.75	5.75	3.	1.	0.00	0.35
87	45	2.65	2.63	3.	0.	0.00	0.44	5.75	5.75	4.	1.	0.00	0.37
88	45	2.65	2.63	1.	0.	0.00	0.36	5.75	5.75	3.	1.	0.00	0.33
89	45	2.65	2.63	2.	0.	0.00	0.40	5.75	5.75	4.	1.	0.00	0.37
90	45	2.65	2.63	3.	0.	0.00	0.43	5.75	5.75	5.	1.	0.00	0.40
91	45	2.65	2.63	0.	1.	0.00	0.60	5.75	5.75	2.	1.	0.00	0.31
92	45	2.65	2.63	0.	1.	0.00	0.45	5.75	5.75	4.	1.	0.00	0.39
93	45	2.65	2.63	0.	1.	0.00	0.52	5.75	5.75	5.	1.	0.00	0.43
94	45	2.65	2.63	0.	1.	0.00	0.80	5.75	5.75	1.	1.	0.00	0.33
95	45	2.65	2.63	0.	1.	0.00	0.57	5.75	5.75	2.	1.	0.00	0.42
96	45	2.65	2.63	0.	1.	0.00	0.73	5.75	5.75	7.	1.	0.00	0.44
97	45	2.65	2.63	5.	0.	0.00	0.53	5.75	5.75	4.	1.	0.00	0.38
98	45	2.65	2.63	6.	0.	0.00	0.62	5.75	5.75	4.	1.	0.00	0.38
99	45	2.65	2.63	7.	0.	0.00	0.66	5.75	5.75	4.	1.	0.00	0.37
100	45	2.65	2.63	4.	0.	0.00	0.55	5.75	5.75	5.	1.	0.00	0.42
101	45	2.65	2.63	6.	1.	0.00	0.76	5.75	5.75	5.	1.	0.00	0.41
102	45	2.65	2.63	11.	0.	0.00	0.87	5.75	5.75	5.	1.	0.00	0.39
103	45	2.65	2.63	4.	1.	0.00	0.84	5.75	5.75	6.	1.	0.00	0.44
104	45	2.65	2.63	10.	0.	0.00	0.92	5.75	5.75	5.	1.	0.00	0.40
105	45	2.65	2.63	18.	0.	0.00	1.16	5.75	5.75	5.	1.	0.00	0.36
106	45	2.65	2.63	3.	1.	0.00	0.98	5.75	5.75	8.	1.	0.00	0.42
107	45	2.65	2.63	12.	1.	0.00	1.04	5.75	5.75	5.	1.	0.00	0.41
108	45	2.65	2.63	23.	0.	0.09	1.33	5.75	5.75	3.	1.	0.00	0.35
109	45	2.65	2.63	6.	0.	0.00	0.60	5.75	5.75	4.	1.	0.00	0.35
110	45	2.65	2.63	6.	0.	0.00	0.52	5.75	5.75	4.	1.	0.00	0.33
111	45	2.65	2.63	5.	0.	0.00	0.47	5.75	5.75	4.	1.	0.00	0.32
112	45	2.65	2.63	9.	0.	0.00	0.70	5.75	5.75	4.	1.	0.00	0.35
113	45	2.65	2.63	6.	0.	0.00	0.59	5.75	5.75	4.	1.	0.00	0.32
114	45	2.65	2.63	5.	0.	0.00	0.45	5.75	5.75	4.	1.	0.00	0.30
115	45	2.65	2.63	14.	0.	0.00	0.89	5.75	5.75	3.	1.	0.00	0.29
116	45	2.65	2.63	8.	0.	0.00	0.61	5.75	5.75	3.	0.	0.00	0.25
117	45	2.65	2.63	5.	0.	0.00	0.49	5.75	5.75	3.	0.	0.00	0.26
118	45	2.65	2.63	17.	0.	0.03	1.00	5.75	5.75	2.	0.	0.00	0.22
119	45	2.65	2.63	9.	0.	0.00	0.63	5.75	5.75	2.	1.	0.00	0.29
120	45	2.65	2.63	5.	0.	0.00	0.60	5.75	5.75	2.	1.	0.00	0.27
121	45	2.65	2.63	4.	0.	0.00	0.41	5.75	5.75	4.	1.	0.00	0.32
122	45	2.65	2.63	4.	0.	0.00	0.38	5.75	5.75	5.	1.	0.00	0.33
123	45	2.65	2.63	4.	0.	0.00	0.37	5.75	5.75	6.	0.	0.00	0.33
124	45	2.65	2.63	4.	0.	0.00	0.43	5.75	5.75	4.	1.	0.00	0.30
125	45	2.65	2.63	4.	0.	0.00	0.40	5.75	5.75	4.	0.	0.00	0.30
126	45	2.65	2.63	4.	0.	0.00	0.35	5.75	5.75	5.	0.	0.00	0.30
127	45	2.65	2.63	4.	0.	0.00	0.55	5.75	5.75	3.	0.	0.00	0.27
128	45	2.65	2.63	4.	0.	0.00	0.40	5.75	5.75	3.	0.	0.00	0.27
129	45	2.65	2.63	3.	0.	0.00	0.31	5.75	5.75	3.	0.	0.00	0.26
130	45	2.65	2.63	4.	0.	0.00	0.63	5.75	5.75	2.	0.	0.00	0.23
131	45	2.65	2.63	3.	0.	0.00	0.40	5.75	5.75	2.	1.	0.00	0.28
132	45	2.65	2.63	3.	0.	0.00	0.38	5.75	5.75	2.	0.	0.00	0.25
133	45	2.65	2.63	4.	0.	0.00	0.35	5.75	5.75	7.	0.	0.00	0.34
134	45	2.65	2.63	4.	0.	0.00	0.35	5.75	5.75	9.	0.	0.00	0.39
135	45	2.65	2.63	4.	0.	0.00	0.39	5.75	5.75	10.	1.	0.00	0.44
136	45	2.65	2.63	4.	0.	0.00	0.35	5.75	5.75	5.	0.	0.00	0.30
137	45	2.65	2.63	4.	0.	0.00	0.35	5.75	5.75	6.	0.	0.00	0.30
138	45	2.65	2.63	3.	0.	0.00	0.30	5.75	5.75	6.	0.	0.00	0.31
139	45	2.65	2.63	3.	0.	0.00	0.42	5.75	5.75	4.	0.	0.00	0.25
140	45	2.65	2.63	3.	0.	0.00	0.34	5.75	5.75	4.	0.	0.00	0.24
141	45	2.65	2.63	2.	0.	0.00	0.22	5.75	5.75	4.	0.	0.00	0.22
142	45	2.65	2.63	3.	0.	0.00	0.47	5.75	5.75	2.	0.	0.00	0.19
143	45	2.65	2.63	2.	0.	0.00	0.31	5.75	5.75	2.	0.	0.00	0.19
144	45	2.65	2.63	1.	0.	0.00	0.20	5.75	5.75	2.	0.	0.00	0.15
149	45	2.65	2.63	2.	0.	0.00	0.32	5.75	5.75	11.	1.	0.00	0.48
150	45	2.65	2.63	1.	0.	0.00	0.22	5.75	5.75	6.	0.	0.00	0.31
151	45	2.65	2.63	1.	0.	0.00	0.10	5.75	5.75	4.	0.	0.00	0.21
152	45	2.65	2.63	1.	0.	0.00	0.11	5.75	5.75	2.	0.	0.00	0.13

GUSCI	spess	SUPERIORE ORIZZONTALE						SUPERIORE VERTICALE					
		Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
63	45	2.63	2.65	2.	0.	0.00	0.31	5.75	5.75	3.	1.	0.00	0.31
66	45	2.63	2.65	2.	0.	0.00	0.41	5.75	5.75	2.	1.	0.00	0.30
69	45	2.63	2.65	2.	1.	0.00	0.77	5.75	5.75	1.	1.	0.00	0.29
72	45	2.63	2.65	3.	1.	0.00	0.95	5.75	5.75	1.	1.	0.00	0.32
73	45	2.63	2.65	2.	0.	0.00	0.28	5.75	5.75	3.	1.	0.00	0.31
74	45	2.63	2.65	2.	0.	0.00	0.33	5.75	5.75	4.	1.	0.00	0.33
75	45	2.63	2.65	3.	0.	0.00	0.42	5.75	5.75	4.	1.	0.00	0.34
76	45	2.63	2.65	2.	0.	0.00	0.44	5.75	5.75	2.	1.	0.00	0.30
77	45	2.63	2.65	3.	0.	0.00	0.50	5.75	5.75	3.	1.	0.00	0.31
78	45	2.63	2.65	4.	0.	0.00	0.51	5.75	5.75	3.	1.	0.00	0.34
79	45	2.63	2.65	3.	1.	0.00	0.78	5.75	5.75	2.	1.	0.00	0.29
80	45	2.63	2.65	3.	1.	0.00	0.66	5.75	5.75	2.	1.	0.00	0.30
81	45	2.63	2.65	4.	1.	0.00	0.82	5.75	5.75	2.	1.	0.00	0.31
82	45	2.63	2.65	3.	1.	0.00	0.97	5.75	5.75	1.	1.	0.00	0.32
83	45	2.63	2.65	4.	1.	0.00	0.77	5.75	5.75	1.	1.	0.00	0.35
84	45	2.63	2.65	4.	1.	0.00	1.01	5.75	5.75	1.	1.	0.00	0.32
85	45	2.63	2.65	4.	0.	0.00	0.42	5.75	5.75	5.	1.	0.00	0.37
86	45	2.63	2.65	5.	0.	0.00	0.50	5.75	5.75	6.	1.	0.00	0.41

87	45	2.63	2.65	6.	0.	0.00	0.60	5.75	5.75	7.	1.	0.00	0.43
88	45	2.63	2.65	5.	0.	0.00	0.57	5.75	5.75	4.	1.	0.00	0.37
89	45	2.63	2.65	6.	0.	0.00	0.68	5.75	5.75	5.	1.	0.00	0.40
90	45	2.63	2.65	8.	0.	0.00	0.69	5.75	5.75	6.	1.	0.00	0.43
91	45	2.63	2.65	5.	1.	0.00	0.87	5.75	5.75	3.	1.	0.00	0.33
92	45	2.63	2.65	7.	0.	0.00	0.80	5.75	5.75	4.	1.	0.00	0.38
93	45	2.63	2.65	12.	1.	0.00	1.12	5.75	5.75	5.	1.	0.00	0.42
94	45	2.63	2.65	6.	1.	0.00	1.09	5.75	5.75	2.	1.	0.00	0.36
95	45	2.63	2.65	8.	1.	0.00	0.96	5.75	5.75	3.	1.	0.00	0.44
96	45	2.63	2.65	15.	1.	0.00	1.46	5.75	5.75	6.	1.	0.00	0.44
97	45	2.63	2.65	7.	0.	0.00	0.69	5.75	5.75	8.	1.	0.00	0.46
98	45	2.63	2.65	7.	0.	0.00	0.69	5.75	5.75	8.	1.	0.00	0.47
99	45	2.63	2.65	6.	0.	0.00	0.63	5.75	5.75	8.	1.	0.00	0.46
100	45	2.63	2.65	11.	0.	0.00	0.87	5.75	5.75	7.	1.	0.00	0.45
101	45	2.63	2.65	8.	1.	0.00	0.85	5.75	5.75	7.	1.	0.00	0.45
102	45	2.63	2.65	6.	0.	0.00	0.62	5.75	5.75	8.	1.	0.00	0.44
103	45	2.63	2.65	18.	1.	0.00	1.50	5.75	5.75	6.	1.	0.00	0.43
104	45	2.63	2.65	11.	1.	0.00	1.02	5.75	5.75	7.	1.	0.00	0.43
105	45	2.63	2.65	5.	0.	0.00	0.60	5.75	5.75	7.	1.	0.00	0.41
106	45	2.63	2.65	24.	1.	0.17	2.73	5.75	5.75	6.	1.	0.00	0.39
107	45	2.63	2.65	13.	1.	0.00	1.17	5.75	5.75	3.	1.	0.00	0.38
108	45	2.63	2.65	5.	0.	0.00	0.52	5.75	5.75	2.	1.	0.00	0.33
109	45	2.63	2.65	5.	0.	0.00	0.55	5.75	5.75	8.	1.	0.00	0.45
110	45	2.63	2.65	4.	0.	0.00	0.47	5.75	5.75	8.	1.	0.00	0.42
111	45	2.63	2.65	4.	0.	0.00	0.42	5.75	5.75	7.	1.	0.00	0.39
112	45	2.63	2.65	4.	0.	0.00	0.51	5.75	5.75	7.	1.	0.00	0.41
113	45	2.63	2.65	4.	0.	0.00	0.49	5.75	5.75	6.	1.	0.00	0.38
114	45	2.63	2.65	3.	0.	0.00	0.38	5.75	5.75	5.	1.	0.00	0.34
115	45	2.63	2.65	5.	0.	0.00	0.65	5.75	5.75	7.	1.	0.00	0.36
116	45	2.63	2.65	4.	0.	0.00	0.49	5.75	5.75	5.	0.	0.00	0.31
117	45	2.63	2.65	2.	0.	0.00	0.34	5.75	5.75	4.	0.	0.00	0.29
118	45	2.63	2.65	5.	0.	0.00	0.71	5.75	5.75	1.	0.	0.00	0.20
119	45	2.63	2.65	6.	0.	0.00	0.53	5.75	5.75	1.	1.	0.00	0.26
120	45	2.63	2.65	1.	0.	0.00	0.41	5.75	5.75	2.	1.	0.00	0.25
121	45	2.63	2.65	4.	0.	0.00	0.39	5.75	5.75	6.	1.	0.00	0.36
122	45	2.63	2.65	3.	0.	0.00	0.34	5.75	5.75	4.	1.	0.00	0.32
123	45	2.63	2.65	3.	0.	0.00	0.32	5.75	5.75	3.	0.	0.00	0.27
124	45	2.63	2.65	3.	0.	0.00	0.36	5.75	5.75	4.	1.	0.00	0.31
125	45	2.63	2.65	3.	0.	0.00	0.35	5.75	5.75	3.	1.	0.00	0.28
126	45	2.63	2.65	2.	0.	0.00	0.28	5.75	5.75	2.	0.	0.00	0.24
127	45	2.63	2.65	2.	0.	0.00	0.45	5.75	5.75	3.	0.	0.00	0.26
128	45	2.63	2.65	2.	0.	0.00	0.32	5.75	5.75	2.	0.	0.00	0.24
129	45	2.63	2.65	1.	0.	0.00	0.23	5.75	5.75	1.	0.	0.00	0.22
130	45	2.63	2.65	1.	0.	0.00	0.50	5.75	5.75	2.	0.	0.00	0.22
131	45	2.63	2.65	1.	0.	0.00	0.29	5.75	5.75	2.	1.	0.00	0.26
132	45	2.63	2.65	1.	0.	0.00	0.30	5.75	5.75	2.	0.	0.00	0.23
133	45	2.63	2.65	2.	0.	0.00	0.27	5.75	5.75	1.	0.	0.00	0.21
134	45	2.63	2.65	1.	0.	0.00	0.22	5.75	5.75	0.	0.	0.00	0.20
135	45	2.63	2.65	1.	0.	0.00	0.24	5.75	5.75	0.	1.	0.00	0.22
136	45	2.63	2.65	2.	0.	0.00	0.26	5.75	5.75	1.	0.	0.00	0.20
137	45	2.63	2.65	1.	0.	0.00	0.24	5.75	5.75	0.	0.	0.00	0.18
138	45	2.63	2.65	1.	0.	0.00	0.19	5.75	5.75	0.	0.	0.00	0.17
139	45	2.63	2.65	1.	0.	0.00	0.33	5.75	5.75	1.	0.	0.00	0.20
140	45	2.63	2.65	1.	0.	0.00	0.24	5.75	5.75	0.	0.	0.00	0.17
141	45	2.63	2.65	1.	0.	0.00	0.16	5.75	5.75	0.	0.	0.00	0.14
142	45	2.63	2.65	1.	0.	0.00	0.36	5.75	5.75	1.	0.	0.00	0.17
143	45	2.63	2.65	1.	0.	0.00	0.23	5.75	5.75	1.	0.	0.00	0.17
144	45	2.63	2.65	0.	0.	0.00	0.17	5.75	5.75	0.	0.	0.00	0.12
149	45	2.63	2.65	1.	0.	0.00	0.25	5.75	5.75	0.	1.	0.00	0.24
150	45	2.63	2.65	1.	0.	0.00	0.18	5.75	5.75	0.	0.	0.00	0.18
151	45	2.63	2.65	0.	0.	0.00	0.08	5.75	5.75	0.	0.	0.00	0.13
152	45	2.63	2.65	0.	0.	0.00	0.09	5.75	5.75	0.	0.	0.00	0.10

L'ARMATURA È OVUNQUE > DELLA QUANTITÀ RICHIESTA: IL PUNTO 2.3 DELLE NTC È VERIFICATO ($R_d > E_d$)

MACROGUSCIO Muro

VERIFICHE A FESSURAZIONE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
12	Rara Ventox 1 (RARA)
13	Rara Ventox 2 (RARA)
14	Frequente 1 (FREQUENTE)
15	Frequente 2 (FREQUENTE)
16	Frequente Ventox 3 (FREQUENTE)
17	Quasi Perm (QUASI PERMANENTE)

DATI:

copriferro inferiore (asse armatura): 5 cm
copriferro superiore (asse armatura): 5 cm

Af = area effettiva tesa (cm² al metro)
Afc = area effettiva compressa (cm² al metro)
Mom = momento flettente [kNm/m]
Nor = sforzo normale [kN]
σc = tensione calcestruzzo [N/mm²]
valore max per combinazione rara = 149.4 N/mm²
" " " " frequente = 149.4 N/mm²
" " " " quasi permanente = 112 N/mm²

ARMATURA INFERIORE ORIZZONTALE

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ARMATURA INFERIORE VERTICALE

GUSCI	COMBINAZIONE RARA				COMBINAZIONE FREQUENTE				COMBINAZIONE QUASI PERMANENTE								
	Af	Afc	Mom	Nor	σc	σf	wkR	Mom	Nor	σc	σf	wkF	Mom	Nor	σc	σf	wkP
63	5.75	5.75	0.00	0.40	0.00	35.	0.086	0.00	0.18	0.00	16.	0.039	0.00	0.13	0.00	11.	0.028
66	5.75	5.75	0.00	0.41	0.00	35.	0.087	0.00	0.18	0.00	16.	0.039	0.00	0.13	0.00	11.	0.028
69	5.75	5.75	0.00	0.42	0.00	36.	0.090	0.00	0.19	0.00	16.	0.040	0.00	0.13	0.00	12.	0.029
72	5.75	5.75	0.00	0.47	0.00	41.	0.101	0.00	0.21	0.00	18.	0.045	0.00	0.15	0.00	13.	0.032
73	5.75	5.75	0.00	0.40	0.00	35.	0.086	0.00	0.18	0.00	16.	0.039	0.00	0.13	0.00	11.	0.028
74	5.75	5.75	0.14	0.41	0.00	36.	0.088	0.00	0.18	0.00	16.	0.039	0.00	0.13	0.00	11.	0.028
75	5.75	5.75	0.76	0.42	0.00	40.	0.091	0.00	0.19	0.00	16.	0.040	0.00	0.13	0.00	11.	0.028
76	5.75	5.75	0.00	0.41	0.00	36.	0.088	0.00	0.18	0.00	16.	0.040	0.00	0.13	0.00	11.	0.028
77	5.75	5.75	0.00	0.41	0.00	36.	0.089	0.00	0.19	0.00	16.	0.040	0.00	0.13	0.00	11.	0.028
78	5.75	5.75	0.76	0.43	0.00	41.	0.094	0.06	0.19	0.00	17.	0.041	0.05	0.14	0.00	12.	0.029
79	5.75	5.75	0.00	0.41	0.00	36.	0.088	0.00	0.18	0.00	16.	0.039	0.00	0.13	0.00	11.	0.028
80	5.75	5.75	0.00	0.43	0.00	37.	0.092	0.00	0.19	0.00	17.	0.041	0.00	0.14	0.00	12.	0.029
81	5.75	5.75	0.23	0.43	0.00	38.	0.092	0.00	0.19	0.00	16.	0.041	0.00	0.13	0.00	12.	0.029
82	5.75	5.75	0.00	0.44	0.00	38.	0.094	0.00	0.19	0.00	17.	0.042	0.00	0.14	0.00	12.	0.030
83	5.75	5.75	0.00	0.54	0.00	47.	0.115	0.00	0.24	0.00	21.	0.051	0.00	0.17	0.00	15.	0.037
84	5.75	5.75	0.05	0.40	0.00	35.	0.086	0.00	0.18	0.00	15.	0.038	0.01	0.13	0.00	11.	0.027
85	5.75	5.75	1.42	0.43	0.00	45.	0.098	0.23	0.19	0.00	18.	0.042	0.18	0.14	0.00	13.	0.030
86	5.75	5.75	1.99	0.46	0.00	50.	0.105	0.53	0.20	0.00	20.	0.045	0.41	0.14	0.00	14.	0.032
87	5.75	5.75	2.47	0.47	0.00	53.	0.110	0.79	0.21	0.00	22.	0.047	0.62	0.14	0.00	16.	0.033
88	5.75	5.75	1.47	0.45	0.00	46.	0.101	0.38	0.20	0.00	19.	0.044	0.29	0.14	0.00	14.	0.031
89	5.75	5.75	2.26	0.48	0.00	53.	0.110	0.75	0.21	0.00	22.	0.047	0.56	0.15	0.00	15.	0.033
90	5.75	5.75	2.99	0.49	0.00	58.	0.117	1.09	0.21	0.00	24.	0.050	0.80	0.15	0.00	17.	0.035
91	5.75	5.75	0.90	0.43	0.00	42.	0.096	0.26	0.19	0.00	18.	0.042	0.22	0.14	0.00	13.	0.030
92	5.75	5.75	2.15	0.49	0.00	53.	0.113	0.83	0.22	0.00	23.	0.049	0.64	0.15	0.00	16.	0.035
93	5.75	5.75	3.49	0.51	0.00	62.	0.123	1.39	0.22	0.00	26.	0.053	1.00	0.16	0.00	19.	0.037
94	5.75	5.75	0.29	0.41	0.00	37.	0.088	0.10	0.18	0.00	16.	0.039	0.09	0.13	0.00	12.	0.028
95	5.75	5.75	1.13	0.60	0.00	58.	0.132	0.47	0.26	0.00	25.	0.058	0.36	0.19	0.00	18.	0.041
96	5.75	5.75	2.91	0.49	0.00	57.	0.115	1.27	0.21	0.00	25.	0.050	0.94	0.15	0.00	18.	0.035
97	5.75	5.75	2.77	0.48	0.00	55.	0.112	1.07	0.21	0.00	23.	0.047	0.77	0.14	0.00	16.	0.033
98	5.75	5.75	2.82	0.47	0.00	55.	0.112	1.03	0.20	0.00	23.	0.047	0.83	0.14	0.00	16.	0.033
99	5.75	5.75	2.71	0.45	0.00	53.	0.107	1.01	0.19	0.00	22.	0.044	0.84	0.13	0.00	15.	0.031
100	5.75	5.75	3.46	0.50	0.00	60.	0.119	1.31	0.21	0.00	25.	0.050	0.97	0.15	0.00	18.	0.035
101	5.75	5.75	3.55	0.47	0.00	59.	0.115	1.37	0.20	0.00	24.	0.048	1.02	0.14	0.00	17.	0.034
102	5.75	5.75	3.30	0.44	0.00	54.	0.107	1.27	0.18	0.00	22.	0.044	0.95	0.13	0.00	16.	0.031
103	5.75	5.75	4.22	0.50	0.00	65.	0.124	1.72	0.22	0.00	27.	0.053	1.23	0.15	0.00	19.	0.037
104	5.75	5.75	4.33	0.48	0.00	63.	0.120	1.76	0.20	0.00	27.	0.051	1.26	0.14	0.00	18.	0.035
105	5.75	5.75	3.83	0.41	0.00	54.	0.103	1.54	0.17	0.00	22.	0.043	1.11	0.12	0.00	16.	0.029
106	5.75	5.75	4.94	0.43	0.00	62.	0.113	2.12	0.19	0.00	27.	0.049	1.50	0.13	0.00	19.	0.034
107	5.75	5.75	5.33	0.55	0.00	74.	0.139	2.28	0.23	0.00	32.	0.059	1.60	0.16	0.00	22.	0.041
108	5.75	5.75	4.63	0.31	0.10	50.	0.087	1.96	0.13	0.05	21.	0.036	1.38	0.09	0.04	14.	0.025
109	5.75	5.75	2.58	0.43	0.00	50.	0.101	0.97	0.18	0.00	20.	0.041	0.82	0.12	0.00	14.	0.029
110	5.75	5.75	2.48	0.41	0.00	48.	0.096	0.93	0.17	0.00	19.	0.039	0.78	0.11	0.00	14.	0.027
111	5.75	5.75	2.58	0.36	0.00	44.	0.087	0.96	0.15	0.00	18.	0.035	0.78	0.11	0.00	13.	0.026
112	5.75	5.75	2.90	0.40	0.00	49.	0.097	1.09	0.17	0.00	20.	0.040	0.84	0.11	0.00	14.	0.027
113	5.75	5.75	2.56	0.38	0.00	45.	0.090	0.94	0.15	0.00	18.	0.037	0.72	0.10	0.00	13.	0.025
114	5.75	5.75	2.43	0.36	0.00	44.	0.087	0.86	0.14	0.00	16.	0.033	0.66	0.10	0.00	12.	0.024
115	5.75	5.75	3.06	0.34	0.00	45.	0.085	1.20	0.14	0.00	18.	0.035	0.87	0.09	0.00	13.	0.024
116	5.75	5.75	2.41	0.34	0.00	41.	0.081	0.90	0.14	0.00	16.	0.033	0.66	0.09	0.00	11.	0.022
117	5.75	5.75	2.11	0.33	0.00	39.	0.078	0.76	0.14	0.00	16.	0.032	0.55	0.09	0.00	11.	0.022
118	5.75	5.75	3.46	0.21	0.11	35.	0.060	1.44	0.08	0.05	14.	0.025	1.02	0.06	0.04	10.	0.017
119	5.75	5.75	2.29	0.36	0.00	43.	0.085	0.92	0.15	0.00	17.	0.035	0.65	0.10	0.00	12.	0.024
120	5.75	5.75	1.84	0.28	0.00	33.	0.067	0.71	0.12	0.00	14.	0.028	0.50	0.08	0.00	9.	0.019
121	5.75	5.75	2.91	0.34	0.00	44.	0.085	1.05	0.14	0.00	17.	0.033	0.81	0.10	0.00	13.	0.025
122	5.75	5.75	3.39	0.33	0.00	45.	0.084	1.17	0.13	0.00	17.	0.032	0.85	0.10	0.00	13.	0.024
123	5.75	5.75	4.01	0.30	0.00	46.	0.082	1.32	0.12	0.00	17.	0.031	0.88	0.09	0.00	12.	0.023
124	5.75	5.75	2.48	0.35	0.00	43.	0.085	0.86	0.14	0.00	16.	0.032	0.63	0.10	0.00	12.	0.023
125	5.75	5.75	2.68	0.34	0.00	43.	0.083	0.89	0.13	0.00	16.	0.032	0.63	0.10	0.00	12.	0.023
126	5.75	5.75	2.94	0.32	0.00	42.	0.081	0.95	0.13	0.00	16.	0.031	0.63	0.09	0.00	11.	0.023
127	5.75	5.75	2.06	0.32	0.00	38.	0.077	0.72	0.13	0.00	15.	0.031	0.51	0.09	0.00	10.	0.021
128	5.75	5.75	2.10	0.33	0.00	39.	0.079	0.71	0.14	0.00	16.	0.033	0.49	0.10	0.00	11.	0.023
129	5.75	5.75	2.15	0.31	0.00	38.	0.075	0.71	0.14	0.00	15.	0.032	0.48	0.10	0.00	11.	0.022
130	5.75	5.75	1.73	0.25	0.00	30.	0.059	0.65	0.10	0.00	12.	0.025	0.45	0.07	0.00	8.	0.017
131	5.75	5.75	1.66	0.38	0.00	41.	0.087	0.61	0.17	0.00	17.	0.037	0.42	0.12	0.00	12.	0.026
132	5.75	5.75	1.57	0.26	0.00	30.	0.061	0.56	0.12	0.00	13.	0.027	0.38	0.08	0.00	9.	0.019
133	5.75	5.75	4.76	0.29	0.15	49.	0.084	1.47	0.12	0.00	18.	0.032	0.91	0.08	0.00	12.	0.022
134	5.75	5.75	5.58	0.30	0.23	53.	0.089	1.61	0.14	0.00	20.	0.036	0.89	0.10	0.00	13.	0.025
135	5.75	5.75	6.19	0.34	0.24	60.	0.102	1.70	0.17	0.00	23.	0.044	0.87	0.13	0.00	16.	0.032
136	5.75	5.75	3.26	0.30	0.00	42.	0.078	1.01	0.13	0.00	17.	0.032	0.64	0.09	0.00	11.	0.023
137	5.75	5.75	3.60	0.29	0.00	43.	0.079	1.08	0.14	0.00	18.	0.034	0.65	0.11	0.00	12.	0.025
138	5.75	5.75	3.85	0.29	0.00	44.	0.079	1.13	0.15	0.00	18.	0.036	0.65	0.12	0.00	13.	0.027
139	5.75	5.75	2.21	0.28	0.00	35.	0.069	0.71	0.13	0.00	15.	0.030	0.47	0.09	0.00	10.	0.022
140	5.75	5.75	2.29	0.26	0.00	34.	0.065	0.72	0.13	0.00	15.	0.030	0.46	0.10	0.00	11.	0.022
141	5.75	5.75	2.35	0.23	0.00	32.	0.059	0.73	0.12	0.00	14.	0.028	0.45	0.09	0.00	10.	0.021
142	5.75	5.75	1.46	0.22	0.00	26.	0.052	0.52	0.10	0.00	11.	0.023	0.35	0.07	0.00	8.	0.017

74	2.63	2.65	1.52	0.18	0.00	50.	0.174	0.83	0.08	0.00	24.	0.078	0.65	0.05	0.00	17.	0.056
75	2.63	2.65	2.02	0.19	0.00	59.	0.197	1.05	0.08	0.00	27.	0.089	0.80	0.06	0.00	20.	0.064
76	2.63	2.65	1.40	0.23	0.00	59.	0.215	0.76	0.10	0.00	27.	0.096	0.59	0.07	0.00	20.	0.069
77	2.63	2.65	1.76	0.26	0.00	68.	0.242	0.92	0.11	0.00	31.	0.108	0.70	0.08	0.00	22.	0.077
78	2.63	2.65	2.29	0.23	0.00	69.	0.231	1.14	0.10	0.00	31.	0.102	0.86	0.07	0.00	22.	0.073
79	2.63	2.65	1.84	0.45	0.00	105.	0.404	0.91	0.20	0.00	47.	0.177	0.70	0.14	0.00	34.	0.126
80	2.63	2.65	2.18	0.36	0.00	92.	0.334	1.07	0.15	0.00	41.	0.146	0.81	0.11	0.00	29.	0.104
81	2.63	2.65	2.77	0.43	0.00	111.	0.400	1.31	0.19	0.00	50.	0.176	0.97	0.13	0.00	36.	0.126
82	2.63	2.65	2.05	0.57	0.00	130.	0.504	0.98	0.25	0.00	57.	0.221	0.74	0.17	0.00	41.	0.157
83	2.63	2.65	2.39	0.42	0.00	106.	0.388	1.15	0.18	0.00	47.	0.169	0.86	0.13	0.00	34.	0.120
84	2.63	2.65	2.99	0.54	0.00	135.	0.499	1.38	0.24	0.00	60.	0.220	1.02	0.17	0.00	43.	0.156
85	2.63	2.65	2.70	0.19	0.03	66.	0.212	1.34	0.08	0.06	30.	0.094	1.00	0.06	0.06	22.	0.067
86	2.63	2.65	3.26	0.19	0.18	72.	0.221	1.65	0.09	0.11	34.	0.103	1.21	0.06	0.08	24.	0.073
87	2.63	2.65	4.28	0.23	0.28	88.	0.267	1.99	0.10	0.14	39.	0.118	1.43	0.07	0.10	28.	0.083
88	2.63	2.65	3.05	0.25	0.00	80.	0.261	1.46	0.11	0.01	36.	0.115	1.08	0.07	0.03	26.	0.082
89	2.63	2.65	3.85	0.26	0.14	90.	0.284	1.85	0.11	0.09	41.	0.128	1.34	0.08	0.07	29.	0.091
90	2.63	2.65	5.08	0.23	0.38	98.	0.289	2.31	0.10	0.18	43.	0.127	1.64	0.07	0.13	31.	0.090
91	2.63	2.65	3.64	0.45	0.00	125.	0.434	1.66	0.19	0.00	55.	0.190	1.20	0.14	0.00	39.	0.135
92	2.63	2.65	4.88	0.34	0.11	118.	0.374	2.19	0.15	0.07	52.	0.163	1.56	0.10	0.05	37.	0.116
93	2.63	2.65	6.83	0.39	0.40	146.	0.449	3.01	0.17	0.18	64.	0.197	2.11	0.12	0.12	45.	0.139
94	2.63	2.65	3.91	0.55	0.00	148.	0.526	1.75	0.24	0.00	65.	0.230	1.26	0.17	0.00	46.	0.163
95	2.63	2.65	5.32	0.40	0.00	133.	0.426	2.36	0.17	0.02	58.	0.186	1.67	0.12	0.01	41.	0.132
96	2.63	2.65	7.78	0.54	0.20	187.	0.592	3.40	0.24	0.09	82.	0.259	2.37	0.17	0.05	57.	0.182
97	2.63	2.65	4.85	0.24	0.34	97.	0.289	2.21	0.10	0.17	43.	0.126	1.57	0.07	0.12	30.	0.089
98	2.63	2.65	4.72	0.25	0.31	98.	0.296	2.12	0.11	0.15	43.	0.129	1.49	0.07	0.10	30.	0.090
99	2.63	2.65	4.07	0.26	0.19	92.	0.287	1.80	0.11	0.09	40.	0.124	1.25	0.08	0.06	28.	0.086
100	2.63	2.65	5.75	0.28	0.41	113.	0.338	2.57	0.12	0.19	50.	0.147	1.81	0.08	0.13	35.	0.103
101	2.63	2.65	5.18	0.32	0.26	116.	0.359	2.29	0.14	0.12	50.	0.156	1.59	0.10	0.08	35.	0.109
102	2.63	2.65	3.86	0.28	0.06	94.	0.300	1.67	0.12	0.03	41.	0.130	1.15	0.08	0.01	28.	0.091
103	2.63	2.65	8.25	0.49	0.45	180.	0.555	3.58	0.21	0.20	78.	0.241	2.49	0.15	0.13	55.	0.169
104	2.63	2.65	6.23	0.37	0.34	136.	0.420	2.68	0.16	0.14	59.	0.183	1.85	0.11	0.09	41.	0.128
105	2.63	2.65	3.23	0.26	0.00	84.	0.271	1.33	0.11	0.00	36.	0.118	0.89	0.08	0.00	25.	0.083
106	2.63	2.65	9.66	0.59	0.48	216.	0.671	4.17	0.26	0.20	94.	0.291	2.88	0.18	0.13	65.	0.204
@																	
107	2.63	2.65	6.82	0.40	0.37	150.	0.462	2.92	0.18	0.15	65.	0.201	2.00	0.13	0.09	45.	0.141
108	2.63	2.65	2.85	0.25	0.00	79.	0.259	1.14	0.11	0.00	33.	0.111	0.75	0.08	0.00	23.	0.079
109	2.63	2.65	3.35	0.23	0.10	80.	0.252	1.44	0.10	0.05	34.	0.107	0.98	0.07	0.03	23.	0.074
110	2.63	2.65	2.79	0.20	0.07	67.	0.213	1.15	0.08	0.02	28.	0.089	0.76	0.06	0.00	19.	0.061
111	2.63	2.65	2.45	0.18	0.02	60.	0.193	0.95	0.08	0.00	25.	0.080	0.60	0.05	0.00	16.	0.054
112	2.63	2.65	2.61	0.25	0.00	75.	0.252	1.08	0.11	0.00	32.	0.107	0.72	0.07	0.00	22.	0.074
113	2.63	2.65	2.08	0.22	0.00	64.	0.216	0.81	0.09	0.00	26.	0.091	0.52	0.06	0.00	18.	0.062
114	2.63	2.65	1.89	0.17	0.00	53.	0.174	0.69	0.07	0.00	21.	0.072	0.41	0.05	0.00	14.	0.050
115	2.63	2.65	0.49	0.32	0.00	66.	0.276	0.09	0.14	0.00	27.	0.117	0.02	0.10	0.00	19.	0.082
116	2.63	2.65	0.65	0.22	0.00	49.	0.195	0.14	0.10	0.00	20.	0.084	0.04	0.07	0.00	14.	0.059
117	2.63	2.65	0.89	0.18	0.00	44.	0.166	0.22	0.09	0.00	19.	0.075	0.08	0.06	0.00	13.	0.055
118	2.63	2.65	0.00	0.35	0.00	67.	0.298	0.00	0.15	0.00	29.	0.128	0.00	0.11	0.00	20.	0.090
119	2.63	2.65	0.00	0.22	0.00	43.	0.191	0.00	0.10	0.00	19.	0.085	0.00	0.07	0.00	14.	0.061
120	2.63	2.65	0.38	0.26	0.00	53.	0.221	0.00	0.12	0.00	22.	0.100	0.00	0.09	0.00	16.	0.073
121	2.63	2.65	1.87	0.14	0.00	47.	0.150	0.84	0.07	0.00	22.	0.073	0.50	0.05	0.00	15.	0.049
122	2.63	2.65	1.78	0.14	0.00	45.	0.146	0.46	0.05	0.00	15.	0.051	0.40	0.05	0.00	13.	0.044
123	2.63	2.65	1.76	0.14	0.00	46.	0.149	0.57	0.06	0.00	18.	0.063	0.29	0.05	0.00	12.	0.044
124	2.63	2.65	1.54	0.16	0.00	46.	0.157	0.63	0.08	0.00	21.	0.073	0.35	0.05	0.00	14.	0.051
125	2.63	2.65	1.47	0.16	0.00	47.	0.160	0.37	0.07	0.00	17.	0.062	0.28	0.05	0.00	13.	0.050
126	2.63	2.65	1.41	0.13	0.00	40.	0.133	0.44	0.06	0.00	16.	0.058	0.21	0.05	0.00	11.	0.041
127	2.63	2.65	0.89	0.25	0.00	58.	0.224	0.25	0.12	0.00	25.	0.101	0.09	0.08	0.00	17.	0.072
128	2.63	2.65	0.95	0.17	0.00	42.	0.155	0.20	0.08	0.00	17.	0.067	0.09	0.06	0.00	12.	0.051
129	2.63	2.65	0.80	0.11	0.00	29.	0.103	0.20	0.05	0.00	13.	0.049	0.07	0.04	0.00	9.	0.037
130	2.63	2.65	0.64	0.30	0.00	65.	0.264	0.08	0.14	0.00	27.	0.117	0.00	0.10	0.00	19.	0.084
131	2.63	2.65	0.65	0.17	0.00	40.	0.155	0.12	0.08	0.00	17.	0.072	0.01	0.06	0.00	12.	0.053
132	2.63	2.65	0.54	0.16	0.00	36.	0.143	0.10	0.08	0.00	16.	0.068	0.00	0.06	0.00	11.	0.051
133	2.63	2.65	1.51	0.13	0.00	42.	0.138	0.47	0.06	0.00	17.	0.061	0.22	0.05	0.00	12.	0.043
134	2.63	2.65	0.71	0.13	0.00	33.	0.121	0.30	0.07	0.00	16.	0.061	0.11	0.05	0.00	11.	0.046
135	2.63	2.65	0.16	0.15	0.00	31.	0.133	0.11	0.09	0.00	18.	0.074	0.05	0.07	0.00	14.	0.061
136	2.63	2.65	1.17	0.14	0.00	39.	0.133	0.35	0.07	0.00	17.	0.061	0.16	0.05	0.00	12.	0.045
137	2.63	2.65	0.56	0.14	0.00	33.	0.128	0.27	0.07	0.00	17.	0.066	0.11	0.06	0.00	12.	0.050
138	2.63	2.65	0.11	0.12	0.00	24.	0.105	0.10	0.07	0.00	14.	0.059	0.06	0.06	0.00	11.	0.049
139	2.63	2.65	0.61	0.20	0.00	44.	0.174	0.14	0.10	0.00	20.	0.084	0.04	0.07	0.00	15.	0.064
140	2.63	2.65	0.38	0.13	0.00	28.	0.111	0.11	0.07	0.00	14.	0.058	0.04	0.05	0.00	11.	0.046
141	2.63	2.65	0.02	0.06	0.00	11.	0.049	0.12	0.03	0.00	8.	0.031	0.07	0.03	0.00	6.	0.026
142	2.63	2.65	0.37	0.22	0.00	47.	0.194	0.05	0.11	0.00	22.	0.094	0.00	0.08	0.00	16.	0.072
143	2.63	2.65	0.17	0.11	0.00	23.	0.097	0.03	0.06	0.00	12.	0.051	0.00	0.05	0.00	9.	0.040
144	2.63	2.65	0.08	0.05	0.00	10.	0.041	0.05	0.02	0.00	5.	0.021	0.03	0.02	0.00	4.	0.016
149	2.63	2.65	0.36	0.16	0.00	34.	0.137	0.18	0.09	0.00	20.	0.081	0.11	0.08	0.00	16.	0.069
150	2.63	2.65	0.30	0.11	0.00	23.	0.093	0.16	0.06	0.00	14.	0.055	0.11	0.05	0.00	11.	0.047
151	2.63	2.65	0.14	0.04	0.00	10.	0.039	0.11	0.03	0.00	6.	0.023	0.09	0.02	0.00	5.	0.020
152	2.63	2.65	0.10	0.03	0.00	7.	0.026	0.09	0.02	0.00	4.	0.016	0.07	0.01	0.00	4.	0.013

ARMATURA SUPERIORE VERTICALE

83	5.75	5.75	0.67	0.54	0.00	50.	0.117	0.41	0.24	0.00	23.	0.052	0.32	0.17	0.00	16.	0.037
84	5.75	5.75	0.90	0.40	0.00	39.	0.088	0.50	0.18	0.00	18.	0.039	0.38	0.13	0.00	13.	0.028
85	5.75	5.75	2.25	0.43	0.00	49.	0.101	1.57	0.19	0.00	24.	0.047	1.19	0.14	0.00	18.	0.034
86	5.75	5.75	2.86	0.46	0.00	54.	0.109	1.79	0.20	0.00	26.	0.050	1.33	0.14	0.00	19.	0.036
87	5.75	5.75	3.55	0.47	0.00	59.	0.115	2.03	0.21	0.00	28.	0.052	1.47	0.14	0.00	20.	0.037
88	5.75	5.75	2.00	0.45	0.00	49.	0.103	1.26	0.20	0.00	24.	0.047	0.94	0.14	0.00	17.	0.034
89	5.75	5.75	2.60	0.48	0.00	54.	0.111	1.49	0.21	0.00	25.	0.050	1.08	0.15	0.00	18.	0.035
90	5.75	5.75	3.33	0.49	0.00	59.	0.118	1.77	0.21	0.00	27.	0.053	1.26	0.15	0.00	19.	0.037
91	5.75	5.75	1.58	0.43	0.00	46.	0.098	0.92	0.19	0.00	21.	0.044	0.68	0.14	0.00	15.	0.032
92	5.75	5.75	2.17	0.49	0.00	53.	0.113	1.16	0.22	0.00	24.	0.050	0.84	0.15	0.00	17.	0.035
93	5.75	5.75	3.07	0.51	0.00	60.	0.121	1.52	0.22	0.00	27.	0.054	1.08	0.16	0.00	19.	0.038
94	5.75	5.75	1.17	0.41	0.00	41.	0.091	0.61	0.18	0.00	19.	0.041	0.46	0.13	0.00	13.	0.029
95	5.75	5.75	1.81	0.60	0.00	61.	0.135	0.88	0.26	0.00	27.	0.060	0.64	0.19	0.00	19.	0.042
96	5.75	5.75	3.10	0.49	0.00	58.	0.116	1.42	0.21	0.00	26.	0.051	1.01	0.15	0.00	18.	0.036
97	5.75	5.75	4.22	0.48	0.00	62.	0.119	2.26	0.21	0.00	29.	0.054	1.59	0.14	0.00	20.	0.037
98	5.75	5.75	4.78	0.47	0.00	65.	0.121	2.43	0.20	0.00	30.	0.054	1.67	0.14	0.00	20.	0.037
99	5.75	5.75	5.01	0.45	0.00	64.	0.118	2.45	0.19	0.00	29.	0.052	1.65	0.13	0.00	19.	0.035
100	5.75	5.75	4.07	0.50	0.00	63.	0.122	2.05	0.21	0.00	29.	0.054	1.44	0.15	0.00	20.	0.038
101	5.75	5.75	4.61	0.47	0.00	64.	0.120	2.24	0.20	0.00	29.	0.053	1.54	0.14	0.00	20.	0.036
102	5.75	5.75	4.75	0.44	0.00	62.	0.114	2.25	0.18	0.00	27.	0.049	1.53	0.13	0.00	18.	0.033
103	5.75	5.75	4.07	0.50	0.00	64.	0.123	1.93	0.22	0.00	28.	0.054	1.35	0.15	0.00	20.	0.038
104	5.75	5.75	4.79	0.48	0.00	65.	0.123	2.22	0.20	0.00	29.	0.053	1.54	0.14	0.00	20.	0.037
105	5.75	5.75	4.88	0.41	0.00	60.	0.108	2.23	0.17	0.00	26.	0.046	1.53	0.12	0.00	18.	0.032
106	5.75	5.75	4.41	0.43	0.00	59.	0.110	1.98	0.19	0.00	26.	0.048	1.39	0.13	0.00	18.	0.033
107	5.75	5.75	5.30	0.55	0.00	74.	0.139	2.35	0.23	0.00	32.	0.060	1.64	0.16	0.00	22.	0.041
108	5.75	5.75	5.14	0.31	0.17	52.	0.090	2.26	0.13	0.08	22.	0.038	1.57	0.09	0.06	15.	0.026
109	5.75	5.75	4.86	0.43	0.00	61.	0.112	2.30	0.18	0.00	27.	0.048	1.51	0.12	0.00	18.	0.032
110	5.75	5.75	4.44	0.41	0.00	57.	0.106	2.04	0.17	0.00	25.	0.045	1.29	0.11	0.00	16.	0.030
111	5.75	5.75	3.36	0.36	0.00	48.	0.091	1.51	0.15	0.00	20.	0.038	1.02	0.11	0.00	14.	0.027
112	5.75	5.75	4.43	0.40	0.00	57.	0.105	2.07	0.17	0.00	25.	0.045	1.38	0.11	0.00	17.	0.030
113	5.75	5.75	3.77	0.38	0.00	51.	0.096	1.74	0.15	0.00	22.	0.041	1.14	0.10	0.00	15.	0.027
114	5.75	5.75	2.96	0.36	0.00	46.	0.089	1.24	0.14	0.00	18.	0.035	0.86	0.10	0.00	13.	0.025
115	5.75	5.75	4.31	0.34	0.00	51.	0.092	1.96	0.14	0.02	22.	0.039	1.33	0.09	0.01	15.	0.026
116	5.75	5.75	3.35	0.34	0.00	46.	0.086	1.52	0.14	0.00	20.	0.036	1.02	0.09	0.00	13.	0.024
117	5.75	5.75	2.39	0.33	0.00	40.	0.079	1.08	0.14	0.00	17.	0.033	0.72	0.09	0.00	11.	0.022
118	5.75	5.75	4.07	0.21	0.18	38.	0.063	1.78	0.08	0.08	16.	0.026	1.23	0.06	0.06	11.	0.018
119	5.75	5.75	2.42	0.36	0.00	43.	0.086	0.94	0.15	0.00	18.	0.035	0.62	0.10	0.00	12.	0.024
120	5.75	5.75	1.66	0.28	0.00	33.	0.066	0.57	0.12	0.00	13.	0.027	0.35	0.08	0.00	9.	0.018
121	5.75	5.75	2.52	0.34	0.00	42.	0.083	1.04	0.14	0.00	17.	0.033	0.72	0.10	0.00	12.	0.024
122	5.75	5.75	1.65	0.33	0.00	36.	0.076	0.64	0.13	0.00	14.	0.030	0.45	0.10	0.00	11.	0.023
123	5.75	5.75	0.70	0.30	0.00	30.	0.067	0.26	0.12	0.00	12.	0.027	0.21	0.09	0.00	9.	0.020
124	5.75	5.75	2.17	0.35	0.00	41.	0.084	0.88	0.14	0.00	16.	0.032	0.61	0.10	0.00	12.	0.023
125	5.75	5.75	1.42	0.34	0.00	37.	0.078	0.57	0.13	0.00	14.	0.030	0.40	0.10	0.00	10.	0.022
126	5.75	5.75	0.72	0.32	0.00	31.	0.071	0.30	0.13	0.00	12.	0.028	0.24	0.09	0.00	9.	0.021
127	5.75	5.75	1.68	0.32	0.00	36.	0.075	0.77	0.13	0.00	16.	0.032	0.50	0.09	0.00	10.	0.021
128	5.75	5.75	1.16	0.33	0.00	35.	0.075	0.56	0.14	0.00	15.	0.032	0.36	0.10	0.00	10.	0.022
129	5.75	5.75	0.72	0.31	0.00	31.	0.069	0.39	0.14	0.00	14.	0.030	0.25	0.10	0.00	10.	0.021
130	5.75	5.75	1.41	0.25	0.00	28.	0.058	0.56	0.10	0.00	12.	0.024	0.32	0.07	0.00	8.	0.016
131	5.75	5.75	1.19	0.38	0.00	39.	0.086	0.50	0.17	0.00	17.	0.037	0.30	0.12	0.00	12.	0.026
132	5.75	5.75	0.99	0.26	0.00	27.	0.058	0.41	0.12	0.00	12.	0.026	0.26	0.08	0.00	8.	0.018
133	5.75	5.75	0.03	0.29	0.00	26.	0.063	0.06	0.12	0.00	11.	0.026	0.00	0.08	0.00	7.	0.018
134	5.75	5.75	0.00	0.30	0.00	26.	0.064	0.00	0.14	0.00	12.	0.029	0.00	0.10	0.00	9.	0.021
135	5.75	5.75	0.00	0.34	0.00	30.	0.074	0.00	0.17	0.00	15.	0.037	0.00	0.13	0.00	12.	0.029
136	5.75	5.75	0.02	0.30	0.00	26.	0.065	0.18	0.13	0.00	12.	0.029	0.10	0.09	0.00	9.	0.021
137	5.75	5.75	0.00	0.29	0.00	26.	0.063	0.00	0.14	0.00	12.	0.030	0.01	0.11	0.00	9.	0.023
138	5.75	5.75	0.00	0.29	0.00	25.	0.063	0.00	0.15	0.00	13.	0.032	0.00	0.12	0.00	10.	0.025
139	5.75	5.75	0.32	0.28	0.00	26.	0.061	0.24	0.13	0.00	12.	0.028	0.16	0.09	0.00	9.	0.020
140	5.75	5.75	0.00	0.26	0.00	23.	0.057	0.11	0.13	0.00	12.	0.028	0.09	0.10	0.00	9.	0.021
141	5.75	5.75	0.00	0.23	0.00	20.	0.050	0.02	0.12	0.00	10.	0.025	0.04	0.09	0.00	8.	0.020
142	5.75	5.75	0.77	0.22	0.00	23.	0.049	0.33	0.10	0.00	10.	0.022	0.21	0.07	0.00	7.	0.016
143	5.75	5.75	0.51	0.26	0.00	25.	0.057	0.24	0.12	0.00	12.	0.027	0.16	0.09	0.00	9.	0.020
144	5.75	5.75	0.31	0.14	0.00	14.	0.031	0.17	0.07	0.00	7.	0.016	0.12	0.06	0.00	6.	0.013
149	5.75	5.75	0.00	0.37	0.00	32.	0.079	0.00	0.19	0.00	17.	0.042	0.00	0.15	0.00	13.	0.033
150	5.75	5.75	0.00	0.29	0.00	25.	0.063	0.00	0.16	0.00	14.	0.034	0.00	0.12	0.00	11.	0.027
151	5.75	5.75	0.00	0.21	0.00	18.	0.045	0.00	0.11	0.00	10.	0.024	0.01	0.09	0.00	8.	0.019
152	5.75	5.75	0.17	0.15	0.00	14.	0.033	0.12	0.08	0.00	7.	0.017	0.09	0.06	0.00	6.	0.014

VERIFICA ASTE IN LEGNO

VERIFICA ASTE IN LEGNO - RELAZIONE SINTETICA

Lavoro : VENA3
 Normativa : NTC08 - EC5 (UNI EN 1995-1-1)
 Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; daN/cm3.
 Data : 27/12/2016 - 23.44
 Numero aste : 106

RESISTENZE LIMITE RAGGIUNTE (%) :

asta	sez	b	h	fsPfd	fsIf1	fsIto	fsTau	%	VE
16	1	20.	60.	.148	0.000	.006	.323	32	si
17	1	20.	60.	.404	0.000	.110	.392	40	si
18	1	20.	60.	.783	0.000	.505	.323	78	si
19	1	20.	60.	.930	0.000	.738	.348	93	si
20	1	20.	60.	.861	0.000	.757	.078	86	si
21	1	20.	60.	.722	0.000	.535	.070	72	si
22	1	20.	60.	.530	0.000	.288	.057	53	si
23	1	20.	60.	.354	0.000	.131	.040	35	si
24	1	20.	60.	.206	0.000	.045	.024	21	si
25	1	20.	60.	.096	0.000	.010	.023	10	si
26	1	20.	60.	.026	0.000	.001	.037	4	si
27	1	20.	60.	0.000	0.000	0.000	.001	0	si
28	1	20.	60.	.144	0.000	.006	.304	30	si
29	1	20.	60.	.379	0.000	.095	.241	38	si
30	1	20.	60.	.749	0.000	.454	.237	75	si
31	1	20.	60.	.910	0.000	.698	.336	91	si
32	1	20.	60.	.842	0.000	.716	.078	84	si
33	1	20.	60.	.713	0.000	.515	.075	71	si
34	1	20.	60.	.518	0.000	.277	.057	52	si
35	1	20.	60.	.349	0.000	.126	.049	35	si
36	1	20.	60.	.205	0.000	.044	.037	20	si
37	1	20.	60.	.104	0.000	.010	.024	10	si
38	1	20.	60.	.028	0.000	.001	.038	4	si
39	1	20.	60.	0.000	0.000	0.000	.001	0	si
40	1	20.	60.	.169	0.000	.030	.272	27	si
41	1	20.	60.	.320	0.000	.048	.122	32	si
42	1	20.	60.	.685	0.000	.327	.221	68	si
43	1	20.	60.	.921	0.000	.663	.363	92	si
44	1	20.	60.	.821	0.000	.665	.096	82	si
45	1	20.	60.	.725	0.000	.501	.085	72	si
46	1	20.	60.	.508	0.000	.254	.064	51	si
47	1	20.	60.	.338	0.000	.116	.044	34	si
48	1	20.	60.	.200	0.000	.040	.030	20	si
49	1	20.	60.	.113	0.000	.012	.097	11	si
50	1	20.	60.	.028	0.000	.002	.039	4	si
51	1	20.	60.	0.000	0.000	0.000	.001	0	si
52	1	20.	60.	.167	0.000	.040	.341	34	si
53	1	20.	60.	.466	0.000	.190	.156	47	si
54	1	20.	60.	.765	0.000	.512	.211	76	si
55	1	20.	60.	.737	0.000	.544	.057	74	si
56	1	20.	60.	.710	0.000	.493	.069	71	si
57	1	20.	60.	.525	0.000	.292	.063	52	si
58	1	20.	60.	.362	0.000	.137	.056	36	si
59	1	20.	60.	.215	0.000	.049	.041	22	si
60	1	20.	60.	.115	0.000	.009	.022	12	si
61	1	20.	60.	.030	0.000	.001	.035	4	si
62	1	20.	60.	0.000	0.000	0.000	.001	0	si
63	1	20.	60.	.143	0.000	.009	.295	30	si
64	1	20.	60.	.298	0.000	.060	.127	30	si
65	1	20.	60.	.643	0.000	.327	.190	64	si
66	1	20.	60.	.727	0.000	.436	.270	73	si
67	1	20.	60.	.678	0.000	.449	.075	68	si
68	1	20.	60.	.526	0.000	.281	.068	53	si
69	1	20.	60.	.355	0.000	.132	.059	36	si
70	1	20.	60.	.215	0.000	.047	.039	22	si
71	1	20.	60.	.113	0.000	.011	.021	11	si
72	1	20.	60.	.033	0.000	.001	.038	4	si
73	1	20.	60.	0.000	0.000	0.000	.001	0	si
74	1	20.	60.	.161	0.000	.013	.291	29	si
75	1	20.	60.	.391	0.000	.118	.132	39	si
76	1	20.	60.	.638	0.000	.339	.430	64	si
77	1	20.	60.	.599	0.000	.354	.084	60	si
78	1	20.	60.	.548	0.000	.292	.073	55	si
79	1	20.	60.	.359	0.000	.135	.064	36	si
80	1	20.	60.	.216	0.000	.048	.039	22	si
81	1	20.	60.	.111	0.000	.011	.021	11	si
82	1	20.	60.	.035	0.000	.001	.038	4	si
83	1	20.	60.	0.000	0.000	0.000	.001	0	si
84	1	20.	60.	.088	0.000	.005	.146	15	si
85	1	20.	60.	.227	0.000	.042	.037	23	si
86	1	20.	60.	.286	0.000	.070	.065	29	si
87	1	20.	60.	.267	0.000	.076	.043	27	si
88	1	20.	60.	.202	0.000	.045	.035	20	si
89	1	20.	60.	.129	0.000	.016	.027	13	si
90	1	20.	60.	.070	0.000	.004	.018	7	si
91	1	20.	60.	.022	0.000	0.000	.024	2	si
92	1	20.	60.	0.000	0.000	0.000	.001	0	si
185	2	20.	32.	.035	.217	.198	.004	22	si
186	2	20.	32.	.034	.216	.198	.004	22	si
187	2	20.	32.	.036	.202	.182	.004	20	si

188	2	20.	32.	.039	.227	.206	.004	23	si
189	2	20.	32.	.025	.156	.142	.003	16	si
190	2	20.	32.	.022	.141	.129	.003	14	si
191	2	20.	32.	.029	.154	.137	.004	15	si
192	2	20.	32.	.028	.153	.138	.004	15	si
193	2	20.	32.	.027	.134	.117	.003	13	si
194	2	20.	32.	.029	.136	.118	.004	14	si
195	2	20.	32.	.024	.067	.050	.002	7	si
196	2	20.	32.	.028	.078	.055	.004	8	si
271	5	12.	16.	.126	.134	.023	.088	13	si
274	5	12.	16.	.135	0.000	.013	.088	14	si
283	5	12.	16.	.224	.195	.046	.165	22	si
286	5	12.	16.	.217	.226	.053	.165	23	si
295	5	12.	16.	.250	.041	.040	.158	25	si
298	5	12.	16.	.228	.256	.070	.158	26	si
307	5	12.	16.	.228	.215	.031	.143	23	si
310	5	12.	16.	.231	.246	.048	.149	25	si
319	5	12.	16.	.228	.228	.025	.131	23	si
322	5	12.	16.	.230	.234	.030	.137	23	si
331	5	12.	16.	.224	.230	.025	.119	23	si
334	5	12.	16.	.237	0.000	.019	.124	24	si
343	5	12.	16.	.232	.247	.035	.109	25	si
346	5	12.	16.	.243	0.000	.019	.109	24	si
354	5	12.	16.	.244	.051	.025	.106	24	si
357	5	12.	16.	.232	.029	.023	.106	23	si
365	5	12.	16.	.229	0.000	.026	.115	23	si

VERIFICA ASTE IN LEGNO

Lavoro : VENAUS
 Normativa : NTC08 - EC5 (UNI EN 1995-1-1)
 Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; daN/cm3.
 Data : 27/12/2016 - 23.44
 Numero aste : 106

MATERIALE

Descrizione: Legno lamellare
 Norma : UNI EN 1194 Classe : GL24h
 fmk = 240. ft0k= 165. ft90k=4. fc0k= 240. fc90k=27. fvk = 27.
 E0m = 116000 E005= 94000. E90m =3900. Gm = 7200. G005= 5834.5
 Rok = .00037 Rom = .00045

DATI [NTC08 4.4.6]

Tipo legno : Legno lamellare incollato Riferimento : EN 14080
 Classe di servizio: 1 ; gm= 1.45 ; kdef= 0.6 ; betaC= 0.1

classi di durata	kmod	ft0d *	fc0d	fmd *	fvd	Casi di carico
Permanente	.600	68.28	99.31	99.31	11.17	non prevista
Lunga durata	.700	79.66	115.86	115.86	13.03	non prevista
Media durata	.800	91.03	132.41	132.41	14.90	non prevista
Breve durata	.900	102.41	148.97	148.97	16.76	1
Istantaneo	1.000	113.79	165.52	165.52	18.62	2, 3, 6, 7

(*) valori per Kh=1

CASI DI CARICO

N	Descrizione	Soll.
1	SLU Max Neve	1
2	SLU VENTOX 1	1
3	SLU VENTOX 2	1
6	SLU con SISMAX PRINC	16
7	SLU con SISMAX PRINC	16

SEZIONI RETTANGOLARI

N	b	h	alfa	A	Jz	Jy	Jtor	Km	Ksh
1	20.	60.	3.802	1200.	360000.	40000.	133333.3	.7	1.45
2	20.	32.	4.274	640.	54613.3	21333.3	62060.6	.7	1.24
5	12.	16.	4.458	192.	4096.	2304.	6355.9	.7	1.2

VERIFICHE

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (17-18) 16
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale					Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	32.23	1.86	.030	.487	1.028	32.23	13890.	.131	1.000
Y	32.23	5.58	.090	.494	1.022	32.23	125014	.044	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI									
Caso	MZ	MY	MT	N	TZ	TY			
1- 1	0.0	0.0	0.0	8562.8	-7.0	-4318.2			

TENSIONI											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	7.1	0.0	0.0	0.0	.070	0.000	0.000	0.00	0.0	0.00	5.4

----- PROGR.(9) 32.23

SOLLECITAZIONI									
Caso	MZ	MY	MT	N	TZ	TY			

1- 1	-139261.3	224.5	0.0	8589.7	-7.0	-4331.7
------	-----------	-------	-----	--------	------	---------

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.2	0.0	11.6	.1	.148	0.000	.006	0.00	0.0	0.00	5.4	.323	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (18-19) 17
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	86.57	5.00	.080	.492	1.023
Y	86.57	14.99	.241	.526	1.006

Instabilita' torsionale

LO	Scrit	LamRel	K crit
86.57	5171.9	.215	1.000
86.57	46547.	.072	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-139261.3	224.0	15.7	8769.9	-3.0	-5217.8

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.3	0.0	11.6	.1	.150	0.000	.006	0.00	0.0	0.00	6.5	.389	si

----- PROGR.(9) 86.57

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-592504.4	484.8	15.7	8839.6	-3.0	-5259.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.4	0.0	49.4	.1	.404	0.000	.110	0.00	0.0	0.00	6.6	.392	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (19-20) 18
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

LO	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-592504.4	479.1	75.6	8603.2	24.5	-6677.9
3- 1	-417783.1	329.3	52.5	6311.2	17.0	-4758.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.2	0.0	49.4	.1	.402	0.000	.110	.01	0.0	.01	8.3	.249	si
3- 1	5.3	0.0	34.8	.1	.257	0.000	.044	.01	0.0	.01	5.9	.319	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1270499.6	-1994.8	75.6	8678.1	24.5	-6735.8
3- 1	-901697.5	-1385.1	52.5	6386.0	17.0	-4815.9

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.2	0.0	105.9	.5	.783	0.000	.505	.01	0.0	.01	8.4	.253	si
3- 1	5.3	0.0	75.1	.3	.502	0.000	.206	.01	0.0	.01	6.0	.323	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (20-21) 19
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	33.68	1.94	.031	.487	1.028
Y	33.68	5.83	.094	.494	1.021

Instabilita' torsionale

LO	Scrit	LamRel	K crit
33.68	13293.	.134	1.000
33.68	119636	.045	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1270499.6	-1993.8	-99.3	8511.5	-24.9	-7880.6

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.1	0.0	105.9	.5	.782	0.000	.505	.02	0.0	.02	9.9	.346	si

----- PROGR.(9) 33.68

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1535761.3	-1156.2	-99.3	8534.6	-24.9	-7902.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.1	0.0	128.0	.3	.930	0.000	.738	.02	0.0	.02	9.9	.348	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (21-22) 20
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	67.38	3.89	.063	.490	1.024
Y	67.38	11.67	.188	.512	1.012

Instabilita' torsionale

LO	Scrit	LamRel	K crit
67.38	6645.2	.190	1.000
67.38	59807.	.063	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1535761.3	-1416.9	-460.6	-3411.4	-24.7	3661.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.8	128.0	.4	.861	0.000	.757	.07	0.0	.07	4.6	.078	si

----- PROGR.(9) 67.38

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1290500.5	246.8	-460.6	-3368.0	-24.7	3615.2

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.8	107.5	.1	.723	0.000	.540	.07	0.0	.07	4.5	.076	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (22-23) 21
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

LO	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1290500.5	295.9	-430.7	-2552.4	-9.2	3467.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.1	107.5	.1	.722	0.000	.535	.07	0.0	.07	4.3	.070	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-944067.7	1227.3	-430.7	-2495.4	-9.2	3391.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.1	78.7	.3	.530	0.000	.293	.07	0.0	.07	4.2	.067	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (23-24) 22
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	100.65	5.81	.093	.494	1.021
Y	100.65	17.43	.280	.538	1.002

Instabilita' torsionale

LO	Scrit	LamRel	K crit
100.65	4448.8	.232	1.000
100.65	40039.	.077	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-944067.7	1273.5	-264.5	-1697.3	10.9	3137.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.4	78.7	.3	.530	0.000	.288	.04	0.0	.04	3.9	.057	si

----- PROGR.(9) 100.65

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-632471.1	172.4	-264.5	-1650.9	10.9	3055.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.4	52.7	0.0	.354	0.000	.134	.04	0.0	.04	3.8	.054	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (24-25) 23
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	101.38	5.85	.094	.494	1.021
Y	101.38	17.56	.282	.539	1.002

Instabilita' torsionale

LO	Scrit	LamRel	K crit
101.38	4416.5	.233	1.000
101.38	39749.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-632471.1	205.8	-239.4	-996.6	2.2	2642.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.8	52.7	.1	.354	0.000	.131	.04	0.0	.04	3.3	.040	si

----- PROGR.(9) 101.38

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-368934.4	-19.7	-239.4	-961.2	2.2	2554.7

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
------	------	------	------	------	-------	-------	-------	-------	-----	-------	-----	-------	----

| 1- 1| 0.0| .8| 30.7| 0.0| .206|0.000| .048| .04| 0.0| .04| 3.2| .038|si|

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (25-26) 24
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.02	5.83	.094	.494	1.021	101.02	4432.1	.233	1.000
Y	101.02	17.50	.281	.539	1.002	101.02	39889.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-368934.4	12.5	-239.9	-469.5	-9.6	2013.4

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.4	30.7	0.0	.206	0.000	.045	.04	0.0	.04	2.5	.024 si

----- PROGR.(9) 101.02

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-170221.2	979.7	-239.9	-446.3	-9.6	1921.8

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.4	14.2	.2	.096	0.000	.012	.04	0.0	.04	2.4	.022 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (26-27) 25
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.00	5.83	.094	.494	1.021	101.00	4433.0	.233	1.000
Y	101.00	17.49	.281	.539	1.002	101.00	39897.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-170221.2	1002.9	-107.9	-149.7	1.9	1285.5
6- 7	-42797.6	-1075.0	-4.8	180.6	-11.1	346.7

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.1	14.2	.3	.096	0.000	.010	.02	0.0	.02	1.6	.010 si
6- 7	.2	0.0	3.6	.3	.024	0.000	0.000	0.00	0.0	0.00	.4	.023 si

----- PROGR.(9) 101.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-45162.5	807.0	-107.9	-138.8	1.9	1191.7
6- 7	-11442.7	44.6	-4.8	188.9	-11.1	274.4

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.1	3.8	.2	.026	0.000	.001	.02	0.0	.02	1.5	.009 si
6- 7	.2	0.0	1.0	0.0	.007	0.000	0.000	0.00	0.0	0.00	.3	.018 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (27-28) 26
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-45162.5	814.1	0.0	-4.2	8.1	492.8

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	0.0	3.8	.2	.026	0.000	.001	0.00	0.0	0.00	.6	.037 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-160.9	0.0	0.0	-5.9	8.1	398.2
6- 8	-116.0	-23.0	1.8	99.6	-2.4	75.8
6-10	-131.5	14.4	-1.1	-106.5	8.8	79.5

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.5	.030 si
6- 8	.1	0.0	0.0	0.0	.001	0.000	0.000	0.00	0.0	0.00	.1	.005 si
6-10	0.0	.1	0.0	0.0	0.0	0.000	0.000	.001	0.00	0.0	.1	.005 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (28-29) 27
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	18.59	1.07	.017	.486	1.029	18.59	24083.	.100	1.000
Y	18.59	3.22	.052	.489	1.026	18.59	216747	.033	1.000

----- PROGR.(1) 0.00							
SOLLECITAZIONI	:						
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-160.9	0.0	0.0	1.7	0.0	17.3	
6-14	-131.5	14.4	0.0	-3.0	.8	13.7	
7-13	-121.5	-77.0	0.0	2.6	-4.1	13.2	

TENSIONI	:														
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE		
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si		
6-14	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si		
7-13	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si		

----- PROGR.(9) 18.59							
SOLLECITAZIONI	:						
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	0.0	0.0	0.0	
6- 3	0.0	0.0	0.0	4.3	-.8	-.4	
6-14	0.0	0.0	0.0	-4.3	.8	.4	
7-14	0.0	0.0	0.0	1.3	-4.1	-.1	

TENSIONI	:														
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE		
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si		
6- 3	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si		
6-14	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si		
7-14	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si		

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (30-31) 28
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale								Instabilita' torsionale							
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	k crit				
Z	33.33	1.92	.031	.487	1.028			33.33	13434.	.134	1.000				
Y	33.33	5.77	.093	.494	1.021			33.33	120908	.045	1.000				

----- PROGR.(1) 0.00							
SOLLECITAZIONI	:						
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	8321.6	-20.2	-4055.7	

TENSIONI	:														
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE		
1- 1	6.9	0.0	0.0	0.0	.068	0.000	0.000	0.00	0.0	0.00	5.1	.303	si		

----- PROGR.(9) 33.33							
SOLLECITAZIONI	:						
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-135224.7	671.2	0.0	8349.6	-20.2	-4069.2	

TENSIONI	:														
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE		
1- 1	7.0	0.0	11.3	.2	.144	0.000	.006	0.00	0.0	0.00	5.1	.304	si		

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (31-32) 29
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale								Instabilita' torsionale							
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	k crit				
Z	81.77	4.72	.076	.492	1.023			81.77	5475.6	.209	1.000				
Y	81.77	14.16	.228	.522	1.008			81.77	49280.	.070	1.000				

----- PROGR.(1) 0.00							
SOLLECITAZIONI	:						
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-135224.6	684.4	65.9	8483.0	29.3	-5056.4	
3- 1	-93876.7	555.9	52.6	6235.0	21.4	-3552.1	

TENSIONI	:														
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE		
1- 1	7.1	0.0	11.3	.2	.145	0.000	.006	.01	0.0	.01	6.3	.143	si		
3- 1	5.2	0.0	7.8	.1	.093	0.000	.002	.01	0.0	.01	4.4	.238	si		

----- PROGR.(9) 81.77							
SOLLECITAZIONI	:						
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-550632.8	-1713.7	65.9	8549.0	29.3	-5095.3	
3- 1	-386170.0	-1192.8	52.6	6301.0	21.4	-3591.0	

TENSIONI	:														
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE		
1- 1	7.1	0.0	45.9	.4	.379	0.000	.095	.01	0.0	.01	6.4	.145	si		
3- 1	5.3	0.0	32.2	.3	.242	0.000	.038	.01	0.0	.01	4.5	.241	si		

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (32-33) 30
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale								Instabilita' torsionale							
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	k crit				
Z	101.01	5.83	.094	.494	1.021			101.01	4432.5	.233	1.000				
Y	101.01	17.50	.281	.539	1.002			101.01	39893.	.078	1.000				

----- PROGR.(1) 0.00							
SOLLECITAZIONI	:						

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-550634.3	-1054.7	361.2	8381.8	49.0	-6442.2

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.0	0.0	45.9	.3	.377	0.000	.095	.06	.1	.06	8.1	.233	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1204301.6	-6001.6	361.2	8456.9	49.0	-6499.6

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	7.0	0.0	100.4	1.5	.749	0.000	.454	.06	.1	.06	8.1	.237	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (33-34) 31
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k	crit	
Z	37.62	2.17	.035	.487	1.027	37.62	11903.	.142	1.000		
Y	37.62	6.52	.105	.496	1.020	37.62	107123	.047	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1204295.3	-7067.8	-1157.1	8311.8	-10.9	-7664.1

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	6.9	0.0	100.4	1.8	.749	0.000	.454	.18	0.0	.18	9.6	.334	si

----- PROGR.(9) 37.62

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1492980.4	-6658.2	-1157.1	8337.7	-10.9	-7687.9

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	6.9	0.0	124.4	1.7	.910	0.000	.698	.18	0.0	.18	9.6	.336	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (34-35) 32
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k	crit	
Z	63.45	3.66	.059	.490	1.025	63.45	7056.9	.184	1.000		
Y	63.45	10.99	.177	.509	1.013	63.45	63512.	.061	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1492983.7	-5792.3	-761.9	-3394.6	-11.0	3620.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.8	124.4	1.4	.842	0.000	.716	.12	0.0	.12	4.5	.078	si

----- PROGR.(9) 63.45

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1264748.9	-5096.1	-761.9	-3353.7	-11.0	3577.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.8	105.4	1.3	.713	0.000	.519	.12	0.0	.12	4.5	.076	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (35-36) 33
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k	crit	
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000		
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1264747.2	-5287.4	-1705.4	-2522.0	-45.7	3399.1

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.1	105.4	1.3	.713	0.000	.515	.27	.1	.27	4.2	.075	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-925102.6	-672.2	-1705.4	-2464.6	-45.7	3323.9

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.1	77.1	.2	.518	0.000	.282	.27	.1	.27	4.2	.073	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (36-37) 34

khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-925104.0	113.4	-810.4	-1663.5	-14.5	3055.2

TENSIONI :											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	0.0	1.4	77.1	0.0	.518	0.000	.277	.13	0.0	.13	3.8
											fsTau VE
											.057 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-620599.9	1575.1	-810.4	-1616.7	-14.5	2973.1

TENSIONI :											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	0.0	1.3	51.7	.4	.349	0.000	.130	.13	0.0	.13	3.7
											fsTau VE
											.054 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (37-38) 35
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-620599.7	1446.2	-1140.8	-976.8	11.8	2565.3
6- 7	-165014.1	-403.0	13.0	101.7	5.8	731.1

TENSIONI :											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	0.0	.8	51.7	.4	.349	0.000	.126	.18	0.0	.18	3.2
6- 7	.1	0.0	13.8	.1	.084	0.000	.007	0.00	0.0	0.00	.9
											fsTau VE
											.044 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-365922.1	255.4	-1140.8	-941.1	11.8	2477.8
6- 7	-94585.9	-741.5	13.0	129.1	5.8	663.8

TENSIONI :											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	0.0	.8	30.5	.1	.205	0.000	.047	.18	0.0	.18	3.1
6- 7	.1	0.0	7.9	.2	.049	0.000	.002	0.00	0.0	0.00	.8
											fsTau VE
											.042 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (38-39) 36
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-365921.4	338.8	-1352.3	-461.8	-64.1	1954.4
6- 3	-96055.0	-1272.7	9.3	195.0	-6.9	547.5

TENSIONI :											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	0.0	.4	30.5	.1	.205	0.000	.044	.21	.1	.21	2.4
6- 3	.2	0.0	8.0	.3	.051	0.000	.002	0.00	0.0	0.00	.7
											fsTau VE
											.030 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-173206.4	6813.2	-1352.3	-438.2	-64.1	1862.9
6- 3	-44367.5	-577.2	9.3	213.2	-6.9	477.1

TENSIONI :											
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd
1- 1	0.0	.4	14.4	1.7	.104	0.000	.012	.21	.1	.21	2.3
6- 3	.2	0.0	3.7	.1	.024	0.000	0.000	0.00	0.0	0.00	.6
											fsTau VE
											.028 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (39-40) 37
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-173205.7	6962.1	-188.9	-158.2	52.5	1292.8
6- 4	-44504.8	-1570.8	35.3	166.7	-13.7	351.9

TENSIONI

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	14.4	1.7	.104	0.000	.010	.03	.1	.03	1.6	.011	si
6- 4	.1	0.0	3.7	.4	.025	0.000	.001	.01	0.0	.01	.4	.024	si

----- PROGR.(9) 101.01

SOLLECITAZIONI

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-47288.0	1652.5	-188.9	-146.8	52.5	1198.9
6- 4	-12459.3	-186.5	35.3	175.4	-13.7	279.6

TENSIONI

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	3.9	.4	.028	0.000	.002	.03	.1	.03	1.5	.009	si
6- 4	.1	0.0	1.0	0.0	.008	0.000	0.000	.01	0.0	.01	.3	.019	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (40-41) 38
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

LO	Scrit	LamRel	k crit
101.01	4432.5	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-47288.0	1663.3	0.0	-7.5	16.5	514.1

TENSIONI

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	3.9	.4	.028	0.000	.001	0.00	0.0	0.00	.6	.038	si

----- PROGR.(9) 101.01

SOLLECITAZIONI

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-157.8	0.0	0.0	-8.7	16.5	419.6
6- 1	-114.6	18.2	-1.3	97.7	18.2	81.2
6-16	-128.1	-18.2	1.4	-106.2	-4.4	89.9

TENSIONI

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.5	.031	si
6- 1	.1	0.0	0.0	0.0	.001	0.000	0.000	0.00	0.0	0.00	.1	.005	si
6-16	0.0	.1	0.0	0.0	0.000	0.000	.001	0.00	0.0	0.00	.1	.006	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (41-42) 39
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	18.39	1.06	.017	.486	1.029
Y	18.39	3.18	.051	.489	1.026

Instabilita' torsionale

LO	Scrit	LamRel	k crit
18.39	24349.	.099	1.000
18.39	219143	.033	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-157.8	0.0	0.0	1.5	0.0	17.2
6-16	-128.1	-18.2	0.0	-3.0	-1.0	13.6
7-13	-119.7	-75.8	0.0	2.2	-4.1	13.1

TENSIONI

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
7-13	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

----- PROGR.(9) 18.39

SOLLECITAZIONI

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	0.0	0.0	0.0
6- 1	0.0	0.0	0.0	4.2	1.0	-4.4
6-16	0.0	0.0	0.0	-4.2	-1.0	.4
7-13	0.0	0.0	0.0	1.0	-4.1	-1.1

TENSIONI

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
7-13	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (43-44) 40
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	34.02	1.96	.032	.487	1.028
Y	34.02	5.89	.095	.494	1.021

Instabilita' torsionale

LO	Scrit	LamRel	k crit
34.02	13160.	.135	1.000
34.02	118436	.045	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	12074.7	-37.4	-3632.9	
7-15	0.0	0.0	0.0	-5928.6	42.4	-1349.4	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.1	0.0	0.0	0.0	.098	0.000	0.000	0.00	0.0	0.00	4.5	.271 si
7-15	0.0	4.9	0.0	0.0	.001	0.000	.029	0.00	.1	0.00	1.7	.091 si

----- PROGR.(9) 34.02

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-123879.6	1274.4	0.0	12103.0	-37.4	-3647.4	
7-15	-46112.7	-1442.2	0.0	-5906.8	42.4	-1360.6	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.1	0.0	10.3	.3	.169	0.000	.005	0.00	0.0	0.00	4.6	.272 si
7-15	0.0	4.9	3.8	.4	.025	0.000	.030	0.00	.1	0.00	1.7	.091 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (44-45) 41
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	57.72	3.33	.054	.489	1.025	57.72	7757.0	.176	1.000
Y	57.72	10.00	.161	.506	1.015	57.72	69813.	.059	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-123876.8	1510.5	232.9	12076.9	60.2	-4624.2	
7-15	-46115.4	-1349.7	-46.9	-5954.9	-57.6	-1020.8	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.1	0.0	10.3	.4	.169	0.000	.005	.04	.1	.04	5.8	.120 si
7-15	0.0	5.0	3.8	.3	.025	0.000	.030	.01	.1	.01	1.3	.069 si

----- PROGR.(9) 57.72

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-391398.1	-1964.2	232.9	12123.2	60.2	-4652.1	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.1	0.0	32.6	.5	.320	0.000	.048	.04	.1	.04	5.8	.122 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (45-46) 42
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-391396.1	-2337.2	-240.9	12277.8	92.8	-6223.8	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.2	0.0	32.6	.6	.321	0.000	.048	.04	.1	.04	7.8	.217 si

----- PROGR.(9) 101.01

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-1022976.1	-11708.1	-240.9	12353.4	92.8	-6280.7	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.3	0.0	85.2	2.9	.685	0.000	.327	.04	.1	.04	7.9	.221 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (46-47) 43
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	54.26	3.13	.050	.489	1.026	54.26	8252.3	.171	1.000
Y	54.26	9.40	.151	.504	1.015	54.26	74271.	.057	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-1022978.7	-11414.7	-1245.1	12146.2	-76.9	-7955.6	

TENSIONI												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	10.1	0.0	85.2	2.9	.683	0.000	.327	.20	.1	.20	9.9	.360 si

----- PROGR.(9) 54.26

SOLLECITAZIONI							
Caso	MZ	MY	MT	N	TZ	TY	

1- 1	-1455790.7	-7241.7	-1245.1	12183.5	-76.9	-7990.1
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TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	10.2	0.0	121.3	1.8	.921	0.000	.663	.20	.1	.20	10.0	.363	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (47-48) 44
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	46.81	2.70	.043	.488	1.026
Y	46.81	8.11	.130	.500	1.018

Instabilita' torsionale

L0	Scrit	LamRel	K crit
46.81	9565.0	.158	1.000
46.81	86085.	.053	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1454911.0	-6872.8	-89.4	-430.7	229.2	4148.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.4	121.2	1.7	.821	0.000	.665	.01	.3	.01	5.2	.096	si

----- PROGR.(9) 46.81

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1261657.6	-17589.4	-89.4	-400.6	229.2	4116.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	105.1	4.4	.725	0.000	.500	.01	.3	.01	5.1	.095	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (48-49) 45
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1261656.3	-17577.1	-1901.4	-476.5	-157.4	3614.2

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.4	105.1	4.4	.725	0.000	.501	.30	.2	.30	4.5	.085	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-900213.6	-1672.4	-1901.4	-418.6	-157.4	3539.4

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	75.0	.4	.505	0.000	.256	.30	.2	.30	4.4	.082	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (49-50) 46
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.49	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.8	.233	1.000
101.01	39895.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-900213.9	-1349.3	-2010.7	382.2	-31.5	3019.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.3	0.0	75.0	.3	.508	0.000	.254	.32	0.0	.32	3.8	.064	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-599449.4	1835.6	-2010.7	429.6	-31.5	2937.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.4	0.0	50.0	.5	.341	0.000	.112	.32	0.0	.32	3.7	.061	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (50-51) 47
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.02	5.83	.094	.494	1.021
Y	101.02	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.02	4432.4	.233	1.000
101.02	39891.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
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1- 1	-599449.7	2197.5	-1480.3	-688.5	46.2	2491.8
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TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.6	50.0	.5	.338	0.000	.116	.23	.1	.23	3.1	.044	si

----- PROGR.(9) 101.02

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-352286.5	-2471.0	-1480.3	-652.3	46.2	2404.5

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.5	29.4	.6	.200	0.000	.042	.23	.1	.23	3.0	.042	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (51-52) 48
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-352286.0	-2271.5	-1866.8	-161.7	-159.7	1799.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	29.4	.6	.200	0.000	.040	.30	.2	.30	2.2	.030	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-175040.1	13873.2	-1866.8	-137.4	-159.7	1707.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	14.6	3.5	.113	0.000	.010	.30	.2	.30	2.1	.028	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (52-53) 49
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-175040.6	13992.3	-56.1	-389.4	133.9	1301.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	14.6	3.5	.113	0.000	.012	.01	.2	.01	1.6	.097	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-48332.9	468.9	-56.1	-377.4	133.9	1207.5

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	4.0	.1	.028	0.000	.003	.01	.2	.01	1.5	.090	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (53-54) 50
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-48332.9	472.2	.2	-226.1	4.7	524.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.2	4.0	.1	.028	0.000	.002	0.00	0.0	0.00	.7	.039	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-154.1	0.0	.2	-226.5	4.7	429.7
7- 1	-116.3	66.9	-5.4	144.8	20.7	60.5
7-16	-120.8	-66.9	5.8	-310.7	-12.6	117.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.2	0.0	0.0	0.000	0.000	.001	0.00	0.0	0.00	.5	.032	si
7- 1	.1	0.0	0.0	0.0	.001	0.000	0.000	0.00	0.0	0.00	.1	.004	si

7-16	0.0	.3	0.0	0.0	0.000	0.000	.002	0.00	0.0	0.00	.1	.008	si
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Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (54-55) 51
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	18.18	1.05	.017	.486	1.029	18.18	24632.	.099	1.000
Y	18.18	3.15	.051	.489	1.026	18.18	221688	.033	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-154.1	0.0	0.0	1.5	0.0	17.0
6-16	-123.9	-14.2	0.0	-2.2	-.8	13.3
7- 1	-116.3	67.2	0.0	2.5	3.7	12.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
7- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

----- PROGR.(9) 18.18

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	0.0	0.0	0.0
6- 1	0.0	0.0	0.0	3.3	.8	-.3
6-16	0.0	0.0	0.0	-3.3	-.8	.3
7- 4	0.0	0.0	0.0	-.5	3.9	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
7- 4	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (56-57) 52
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	54.68	3.16	.051	.489	1.026	54.68	8188.4	.171	1.000
Y	54.68	9.47	.152	.504	1.015	54.68	73696.	.057	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	3081.4	30.2	-4542.7
7- 4	0.0	0.0	0.0	-7794.1	129.0	-1200.4
7-13	0.0	0.0	0.0	8941.8	-112.7	-625.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.6	0.0	0.0	0.0	.025	0.000	0.000	0.00	0.0	0.00	5.7	.339	si
7- 4	0.0	6.5	0.0	0.0	.002	0.000	.039	0.00	.2	0.00	1.5	.081	si
7-13	7.5	0.0	0.0	0.0	.065	0.000	0.000	0.00	.1	0.00	.8	.042	si

----- PROGR.(9) 54.68

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-249350.8	-1652.7	0.0	3125.8	30.2	-4568.3
7- 4	-66244.2	-7058.9	0.0	-7760.0	129.0	-1220.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.6	0.0	20.8	.4	.167	0.000	.019	0.00	0.0	0.00	5.7	.341	si
7- 4	0.0	6.5	5.5	1.8	.042	0.000	.040	0.00	.2	0.00	1.5	.082	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (57-58) 53
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-249353.3	-1200.7	143.5	3406.5	1.9	-5219.3
7- 4	-66257.2	-6898.8	-687.5	-7154.0	-199.6	-402.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.8	0.0	20.8	.3	.168	0.000	.019	.02	0.0	.02	6.5	.152	si
7- 4	0.0	6.0	5.5	1.7	.041	0.000	.037	.11	.2	.11	.5	.005	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-779331.4	-1387.6	143.5	3482.7	1.9	-5275.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.9	0.0	64.9		.3	.466	0.000	.190	.02	0.0	.02	6.6	.156

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (58-59) 54
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	82.30	4.75	.076	.492	1.023	82.30	5440.3	.210	1.000		
Y	82.30	14.26	.229	.523	1.008	82.30	48963.	.070	1.000		

----- PROGR.(1) 0.00

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-779329.9	-1981.5	-575.4	3279.6	231.3	-6050.8

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.7	0.0	64.9	.5	.465	0.000	.190	.09	.3	.09	7.6	.207	

----- PROGR.(9) 82.30

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1279583.2	-21017.8	-575.4	3335.8	231.3	-6103.6

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.8	0.0	106.6	5.3	.765	0.000	.512	.09	.3	.09	7.6	.211	

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (59-60) 55
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	18.74	1.08	.017	.486	1.029	18.74	23890.	.100	1.000		
Y	18.74	3.25	.052	.489	1.025	18.74	215012	.033	1.000		

----- PROGR.(1) 0.00

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1280254.4	-18600.5	1472.3	-5633.6	62.4	2929.0

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.7	106.7	4.7	.737	0.000	.544	.23	.1	.23	3.7	.057	

----- PROGR.(9) 18.74

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1225494.0	-19768.9	1472.3	-5621.7	62.4	2916.1

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.7	102.1	4.9	.708	0.000	.501	.23	.1	.23	3.6	.057	

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (60-61) 56
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000		
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000		

----- PROGR.(1) 0.00

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1225442.9	-22513.5	-3348.5	-4039.9	-230.6	2917.1

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	3.4	102.1	5.6	.710	0.000	.493	.53	.3	.53	3.6	.069	

----- PROGR.(9) 101.01

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-934469.5	787.9	-3348.5	-3981.1	-230.6	2843.1

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	3.3	77.9	.2	.524	0.000	.295	.53	.3	.53	3.6	.067	

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (61-62) 57
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000		
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000		

----- PROGR.(1) 0.00

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-934470.7	1539.9	-2692.8	-3265.8	21.8	2855.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.7	77.9	.4	.525	0.000	.292	.43	0.0	.43	3.6	.063	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-646145.9	-663.5	-2692.8	-3265.8	21.8	2855.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.7	53.8	.2	.363	0.000	.149	.43	0.0	.43	3.6	.063	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (62-63) 58
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

Instabilita' torsionale

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-646145.6	-336.4	-2830.2	-1154.3	-14.6	2613.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.0	53.8	.1	.362	0.000	.137	.45	0.0	.45	3.3	.056	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-382095.1	1134.2	-2830.2	-1154.3	-14.6	2613.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.0	31.8	.3	.215	0.000	.052	.45	0.0	.45	3.3	.056	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (63-64) 59
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.5	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39892.	.078	1.000

Instabilita' torsionale

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-382095.7	1529.1	-2558.4	-612.5	-144.4	2076.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.5	31.8	.4	.215	0.000	.049	.41	.2	.41	2.6	.041	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-172347.8	16112.5	-2558.4	-612.5	-144.4	2076.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.5	14.4	4.0	.114	0.000	.013	.41	.2	.41	2.6	.041	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (64-65) 60
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.04	5.83	.094	.494	1.021	101.04	4431.6	.233	1.000
Y	101.04	17.50	.281	.539	1.002	101.04	39884.	.078	1.000

Instabilita' torsionale

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-172348.8	16296.2	-499.1	150.9	125.7	1330.6
7- 9	-40607.3	-7318.7	-33.7	179.5	-76.2	333.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.1	0.0	14.4	4.1	.115	0.000	.009	.08	.2	.08	1.7	.013	si
7- 9	.1	0.0	3.4	1.8	.029	0.000	0.000	.01	.1	.01	.4	.022	si

----- PROGR.(9) 101.04

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-42670.7	3602.2	-499.1	164.0	125.7	1237.0
6-13	-10950.2	1346.3	-186.4	-156.8	73.2	237.9
7- 9	-11395.6	246.5	-33.7	189.6	-76.2	261.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.1	0.0	3.6	.9	.029	0.000	.001	.08	.2	.08	1.5	.012	si
6-13	0.0	.1	.9	.3	.007	0.000	.001	.03	.1	.03	.3	.001	si
7- 9	.2	0.0	.9	.1	.007	0.000	0.000	.01	.1	.01	.3	.018	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (65-66) 61
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	100.99	5.83	.094	.494	1.021	100.99	4433.6	.233	1.000
Y	100.99	17.49	.281	.539	1.002	100.99	39902.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-42670.7	3636.7	0.0	329.1	36.0	468.5	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.3	0.0	3.6	.9	.030	0.000	.001	0.00	0.0	0.00	.6	.035	si

----- PROGR.(9) 100.99

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-149.3	0.0	0.0	329.8	36.0	374.0	
6-13	-118.9	30.4	-2.4	-33.5	13.2	71.0	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.3	0.0	0.0	0.0	.003	0.000	0.000	0.00	0.0	0.00	.5	.028	si
6-13	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.1	.005	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (66-67) 62
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	17.81	1.03	.017	.486	1.029	17.81	25134.	.098	1.000
Y	17.81	3.09	.050	.489	1.026	17.81	226206	.033	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-149.3	0.0	0.0	1.2	0.0	16.7	
6-16	-119.4	-11.1	0.0	-2.5	-.6	13.1	
7- 1	-112.7	66.5	0.0	2.6	3.7	12.7	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
7- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

----- PROGR.(9) 17.81

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	0.0	0.0	0.0	
6- 1	0.0	0.0	0.0	3.5	.6	-.3	
6-16	0.0	0.0	0.0	-3.5	-.6	.3	
7- 4	0.0	0.0	0.0	-.3	4.0	0.0	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
7- 4	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (68-69) 63
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	42.12	2.43	.039	.488	1.027	42.12	10630.	.150	1.000
Y	42.12	7.30	.117	.498	1.019	42.12	95668.	.050	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	5850.6	-57.9	-3934.7	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.9	0.0	0.0	0.0	.048	0.000	0.000	0.00	.1	0.00	4.9	.293	si

----- PROGR.(9) 42.12

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	-165890.3	2432.4	0.0	5883.4	-57.9	-3956.4	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.9	0.0	13.8	.6	.143	0.000	.009	0.00	.1	0.00	4.9	.295	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (69-70) 64
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

Instabilita' torsionale

AS	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	57.72	3.33	.054	.489	1.025	57.72	7756.9	.176	1.000
Y	57.72	10.00	.161	.506	1.015	57.72	69812.	.059	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-165890.9	2384.3	138.6	6088.4	2.4	-4720.2

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		5.1	0.0	13.8	.6	.145	0.000	.009	.02	0.0	.02	5.9	.125	si

----- PROGR.(9) 57.72

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-439679.9	2244.8	138.6	6131.4	2.4	-4753.1

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		5.1	0.0	36.6	.6	.298	0.000	.060	.02	0.0	.02	5.9	.127	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (70-71) 65
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale				
AS	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit	
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000	
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000	

----- PROGR.(1) 0.00

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-439679.9	2221.0	372.7	6024.3	217.3	-5744.3

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		5.0	0.0	36.6	.6	.297	0.000	.060	.06	.3	.06	7.2	.186	si

----- PROGR.(9) 101.01

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-1022980.1	-19723.3	372.7	6093.0	217.3	-5809.2

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		5.1	0.0	85.2	4.9	.643	0.000	.327	.06	.3	.06	7.3	.190	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (71-72) 66
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
AS	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	22.94	1.32	.021	.486	1.029	22.94	19515.	.111	1.000
Y	22.94	3.97	.064	.490	1.024	22.94	175631	.037	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-1022980.2	-19679.2	-1278.3	6063.6	-140.0	-6858.0

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		5.1	0.0	85.2	4.9	.643	0.000	.327	.20	.2	.20	8.6	.270	si

----- PROGR.(9) 22.94

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-1180365.6	-16465.6	-1278.3	6063.6	-140.0	-6858.0

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		5.1	0.0	98.4	4.1	.727	0.000	.436	.20	.2	.20	8.6	.270	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (72-73) 67
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
AS	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	K crit
Z	78.11	4.51	.073	.491	1.023	78.11	5732.4	.205	1.000
Y	78.11	13.53	.218	.520	1.009	78.11	51592.	.068	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-1179720.4	-16793.5	-2859.1	-2507.2	-138.5	3189.3

TENSIONI	:	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
Caso														
1- 1		0.0	2.1	98.3	4.2	.678	0.000	.449	.45	.2	.45	4.0	.075	si

----- PROGR.(9) 78.11

SOLLECITAZIONI	:	MZ	MY	MT	N	TZ	TY
Caso							
1- 1		-930426.6	-5965.8	-2859.1	-2507.2	-138.5	3189.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.1	77.5	1.5	.527	0.000	.285	.45	.2	.45	4.0	.075	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (73-74) 68
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-930430.7	-5231.0	-2969.4	-1801.5	-47.0	2943.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.5	77.5	1.3	.526	0.000	.281	.47	.1	.47	3.7	.068	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-633242.6	-488.8	-2969.4	-1801.5	-47.0	2943.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.5	52.8	.1	.355	0.000	.136	.47	.1	.47	3.7	.068	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (74-75) 69
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-633240.2	-295.1	-3464.7	-1132.4	-44.9	2550.4

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.9	52.8	.1	.355	0.000	.132	.55	.1	.55	3.2	.059	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-375757.3	4238.3	-3464.7	-1132.4	-44.9	2550.4

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.9	31.3	1.1	.215	0.000	.051	.55	.1	.55	3.2	.059	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (75-76) 70
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-375758.8	4786.9	-2435.8	-591.7	-85.5	2017.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.5	31.3	1.2	.215	0.000	.047	.39	.1	.39	2.5	.039	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-176418.2	13423.3	-2435.8	-565.4	-85.5	1927.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.5	14.7	3.4	.113	0.000	.013	.39	.1	.39	2.4	.037	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (76-77) 71
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-176419.6	13601.5	-804.1	-189.8	73.0	1324.8

6-12	-40806.1	-1403.0	6.3	-119.7	-14.2	319.5
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TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.2	14.7	3.4	.113	0.000	.011	.13	.1	.13	1.7	.015	si
6-12	0.0	.1	3.4	.4	.022	0.000	.001	0.00	0.0	0.00	.4	.021	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-47373.1	6233.1	-804.1	-175.9	73.0	1231.3
6-12	-12172.5	7.4	6.3	-108.9	-14.2	247.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	3.9	1.6	.033	0.000	.002	.13	.1	.13	1.5	.014	si
6-12	0.0	.1	1.0	0.0	.006	0.000	.001	0.00	0.0	0.00	.3	.017	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (77-78) 72
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale					Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-47373.1	6284.3	-.8	1.0	62.2	514.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	3.9	1.6	.033	0.000	.001	0.00	.1	0.00	.6	.038	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-143.5	0.0	-.8	2.5	62.2	420.3
6- 1	-107.6	11.8	-1.5	66.3	32.6	83.1
6-16	-113.2	-11.8	.3	-63.5	2.3	81.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	.1	0.00	.5	.031	si
6- 1	.1	0.0	0.0	0.0	.001	0.000	0.000	0.00	0.0	0.00	.1	.006	si
6-16	0.0	.1	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.1	.005	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (78-79) 73
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale					Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	17.53	1.01	.016	.486	1.029	17.53	25535.	.097	1.000
Y	17.53	3.04	.049	.489	1.026	17.53	229816	.032	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-143.5	0.0	0.0	1.0	0.0	16.4
6-16	-113.2	-11.9	0.0	-1.8	-.7	12.8
7- 1	-108.7	65.9	0.0	2.3	3.8	12.5

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
7- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

----- PROGR.(9) 17.53

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	0.0	0.0	0.0
6- 1	0.0	0.0	0.0	2.5	.7	-.2
6-16	0.0	0.0	0.0	-2.5	-.7	.2
7- 4	0.0	0.0	0.0	.2	4.1	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
7- 4	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (80-81) 74
 khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale					Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	52.00	3.00	.048	.489	1.026	52.00	8610.5	.167	1.000
Y	52.00	9.01	.145	.503	1.016	52.00	77495.	.056	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
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1- 1	0.0	0.0	0.0	4947.6	-124.3	-3872.5
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TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.1	0.0	0.0	0.0	.040	0.000	0.000	0.00	.2	0.00	4.8	.289	si

----- PROGR.(9) 52.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-202067.9	6462.5	0.0	4986.3	-124.3	-3902.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.2	0.0	16.8	1.6	.161	0.000	.013	0.00	.2	0.00	4.9	.291	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (81-82) 75
 Khz= 1 ; Khy= 1.1 ; Kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	86.58	5.00	.080	.492	1.023
Y	86.58	15.00	.241	.526	1.006

Instabilita' torsionale

L0	Scrit	LamRel	k crit
86.58	5171.4	.215	1.000
86.58	46542.	.072	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-202063.3	6563.5	732.9	5023.7	145.8	-4720.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.2	0.0	16.8	1.6	.161	0.000	.013	.12	.2	.12	5.9	.129	si

----- PROGR.(9) 86.58

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-613122.3	-6059.8	732.9	5083.1	145.8	-4775.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.2	0.0	51.1	1.5	.391	0.000	.118	.12	.2	.12	6.0	.132	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (82-83) 76
 Khz= 1 ; Khy= 1.1 ; Kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	74.14	4.28	.069	.491	1.024
Y	74.14	12.84	.207	.517	1.010

Instabilita' torsionale

L0	Scrit	LamRel	k crit
74.14	6038.9	.199	1.000
74.14	54350.	.066	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-613121.7	-6159.7	21.8	4971.1	105.1	-5771.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.1	0.0	51.1	1.5	.390	0.000	.118	0.00	.1	0.00	7.2	.430	si

----- PROGR.(9) 74.14

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1040808.3	-13946.3	21.8	4971.1	105.1	-5771.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	4.1	0.0	86.7	3.5	.638	0.000	.339	0.00	.1	0.00	7.2	.430	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (83-84) 77
 Khz= 1 ; Khy= 1.1 ; Kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	26.91	1.55	.025	.487	1.028
Y	26.91	4.66	.075	.492	1.023

Instabilita' torsionale

L0	Scrit	LamRel	k crit
26.91	16637.	.120	1.000
26.91	149732	.040	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-1041534.2	-15011.5	-2438.4	-2662.9	110.2	3501.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.2	86.8	3.8	.599	0.000	.354	.39	.1	.39	4.4	.084	si

----- PROGR.(9) 26.91

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-946868.3	-17991.8	-2438.4	-2662.9	110.2	3501.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.2	78.9	4.5	.549	0.000	.295	.39	.1	.39	4.4	.084	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (84-85) 78

khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
AS	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	K crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-946882.7	-17122.5	-3024.8	-1971.1	-156.0	3091.7

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	1.6	78.9	4.3	.548	0.000	.292	.48	.2	.48	3.9	.073 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-638631.9	-1367.4	-3024.8	-1920.4	-156.0	3011.9

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	1.6	53.2	.3	.359	0.000	.138	.48	.2	.48	3.8	.070 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (85-86) 79
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
AS	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	K crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-638628.2	-1232.7	-3779.9	-1232.3	-64.3	2647.8

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	1.0	53.2	.3	.359	0.000	.135	.60	.1	.60	3.3	.064 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-375707.2	5258.3	-3779.9	-1192.7	-64.3	2562.1

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	1.0	31.3	1.3	.216	0.000	.051	.60	.1	.60	3.2	.061 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (86-87) 80
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
AS	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	K crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-375708.6	5873.6	-2531.8	-632.5	-61.3	2029.1

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.5	31.3	1.5	.216	0.000	.048	.40	.1	.40	2.5	.039 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-175206.4	12068.9	-2531.8	-604.5	-61.3	1938.7

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.5	14.6	3.0	.111	0.000	.013	.40	.1	.40	2.4	.037 si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (87-88) 81
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale						Instabilita' torsionale			
AS	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	K crit
Z	101.01	5.83	.094	.494	1.021	101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002	101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :						
Caso	MZ	MY	MT	N	TZ	TY
1- 1	-175207.4	12271.1	-1072.9	-218.7	44.5	1314.9
6-12	-40272.6	-1382.4	-4.2	-110.7	-13.7	316.9

TENSIONI :												
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.2	14.6	3.1	.111	0.000	.011	.17	.1	.17	1.6	.017 si
6-12	0.0	.1	3.4	.3	.022	0.000	.001	0.00	0.0	0.00	.4	.021 si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-47116.2	7779.5	-1072.9	-202.9	44.5	1221.6
6-12	-11884.9	-12.4	-4.2	-98.5	-13.7	245.2

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.2	3.9	1.9	.035	0.000	.002	.17	.1	.17	1.5	.015	si
6-12	0.0	.1	1.0	0.0	.006	0.000	.001	0.00	0.0	0.00	.3	.016	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (88-89) 82
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

L0	Scrit	LamRel	k crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-47116.1	7854.0	.2	-12.5	77.8	512.5

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	3.9	2.0	.035	0.000	.001	0.00	.1	0.00	.6	.038	si

----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-135.9	0.0	.2	-9.2	77.8	418.1
6- 1	-103.0	9.9	-.7	49.5	39.9	82.6
6-16	-106.1	-9.9	1.0	-51.8	3.0	79.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	.1	0.00	.5	.031	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.1	.006	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.1	.005	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (89-90) 83
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	16.96	.98	.016	.486	1.029
Y	16.96	2.94	.047	.488	1.026

Instabilita' torsionale

L0	Scrit	LamRel	k crit
16.96	26403.	.095	1.000
16.96	237627	.032	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-135.9	0.0	0.0	.7	0.0	15.9
6-16	-106.1	-10.0	0.0	-1.4	-.6	12.4
7- 1	-103.4	56.9	0.0	2.0	3.3	12.2

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
7- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

----- PROGR.(9) 16.96

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	0.0	0.0	0.0
6- 1	0.0	0.0	0.0	1.9	.6	-.1
6-16	0.0	0.0	0.0	-1.9	-.6	.1
7- 4	0.0	0.0	0.0	.5	3.6	0.0

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
7- 4	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (91-92) 84
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	61.85	3.57	.057	.490	1.025
Y	61.85	10.71	.172	.508	1.013

Instabilita' torsionale

L0	Scrit	LamRel	k crit
61.85	7238.7	.182	1.000
61.85	65148.	.061	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	2028.4	-57.2	-1953.8

TENSIONI :

Caso	StOd	ScOd	Smzd	Smyd	fsPfd	fsIfI	fsItO	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	0.0	0.0	.017	0.000	0.000	0.00	.1	0.00	2.4	.146	si

----- PROGR.(9) 61.85

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-120884.6	3536.4	0.0	2028.4	-57.2	-1953.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	10.1	.9	.088	0.000	.005	0.00	.1	0.00	2.4	.146	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (92-93) 85
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	101.01	5.83	.094	.494	1.021
Y	101.01	17.50	.281	.539	1.002

Instabilita' torsionale

LO	Scrit	LamRel	K crit
101.01	4432.6	.233	1.000
101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-120880.7	3629.7	508.6	2007.8	-16.8	-2386.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	10.1	.9	.088	0.000	.005	.08	0.0	.08	3.0	.035	si

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-365508.9	5321.6	508.6	2069.6	-16.8	-2458.2

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	30.5	1.3	.227	0.000	.042	.08	0.0	.08	3.1	.037	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (93-94) 86
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	36.67	2.12	.034	.487	1.027
Y	36.67	6.35	.102	.495	1.020

Instabilita' torsionale

LO	Scrit	LamRel	K crit
36.67	12210.	.140	1.000
36.67	109887	.047	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-365511.7	5094.4	780.6	2023.6	10.6	-2906.3
6- 2	-117104.7	690.9	9.4	900.2	-29.8	-947.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	30.5	1.3	.226	0.000	.042	.12	0.0	.12	3.6	.052	si
6- 2	.8	0.0	9.8	.2	.066	0.000	.003	0.00	0.0	0.00	1.2	.064	si

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-472679.0	4707.2	780.6	2043.6	10.6	-2934.2
6- 2	-152281.0	2880.6	9.4	915.6	-29.8	-968.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	39.4	1.2	.286	0.000	.070	.12	0.0	.12	3.7	.053	si
6- 2	.8	0.0	12.7	.7	.086	0.000	.006	0.00	0.0	0.00	1.2	.065	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (94-95) 87
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	64.39	3.72	.060	.490	1.025
Y	64.39	11.15	.179	.510	1.013

Instabilita' torsionale

LO	Scrit	LamRel	K crit
64.39	6953.4	.186	1.000
64.39	62580.	.062	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-472761.5	1880.9	-3868.3	-1099.2	25.4	1776.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.9	39.4	.5	.267	0.000	.076	.61	0.0	.61	2.2	.043	si

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-360089.1	246.0	-3868.3	-1067.4	25.4	1725.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.9	30.0	.1	.202	0.000	.046	.61	0.0	.61	2.2	.042	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (95-96) 88
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

Instabilita' torsionale

As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	K crit
Z	101.01	5.83	.094	.494	1.021			101.01	4432.6	.233	1.000
Y	101.01	17.50	.281	.539	1.002			101.01	39893.	.078	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-360092.8	860.2	-3407.1	-714.8	-72.7	1487.3					

TENSIONI													:
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.6	30.0	.2	.202	0.000	.045	.54	.1	.54	1.9	.035	si

----- PROGR.(9) 101.01

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-214175.4	8204.1	-3407.1	-674.0	-72.7	1402.1					

TENSIONI													:
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.6	17.8	2.1	.129	0.000	.018	.54	.1	.54	1.8	.033	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (96-97) 89
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale								Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	K crit		
Z	101.01	5.83	.094	.494	1.021			101.01	4432.6	.233	1.000		
Y	101.01	17.50	.281	.539	1.002			101.01	39893.	.078	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-214175.7	8535.7	-2435.7	-375.1	-34.4	1156.0					
6- 4	-69210.6	-1421.9	-29.9	-28.1	-12.6	398.6					

TENSIONI													:
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	17.8	2.1	.129	0.000	.016	.39	0.0	.39	1.4	.023	si
6- 4	0.0	0.0	5.8	.4	.036	0.000	.001	0.00	0.0	0.00	.5	.027	si

----- PROGR.(9) 101.01

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-101850.9	12008.7	-2435.7	-346.0	-34.4	1066.0					

TENSIONI													:
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	8.5	3.0	.070	0.000	.005	.39	0.0	.39	1.3	.022	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (97-98) 90
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale								Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	K crit		
Z	101.01	5.83	.094	.494	1.021			101.01	4432.6	.233	1.000		
Y	101.01	17.50	.281	.539	1.002			101.01	39893.	.078	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-101850.6	12229.1	-799.2	-138.6	61.5	776.9					
6- 4	-32178.0	-55.7	-33.0	14.7	-3.0	262.2					

TENSIONI													:
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	8.5	3.1	.070	0.000	.004	.13	.1	.13	1.0	.009	si
6- 4	0.0	0.0	2.7	0.0	.016	0.000	0.000	.01	0.0	.01	.3	.018	si

----- PROGR.(9) 101.01

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-28096.1	6015.2	-799.2	-121.7	61.5	683.9					
6- 4	-9233.5	255.6	-33.0	27.7	-3.0	190.6					

TENSIONI													:
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.1	2.3	1.5	.022	0.000	.001	.13	.1	.13	.9	.008	si
6- 4	0.0	0.0	.8	.1	.005	0.000	0.000	.01	0.0	.01	.2	.013	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (98-99) 91
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale								Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	K crit		
Z	101.01	5.83	.094	.494	1.021			101.01	4432.6	.233	1.000		
Y	101.01	17.50	.281	.539	1.002			101.01	39893.	.078	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI	:										
Caso	MZ	MY	MT	N	TZ	TY					
1- 1	-28096.1	6068.1	-.2	-13.3	60.0	324.0					

TENSIONI			:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE

1- 1	0.0	0.0	2.3	1.5	.022	0.000	0.000	0.00	.1	0.00	.4	.024	si
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----- PROGR.(9) 101.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-128.6	0.0	-.2	-8.8	60.0	229.5
6- 1	-97.8	5.7	-.6	36.5	42.2	57.1
6-16	-100.0	-5.7	.3	-39.9	-2.1	44.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	.1	0.00	.3	.017	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	.1	0.00	.1	.004	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.1	.003	si

Rettangolare (sezione n. 1; b=20; h=60) ----- ASTA (99-100) 92
khz= 1 ; khy= 1.1 ; kht= 1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	16.59	.96	.015	.486	1.029
Y	16.59	2.87	.046	.488	1.026

Instabilita' torsionale

LO	Scrit	LamRel	K crit
16.59	26986.	.094	1.000
16.59	242875	.031	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-128.6	0.0	0.0	.5	0.0	15.5
6-16	-100.0	0.0	0.0	-1.8	-.3	12.0
7- 4	-98.6	56.7	0.0	.9	3.4	11.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si
7- 4	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

----- PROGR.(9) 16.59

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	0.0	0.0	0.0
6- 1	0.0	0.0	0.0	2.2	.3	-.1
6-16	0.0	0.0	0.0	-2.2	-.3	.1
7-13	0.0	0.0	0.0	-.5	-3.4	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6- 1	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
6-16	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si
7-13	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (226-225) 185
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	511.46	55.37	.891	.926	.847
Y	511.46	88.59	1.425	1.571	.448

Instabilita' torsionale

LO	Scrit	LamRel	K crit
511.46	1533.4	.396	1.000
511.46	3925.6	.247	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-14765.9	141.8	0.0	-8427.0	.3	28.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	13.2	4.3	.1	.035	.217	.198	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 511.46

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-8171.7	.3	28.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	12.8	0.0	0.0	.007	.191	.191	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (228-227) 186
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	511.46	55.37	.891	.926	.847
Y	511.46	88.59	1.425	1.571	.448

Instabilita' torsionale

LO	Scrit	LamRel	K crit
511.46	1533.4	.396	1.000
511.46	3925.6	.247	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-14210.5	-179.9	0.0	-8418.4	-.4	27.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	13.2	4.2	.1	.034	.216	.198	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 511.46

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-8163.1	-.4	27.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	12.8	0.0	0.0	.007	.191	.191	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (230-229) 187
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	502.20	54.36	.874	.911	.857
Y	502.20	86.98	1.399	1.534	.463

Instabilita' torsionale

L0	Scrit	LamRel	k crit
502.20	1561.7	.392	1.000
502.20	3998.0	.245	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-15582.2	-193.2	0.0	-7974.6	-.4	31.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	12.5	4.6	.1	.036	.202	.182	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 502.20

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-7723.9	-.4	31.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	12.1	0.0	0.0	.007	.175	.175	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (232-231) 188
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	502.20	54.36	.874	.911	.857
Y	502.20	86.98	1.399	1.534	.463

Instabilita' torsionale

L0	Scrit	LamRel	k crit
502.20	1561.7	.392	1.000
502.20	3998.0	.245	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-15486.2	-654.0	0.0	-9056.5	-1.3	30.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	14.2	4.5	.3	.039	.227	.206	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 502.20

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-8805.8	-1.3	30.8
7-16	0.0	0.0	0.0	667.3	-3.1	-4.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	13.8	0.0	0.0	.009	.200	.200	0.00	0.0	0.00	.1	.004	si
7-16	1.0	0.0	0.0	0.0	.009	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (234-233) 189
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	488.96	52.93	.851	.890	.870
Y	488.96	84.69	1.362	1.481	.485

Instabilita' torsionale

L0	Scrit	LamRel	k crit
488.96	1604.0	.387	1.000
488.96	4106.2	.242	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-10604.3	448.0	0.0	-6542.5	.9	21.7

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	10.2	3.1	.2	.025	.156	.142	0.00	0.0	0.00	.1	.003	si

----- PROGR.(9) 488.96

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-6298.4	.9	21.7
7- 4	0.0	0.0	0.0	1254.7	5.0	-7.3

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	9.8	0.0	0.0	.004	.136	.136	0.00	0.0	0.00	.1	.003	si
7- 4	2.0	0.0	0.0	0.0	.016	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (236-235) 190
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
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Instabilita' torsionale

L0	Scrit	LamRel	k crit
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Z	488.96	52.93	.851	.890	.870		488.96	1604.0	.387	1.000
Y	488.96	84.69	1.362	1.481	.485		488.96	4106.2	.242	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		-9714.4		29.0		0.0		-5950.1		.1	19.9

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	9.3	2.8	0.0	.022	.141	.129	0.00	0.0	0.00	0.0	.003	si

----- PROGR.(9) 488.96

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-5705.9		.1	19.9
7- 4		0.0		0.0		0.0		361.1		5.2	-1.0

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	8.9	0.0	0.0	.004	.123	.123	0.00	0.0	0.00	0.0	.003	si
7- 4	.6	0.0	0.0	0.0	.005	0.000	0.000	0.00	0.0	0.00	0.0	.001	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (238-237) 191
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale						Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k	crit
Z	467.74	50.63	.814	.857	.889	467.74	1676.8	.378	1.000	
Y	467.74	81.02	1.303	1.399	.524	467.74	4292.5	.236	1.000	

----- PROGR.(1) 0.00

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		-12396.9		518.7		0.0		-6821.0		1.1	26.5

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	10.7	3.6	.2	.029	.154	.137	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 467.74

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-6587.5		1.1	26.5

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	10.3	0.0	0.0	.005	.132	.132	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (240-239) 192
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale						Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k	crit
Z	467.74	50.63	.814	.857	.889	467.74	1676.8	.378	1.000	
Y	467.74	81.02	1.303	1.399	.524	467.74	4292.5	.236	1.000	

----- PROGR.(1) 0.00

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		-12018.3		192.1		0.0		-6856.8		.4	25.7

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	10.7	3.5	.1	.028	.153	.138	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 467.74

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-6623.3		.4	25.7

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	10.3	0.0	0.0	.005	.133	.133	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (242-241) 193
khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale						Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k	crit
Z	449.44	48.65	.783	.830	.903	449.44	1745.0	.371	1.000	
Y	449.44	77.85	1.252	1.331	.560	449.44	4467.2	.232	1.000	

----- PROGR.(1) 0.00

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY
1- 1		-11005.3		1363.1		0.0		-6207.9		3.0	24.5

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	9.7	3.2	.6	.027	.134	.117	0.00	0.0	0.00	.1	.003	si

----- PROGR.(9) 449.44

SOLLECITAZIONI :											
Caso		MZ		MY		MT		N		TZ	TY

1- 1	0.0	0.0	0.0	-5983.5	3.0	24.5
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TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	9.3	0.0	0.0	.004	.112	.112	0.00	0.0	0.00	.1	.003	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (244-243) 194
 khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	449.44	48.65	.783	.830	.903	449.44	1745.0	.371	1.000		
Y	449.44	77.85	1.252	1.331	.560	449.44	4467.2	.232	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-12610.8	944.6	0.0	-6256.7	2.1	28.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	9.8	3.7	.4	.029	.136	.118	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 449.44

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-6032.4	2.1	28.1

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	9.4	0.0	0.0	.004	.113	.113	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (246-245) 195
 khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	424.51	45.95	.739	.795	.919	424.51	1847.5	.360	1.000		
Y	424.51	73.53	1.183	1.243	.614	424.51	4729.6	.225	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-5792.6	3357.1	0.0	-2917.1	7.9	13.6
7- 4	2090.7	7867.9	0.0	-712.7	18.5	-4.9
7-13	-5262.1	-6738.5	0.0	-1150.0	-15.9	12.4

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.6	1.7	1.6	.018	.067	.050	0.00	0.0	0.00	0.0	.002	si
7- 4	0.0	1.1	.6	3.7	.023	.034	.011	0.00	0.0	0.00	0.0	.002	si
7-13	0.0	1.8	1.5	3.2	.024	.041	.018	0.00	0.0	0.00	0.0	.002	si

----- PROGR.(9) 424.51

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-2705.2	7.9	13.6
7- 4	0.0	0.0	0.0	-549.7	18.5	-4.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.2	0.0	0.0	.001	.046	.046	0.00	0.0	0.00	0.0	.002	si
7- 4	0.0	.9	0.0	0.0	0.000	.008	.008	0.00	0.0	0.00	0.0	.002	si

Rettangolare (sezione n. 2; b=20; h=32) ----- ASTA (248-247) 196
 khz= 1.065 ; khy= 1.1 ; kht= 1.065

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		
Z	424.51	45.95	.739	.795	.919	424.51	1847.5	.360	1.000		
Y	424.51	73.53	1.183	1.243	.614	424.51	4729.6	.225	1.000		

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	-11266.2	2952.6	0.0	-3202.2	7.0	26.5

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	5.0	3.3	1.4	.028	.078	.055	0.00	0.0	0.00	.1	.004	si

----- PROGR.(9) 424.51

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-2990.2	7.0	26.5

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.7	0.0	0.0	.001	.051	.051	0.00	0.0	0.00	.1	.004	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (66-78) 271
 khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale						Instabilita' torsionale					
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit		

Z	207.33	44.89	.722	.782	.925		207.33	2652.3	.301	1.000
Y	207.33	59.85	.963	.996	.798		207.33	4715.2	.226	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		0.0		0.0		0.0		-163.5		-16.0		189.3
7- 4		0.0		0.0		0.0		47.9		-2.7		31.8

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.9	0.0	0.0	0.000	.007	.007	0.00	.1	0.00	1.5	.088	si
7- 4	.2	0.0	0.0	0.0	.002	0.000	0.000	0.00	0.0	0.00	.2	.013	si

----- PROGR.(5) 103.66

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		9811.8		829.1		0.0		-204.9		0.0		0.0

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.1	19.2	2.2	.126	.134	.023	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 207.33

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		0.0		0.0		0.0		-246.3		16.0		-189.3
7- 4		0.0		0.0		0.0		34.0		2.7		-31.8

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.3	0.0	0.0	0.000	.011	.011	0.00	.1	0.00	1.5	.088	si
7- 4	.2	0.0	0.0	0.0	.001	0.000	0.000	0.00	0.0	0.00	.2	.013	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (28-41) 274
Khz= 1.1 ; Khy= 1.1 ; Kht= 1.1

Instabilita' flessionale						Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k	crit
Z	202.52	43.85	.705	.769	.930	202.52	2715.2	.297	1.000	
Y	202.52	58.46	.940	.974	.814	202.52	4827.0	.223	1.000	

----- PROGR.(1) 0.00

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		0.0		0.0		0.0		252.3		-16.0		189.1

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	0.0	0.0	.012	0.000	0.000	0.00	.1	0.00	1.5	.088	si

----- PROGR.(5) 101.26

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		9572.6		808.9		0.0		251.9		0.0		0.0
6- 6		1609.4		136.0		0.0		63.7		0.0		0.0

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	18.7	2.1	.135	0.000	.013	0.00	0.0	0.00	0.0	0.000	si
6- 6	.3	0.0	3.1	.4	.021	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 202.52

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		0.0		0.0		0.0		251.5		16.0		-189.1
6- 6		0.0		0.0		0.0		63.7		2.7		-31.8

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	0.0	0.0	.012	0.000	0.000	0.00	.1	0.00	1.5	.088	si
6- 6	.3	0.0	0.0	0.0	.003	0.000	0.000	0.00	0.0	0.00	.2	.013	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (65-77) 283
Khz= 1.1 ; Khy= 1.1 ; Kht= 1.1

Instabilita' flessionale						Instabilita' torsionale				
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k	crit
Z	202.16	43.77	.704	.768	.930	202.16	2720.0	.297	1.000	
Y	202.16	58.36	.939	.972	.815	202.16	4835.6	.223	1.000	

----- PROGR.(1) 0.00

SOLLECITAZIONI :												
Caso		MZ		MY		MT		N		TZ		TY
1- 1		0.0		0.0		0.0		102.8		17.3		354.2
7- 4		0.0		0.0		0.0		152.0		2.5		50.7
7-13		0.0		0.0		0.0		-107.8		2.5		50.7

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.5	0.0	0.0	0.0	.005	0.000	0.000	0.00	.1	0.00	2.8	.165	si
7- 4	.8	0.0	0.0	0.0	.006	0.000	0.000	0.00	0.0	0.00	.4	.021	si
7-13	0.0	.6	0.0	0.0	0.000	.004	.004	0.00	0.0	0.00	.4	.021	si

----- PROGR.(5) 101.08

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	17897.8	-872.2	0.0	21.6	0.0	0.0	
3- 1	11858.3	-526.9	0.0	-3.2	0.0	0.0	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.1	0.0	35.0	2.3	.224	0.000	.046	0.00	0.0	0.00	0.0	0.000	si
3- 1	0.0	0.0	23.2	1.4	.132	.133	.016	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(6) 126.35

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	16779.2	-817.7	0.0	1.3	-4.3	-88.6	
2- 1	17367.3	-817.7	0.0	-11.2	-4.3	-91.7	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	32.8	2.1	.209	0.000	.040	0.00	0.0	0.00	.7	.041	si
2- 1	0.0	.1	33.9	2.1	.194	.195	.035	0.00	0.0	0.00	.7	.038	si

----- PROGR.(9) 202.16

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	-59.6	-17.3	-354.2	
7- 4	0.0	0.0	0.0	128.8	-2.5	-50.7	
7-13	0.0	0.0	0.0	-131.0	-2.5	-50.7	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.3	0.0	0.0	0.000	.003	.003	0.00	.1	0.00	2.8	.165	si
7- 4	.7	0.0	0.0	0.0	.005	0.000	0.000	0.00	0.0	0.00	.4	.021	si
7-13	0.0	.7	0.0	0.0	0.000	.005	.005	0.00	0.0	0.00	.4	.021	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (27-40) 286
khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale								Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	k crit
Z	197.02	42.66	.686	.755	.935			197.02	2791.0	.293	1.000
Y	197.02	56.88	.915	.949	.832			197.02	4961.7	.220	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	-232.5	17.3	354.1	
2- 1	0.0	0.0	0.0	-259.2	17.3	366.2	
6-15	0.0	0.0	0.0	3.2	2.5	50.7	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.2	0.0	0.0	0.000	.010	.010	0.00	.1	0.00	2.8	.165	si
2- 1	0.0	1.4	0.0	0.0	0.000	.010	.010	0.00	.1	0.00	2.9	.154	si
6-15	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.4	.021	si

----- PROGR.(5) 98.51

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	17436.4	-849.7	0.0	-234.1	0.0	0.0	
6- 6	2495.5	-121.6	0.0	-102.0	0.0	0.0	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.2	34.1	2.2	.217	.226	.053	0.00	0.0	0.00	0.0	0.000	si
6- 6	0.0	.5	4.9	.3	.028	.031	.005	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 197.02

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	-235.8	-17.3	-354.1	
2- 1	0.0	0.0	0.0	-262.5	-17.3	-366.2	
6-15	0.0	0.0	0.0	2.8	-2.5	-50.7	

TENSIONI :													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.2	0.0	0.0	0.000	.010	.010	0.00	.1	0.00	2.8	.165	si
2- 1	0.0	1.4	0.0	0.0	0.000	.010	.010	0.00	.1	0.00	2.9	.154	si
6-15	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	0.0	0.00	.4	.021	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (64-76) 295
khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale								Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc			L0	Scrit	LamRel	k crit
Z	197.07	42.67	.686	.755	.935			197.07	2790.2	.293	1.000
Y	197.07	56.89	.915	.949	.832			197.07	4960.4	.220	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :							
Caso	MZ	MY	MT	N	TZ	TY	
1- 1	0.0	0.0	0.0	453.4	62.3	339.2	
7- 4	0.0	0.0	0.0	534.5	8.9	48.5	
7-13	0.0	0.0	0.0	-309.7	8.9	48.5	

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.4	0.0	0.0	0.0	.021	0.000	0.000	0.00	.5	0.00	2.6	.158	si
7- 4	2.8	0.0	0.0	0.0	.022	0.000	0.000	0.00	.1	0.00	.4	.020	si
7-13	0.0	1.6	0.0	0.0	0.000	.012	.012	0.00	.1	0.00	.4	.020	si

----- PROGR.(5) 98.54

Caso	MZ	MY	MT	N	TZ	TY
1- 1	16707.3	-3069.4	0.0	370.6	0.0	0.0
7-13	2391.2	-439.3	0.0	-321.6	0.0	0.0

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.9	0.0	32.6	8.0	.250	0.000	.040	0.00	0.0	0.00	0.0	0.000	si
7-13	0.0	1.7	4.7	1.1	.030	.041	.013	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 197.07

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	287.8	-62.3	-339.2
7- 4	0.0	0.0	0.0	510.8	-8.9	-48.5
7-13	0.0	0.0	0.0	-333.4	-8.9	-48.5

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.5	0.0	0.0	0.0	.013	0.000	0.000	0.00	.5	0.00	2.6	.158	si
7- 4	2.7	0.0	0.0	0.0	.021	0.000	0.000	0.00	.1	0.00	.4	.020	si
7-13	0.0	1.7	0.0	0.0	0.000	.013	.013	0.00	.1	0.00	.4	.020	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (26-39) 298
Kh_z= 1.1 ; Kh_y= 1.1 ; Kh_t= 1.1

As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	191.57	41.48	.667	.741	.941	191.57	2870.5	.289	1.000
Y	191.57	55.30	.889	.925	.848	191.57	5103.1	.217	1.000

----- PROGR.(1) 0.00

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-775.5	62.3	339.1

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.0	0.0	0.0	.001	.032	.032	0.00	.5	0.00	2.6	.158	si

----- PROGR.(5) 95.78

Caso	MZ	MY	MT	N	TZ	TY
1- 1	16241.3	-2983.8	0.0	-778.0	0.0	0.0

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.1	31.7	7.8	.228	.256	.070	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 191.57

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-780.5	-62.3	-339.1

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	4.1	0.0	0.0	.001	.032	.032	0.00	.5	0.00	2.6	.158	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (63-75) 307
Kh_z= 1.1 ; Kh_y= 1.1 ; Kh_t= 1.1

As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	192.15	41.60	.669	.742	.940	192.15	2861.7	.290	1.000
Y	192.15	55.47	.892	.928	.846	192.15	5087.5	.217	1.000

----- PROGR.(1) 0.00

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	82.0	99.5	305.7
7- 4	0.0	0.0	0.0	162.8	11.5	35.4
7-13	0.0	0.0	0.0	-143.8	11.5	35.4

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.4	0.0	0.0	0.0	.004	0.000	0.000	0.00	.8	0.00	2.4	.143	si
7- 4	.8	0.0	0.0	0.0	.007	0.000	0.000	0.00	.1	0.00	.3	.015	si
7-13	0.0	.7	0.0	0.0	0.000	.005	.005	0.00	.1	0.00	.3	.015	si

----- PROGR.(5) 96.08

Caso	MZ	MY	MT	N	TZ	TY
1- 1	14687.7	-4780.8	0.0	.9	0.0	0.0
2- 1	15254.9	-4780.8	0.0	-15.2	0.0	0.0

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	0.0	28.7	12.5	.228	0.000	.031	0.00	0.0	0.00	0.0	0.000	si
2- 1	0.0	.1	29.8	12.5	.212	.212	.027	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(6) 120.10

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		13769.7		-4482.0		0.0		-19.4		-24.9	-76.4

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.1	26.9	11.7	.214	.215	.028	0.00	.2	0.00	.6	.036 si

----- PROGR.(9) 192.15

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-80.2		-99.5	-305.7
7- 4		0.0		0.0		0.0		144.0		-11.5	-35.4
7-13		0.0		0.0		0.0		-162.6		-11.5	-35.4

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	.4	0.0	0.0	0.000	.003	.003	0.00	.8	0.00	2.4	.143 si
7- 4	.8	0.0	0.0	0.0	.006	0.000	0.000	0.00	.1	0.00	.3	.015 si
7-13	0.0	.8	0.0	0.0	0.000	.006	.006	0.00	.1	0.00	.3	.015 si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (25-38) 310
 khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k crit
Z	186.24	40.32	.649	.728	.945	186.24	2952.5	.285	1.000
Y	186.24	53.76	.865	.902	.863	186.24	5248.9	.214	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-407.6		103.7	318.6

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	2.1	0.0	0.0	0.000	.017	.017	0.00	.8	0.00	2.5	.149 si

----- PROGR.(5) 93.12

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		14828.9		-4826.8		0.0		-411.0		0.0	0.0

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	2.1	29.0	12.6	.231	.246	.048	0.00	0.0	0.00	0.0	0.000 si

----- PROGR.(9) 186.24

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-414.4		-103.7	-318.6

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	2.2	0.0	0.0	0.000	.017	.017	0.00	.8	0.00	2.5	.149 si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (62-74) 319
 khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	LO	Lam	LamRel	k	kc	LO	Scrit	LamRel	k crit
Z	187.48	40.59	.653	.731	.944	187.48	2933.0	.286	1.000
Y	187.48	54.12	.870	.907	.859	187.48	5214.2	.215	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		77.8		135.4	281.9
7- 4		0.0		0.0		0.0		191.4		15.7	32.7
7-13		0.0		0.0		0.0		-178.9		15.7	32.7

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	.4	0.0	0.0	0.0	.004	0.000	0.000	0.00	1.1	0.00	2.2	.131 si
7- 4	1.0	0.0	0.0	0.0	.008	0.000	0.000	0.00	.1	0.00	.3	.014 si
7-13	0.0	.9	0.0	0.0	0.000	.007	.007	0.00	.1	0.00	.3	.014 si

----- PROGR.(5) 93.74

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		13212.7		-6344.6		0.0		-4.6		0.0	0.0

TENSIONI		:										
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau VE
1- 1	0.0	0.0	25.8	16.5	.228	.228	.025	0.00	0.0	0.00	0.0	0.000 si

----- PROGR.(9) 187.48

SOLLECITAZIONI		:									
Caso		MZ		MY		MT		N		TZ	TY
1- 1		0.0		0.0		0.0		-87.1		-135.4	-281.9
7- 4		0.0		0.0		0.0		172.3		-15.7	-32.7
7-13		0.0		0.0		0.0		-198.0		-15.7	-32.7

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.5	0.0	0.0	0.000	.004	.004	0.00	1.1	0.00	2.2	.131	si
7- 4	.9	0.0	0.0	0.0	.007	0.000	0.000	0.00	.1	0.00	.3	.014	si
7-13	0.0	1.0	0.0	0.0	0.000	.007	.007	0.00	.1	0.00	.3	.014	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (24-37) 322
khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	181.14	39.22	.631	.715	.950	181.14	3035.7	.281	1.000
Y	181.14	52.29	.841	.881	.876	181.14	5396.8	.211	1.000

SOLLECITAZIONI													
Caso	MZ	MY	MT	N	TZ	TY	----- PROGR.(1) 0.00						
1- 1	0.0	0.0	0.0	-119.8	141.1	293.7							
2- 1	0.0	0.0	0.0	-145.1	141.1	304.9							
7-12	0.0	0.0	0.0	2.1	20.2	42.0							

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.6	0.0	0.0	0.000	.005	.005	0.00	1.1	0.00	2.3	.137	si
2- 1	0.0	.8	0.0	0.0	0.000	.005	.005	0.00	1.1	0.00	2.4	.128	si
7-12	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	.2	0.00	.3	.018	si

SOLLECITAZIONI													
Caso	MZ	MY	MT	N	TZ	TY	----- PROGR.(5) 90.57						
1- 1	13296.2	-6384.8	0.0	-123.8	0.0	0.0							
6- 6	1903.0	-913.8	0.0	-87.4	0.0	0.0							

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.6	26.0	16.6	.230	.234	.030	0.00	0.0	0.00	0.0	0.000	si
6- 6	0.0	.5	3.7	2.4	.030	.032	.004	0.00	0.0	0.00	0.0	0.000	si

SOLLECITAZIONI													
Caso	MZ	MY	MT	N	TZ	TY	----- PROGR.(9) 181.14						
1- 1	0.0	0.0	0.0	-127.7	-141.1	-293.7							
2- 1	0.0	0.0	0.0	-153.0	-141.1	-304.9							
7-12	0.0	0.0	0.0	.9	-20.2	-42.0							

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.7	0.0	0.0	0.000	.005	.005	0.00	1.1	0.00	2.3	.137	si
2- 1	0.0	.8	0.0	0.0	0.000	.005	.005	0.00	1.1	0.00	2.4	.128	si
7-12	0.0	0.0	0.0	0.0	0.000	0.000	0.000	0.00	.2	0.00	.3	.018	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (61-73) 331
khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	183.15	39.65	.638	.720	.948	183.15	3002.4	.283	1.000
Y	183.15	52.87	.850	.889	.871	183.15	5337.6	.212	1.000

SOLLECITAZIONI													
Caso	MZ	MY	MT	N	TZ	TY	----- PROGR.(1) 0.00						
1- 1	0.0	0.0	0.0	-69.3	167.1	254.7							
2- 1	0.0	0.0	0.0	-88.0	167.1	266.0							
7-12	0.0	0.0	0.0	17.6	19.4	29.5							

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.4	0.0	0.0	0.000	.003	.003	0.00	1.3	0.00	2.0	.119	si
2- 1	0.0	.5	0.0	0.0	0.000	.003	.003	0.00	1.3	0.00	2.1	.112	si
7-12	.1	0.0	0.0	0.0	.001	0.000	0.000	0.00	.2	0.00	.2	.012	si

SOLLECITAZIONI													
Caso	MZ	MY	MT	N	TZ	TY	----- PROGR.(5) 91.57						
1- 1	11663.8	-7653.0	0.0	-153.2	0.0	0.0							

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	.8	22.8	19.9	.224	.230	.025	0.00	0.0	0.00	0.0	0.000	si

SOLLECITAZIONI													
Caso	MZ	MY	MT	N	TZ	TY	----- PROGR.(9) 183.15						
1- 1	0.0	0.0	0.0	-237.0	-167.1	-254.7							

TENSIONI													
Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.2	0.0	0.0	0.000	.010	.010	0.00	1.3	0.00	2.0	.119	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (23-36) 334
khz= 1.1 ; khy= 1.1 ; kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit

Z	176.38	38.19	.614	.704	.953		176.38	3117.7	.277	1.000
Y	176.38	50.92	.819	.861	.887		176.38	5542.6	.208	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	267.8	174.1	265.4

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.4	0.0	0.0	0.0	.012	0.000	0.000	0.00	1.4	0.00	2.1	.124	si

----- PROGR.(5) 88.19

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	11701.0	-7677.3	0.0	262.7	0.0	0.0
6- 6	1674.7	-1098.8	0.0	31.6	0.0	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.4	0.0	22.9	20.0	.237	0.000	.019	0.00	0.0	0.00	0.0	0.000	si
6- 6	.2	0.0	3.3	2.9	.030	0.000	0.000	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 176.38

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	257.7	-174.1	-265.4
6- 6	0.0	0.0	0.0	30.9	-24.9	-38.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	0.0	0.0	.012	0.000	0.000	0.00	1.4	0.00	2.1	.124	si
6- 6	.2	0.0	0.0	0.0	.001	0.000	0.000	0.00	.2	0.00	.3	.016	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (60-71) 343
 Khz= 1.1 ; Khy= 1.1 ; Kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	179.22	38.80	.624	.711	.951	179.22	3068.2	.280	1.000
Y	179.22	51.74	.832	.873	.880	179.22	5454.6	.210	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-283.5	203.1	234.5
7- 2	0.0	0.0	0.0	-759.2	29.1	33.6
7-15	0.0	0.0	0.0	608.3	29.1	33.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.5	0.0	0.0	0.000	.011	.011	0.00	1.6	0.00	1.8	.109	si
7- 2	0.0	4.0	0.0	0.0	.001	.027	.027	0.00	.2	0.00	.3	.014	si
7-15	3.2	0.0	0.0	0.0	.025	0.000	0.000	0.00	.2	0.00	.3	.014	si

----- PROGR.(5) 89.61

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	10508.3	-9099.3	0.0	-372.2	0.0	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	1.9	20.5	23.7	.232	.247	.035	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 179.22

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	-460.9	-203.1	-234.5
7- 2	0.0	0.0	0.0	-784.6	-29.1	-33.6
7-15	0.0	0.0	0.0	582.9	-29.1	-33.6

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	0.0	2.4	0.0	0.0	0.000	.018	.018	0.00	1.6	0.00	1.8	.109	si
7- 2	0.0	4.1	0.0	0.0	.001	.028	.028	0.00	.2	0.00	.3	.014	si
7-15	3.0	0.0	0.0	0.0	.024	0.000	0.000	0.00	.2	0.00	.3	.014	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (22-35) 346
 Khz= 1.1 ; Khy= 1.1 ; Kht= 1.1

Instabilita' flessionale						Instabilita' torsionale			
As	L0	Lam	LamRel	k	kc	L0	Scrit	LamRel	k crit
Z	172.01	37.24	.599	.694	.956	172.01	3196.9	.274	1.000
Y	172.01	49.65	.799	.844	.896	172.01	5683.4	.205	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	446.9	202.6	233.9

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.3	0.0	0.0	0.0	.021	0.000	0.000	0.00	1.6	0.00	1.8	.109	si

----- PROGR.(5) 86.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	10057.8	-8709.3	0.0	441.1	0.0	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.3	0.0	19.6	22.7	.243	0.000	.019	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 172.01

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	435.3	-202.6	-233.9
6- 6	0.0	0.0	0.0	134.6	-29.0	-33.5

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	2.3	0.0	0.0	0.0	.020	0.000	0.000	0.00	1.6	0.00	1.8	.109	si
6- 6	.7	0.0	0.0	0.0	.006	0.000	0.000	0.00	.2	0.00	.3	.014	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (58-70) 354
khz= 1.1 ; khy= 1.1 ; Kht= 1.1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	175.77	38.05	.612	.703	.954
Y	175.77	50.74	.816	.859	.888

Instabilita' torsionale

LO	Scrit	LamRel	K crit
175.77	3128.5	.277	1.000
175.77	5561.7	.208	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	335.9	227.2	201.0
7- 8	0.0	0.0	0.0	-568.0	32.5	28.8
7- 9	0.0	0.0	0.0	698.4	32.5	28.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.7	0.0	0.0	0.0	.016	0.000	0.000	0.00	1.8	0.00	1.6	.106	si
7- 8	0.0	3.0	0.0	0.0	0.000	.020	.020	0.00	.3	0.00	.2	.014	si
7- 9	3.6	0.0	0.0	0.0	.029	0.000	0.000	0.00	.3	0.00	.2	.014	si

----- PROGR.(5) 87.88

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	8831.7	-9985.9	0.0	245.9	0.0	0.0
7- 8	1264.0	-1429.2	0.0	-580.8	0.0	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	17.2	26.0	.244	0.000	.025	0.00	0.0	0.00	0.0	0.000	si
7- 8	0.0	3.0	2.5	3.7	.030	.051	.021	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 175.77

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	155.9	-227.2	-201.0
7- 8	0.0	0.0	0.0	-593.7	-32.5	-28.8
7- 9	0.0	0.0	0.0	672.6	-32.5	-28.8

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	.8	0.0	0.0	0.0	.007	0.000	0.000	0.00	1.8	0.00	1.6	.106	si
7- 8	0.0	3.1	0.0	0.0	0.000	.021	.021	0.00	.3	0.00	.2	.014	si
7- 9	3.5	0.0	0.0	0.0	.028	0.000	0.000	0.00	.3	0.00	.2	.014	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (20-33) 357
khz= 1.1 ; khy= 1.1 ; Kht= 1.1

Instabilita' flessionale

As	LO	Lam	LamRel	k	kc
Z	168.12	36.40	.585	.686	.959
Y	168.12	48.53	.781	.829	.903

Instabilita' torsionale

LO	Scrit	LamRel	K crit
168.12	3270.9	.271	1.000
168.12	5814.9	.203	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	240.1	226.5	200.4
7- 8	0.0	0.0	0.0	-22.1	32.4	28.7

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	0.0	0.0	.011	0.000	0.000	0.00	1.8	0.00	1.6	.106	si
7- 8	0.0	.1	0.0	0.0	0.000	.001	.001	0.00	.3	0.00	.2	.014	si

----- PROGR.(5) 84.06

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	8418.4	-9518.6	0.0	233.6	0.0	0.0
7- 8	1204.8	-1362.3	0.0	-23.0	0.0	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIf1	fsIt0	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.2	0.0	16.4	24.8	.232	0.000	.023	0.00	0.0	0.00	0.0	0.000	si
7- 8	0.0	.1	2.4	3.5	.029	.029	.001	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 168.12

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	227.1	-226.5	-200.4
7- 8	0.0	0.0	0.0	-23.9	-32.4	-28.7

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIto	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.2	0.0	0.0	0.0	.011	0.000	0.000	0.00	1.8	0.00	1.6	.106	si
7- 8	0.0	.1	0.0	0.0	0.000	.001	.001	0.00	.3	0.00	.2	.014	si

Rettangolare (sezione n. 5; b=12; h=16) ----- ASTA (19-32) 365
khz= 1.1 ; Khy= 1.1 ; Kht= 1.1

Instabilita' flessionale

As	L0	Lam	LamRel	k	kc
Z	164.78	35.68	.574	.678	.961
Y	164.78	47.57	.765	.816	.910

Instabilita' torsionale

L0	Scrit	LamRel	k crit
164.78	3337.1	.268	1.000
164.78	5932.7	.201	1.000

----- PROGR.(1) 0.00

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	246.7	246.2	165.2

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIto	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.3	0.0	0.0	0.0	.011	0.000	0.000	0.00	1.9	0.00	1.3	.115	si

----- PROGR.(5) 82.39

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	6806.0	-10139.8	0.0	239.7	0.0	0.0

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIto	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.2	0.0	13.3	26.4	.229	0.000	.026	0.00	0.0	0.00	0.0	0.000	si

----- PROGR.(9) 164.78

SOLLECITAZIONI :

Caso	MZ	MY	MT	N	TZ	TY
1- 1	0.0	0.0	0.0	232.7	-246.2	-165.2
3- 1	0.0	0.0	0.0	165.6	-148.7	-116.7

TENSIONI :

Caso	St0d	Sc0d	Smzd	Smyd	fsPfd	fsIfI	fsIto	Ttozd	Tzd	Ttoyd	Tyd	fsTau	VE
1- 1	1.2	0.0	0.0	0.0	.011	0.000	0.000	0.00	1.9	0.00	1.3	.115	si
3- 1	.9	0.0	0.0	0.0	.007	0.000	0.000	0.00	1.2	0.00	.9	.062	si

VERIFICA GIUNZIONI

Relazione di calcolo di collegamento mediante connettori a gambo cilindrico -ATTACCO ARCHI - PILASTRI

Normative di riferimento

- Decreto ministeriale del 14 gennaio 2008 (NTC)
- Circolare n. 617 del 2 febbraio 2009
- CNR DT 206-2007
- Eurocodice 5

Caratteristiche del materiale

Tipo legno		Lamellare	
Libreria		EN 1194	
Classe di resistenza		GL24h	
Res. compr. perpendicolare alla fibratura	$f_{c,90,k}$	2.7	MPa
Densità caratteristica	ρ_k	380	MPa
Classe di servizio		Classe 1	
Coefficiente di sicurezza parziale		1.50	

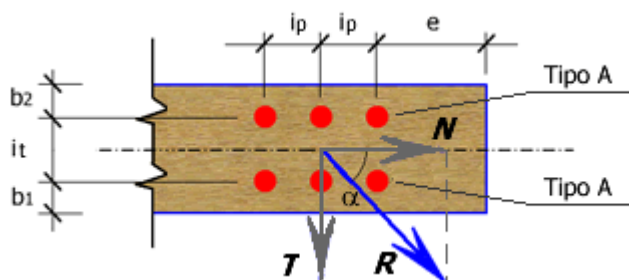
Caratteristiche del connettore

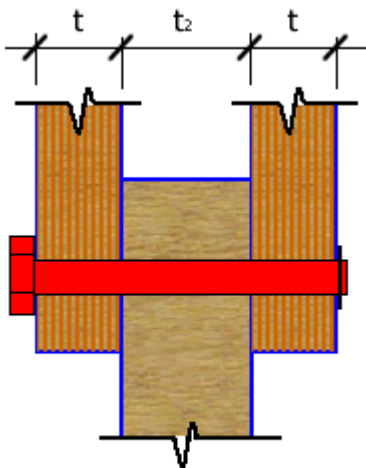
Bulloni calibrati		NO	
Diametro del gambo	d	16.0	mm
Diametro della rondella	d_r	50.0	mm
Area resistente	A_r	201.00	mm ²
Resistenza a trazione	F_{uk}	338	MPa

Geometria

Nr.di file parallele all'asse	N_p	4	
Nr.di file trasversali all'asse	N_t	3	
Interasse in direzione parallela all'asse	i_p	120	mm
Interasse in direzione trasversale all'asse	i_t	70	mm
Distanza dall'estremità	e	120	mm
Distanza bordo	b_1	90	mm
Distanza bordo	b_2	90	mm

Schema dell'unione:



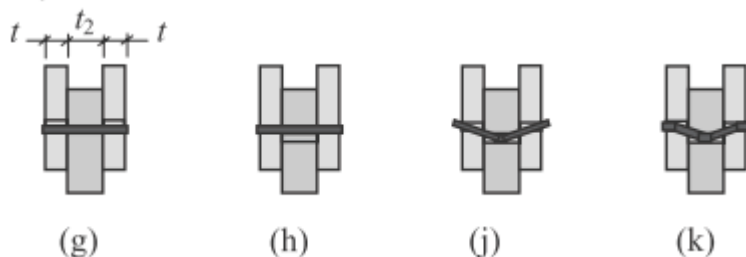


Spessore	t	200	mm
Spessore	t2	200	mm
Contributo della resistenza all'estrazione del connettore		SI	

Descrizione del calcolo

La resistenza caratteristica del singolo connettore $F_{v,Rk}$ è data dalla minima resistenza dei possibili meccanismi di rottura. Per le unioni tale resistenza è data da:

$$F_{v,Rk} = \min \begin{cases} f_{h,1,k} t_1 d & (g) \\ 0,5 f_{h,2,k} t_2 d & (h) \\ 1,05 \frac{f_{h,1,k} t_1 d}{2 + \beta} \left[\sqrt{2\beta(1 + \beta) + \frac{4\beta(2 + \beta) M_{y,Rk}}{f_{h,1,k} d t_1^2}} - \beta \right] + \frac{F_{ax,Rk}}{4} & (i) \\ 1,15 \sqrt{\frac{2\beta}{1 + \beta}} \sqrt{2 M_{y,Rk} f_{h,1,k} d} + \frac{F_{ax,Rk}}{4} & (k) \end{cases}$$



dove:

- t_1 e t_2 sono gli spessori degli elementi;
- $f_{h,k,1}$ e $f_{h,k,2}$ sono le resistenze caratteristiche al rifollamento;
- d è il diametro del mezzo di unione;
- $M_{y,Rk}$ è il momento caratteristico di snervamento del mezzo di unione;
- $F_{ax,Rk}$ è la resistenza caratteristica all'estrazione del mezzo di unione;
- β è rapporto tra le resistenze al rifollamento;

La resistenza caratteristica del singolo connettore è moltiplicata per il numero di connettori efficaci ed è ridotta per il coefficiente di sicurezza parziale γ_m ed il coefficiente correttivo k_{mod} che tiene conto della durata del carico e dell'umidità della struttura.

Per ciascuna verifica effettuata è stato calcolato il fattore di sicurezza F_s definito come il rapporto tra resistenza e sollecitazione di calcolo:

$$F_s = R_d / S_d$$

Verifica del nodo

Le resistenze caratteristiche dei singoli connettori FvRk valgono:

	Combinazione	FvRk	Tipo rottura
1	SLU	15 399.13	k

Il numero di connettori efficaci per ciascuna fila parallela alla fibratura vale:

	Combinazione	nr eff
1	SLU	2.34

Nella tabella seguente è riportato l'esito della verifica della resistenza complessiva dell'unione.

	Combinazione	Durata	Nd [kN]	Td [kN]	Rd [kN]	α [°]	Fres [kN]	Fs	Verificato	Rottura
1	SLU	Breve	169.58	0.00	169.58	0.00	173.15	1.02	SI	k

Esito

Tutte le verifiche effettuate sono soddisfatte

Relazione di calcolo di collegamento mediante connettori a gambo cilindrico -ATTACCO ARCO-MURO

Normative di riferimento

- Decreto ministeriale del 14 gennaio 2008 (NTC)
- Circolare n. 617 del 2 febbraio 2009
- CNR DT 206-2007
- Eurocodice 5

Caratteristiche del materiale

Tipo legno		Lamellare	
Libreria		EN 1194	
Classe di resistenza		GL24h	
Res. compr. perpendicolare alla fibratura	$f_{c,90,k}$	2.7	MPa
Densità caratteristica	ρ_k	380	MPa
Classe di servizio		Classe 1	
Coefficiente di sicurezza parziale		1.50	

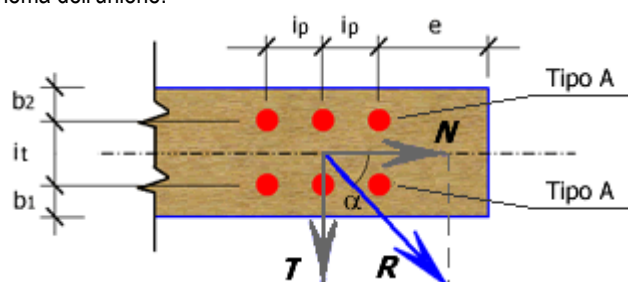
Caratteristiche del connettore

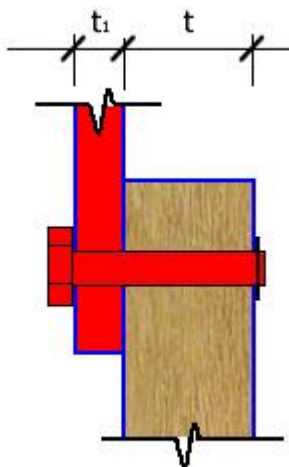
Bulloni calibrati		NO	
Diametro del gambo	d	16.0	mm
Diametro della rondella	d_r	36.0	mm
Area resistente	A_r	113.00	mm ²
Resistenza a trazione	F_{uk}	338	MPa

Geometria

Nr.di file parallele all'asse	N_p	3	
Nr.di file trasversali all'asse	N_t	3	
Interasse in direzione parallela all'asse	i_p	115	mm
Interasse in direzione trasversale all'asse	i_t	100	mm
Distanza dall'estremità	e	120	mm
Distanza bordo	b_1	120	mm
Distanza bordo	b_2	120	mm

Schema dell'unione:





Spessore	t	200	mm
Spessore	t1	10	mm
Diametro del foro nella piastra	dp	14.0	mm
Contributo della resistenza all'estrazione del connettore		SI	

Descrizione del calcolo

La resistenza caratteristica del singolo connettore F_{vrk} è data dalla minima resistenza dei possibili meccanismi di rottura. Per le unioni tale resistenza è data da:

$$F_{v,Rk} = \min \begin{cases} 0,4 f_{h,k} t_1 d & (a) \\ 1,15 \sqrt{2 M_{y,Rk} f_{h,k} d} + \frac{F_{ax,Rk}}{4} & (b) \end{cases}$$

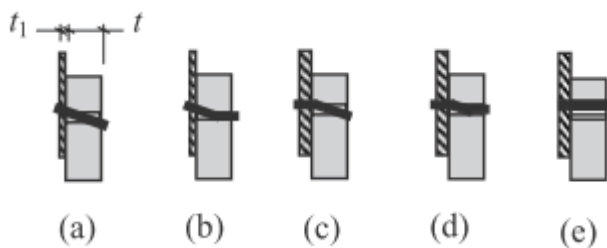
per le unioni con piastre di acciaio sottili e

$$F_{v,Rk} = \min \begin{cases} f_{h,k} t_1 d \left[\sqrt{2 + \frac{4 M_{y,Rk}}{f_{h,k} d t_1^2}} - 1 \right] + \frac{F_{ax,Rk}}{4} & (c) \end{cases}$$

$$F_{v,Rk} = \min \begin{cases} 2,3 \sqrt{M_{y,Rk} f_{h,k} d} + \frac{F_{ax,Rk}}{4} & (d) \end{cases}$$

$$F_{v,Rk} = \min \begin{cases} f_{h,k} t_1 d & (e) \end{cases}$$

per le unioni con piastre di acciaio spesse.



dove:

- t_1 e t_2 sono gli spessori degli elementi;
- $f_{h,k,1}$ e $f_{h,k,2}$ sono le resistenze caratteristiche al rifollamento;

- d è il diametro del mezzo di unione;
- M_y, R_k è il momento caratteristico di snervamento del mezzo di unione;
- F_{ax}, R_k è la resistenza caratteristica all'estrazione del mezzo di unione;
- β è rapporto tra le resistenze al rifollamento;

La resistenza caratteristica del singolo connettore è moltiplicata per il numero di connettori efficaci ed è ridotta per il coefficiente di sicurezza parziale γ_m ed il coefficiente correttivo k_{mod} che tiene conto della durata del carico e dell'umidità della struttura.

Per ciascuna verifica effettuata è stato calcolato il fattore di sicurezza F_s definito come il rapporto tra resistenza e sollecitazione di calcolo:

$$F_s = R_d / S_d$$

Verifica del nodo

Le resistenze caratteristiche dei singoli connettori $F_v R_k$ valgono:

	Combinazione	$F_v R_k$	Tipo rottura
1	SLU	17 551.73	b-e

Il numero di connettori efficaci per ciascuna fila parallela alla fibratura vale:

	Combinazione	nr eff
1	SLU	2.32

Nella tabella seguente è riportato l'esito della verifica della resistenza complessiva dell'unione.

	Combinazione	Durata	N_d [kN]	T_d [kN]	R_d [kN]	α [°]	F_{res} [kN]	F_s	Verificato	Rottura
1	SLU	Breve	60.37	0.00	60.37	0.00	73.23	1.21	SI	b-e

Esito

Tutte le verifiche effettuate sono soddisfatte

C) RELAZIONE SULLE FONDAZIONI

C.1. Fattibilità dell'opera

L'opera non crea problemi di fattibilità trovandosi in una zona non interessata da problemi di dilavamento per acque meteoriche od in generale di acque di scorrimento superficiale, e non trovandosi neppure su pendii di notevole inclinazione soggetti a fenomeni di instabilità locale o globale.

C.2. Indagini geotecniche

Per l'intervento in oggetto è stata redatta in data Dicembre 2016 la Relazione Geologica da parte del Gepol. Dario Fontan a cui si rimanda per i necessari approfondimenti.

Le indagini geotecniche effettuate si sono avvalse, oltre che dall'osservazione fatta su manufatti nelle vicinanze, anche da scavi appositamente effettuati nelle zone adiacenti.

Il terreno ove si intende realizzare l'opera si presenta in un'area già fortemente antropizzata, con un modesto strato di terreno di coltura, successivamente sostituito ad una non eccessiva profondità, da un terreno compatto a matrice granulare argillosa (sabbie e limi con ghiaia e ghiaie in matrice sabbioso limosa addensata)

Non esiste falda alla quota dello scavo.

Con particolare riferimento alla classificazione in zona sismica del Comune di Venaus (TO) si può osservare che nel sito in esame non sono presenti paleofrane, fenomeni di dissesto potenziale o in atto che possano rendere instabile il versante in caso di eventi sismici.

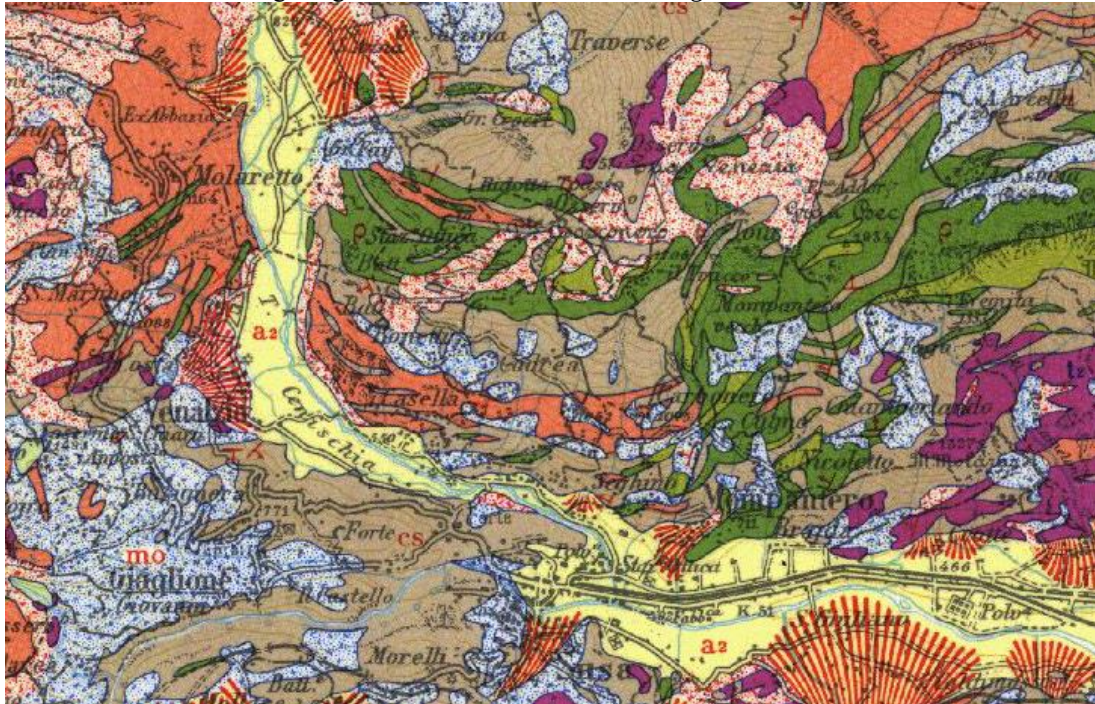
La topografia del suolo e la natura del terreno escludono la presenza di condizioni di instabilità del complesso opera-pendio in presenza delle azioni sismiche.

La natura grossolana dei depositi sedimentari e la sicura assenza di terreno costituiti da sabbie omogenee nell'area in esame permette inoltre di escludere ogni fenomeno di liquefazione del terreno in caso di movimenti tellurici.

Con riferimento alla classificazione delle categorie del suolo di fondazione contenuta nel DM 14/01/2008 il deposito in oggetto può essere classificato, prudenzialmente, nella categoria: **C** (depositi di terreni a grana grossa mediamente addensati o di 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 e 360 m/s (ovvero $15 < N_{STP30} < 50$ nei terreni a grana grossa e $70 < c_{u,30} < 250$ kPa nei terreni a grana fina).

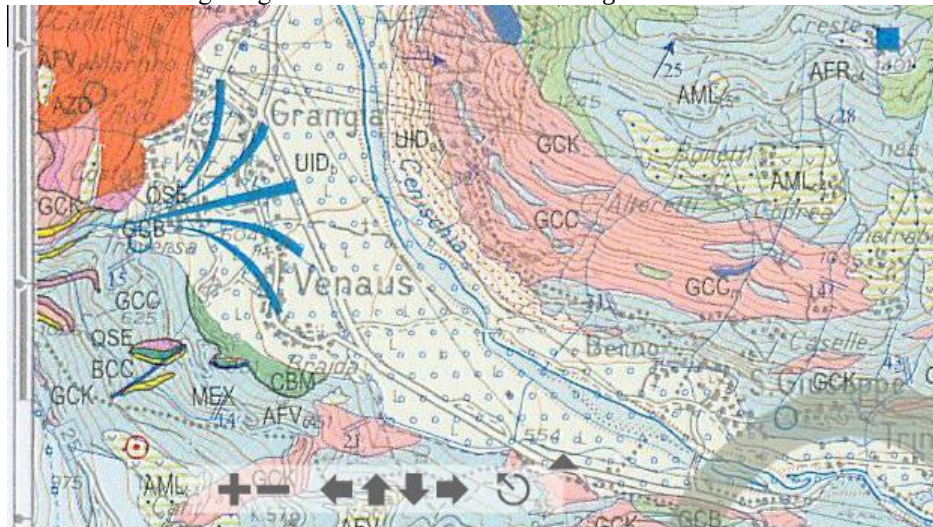
Dato il modesto rilievo dell'opera in rapporto alla stabilità globale dell'insieme opera-terreno, la tipologia delle fondazioni che comportano ridotti carichi sul terreno, data l'uniformità del terreno di fondazione e dato il fatto che l'edificio è situato in un'area ben conosciuta dal punto di vista geotecnico, non si è ritenuto necessario eseguire indagini particolarmente complesse per lo specifico intervento, ma, in base anche ai disposti di cui al p.to 6.2.2 del D.M. 14/01/2008, si è fatto riferimento a dati noti per analisi precedenti effettuate in aree adiacenti ed a dati geotecnici esistenti in letteratura.

Carta geologica d'Italia scala 1:100.000 – Foglio 54 – Susa



a²: alluvioni recenti

Carta geologica d'Italia scala 1:50.000 – Foglio 154– Susa



Unità ubiquitarie

Coltre eluvio-colluviale e coltre detritico-colluviale a spese essenzialmente di substrato particolarmente degradabile (UID₀₂).

Sedimenti ghiaiosi *clast supported*, localmente con tessitura *open work*, ad elementi generalmente spigolosi, costituiti da litotipi del substrato locale, di dimensioni da medie a piccole o di grandi dimensioni (detriti di falda) (UID₀₃); *diamicton matrix supported* con matrice limoso-sabbiosa, non addensata, e scheletro, in proporzioni molto variabili, formato da ciottoli e massi angolosi eterometrici, derivati dalla rielaborazione di altre formazioni superficiali o di substrato (accumuli gravitativi) (UID₀₁); *diamicton* a matrice sabbiosa, non addensato, con intercalazioni di sabbie ghiaiose (depositi di origine mista) (UID₁); calcari concrezionari massivi e/o stratificati (travertini) (UID₁₁).

Depositi alluvionali recenti ed attuali: ghiaie e ghiaie ciottolose sabbioso-ghiaiose (20% di matrice) *clast supported*, mal stratificate, passanti a sabbie ghiaiose con stratificazione planare; limi sabbiosi, localmente con livelli torbosi verso l'alto, debolmente stratificati, delle aree di esondazione fluviale (depositi fluviali) (UID₀) (PLEISTOCENE SUP. - ATTUALE).

C.3. Analisi del comportamento terreno - struttura

Il comportamento della struttura di fondazione con riguardo alla capacità portante del terreno ed al problema dei cedimenti può essere utilmente paragonato a quello di analoghe costruzioni già realizzate in aree adiacenti.

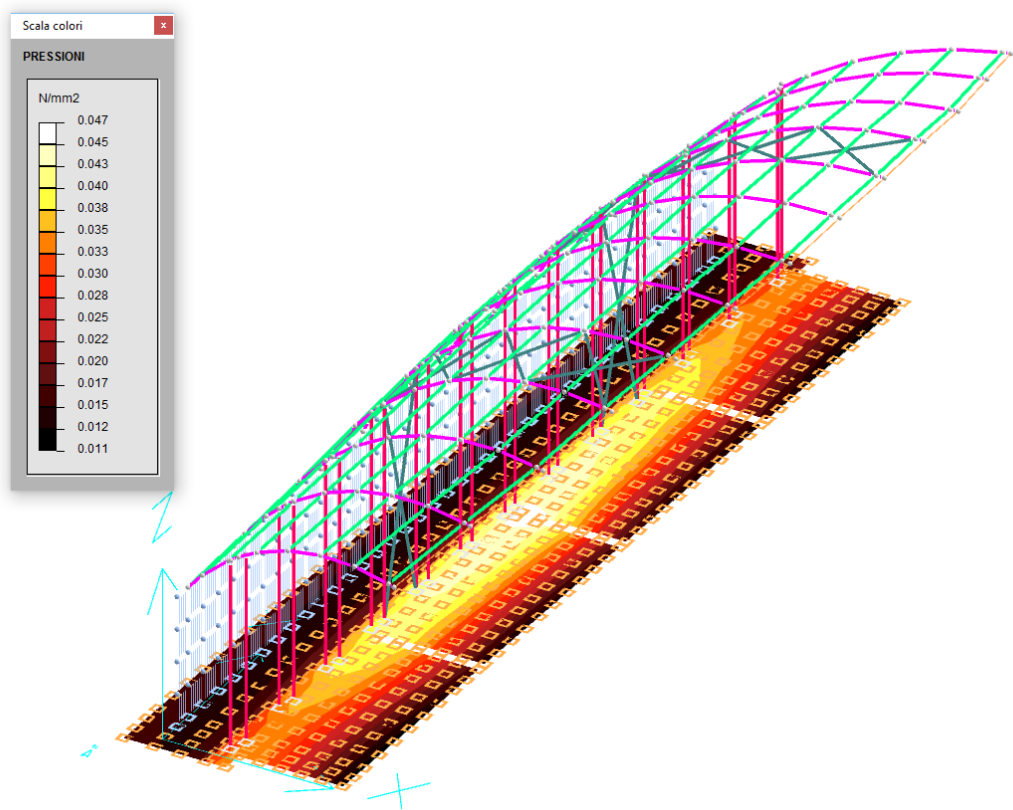
In queste non si sono registrati cedimenti nelle strutture come si è potuto constatare da un accurato esame sui tramezzi e sulle murature di tamponamento che non presentano il benché minimo segno visibile di assestamenti.

C.4. Determinazione della capacità portante e verifiche geotecniche

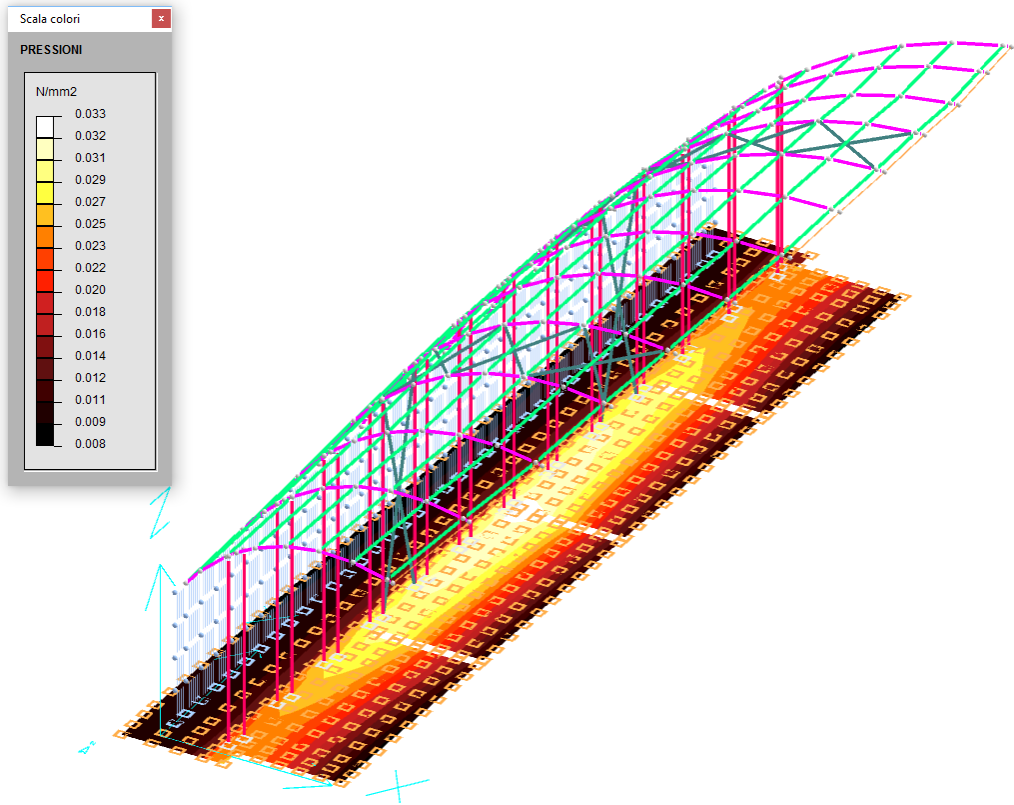
Per il terreno in questione si possono assumere i seguenti valori caratteristici:

- | | |
|------------------------------|---|
| - peso specifico del terreno | $\gamma = 17-18 \text{ kN/m}^3$ |
| - angolo di attrito interno | $\phi' = 26^\circ$ |
| - coesione | $c' = 0 \text{ kN/m}^2$ (a favore di sicurezza) |
| - quota falda | $z = \text{Assente}$ |

Pressioni massime sul terreno –SLU–



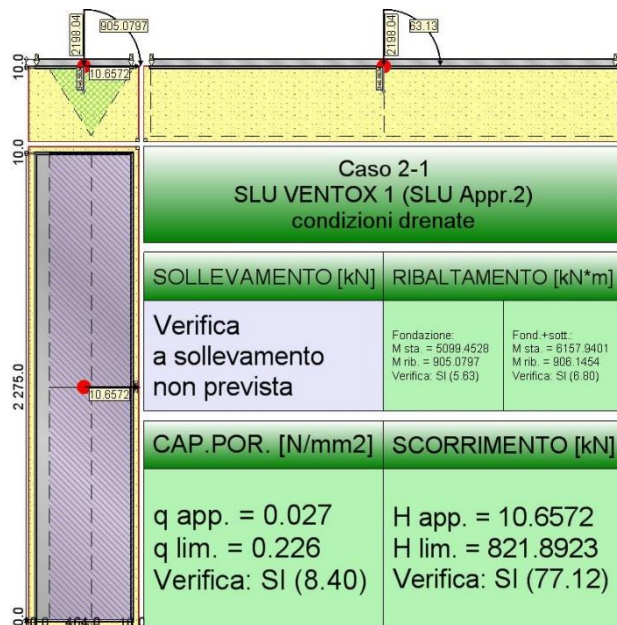
Pressioni massime sul terreno –SLE–



Seguono le verifiche geotecniche per gli elementi di fondazione maggiormente sollecitati.

FONDAZIONI

Valutazione della stabilità, capacità portante e resistenza a scorrimento di una fondazione superficiale (MACROGUSCIO_ID1).



Rappresentazione della fondazione.

Descrizione dei Casi di calcolo e riassunto dei risultati.

Segue il riassunto dei Casi di calcolo analizzati. I dettagli di ciascun Caso (sollecitazioni, verifiche, ecc.) sono specificati nei paragrafi successivi.

Indici e nomi dei casi di carico			Elenco delle verifiche eseguite per ciascun caso				Sisma
Caso	Nome	Sestetti	Ver. dren.	Ver. non dren.	Ver. equ.	Ver. upl.	Coef. sism.
1	SLU Max Neve (SLU Appr.2)	1-1	Si	No	Si	No	Non sismico
1-1 Caso 1-1							
2	SLU VENTOX 1 (SLU Appr.2)	2-1	Si	No	Si	No	Non sismico
2-1 Caso 2-1							
3	SLU VENTOX 2 (SLU Appr.2)	3-1	Si	No	Si	No	Non sismico
3-1 Caso 3-1							
4	SLU con SISMAX PRINC (SLU Appr.2)	da 4-1 a 4-16	Si	No	Si	No	$k_{h,x} = 0.05$, $k_{h,y} = 0.01$
4-1 Caso 6-1; 4-2 Caso 6-2; 4-3 Caso 6-3; 4-4 Caso 6-4; 4-5 Caso 6-5; 4-6 Caso 6-6; 4-7 Caso 6-7; 4-8 Caso 6-8; 4-9 Caso 6-9; 4-10 Caso 6-10; 4-11 Caso 6-11; 4-12 Caso 6-12; 4-13 Caso 6-13; 4-14 Caso 6-14; 4-15 Caso 6-15; 4-16 Caso 6-16							
5	SLU con SISMAX PRINC (SLU Appr.2)	da 5-1 a 5-16	Si	No	Si	No	$k_{h,x} = 0.01$, $k_{h,y} = 0.05$
5-1 Caso 7-1; 5-2 Caso 7-2; 5-3 Caso 7-3; 5-4 Caso 7-4; 5-5 Caso 7-5; 5-6 Caso 7-6; 5-7 Caso 7-7; 5-8 Caso 7-8; 5-9 Caso 7-9; 5-10 Caso 7-10; 5-11 Caso 7-11; 5-12 Caso 7-12; 5-13 Caso 7-13; 5-14 Caso 7-14; 5-15 Caso 7-15; 5-16 Caso 7-16							
6	SLU FON con SISMAX P (SLU Appr.2)	da 6-1 a 6-16	Si	No	Si	No	$k_{h,x} = 0.05$, $k_{h,y} = 0.01$
6-1 Caso 10-1; 6-2 Caso 10-2; 6-3 Caso 10-3; 6-4 Caso 10-4; 6-5 Caso 10-5; 6-6 Caso 10-6; 6-7 Caso 10-7; 6-8 Caso 10-8; 6-9 Caso 10-9; 6-10 Caso 10-10; 6-11 Caso 10-11; 6-12 Caso 10-12; 6-13 Caso 10-13; 6-14 Caso 10-14; 6-15 Caso 10-15; 6-16 Caso 10-16							
7	SLU FON con SISMAX P (SLU Appr.2)	da 7-1 a 7-16	Si	No	Si	No	$k_{h,x} = 0.01$, $k_{h,y} = 0.05$
7-1 Caso 11-1; 7-2 Caso 11-2; 7-3 Caso 11-3; 7-4 Caso 11-4; 7-5 Caso 11-5; 7-6 Caso 11-6; 7-7 Caso 11-7; 7-8 Caso 11-8; 7-9 Caso 11-9; 7-10 Caso 11-10; 7-11 Caso 11-11; 7-12 Caso 11-12; 7-13 Caso 11-13; 7-14 Caso 11-14; 7-15 Caso 11-15; 7-16 Caso 11-16							

La seguente tabella elenca i coefficienti di sicurezza parziali, applicati alle caratteristiche meccaniche del terreno, alla capacità portante, alla resistenza a scorrimento e del terreno, per ciascun Caso di calcolo.

Caso	$\gamma_{G1,fav}$	$\gamma_{G1,sfa}$	$\gamma_{G2,fav}$	$\gamma_{G2,sfa}$	$\gamma_{Q1,fav}$	$\gamma_{Q1,sfa}$	γ_{γ}	γ_{ϕ}	$\gamma_{c'}$	$\gamma_{R,v}$	$\gamma_{R,h}$	$\gamma_{R,e}$	$\gamma_{R,eq}$	$\gamma_{R,upl}$
1	1.00	1.30	0.00	1.50	0.00	1.50	1.00	1.00	1.00	2.30	1.10	1.00	-	-
2	1.00	1.30	0.00	1.50	0.00	1.50	1.00	1.00	1.00	2.30	1.10	1.00	-	-
3	1.00	1.30	0.00	1.50	0.00	1.50	1.00	1.00	1.00	2.30	1.10	1.00	-	-

4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
7	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-

Segue la tabella riassuntiva di tutte le verifiche a **ribaltamento**.

Caso	Fondazione			Fondazione e Sottofondo		
	R_d [kN*m]	E_d [kN*m]	Verifica	R_d [kN*m]	E_d [kN*m]	Verifica
1-1	5083.816	794.271	SI (5083.816/794.271 = 6.40 >= 1.0)	6141.629	794.271	SI (6141.629/794.271 = 7.73 >= 1.0)
2-1	5099.453	905.08	SI (5099.453/905.08 = 5.63 >= 1.0)	6157.94	906.145	SI (6157.94/906.145 = 6.80 >= 1.0)
3-1	4504.118	561.315	SI (4504.118/561.315 = 8.02 >= 1.0)	5536.944	563.091	SI (5536.944/563.091 = 9.83 >= 1.0)
4-1	2893.968	290.18	SI (2893.968/290.18 = 9.97 >= 1.0)	3668.664	290.18	SI (3668.664/290.18 = 12.64 >= 1.0)
4-2	2893.968	290.18	SI (2893.968/290.18 = 9.97 >= 1.0)	3668.664	290.18	SI (3668.664/290.18 = 12.64 >= 1.0)
4-3	2893.968	290.176	SI (2893.968/290.176 = 9.97 >= 1.0)	3668.665	290.176	SI (3668.665/290.176 = 12.64 >= 1.0)
4-4	2893.968	290.176	SI (2893.968/290.176 = 9.97 >= 1.0)	3668.665	290.176	SI (3668.665/290.176 = 12.64 >= 1.0)
4-5	2893.945	290.205	SI (2893.945/290.205 = 9.97 >= 1.0)	3668.64	290.205	SI (3668.64/290.205 = 12.64 >= 1.0)
4-6	2893.945	290.204	SI (2893.945/290.204 = 9.97 >= 1.0)	3668.64	290.204	SI (3668.64/290.204 = 12.64 >= 1.0)
4-7	2893.968	290.201	SI (2893.968/290.201 = 9.97 >= 1.0)	3668.665	290.201	SI (3668.665/290.201 = 12.64 >= 1.0)
4-8	2893.968	290.201	SI (2893.968/290.201 = 9.97 >= 1.0)	3668.665	290.201	SI (3668.665/290.201 = 12.64 >= 1.0)
4-9	2892.089	290.237	SI (2892.089/290.237 = 9.96 >= 1.0)	3666.705	290.237	SI (3666.705/290.237 = 12.63 >= 1.0)
4-10	2892.089	290.237	SI (2892.089/290.237 = 9.96 >= 1.0)	3666.705	290.237	SI (3666.705/290.237 = 12.63 >= 1.0)
4-11	2892.089	290.241	SI (2892.089/290.241 = 9.96 >= 1.0)	3666.704	290.241	SI (3666.704/290.241 = 12.63 >= 1.0)
4-12	2892.089	290.241	SI (2892.089/290.241 = 9.96 >= 1.0)	3666.704	290.241	SI (3666.704/290.241 = 12.63 >= 1.0)
4-13	2892.066	290.213	SI (2892.066/290.213 = 9.97 >= 1.0)	3666.681	290.213	SI (3666.681/290.213 = 12.63 >= 1.0)
4-14	2892.066	290.213	SI (2892.066/290.213 = 9.97 >= 1.0)	3666.681	290.213	SI (3666.681/290.213 = 12.63 >= 1.0)
4-15	2892.089	290.216	SI (2892.089/290.216 = 9.97 >= 1.0)	3666.704	290.216	SI (3666.704/290.216 = 12.63 >= 1.0)
4-16	2892.089	290.216	SI (2892.089/290.216 = 9.97 >= 1.0)	3666.704	290.216	SI (3666.704/290.216 = 12.63 >= 1.0)
5-1	2893.295	87.047	SI (2893.295/87.047 = 33.24 >= 1.0)	3664.591	87.047	SI (3664.591/87.047 = 42.10 >= 1.0)
5-2	2893.295	87.055	SI (2893.295/87.055 = 33.24 >= 1.0)	3664.591	87.055	SI (3664.591/87.055 = 42.10 >= 1.0)
5-3	2892.715	87.078	SI (2892.715/87.078 = 33.22 >= 1.0)	3663.988	87.078	SI (3663.988/87.078 = 42.08 >= 1.0)
5-4	2892.715	87.07	SI (2892.715/87.07 = 33.22 >= 1.0)	3663.988	87.07	SI (3663.988/87.07 = 42.08 >= 1.0)
5-5	2893.295	87.047	SI (2893.295/87.047 = 33.24 >= 1.0)	3664.591	87.047	SI (3664.591/87.047 = 42.10 >= 1.0)
5-6	2893.295	87.054	SI (2893.295/87.054 = 33.24 >= 1.0)	3664.591	87.054	SI (3664.591/87.054 = 42.10 >= 1.0)
5-7	2892.715	87.078	SI (2892.715/87.078 = 33.22 >= 1.0)	3663.988	87.078	SI (3663.988/87.078 = 42.08 >= 1.0)
5-8	2892.715	87.071	SI (2892.715/87.071 = 33.22 >= 1.0)	3663.988	87.071	SI (3663.988/87.071 = 42.08 >= 1.0)
5-9	2893.318	87.034	SI (2893.318/87.034 = 33.24 >= 1.0)	3664.617	87.034	SI (3664.617/87.034 = 42.11 >= 1.0)
5-10	2893.318	87.042	SI (2893.318/87.042 = 33.24 >= 1.0)	3664.617	87.042	SI (3664.617/87.042 = 42.10 >= 1.0)
5-11	2892.762	87.091	SI (2892.762/87.091 = 33.22 >= 1.0)	3664.034	87.091	SI (3664.034/87.091 = 42.07 >= 1.0)
5-12	2892.762	87.083	SI (2892.762/87.083 = 33.22 >= 1.0)	3664.034	87.083	SI (3664.034/87.083 = 42.08 >= 1.0)
5-13	2893.318	87.034	SI (2893.318/87.034 = 33.24 >= 1.0)	3664.617	87.034	SI (3664.617/87.034 = 42.11 >= 1.0)
5-14	2893.318	87.041	SI (2893.318/87.041 = 33.24 >= 1.0)	3664.617	87.041	SI (3664.617/87.041 = 42.10 >= 1.0)
5-15	2892.762	87.091	SI (2892.762/87.091 = 33.22 >= 1.0)	3664.034	87.091	SI (3664.034/87.091 = 42.07 >= 1.0)
5-16	2892.762	87.084	SI (2892.762/87.084 = 33.22 >= 1.0)	3664.034	87.084	SI (3664.034/87.084 = 42.07 >= 1.0)
6-1	2894.061	319.2	SI (2894.061/319.2 = 9.07 >= 1.0)	3669.243	319.2	SI (3669.243/319.2 = 11.50 >= 1.0)
6-2	2894.061	319.2	SI (2894.061/319.2 = 9.07 >= 1.0)	3669.243	319.2	SI (3669.243/319.2 = 11.50 >= 1.0)
6-3	2894.061	319.196	SI (2894.061/319.196 = 9.07 >= 1.0)	3669.243	319.196	SI (3669.243/319.196 = 11.50 >= 1.0)
6-4	2894.061	319.195	SI (2894.061/319.195 = 9.07 >= 1.0)	3669.243	319.195	SI (3669.243/319.195 = 11.50 >= 1.0)
6-5	2894.038	319.227	SI (2894.038/319.227 = 9.07 >= 1.0)	3669.218	319.227	SI (3669.218/319.227 = 11.49 >= 1.0)
6-6	2894.038	319.227	SI (2894.038/319.227 = 9.07 >= 1.0)	3669.218	319.227	SI (3669.218/319.227 = 11.49 >= 1.0)
6-7	2894.061	319.223	SI (2894.061/319.223 = 9.07 >= 1.0)	3669.243	319.223	SI (3669.243/319.223 = 11.49 >= 1.0)
6-8	2894.061	319.223	SI (2894.061/319.223 = 9.07 >= 1.0)	3669.243	319.223	SI (3669.243/319.223 = 11.49 >= 1.0)
6-9	2891.973	319.259	SI (2891.973/319.259 = 9.06 >= 1.0)	3667.065	319.259	SI (3667.065/319.259 = 11.49 >= 1.0)
6-10	2891.973	319.259	SI (2891.973/319.259 = 9.06 >= 1.0)	3667.065	319.259	SI (3667.065/319.259 = 11.49 >= 1.0)
6-11	2891.996	319.263	SI (2891.996/319.263 = 9.06 >= 1.0)	3667.089	319.263	SI (3667.089/319.263 = 11.49 >= 1.0)
6-12	2891.996	319.263	SI (2891.996/319.263 = 9.06 >= 1.0)	3667.089	319.263	SI (3667.089/319.263 = 11.49 >= 1.0)
6-13	2891.973	319.232	SI (2891.973/319.232 = 9.06 >= 1.0)	3667.065	319.232	SI (3667.065/319.232 = 11.49 >= 1.0)
6-14	2891.973	319.232	SI (2891.973/319.232 = 9.06 >= 1.0)	3667.065	319.232	SI (3667.065/319.232 = 11.49 >= 1.0)
6-15	2891.996	319.236	SI (2891.996/319.236 = 9.06 >= 1.0)	3667.089	319.236	SI (3667.089/319.236 = 11.49 >= 1.0)
6-16	2891.996	319.236	SI (2891.996/319.236 = 9.06 >= 1.0)	3667.089	319.236	SI (3667.089/319.236 = 11.49 >= 1.0)
7-1	2893.318	95.754	SI (2893.318/95.754 = 30.22 >= 1.0)	3664.759	95.754	SI (3664.759/95.754 = 38.27 >= 1.0)
7-2	2893.318	95.762	SI (2893.318/95.762 = 30.21 >= 1.0)	3664.759	95.762	SI (3664.759/95.762 = 38.27 >= 1.0)
7-3	2892.692	95.784	SI (2892.692/95.784 = 30.20 >= 1.0)	3664.109	95.784	SI (3664.109/95.784 = 38.25 >= 1.0)
7-4	2892.692	95.776	SI (2892.692/95.776 = 30.20 >= 1.0)	3664.109	95.776	SI (3664.109/95.776 = 38.26 >= 1.0)
7-5	2893.318	95.754	SI (2893.318/95.754 = 30.22 >= 1.0)	3664.759	95.754	SI (3664.759/95.754 = 38.27 >= 1.0)
7-6	2893.318	95.762	SI (2893.318/95.762 = 30.21 >= 1.0)	3664.759	95.762	SI (3664.759/95.762 = 38.27 >= 1.0)
7-7	2892.692	95.784	SI (2892.692/95.784 = 30.20 >= 1.0)	3664.109	95.784	SI (3664.109/95.784 = 38.25 >= 1.0)
7-8	2892.692	95.776	SI (2892.692/95.776 = 30.20 >= 1.0)	3664.109	95.776	SI (3664.109/95.776 = 38.26 >= 1.0)
7-9	2893.365	95.74	SI (2893.365/95.74 = 30.22 >= 1.0)	3664.81	95.74	SI (3664.81/95.74 = 38.28 >= 1.0)
7-10	2893.342	95.748	SI (2893.342/95.748 = 30.22 >= 1.0)	3664.786	95.748	SI (3664.786/95.748 = 38.28 >= 1.0)
7-11	2892.738	95.798	SI (2892.738/95.798 = 30.20 >= 1.0)	3664.154	95.798	SI (3664.154/95.798 = 38.25 >= 1.0)
7-12	2892.738	95.79	SI (2892.738/95.79 = 30.20 >= 1.0)	3664.154	95.79	SI (3664.154/95.79 = 38.25 >= 1.0)

7-13	2893.365	95.739	SI (2893.365/95.739 = 30.22 >= 1.0)	3664.81	95.739	SI (3664.81/95.739 = 38.28 >= 1.0)
7-14	2893.365	95.747	SI (2893.365/95.747 = 30.22 >= 1.0)	3664.81	95.747	SI (3664.81/95.747 = 38.28 >= 1.0)
7-15	2892.738	95.799	SI (2892.738/95.799 = 30.20 >= 1.0)	3664.154	95.799	SI (3664.154/95.799 = 38.25 >= 1.0)
7-16	2892.738	95.79	SI (2892.738/95.79 = 30.20 >= 1.0)	3664.154	95.79	SI (3664.154/95.79 = 38.25 >= 1.0)

Segue la tabella riassuntiva di tutte le verifiche di **capacità portante**, i dettagli sono riportati nei paragrafi successivi.

Caso	Cond. drenate			Cond. non drenate		
	E_d [kN]	R_d [kN]	Verifica	E_d [kN]	R_d [kN]	Verifica
1-1	2537.863	22548.328	SI (22548.328/2537.863 = 8.88 >= 1.0)	Verifica non richiesta.		
2-1	2544.603	21381.812	SI (21381.812/2544.603 = 8.40 >= 1.0)	Verifica non richiesta.		
3-1	2287.993	23480.624	SI (23480.624/2287.993 = 10.26 >= 1.0)	Verifica non richiesta.		
4-1	1513.987	18056.715	SI (18056.715/1513.987 = 11.93 >= 1.0)	Verifica non richiesta.		
4-2	1513.987	18057.095	SI (18057.095/1513.987 = 11.93 >= 1.0)	Verifica non richiesta.		
4-3	1513.987	17962.227	SI (17962.227/1513.987 = 11.86 >= 1.0)	Verifica non richiesta.		
4-4	1513.987	17961.85	SI (17961.85/1513.987 = 11.86 >= 1.0)	Verifica non richiesta.		
4-5	1513.977	18054.76	SI (18054.76/1513.977 = 11.93 >= 1.0)	Verifica non richiesta.		
4-6	1513.977	18055.141	SI (18055.141/1513.977 = 11.93 >= 1.0)	Verifica non richiesta.		
4-7	1513.987	17963.623	SI (17963.623/1513.987 = 11.87 >= 1.0)	Verifica non richiesta.		
4-8	1513.987	17963.245	SI (17963.245/1513.987 = 11.86 >= 1.0)	Verifica non richiesta.		
4-9	1513.177	18049.503	SI (18049.503/1513.177 = 11.93 >= 1.0)	Verifica non richiesta.		
4-10	1513.177	18049.881	SI (18049.881/1513.177 = 11.93 >= 1.0)	Verifica non richiesta.		
4-11	1513.177	17962.801	SI (17962.801/1513.177 = 11.87 >= 1.0)	Verifica non richiesta.		
4-12	1513.177	17962.421	SI (17962.421/1513.177 = 11.87 >= 1.0)	Verifica non richiesta.		
4-13	1513.167	18048.075	SI (18048.075/1513.167 = 11.93 >= 1.0)	Verifica non richiesta.		
4-14	1513.167	18048.453	SI (18048.453/1513.167 = 11.93 >= 1.0)	Verifica non richiesta.		
4-15	1513.177	17964.722	SI (17964.722/1513.177 = 11.87 >= 1.0)	Verifica non richiesta.		
4-16	1513.177	17964.342	SI (17964.342/1513.177 = 11.87 >= 1.0)	Verifica non richiesta.		
5-1	1513.697	20774.948	SI (20774.948/1513.697 = 13.72 >= 1.0)	Verifica non richiesta.		
5-2	1513.697	20774.283	SI (20774.283/1513.697 = 13.72 >= 1.0)	Verifica non richiesta.		
5-3	1513.447	20771.939	SI (20771.939/1513.447 = 13.72 >= 1.0)	Verifica non richiesta.		
5-4	1513.447	20771.447	SI (20771.447/1513.447 = 13.72 >= 1.0)	Verifica non richiesta.		
5-5	1513.697	20776.42	SI (20776.42/1513.697 = 13.73 >= 1.0)	Verifica non richiesta.		
5-6	1513.697	20775.756	SI (20775.756/1513.697 = 13.73 >= 1.0)	Verifica non richiesta.		
5-7	1513.447	20773.403	SI (20773.403/1513.447 = 13.73 >= 1.0)	Verifica non richiesta.		
5-8	1513.447	20772.91	SI (20772.91/1513.447 = 13.73 >= 1.0)	Verifica non richiesta.		
5-9	1513.707	20669.97	SI (20669.97/1513.707 = 13.66 >= 1.0)	Verifica non richiesta.		
5-10	1513.707	20670.463	SI (20670.463/1513.707 = 13.66 >= 1.0)	Verifica non richiesta.		
5-11	1513.467	20671.098	SI (20671.098/1513.467 = 13.66 >= 1.0)	Verifica non richiesta.		
5-12	1513.467	20671.762	SI (20671.762/1513.467 = 13.66 >= 1.0)	Verifica non richiesta.		
5-13	1513.707	20668.506	SI (20668.506/1513.707 = 13.65 >= 1.0)	Verifica non richiesta.		
5-14	1513.707	20668.998	SI (20668.998/1513.707 = 13.65 >= 1.0)	Verifica non richiesta.		
5-15	1513.467	20669.625	SI (20669.625/1513.467 = 13.66 >= 1.0)	Verifica non richiesta.		
5-16	1513.467	20670.289	SI (20670.289/1513.467 = 13.66 >= 1.0)	Verifica non richiesta.		
6-1	1514.027	17564.651	SI (17564.651/1514.027 = 11.60 >= 1.0)	Verifica non richiesta.		
6-2	1514.027	17565.057	SI (17565.057/1514.027 = 11.60 >= 1.0)	Verifica non richiesta.		
6-3	1514.027	17472.202	SI (17472.202/1514.027 = 11.54 >= 1.0)	Verifica non richiesta.		
6-4	1514.027	17471.798	SI (17471.798/1514.027 = 11.54 >= 1.0)	Verifica non richiesta.		
6-5	1514.017	17562.557	SI (17562.557/1514.017 = 11.60 >= 1.0)	Verifica non richiesta.		
6-6	1514.017	17562.963	SI (17562.963/1514.017 = 11.60 >= 1.0)	Verifica non richiesta.		
6-7	1514.027	17473.693	SI (17473.693/1514.027 = 11.54 >= 1.0)	Verifica non richiesta.		
6-8	1514.027	17473.29	SI (17473.29/1514.027 = 11.54 >= 1.0)	Verifica non richiesta.		
6-9	1513.127	17556.628	SI (17556.628/1513.127 = 11.60 >= 1.0)	Verifica non richiesta.		
6-10	1513.127	17557.033	SI (17557.033/1513.127 = 11.60 >= 1.0)	Verifica non richiesta.		
6-11	1513.137	17472.551	SI (17472.551/1513.137 = 11.55 >= 1.0)	Verifica non richiesta.		
6-12	1513.137	17472.144	SI (17472.144/1513.137 = 11.55 >= 1.0)	Verifica non richiesta.		
6-13	1513.127	17555.137	SI (17555.137/1513.127 = 11.60 >= 1.0)	Verifica non richiesta.		
6-14	1513.127	17555.541	SI (17555.541/1513.127 = 11.60 >= 1.0)	Verifica non richiesta.		
6-15	1513.137	17474.609	SI (17474.609/1513.137 = 11.55 >= 1.0)	Verifica non richiesta.		
6-16	1513.137	17474.203	SI (17474.203/1513.137 = 11.55 >= 1.0)	Verifica non richiesta.		
7-1	1513.707	20509.696	SI (20509.696/1513.707 = 13.55 >= 1.0)	Verifica non richiesta.		
7-2	1513.707	20508.974	SI (20508.974/1513.707 = 13.55 >= 1.0)	Verifica non richiesta.		
7-3	1513.437	20506.429	SI (20506.429/1513.437 = 13.55 >= 1.0)	Verifica non richiesta.		
7-4	1513.437	20505.894	SI (20505.894/1513.437 = 13.55 >= 1.0)	Verifica non richiesta.		
7-5	1513.707	20511.297	SI (20511.297/1513.707 = 13.55 >= 1.0)	Verifica non richiesta.		
7-6	1513.707	20510.575	SI (20510.575/1513.707 = 13.55 >= 1.0)	Verifica non richiesta.		
7-7	1513.437	20508.021	SI (20508.021/1513.437 = 13.55 >= 1.0)	Verifica non richiesta.		
7-8	1513.437	20507.485	SI (20507.485/1513.437 = 13.55 >= 1.0)	Verifica non richiesta.		
7-9	1513.727	20405.823	SI (20405.823/1513.727 = 13.48 >= 1.0)	Verifica non richiesta.		
7-10	1513.717	20406.34	SI (20406.34/1513.717 = 13.48 >= 1.0)	Verifica non richiesta.		
7-11	1513.457	20407.032	SI (20407.032/1513.457 = 13.48 >= 1.0)	Verifica non richiesta.		
7-12	1513.457	20407.755	SI (20407.755/1513.457 = 13.48 >= 1.0)	Verifica non richiesta.		

7-13	1513.727	20404.232	SI (20404.232/1513.727 = 13.48 >= 1.0)	Verifica non richiesta.
7-14	1513.727	20404.768	SI (20404.768/1513.727 = 13.48 >= 1.0)	Verifica non richiesta.
7-15	1513.457	20405.431	SI (20405.431/1513.457 = 13.48 >= 1.0)	Verifica non richiesta.
7-16	1513.457	20406.154	SI (20406.154/1513.457 = 13.48 >= 1.0)	Verifica non richiesta.

Segue la tabella riassuntiva di tutte le verifiche di **resistenza a scorrimento**, i dettagli sono riportati nei paragrafi successivi.

Caso	Cond. drenate			Cond. non drenate		
	E_d [kN]	R_d [kN]	Verifica	E_d [kN]	R_d [kN]	Verifica
1-1	0	817.004	SI (817.004/0 = 1.00 >= 1.0)	Verifica non richiesta.		
2-1	10.657	821.892	SI (821.892/10.657 = 77.12 >= 1.0)	Verifica non richiesta.		
3-1	17.762	739.283	SI (739.283/17.762 = 41.62 >= 1.0)	Verifica non richiesta.		
4-1	48.977	490.169	SI (490.169/48.977 = 10.01 >= 1.0)	Verifica non richiesta.		
4-2	48.977	490.169	SI (490.169/48.977 = 10.01 >= 1.0)	Verifica non richiesta.		
4-3	49.018	490.169	SI (490.169/49.018 = 10.00 >= 1.0)	Verifica non richiesta.		
4-4	49.018	490.169	SI (490.169/49.018 = 10.00 >= 1.0)	Verifica non richiesta.		
4-5	48.977	490.166	SI (490.166/48.977 = 10.01 >= 1.0)	Verifica non richiesta.		
4-6	48.977	490.166	SI (490.166/48.977 = 10.01 >= 1.0)	Verifica non richiesta.		
4-7	49.018	490.169	SI (490.169/49.018 = 10.00 >= 1.0)	Verifica non richiesta.		
4-8	49.018	490.169	SI (490.169/49.018 = 10.00 >= 1.0)	Verifica non richiesta.		
4-9	49.018	489.909	SI (489.909/49.018 = 9.99 >= 1.0)	Verifica non richiesta.		
4-10	49.018	489.909	SI (489.909/49.018 = 9.99 >= 1.0)	Verifica non richiesta.		
4-11	48.977	489.908	SI (489.908/48.977 = 10.00 >= 1.0)	Verifica non richiesta.		
4-12	48.977	489.908	SI (489.908/48.977 = 10.00 >= 1.0)	Verifica non richiesta.		
4-13	49.018	489.905	SI (489.905/49.018 = 9.99 >= 1.0)	Verifica non richiesta.		
4-14	49.018	489.905	SI (489.905/49.018 = 9.99 >= 1.0)	Verifica non richiesta.		
4-15	48.977	489.908	SI (489.908/48.977 = 10.00 >= 1.0)	Verifica non richiesta.		
4-16	48.977	489.908	SI (489.908/48.977 = 10.00 >= 1.0)	Verifica non richiesta.		
5-1	33.398	488.99	SI (488.99/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-2	33.398	488.99	SI (488.99/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-3	33.459	488.91	SI (488.91/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-4	33.459	488.91	SI (488.91/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-5	33.398	488.99	SI (488.99/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-6	33.398	488.99	SI (488.99/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-7	33.459	488.91	SI (488.91/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-8	33.459	488.91	SI (488.91/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-9	33.459	488.993	SI (488.993/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-10	33.459	488.993	SI (488.993/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-11	33.398	488.916	SI (488.916/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-12	33.398	488.916	SI (488.916/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-13	33.459	488.993	SI (488.993/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-14	33.459	488.993	SI (488.993/33.459 = 14.61 >= 1.0)	Verifica non richiesta.		
5-15	33.398	488.916	SI (488.916/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
5-16	33.398	488.916	SI (488.916/33.398 = 14.64 >= 1.0)	Verifica non richiesta.		
6-1	53.875	490.182	SI (490.182/53.875 = 9.10 >= 1.0)	Verifica non richiesta.		
6-2	53.875	490.182	SI (490.182/53.875 = 9.10 >= 1.0)	Verifica non richiesta.		
6-3	53.92	490.182	SI (490.182/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-4	53.92	490.182	SI (490.182/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-5	53.875	490.179	SI (490.179/53.875 = 9.10 >= 1.0)	Verifica non richiesta.		
6-6	53.875	490.179	SI (490.179/53.875 = 9.10 >= 1.0)	Verifica non richiesta.		
6-7	53.92	490.182	SI (490.182/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-8	53.92	490.182	SI (490.182/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-9	53.92	489.893	SI (489.893/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-10	53.92	489.893	SI (489.893/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-11	53.875	489.896	SI (489.896/53.875 = 9.09 >= 1.0)	Verifica non richiesta.		
6-12	53.875	489.896	SI (489.896/53.875 = 9.09 >= 1.0)	Verifica non richiesta.		
6-13	53.92	489.893	SI (489.893/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-14	53.92	489.893	SI (489.893/53.92 = 9.09 >= 1.0)	Verifica non richiesta.		
6-15	53.875	489.896	SI (489.896/53.875 = 9.09 >= 1.0)	Verifica non richiesta.		
6-16	53.875	489.896	SI (489.896/53.875 = 9.09 >= 1.0)	Verifica non richiesta.		
7-1	36.737	488.994	SI (488.994/36.737 = 13.31 >= 1.0)	Verifica non richiesta.		
7-2	36.737	488.994	SI (488.994/36.737 = 13.31 >= 1.0)	Verifica non richiesta.		
7-3	36.805	488.906	SI (488.906/36.805 = 13.28 >= 1.0)	Verifica non richiesta.		
7-4	36.805	488.906	SI (488.906/36.805 = 13.28 >= 1.0)	Verifica non richiesta.		
7-5	36.737	488.994	SI (488.994/36.737 = 13.31 >= 1.0)	Verifica non richiesta.		
7-6	36.737	488.994	SI (488.994/36.737 = 13.31 >= 1.0)	Verifica non richiesta.		
7-7	36.805	488.906	SI (488.906/36.805 = 13.28 >= 1.0)	Verifica non richiesta.		
7-8	36.805	488.906	SI (488.906/36.805 = 13.28 >= 1.0)	Verifica non richiesta.		
7-9	36.805	489	SI (489/36.805 = 13.29 >= 1.0)	Verifica non richiesta.		
7-10	36.805	488.997	SI (488.997/36.805 = 13.29 >= 1.0)	Verifica non richiesta.		
7-11	36.737	488.913	SI (488.913/36.737 = 13.31 >= 1.0)	Verifica non richiesta.		

7-12	36.737	488.913	SI (488.913/36.737 = 13.31 >= 1.0)	Verifica non richiesta.
7-13	36.805	489	SI (489/36.805 = 13.29 >= 1.0)	Verifica non richiesta.
7-14	36.805	489	SI (489/36.805 = 13.29 >= 1.0)	Verifica non richiesta.
7-15	36.737	488.913	SI (488.913/36.737 = 13.31 >= 1.0)	Verifica non richiesta.
7-16	36.737	488.913	SI (488.913/36.737 = 13.31 >= 1.0)	Verifica non richiesta.

Descrizione del metodo di calcolo.

Il calcolo della capacità portante viene eseguito secondo la formula trinomia, considerando separatamente i contributi dovuti alla coesione, al sovraccarico laterale ed al peso del terreno.

Per le verifiche in condizioni drenate, si utilizzano i coefficienti di capacità portante N_q (Prandtl, 1921), N_c (Reissner, 1924), N_{γ} (Vesic, 1973), i coefficienti correttivi dovuti alla forma della fondazione (s , Meyerhof, 1951 e 1963), all'approfondimento (d , Brinch Hansen, 1970), all'inclinazione del carico (i , Vesic, 1973), all'inclinazione del piano di posa (b , Vesic, 1973), all'inclinazione del piano campagna (g , Vesic, 1973), e all'azione sismica (h - Maugeri e Novità, 2004).

Nel caso di terreno eterogeneo (litologie differenti, presenza di falda), i parametri meccanici utilizzati nel calcolo sono ottenuti come media ponderata dei valori rinvenuti all'interno del cuneo di rottura.

La resistenza a scorrimento, viene ottenuta sommando i contributi del carico normale al piano di posa moltiplicato per il coefficiente d'attrito, e dell'area del piano di posa (eventualmente ridotta per carico verticale eccentrico) per l'adesione fondazione-terreno. In condizioni drenate, l'attrito fondazione terreno è assunto pari all'angolo di resistenza al taglio del terreno moltiplicato per il coefficiente 0.75, l'adesione fondazione terreno è trascurata (assunta pari a 0). Si considera il contributo della pressione del terreno a lato della fondazione. La resistenza laterale del terreno è assunta pari alla resistenza passiva disponibile moltiplicata per 0.50.

Descrizione della fondazione.

La fondazione ha piano di posa rettangolare, con lato X di 484 [cm], lato Y di 2295 [cm], e centro alla quota $z = -10$ [cm]. Il piano di posa è orizzontale.

Descrizione del terreno.

La stratigrafia è omogenea, presenta un solo strato							
n.	nome	z_i [cm]	z_f [cm]	γ_d [kN/m ³]	γ_t [kN/m ³]	c' [N/mm ²]	ϕ' [°]
1	Sabbia	0	-1402	18.5	21.5	0	26
La stratigrafia non contiene una falda							

Verifiche in condizioni drenate.

Sollecitazioni al piano di posa.

Si riportano di seguito le componenti della sollecitazione applicata e la distanza del punto di applicazione dal centro del piano di posa della fondazione.

Rispetto al sistema di rif. globale:								
Caso	Fx [kN]	Fy [kN]	Fz [kN]	Mx [kN*m]	My [kN*m]	dx [cm]	dy [cm]	dz [cm]
1-1	0	0	-2537.8634	59.2585	794.2714	0	0	10
2-1	10.6572	0	-2544.6034	63.13	905.0797	0	0	10
3-1	17.7621	0	-2287.9934	58.923	561.3149	0	0	10
4-1	-48.1521	-8.9504	-1513.9872	-14.8779	290.18	0	0	10
4-2	-48.1521	-8.9504	-1513.9872	-14.4943	290.1799	0	0	10
4-3	-48.1594	9.1367	-1513.9872	105.6529	290.1761	0	0	10
4-4	-48.1594	9.1367	-1513.9872	106.0366	290.176	0	0	10
4-5	-48.1521	-8.9504	-1513.9772	-16.5577	290.2047	0	0	10
4-6	-48.1521	-8.9504	-1513.9772	-16.174	290.2045	0	0	10
4-7	-48.1594	9.1367	-1513.9872	103.9732	290.2008	0	0	10
4-8	-48.1594	9.1367	-1513.9872	104.3568	290.2007	0	0	10
4-9	48.1594	-9.1367	-1513.1772	-13.9038	-290.2371	0	0	10
4-10	48.1594	-9.1367	-1513.1772	-13.5201	-290.2372	0	0	10
4-11	48.1521	8.9504	-1513.1772	106.6271	-290.241	0	0	10
4-12	48.1521	8.9504	-1513.1772	107.0108	-290.2411	0	0	10
4-13	48.1594	-9.1367	-1513.1672	-15.5835	-290.2125	0	0	10
4-14	48.1594	-9.1367	-1513.1672	-15.1998	-290.2126	0	0	10
4-15	48.1521	8.9504	-1513.1772	104.9474	-290.2164	0	0	10
4-16	48.1521	8.9504	-1513.1772	105.331	-290.2165	0	0	10
5-1	-14.4345	-30.1172	-1513.6972	-156.1918	87.0473	0	0	10
5-2	-14.4345	-30.1172	-1513.6972	-156.6957	87.0547	0	0	10
5-3	14.4589	-30.1731	-1513.4472	-155.8996	-87.0778	0	0	10
5-4	14.4589	-30.1731	-1513.4472	-156.4035	-87.0704	0	0	10
5-5	-14.4345	-30.1172	-1513.6972	-154.913	87.0469	0	0	10
5-6	-14.4345	-30.1172	-1513.6972	-155.4169	87.0543	0	0	10
5-7	14.4589	-30.1731	-1513.4472	-154.6207	-87.0782	0	0	10
5-8	14.4589	-30.1731	-1513.4472	-155.1247	-87.0708	0	0	10
5-9	-14.4589	30.1731	-1513.7072	245.5778	87.0343	0	0	10
5-10	-14.4589	30.1731	-1513.7072	245.0738	87.0417	0	0	10
5-11	14.4345	30.1172	-1513.4672	245.87	-87.0908	0	0	10
5-12	14.4345	30.1172	-1513.4672	245.3661	-87.0834	0	0	10
5-13	-14.4589	30.1731	-1513.7072	246.8566	87.034	0	0	10
5-14	-14.4589	30.1731	-1513.7072	246.3527	87.0414	0	0	10
5-15	14.4345	30.1172	-1513.4672	247.1488	-87.0912	0	0	10
5-16	14.4345	30.1172	-1513.4672	246.6449	-87.0838	0	0	10
6-1	-52.9673	-9.8454	-1514.0272	-20.8884	319.1998	0	0	10
6-2	-52.9673	-9.8454	-1514.0272	-20.4664	319.1997	0	0	10
6-3	-52.9754	10.0504	-1514.0272	111.6956	319.1955	0	0	10
6-4	-52.9754	10.0504	-1514.0272	112.1176	319.1954	0	0	10
6-5	-52.9673	-9.8454	-1514.0172	-22.7361	319.2269	0	0	10
6-6	-52.9673	-9.8454	-1514.0172	-22.3141	319.2268	0	0	10
6-7	-52.9754	10.0504	-1514.0272	109.8479	319.2227	0	0	10
6-8	-52.9754	10.0504	-1514.0272	110.2699	319.2225	0	0	10
6-9	52.9754	-10.0504	-1513.1272	-19.8168	-319.259	0	0	10
6-10	52.9754	-10.0504	-1513.1272	-19.3948	-319.2591	0	0	10
6-11	52.9673	9.8454	-1513.1372	112.7672	-319.2633	0	0	10
6-12	52.9673	9.8454	-1513.1372	113.1892	-319.2634	0	0	10
6-13	52.9754	-10.0504	-1513.1272	-21.6645	-319.2319	0	0	10
6-14	52.9754	-10.0504	-1513.1272	-21.2425	-319.232	0	0	10
6-15	52.9673	9.8454	-1513.1372	110.9195	-319.2362	0	0	10
6-16	52.9673	9.8454	-1513.1372	111.3415	-319.2363	0	0	10
7-1	-15.878	-33.129	-1513.7072	-176.3337	95.7539	0	0	10
7-2	-15.878	-33.129	-1513.7072	-176.888	95.762	0	0	10
7-3	15.9048	-33.1905	-1513.4372	-176.0122	-95.7838	0	0	10
7-4	15.9048	-33.1905	-1513.4372	-176.5665	-95.7756	0	0	10
7-5	-15.878	-33.129	-1513.7072	-174.927	95.7535	0	0	10
7-6	-15.878	-33.129	-1513.7072	-175.4813	95.7616	0	0	10
7-7	15.9048	-33.1905	-1513.4372	-174.6055	-95.7842	0	0	10
7-8	15.9048	-33.1905	-1513.4372	-175.1598	-95.7761	0	0	10
7-9	-15.9048	33.1905	-1513.7272	265.6129	95.7396	0	0	10
7-10	-15.9048	33.1905	-1513.7172	265.0586	95.7477	0	0	10
7-11	15.878	33.129	-1513.4572	265.9344	-95.7981	0	0	10
7-12	15.878	33.129	-1513.4572	265.38	-95.7899	0	0	10

7-13	-15.9048	33.1905	-1513.7272	267.0196	95.7392	0	0	10
7-14	-15.9048	33.1905	-1513.7272	266.4653	95.7473	0	0	10
7-15	15.878	33.129	-1513.4572	267.3411	-95.7985	0	0	10
7-16	15.878	33.129	-1513.4572	266.7867	-95.7903	0	0	10
Rispetto al sistema di rif. locale (centro piano di posa):								
Caso	Hx [kN]	Hy [kN]	Vz [kN]	Mx [kN*m]	My [kN*m]	dx [cm]	dy [cm]	dz [cm]
1-1	0	0	-2537.8634	59.2585	794.2714	-	-	-
2-1	10.6572	0	-2544.6034	63.13	906.1454	-	-	-
3-1	17.7621	0	-2287.9934	58.923	563.0911	-	-	-
4-1	-48.1521	-8.9504	-1513.9872	-13.9829	285.3648	-	-	-
4-2	-48.1521	-8.9504	-1513.9872	-13.5993	285.3647	-	-	-
4-3	-48.1594	9.1367	-1513.9872	104.7392	285.3602	-	-	-
4-4	-48.1594	9.1367	-1513.9872	105.1229	285.3601	-	-	-
4-5	-48.1521	-8.9504	-1513.9772	-15.6627	285.3895	-	-	-
4-6	-48.1521	-8.9504	-1513.9772	-15.279	285.3893	-	-	-
4-7	-48.1594	9.1367	-1513.9872	103.0595	285.3849	-	-	-
4-8	-48.1594	9.1367	-1513.9872	103.4431	285.3848	-	-	-
4-9	48.1594	-9.1367	-1513.1772	-12.9901	-285.4212	-	-	-
4-10	48.1594	-9.1367	-1513.1772	-12.6064	-285.4213	-	-	-
4-11	48.1521	8.9504	-1513.1772	105.7321	-285.4258	-	-	-
4-12	48.1521	8.9504	-1513.1772	106.1158	-285.4259	-	-	-
4-13	48.1594	-9.1367	-1513.1672	-14.6698	-285.3966	-	-	-
4-14	48.1594	-9.1367	-1513.1672	-14.2861	-285.3967	-	-	-
4-15	48.1521	8.9504	-1513.1772	104.0524	-285.4012	-	-	-
4-16	48.1521	8.9504	-1513.1772	104.436	-285.4013	-	-	-
5-1	-14.4345	-30.1172	-1513.6972	-153.1801	85.6039	-	-	-
5-2	-14.4345	-30.1172	-1513.6972	-153.684	85.6112	-	-	-
5-3	14.4589	-30.1731	-1513.4472	-152.8823	-85.6319	-	-	-
5-4	14.4589	-30.1731	-1513.4472	-153.3862	-85.6245	-	-	-
5-5	-14.4345	-30.1172	-1513.6972	-151.9013	85.6035	-	-	-
5-6	-14.4345	-30.1172	-1513.6972	-152.4052	85.6108	-	-	-
5-7	14.4589	-30.1731	-1513.4472	-151.6034	-85.6323	-	-	-
5-8	14.4589	-30.1731	-1513.4472	-152.1074	-85.6249	-	-	-
5-9	-14.4589	30.1731	-1513.7072	242.5605	85.5884	-	-	-
5-10	-14.4589	30.1731	-1513.7072	242.0565	85.5958	-	-	-
5-11	14.4345	30.1172	-1513.4672	242.8583	-85.6473	-	-	-
5-12	14.4345	30.1172	-1513.4672	242.3544	-85.6399	-	-	-
5-13	-14.4589	30.1731	-1513.7072	243.8393	85.5881	-	-	-
5-14	-14.4589	30.1731	-1513.7072	243.3354	85.5955	-	-	-
5-15	14.4345	30.1172	-1513.4672	244.1371	-85.6477	-	-	-
5-16	14.4345	30.1172	-1513.4672	243.6332	-85.6403	-	-	-
6-1	-52.9673	-9.8454	-1514.0272	-19.9039	313.9031	-	-	-
6-2	-52.9673	-9.8454	-1514.0272	-19.4819	313.903	-	-	-
6-3	-52.9754	10.0504	-1514.0272	110.6906	313.898	-	-	-
6-4	-52.9754	10.0504	-1514.0272	111.1126	313.8979	-	-	-
6-5	-52.9673	-9.8454	-1514.0172	-21.7516	313.9302	-	-	-
6-6	-52.9673	-9.8454	-1514.0172	-21.3296	313.9301	-	-	-
6-7	-52.9754	10.0504	-1514.0272	108.8429	313.9252	-	-	-
6-8	-52.9754	10.0504	-1514.0272	109.2649	313.925	-	-	-
6-9	52.9754	-10.0504	-1513.1272	-18.8118	-313.9615	-	-	-
6-10	52.9754	-10.0504	-1513.1272	-18.3898	-313.9616	-	-	-
6-11	52.9673	9.8454	-1513.1372	111.7827	-313.9666	-	-	-
6-12	52.9673	9.8454	-1513.1372	112.2047	-313.9667	-	-	-
6-13	52.9754	-10.0504	-1513.1272	-20.6595	-313.9344	-	-	-
6-14	52.9754	-10.0504	-1513.1272	-20.2375	-313.9345	-	-	-
6-15	52.9673	9.8454	-1513.1372	109.935	-313.9395	-	-	-
6-16	52.9673	9.8454	-1513.1372	110.357	-313.9396	-	-	-
7-1	-15.878	-33.129	-1513.7072	-173.0208	94.1661	-	-	-
7-2	-15.878	-33.129	-1513.7072	-173.5751	94.1742	-	-	-
7-3	15.9048	-33.1905	-1513.4372	-172.6931	-94.1933	-	-	-
7-4	15.9048	-33.1905	-1513.4372	-173.2475	-94.1851	-	-	-
7-5	-15.878	-33.129	-1513.7072	-171.6141	94.1657	-	-	-
7-6	-15.878	-33.129	-1513.7072	-172.1684	94.1738	-	-	-
7-7	15.9048	-33.1905	-1513.4372	-171.2864	-94.1937	-	-	-
7-8	15.9048	-33.1905	-1513.4372	-171.8408	-94.1856	-	-	-
7-9	-15.9048	33.1905	-1513.7272	262.2939	94.1491	-	-	-
7-10	-15.9048	33.1905	-1513.7172	261.7395	94.1572	-	-	-
7-11	15.878	33.129	-1513.4572	262.6215	-94.2103	-	-	-
7-12	15.878	33.129	-1513.4572	262.0671	-94.2021	-	-	-
7-13	-15.9048	33.1905	-1513.7272	263.7006	94.1487	-	-	-
7-14	-15.9048	33.1905	-1513.7272	263.1462	94.1568	-	-	-
7-15	15.878	33.129	-1513.4572	264.0282	-94.2107	-	-	-
7-16	15.878	33.129	-1513.4572	263.4738	-94.2025	-	-	-

Le sollecitazioni applicate provocano un' eccentricità lungo X (max = 35.61 [cm]) e lungo Y (max = 17.45 [cm]),
perciò le verifiche vengono eseguite sulla fondazione ridotta rettangolare.

Caso	ecc. X [cm]	ecc. Y [cm]	Asse B	Asse L
1-1	31.3	2.33	asse X	asse Y
2-1	35.61	2.48	asse X	asse Y
3-1	24.61	2.58	asse X	asse Y
4-1	18.85	0.92	asse X	asse Y
4-2	18.85	0.9	asse X	asse Y
4-3	18.85	6.92	asse X	asse Y
4-4	18.85	6.94	asse X	asse Y
4-5	18.85	1.03	asse X	asse Y
4-6	18.85	1.01	asse X	asse Y
4-7	18.85	6.81	asse X	asse Y
4-8	18.85	6.83	asse X	asse Y
4-9	18.86	0.86	asse X	asse Y
4-10	18.86	0.83	asse X	asse Y
4-11	18.86	6.99	asse X	asse Y
4-12	18.86	7.01	asse X	asse Y
4-13	18.86	0.97	asse X	asse Y
4-14	18.86	0.94	asse X	asse Y
4-15	18.86	6.88	asse X	asse Y
4-16	18.86	6.9	asse X	asse Y
5-1	5.66	10.12	asse X	asse Y
5-2	5.66	10.15	asse X	asse Y
5-3	5.66	10.1	asse X	asse Y
5-4	5.66	10.13	asse X	asse Y
5-5	5.66	10.04	asse X	asse Y
5-6	5.66	10.07	asse X	asse Y
5-7	5.66	10.02	asse X	asse Y
5-8	5.66	10.05	asse X	asse Y
5-9	5.65	16.02	asse X	asse Y
5-10	5.65	15.99	asse X	asse Y
5-11	5.66	16.05	asse X	asse Y
5-12	5.66	16.01	asse X	asse Y
5-13	5.65	16.11	asse X	asse Y
5-14	5.65	16.08	asse X	asse Y
5-15	5.66	16.13	asse X	asse Y
5-16	5.66	16.1	asse X	asse Y
6-1	20.73	1.31	asse X	asse Y
6-2	20.73	1.29	asse X	asse Y
6-3	20.73	7.31	asse X	asse Y
6-4	20.73	7.34	asse X	asse Y
6-5	20.73	1.44	asse X	asse Y
6-6	20.73	1.41	asse X	asse Y
6-7	20.73	7.19	asse X	asse Y
6-8	20.73	7.22	asse X	asse Y
6-9	20.75	1.24	asse X	asse Y
6-10	20.75	1.22	asse X	asse Y
6-11	20.75	7.39	asse X	asse Y
6-12	20.75	7.42	asse X	asse Y
6-13	20.75	1.37	asse X	asse Y
6-14	20.75	1.34	asse X	asse Y
6-15	20.75	7.27	asse X	asse Y
6-16	20.75	7.29	asse X	asse Y
7-1	6.22	11.43	asse X	asse Y
7-2	6.22	11.47	asse X	asse Y
7-3	6.22	11.41	asse X	asse Y
7-4	6.22	11.45	asse X	asse Y
7-5	6.22	11.34	asse X	asse Y
7-6	6.22	11.37	asse X	asse Y
7-7	6.22	11.32	asse X	asse Y
7-8	6.22	11.35	asse X	asse Y
7-9	6.22	17.33	asse X	asse Y
7-10	6.22	17.29	asse X	asse Y
7-11	6.22	17.35	asse X	asse Y
7-12	6.22	17.32	asse X	asse Y
7-13	6.22	17.42	asse X	asse Y
7-14	6.22	17.38	asse X	asse Y
7-15	6.22	17.45	asse X	asse Y
7-16	6.22	17.41	asse X	asse Y

Capacità portante.

Le seguenti tabelle elencano il valore dell'angolo di resistenza al taglio, del peso di volume alleggerito, della coesione efficace, del sovraccarico alleggerito, e dei fattori e coefficienti introdotti nel calcolo della capacità portante.

Caso	γ_ϕ	γ_γ	ϕ [°]	γ' [kN/m ³]	N_γ	S_γ	d_γ	$i_{b\gamma}$	$i_{l\gamma}$	b_γ	g_γ	h_γ	$q'_{lim,\gamma}$ [N/mm ²]
1-1	1.00	1.00	26	18.5	12.54	1.05	1.00	1.00	1.00	1.00	1.00	-	0.512
2-1	1.00	1.00	26	18.5	12.54	1.05	1.00	0.99	1.00	1.00	1.00	-	0.495
3-1	1.00	1.00	26	18.5	12.54	1.05	1.00	0.98	1.00	1.00	1.00	-	0.517
4-1	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-2	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-3	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-4	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-5	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-6	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-7	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-8	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-9	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-10	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-11	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-12	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-13	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-14	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-15	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
4-16	1.00	1.00	26	18.5	12.54	1.05	1.00	0.91	0.99	1.00	1.00	0.78	0.384
5-1	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-2	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-3	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-4	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-5	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-6	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-7	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-8	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-9	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-10	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-11	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-12	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-13	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-14	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-15	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
5-16	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.96	1.00	1.00	0.78	0.422
6-1	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-2	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-3	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-4	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-5	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-6	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-7	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-8	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-9	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-10	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-11	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-12	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-13	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-14	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-15	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
6-16	1.00	1.00	26	18.5	12.54	1.05	1.00	0.90	0.99	1.00	1.00	0.78	0.377
7-1	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-2	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-3	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-4	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-5	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-6	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-7	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-8	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-9	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-10	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-11	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-12	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-13	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-14	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
7-15	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418

7-16	1.00	1.00	26	18.5	12.54	1.05	1.00	0.97	0.95	1.00	1.00	0.78	0.418
Caso	γ_c	c' [N/mm ²]	N _c	s _c	d _c	i _{bc}	i _{ic}	b _c	g _c	h _c	$q'_{lim,c}$ [N/mm ²]		
1-1	1.00	0	22.25	1.09	1.01	1.00	1.00	1.00	1.00	-	0		
2-1	1.00	0	22.25	1.09	1.01	0.99	1.00	1.00	1.00	-	0		
3-1	1.00	0	22.25	1.10	1.01	0.98	1.00	1.00	1.00	-	0		
4-1	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-2	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-3	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-4	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-5	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-6	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-7	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-8	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-9	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-10	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-11	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-12	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-13	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-14	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-15	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
4-16	1.00	0	22.25	1.10	1.01	0.94	0.99	1.00	1.00	0.92	0		
5-1	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-2	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-3	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-4	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-5	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-6	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-7	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-8	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-9	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-10	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-11	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-12	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-13	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-14	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-15	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
5-16	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
6-1	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-2	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-3	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-4	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-5	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-6	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-7	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-8	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-9	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-10	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-11	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-12	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-13	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-14	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-15	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
6-16	1.00	0	22.25	1.10	1.01	0.93	0.99	1.00	1.00	0.92	0		
7-1	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-2	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-3	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-4	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-5	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-6	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-7	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-8	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-9	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-10	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-11	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-12	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-13	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-14	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-15	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
7-16	1.00	0	22.25	1.11	1.01	0.98	0.97	1.00	1.00	0.92	0		
Caso	q' [N/mm ²]	N _q	s _q	d _q	i _{bq}	i _{iq}	b _q	g _q	h _q	$q'_{lim,q}$ [N/mm ²]			
1-1	0.002	11.85	1.05	1.01	1.00	1.00	1.00	1.00	-	0.023			

2-1	0.002	11.85	1.05	1.01	0.99	1.00	1.00	1.00	-	0.023
3-1	0.002	11.85	1.05	1.01	0.99	1.00	1.00	1.00	-	0.023
4-1	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-2	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-3	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-4	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-5	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-6	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-7	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-8	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-9	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-10	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-11	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-12	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-13	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-14	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-15	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
4-16	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
5-1	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-2	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-3	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-4	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-5	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-6	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-7	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-8	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-9	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-10	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-11	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-12	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-13	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-14	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-15	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
5-16	0.002	11.85	1.05	1.01	0.98	0.98	1.00	1.00	0.89	0.02
6-1	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-2	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-3	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-4	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-5	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-6	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-7	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-8	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-9	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-10	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-11	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-12	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-13	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-14	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-15	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
6-16	0.002	11.85	1.05	1.01	0.94	0.99	1.00	1.00	0.89	0.019
7-1	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-2	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-3	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-4	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-5	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-6	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-7	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-8	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-9	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-10	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-11	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-12	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-13	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-14	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-15	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02
7-16	0.002	11.85	1.05	1.01	0.98	0.97	1.00	1.00	0.89	0.02

Segue il confronto fra la pressione limite ed applicata.

Caso	$\gamma_{R,v}$	q'_{lim} [N/mm ²]	A [cm ²]	R_d [kN]	E_d [kN]	Verifica
1-1	2.30	0.234	965159.49	22548.328	2537.863	SI (22548.328/2537.863 = 8.88 >= 1.0)
2-1	2.30	0.226	945279.75	21381.812	2544.603	SI (21381.812/2544.603 = 8.40 >= 1.0)

3-1	2.30	0.236	995577.52	23480.624	2287.993	SI (23480.624/2287.993 = 10.26 >= 1.0)
4-1	2.30	0.176	1023440.72	18056.715	1513.987	SI (18056.715/1513.987 = 11.93 >= 1.0)
4-2	2.30	0.176	1023463.36	18057.095	1513.987	SI (18057.095/1513.987 = 11.93 >= 1.0)
4-3	2.30	0.176	1018091.36	17962.227	1513.987	SI (17962.227/1513.987 = 11.86 >= 1.0)
4-4	2.30	0.176	1018068.77	17961.85	1513.987	SI (17961.85/1513.987 = 11.86 >= 1.0)
4-5	2.30	0.176	1023333.62	18054.76	1513.977	SI (18054.76/1513.977 = 11.93 >= 1.0)
4-6	2.30	0.176	1023356.3	18055.141	1513.977	SI (18055.141/1513.977 = 11.93 >= 1.0)
4-7	2.30	0.176	1018182.95	17963.623	1513.987	SI (17963.623/1513.987 = 11.87 >= 1.0)
4-8	2.30	0.176	1018160.36	17963.245	1513.987	SI (17963.245/1513.987 = 11.86 >= 1.0)
4-9	2.30	0.176	1023435.47	18049.503	1513.177	SI (18049.503/1513.177 = 11.93 >= 1.0)
4-10	2.30	0.176	1023458.08	18049.881	1513.177	SI (18049.881/1513.177 = 11.93 >= 1.0)
4-11	2.30	0.176	1017963.68	17962.801	1513.177	SI (17962.801/1513.177 = 11.87 >= 1.0)
4-12	2.30	0.176	1017941.01	17962.421	1513.177	SI (17962.421/1513.177 = 11.87 >= 1.0)
4-13	2.30	0.176	1023343.27	18048.075	1513.167	SI (18048.075/1513.167 = 11.93 >= 1.0)
4-14	2.30	0.176	1023365.88	18048.453	1513.167	SI (18048.453/1513.167 = 11.93 >= 1.0)
4-15	2.30	0.176	1018070.17	17964.722	1513.177	SI (17964.722/1513.177 = 11.87 >= 1.0)
4-16	2.30	0.176	1018047.51	17964.342	1513.177	SI (17964.342/1513.177 = 11.87 >= 1.0)
5-1	2.30	0.193	1075255.4	20774.948	1513.697	SI (20774.948/1513.697 = 13.72 >= 1.0)
5-2	2.30	0.193	1075221.7	20774.283	1513.697	SI (20774.283/1513.697 = 13.72 >= 1.0)
5-3	2.30	0.193	1075259.74	20771.939	1513.447	SI (20771.939/1513.447 = 13.72 >= 1.0)
5-4	2.30	0.193	1075230.48	20771.447	1513.447	SI (20771.447/1513.447 = 13.72 >= 1.0)
5-5	2.30	0.193	1075335.39	20776.42	1513.697	SI (20776.42/1513.697 = 13.73 >= 1.0)
5-6	2.30	0.193	1075301.69	20775.756	1513.697	SI (20775.756/1513.697 = 13.73 >= 1.0)
5-7	2.30	0.193	1075339.5	20773.403	1513.447	SI (20773.403/1513.447 = 13.73 >= 1.0)
5-8	2.30	0.193	1075310.24	20772.91	1513.447	SI (20772.91/1513.447 = 13.73 >= 1.0)
5-9	2.30	0.193	1069678.04	20669.97	1513.707	SI (20669.97/1513.707 = 13.66 >= 1.0)
5-10	2.30	0.193	1069707.3	20670.463	1513.707	SI (20670.463/1513.707 = 13.66 >= 1.0)
5-11	2.30	0.193	1069635.35	20671.098	1513.467	SI (20671.098/1513.467 = 13.66 >= 1.0)
5-12	2.30	0.193	1069669.04	20671.762	1513.467	SI (20671.762/1513.467 = 13.66 >= 1.0)
5-13	2.30	0.193	1069598.26	20668.506	1513.707	SI (20668.506/1513.707 = 13.65 >= 1.0)
5-14	2.30	0.193	1069627.52	20668.998	1513.707	SI (20668.998/1513.707 = 13.65 >= 1.0)
5-15	2.30	0.193	1069555.35	20669.625	1513.467	SI (20669.625/1513.467 = 13.66 >= 1.0)
5-16	2.30	0.193	1069589.04	20670.289	1513.467	SI (20670.289/1513.467 = 13.66 >= 1.0)
6-1	2.30	0.173	1014452.05	17564.651	1514.027	SI (17564.651/1514.027 = 11.60 >= 1.0)
6-2	2.30	0.173	1014476.75	17565.057	1514.027	SI (17565.057/1514.027 = 11.60 >= 1.0)
6-3	2.30	0.173	1009146.39	17472.202	1514.027	SI (17472.202/1514.027 = 11.54 >= 1.0)
6-4	2.30	0.173	1009121.75	17471.798	1514.027	SI (17471.798/1514.027 = 11.54 >= 1.0)
6-5	2.30	0.173	1014335.2	17562.557	1514.017	SI (17562.557/1514.017 = 11.60 >= 1.0)
6-6	2.30	0.173	1014359.9	17562.963	1514.017	SI (17562.963/1514.017 = 11.60 >= 1.0)
6-7	2.30	0.173	1009246.21	17473.693	1514.027	SI (17473.693/1514.027 = 11.54 >= 1.0)
6-8	2.30	0.173	1009221.6	17473.29	1514.027	SI (17473.29/1514.027 = 11.54 >= 1.0)
6-9	2.30	0.173	1014441	17556.628	1513.127	SI (17556.628/1513.127 = 11.60 >= 1.0)
6-10	2.30	0.173	1014465.65	17557.033	1513.127	SI (17557.033/1513.127 = 11.60 >= 1.0)
6-11	2.30	0.173	1009002.42	17472.551	1513.137	SI (17472.551/1513.137 = 11.55 >= 1.0)
6-12	2.30	0.173	1008977.7	17472.144	1513.137	SI (17472.144/1513.137 = 11.55 >= 1.0)
6-13	2.30	0.173	1014341.14	17555.137	1513.127	SI (17555.137/1513.127 = 11.60 >= 1.0)
6-14	2.30	0.173	1014365.8	17555.541	1513.127	SI (17555.541/1513.127 = 11.60 >= 1.0)
6-15	2.30	0.173	1009118.65	17474.609	1513.137	SI (17474.609/1513.137 = 11.55 >= 1.0)
6-16	2.30	0.173	1009093.94	17474.203	1513.137	SI (17474.203/1513.137 = 11.55 >= 1.0)
7-1	2.30	0.191	1071446.03	20509.696	1513.707	SI (20509.696/1513.707 = 13.55 >= 1.0)
7-2	2.30	0.191	1071409.06	20508.974	1513.707	SI (20508.974/1513.707 = 13.55 >= 1.0)
7-3	2.30	0.191	1071451.31	20506.429	1513.437	SI (20506.429/1513.437 = 13.55 >= 1.0)
7-4	2.30	0.191	1071419.23	20505.894	1513.437	SI (20505.894/1513.437 = 13.55 >= 1.0)
7-5	2.30	0.191	1071533.79	20511.297	1513.707	SI (20511.297/1513.707 = 13.55 >= 1.0)
7-6	2.30	0.191	1071496.83	20510.575	1513.707	SI (20510.575/1513.707 = 13.55 >= 1.0)
7-7	2.30	0.191	1071538.85	20508.021	1513.437	SI (20508.021/1513.437 = 13.55 >= 1.0)
7-8	2.30	0.191	1071506.74	20507.485	1513.437	SI (20507.485/1513.437 = 13.55 >= 1.0)
7-9	2.30	0.191	1065889.52	20405.823	1513.727	SI (20405.823/1513.727 = 13.48 >= 1.0)
7-10	2.30	0.191	1065921.35	20406.34	1513.717	SI (20406.34/1513.717 = 13.48 >= 1.0)
7-11	2.30	0.191	1065842.9	20407.032	1513.457	SI (20407.032/1513.457 = 13.48 >= 1.0)
7-12	2.30	0.191	1065879.9	20407.755	1513.457	SI (20407.755/1513.457 = 13.48 >= 1.0)
7-13	2.30	0.191	1065802	20404.232	1513.727	SI (20404.232/1513.727 = 13.48 >= 1.0)
7-14	2.30	0.191	1065834.11	20404.768	1513.727	SI (20404.768/1513.727 = 13.48 >= 1.0)
7-15	2.30	0.191	1065755.12	20405.431	1513.457	SI (20405.431/1513.457 = 13.48 >= 1.0)
7-16	2.30	0.191	1065792.12	20406.154	1513.457	SI (20406.154/1513.457 = 13.48 >= 1.0)

Scorrimento.

Le seguenti tabelle elencano il valore dell'angolo di resistenza al taglio, della coesione efficace, dell'attrito e dell'aderenza fondazione-terreno, e della resistenza disponibile sul piano di posa e sulle pareti laterali.

Caso	γ_{ϕ}	$\gamma_{c'}$	ϕ [°]	c' [N/mm ²]	δ [°]	a [N/mm ²]	γ_{R_h}	γ_{R_e}	R_h [kN]	R_e [kN]
1-1	1.00	1.00	26	0	19.5	0	1.10	1.00	817.0041	0

2-1	1.00	1.00	26	0	19.5	0	1.10	1.00	819.1739	2.7184
3-1	1.00	1.00	26	0	19.5	0	1.10	1.00	736.5645	2.7184
4-1	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3918	2.7774
4-2	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3918	2.7774
4-3	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3918	2.7776
4-4	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3918	2.7776
4-5	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3886	2.7774
4-6	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3886	2.7774
4-7	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3918	2.7776
4-8	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3918	2.7776
4-9	1.00	1.00	26	0	19.5	0	1.10	1.00	487.131	2.7776
4-10	1.00	1.00	26	0	19.5	0	1.10	1.00	487.131	2.7776
4-11	1.00	1.00	26	0	19.5	0	1.10	1.00	487.131	2.7774
4-12	1.00	1.00	26	0	19.5	0	1.10	1.00	487.131	2.7774
4-13	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1278	2.7776
4-14	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1278	2.7776
4-15	1.00	1.00	26	0	19.5	0	1.10	1.00	487.131	2.7774
4-16	1.00	1.00	26	0	19.5	0	1.10	1.00	487.131	2.7774
5-1	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2984	1.6919
5-2	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2984	1.6919
5-3	1.00	1.00	26	0	19.5	0	1.10	1.00	487.218	1.6917
5-4	1.00	1.00	26	0	19.5	0	1.10	1.00	487.218	1.6917
5-5	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2984	1.6919
5-6	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2984	1.6919
5-7	1.00	1.00	26	0	19.5	0	1.10	1.00	487.218	1.6917
5-8	1.00	1.00	26	0	19.5	0	1.10	1.00	487.218	1.6917
5-9	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6917
5-10	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6917
5-11	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2244	1.6919
5-12	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2244	1.6919
5-13	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6917
5-14	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6917
5-15	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2244	1.6919
5-16	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2244	1.6919
6-1	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4047	2.7774
6-2	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4047	2.7774
6-3	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4047	2.7776
6-4	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4047	2.7776
6-5	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4015	2.7774
6-6	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4015	2.7774
6-7	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4047	2.7776
6-8	1.00	1.00	26	0	19.5	0	1.10	1.00	487.4047	2.7776
6-9	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1149	2.7776
6-10	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1149	2.7776
6-11	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1182	2.7774
6-12	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1182	2.7774
6-13	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1149	2.7776
6-14	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1149	2.7776
6-15	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1182	2.7774
6-16	1.00	1.00	26	0	19.5	0	1.10	1.00	487.1182	2.7774
7-1	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6919
7-2	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6919
7-3	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2147	1.6917
7-4	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2147	1.6917
7-5	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6919
7-6	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3017	1.6919
7-7	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2147	1.6917
7-8	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2147	1.6917
7-9	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3081	1.6917
7-10	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3049	1.6917
7-11	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2212	1.6919
7-12	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2212	1.6919
7-13	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3081	1.6917
7-14	1.00	1.00	26	0	19.5	0	1.10	1.00	487.3081	1.6917
7-15	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2212	1.6919
7-16	1.00	1.00	26	0	19.5	0	1.10	1.00	487.2212	1.6919

Segue il confronto fra la resistenza a scorrimento e l'azione applicata.

Caso	R_d [kN]	E_d [kN]	Verifica
1-1	817.004	0	SI (817.004/0 = 1.00 >= 1.0)
2-1	821.892	10.657	SI (821.892/10.657 = 77.12 >= 1.0)

3-1	739.283	17.762	SI (739.283/17.762 = 41.62 >= 1.0)
4-1	490.169	48.977	SI (490.169/48.977 = 10.01 >= 1.0)
4-2	490.169	48.977	SI (490.169/48.977 = 10.01 >= 1.0)
4-3	490.169	49.018	SI (490.169/49.018 = 10.00 >= 1.0)
4-4	490.169	49.018	SI (490.169/49.018 = 10.00 >= 1.0)
4-5	490.166	48.977	SI (490.166/48.977 = 10.01 >= 1.0)
4-6	490.166	48.977	SI (490.166/48.977 = 10.01 >= 1.0)
4-7	490.169	49.018	SI (490.169/49.018 = 10.00 >= 1.0)
4-8	490.169	49.018	SI (490.169/49.018 = 10.00 >= 1.0)
4-9	489.909	49.018	SI (489.909/49.018 = 9.99 >= 1.0)
4-10	489.909	49.018	SI (489.909/49.018 = 9.99 >= 1.0)
4-11	489.908	48.977	SI (489.908/48.977 = 10.00 >= 1.0)
4-12	489.908	48.977	SI (489.908/48.977 = 10.00 >= 1.0)
4-13	489.905	49.018	SI (489.905/49.018 = 9.99 >= 1.0)
4-14	489.905	49.018	SI (489.905/49.018 = 9.99 >= 1.0)
4-15	489.908	48.977	SI (489.908/48.977 = 10.00 >= 1.0)
4-16	489.908	48.977	SI (489.908/48.977 = 10.00 >= 1.0)
5-1	488.99	33.398	SI (488.99/33.398 = 14.64 >= 1.0)
5-2	488.99	33.398	SI (488.99/33.398 = 14.64 >= 1.0)
5-3	488.91	33.459	SI (488.91/33.459 = 14.61 >= 1.0)
5-4	488.91	33.459	SI (488.91/33.459 = 14.61 >= 1.0)
5-5	488.99	33.398	SI (488.99/33.398 = 14.64 >= 1.0)
5-6	488.99	33.398	SI (488.99/33.398 = 14.64 >= 1.0)
5-7	488.91	33.459	SI (488.91/33.459 = 14.61 >= 1.0)
5-8	488.91	33.459	SI (488.91/33.459 = 14.61 >= 1.0)
5-9	488.993	33.459	SI (488.993/33.459 = 14.61 >= 1.0)
5-10	488.993	33.459	SI (488.993/33.459 = 14.61 >= 1.0)
5-11	488.916	33.398	SI (488.916/33.398 = 14.64 >= 1.0)
5-12	488.916	33.398	SI (488.916/33.398 = 14.64 >= 1.0)
5-13	488.993	33.459	SI (488.993/33.459 = 14.61 >= 1.0)
5-14	488.993	33.459	SI (488.993/33.459 = 14.61 >= 1.0)
5-15	488.916	33.398	SI (488.916/33.398 = 14.64 >= 1.0)
5-16	488.916	33.398	SI (488.916/33.398 = 14.64 >= 1.0)
6-1	490.182	53.875	SI (490.182/53.875 = 9.10 >= 1.0)
6-2	490.182	53.875	SI (490.182/53.875 = 9.10 >= 1.0)
6-3	490.182	53.92	SI (490.182/53.92 = 9.09 >= 1.0)
6-4	490.182	53.92	SI (490.182/53.92 = 9.09 >= 1.0)
6-5	490.179	53.875	SI (490.179/53.875 = 9.10 >= 1.0)
6-6	490.179	53.875	SI (490.179/53.875 = 9.10 >= 1.0)
6-7	490.182	53.92	SI (490.182/53.92 = 9.09 >= 1.0)
6-8	490.182	53.92	SI (490.182/53.92 = 9.09 >= 1.0)
6-9	489.893	53.92	SI (489.893/53.92 = 9.09 >= 1.0)
6-10	489.893	53.92	SI (489.893/53.92 = 9.09 >= 1.0)
6-11	489.896	53.875	SI (489.896/53.875 = 9.09 >= 1.0)
6-12	489.896	53.875	SI (489.896/53.875 = 9.09 >= 1.0)
6-13	489.893	53.92	SI (489.893/53.92 = 9.09 >= 1.0)
6-14	489.893	53.92	SI (489.893/53.92 = 9.09 >= 1.0)
6-15	489.896	53.875	SI (489.896/53.875 = 9.09 >= 1.0)
6-16	489.896	53.875	SI (489.896/53.875 = 9.09 >= 1.0)
7-1	488.994	36.737	SI (488.994/36.737 = 13.31 >= 1.0)
7-2	488.994	36.737	SI (488.994/36.737 = 13.31 >= 1.0)
7-3	488.906	36.805	SI (488.906/36.805 = 13.28 >= 1.0)
7-4	488.906	36.805	SI (488.906/36.805 = 13.28 >= 1.0)
7-5	488.994	36.737	SI (488.994/36.737 = 13.31 >= 1.0)
7-6	488.994	36.737	SI (488.994/36.737 = 13.31 >= 1.0)
7-7	488.906	36.805	SI (488.906/36.805 = 13.28 >= 1.0)
7-8	488.906	36.805	SI (488.906/36.805 = 13.28 >= 1.0)
7-9	489	36.805	SI (489/36.805 = 13.29 >= 1.0)
7-10	488.997	36.805	SI (488.997/36.805 = 13.29 >= 1.0)
7-11	488.913	36.737	SI (488.913/36.737 = 13.31 >= 1.0)
7-12	488.913	36.737	SI (488.913/36.737 = 13.31 >= 1.0)
7-13	489	36.805	SI (489/36.805 = 13.29 >= 1.0)
7-14	489	36.805	SI (489/36.805 = 13.29 >= 1.0)
7-15	488.913	36.737	SI (488.913/36.737 = 13.31 >= 1.0)
7-16	488.913	36.737	SI (488.913/36.737 = 13.31 >= 1.0)