

# Provincia di Ancona

## Comune di Osimo



PROGETTO DI RISTRUTTURAZIONE CON RIFACIMENTO DELLA COPERTURA DELL'EDIFICIO SEDE DEL CENTRO DI EDUCAZIONE AMBIENTALE "LA CONFLUENZA", IN VIA CAPANNE N.11 AD OSIMO (AN).

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<b>PROGETTO ESECUTIVO</b> Progetto Strutturale: <b>RELAZIONE DI CALCOLO</b>	TAV. <b>SD</b>
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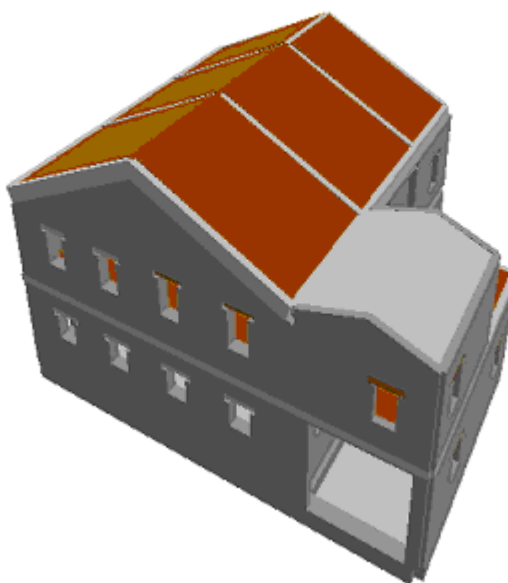


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Ai sensi del D.M. 14/01/2008 "Norme Tecniche per le Costruzioni"



**Archivio: laconfluenzaFUTUROvariante - Data: 15/05/2013**

**Oggetto: PROGETTO DI RISTRUTTURAZIONE DI EDIFICIO CON STRUTTURA PORTANTE IN MURATURA SEDE DEL CENTRO DI EDUCAZIONE AMBIENTALE LOCALITA' VIA CAPANNE N. 11**

Committente:	Progettista:	Progettista Strutturale:	Direttore dei Lavori:
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## 1 Introduzione

### 1.1 Premessa

#### 1.1.1 Cenni sulla casa produttrice del software

La relazione seguente riporta i dati relativi ai criteri di progettazione, alla geometria, alla meccanica della struttura descritta al relativo paragrafo, nonché i relativi risultati dei calcoli strutturali così come ricavati dal calcolatore elettronico tramite l'utilizzo delSoftware "VEM" prodotto e distribuito da Stacec srl con sede in Bovalino (RC), e concesso in licenza al responsabile dei calcoli stessi."VEM" è un programma sviluppato specificatamente per la progettazione e la verifica di edifici in muratura ordinaria ed armata."VEM" articola le operazioni di progetto secondo tre fasi distinte:

- 1) il **preprocessore**: fase di Input dove viene definita e modellata interamente la struttura;
- 2) il **solutore**: fase di elaborazione della struttura tramite un solutore agli elementi finiti;
- 3) il **post-processore**: fase di verifica degli elementi, di creazione degli elaborati grafici e della relazione di calcolo.

#### 1.1.2 Descrizione dell'Opera da calcolare

Comune	: OSIMO
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### 1.2 Riferimenti Legislativi.

Tutte le operazioni illustrate nel proseguo, relative all'analisi della struttura ed alle verifiche sugli elementi sono state effettuate in piena conformità alle seguenti norme:

**Circolare Ministero LL.PP. 30/07/1981**

**D.M. 20/11/1987**

**D.M. 14/01/2008:**

"Norme tecniche per le costruzioni."

## 1.3 Convenzioni, Unità di misura e simboli adottati.

Nei calcoli sono state utilizzate le seguenti unità:

- distanze	: cm
- forze, tagli, e sforzi normali	: daN
- coppie e momenti flettenti	: daNm
- carichi sulle aste	: daN/m
- carichi su superfici	: daN/m <sup>2</sup>
- peso specifico	: daN/m <sup>3</sup>
- tensioni e resistenze	: daN/m <sup>2</sup>
- temperatura	: °C

I simboli adottati hanno il seguente significato:

q	: fattore di struttura;
R <sub>ck</sub>	: Resistenza caratteristica cubica a compressione del calcestruzzo;
f <sub>ck</sub>	: Resistenza caratteristica cilindrica a compressione del calcestruzzo;
E <sub>c</sub>	: Modulo elastico secante del calcestruzzo;
E <sub>ct</sub>	: Modulo elastico a trazione del calcestruzzo
f <sub>cd</sub>	: Resistenza di calcolo del calcestruzzo;
f <sub>ctk,0.05</sub>	: Resistenza caratteristica a trazione;
ν	: Coefficiente di Poisson;
α <sub>t</sub>	: Coefficiente di dilatazione termica;
ps	: peso specifico;
f <sub>yk</sub>	: Resistenza caratteristica di snervamento dell'acciaio;
f <sub>tk</sub>	: Resistenza caratteristica di rottura dell'acciaio;
f <sub>d</sub>	: resistenza di calcolo dell'acciaio;
A	: Superficie della sezione trasversale;
J <sub>x</sub>	: Momento di inerzia rispetto all'asse X;
J <sub>y</sub>	: Momento di inerzia rispetto all'asse Y;
J <sub>xy</sub>	: Momento di inerzia centrifugo rispetto agli assi X ed Y;
J <sub>t</sub>	: Fattore torsionale;
N	: sforzo normale;
M <sub>T</sub>	: Momento Torcente;
M <sub>xz</sub>	: Momento Flettente X-Z;
T <sub>xz</sub>	: Taglio X-Z;
M <sub>xy</sub>	: Momento Flettente X-Y;
T <sub>xy</sub>	: Taglio X-Y;
f	: Frequenza del modo i-esimo;
T	: Periodo del modo i-esimo;
Γ <sub>x</sub>	: Fattore di partecipazione del modo i-esimo in direzione x;
Γ <sub>y</sub>	: Fattore di partecipazione del modo i-esimo in direzione y;
Γ <sub>z</sub>	: Fattore di partecipazione del modo i-esimo in direzione z;
N <sub>sd</sub>	: Sforzo Normale sollecitante di calcolo;
M <sub>sdxz</sub>	: Momento Flettente X-Z sollecitante di calcolo;
M <sub>sdxxy</sub>	: Momento Flettente X-Y sollecitante di calcolo;
M <sub>ts</sub>	: Momento Torcente sollecitante di calcolo;
V <sub>sdxz</sub>	: Taglio X-Z sollecitante di calcolo;
V <sub>sdxxy</sub>	: Taglio X-Y sollecitante di calcolo;
N <sub>Rd</sub>	: Sforzo Normale resistente di calcolo;

$M_{RdXZ}$  : Momento Flettente X-Z resistente di calcolo;  
 $M_{RdXY}$  : Momento Flettente X-Y resistente di calcolo;  
 $M_{tR}$  : Momento Torcente resistente di calcolo;  
 $V_{RdXZ}$  : Taglio X-Z resistente di calcolo;  
 $V_{RdXY}$  : Taglio X-Y resistente di calcolo;  
 $\sigma_c$  : Tensioni del calcestruzzo;  
 $\sigma_s$  : Tensioni delle armature;  
 $\sigma_{c,lim}$  : Tensioni limite del calcestruzzo;  
 $\sigma_{s,lim}$  : Tensioni limite dell'acciaio;  
 $f/l$  : rapporto freccia/lunghezza;  
 $f_{lim}$  : valore limite del rapporto freccia/lunghezza;

## 2 Descrizione del Modello.

### 2.1 Modello assunto per il calcolo.

L'analisi numerica della struttura è stata condotta attraverso l'utilizzo del metodo degli elementi finiti ipotizzando un comportamento elastico-lineare.

Il metodo degli elementi finiti consiste nel sostituire il modello continuo della struttura con un modello discreto equivalente e di approssimare la funzione di spostamento con polinomio algebrico, definito in regioni (dette appunto elementi finiti) che sono delle funzioni interpolanti il valore di spostamento definito in punti discreti (detti nodi).

Gli elementi finiti utilizzabili ai fini della corretta modellazione della struttura verranno descritti di seguito.

Il modello di calcolo può essere articolato sulla base dell'ipotesi di impalcato rigido, in funzione della reale presenza di solai continui atti ad irrigidire tutto l'impalcato.

Tale ipotesi viene realizzata attraverso l'introduzione di adeguate relazioni cinematiche tra i gradi di libertà dei nodi costituenti l'impalcato stesso.

Il metodo di calcolo adottato, le combinazioni di carico, e le procedure di verifica saranno descritte di seguito.

#### Riferimento globale e locale.

La struttura viene definita utilizzando una terna di assi cartesiani formanti un sistema di riferimento levogiro, unico per tutti gli elementi e chiamato "globale". Localmente esiste un'ulteriore sistema di riferimento, detto appunto "locale", utile alla definizione delle caratteristiche di rigidezza dei singoli elementi.

I due sistemi di riferimento sono correlati da una matrice, detta di rotazione.

#### Modellazione geometrica della struttura.

Il modello geometrico (mesh) della struttura è basato sull'utilizzo dei seguenti elementi:

##### - Nodi

Si definiscono nodi, entità geometriche determinate tramite le tre coordinate nel riferimento globale.

I nodi, nello spazio tridimensionale, posseggono tre gradi di libertà traslazionali e tre rotazionali.

Essi sono posizionati in modo da definire gli estremi degli elementi finiti e, di regola, in ogni discontinuità strutturale, di carico, di caratteristiche meccaniche, di campo di spostamento.

##### - Vincoli e Molle

I gradi di libertà possono essere vincolati, bloccando il cinematismo nella direzione voluta o assegnando "molle" applicate ai nodi tramite valori di rigidezza finiti.

Un vincolo assegna a priori un valore di spostamento nullo, e quindi la variabile corrispondente viene eliminata.

##### - Vincoli interni

Tali vincoli servono a definire le modalità di trasmissione degli sforzi dall'elemento finito ai nodi. Ciò viene associato al concetto di trasferimento della rigidezza.

Generalmente l'elemento considerato è rigidamente connesso ai nodi che lo definiscono, in modo da bloccare tutti i gradi di libertà relativi. E' possibile, comunque "rilasciare" le caratteristiche delle sollecitazioni, in modo da svincolare i gradi di libertà corrispondenti. Nel caso particolare, il modello utilizzato consente di svincolare le tre rotazioni intorno agli assi locali dell'asta.

##### - Aste

Si tratta di elementi finiti monodimensionali ad asse rettilineo delimitate da due nodi (i nodi di estremità).

Per questi elementi generalmente la funzione interpolante è quella del modello analitico per cui la mesh non influisce sensibilmente sulla convergenza.

Le aste sono dotate di rigidezza assiale, flessionale, e a taglio, secondo il modello classico della trave inflessa di Eulero-Bernoulli.

Alla singola asta è possibile associare una sezione costante per tutta la sua lunghezza.

### *- Asta su suolo elastico*

Si tratta di elementi finiti monodimensionali ad asse rettilineo, di definizione simile alle aste. Sono utili a modellare travi di fondazione, considerate poggianti su suolo alla Winkler, e reagenti sia rispetto alle componenti traslazionali di cinematisimo, sia rotazionali.

### *- Lastra-Piastra*

Si tratta di elementi finiti bidimensionali, definiti da tre o quattro nodi, posti ai vertici rispettivamente di un triangolo o di un quadrilatero irregolare. La geometria reale dell'elemento viene ricondotta ad un triangolo rettangolo (elemento a tre nodi) o ad un quadrato definito nella trattazione isoparametrica.

L'elemento lastra-piastra non ha rigidezza per la rotazione intorno all'asse perpendicolare al suo piano e viene trattato secondo la teoria di Mindlin-Reissner. Nel modello considerato si tiene conto dell'accoppiamento tra azioni flessionali e membranali.

### *- Forze e coppie concentrate*

Per la risoluzione statica della struttura, tutti i carichi applicati agli elementi vengono trasferiti ai nodi. Ciò avviene in automatico per il peso delle aste, delle piastre, delle pareti, dei pannelli di carico presenti sulle aste e per la distribuzione di carico applicate agli elementi bidimensionali.

Il modello di calcolo consente anche l'introduzione di forze e coppie ai nodi.

Le forze sono dirette lungo le tre direzioni del sistema di riferimento globale ed in entrambi i versi per ogni direzione.

Le coppie concentrate sono riferite ai tre assi del riferimento globale, in entrambi i versi di rotazione di ciascun asse.

### *- Pannelli di carico*

Il pannello di carico è un concetto legato alla reale distribuzione di carichi gravanti sulle aste. Ne fanno parte: solai, balconi, scale.

Da tali pannelli, di forma irregolare come definiti dalla geometria dell'input, si passa alla quantificazione dei carichi trapezoidali ripartiti sulle aste. Per meglio simulare l'effetto dei pannelli, vengono generati in modo automatico anche dei carichi ripartiti torcenti, anch'essi di forma trapezia, relativi ai carichi distribuiti equivalenti al pannello.

### *- Sezioni*

Le sezioni assegnabili alle aste sono definite attraverso le caratteristiche geometrico-elastiche, i moduli di resistenza plastici (sezioni in acciaio) ed il materiale.

## **Materiali.**

I materiali, ai fini del calcolo delle sollecitazioni, sono considerati omogenei ed isotropi e sono definiti dalle seguenti caratteristiche: peso per unità di volume, modulo elastico, coefficiente di Poisson, coefficiente di dilatazione, e tutte le caratteristiche meccaniche, riepilogate in seguito, utili alle verifiche strutturali dettate dalla normativa.

## **Matrici di calcolo della struttura.**

Dalla discretizzazione geometrica della struttura vengono definite le matrici utili a studiare il comportamento globale della struttura in esame.

### *- Matrice di rigidezza*

Tale matrice viene costruita partendo dalla matrice di rigidezza espressa nel sistema di riferimento locale dell'elemento considerato. Attraverso un'operazione di trasformazione, mediante la matrice di rotazione, viene riferita al sistema di riferimento globale. L'ultima operazione consiste nell'"assemblaggio" delle singole matrici di ogni elemento, in modo da formare un'unica matrice relativa all'intera struttura.

### *- Matrice delle masse*

La generazione della matrice globale è del tutto analoga a quella sopra descritta per la matrice di rigidezza. La matrice delle masse è di tipo "consistente" e considera l'effettiva distribuzione delle masse della struttura. Come definito dalla normativa, alle masse relative ai carichi permanenti, viene aggiunta un'aliquota delle masse equivalenti ai carichi d'esercizio.

## 2.2 Tipo di calcolo. (ANALISI STATICA NON LINEARE)

Il calcolo risolutivo della struttura è stato effettuato utilizzando un sistema di equazioni lineari (di dimensioni pari ai gradi di libertà), secondo la relazione:

$$\underline{u} = [\underline{K}]^{-1} \underline{F}$$

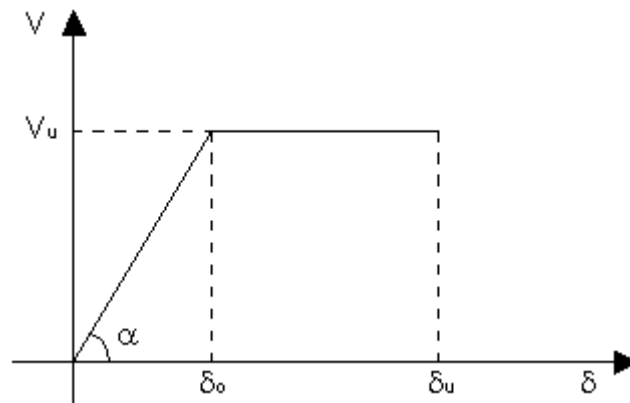
dove:  $\underline{F}$  = vettore dei carichi risultanti applicate ai nodi;  
 $\underline{u}$  = vettore dei cinematismi nodali;  
 $[\underline{K}]$  = matrice di rigidezza globale.

Tale analisi è stata ripetuta per tutte le condizioni presenti sulla struttura, identificati dai vettori dei carichi relativi a:

- carichi permanenti;
- carichi d'esercizio;
- delta termico;

Il calcolo consiste nell'incrementare i carichi sismici fino a quando la struttura raggiunge il collasso.

La struttura viene schematizzata a telaio equivalente, costituita da elementi maschi, elementi fasce e nodi rigidi. Il maschio ha un comportamento elastico perfettamente plastico definito dal taglio ultimo ( $V_u$ ), dalla rigidezza ( $k$ ), dallo spostamento elastico ( $\delta_0$ ) e dallo spostamento ultimo ( $\delta_u$ )



Il calcolo del taglio ultimo si ottiene in accordo ai punti 7.8.2.2.1 e 7.8.2.2.2 del DM 2008 (vedi paragrafo "Pressoflessione e Taglio nel piano" della presente relazione). La rigidezza  $k$  si ottiene in funzione dei collegamenti vincolari agli estremi degli elementi. Nel caso di incastro – incastro vale:

$$k = 1 / [h^3 / (12EI) + 1.2h/(GA)]$$

dove:

$h$  è l'altezza dell'elemento

$E$  è il modulo elastico normale

$G$  è il modulo elastico tangenziale

$I$  è il momento d'inerzia della sezione trasversale rispetto all'asse baricentrico ortogonale al piano dell'elemento

$A$  è l'area della sezione trasversale

Lo spostamento elastico si ottiene dal rapporto tra il taglio ultimo e la rigidezza, mentre lo spostamento ultimo dipende dal tipo di rottura dell'elemento. Per normativa deve essere pari a 0.8% l'altezza della parete se la rottura avviene per flessione (punto 7.8.2.2.1 del DM 2008) e 0.4% l'altezza della parete se la rottura avviene per taglio (punto 7.8.2.2.2 del DM 2008).

Per la resistenza delle fasce si veda il paragrafo "Pressoflessione e Taglio nel piano" della presente relazione.

In fase elastica ogni elemento si considera incastrato agli estremi. Raggiunto il limite elastico cambia la configurazione di vincolo dell'elemento (si declassa in una biella compressa capace di trasmettere solo carichi verticali).

Il risultato consiste in un diagramma ("curva di capacità") dove in ascissa viene riportato lo spostamento di un punto di controllo (baricentro delle masse dell'ultimo piano) e in ordinata la forza totale orizzontale applicata alla struttura. Dalla curva di capacità è possibile ricavare la "capacità di spostamento" della struttura.

La verifica globale della struttura si considera soddisfatta se la capacità di spostamento è maggiore della "domanda di spostamento".



$$d_{\max}^* = S_{De}(T^*) \quad \text{per } T^* \geq T_C$$

$$d_{\max}^* = ((S_{De}(T^*)) / q^*) \cdot [1 + (q^* - 1) \cdot T_C / T^*] \quad \text{per } T^* < T_C$$

dove:

$d_{\max}^*$  è la domanda di spostamento.

$T^* = 2\pi\sqrt{m^* / k^*}$  è il periodo del sistema equivalente ad un grado di libertà.

$T_C$  riportato nella tabella 3.2.VII del punto 3.2.3.2.2 del D.M. 14/01/2008.

$m^* = \sum m_i \Phi_i$  è la massa partecipante del sistema equivalente.

$k^*$  è la rigidezza secante del sistema equivalente ad un grado di libertà.

$q^* = S_e(T^*)m^* / F_y^*$  è il rapporto tra la forza di risposta elastica e la forza di snervamento del sistema equivalente.

$S_{De}(T^*)$  è il valore dello spettro di risposta elastico degli spostamenti in corrispondenza del periodo  $T^*$ .

$S_e(T^*)$  è il valore dello spettro di risposta elastico delle accelerazioni in corrispondenza del periodo  $T^*$ .

$m_i$  è la massa di ogni impalcato della struttura.

$\Phi_i$  è il vettore che rappresenta il primo modo di vibrare della struttura.

$F_y^*$  è la forza di snervamento del sistema equivalente.

Il calcolo viene eseguito separatamente nelle due direzioni principali della struttura considerando due distribuzioni di forze applicate al baricentro delle masse di ogni impalcato: una di forze proporzionali alle masse (la prima del Gruppo 2 del punto 7.3.4.1 del DM 2008) ed una di forze proporzionali alla altezza degli impalcati (la prima del Gruppo 1 del punto 7.3.4.1 del DM 2008).

Nel primo caso le forze sono computate secondo le seguenti formule:

$$F_{lh} = F_H W_I / (\sum W_I);$$

$$F_H = S_d(T_I) W_{tot} \lambda$$

Nel secondo caso le forze sono computate secondo le seguenti formule:

$$F_{lh} = F_H (W_I z_I) / (\sum W_I z_I);$$

dove:

$z_I$  quota dell'impalcato

$S_d(T_I)$  ordinata spettro di risposta;

$\lambda = 0.85$  ( $N_{piani} \geq 3 - T_I \leq 2 T_C$ ) oppure 1.00 (in tutti gli altri casi);

$W_I = (G_K + \sum \Psi_{Ei} Q_{iK})$ ;

## 2.3 Condizioni di carico valutate

**Combinazioni di carico per elementi soggetti a sisma.**

Comb.	Condizione				
	Car. perm. strutt. (Gk1)	Car. perm. non strutt. (Gk2)	Carichi d'esercizio (Qk)	Sisma	Incremento forze proporzionale
1	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma X(+)	Masse
3	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma X(-)	Masse
5	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma X(+)	Altezze
7	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma X(-)	Altezze
9	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma Y(+)	Masse
11	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma Y(-)	Masse
13	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma Y(+)	Altezze
15	$\gamma G1s$	$\gamma G2s$	$\Psi 2$	Sisma Y(-)	Altezze

I coefficienti utilizzati assumono i seguenti valori:

ELEMENTO	$\gamma G1s$	$\gamma G2s$
Struttura	1.0	1.0

**Coefficienti di combinazione.**

Impalcato	Destinazione	Altre azioni			Delta termico		
		$\Psi_{0i}$	$\Psi_{1i}$	$\Psi_{2i}$	$\Psi_{0i}$	$\Psi_{1i}$	$\Psi_{2i}$
<b>Fond.</b>	Abitazione	0.7	0.5	0.3	0.6	0.5	0.0
<b>Piano 1</b>	Abitazione	0.7	0.5	0.3	0.6	0.5	0.0
<b>Piano 2</b>	Abitazione	0.7	0.5	0.3	0.6	0.5	0.0

### Combinazioni per le verifiche allo Stato limite di esercizio

Le azioni di calcolo presenti sulla struttura e le relative combinazioni di carico nei riguardi degli stati limite di esercizio possono essere riassunte nelle seguenti tabelle:

Combinazioni Caratteristiche:

Elementi della Struttura				
Comb.	Condizione			
	C. perm.(Gk1)	C. p. non str.(Gk2)	C. ese.(Qk)	Delta T(DT)
<b>1</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\gamma_{Qns}$	$\Psi_0\gamma_{Qns}$
<b>2</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\gamma_{Qns}$	$-\Psi_0\gamma_{Qns}$
<b>3</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_0\gamma_{Qns}$	$\gamma_{Qns}$
<b>4</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_0\gamma_{Qns}$	$-\gamma_{Qns}$

Combinazioni Frequenti:

Elementi della Struttura				
Comb.	Condizione			
	C. perm.(Gk1)	C. p. non str.(Gk2)	C. ese.(Qk)	Delta T(DT)
<b>1</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_1\gamma_{Qns}$	$\Psi_2\gamma_{Qns}$
<b>2</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_1\gamma_{Qns}$	$-\Psi_2\gamma_{Qns}$
<b>3</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_2\gamma_{Qns}$	$\Psi_1\gamma_{Qns}$
<b>4</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_2\gamma_{Qns}$	$-\Psi_1\gamma_{Qns}$

Combinazioni quasi permanenti :

Elementi della Struttura				
Comb.	Condizione			
	C. perm.(Gk1)	C. p. non str.(Gk2)	C. ese.(Qk)	Delta T(DT)
<b>1</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_2\gamma_{Qns}$	$\Psi_2\gamma_{Qns}$
<b>2</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_2\gamma_{Qns}$	$-\Psi_2\gamma_{Qns}$

I coefficienti utilizzati assumono i seguenti valori:

SLE															
	Caratteristiche					Frequenti					Q. Permanenti				
ELEMENTO	$\gamma_{Gns}$	$\gamma_{Qns}$	$\gamma_I$	$\gamma_{EG}$	$\gamma_{EQ}$	$\gamma_{Gns}$	$\gamma_{Qns}$	$\gamma_I$	$\gamma_{EG}$	$\gamma_{EQ}$	$\gamma_{Gns}$	$\gamma_{Qns}$	$\gamma_I$	$\gamma_{EG}$	$\gamma_{EQ}$
Struttura	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Tali combinazioni vengono considerate sovrapponendo i diagrammi secondo la tecnica dell'involuppo.

### Combinazioni per le verifiche allo Stato Limite di Salvaguardia della Vita

Le azioni di calcolo presenti sulla struttura e le relative combinazioni di carico nei riguardi degli stati limite di salvaguardia della vita essere riassunte nelle seguenti tabelle:

Elementi della Struttura									
Comb.	Condizione								
	C. perm.(Gk1)	C. p. non str.(Gk2)	C. ese.(Qk)	Delta T(DT)	Tors. acc. X(Mx)	Tors. acc. Y(My)	Sisma X	Sisma Y	Sisma Z
<b>1*</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\gamma_{Qns}$	0	0	0	0	0	0
<b>2*</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\gamma_{Qns}$	$\Psi_0\gamma_{Qns}$	0	0	0	0	0
<b>3*</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\gamma_{Qns}$	$-\Psi_0\gamma_{Qns}$	0	0	0	0	0
<b>4*</b>	$\gamma_{G1ns}$	$\gamma_{G2ns}$	$\Psi_0\gamma_{Qns}$	$\gamma_{Qns}$	0	0	0	0	0

5*	$\gamma G1ns$	$\gamma G2ns$	$\Psi 0 \gamma Qns$	$-\gamma Qns$	0	0	0	0	0
----	---------------	---------------	---------------------	---------------	---	---	---	---	---

\*Combinazione fondamentale (par. 2.5.3, formula 2.5.1)

Elementi di fondazione A1									
Comb.	Condizione								
	C. perm.(Gk1)	C. p. non str.(Gk2)	C. ese.(Qk)	Delta T(DT)	Tors. acc. X(Mx)	Tors. acc. Y(My)	Sisma X	Sisma Y	Sisma Z
1*	$\gamma G1ns$	$\gamma G2ns$	$\gamma Qns$	0	0	0	0	0	0
2*	$\gamma G1ns$	$\gamma G2ns$	$\gamma Qns$	$\Psi 0 \gamma Qns$	0	0	0	0	0
3*	$\gamma G1ns$	$\gamma G2ns$	$\gamma Qns$	$-\Psi 0 \gamma Qns$	0	0	0	0	0
4*	$\gamma G1ns$	$\gamma G2ns$	$\Psi 0 \gamma Qns$	$\gamma Qns$	0	0	0	0	0
5*	$\gamma G1ns$	$\gamma G2ns$	$\Psi 0 \gamma Qns$	$-\gamma Qns$	0	0	0	0	0

\*Combinazione fondamentale (par. 2.5.3, formula 2.5.1)

I coefficienti utilizzati assumono i seguenti valori:

ELEMENTO	SLV					
	$\gamma G1ns$	$\gamma G2ns$	$\gamma Qns$	$\gamma G1s$	$\gamma G2s$	$\gamma Qs$
ELEMENTO	1.3	1.5	1.5	1.0	1.0	1.0
ELEMENTO	1.3	1.5	1.5	1.0	1.0	1.0
ELEMENTO	1.3	1.5	1.5	1.0	1.0	1.0
Fondazione A1	1.3	1.5	1.5	1.0	1.0	1.0

## 2.4 Procedura di Verifica degli elementi.

### 2.4.1 Elementi in Legno.

#### VERIFICHE AGLI STATI LIMITE ULTIMI

Le verifiche vengono effettuate secondo le indicazioni contenute nell'EC8.

#### Verifica a tensoflessione

Affinchè l'esito della verifica risulti positivo devono essere soddisfatte contemporaneamente le seguenti condizioni:

$$(\sigma_{t,0,d} / f_{t,0,d}) + (\sigma_{m,y,d} / f_{m,d}) + k_m (\sigma_{m,z,d} / f_{m,d}) \leq 1$$

$$(\sigma_{t,0,d} / f_{t,0,d}) + k_m (\sigma_{m,y,d} / f_{m,d}) + (\sigma_{m,z,d} / f_{m,d}) \leq 1$$

dove:

- $\sigma_{t,0,d}$  : tensione di trazione parallela alla fibratura;
- $\sigma_{m,y,d}$  : tensione di flessione intorno all'asse y;
- $\sigma_{m,z,d}$  : tensione di flessione intorno all'asse z;
- $f_{t,0,d}$  : tensione di calcolo a trazione parallela alla fibratura;
- $f_{m,d}$  : tensione limite di calcolo per flessione;
- $k_m$  = 0.7 per le sezioni rettangolari, 1.0 per le altre sezioni;

#### Verifica a Pressoflessione

Affinchè l'esito della verifica risulti positivo devono essere soddisfatte contemporaneamente le seguenti condizioni:

$$(\sigma_{c,0,d} / f_{c,0,d})^2 + (\sigma_{m,y,d} / f_{m,d}) + k_m (\sigma_{m,z,d} / f_{m,d}) \leq 1$$

$$(\sigma_{c,0,d} / f_{c,0,d})^2 + k_m (\sigma_{m,y,d} / f_{m,d}) + (\sigma_{m,z,d} / f_{m,d}) \leq 1$$

dove:

- $\sigma_{c,0,d}$  : tensione di compressione parallela alla fibratura;
- $\sigma_{m,y,d}$  : tensione di flessione intorno all'asse y;
- $\sigma_{m,z,d}$  : tensione di flessione intorno all'asse z;
- $f_{c,0,d}$  : tensione di calcolo a compressione parallela alla fibratura;

- $f_{m,d}$  : tensione limite di calcolo per flessione;
- $k_m = 0.7$  per le sezioni rettangolari, 1.0 per le altre sezioni;

### Verifica a Taglio

Affinchè l'esito della verifica risulti positivo devono essere soddisfatte contemporaneamente le seguenti condizioni:

$$\tau_{y,d} \leq f_{v,d}$$

$$\tau_{z,d} \leq f_{v,d}$$

dove:

- $\tau_{y,d}$  : tensione tangenziale dovuta all'azione tagliante parallela all'asse y;
- $\tau_{z,d}$  : tensione tangenziale dovuta all'azione tagliante parallela all'asse z;
- $f_{v,d}$  : tensione tangenziale limite all'azione tagliante.

### Verifica a Torsione

La verifica da esito positivo se risulta verificata la seguente condizione:

$$\tau_{tor,d} \leq f_{v,d}$$

dove:

- $\tau_{tor,d}$  : tensione tangenziale dovuta all'azione torcente;
- $f_{v,d}$  : tensione tangenziale limite all'azione torsionale.

### Verifica di Stabilità

Affinchè l'esito della verifica risulti positivo devono essere soddisfatte contemporaneamente le seguenti condizioni:

$$(\sigma_{c,0,d} / (k_{c,z} \cdot f_{c,0,d})) + (\sigma_{m,z,d} / f_{m,d}) + k_m (\sigma_{m,y,d} / f_{m,d}) \leq 1$$

$$(\sigma_{c,0,d} / (k_{c,y} \cdot f_{c,0,d})) + k_m (\sigma_{m,z,d} / f_{m,d}) + (\sigma_{m,y,d} / f_{m,d}) \leq 1$$

dove:

$$k_{c,z} = 1 / (k_z + \sqrt{(k_z^2 - \lambda_{rel,z}^2)}) ; \quad k_{c,y} = 1 / (k_y + \sqrt{(k_y^2 - \lambda_{rel,y}^2)})$$

$$k_z = 0.5[1 + \beta_c(\lambda_{rel,z} - 0.5)] + \lambda_{rel,z}^2 ; \quad k_y = 0.5[1 + \beta_c(\lambda_{rel,y} - 0.5)] + \lambda_{rel,y}^2$$

$$\lambda_{rel,z} = \sqrt{(f_{c,0,k} / \sigma_{c,crit,z})} ; \quad \lambda_{rel,y} = \sqrt{(f_{c,0,k} / \sigma_{c,crit,y})}$$

$$\sigma_{c,crit,z} = \pi^2 E_{0.05} / \lambda_z^2 ; \quad \sigma_{c,crit,y} = \pi^2 E_{0.05} / \lambda_y^2$$

$$\lambda_z = l_0 / \rho_z ; \quad \lambda_y = l_0 / \rho_y$$

$$\rho_z = \sqrt{(I_z / A)} ; \quad \rho_y = \sqrt{(I_y / A)}$$

$l_0$  : lunghezza libera di inflessione;

$I_z$  : momento di inerzia della sezione intorno all'asse z;

$I_y$  : momento di inerzia della sezione intorno all'asse y;

$A$  : area della sezione;

$E_{0.05}$  : modulo elastico corrispondente al frattile del 5%.

### Verifica allo snervamento.

Deve essere verificata la seguente condizione:

$$\sigma_{m,y,d} \leq k_{crit} \cdot f_{m,d}$$

$$\sigma_{m,z,d} \leq k_{crit} \cdot f_{m,d}$$

dove:

$\sigma_{m,y,d}$  : tensione a flessione intorno all'asse y;  
 $\sigma_{m,z,d}$  : tensione a flessione intorno all'asse z;  
 $f_{m,d}$  : tensione limite di calcolo per flessione;  
 $k_{crit} = 1$  se  $\lambda_{rel,m} \leq 0.75$ ;  
 $k_{crit} = 1.56 - 0.75 \cdot \lambda_{rel,m}$  se  $0.75 < \lambda_{rel,m} \leq 1.4$ ;  
 $k_{crit} = 1 / \lambda_{rel,m}^2$  se  $\lambda_{rel,m} > 1.4$ .

## 2.4.2 Elementi in Muratura.

Le verifiche relative agli elementi strutturali in muratura possono essere riassunte nei seguenti tipi:

- Pressoflessione nel piano;
- Taglio per scorrimento nel piano;
- Verifica locale agli appoggi per carichi verticali;
- Pressoflessione fuori piano;

### Pressoflessione e Taglio nel piano dei maschi murari.

La resistenza degli elementi murari (analisi statica non lineare) è data dalla resistenza a pressoflessione e taglio nel piano in accordo con i punti 7.8.2.2.1 e 7.8.2.2.2 del DM 14/01/2008

Un elemento murario raggiunge lo stato di crisi quando si raggiunge la resistenza ultima a pressoflessione o a taglio.

$M_u = I^2 \cdot t \cdot \sigma_0 / 2 \cdot (1 - \sigma_0 / 0.85 \cdot f_d)$  : momento corrispondente al collasso per pressoflessione;

dove:

$l$  : lunghezza complessiva della parete;  
 $t$  : spessore della parete;  
 $\sigma_0 = P / l \cdot t$  : tensione normale media agente su tutta la sezione con forza assiale positiva di compressione;  
 $f_d$  : resistenza di calcolo della muratura.

$M_u = 0$  se  $P$  è di trazione

$V_t = (l' \cdot t \cdot f_{vk}) / \gamma_m$  : taglio resistente del pannello murario;  
 $l'$  : lunghezza della parte di parete compressa;  
 $t$  : spessore della parete;  
 $f_{vk} = f_{vk0} + 0.40 \cdot \sigma_N$   
 $\sigma_N = P / (l' \cdot t)$  : tensione normale media sulla parte compressa.

### Pressoflessione e Taglio nel piano delle fasce di piano.

La resistenza a pressoflessione e taglio delle fasce di piano si ottiene in accordo alle prescrizioni previste nel punto 7.8.2.2.4 del DM 14/01/2008.

La resistenza a taglio in presenza di un elemento resistente a trazione (architrave, cordolo, tirante, ecc) si ottiene dalla seguente relazione:

$$V_t = h \cdot t \cdot f_{vd0}$$

dove:

$h$  : altezza della parete;  
 $t$  : spessore della parete;  
 $f_{vd0}$  : è la resistenza di calcolo a taglio della muratura in assenza di compressione.

La resistenza a flessione in presenza di un elemento resistente a trazione (architrave, cordolo, tirante, ecc) si ottiene dalla seguente relazione:

$M_u = H_p \cdot h / 2 \cdot (1 - H_p / 0.85 \cdot f_{hd} \cdot h \cdot t)$ : momento corrispondente al collasso per pressoflessione;

dove:

- $h$  : altezza della parete;
- $t$  : spessore della parete;
- $f_{hd}$  : è la resistenza di calcolo a compressione in direzione orizzontale della muratura.

La resistenza a taglio associato al meccanismo di rottura a flessione si ottiene dalla relazione seguente:

$$V_p = 2 \cdot M_u / l$$

dove:

$l$  è la luce libera della trave in muratura

La resistenza a taglio è assunta pari al valore minimo tra  $V_t$  e  $V_p$

### Verifica locale agli appoggi per carichi verticali (Schiacciamento).

Tale verifica prevista dal D.M. 20/11/1987 serve a limitare le tensioni agli appoggi per i carichi trasmessi dai setti murari dei piani superiori e dagli impalcati che gravano sui setti murari stessi.

Lo Sforzo Normale sul setto ed il punto di applicazione di tale forza si ottengono dalla composizione di tutte le forze trasmesse dai solai e dai setti murari al piano superiore.

La tensione di calcolo raggiunta sul setto murario deve essere inferiore a quella limite di calcolo ( $f_d$ ):

$$\sigma_n \leq f_d$$

### Pressoflessione fuori piano.

La verifica deve essere effettuata prendendo in considerazione le forze sismiche descritte per gli elementi non strutturali (Punto 7.2.3 del D.M. 2008). L'azione sismica ortogonale alla parete può essere rappresentata da un carico orizzontale distribuito, pari a  $S_a/q_a$  volte il peso della parete. Inoltre possono essere considerate forze orizzontali concentrate pari a  $S_a/q_a$  volte il peso trasmesso dagli orizzontamenti poggianti sulla parete, qualora tali forze non siano efficacemente trasmesse a muri trasversali paralleli alla direzione del sisma. (Punto 7.8.1.5 del D.M. 2008). Nella computazione del momento ultimo la resistenza di calcolo è pari a  $0.85 \cdot f_d$ . L'entità della forza sismica dovuta al peso del pannello viene calcolata secondo l'espressione:

$$F_a = (W_a \cdot S_a) / q_a$$

mentre quella dovuta agli orizzontamenti viene calcolata secondo l'espressione:

$$F_o = (W_o \cdot S_a) / q_a$$

dove:

- $W_a$  : peso dell'elemento;
- $W_o$  : peso dell'orizzontamento che grava sul muro;
- $q_a$  : fattore di struttura dell'elemento (si assume pari a 3);
- $S_a = \alpha \cdot S \cdot (3 \cdot (1 + (Z / H))) / (1 + (1 - (T_a / T_1))^2 - 0.5)$ : coefficiente di amplificazione;
- $\alpha$  : rapporto tra l'accelerazione massima del terreno ag su sottosuolo tipo A da considerare nello stato limite in esame e l'accelerazione di gravità  $g$ ;
- $Z$  : altezza del baricentro dell'elemento rispetto alla fondazione;
- $H$  : altezza della struttura;
- $T_a$  : primo periodo di vibrazione dell'elemento;
- $T_1$  : primo periodo di vibrazione della struttura nella direzione considerata;

Per il calcolo di  $T_a$  è possibile utilizzare modelli semplificati. Il pannello può essere considerato come un elemento prismatico o elemento lastra incernierata su tutto il contorno.

Nel caso di elemento prismatico incernierato abbiamo:

Il primo periodo di vibrazione può essere calcolato come:

$$T_a = (2 \cdot \pi) / \sqrt{(\pi^4 \cdot E \cdot I) / (h^4 \cdot A \cdot \gamma) \cdot g \cdot (1 - (P / P_{cr}))}$$

dove:

P : sforzo normale verticale sul pannello;  
 $P_{cr} = (\pi^2 \cdot E \cdot I) / h^2$  : carico critico sul pannello;  
 $I = (l \cdot t^3) / 12$  : momento di inerzia baricentrico della sezione del pannello;  
 E : modulo elastico del materiale;  
 h : altezza del pannello;  
 t : spessore del pannello;  
 A : area della sezione orizzontale;  
 $\gamma$  : peso specifico del materiale.

Per elementi a lastra incernierati sul contorno il primo periodo di vibrazione è:

$$T_a = (2 \cdot \pi \cdot h^2 \cdot I^2) / (h^2 + I^2) \sqrt{(B \cdot g) / (\gamma \cdot t)}$$

dove:

$$B = (E \cdot t^3) / 12 \cdot (1 - \nu^2)$$

### 3 Dati

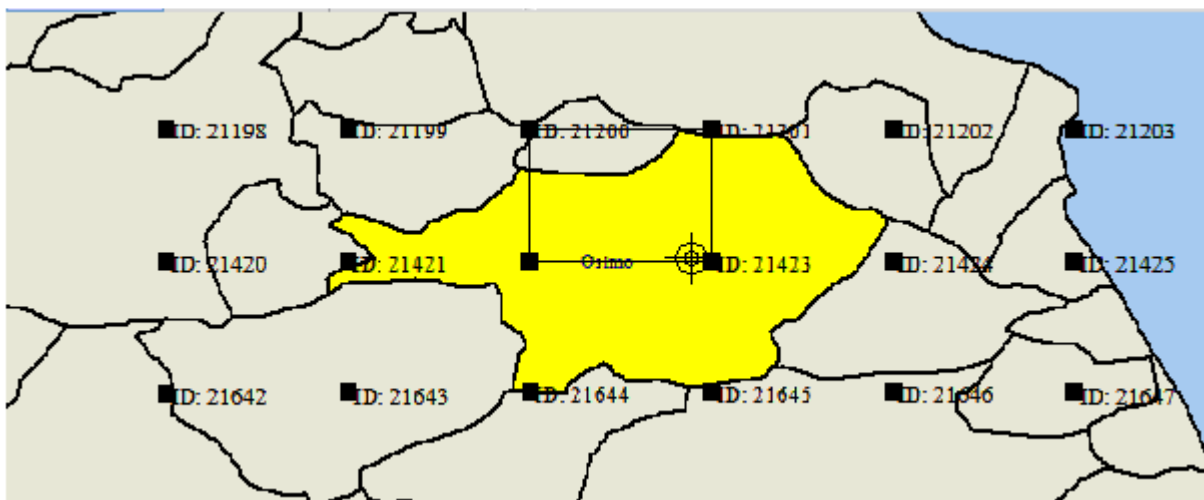
#### 3.1 Dati Generali

Numero Impalcati : 2  
 Numero delle tipologie di sezioni trasversali usate : 8  
 Numero delle tipologie di solaio utilizzate : 2

Impalcato	Quota assoluta min [cm]	Quota assoluta max [cm]	Quota relativa min [cm]	Quota relativa max [cm]	Numero Colonne	Numero Travi
Fond.	0.00	0.00	0.00	0.00	0	21
Piano 1	0.00	335.00	120.00	335.00	0	21
Piano 2	120.00	865.00	230.00	530.00	0	17

Coordinate (Datum WGS84) del sito : Latitudine = 43.4861° - Longitudine = 13.4824°

Coordinate (Datum ED50) del sito : Latitudine = 43.4870° - Longitudine = 13.4833°

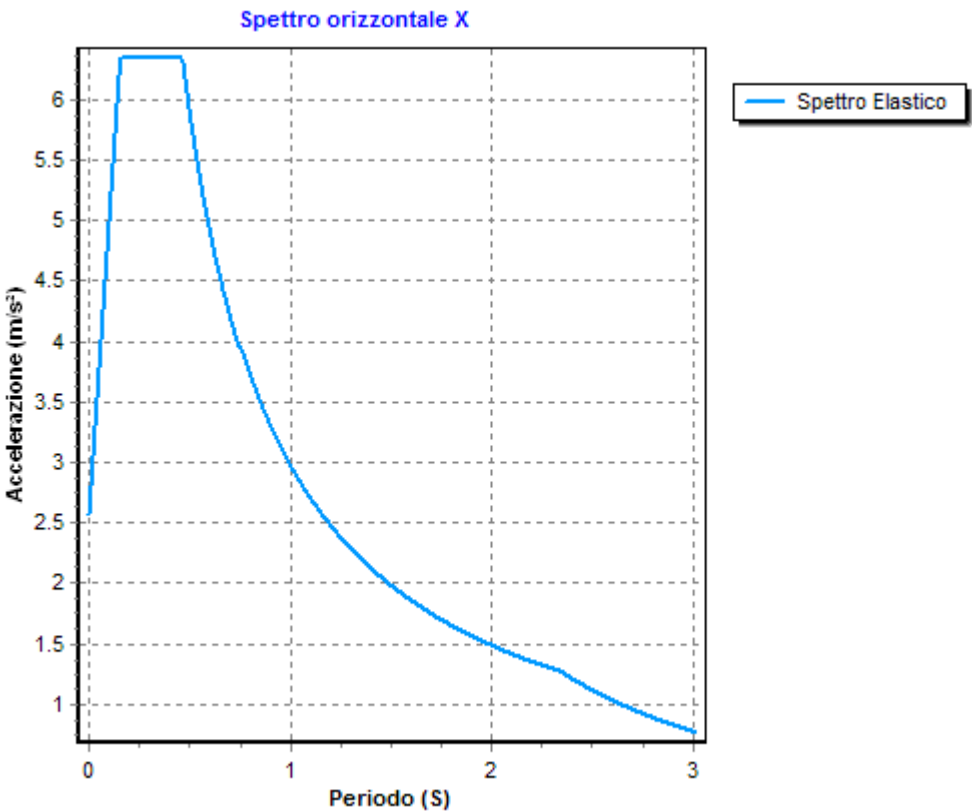


Identificativi e coordinate (Datum ED50) dei punti che includono il sito

Numero punto	Latitudine [°]	Longitudine [°]
21200	43.5349	13.4210
21201	43.5350	13.4900
21422	43.4849	13.4211
21423	43.4850	13.4900

Zona sismica : SI  
Suolo di fondazione : C  
Vita nominale : 50  
Tipo di opera : Opere ordinarie  
Classe d'uso : II  
Coefficiente smorzamento viscoso : 0.05

	Parametri dello spettro di risposta orizzontale		
	SLV	SLD	SLO
Tempo di ritorno	475	50	30
Accelerazione sismica	0.183	0.062	0.048
Coefficiente Fo	2.476	2.563	2.399
Periodo T <sub>C</sub> *	0.299	0.280	0.281
Coefficiente S <sub>s</sub>	1.43	1.50	1.50
Coefficiente di amplificazione topografica S <sub>t</sub>	1.00	1.00	1.00
Prodotto S <sub>s</sub> · S <sub>t</sub>	1.43	1.50	1.50
Periodo T <sub>B</sub>	0.16	0.15	0.15
Periodo T <sub>C</sub>	0.47	0.45	0.45
Periodo T <sub>D</sub>	2.33	1.85	1.79
Coefficiente η	1.00	1.00	1.00



Modulo di Winkler traslazionale : 5.00 daN/cm³  
Modulo di Winkler tangenziale : 2.50 daN/cm³  
Delta Termico aste di elevazione : 15  
Delta Termico aste di fondazione : 10



Modulo di omogeneizzazione (per SLE)	: 15
Copriferro Travi di Fondazione	: 2.50 cm
Copriferro Travi Cordoli	: 2.50 cm
Copriferro Pilastri in C.A.	: 2.50 cm
Copriferro Solai	: 2.00 cm
Copriferro Bicchieri Plinti	: 2.00 cm
Copriferro Pareti	: 2.00 cm
Copriferro Piastre di Fondazione	: 2.00 cm
Copriferro Architravi	: 2.50 cm

### 3.2 Elenco e Caratteristiche dei materiali.

Nell'ambito del progetto si è fatto uso dei seguenti materiali divisi per categoria di appartenenza:

#### a - Calcestruzzo

Nome	Classe	Rck [daN/cm <sup>2</sup> ]	v	ps [daN/m <sup>3</sup> ]	$\alpha$ [1/°C]	Ec [daN/cm <sup>2</sup> ]	FC	$\gamma_m$	Ect/Ec	fck [daN/cm <sup>2</sup> ]	fcm [daN/cm <sup>2</sup> ]	fcd SLU [daN/cm <sup>2</sup> ]	fctd SLU [daN/cm <sup>2</sup> ]	fcd SLD [daN/cm <sup>2</sup> ]	fctd SLD [daN/cm <sup>2</sup> ]	fctk,0.05 [daN/cm <sup>2</sup> ]	fctm [daN/cm <sup>2</sup> ]	$\epsilon_{c2}$ [%]	$\epsilon_{cu2}$ [%]
Cls1	C25/30	300	0.15	2500	1.0E-005	31475.1	-	1.50	0.50	250.0	-	141.7	12.0	212.5	18.0	18.0	25.6	2.00	3.50

#### b - Acciaio per C.A.

Nome	Tipo	$\gamma_m$	FC	Es [daN/cm <sup>2</sup> ]	fyk [daN/cm <sup>2</sup> ]	ftk [daN/cm <sup>2</sup> ]	fd SLU [daN/cm <sup>2</sup> ]	fd SLD [daN/cm <sup>2</sup> ]	fd SLE [daN/cm <sup>2</sup> ]	k	$\epsilon_{ud}$ [%]
Barre1	B450C	1.15	-	2100000.0	4500.0	5400.0	3913.0	4500.0	3913.0	1.00	10.00

#### c - Legno.

Nome	Norm.	Class e	P. spec. [daN/m <sup>3</sup> ]	FC	E0,mean [daN/cm <sup>2</sup> ]	E,0.05 [daN/cm <sup>2</sup> ]	G,mean [daN/cm <sup>2</sup> ]	f <sub>m,k</sub> [daN/cm <sup>2</sup> ]	f <sub>t,0,k</sub> [daN/cm <sup>2</sup> ]	f <sub>c,0,k</sub> [daN/cm <sup>2</sup> ]	f <sub>v,k</sub> [daN/cm <sup>2</sup> ]
Legno1 (Lamellare di conifera)	EN 1194	GL24 h	380.00	-	116000.00	94000.00	7200.00	240.00	165.00	240.00	27.00

#### d - Muratura

Nome	Tipo	Malta	Lc	v	$\alpha$ [1/°C]	Coeff. Corr.	FC	$\gamma_m$	E [daN/cm <sup>2</sup> ]	G [daN/cm <sup>2</sup> ]	f <sub>bk</sub> [daN/cm <sup>2</sup> ]	f <sub>bk,Or</sub> [daN/cm <sup>2</sup> ]	f <sub>k - fm</sub> [daN/cm <sup>2</sup> ]	f <sub>vk0</sub> [daN/cm <sup>2</sup> ]	f <sub>vk,lim</sub> [daN/cm <sup>2</sup> ]	$\tau_0$ [daN/cm <sup>2</sup> ]	ps [daN/m <sup>3</sup> ]
Muratura1	Mattoni semipieni e malta cementizia	-	LC1	0.30	1.0E-005	1.00	1.35	3.00	45500.00	11375.00	150.00	-	50.00	2.00	21.00	2.40	1500.00

### 3.3 Elenco e caratteristiche delle colonne stratigrafiche.

Nell'ambito del progetto si è fatto uso delle seguenti colonne stratigrafiche:

#### Caratteristiche delle colonne stratigrafiche:

Colonna	: nome della colonna stratigrafica;
Filo	: filo fisso al quale appartiene la colonna stratigrafica;
Impalcato	: Impalcato al quale appartiene la colonna stratigrafica;
Falda	: Presenza della falda;
Prof. Falda	: Profondità della falda (se è presente);
Spicc. Fond.	: Quota dell'estradosso della fondazione rispetto al piano campagna;
No. Strati	: Numero degli strati della colonna stratigrafica.

RQD : (Rock Quality Designation) grado di fratturazione dell'ammasso roccioso in [0-1]

Filo	Colonna	Impalcato	Falda	Prof. Falda [cm]	Spicc. Fond. [cm]	No. Strati	RQD
1	Colonna 1	Fond.	Non Presente	-	0.00	1	-
2	Colonna 1	Fond.	Non Presente	-	0.00	1	-
3	Colonna 1	Fond.	Non Presente	-	0.00	1	-
4	Colonna 1	Fond.	Non Presente	-	0.00	1	-
5	Colonna 1	Fond.	Non Presente	-	0.00	1	-
6	Colonna 1	Fond.	Non Presente	-	0.00	1	-
7	Colonna 1	Fond.	Non Presente	-	0.00	1	-
8	Colonna 1	Fond.	Non Presente	-	0.00	1	-
9	Colonna 1	Fond.	Non Presente	-	0.00	1	-
10	Colonna 1	Fond.	Non Presente	-	0.00	1	-
11	Colonna 1	Fond.	Non Presente	-	0.00	1	-
12	Colonna 1	Fond.	Non Presente	-	0.00	1	-
13	Colonna 1	Fond.	Non Presente	-	0.00	1	-
14	Colonna 1	Fond.	Non Presente	-	0.00	1	-
15	Colonna 1	Fond.	Non Presente	-	0.00	1	-

### Caratteristiche degli strati appartenenti alle colonne stratigrafiche:

Colonna : nome della colonna stratigrafica;  
 Strato : nome dello strato appartenente la colonna stratigrafica;  
 Spess. : Spessore dello strato;  
 Peso : Peso dell'unità di volume dello strato;  
 Peso eff. : Peso dell'unità di volume efficace dello strato;  
 NSPT : Numero di colpi medio misurato nello strato;  
 Qc : Resistenza alla punta media misurata nello strato;  
 $\phi$  : Angolo di attrito del terreno;  
 C : Coesione drenata del terreno;  
 Cu : Coesione non drenata del terreno;  
 E : Modulo elastico del terreno;  
 G : Modulo di taglio del terreno;  
 $\nu_t$  : Coefficiente di Poisson;  
 E<sub>ed</sub> : Modulo Edometrico;  
 OCR : Grado di sovraconsolidazione del terreno.

Colonna	Strato	Spess. [cm]	Peso [daN/m <sup>3</sup> ]	Peso eff. [daN/m <sup>3</sup> ]	NSPT	Qc [daN/cm <sup>2</sup> ]	$\phi$ [°]	C [daN/cm <sup>2</sup> ]	Cu [daN/cm <sup>2</sup> ]	E [daN/cm <sup>2</sup> ]	G [daN/cm <sup>2</sup> ]	$\nu_t$ [°]	E <sub>ed</sub> [daN/cm <sup>2</sup> ]	OCR
Colonna 1	Strato1	500.0	1900.0	800.0	10	15.00	28.0	0.30	0.70	200.00	100.00	0.35	80.00	1.00

## 3.4 Elenco dei carichi.

### 3.4.1 Pesi propri unitari - G1.

Impalcato	Solai [daN/m <sup>2</sup> ]	Balconi [daN/m <sup>2</sup> ]	Scale [daN/m <sup>2</sup> ]
Fond.	-	-	400
Piano 1	36	-	400
Piano 2	36	-	400

- Analisi dei Carichi -

<b>Fond.</b>
--------------

**Tipologia scala prevalente:** Il carico permanente G1 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati.

<b>Piano 1</b>
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Solai

## Tipologia solaio prevalente: LEG\_TAVOLATO(1) (Legno e Tavolato)

Altezza massetto	50 mm
Spessore tavolato	30 mm
Interasse travi	900 mm
Larghezza trave	160 mm
Altezza trave	240 mm
Peso dell'unità di volume massetto	150 daN/m <sup>3</sup>
Peso dell'unità di volume tavolato	380 daN/m <sup>3</sup>
Peso dell'unità di volume travi	380 daN/m <sup>3</sup>

**Peso Proprio Solaio: 36 daN/m<sup>2</sup>**

**Tipologia scala prevalente:** Il carico permanente G1 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati.

### Piano 2

#### Solai

## Tipologia solaio prevalente: LEG\_TAVOLATO(1) (Legno e Tavolato)

Altezza massetto	50 mm
Spessore tavolato	30 mm
Interasse travi	900 mm
Larghezza trave	160 mm
Altezza trave	240 mm
Peso dell'unità di volume massetto	150 daN/m <sup>3</sup>
Peso dell'unità di volume tavolato	380 daN/m <sup>3</sup>
Peso dell'unità di volume travi	380 daN/m <sup>3</sup>

**Peso Proprio Solaio: 36 daN/m<sup>2</sup>**

## 3.4.2 Carichi Permanenti unitari - G2.

Impalcato	Solai [daN/m <sup>2</sup> ]	Balconi [daN/m <sup>2</sup> ]	Scale [daN/m <sup>2</sup> ]	Influenza Tramezzi [daN/m <sup>2</sup> ]	Tamponature [daN/m]
Fond.	100	100	100	100	582
Piano 1	100	100	100	100	582
Piano 2	100	100	100	0	0

- Analisi dei Carichi -

### Fond.

#### Scale

**Tipologia scala prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati

#### Influenza Tramezzi

Il peso proprio degli elementi divisori interni viene ragguagliato ad un carico permanente portato uniformemente distribuito come definito dal punto 3.1.3.1 - Elementi divisori interni con  $100 < G2 \leq 200$  daN/m<sup>2</sup> (DM 14/01/2008)

### Piano 1

#### Solai

**Tipologia solaio prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di solaio adottata in fase di progettazione e descritta nei relativi elaborati

#### Scale

**Tipologia scala prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati

#### Influenza Tramezzi

Il peso proprio degli elementi divisorii interni viene ragguagliato ad un carico permanente portato uniformemente distribuito come definito dal punto 3.1.3.1 - Elementi divisorii interni con  $100 < G2 \leq 200$  daN/m<sup>2</sup> (DM 14/01/2008)

## Piano 2

### Solai

**Tipologia solaio prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di solaio adottata in fase di progettazione e descritta nei relativi elaborati

### 3.4.3 Carichi Variabili unitari - Q.

Le intensità assunte per i carichi variabili verticali ripartiti sono riportate nella seguente tabella:

Impalcato	Carichi d'esercizio [daN/m <sup>2</sup> ]		
	Solai	Balconi	Scale
Fond.	300	400	400
Piano 1	200	400	400
Piano 2	150	400	400

### 3.4.4 Pesì Impalcati.

Ai fini della valutazione dei pesi "W" a livello dei vari impalcati, si tiene conto dei carichi di tipo G1 relativi agli elementi strutturali e dei carichi di tipo G2 relativi agli elementi non strutturali sommati ai sovraccarichi d'esercizio Q<sub>k</sub> moltiplicati per una aliquota  $\Psi_{2i}$  (determinata dalla destinazione d'uso dell'opera ai vari piani)

$$W_i = G1_i + G2_i + \Psi_{2i} \cdot Q_{ki}$$

Dove il pedice "i" è il piano i-esimo della struttura.

Impalcato	Destinazione	$\Psi_{2i}$
Fond.	A - Ambienti ad uso residenziale	0.3
Piano 1	A - Ambienti ad uso residenziale	0.3
Piano 2	A - Ambienti ad uso residenziale	0.3

Per balconi e scale verranno usati i coefficienti calcolati come i maggiori tra quelli relativi alla categoria di carico di piano ed i seguenti:

Cat.	Destinazione	$\Psi_{2i}$
C2	Balconi, ballatoi e scale	0.6

Imp. Reale	G [daN]	Q [daN]	W (SLV-SLD) [daN]
Fond.	181603.19	64164.17	201782.44
Piano 1	214867.64	42032.90	228407.51
Piano 2	209334.50	31725.43	218852.13

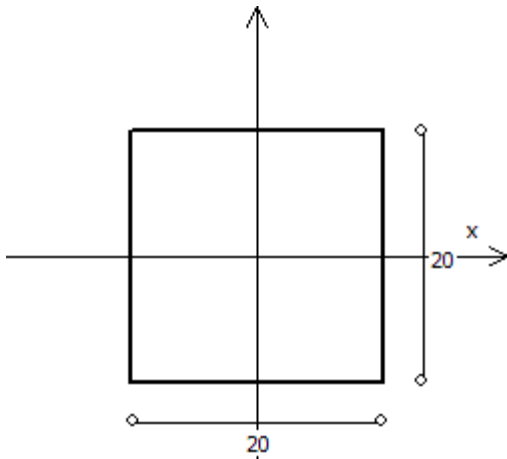
### 3.4.5 Carico del Vento.

Carico da vento su metro quadro di superficie che agisce sulle pareti perimetrali della struttura.

$$q_{\text{vento}} = 0.0 \text{ daN/m}^2$$

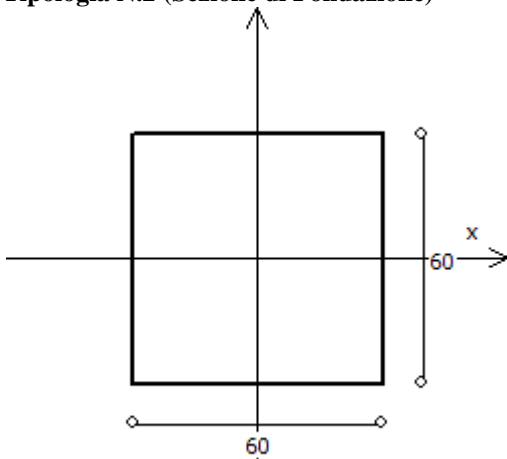
## 3.5 Elenco e Caratteristiche delle sezioni trasversali.

**Tipologia N.1 (Sezione Rettangolare)**



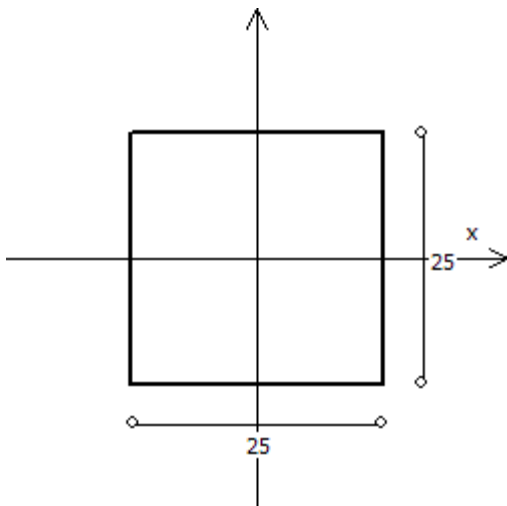
A = 400 cm<sup>2</sup>  
 J<sub>x</sub> = 13333 cm<sup>4</sup>  
 J<sub>y</sub> = 13333 cm<sup>4</sup>  
 J<sub>t</sub> = 22491 cm<sup>4</sup>  
 Materiale = Legno1

**Tipologia N.2 (Sezione di Fondazione)**



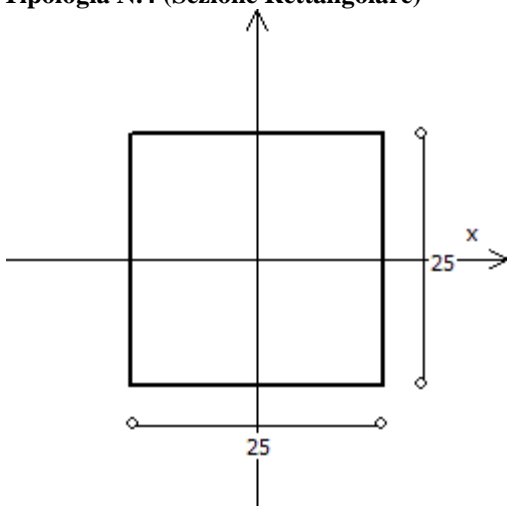
A = 3600 cm<sup>2</sup>  
 J<sub>x</sub> = 1080000 cm<sup>4</sup>  
 J<sub>y</sub> = 1080000 cm<sup>4</sup>  
 J<sub>t</sub> = 1611360 cm<sup>4</sup>  
 Materiale = Muratura1  
 Peso = 648 daN/ml

**Tipologia N.3 (Sezione Rettangolare)**



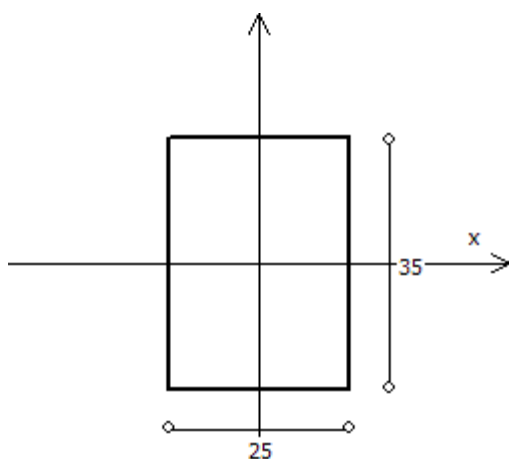
A = 625 cm<sup>2</sup>  
 J<sub>x</sub> = 32552 cm<sup>4</sup>  
 J<sub>y</sub> = 32552 cm<sup>4</sup>  
 J<sub>t</sub> = 54909 cm<sup>4</sup>  
 Materiale = Cls1  
 Peso = 156 daN/m

**Tipologia N.4 (Sezione Rettangolare)**



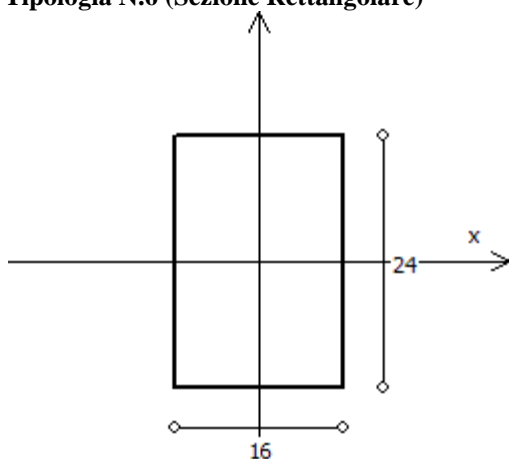
A = 625 cm<sup>2</sup>  
 J<sub>x</sub> = 32552 cm<sup>4</sup>  
 J<sub>y</sub> = 32552 cm<sup>4</sup>  
 J<sub>t</sub> = 54909 cm<sup>4</sup>  
 Materiale = Cls1  
 Peso = 156 daN/m

**Tipologia N.5 (Sezione Rettangolare)**



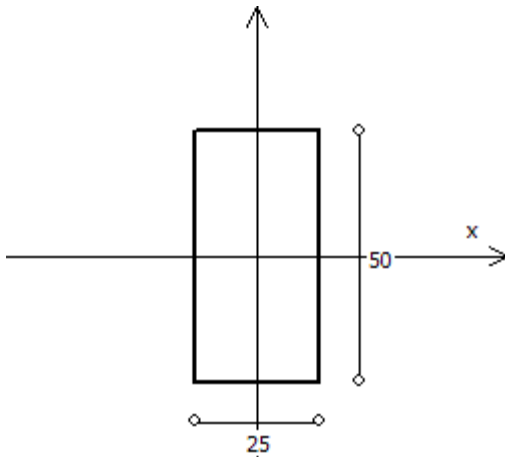
A = 875 cm<sup>2</sup>  
 J<sub>x</sub> = 89323 cm<sup>4</sup>  
 J<sub>y</sub> = 45573 cm<sup>4</sup>  
 J<sub>t</sub> = 100651 cm<sup>4</sup>  
 Materiale = Cls1  
 Peso = 219 daN/m

**Tipologia N.6 (Sezione Rettangolare)**



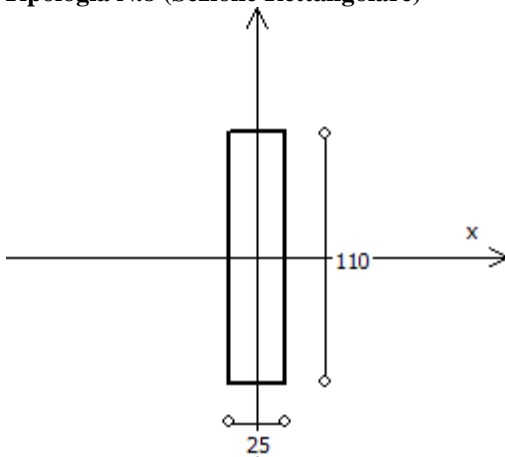
A = 384 cm<sup>2</sup>  
 J<sub>x</sub> = 18432 cm<sup>4</sup>  
 J<sub>y</sub> = 8192 cm<sup>4</sup>  
 J<sub>t</sub> = 19071 cm<sup>4</sup>  
 Materiale = Legno1

**Tipologia N.7 (Sezione Rettangolare)**



A = 1250 cm<sup>2</sup>  
 J<sub>x</sub> = 260417 cm<sup>4</sup>  
 J<sub>y</sub> = 65104 cm<sup>4</sup>  
 J<sub>t</sub> = 178776 cm<sup>4</sup>  
 Materiale = Cls1  
 Peso = 313 daN/m

#### Tipologia N.8 (Sezione Rettangolare)



A = 2750 cm<sup>2</sup>  
 J<sub>x</sub> = 2772917 cm<sup>4</sup>  
 J<sub>y</sub> = 143229 cm<sup>4</sup>  
 J<sub>t</sub> = 491276 cm<sup>4</sup>  
 Materiale = Cls1  
 Peso = 688 daN/m

### 3.6 Elenco dei vincoli interni degli elementi monodimensionali.

Piano : piano al quale appartiene l'elemento;  
 Fili Fissi : fili fissi a cui è collegato l'elemento;  
 Tipo elemento : Tipologia dell'elemento monodimensionale (Trave fondazione, Trave elevazione, Pilastro)  
 NI : Nodo iniziale (I = Incastro; C = Cerniera)  
 NF : Nodo finale (I = Incastro; C = Cerniera)



Piano	Fili Fissi	Tipo elemento	NI	NF
Fond.	1-2	Trave Fondazione	I	I
Fond.	1-5	Trave Fondazione	I	I
Fond.	2-3	Trave Fondazione	I	I
Fond.	2-6	Trave Fondazione	I	I
Fond.	3-7	Trave Fondazione	I	I
Fond.	4-5	Trave Fondazione	I	I
Fond.	9-4	Trave Fondazione	I	I
Fond.	5-6	Trave Fondazione	I	I
Fond.	5-10	Trave Fondazione	I	I
Fond.	6-7	Trave Fondazione	I	I
Fond.	7-8	Trave Fondazione	I	I
Fond.	7-11	Trave Fondazione	I	I
Fond.	8-15	Trave Fondazione	I	I
Fond.	9-10	Trave Fondazione	I	I
Fond.	10-11	Trave Fondazione	I	I
Fond.	10-12	Trave Fondazione	I	I
Fond.	11-13	Trave Fondazione	I	I
Fond.	15-11	Trave Fondazione	I	I
Fond.	12-13	Trave Fondazione	I	I
Fond.	13-14	Trave Fondazione	I	I
Fond.	15-14	Trave Fondazione	I	I
Piano 2	6-16	Trave Elevazione	I	I
Piano 2	16-17	Trave Elevazione	I	I

### 3.7 Geometria Struttura.

#### 3.7.1 Fili Fissi.

Numero : numerazione del filo fisso.

Ascissa : coordinata X del filo fisso.

Ordinata: coordinata Y del filo fisso.

Angolo : angolo del filo fisso (in gradi);

Tipo : tipo del filo fisso.

Numero	Ascissa [cm]	Ordinata [cm]	Quota [cm]	Angolo [°]	Tipo
1	0.00	1385.00	0.00	0.00	1
2	605.00	1385.00	0.00	0.00	2
3	1170.00	1385.00	0.00	0.00	1
4	-155.00	1005.00	0.00	0.00	1
5	0.00	1005.00	0.00	0.00	1
6	605.00	1005.00	0.00	0.00	2
7	1170.00	1005.00	0.00	0.00	1
8	1645.00	960.00	0.00	0.00	3
9	-155.00	490.00	0.00	0.00	7
10	0.00	490.00	0.00	0.00	7
11	1170.00	490.00	0.00	0.00	7
12	0.00	0.00	0.00	0.00	7
13	1170.00	0.00	0.00	0.00	7
14	1645.00	0.00	0.00	0.00	9
15	1645.00	560.00	0.00	0.00	3
16	605.00	490.00	0.00	0.00	8
17	605.00	0.00	0.00	0.00	8
18	1420.00	0.00	0.00	0.00	8
19	1425.00	560.00	0.00	0.00	2

#### 3.7.2 Caratteristiche dei nodi.

I dati seguenti riportano tutte le caratteristiche relative ai nodi che definiscono la struttura ed in modo particolare:

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Nodo : numerazione interna del nodo.  
 Coordinate : coordinate del nodo secondo il sistema di riferimento globale cartesiano.  
 Imp. : impalcato di appartenenza del nodo.  
 Slave : nodo dipendente da un nodo MASTER definito nella tabella specifica;  
 Vincoli : eventuali vincoli esterni del nodo in ognuna delle 6 direzioni:  
     x : direzione X rispetto al sistema di riferimento globale;  
     y : direzione Y rispetto al sistema di riferimento globale;  
     z : direzione Z rispetto al sistema di riferimento globale;  
     Rx : rotazione attorno all'asse X del sistema di riferimento globale;  
     Ry : rotazione attorno all'asse Y del sistema di riferimento globale;  
     Rz : rotazione attorno all'asse Z del sistema di riferimento globale;

Inoltre:

np : non presenza di vincoli;  
 p : valore infinito della rigidezza;  
 Kt : valore finito delle rigidezze traslazionali da leggere nella tabella specifica;  
 Kr : valore finito delle rigidezze rotazionali da leggere nella tabella specifica;

Masse Nodali:

M : valore della massa traslazionale  
 MIx : valore del momento d'inerzia della massa attorno all'asse X  
 MIy : valore del momento d'inerzia della massa attorno all'asse Y  
 MIz : valore del momento d'inerzia della massa attorno all'asse Z

Nodo	Coordinate [cm]			Impalcato	Slave	Vincoli						Masse Nodali			
	x	y	z			x	y	z	Rx	Ry	Rz	M [daNM]	MIx [daNM*cm <sup>2</sup> ]	MIy [daNM*cm <sup>2</sup> ]	MIz [daNM*cm <sup>2</sup> ]
1	0.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
2	605.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
3	1170.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
4	-155.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
5	0.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
6	605.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
7	1170.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
8	1645.0	960.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
9	-155.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
10	0.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
11	1170.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
12	0.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
13	1170.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
14	1645.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
15	1645.0	560.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
16	1425.0	560.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
17	0.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
18	605.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
19	1170.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
20	-155.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
21	0.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
22	605.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

		0													
23	1170.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
24	1645.0	960.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
25	-155.0	490.0	120.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
26	0.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
27	1170.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
28	0.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
29	1170.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
30	1645.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
31	1645.0	560.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
32	605.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
33	605.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
34	1420.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
35	1425.0	560.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
36	0.0	1385.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
37	605.0	1385.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
38	1170.0	1385.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
39	0.0	1005.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
40	605.0	1005.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
41	1170.0	1005.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
42	0.0	490.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
43	1170.0	490.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
44	0.0	0.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
45	1170.0	0.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
46	1645.0	0.0	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
47	1645.0	560.0	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
48	605.0	490.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
49	605.0	0.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
50	1420.0	0.0	685.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
51	1425.0	560.0	685.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
52	120.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
53	120.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
54	200.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
55	450.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
56	450.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
57	200.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
58	530.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
59	530.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
60	0.0	1295.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
61	0.0	1295.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
62	0.0	1075.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
63	0.0	1075.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

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64	665.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
65	665.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
66	745.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
67	995.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
68	995.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
69	745.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
70	1075.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
71	1075.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
72	605.0	1245.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
73	605.0	1245.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
74	605.0	1115.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
75	605.0	1115.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
76	1170.0	1195.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
77	1170.0	1195.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
78	1170.0	1125.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
79	1170.0	1125.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
80	-100.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
81	-100.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
82	-30.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
83	-30.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
84	-155.0	925.0	301.6	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
85	-155.0	925.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
86	-155.0	850.0	270.3	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
87	-155.0	850.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
88	160.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
89	160.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
90	260.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
91	260.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
92	0.0	705.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
93	0.0	705.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
94	0.0	620.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
95	0.0	620.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
96	985.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
97	985.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
98	1085.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
99	1085.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
100	1250.1	997.4	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
101	1250.1	997.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
102	1597.1	964.5	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

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103	1597.0	964.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
104	1170.0	925.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
105	1170.0	925.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
106	1170.0	840.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
107	1170.0	660.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
108	1170.0	660.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
109	1170.0	840.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
110	1170.0	575.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
111	1170.0	575.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
112	1645.0	730.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
113	1645.0	730.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
114	1645.0	805.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
115	1645.0	805.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
116	150.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
117	150.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
118	370.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
119	490.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
120	490.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
121	370.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
122	755.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
123	850.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
124	850.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
125	755.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
126	1075.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
127	1075.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
128	0.0	440.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
129	0.0	440.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
130	0.0	355.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
131	0.0	210.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
132	0.0	210.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
133	0.0	355.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
134	0.0	110.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
135	0.0	110.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
136	1170.0	470.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
137	1170.0	470.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
138	1170.0	360.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
139	1170.0	205.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
140	1170.0	205.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
141	1170.0	360.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
142	1170.0	120.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
143	1170.0	120.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
144	180.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
145	180.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
146	265.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
147	430.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
148	430.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
149	265.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
150	515.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
151	690.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
152	690.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

153	515.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
154	775.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
155	950.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
156	950.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
157	775.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
158	1035.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
159	1035.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
160	1245.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
161	1245.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
162	1590.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
163	1590.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
164	1645.0	240.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
165	1645.0	240.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
166	1645.0	320.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
167	1645.0	320.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
168	125.0	1385.0	678.6	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
169	125.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
170	205.0	1385.0	709.6	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
171	445.0	1385.0	802.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
172	445.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
173	205.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
174	525.0	1385.0	833.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
175	525.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
176	0.0	1155.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
177	0.0	1155.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
178	0.0	1235.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
179	0.0	1235.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
180	675.0	1385.0	835.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
181	675.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
182	755.0	1385.0	802.6	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
183	985.0	1385.0	706.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
184	985.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
185	755.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
186	1065.0	1385.0	673.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
187	1065.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
188	1170.0	1225.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
189	1170.0	1225.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
190	1170.0	1150.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
191	1170.0	1150.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
192	100.0	1005.0	668.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

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193	100.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
194	190.0	1005.0	703.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
195	190.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
196	0.0	585.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
197	0.0	585.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
198	0.0	670.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
199	0.0	850.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
200	0.0	850.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
201	0.0	670.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
202	0.0	950.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
203	0.0	950.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
204	685.0	1005.0	831.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
205	685.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
206	775.0	1005.0	794.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
207	1015.0	1005.0	694.5	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
208	1015.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
209	775.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
210	1105.0	1005.0	657.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
211	1105.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
212	1170.0	955.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
213	1170.0	955.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
214	1170.0	865.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
215	1170.0	655.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
216	1170.0	655.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
217	1170.0	865.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
218	1170.0	565.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
219	1170.0	565.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
220	0.0	130.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
221	0.0	130.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
222	0.0	210.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
223	525.0	490.0	833.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
224	525.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
225	693.0	490.0	828.4	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
226	693.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
227	1396.0	552.0	678.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
228	1396.0	552.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
229	1312.3	529.1	660.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
230	1312.3	529.1	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
231	180.0	0.0	699.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
232	260.0	0.0	731.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
233	425.0	0.0	795.1	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
234	425.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
235	260.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
236	505.0	0.0	826.2	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
237	505.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
238	685.0	0.0	831.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
239	685.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
240	765.0	0.0	798.5	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
241	955.0	0.0	719.4	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
242	955.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

243	765.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
244	1035.0	0.0	686.2	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
245	1645.0	110.0	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
246	1645.0	110.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
247	1645.0	190.0	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
248	1645.0	190.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
249	1450.0	0.0	676.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
250	1450.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
251	1525.0	0.0	654.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
252	1525.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
253	60.0	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
254	283.3	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
255	366.7	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
256	605.0	1315.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
257	605.0	1180.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
258	605.0	1060.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
259	518.8	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
260	432.5	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
261	346.3	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
262	80.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
263	0.0	1148.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
264	0.0	1221.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
265	828.3	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
266	911.7	1385.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
267	1170.0	1290.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
268	1170.0	1065.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
269	890.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
270	795.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
271	700.0	1005.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
272	1170.0	750.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
273	1000.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
274	925.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
275	666.7	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
276	578.3	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
277	430.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
278	296.7	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
279	223.3	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
280	75.0	490.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
281	0.0	555.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
282	0.0	805.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
283	0.0	905.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
284	1170.0	415.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
285	1170.0	282.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

	0														
286	1170.0	60.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
287	1102.5	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
288	862.5	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
289	602.5	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
290	347.5	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
291	90.0	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
292	0.0	55.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
293	0.0	282.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
294	1336.8	989.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
295	1423.6	981.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
296	1510.3	972.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
297	1645.0	882.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
298	1645.0	645.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
299	1550.0	546.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
300	1455.0	532.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
301	1360.0	518.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
302	1265.0	504.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
303	1255.0	513.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
304	1340.0	536.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
305	1498.3	560.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
306	1571.7	560.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
307	1645.0	480.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
308	1645.0	400.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
309	1645.0	160.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
310	1645.0	80.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
311	1503.8	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
312	1417.5	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
313	1331.3	0.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
314	60.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
315	285.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
316	365.0	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
317	0.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
318	0.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
319	0.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
320	605.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
321	605.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
322	605.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
323	0.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
324	0.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
325	0.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

		0													
326	831.7	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
327	908.3	1385.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
328	1170.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
329	1170.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
330	1170.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
331	605.0	1315.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
332	605.0	1180.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
333	605.0	1060.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
334	605.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
335	605.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
336	605.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
337	1170.0	1305.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
338	1170.0	1065.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
339	1170.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
340	1170.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
341	1170.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
342	-155.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
343	-155.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
344	-155.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
345	-155.0	760.0	232.7	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
346	-155.0	670.0	195.1	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
347	-155.0	580.0	157.6	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
348	-155.0	760.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
349	-155.0	670.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
350	-155.0	580.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
351	-155.0	490.0	60.0	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
352	346.2	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
353	432.5	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
354	518.8	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
355	0.0	777.5	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
356	0.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
357	0.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
358	0.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
359	845.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
360	915.0	1005.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
361	1336.8	989.2	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
362	1423.6	981.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
363	1510.3	972.8	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
364	1645.	960.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

	0														
365	1645.0	960.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
366	1645.0	960.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
367	1170.0	750.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
368	1170.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
369	1170.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
370	1170.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
371	1645.0	645.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
372	1645.0	882.5	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
373	1645.0	560.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
374	1645.0	560.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
375	1645.0	560.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
376	75.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
377	223.3	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
378	296.7	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
379	430.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
380	925.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
381	1000.0	490.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
382	0.0	282.5	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
383	0.0	55.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
384	0.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
385	0.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
386	0.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
387	1170.0	415.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
388	1170.0	282.5	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
389	1170.0	60.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
390	1170.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
391	1170.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
392	1170.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
393	1241.1	509.5	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
394	1425.0	560.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
395	1425.0	560.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
396	1425.0	560.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
397	90.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
398	345.0	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
399	862.5	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
400	1102.5	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
401	1332.5	0.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
402	1645.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
403	1645.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
404	1645.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
405	1645.0	55.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
406	1645.0	400.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
407	1645.0	480.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

408	1498.3	560.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
409	1571.7	560.0	335.0	Piano 1	M1	np	np	np	np	np	np	0.00	0.00	0.00	0.00
410	62.5	1385.0	654.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
411	285.0	1385.0	740.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
412	365.0	1385.0	771.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
413	0.0	1385.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
414	0.0	1385.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
415	605.0	1385.0	776.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
416	605.0	1385.0	688.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
417	605.0	1385.0	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
418	605.0	1385.0	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
419	605.0	1385.0	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
420	0.0	1080.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
421	0.0	1310.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
422	0.0	1005.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
423	0.0	1005.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
424	831.7	1385.0	770.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
425	908.3	1385.0	738.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
426	1117.5	1385.0	651.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
427	1170.0	1385.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
428	1170.0	1385.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
429	605.0	1290.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
430	605.0	1195.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
431	605.0	1100.0	865.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
432	605.0	1005.0	776.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
433	605.0	1005.0	688.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
434	605.0	1005.0	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
435	605.0	1005.0	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
436	605.0	1005.0	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
437	1170.0	1305.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
438	1170.0	1077.5	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
439	1170.0	1005.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
440	1170.0	1005.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
441	50.0	1005.0	649.4	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
442	273.0	1005.0	736.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
443	356.0	1005.0	768.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
444	439.0	1005.0	800.5	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

445	522.0	1005.0	832.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
446	0.0	760.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
447	0.0	490.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
448	0.0	490.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
449	855.0	1005.0	761.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
450	935.0	1005.0	727.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
451	1170.0	795.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
452	1170.0	725.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
453	1170.0	490.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
454	1170.0	490.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
455	0.0	65.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
456	0.0	303.3	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
457	0.0	396.7	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
458	0.0	0.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
459	0.0	0.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
460	87.5	490.0	664.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
461	175.0	490.0	698.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
462	262.5	490.0	732.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
463	350.0	490.0	766.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
464	437.5	490.0	799.9	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
465	1170.0	392.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
466	1170.0	294.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
467	1170.0	196.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
468	1170.0	98.0	630.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
469	1170.0	0.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
470	1170.0	0.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
471	772.5	490.0	795.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
472	852.0	490.0	762.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
473	931.5	490.0	729.2	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
474	1011.0	490.0	696.1	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
475	1090.5	490.0	663.1	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
476	1241.1	509.5	645.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
477	1425.0	560.0	597.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
478	1425.0	560.0	510.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
479	1425.0	560.0	422.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
480	90.0	0.0	665.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
481	342.5	0.0	763.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
482	555.0	0.0	845.6	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
483	605.0	0.0	776.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
484	605.0	0.0	688.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
485	605.0	0.0	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
486	605.0	0.0	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
487	605.0	0.0	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
488	828.3	0.0	772.1	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
489	891.7	0.0	745.8	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
490	1102.5	0.0	658.1	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
491	1253.3	0.0	648.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
492	1336.7	0.0	666.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
493	1420.0	0.0	597.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
494	1420.0	0.0	510.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

495	1420.0	0.0	422.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
496	1645.0	55.0	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
497	1645.0	282.5	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
498	1645.0	375.0	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
499	1645.0	467.5	620.0	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
500	1645.0	0.0	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
501	1645.0	0.0	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
502	1645.0	560.0	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
503	1645.0	560.0	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
504	1585.0	0.0	637.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
505	1571.7	560.0	641.7	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
506	1498.3	560.0	663.3	Piano 2	M2	np	np	np	np	np	np	0.00	0.00	0.00	0.00
507	120.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
508	120.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
509	120.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
510	450.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
511	450.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
512	450.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
513	200.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
514	200.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
515	200.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
516	530.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
517	530.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
518	530.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
519	60.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
520	60.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
521	60.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
522	406.7	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
523	390.2	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
524	377.4	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
525	336.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
526	312.8	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
527	291.8	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
528	273.7	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
529	253.2	1385.0	170.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
530	228.1	1385.0	260.6	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
531	227.1	1385.0	199.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

532	0.0	1295.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
533	0.0	1295.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
534	0.0	1295.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
535	0.0	1075.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
536	0.0	1075.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
537	0.0	1075.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
538	665.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
539	665.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
540	665.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
541	995.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
542	995.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
543	995.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
544	745.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
545	745.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
546	745.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
547	1075.0	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
548	1075.0	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
549	1075.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
550	950.0	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
551	934.4	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
552	922.1	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
553	880.4	1385.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
554	857.6	1385.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
555	836.7	1385.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
556	819.0	1385.0	251.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
557	798.3	1385.0	170.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
558	774.2	1385.0	260.6	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
559	772.5	1385.0	199.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
560	605.0	1245.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
561	605.0	1245.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
562	605.0	1245.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
563	605.0	1115.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
564	605.0	1115.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
565	605.0	1115.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
566	605.0	1315.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
567	605.0	1315.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
568	605.0	1315.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

569	605.0	1060.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
570	605.0	1060.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
571	605.0	1060.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
572	1170.0	1195.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
573	1170.0	1195.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
574	1170.0	1195.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
575	1170.0	1125.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
576	1170.0	1125.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
577	1170.0	1125.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
578	1170.0	1290.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
579	1170.0	1290.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
580	1170.0	1297.5	293.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
581	1170.0	1290.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
582	1170.0	1239.2	293.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
583	1170.0	1065.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
584	1170.0	1065.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
585	1170.0	1065.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
586	-100.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
587	-100.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
588	-100.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
589	-30.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
590	-30.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
591	-30.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
592	-155.0	925.0	226.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
593	-155.0	925.0	150.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
594	-155.0	925.0	75.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
595	-155.0	850.0	90.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
596	-155.0	850.0	180.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
597	-155.0	670.0	97.6	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
598	-155.0	760.0	93.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
599	-155.0	760.0	186.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
600	-155.0	759.9	138.9	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
601	-155.0	805.0	183.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
602	-155.0	580.0	78.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
603	-155.0	715.0	172.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
604	-155.0	715.0	136.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
605	-155.0	805.0	198.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

606	-155.0	805.0	137.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
607	160.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
608	160.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
609	160.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
610	260.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
611	260.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
612	260.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
613	80.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
614	81.7	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
615	83.6	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
616	518.8	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
617	518.8	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
618	518.8	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
619	432.5	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
620	346.3	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
621	432.5	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
622	432.5	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
623	346.3	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
624	346.3	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
625	0.0	705.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
626	0.0	705.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
627	0.0	705.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
628	0.0	620.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
629	0.0	620.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
630	0.0	620.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
631	0.0	805.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
632	0.0	905.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
633	0.0	905.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
634	0.0	805.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
635	0.0	927.5	293.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
636	0.0	905.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
637	0.0	805.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
638	0.0	860.8	293.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
639	0.0	555.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
640	0.0	557.5	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
641	0.0	560.4	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
642	985.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
643	985.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
644	985.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
645	1085.0	1005.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
646	1085.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
647	1085.0	1005.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
648	890.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
649	795.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
650	700.0	1005.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
651	781.7	1005.0	279.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

		0													
652	788.3	1005.0	223.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
653	695.0	1005.0	223.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
654	690.0	1005.0	279.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
655	647.5	1005.0	265.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
656	700.0	1005.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
657	795.0	1005.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
658	890.0	1005.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
659	909.5	1005.0	253.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
660	844.7	1005.0	273.0	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
661	841.0	1005.0	221.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
662	649.2	1005.0	218.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
663	1250.1	997.4	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
664	1250.1	997.4	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
665	1250.1	997.4	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
666	1597.0	964.5	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
667	1597.0	964.5	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
668	1597.0	964.5	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
669	1170.0	925.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
670	1170.0	925.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
671	1170.0	925.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
672	1170.0	660.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
673	1170.0	660.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
674	1170.0	660.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
675	1170.0	840.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
676	1170.0	840.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
677	1170.0	840.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
678	1170.0	575.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
679	1170.0	575.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
680	1170.0	575.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
681	1170.0	961.7	307.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
682	1170.0	750.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
683	1170.0	750.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
684	1170.0	750.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
685	1645.0	730.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
686	1645.0	730.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
687	1645.0	730.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
688	1645.0	805.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

	0														
689	1645.0	805.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
690	1645.0	805.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
691	1645.0	645.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
692	1645.0	645.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
693	1645.0	645.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
694	1645.0	882.5	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
695	1645.0	882.5	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
696	1645.0	882.5	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
697	150.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
698	150.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
699	150.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
700	490.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
701	490.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
702	490.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
703	370.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
704	370.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
705	370.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
706	850.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
707	850.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
708	850.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
709	755.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
710	755.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
711	755.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
712	1075.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
713	1075.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
714	1075.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
715	75.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
716	75.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
717	75.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
718	430.0	490.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
719	430.0	490.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
720	430.0	490.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
721	0.0	440.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
722	0.0	440.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
723	0.0	440.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
724	0.0	210.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
725	0.0	210.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
726	0.0	210.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
727	0.0	355.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
728	0.0	355.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
729	0.0	355.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
730	0.0	110.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
731	0.0	110.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
732	0.0	110.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
733	0.0	282.5	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
734	0.0	282.5	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
735	0.0	282.5	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
736	0.0	55.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
737	0.0	55.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
738	0.0	55.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
739	1170.0	470.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
740	1170.0	470.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
741	1170.0	470.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
742	1170.0	205.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
743	1170.0	205.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
744	1170.0	205.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

	0														
745	1170.0	360.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
746	1170.0	360.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
747	1170.0	360.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
748	1170.0	120.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
749	1170.0	120.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
750	1170.0	120.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
751	1170.0	282.5	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
752	1170.0	282.5	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
753	1170.0	282.5	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
754	1170.0	60.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
755	1170.0	60.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
756	1170.0	60.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
757	1340.0	536.7	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
758	1255.0	513.3	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
759	1245.8	510.8	279.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
760	1250.4	512.1	223.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
761	1207.9	500.4	265.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
762	1255.0	513.3	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
763	1340.0	536.7	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
764	1365.9	543.8	253.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
765	1306.4	527.4	273.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
766	1298.9	525.4	221.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
767	1209.4	500.8	218.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
768	180.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
769	180.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
770	180.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
771	430.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
772	430.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
773	430.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
774	265.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
775	265.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
776	265.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
777	690.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
778	690.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
779	690.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
780	515.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
781	515.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
782	515.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
783	950.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
784	950.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
785	950.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
786	775.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
787	775.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
788	775.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
789	1035.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
790	1035.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
791	1035.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

792	90.0	0.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
793	90.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
794	90.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
795	347.5	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
796	346.3	0.0	274.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
797	347.0	0.0	219.6	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
798	305.4	0.0	265.2	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
799	347.5	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
800	395.8	0.0	272.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
801	390.9	0.0	219.9	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
802	305.1	0.0	283.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
803	305.8	0.0	217.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
804	602.5	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
805	604.3	0.0	277.9	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
806	603.3	0.0	223.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
807	559.2	0.0	237.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
808	602.5	0.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
809	654.8	0.0	273.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
810	649.4	0.0	221.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
811	559.5	0.0	283.4	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
812	558.9	0.0	218.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
813	862.5	0.0	83.7	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
814	862.5	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
815	862.5	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
816	1102.5	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
817	1102.5	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
818	1102.5	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
819	1245.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
820	1245.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
821	1245.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
822	1590.0	0.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
823	1590.0	0.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
824	1590.0	0.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
825	1645.0	240.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
826	1645.0	240.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
827	1645.0	240.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
828	1645.0	320.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
829	1645.0	320.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
830	1645.0	320.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
831	1645.0	160.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
832	1645.0	80.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
833	1645.0	80.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
834	1645.0	165.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
835	1645.0	80.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
836	1645.0	160.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
837	1645.0	45.0	307.1	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
838	1645.0	480.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
839	1645.0	400.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
840	1645.0	480.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

841	1645.0	480.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
842	1645.0	400.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
843	1645.0	400.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
844	1571.7	560.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
845	1498.3	560.0	83.8	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
846	1571.7	560.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
847	1571.7	560.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
848	1498.3	560.0	167.5	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
849	1498.3	560.0	251.3	Piano 1	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
850	125.0	1385.0	592.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
851	125.0	1385.0	506.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
852	125.0	1385.0	420.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
853	445.0	1385.0	709.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
854	445.0	1385.0	615.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
855	445.0	1385.0	522.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
856	445.0	1385.0	428.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
857	205.0	1385.0	428.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
858	205.0	1385.0	522.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
859	205.0	1385.0	616.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
860	525.0	1385.0	434.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
861	525.0	1385.0	534.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
862	525.0	1385.0	634.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
863	525.0	1385.0	734.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
864	89.3	1385.0	425.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
865	46.7	1385.0	429.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
866	85.4	1385.0	509.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
867	47.2	1385.0	535.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
868	91.0	1385.0	585.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
869	365.0	1385.0	522.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
870	285.0	1385.0	522.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
871	265.0	1385.0	615.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
872	325.0	1385.0	615.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
873	385.0	1385.0	615.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
874	275.0	1385.0	569.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
875	285.0	1385.0	428.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
876	365.0	1385.0	428.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
877	398.3	1385.0	698.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

878	321.7	1385.0	569.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
879	559.0	1385.0	428.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
880	564.0	1385.0	522.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
881	564.8	1385.0	616.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
882	565.5	1385.0	703.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
883	565.2	1385.0	771.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
884	0.0	1155.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
885	0.0	1155.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
886	0.0	1235.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
887	0.0	1235.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
888	0.0	1079.2	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
889	0.0	1079.9	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
890	0.0	1307.5	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
891	0.0	1309.6	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
892	675.0	1385.0	752.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
893	675.0	1385.0	668.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
894	675.0	1385.0	585.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
895	675.0	1385.0	502.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
896	675.0	1385.0	418.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
897	985.0	1385.0	614.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
898	985.0	1385.0	521.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
899	985.0	1385.0	428.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
900	755.0	1385.0	428.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
901	755.0	1385.0	522.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
902	755.0	1385.0	615.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
903	755.0	1385.0	709.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
904	1065.0	1385.0	419.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
905	1065.0	1385.0	504.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
906	1065.0	1385.0	589.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
907	640.0	1385.0	592.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
908	640.0	1385.0	678.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
909	640.0	1385.0	764.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
910	644.1	1385.0	421.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
911	640.7	1385.0	507.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
912	908.3	1385.0	521.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
913	831.7	1385.0	521.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
914	831.7	1385.0	615.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

915	908.3	1385.0	614.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
916	831.7	1385.0	718.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
917	831.7	1385.0	666.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
918	793.3	1385.0	714.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
919	831.7	1385.0	428.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
920	908.3	1385.0	428.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
921	905.6	1385.0	680.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
922	881.9	1385.0	654.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
923	793.3	1385.0	731.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
924	793.3	1385.0	665.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
925	1117.5	1385.0	518.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
926	1117.5	1385.0	607.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
927	1117.6	1385.0	561.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
928	1091.3	1385.0	598.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
929	1110.6	1385.0	427.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
930	1143.8	1385.0	600.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
931	1143.8	1385.0	564.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
932	1091.3	1385.0	613.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
933	1091.3	1385.0	554.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
934	605.0	1066.7	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
935	605.0	1127.9	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
936	605.0	1190.6	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
937	605.0	1253.8	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
938	605.0	1318.0	423.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
939	605.0	1317.3	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
940	605.0	1311.2	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
941	605.0	1304.3	688.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
942	605.0	1297.2	776.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
943	605.0	1066.4	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
944	605.0	1127.5	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
945	605.0	1188.7	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
946	605.0	1250.7	511.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
947	605.0	1243.0	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
948	605.0	1228.0	688.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
949	605.0	1211.8	776.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
950	605.0	1062.4	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
951	605.0	1119.5	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

952	605.0	1177.9	600.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
953	605.0	1161.5	688.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
954	605.0	1132.4	776.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
955	605.0	1053.9	678.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
956	605.0	1100.0	687.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
957	605.0	1070.6	773.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
958	605.0	1043.2	742.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
959	1170.0	1225.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
960	1170.0	1225.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
961	1170.0	1150.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
962	1170.0	1150.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
963	1170.0	1305.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
964	1170.0	1305.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
965	1170.0	1053.3	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
966	1170.0	1101.7	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
967	1170.0	1069.4	597.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
968	1170.0	1061.4	564.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
969	1170.0	1105.7	548.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
970	1170.0	1107.5	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
971	1170.0	1057.2	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
972	1170.0	1035.9	597.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
973	1170.0	1034.1	564.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
974	1170.0	1108.4	591.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
975	100.0	1005.0	585.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
976	100.0	1005.0	501.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
977	100.0	1005.0	418.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
978	190.0	1005.0	427.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
979	190.0	1005.0	519.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
980	190.0	1005.0	611.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
981	50.0	1005.0	588.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
982	521.4	1005.0	421.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
983	437.7	1005.0	422.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
984	353.9	1005.0	424.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
985	270.1	1005.0	425.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
986	522.0	1005.0	751.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
987	522.0	1005.0	670.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
988	522.0	1005.0	589.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

989	521.9	1005.0	507.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
990	438.7	1005.0	504.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
991	355.6	1005.0	508.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
992	272.4	1005.0	513.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
993	439.0	1005.0	728.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
994	439.0	1005.0	657.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
995	438.9	1005.0	584.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
996	355.9	1005.0	584.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
997	272.9	1005.0	596.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
998	365.2	1005.0	713.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
999	357.1	1005.0	655.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1000	276.1	1005.0	662.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1001	304.8	1005.0	704.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1002	0.0	585.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1003	0.0	585.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1004	0.0	850.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1005	0.0	850.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1006	0.0	670.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1007	0.0	670.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1008	0.0	950.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1009	0.0	950.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1010	0.0	787.9	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1011	0.0	725.1	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1012	0.0	730.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1013	0.0	790.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1014	0.0	745.0	580.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1015	0.0	795.0	580.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1016	685.0	1005.0	732.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1017	685.0	1005.0	633.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1018	685.0	1005.0	533.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1019	685.0	1005.0	434.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1020	1015.0	1005.0	604.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1021	1015.0	1005.0	514.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1022	1015.0	1005.0	424.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1023	775.0	1005.0	426.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1024	775.0	1005.0	518.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1025	775.0	1005.0	610.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1026	775.0	1005.0	702.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1027	1105.0	1005.0	415.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1028	1105.0	1005.0	496.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1029	1105.0	1005.0	576.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1030	631.7	1005.0	791.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1031	854.6	1005.0	672.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1032	934.7	1005.0	638.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1033	847.9	1005.0	418.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1034	850.9	1005.0	500.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1035	853.9	1005.0	584.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1036	933.4	1005.0	555.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1037	911.3	1005.0	407.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1038	930.1	1005.0	473.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1039	970.4	1005.0	389.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1040	1137.5	1005.0	587.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1041	1137.5	1005.0	565.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1042	1170.0	955.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1043	1170.0	955.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1044	1170.0	655.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1045	1170.0	655.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1046	1170.0	865.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1047	1170.0	865.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1048	1170.0	565.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1049	1170.0	565.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1050	1170.0	699.6	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1051	1170.0	755.7	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1052	1170.0	815.6	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1053	1170.0	812.5	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1054	1170.0	760.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1055	1170.0	707.5	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1056	1170.0	803.8	580.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1057	1170.0	748.3	580.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1058	1170.0	703.6	580.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1059	0.0	130.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1060	0.0	130.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1061	0.0	210.0	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1062	0.0	210.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1063	0.0	90.6	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1064	0.0	46.6	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1065	0.0	43.3	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1066	0.0	86.7	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1067	0.0	54.2	580.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1068	0.0	90.3	580.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1069	0.0	420.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1070	0.0	350.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1071	0.0	280.0	531.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1072	0.0	291.7	580.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1073	0.0	281.3	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1074	0.0	351.7	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1075	0.0	423.9	433.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1076	0.0	365.6	580.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1077	0.0	425.2	580.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1078	525.0	490.0	734.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1079	525.0	490.0	634.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1080	525.0	490.0	534.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1081	525.0	490.0	434.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1082	79.2	490.0	444.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1083	83.3	490.0	554.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1084	158.0	490.0	456.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1085	166.4	490.0	577.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1086	229.8	490.0	464.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1087	245.0	490.0	597.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1088	472.1	490.0	444.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1089	416.8	490.0	453.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1090	360.8	490.0	462.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1091	300.3	490.0	470.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1092	315.6	490.0	610.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1093	478.0	490.0	563.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1094	432.2	490.0	593.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1095	384.7	490.0	622.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1096	489.9	490.0	647.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1097	467.4	490.0	701.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1098	1170.0	198.3	556.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1099	1170.0	200.5	482.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1100	1170.0	202.8	408.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1101	1170.0	285.4	408.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1102	1170.0	288.2	482.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1103	1170.0	291.1	556.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1104	1170.0	423.7	539.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1105	1170.0	357.4	548.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1106	1170.0	100.0	549.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1107	1170.0	125.1	404.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1108	1170.0	103.5	469.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1109	1170.0	61.7	390.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1110	1170.0	442.8	435.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1111	1170.0	342.1	410.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1112	1170.0	388.7	435.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1113	1170.0	329.3	480.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1114	1170.0	435.2	567.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1115	693.0	490.0	433.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1116	693.0	490.0	532.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1117	693.0	490.0	631.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1118	693.0	490.0	729.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1119	1087.5	490.0	553.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1120	1085.0	490.0	444.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1121	1007.8	490.0	578.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1122	1005.2	490.0	457.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1123	771.6	490.0	688.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1124	850.2	490.0	646.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1125	929.0	490.0	605.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1126	926.9	490.0	477.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1127	771.2	490.0	567.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1128	849.4	490.0	501.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1129	768.5	490.0	459.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1130	738.8	490.0	409.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1131	1396.0	552.0	592.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1132	1396.0	552.0	506.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

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1133	1396.0	552.0	420.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1134	1312.3	529.1	416.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1135	1312.3	529.1	497.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1136	1312.3	529.1	579.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1137	1241.1	509.5	514.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1138	1241.0	509.5	602.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1139	1241.1	509.5	560.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1140	1276.7	519.3	568.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1141	1241.1	509.5	424.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1142	1205.5	499.8	598.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1143	1205.5	499.8	563.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1144	1276.7	519.3	610.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1145	1276.7	519.3	554.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1146	180.0	0.0	608.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1147	180.0	0.0	517.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1148	180.0	0.0	426.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1149	425.0	0.0	703.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1150	425.0	0.0	611.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1151	425.0	0.0	519.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1152	425.0	0.0	427.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1153	260.0	0.0	434.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1154	260.0	0.0	533.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1155	260.0	0.0	632.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1156	505.0	0.0	433.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1157	505.0	0.0	531.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1158	505.0	0.0	629.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1159	505.0	0.0	727.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1160	90.0	0.0	524.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1161	90.0	0.0	603.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1162	90.0	0.0	429.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1163	365.8	0.0	429.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1164	305.2	0.0	431.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1165	369.3	0.0	523.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1166	313.1	0.0	528.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1167	371.2	0.0	612.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1168	320.7	0.0	638.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1169	379.6	0.0	692.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1170	555.0	0.0	521.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1171	555.0	0.0	708.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1172	555.0	0.0	768.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1173	548.2	0.0	427.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1174	555.0	0.0	614.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1175	685.0	0.0	732.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1176	685.0	0.0	633.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1177	685.0	0.0	533.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1178	685.0	0.0	434.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1179	955.0	0.0	623.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1180	955.0	0.0	527.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1181	955.0	0.0	431.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1182	765.0	0.0	427.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1183	765.0	0.0	520.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1184	765.0	0.0	613.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1185	765.0	0.0	705.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1186	1035.0	0.0	422.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1187	1035.0	0.0	510.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1188	1035.0	0.0	598.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1189	631.7	0.0	791.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1190	826.1	0.0	680.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1191	889.8	0.0	652.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1192	807.6	0.0	418.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1193	817.9	0.0	503.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1194	824.1	0.0	589.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1195	887.8	0.0	564.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1196	862.4	0.0	409.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1197	883.4	0.0	478.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1198	922.5	0.0	392.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1199	1102.5	0.0	521.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1200	1102.5	0.0	612.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1201	1102.6	0.0	565.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1202	1068.8	0.0	605.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1203	1102.5	0.0	428.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1204	1136.3	0.0	602.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1205	1136.3	0.0	566.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1206	1068.8	0.0	620.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1207	1068.8	0.0	560.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1208	1336.7	0.0	517.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1209	1253.3	0.0	524.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1210	1336.7	0.0	591.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1211	1253.3	0.0	594.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1212	1251.2	0.0	429.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1213	1335.3	0.0	426.1	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1214	1645.0	110.0	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1215	1645.0	110.0	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1216	1645.0	190.0	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1217	1645.0	190.0	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1218	1645.0	55.0	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1219	1645.0	55.0	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1220	1645.0	383.3	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1221	1645.0	391.7	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1222	1645.0	254.4	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1223	1645.0	318.9	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1224	1645.0	268.5	572.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1225	1645.0	475.8	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1226	1645.0	471.7	525.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1227	1645.0	252.2	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1228	1645.0	321.1	430.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1229	1645.0	320.8	572.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1230	1450.0	0.0	591.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1231	1450.0	0.0	505.7	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1232	1450.0	0.0	420.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1233	1525.0	0.0	414.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1234	1525.0	0.0	494.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1235	1525.0	0.0	574.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1236	1585.0	0.0	509.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1237	1585.0	0.0	594.9	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1238	1585.1	0.0	551.3	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1239	1555.0	0.0	584.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1240	1585.8	0.0	422.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1241	1615.0	0.0	589.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1242	1615.0	0.0	555.4	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1243	1555.0	0.0	599.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1244	1555.0	0.0	543.6	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1245	1498.3	560.0	515.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1246	1571.7	560.0	520.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1247	1498.3	560.0	589.2	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1248	1571.7	560.0	588.8	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1249	1571.7	560.0	427.5	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1250	1498.3	560.0	425.0	Piano 2	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1251	63.9	1306.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1252	67.9	1230.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1253	71.9	1154.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1254	76.0	1079.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1255	133.1	1308.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1256	142.3	1232.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1257	150.9	1156.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1258	159.4	1080.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1259	526.7	1313.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1260	447.9	1312.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1261	368.5	1311.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1262	288.8	1310.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1263	210.8	1309.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1264	220.7	1233.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1265	232.8	1157.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1266	245.3	1081.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1267	528.5	1243.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1268	452.2	1241.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1269	375.8	1238.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1270	299.3	1235.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1271	311.5	1159.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1272	328.0	1082.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1273	532.9	1174.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1274	461.0	1168.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1275	388.6	1162.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1276	404.9	1085.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1277	540.0	1112.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1278	480.0	1089.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1279	554.6	1059.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1280	676.5	1320.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1281	682.3	1255.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1282	687.2	1191.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1283	691.9	1127.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1284	696.7	1065.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1285	789.6	1067.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1286	884.4	1067.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1287	979.8	1066.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1288	1076.2	1065.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1289	757.0	1321.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1290	766.5	1257.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1291	775.3	1193.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1292	784.0	1130.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1293	878.0	1129.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1294	974.6	1129.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1295	1072.3	1129.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1296	842.6	1321.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1297	856.4	1257.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1298	869.8	1193.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1299	966.7	1193.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1300	1067.3	1199.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1301	933.6	1322.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1302	955.8	1261.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1303	1058.6	1268.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1304	1019.2	1327.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1305	1088.1	1334.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1306	1081.4	575.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1307	1081.9	661.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1308	1081.4	747.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1309	1080.8	834.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1310	1080.1	920.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1311	999.4	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1312	997.0	661.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1313	994.2	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1314	991.1	833.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1315	988.0	919.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1316	919.8	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1317	914.1	661.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1318	908.2	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1319	902.1	833.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1320	896.1	919.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1321	835.5	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1322	826.6	661.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1323	818.5	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1324	810.6	833.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1325	802.7	919.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1326	745.9	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1327	736.5	661.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1328	727.3	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1329	718.1	833.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1330	709.0	919.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1331	656.9	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1332	647.1	661.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1333	637.4	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1334	627.7	833.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1335	618.0	919.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1336	568.6	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1337	558.8	661.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1338	549.1	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1339	539.4	833.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1340	529.7	919.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1341	488.3	575.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1342	478.6	661.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1343	467.5	747.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1344	456.1	833.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1345	444.7	919.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1346	416.9	575.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1347	403.4	661.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1348	389.4	746.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1349	375.2	832.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1350	360.9	918.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1351	69.7	558.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1352	139.5	562.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1353	209.1	566.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1354	278.5	570.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1355	348.3	573.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1356	332.1	658.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1357	313.3	744.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1358	294.0	831.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1359	274.6	917.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1360	65.2	633.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1361	130.5	641.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1362	195.7	647.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1363	261.8	654.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1364	242.4	740.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1365	217.7	828.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1366	192.0	916.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1367	58.3	719.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1368	116.5	727.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1369	176.3	735.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1370	152.7	824.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1371	118.8	914.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1372	48.1	802.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1373	93.3	818.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1374	61.9	908.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1375	36.7	871.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1376	77.2	423.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1377	79.3	351.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1378	81.4	281.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1379	83.6	210.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1380	85.6	135.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1381	87.8	65.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1382	153.6	420.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1383	157.6	350.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1384	161.7	280.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1385	165.8	210.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1386	169.7	139.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1387	173.9	69.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1388	229.0	420.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1389	234.6	350.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1390	240.3	280.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1391	246.1	210.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1392	251.7	139.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1393	257.5	69.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1394	303.8	420.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1395	311.0	350.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1396	318.1	280.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1397	325.3	210.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1398	332.5	140.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1399	339.6	70.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1400	374.8	420.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1401	383.5	350.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1402	392.8	280.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1403	402.2	210.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1404	411.7	140.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1405	421.1	70.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1406	441.0	420.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1407	453.1	350.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1408	465.6	280.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1409	478.2	210.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1410	490.9	140.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1411	503.5	70.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1412	512.3	421.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1413	528.2	351.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1414	543.3	281.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1415	558.3	210.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1416	573.2	140.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1417	588.2	70.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1418	1086. 3	453.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1419	1004. 2	446.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1420	923.0	441.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1421	842.3	437.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1422	758.6	432.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1423	674.9	427.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1424	593.2	423.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1425	607.8	355.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1426	623.9	284.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1427	640.2	213.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1428	656.5	142.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1429	672.9	71.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1430	1089. 5	402.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1431	1009. 2	393.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1432	929.1	384.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1433	849.2	376.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1434	768.8	368.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1435	688.9	360.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1436	704.0	290.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1437	721.5	218.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1438	739.5	146.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1439	757.5	73.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1440	1092.	340.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

	8														
1441	1015.5	328.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1442	938.3	318.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1443	861.0	308.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1444	783.7	298.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1445	800.4	225.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1446	820.6	151.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1447	841.5	75.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1448	1096.9	268.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1449	1024.0	256.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1450	951.1	245.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1451	877.6	233.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1452	897.1	157.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1453	922.3	79.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1454	1103.7	190.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1455	1037.7	177.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1456	970.7	165.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1457	995.1	84.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1458	1113.2	119.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1459	1061.4	92.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1460	1128.6	59.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1461	1423.8	910.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1462	1424.0	840.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1463	1424.3	770.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1464	1424.5	700.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1465	1424.8	630.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1466	1589.8	796.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1467	1537.1	788.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1468	1481.5	779.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1469	1559.3	635.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1470	1547.0	711.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1471	1602.2	640.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1472	1350.0	527.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1473	1440.0	546.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1474	1470.9	547.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1475	1254.9	593.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1476	1339.8	611.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1477	1254.8	674.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1478	1339.7	687.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1479	1254.5	756.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1480	1339.3	763.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1481	1253.2	917.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1482	1254.2	837.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1483	1338.	838.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

	9														
1484	1338. 3	914.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1485	1591. 9	878.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1486	1479. 4	848.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1487	1530. 7	875.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1488	1471. 2	910.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1489	1492. 0	633.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1490	1486. 1	706.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1491	1596. 1	719.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1492	1290. 0	514.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1493	1469. 8	551.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1494	1248. 5	63.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1495	1328. 6	66.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1496	1409. 3	69.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1497	1490. 1	73.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1498	1571. 0	76.5	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1499	1249. 1	133.6	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1500	1328. 3	140.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1501	1407. 8	145.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1502	1487. 3	150.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1503	1566. 9	155.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1504	1249. 0	211.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1505	1328. 0	217.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1506	1407. 0	222.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1507	1486. 1	228.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1508	1565. 2	233.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1509	1563. 4	312.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1510	1559. 2	390.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1511	1554. 7	468.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1512	1248. 1	288.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1513	1326. 1	294.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1514	1404. 0	299.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1515	1482. 5	305.4	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1516	1477. 0	382.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1517	1466. 6	457.2	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1518	1245. 5	359.8	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1519	1320. 5	366.3	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1520	1396.	373.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

	3														
1521	1384.7	446.7	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1522	1239.7	415.1	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1523	1304.7	434.9	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00
1524	1224.9	463.0	0.0	Fond.	-	np	np	np	np	np	np	0.00	0.00	0.00	0.00

Tabella dei Nodi Master:

Nodo	Tipo Nodo	Coordinate [cm]		
		x	y	z
M1	Impalcato Rigido	714.15	668.54	333.24
M2	Impalcato Rigido	709.48	662.96	719.41

### 3.7.3 Caratteristiche delle aste.

La tabella seguente riporta tutte le caratteristiche relative alle aste della struttura ed in modo particolare la colonna:

Asta : numerazione dell'asta  
Fili : fili fissi ai quali appartiene l'asta  
NI : nodo iniziale dell'asta  
NF : nodo finale dell'asta  
Tipo : funzione dell'asta  
Sez : sezione trasversale associata all'asta  
L : lunghezza teorica (nodo-nodo) dell'asta  
Imp. : impalcato di appartenenza dell'asta  
KwN : modulo di Winkler normale;  
KwT : modulo di Winkler tangenziale;

Asta	Fili	NI	NF	Tipo	Sez	L [cm]	Imp.	Kwn [daN/c m²]	Kwt [daN/c m²]	Vincoli interni											
										Estremo In.						Estremo Fin.					
										SpoX	SpoY	SpoZ	RotX	RotY	RotZ	SpoX	SpoY	SpoZ	RotX	RotY	RotZ
1	1, 2	1	253	Trave Fond.	2	60.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2	1, 2	253	53	Trave Fond.	2	60.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3	1, 2	53	57	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4	1, 2	57	254	Trave Fond.	2	83.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5	1, 2	254	255	Trave Fond.	2	83.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
6	1, 2	255	56	Trave Fond.	2	83.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
7	1, 2	56	59	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
8	1, 2	59	2	Trave Fond.	2	75.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9	1, 5	1	61	Trave Fond.	2	90.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10	1, 5	61	264	Trave Fond.	2	73.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11	1, 5	264	263	Trave Fond.	2	73.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12	1, 5	263	63	Trave Fond.	2	73.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
13	1, 5	63	5	Trave Fond.	2	70.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
14	2, 3	2	65	Trave Fond.	2	60.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
15	2, 3	65	69	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
16	2, 3	69	265	Trave Fond.	2	83.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
17	2, 3	265	266	Trave Fond.	2	83.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
18	2, 3	266	68	Trave Fond.	2	83.33	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
19	2, 3	68	71	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	2, 3	71	3	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21	2, 6	2	256	Trave Fond.	2	70.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	2, 6	256	73	Trave Fond.	2	70.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
23	2, 6	73	257	Trave Fond.	2	65.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	2, 6	257	75	Trave Fond.	2	65.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	2, 6	75	258	Trave Fond.	2	55.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
26	2, 6	258	6	Trave Fond.	2	55.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
27	3, 7	3	267	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
28	3, 7	267	77	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
29	3, 7	77	79	Trave Fond.	2	70.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30	3, 7	79	268	Trave Fond.	2	60.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
31	3, 7	268	7	Trave Fond.	2	60.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
32	4, 5	4	81	Trave Fond.	2	55.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
33	4, 5	81	83	Trave Fond.	2	70.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
34	4, 5	83	5	Trave Fond.	2	30.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
35	9, 4	9	350	Trave Fond.	2	90.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

36	9, 4	350	349	Trave Fond.	2	90.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
37	9, 4	349	348	Trave Fond.	2	90.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
38	9, 4	348	87	Trave Fond.	2	90.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
39	9, 4	87	85	Trave Fond.	2	75.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
40	9, 4	85	4	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
41	5, 6	5	262	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
42	5, 6	262	89	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
43	5, 6	89	91	Trave Fond.	2	100.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
44	5, 6	91	261	Trave Fond.	2	86.25	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
45	5, 6	261	260	Trave Fond.	2	86.25	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
46	5, 6	260	259	Trave Fond.	2	86.25	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
47	5, 6	259	6	Trave Fond.	2	86.25	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
48	5, 10	5	283	Trave Fond.	2	100.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
49	5, 10	283	282	Trave Fond.	2	100.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
50	5, 10	282	93	Trave Fond.	2	100.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
51	5, 10	93	95	Trave Fond.	2	85.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
52	5, 10	95	281	Trave Fond.	2	65.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
53	5, 10	281	10	Trave Fond.	2	65.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
54	6, 7	6	271	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
55	6, 7	271	270	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
56	6, 7	270	269	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
57	6, 7	269	97	Trave Fond.	2	95.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
58	6, 7	97	99	Trave Fond.	2	100.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
59	6, 7	99	7	Trave Fond.	2	85.00	Fond.	5.00	2.50	1.00	1.00	1.00							

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

131	13	14	311	163	Trave Fond.	2	86.25	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
132	13	14	163	14	Trave Fond.	2	55.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
133	15	14	15	307	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
134	15	14	307	308	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
135	15	14	308	167	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
136	15	14	167	165	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
137	15	14	165	309	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
138	15	14	309	310	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
139	15	14	310	14	Trave Fond.	2	80.00	Fond.	5.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
140	1	2	17	314	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
141	1	2	314	52	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
142	1	2	52	169	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
143	1	2	169	54	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
144	1	2	54	173	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
145	1	2	173	315	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
146	1	2	315	316	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
147	1	2	316	172	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
148	1	2	172	55	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
149	1	2	55	175	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
150	1	2	175	58	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
151	1	2	58	18	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
152	1	5	17	60	Cordolo	3	90.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
153	1	5	60	179	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
154	1	5	179	177	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
155	1	5	177	62	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
156	1	5	62	21	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
157	2	3	18	64	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
158	2	3	64	181	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
159	2	3	181	66	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
160	2	3	66	185	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
161	2	3	185	326	Cordolo	3	76.67	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
162	2	3	326	327	Cordolo	3	76.67	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
163	2	3	327	184	Cordolo	3	76.67	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
164	2	3	184	67	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
165	2	3	67	187	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
166	2	3	187	70	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
167	2	3	70	19	Cordolo	3	95.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
168	2	6	18	331	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
169	2	6	331	72	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
170	2	6	72	332	Cordolo	3	65.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
171	2	6	332	74	Cordolo	3	65.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
172	2	6	74	333	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
173	2	6	333	22	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
174	3	7	19	337	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
175	3	7	337	189	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
176	3	7	189	76	Cordolo	3	30.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
177	3	7	76	191	Cordolo	3	45.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
178	3	7	191	78	Cordolo	3	25.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
179	3	7	78	338	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
180	3	7	338	23	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
181	4	5	20	80	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
182	4	5	80	82	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
183	4	5	82	21	Cordolo	3	30.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
184	4	9	20	84	Cordolo	3	86.69	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
185	4	9	84	86	Cordolo	3	81.27	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
186	4	9	86	345	Cordolo	3	97.53	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
187	4	9	345	346	Cordolo	3	97.53	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
188	4	9	346	347	Cordolo	3	97.53	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
189	4	9	347	25	Cordolo	3	97.53	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
190	5	6	21	193	Cordolo	3	100.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
191	5	6	193	88	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
192	5	6	88	195	Cordolo	3	30.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
193	5	6	195	90	Cordolo	3	70.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
194	5	6	90	352	Cordolo	3	86.25	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
195	5	6	352	353	Cordolo	3	86.25	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
196	5	6	353	354	Cordolo	3	86.25	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
197	5	6	354	22	Cordolo	3	86.25	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
198	5	10	21	203	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
199	5	10	203	200	Cordolo	3	100.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
200	5	10	200	355	Cordolo	3	72.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
201	5	10	355	92	Cordolo	3	72.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
202	5	10	92	201	Cordolo	3	35.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
203	5	10	201	94	Cordolo	3	50.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
204	5	10	94	197	Cordolo	3	35.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
205	5	10	197	26	Cordolo	3	95.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
206	6	7	22	205	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
207	6	7	205	209	Cordolo	3</													

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

226	7, 11	367	107	Cordolo	3	90.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
227	7, 11	107	216	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
228	7, 11	216	110	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
229	7, 11	110	219	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
230	7, 11	219	27	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
231	15, 8	31	371	Cordolo	3	85.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
232	15, 8	371	112	Cordolo	3	85.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
233	15, 8	112	114	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
234	15, 8	114	372	Cordolo	3	77.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
235	15, 8	372	24	Cordolo	3	77.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
236	10, 11	26	376	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
237	10, 11	376	116	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
238	10, 11	116	377	Cordolo	3	73.33	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
239	10, 11	377	378	Cordolo	3	73.33	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
240	10, 11	378	118	Cordolo	3	73.33	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
241	10, 11	118	379	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
242	10, 11	379	119	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
243	10, 11	119	224	Cordolo	3	35.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
244	10, 11	224	32	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
245	10, 11	32	226	Cordolo	3	88.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
246	10, 11	226	122	Cordolo	3	62.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
247	10, 11	122	123	Cordolo	3	95.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
248	10, 11	123	380	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
249	10, 11	380	381	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
250	10, 11	381	126	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
251	10, 11	126	27	Cordolo	3	95.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
252	10, 12	26	128	Cordolo	3	50.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
253	10, 12	128	130	Cordolo	3	85.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
254	10, 12	130	382	Cordolo	3	72.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
255	10, 12	382	131	Cordolo	3	72.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
256	10, 12	131	221	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
257	10, 12	221	134	Cordolo	3	20.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
258	10, 12	134	383	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
259	10, 12	383	28	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
260	11, 13	27	136	Cordolo	3	20.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
261	11, 13	136	387	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
262	11, 13	387	138	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
263	11, 13	138	388	Cordolo	3	77.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
264	11, 13	388	139	Cordolo	3	77.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
265	11, 13	139	142	Cordolo	3	85.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
266	11, 13	142	389	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
267	11, 13	389	29	Cordolo	3	60.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
268	11, 19	27	393	Cordolo	3	73.77	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
269	11, 19	393	230	Cordolo	3	73.77	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
270	11, 19	230	228	Cordolo	3	86.79	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
271	11, 19	228	35	Cordolo	3	30.11	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
272	12, 13	28	397	Cordolo	3	90.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
273	12, 13	397	144	Cordolo	3	90.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
274	12, 13	144	235	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
275	12, 13	235	146	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
276	12, 13	146	398	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
277	12, 13	398	234	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
278	12, 13	234	147	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
279	12, 13	147	237	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
280	12, 13	237	150	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
281	12, 13	150	33	Cordolo	3	90.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
282	12, 13	33	239	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
283	12, 13	239	151	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
284	12, 13	151	243	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
285	12, 13	243	154	Cordolo	3	10.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
286	12, 13	154	399	Cordolo	3	87.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
287	12, 13	399	155	Cordolo	3	87.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
288	12, 13	155	242	Cordolo	3	5.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
289	12, 13	242	158	Cordolo	3	80.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
290	12, 13	158	400	Cordolo	3	67.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
291	12, 13	400	29	Cordolo	3	67.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
292	13, 14	29	160	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
293	13, 14	160	401	Cordolo	3	87.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
294	13, 14	401	34	Cordolo	3	87.50	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
295	13, 14	34	250	Cordolo	3	30.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
296	13, 14	250	252	Cordolo	3	75.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
297	13, 14	252	162	Cordolo	3	65.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
298	13, 14	162	30	Cordolo	3	55.00	Piano 1	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
299</																			



## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

321	5, 1	178	421	Cordolo	4	75.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
322	5, 1	421	36	Cordolo	4	75.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
323	2, 3	37	180	Cordolo	7	75.81	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
324	2, 3	180	182	Cordolo	7	86.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
325	2, 3	182	424	Cordolo	7	83.03	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
326	2, 3	424	425	Cordolo	7	83.03	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
327	2, 3	425	183	Cordolo	7	83.03	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
328	2, 3	183	186	Cordolo	7	86.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
329	2, 3	186	426	Cordolo	7	56.86	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
330	2, 3	426	38	Cordolo	7	56.86	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
331	2, 6	37	429	Cordolo	4	95.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
332	2, 6	429	430	Cordolo	4	95.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
333	2, 6	430	431	Cordolo	4	95.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
334	2, 6	431	40	Cordolo	4	95.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
335	3, 7	38	437	Cordolo	4	80.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
336	3, 7	437	188	Cordolo	4	80.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
337	3, 7	188	190	Cordolo	4	75.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
338	3, 7	190	438	Cordolo	4	72.50	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
339	3, 7	438	41	Cordolo	4	72.50	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
340	5, 6	39	441	Cordolo	8	53.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
341	5, 6	441	192	Cordolo	8	53.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
342	5, 6	192	194	Cordolo	8	96.55	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
343	5, 6	194	442	Cordolo	8	89.04	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
344	5, 6	442	443	Cordolo	8	89.04	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
345	5, 6	443	444	Cordolo	8	89.04	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
346	5, 6	444	445	Cordolo	8	89.04	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
347	5, 6	445	40	Cordolo	8	89.04	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
348	10, 5	42	196	Cordolo	4	95.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
349	10, 5	196	198	Cordolo	4	85.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
350	10, 5	198	446	Cordolo	4	90.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
351	10, 5	446	199	Cordolo	4	90.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
352	10, 5	199	202	Cordolo	4	100.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
353	10, 5	202	39	Cordolo	4	55.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
354	6, 7	40	204	Cordolo	8	86.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
355	6, 7	204	206	Cordolo	8	97.47	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
356	6, 7	206	449	Cordolo	8	86.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
357	6, 7	449	450	Cordolo	8	86.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
358	6, 7	450	207	Cordolo	8	86.64	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
359	6, 7	207	210	Cordolo	8	97.47	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
360	6, 7	210	41	Cordolo	8	70.40	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
361	6, 16	40	48	Cordolo	6	515.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
362	7, 11	41	212	Cordolo	4	50.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
363	7, 11	212	214	Cordolo	4	90.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
364	7, 11	214	451	Cordolo	4	70.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
365	7, 11	451	452	Cordolo	4	70.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
366	7, 11	452	215	Cordolo	4	70.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
367	7, 11	215	218	Cordolo	4	90.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
368	7, 11	218	43	Cordolo	4	75.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
369	12, 10	44	455	Cordolo	4	65.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
370	12, 10	455	220	Cordolo	4	65.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
371	12, 10	220	222	Cordolo	4	80.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
372	12, 10	222	456	Cordolo	4	93.33	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
373	12, 10	456	457	Cordolo	4	93.33	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
374	12, 10	457	42	Cordolo	4	93.33	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
375	10, 16	42	460	Cordolo	5	93.87	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
376	10, 16	460	461	Cordolo	5	93.87	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
377	10, 16	461	462	Cordolo	5	93.87	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
378	10, 16	462	463	Cordolo	5	93.87	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
379	10, 16	463	464	Cordolo	5	93.87	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
380	10, 16	464	223	Cordolo	5	93.87	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
381	10, 16	223	48	Cordolo	5	85.82	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
382	11, 13	43	465	Cordolo	4	98.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
383	11, 13	465	466	Cordolo	4	98.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
384	11, 13	466	467	Cordolo	4	98.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
385	11, 13	467	468	Cordolo	4	98.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
386	11, 13	468	45	Cordolo	4	98.00	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
387	16, 11	48	225	Cordolo	5	95.31	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
388	16, 11	225	471	Cordolo	5	86.10	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
389	16, 11	471	472	Cordolo	5	86.10	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
390	16, 11	472	473	Cordolo	5	86.10	Piano 2	-	-	1.00	1.00	1.00	1.00	1.00	1.00	1				

#### 3.7.4 Caratteristiche delle Pareti in Muratura.

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Parete : numero della parete;  
 Imp. : numero dell'impalcato;  
 Fili : numero dei fili fissi iniziale e finale;  
 Maschio : numero identificativo dei maschi murari di ogni parete;  
 $x_g$  : coordinata x del baricentro del maschio;  
 $y_g$  : coordinata y del baricentro del maschio;  
 L : lunghezza della parete;  
 H : altezza della parete;  
 t : spessore della parete;  
 $\alpha$  : angolo di rotazione della parete;

Parete	Imp.	Fili	Maschio	$x_g$ [cm]	$y_g$ [cm]	L [cm]	H [cm]	t [cm]	$\alpha$ [°]
1	Piano 1	1-2	1	82.5	1362.5	75.00	310.00	45.00	0.00
2	Piano 1	1-2	2	325.0	1362.5	250.00	310.00	45.00	0.00
3	Piano 1	1-2	3	560.0	1362.5	60.00	310.00	45.00	0.00
4	Piano 1	1-5	1	22.5	1317.5	45.00	310.00	45.00	270.00
5	Piano 1	1-5	2	22.5	1040.0	70.00	310.00	45.00	270.00
6	Piano 1	2-3	1	642.5	1362.5	45.00	310.00	45.00	0.00
7	Piano 1	2-3	2	870.0	1362.5	250.00	310.00	45.00	0.00
8	Piano 1	2-3	3	1122.5	1362.5	95.00	310.00	45.00	0.00
9	Piano 1	2-6	1	605.0	1292.5	95.00	310.00	30.00	270.00
10	Piano 1	2-6	2	605.0	1060.0	110.00	310.00	30.00	270.00
11	Piano 1	3-7	1	1192.5	1267.5	145.00	310.00	45.00	270.00
12	Piano 1	3-7	2	1192.5	1065.0	120.00	310.00	45.00	270.00
13	Piano 1	4-5	1	-115.0	992.5	30.00	310.00	25.00	0.00
14	Piano 1	4-5	2	-15.0	992.5	30.00	310.00	25.00	0.00
15	Piano 1	4-9	1	-142.5	952.5	55.00	292.89	25.00	270.00
16	Piano 1	4-9	2	-142.5	670.0	360.00	172.01	25.00	270.00
17	Piano 1	5-6	1	102.5	987.5	115.00	310.00	35.00	0.00
18	Piano 1	5-6	2	425.0	987.5	330.00	310.00	35.00	0.00
19	Piano 1	5-10	1	22.5	837.5	265.00	310.00	45.00	270.00
20	Piano 1	5-10	2	22.5	572.5	95.00	310.00	45.00	270.00
21	Piano 1	6-7	1	802.5	987.5	365.00	310.00	35.00	0.00
22	Piano 1	6-7	2	1127.5	987.5	85.00	310.00	35.00	0.00
23	Piano 1	7-8	1	1230.0	943.3	30.00	310.00	30.00	0.00
24	Piano 1	7-8	2	1607.5	943.3	25.00	310.00	30.00	0.00
25	Piano 1	7-11	1	1192.5	947.5	45.00	310.00	45.00	270.00
26	Piano 1	7-11	2	1192.5	750.0	180.00	310.00	45.00	270.00
27	Piano 1	7-11	3	1192.5	550.0	50.00	310.00	45.00	270.00
28	Piano 1	15-8	1	1632.5	645.0	170.00	310.00	25.00	90.00
29	Piano 1	15-8	2	1632.5	867.5	125.00	310.00	25.00	90.00
30	Piano 1	10-11	1	97.5	507.5	105.00	310.00	35.00	0.00
31	Piano 1	10-11	2	430.0	507.5	120.00	310.00	35.00	0.00
32	Piano 1	10-11	3	802.5	507.5	95.00	310.00	35.00	0.00
33	Piano 1	10-11	4	1122.5	507.5	95.00	310.00	35.00	0.00
34	Piano 1	10-12	1	22.5	465.0	50.00	310.00	45.00	270.00
35	Piano 1	10-12	2	22.5	282.5	145.00	310.00	45.00	270.00
36	Piano 1	10-12	3	22.5	77.5	65.00	310.00	45.00	270.00
37	Piano 1	11-13	1	1192.5	282.5	155.00	310.00	45.00	270.00
38	Piano 1	11-13	2	1192.5	82.5	75.00	310.00	45.00	270.00
39	Piano 1	11-19	1	1321.2	545.2	212.31	310.00	30.00	0.00
40	Piano 1	12-13	1	112.5	22.5	135.00	310.00	45.00	0.00
41	Piano 1	12-13	2	347.5	22.5	165.00	310.00	45.00	0.00
42	Piano 1	12-13	3	602.5	22.5	175.00	310.00	45.00	0.00
43	Piano 1	12-13	4	862.5	22.5	175.00	310.00	45.00	0.00
44	Piano 1	12-13	5	1102.5	22.5	135.00	310.00	45.00	0.00
45	Piano 1	13-14	1	1230.0	15.0	30.00	310.00	30.00	0.00
46	Piano 1	13-14	2	1605.0	15.0	30.00	310.00	30.00	0.00
47	Piano 1	14-15	1	1632.5	135.0	210.00	310.00	25.00	90.00
48	Piano 1	14-15	2	1632.5	425.0	210.00	310.00	25.00	90.00
49	Piano 1	19-15	1	1522.5	545.0	195.00	310.00	30.00	0.00
1	Piano 2	1-2	1	85.0	1362.5	80.00	270.21	45.00	0.00
2	Piano 2	1-2	2	325.0	1362.5	240.00	367.04	45.00	0.00
3	Piano 2	1-2	3	557.5	1362.5	65.00	460.84	45.00	0.00
4	Piano 2	5-1	1	22.5	1080.0	150.00	270.00	45.00	90.00
5	Piano 2	5-1	2	22.5	1287.5	105.00	270.00	45.00	90.00
6	Piano 2	2-3	1	647.5	1362.5	55.00	463.00	45.00	0.00
7	Piano 2	2-3	2	870.0	1362.5	230.00	374.00	45.00	0.00
8	Piano 2	2-3	3	1117.5	1362.5	105.00	275.00	45.00	0.00
9	Piano 2	2-6	1	605.0	1172.5	335.00	505.00	30.00	270.00

10	Piano 2	3-7	1	1192.5	1282.5	115.00	270.00	45.00	270.00
11	Piano 2	3-7	2	1192.5	1077.5	145.00	270.00	45.00	270.00
12	Piano 2	5-6	1	72.5	990.0	55.00	205.17	30.00	0.00
13	Piano 2	5-6	2	390.0	990.0	400.00	333.26	30.00	0.00
14	Piano 2	10-5	1	22.5	552.5	65.00	270.00	45.00	90.00
15	Piano 2	10-5	2	22.5	760.0	180.00	270.00	45.00	90.00
16	Piano 2	10-5	3	22.5	962.5	25.00	270.00	45.00	90.00
17	Piano 2	6-7	1	652.5	990.0	65.00	401.00	30.00	0.00
18	Piano 2	6-7	2	895.0	990.0	240.00	304.00	30.00	0.00
19	Piano 2	6-7	3	1137.5	990.0	65.00	207.00	30.00	0.00
20	Piano 2	7-11	1	1192.5	760.0	210.00	270.00	45.00	270.00
21	Piano 2	7-11	2	1192.5	542.5	45.00	270.00	45.00	270.00
22	Piano 2	12-10	1	22.5	87.5	85.00	270.00	45.00	90.00
23	Piano 2	12-10	2	22.5	350.0	280.00	270.00	45.00	90.00
24	Piano 2	10-16	1	285.0	505.0	480.00	365.90	30.00	0.00
25	Piano 2	11-13	1	1192.5	267.5	445.00	270.00	45.00	270.00
26	Piano 2	16-11	1	931.5	505.0	477.00	364.40	30.00	0.00
27	Piano 2	19-11	1	1412.2	547.7	30.00	346.51	25.00	180.00
28	Piano 2	19-11	2	1261.1	547.7	92.16	311.36	25.00	180.00
29	Piano 2	12-17	1	112.5	22.5	135.00	281.31	45.00	0.00
30	Piano 2	12-17	2	342.5	22.5	165.00	374.10	45.00	0.00
31	Piano 2	12-17	3	551.0	22.5	92.00	458.21	45.00	0.00
32	Piano 2	17-13	1	649.0	22.5	72.00	462.40	45.00	0.00
33	Piano 2	17-13	2	860.0	22.5	190.00	378.00	45.00	0.00
34	Piano 2	17-13	3	1102.5	22.5	135.00	281.00	45.00	0.00
35	Piano 2	13-18	1	1317.5	12.5	205.00	325.22	25.00	0.00
36	Piano 2	14-15	1	1632.5	67.5	85.00	285.00	25.00	90.00
37	Piano 2	14-15	2	1632.5	362.5	345.00	285.00	25.00	90.00
38	Piano 2	18-14	1	1435.0	12.5	30.00	345.41	25.00	0.00
39	Piano 2	18-14	2	1572.5	12.5	95.00	303.35	25.00	0.00
40	Piano 2	15-19	1	1522.5	547.5	195.00	319.46	25.00	180.00

### 3.7.5 Carichi distribuiti sugli elementi.

#### Carichi Locali Aste

Asta : numero dell'asta come da paragrafo "Caratteristiche delle aste";  
 Imp. : impalcato al quale appartiene l'asta;  
 Fili : fili fissi ai quali appartiene l'asta;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DLoc : direzione dei carichi secondo il sistema di riferimento locale dell'asta;  
 in : valore del carico distribuito relativo al nodo iniziale come da paragrafo "Caratteristiche delle aste";  
 fin : valore del carico distribuito relativo al nodo finale come da paragrafo "Caratteristiche delle aste".

Asta	Imp.	Fili	C.C.	DLoc X [daN/m]		DLoc Y [daN/m]		DLoc Z [daN/m]		Mom. Torcente [daNm/m]	
				in.	fin.	in.	fin.	in.	fin.	in.	fin.
77	Fond.	9, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	0.00	0.00	1250.00	1250.00
			Car. Perm. G2	0.00	0.00	0.00	0.00	0.00	0.00	312.50	312.50
			Car. Eserc.	0.00	0.00	0.00	0.00	0.00	0.00	1250.00	1250.00
181	Piano 1	4, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	0.00	0.00	-1250.00	-1250.00
			Car. Perm. G2	0.00	0.00	0.00	0.00	0.00	0.00	-312.50	-312.50
			Car. Eserc.	0.00	0.00	0.00	0.00	0.00	0.00	-1250.00	-1250.00
182	Piano 1	4, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	0.00	0.00	-1250.00	-1250.00
			Car. Perm. G2	0.00	0.00	0.00	0.00	0.00	0.00	-312.50	-312.50
			Car. Eserc.	0.00	0.00	0.00	0.00	0.00	0.00	-1250.00	-1250.00
183	Piano 1	4, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	0.00	0.00	-1250.00	-1250.00
			Car. Perm. G2	0.00	0.00	0.00	0.00	0.00	0.00	-312.50	-312.50
			Car. Eserc.	0.00	0.00	0.00	0.00	0.00	0.00	-1250.00	-1250.00

#### Carichi Globali Aste

Asta : numero dell'asta come da paragrafo "Caratteristiche delle aste";  
 Imp. : impalcato al quale appartiene l'asta;

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Fili : fili fissi ai quali appartiene l'asta;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DGlob : direzione dei carichi secondo il sistema di riferimento globale dell'asta;  
 in : valore del carico distribuito relativo al nodo iniziale come da paragrafo "Caratteristiche delle aste";  
 fin : valore del carico distribuito relativo al nodo finale come da paragrafo "Caratteristiche delle aste".

Asta	Imp.	Fili	C.C.	DGlob X [daN/m]		DGlob Y [daN/m]		DGlob Z [daN/m]	
				in.	fin.	in.	fin.	in.	fin.
1	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
2	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
3	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
4	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
5	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
6	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
7	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
8	Fond.	1, 2	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
9	Fond.	1, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
10	Fond.	1, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
11	Fond.	1, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
12	Fond.	1, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
13	Fond.	1, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
14	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
15	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
16	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
17	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
18	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
19	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
20	Fond.	2, 3	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
21	Fond.	2, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
22	Fond.	2, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
23	Fond.	2, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
24	Fond.	2, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
25	Fond.	2, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
26	Fond.	2, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
27	Fond.	3, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
28	Fond.	3, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
29	Fond.	3, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
30	Fond.	3, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
31	Fond.	3, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
32	Fond.	4, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
33	Fond.	4, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
34	Fond.	4, 5	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
35	Fond.	9, 4	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
36	Fond.	9, 4	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
37	Fond.	9, 4	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
38	Fond.	9, 4	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
39	Fond.	9, 4	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
40	Fond.	9, 4	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
41	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
42	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
43	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
44	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
45	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
46	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
47	Fond.	5, 6	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
48	Fond.	5, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
49	Fond.	5, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
50	Fond.	5, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
51	Fond.	5, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
52	Fond.	5, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
53	Fond.	5, 10	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
54	Fond.	6, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
55	Fond.	6, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
56	Fond.	6, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
57	Fond.	6, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
58	Fond.	6, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
59	Fond.	6, 7	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
60	Fond.	7, 8	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
61	Fond.	7, 8	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
62	Fond.	7, 8	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00
63	Fond.	7, 8	Car. Perm. G1	0.00	0.00	0.00	0.00	-540.00	-540.00

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]



## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]







## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]

[illegible]

## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

[illegible]

406	Piano 2	17, 13	Car. Perm. G1	0.00	0.00	0.00	0.00	-396.02	-396.02
			Car. Perm. G2	0.00	0.00	0.00	0.00	-257.00	-257.00
			Car. Eserc.	0.00	0.00	0.00	0.00	-385.50	-385.50
407	Piano 2	17, 13	Car. Perm. G1	0.00	0.00	0.00	0.00	-396.02	-396.02
			Car. Perm. G2	0.00	0.00	0.00	0.00	-257.00	-257.00
			Car. Eserc.	0.00	0.00	0.00	0.00	-385.50	-385.50
408	Piano 2	17, 13	Car. Perm. G1	0.00	0.00	0.00	0.00	-396.02	-396.02
			Car. Perm. G2	0.00	0.00	0.00	0.00	-257.00	-257.00
			Car. Eserc.	0.00	0.00	0.00	0.00	-385.50	-385.50
409	Piano 2	17, 13	Car. Perm. G1	0.00	0.00	0.00	0.00	-396.02	-396.02
			Car. Perm. G2	0.00	0.00	0.00	0.00	-257.00	-257.00
			Car. Eserc.	0.00	0.00	0.00	0.00	-385.50	-385.50
410	Piano 2	16, 17	Car. Perm. G1	0.00	0.00	0.00	0.00	-14.59	-14.59

### Carichi Locali distribuiti sulle Piastre

Piastra : numero della piastra come da paragrafo "Caratteristiche delle piastre";  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DLoc : direzione dei carichi secondo il sistema di riferimento locale della piastra;

Piastra	Imp.	Fili	C.C.	DLoc X [daN/m²]	DLoc Y [daN/m²]	DLoc Z [daN/m²]
1	Fond.	1, 2, 6, 5	Car. Permanenti G1	0.00	0.00	0.00
			Car. Permanenti G2	0.00	0.00	0.00
			Car. d'Esercizio	0.00	0.00	0.00
2	Fond.	2, 3, 7, 6	Car. Permanenti G1	0.00	0.00	0.00
			Car. Permanenti G2	0.00	0.00	0.00
			Car. d'Esercizio	0.00	0.00	0.00
3	Fond.	5, 6, 7, 11, 10	Car. Permanenti G1	0.00	0.00	0.00
			Car. Permanenti G2	0.00	0.00	0.00
			Car. d'Esercizio	0.00	0.00	0.00
4	Fond.	10, 11, 13, 12	Car. Permanenti G1	0.00	0.00	0.00
			Car. Permanenti G2	0.00	0.00	0.00
			Car. d'Esercizio	0.00	0.00	0.00
5	Fond.	7, 8, 15, 11	Car. Permanenti G1	0.00	0.00	0.00
			Car. Permanenti G2	0.00	0.00	0.00
			Car. d'Esercizio	0.00	0.00	0.00
6	Fond.	15, 14, 13, 11	Car. Permanenti G1	0.00	0.00	0.00
			Car. Permanenti G2	0.00	0.00	0.00
			Car. d'Esercizio	0.00	0.00	0.00

### Carichi Globali distribuiti sulle Piastre

Piastra : numero della piastra come da paragrafo "Caratteristiche delle piastre";  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DGlob : direzione dei carichi secondo il sistema di riferimento globale della piastra;

Piastra	Imp.	Fili	C.C.	DGlob X [daN/m²]	DGlob Y [daN/m²]	DGlob Z [daN/m²]
1	Fond.	1, 2, 6, 5	Car. Permanenti G1	0.00	0.00	-375.00
			Car. Permanenti G2	0.00	0.00	-200.00
			Car. d'Esercizio	0.00	0.00	-300.00
2	Fond.	2, 3, 7, 6	Car. Permanenti G1	0.00	0.00	-375.00
			Car. Permanenti G2	0.00	0.00	-200.00
			Car. d'Esercizio	0.00	0.00	-300.00
3	Fond.	5, 6, 7, 11, 10	Car. Permanenti G1	0.00	0.00	-375.00
			Car. Permanenti G2	0.00	0.00	-200.00
			Car. d'Esercizio	0.00	0.00	-300.00
4	Fond.	10, 11, 13, 12	Car. Permanenti G1	0.00	0.00	-375.00
			Car. Permanenti G2	0.00	0.00	-200.00
			Car. d'Esercizio	0.00	0.00	-300.00
5	Fond.	7, 8, 15, 11	Car. Permanenti G1	0.00	0.00	-375.00
			Car. Permanenti G2	0.00	0.00	-200.00
			Car. d'Esercizio	0.00	0.00	-300.00
6	Fond.	15, 14, 13, 11	Car. Permanenti G1	0.00	0.00	-375.00



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			Car. Permanenti G2	0.00	0.00	-200.00
			Car. d'Esercizio	0.00	0.00	-300.00

## Carichi Locali lineari in testa alle Pareti

Parete : numero della piastra come da paragrafo "Caratteristiche delle pareti";  
 Imp. : impalcato al quale appartiene la parete;  
 Fili : fili fissi ai quali appartiene la parete;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DLoc : direzione dei carichi secondo il sistema di riferimento locale della parete;

Parete	Imp.	Fili	C.C.	DLoc X [daN/m]		DLoc Y [daN/m]		DLoc Z [daN/m]	
				in.	fin.	in.	fin.	in.	fin.
1	Piano 1	1-2	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
2	Piano 1	1-2	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
3	Piano 1	1-2	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
4	Piano 1	1-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
5	Piano 1	1-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
6	Piano 1	2-3	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
7	Piano 1	2-3	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
8	Piano 1	2-3	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
9	Piano 1	2-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
10	Piano 1	2-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
11	Piano 1	3-7	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
12	Piano 1	3-7	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
13	Piano 1	4-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
14	Piano 1	4-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
15	Piano 1	4-9	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
16	Piano 1	4-9	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
17	Piano 1	5-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
18	Piano 1	5-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
19	Piano 1	5-10	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00







# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
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## Carichi Locali distribuiti sulle Pareti

Parete : numero della piastra come da paragrafo "Caratteristiche delle pareti";  
 Imp. : impalcato al quale appartiene la parete;  
 Fili : fili fissi ai quali appartiene la parete;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DLoc : direzione dei carichi secondo il sistema di riferimento locale della parete;

Parete	Imp.	Fili	C.C.	DLoc X [daN/m²]	DLoc Y [daN/m²]	DLoc Z [daN/m²]
1	Piano 1	1-2	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
2	Piano 1	1-2	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
3	Piano 1	1-2	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
4	Piano 1	1-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
5	Piano 1	1-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
6	Piano 1	2-3	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
7	Piano 1	2-3	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
8	Piano 1	2-3	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
9	Piano 1	2-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
10	Piano 1	2-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
11	Piano 1	3-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
12	Piano 1	3-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
13	Piano 1	4-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
14	Piano 1	4-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
15	Piano 1	4-9	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
16	Piano 1	4-9	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
17	Piano 1	5-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
18	Piano 1	5-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
19	Piano 1	5-10	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
20	Piano 1	5-10	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

21	Piano 1	6-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
22	Piano 1	6-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
23	Piano 1	7-8	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
24	Piano 1	7-8	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
25	Piano 1	7-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
26	Piano 1	7-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
27	Piano 1	7-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
28	Piano 1	15-8	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
29	Piano 1	15-8	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
30	Piano 1	10-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
31	Piano 1	10-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
32	Piano 1	10-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
33	Piano 1	10-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
34	Piano 1	10-12	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
35	Piano 1	10-12	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
36	Piano 1	10-12	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
37	Piano 1	11-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
38	Piano 1	11-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
39	Piano 1	11-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
40	Piano 1	11-19	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
41	Piano 1	12-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
42	Piano 1	12-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
43	Piano 1	12-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
44	Piano 1	12-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

45	Piano 1	12-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
46	Piano 1	13-14	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
47	Piano 1	13-14	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
48	Piano 1	14-15	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
49	Piano 1	14-15	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
50	Piano 1	19-15	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
51	Piano 2	1-2	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
52	Piano 2	1-2	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
53	Piano 2	1-2	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
54	Piano 2	5-1	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
55	Piano 2	5-1	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
56	Piano 2	2-3	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
57	Piano 2	2-3	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
58	Piano 2	2-3	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
59	Piano 2	2-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
60	Piano 2	3-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
61	Piano 2	3-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
62	Piano 2	5-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
63	Piano 2	5-6	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
64	Piano 2	10-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
65	Piano 2	10-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
66	Piano 2	10-5	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
67	Piano 2	6-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
68	Piano 2	6-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

69	Piano 2	6-7	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
70	Piano 2	7-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
71	Piano 2	7-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
72	Piano 2	7-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
73	Piano 2	12-10	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
74	Piano 2	12-10	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
75	Piano 2	10-16	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
76	Piano 2	11-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
77	Piano 2	16-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
78	Piano 2	19-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
79	Piano 2	19-11	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
80	Piano 2	12-17	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
81	Piano 2	12-17	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
82	Piano 2	12-17	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
83	Piano 2	17-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
84	Piano 2	17-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
85	Piano 2	17-13	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
86	Piano 2	13-18	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
87	Piano 2	14-15	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
88	Piano 2	14-15	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
89	Piano 2	18-14	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
90	Piano 2	18-14	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
91	Piano 2	15-19	Car. Perm. G1	0.00	0.00	0.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00

Carichi Globali lineari in testa alle Pareti



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Parete : numero della piastra come da paragrafo "Caratteristiche delle pareti";  
 Imp. : impalcato al quale appartiene la parete;  
 Fili : fili fissi ai quali appartiene la parete;  
 C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
 DGlob : direzione dei carichi secondo il sistema di riferimento globali della parete;

Parete	Imp.	Fili	C.C.	DGlob X [daN/m]		DGlob Y [daN/m]		DGlob Z [daN/m]	
				in.	fin.	in.	fin.	in.	fin.
1	Piano 1	1-2	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
2	Piano 1	1-2	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
3	Piano 1	1-2	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
4	Piano 1	1-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
5	Piano 1	1-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
6	Piano 1	2-3	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
7	Piano 1	2-3	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
8	Piano 1	2-3	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
9	Piano 1	2-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
10	Piano 1	2-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
11	Piano 1	3-7	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
12	Piano 1	3-7	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
13	Piano 1	4-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
14	Piano 1	4-5	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
15	Piano 1	4-9	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
16	Piano 1	4-9	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
17	Piano 1	5-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
18	Piano 1	5-6	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
19	Piano 1	5-10	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
20	Piano 1	5-10	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
21	Piano 1	6-7	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00





# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

70	Piano 2	7-11	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
71	Piano 2	7-11	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
72	Piano 2	7-11	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
73	Piano 2	12-10	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
74	Piano 2	12-10	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
75	Piano 2	10-16	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
76	Piano 2	11-13	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
77	Piano 2	16-11	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
78	Piano 2	19-11	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	-1021.08	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-416.80	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-625.19	0.00
79	Piano 2	19-11	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	-1021.08	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-416.80	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-625.19	0.00
80	Piano 2	12-17	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
81	Piano 2	12-17	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
82	Piano 2	12-17	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
83	Piano 2	17-13	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
84	Piano 2	17-13	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
85	Piano 2	17-13	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	0.00	0.00
86	Piano 2	13-18	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	-685.95	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-280.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-420.00	0.00
87	Piano 2	14-15	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-29.17	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-43.75	0.00
88	Piano 2	14-15	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	0.00	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-29.17	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-43.75	0.00
89	Piano 2	18-14	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	-1028.93	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-420.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-630.00	0.00
90	Piano 2	18-14	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	-1028.93	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-420.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-630.00	0.00
91	Piano 2	15-19	Car. perm. G1 in Testa	0.00	0.00	0.00	0.00	-685.95	0.00
			Car. perm. G2 in Testa	0.00	0.00	0.00	0.00	-280.00	0.00
			Car. eserc. in Testa	0.00	0.00	0.00	0.00	-420.00	0.00

## Carichi Globali distribuiti sulle Pareti

Parete : numero della piastra come da paragrafo "Caratteristiche delle pareti";  
Imp. : impalcato al quale appartiene la parete;

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Fili : fili fissi ai quali appartiene la parete;  
C.C. : condizione di carico come da paragrafo "Condizioni di carico valutate";  
DGlob : direzione dei carichi secondo il sistema di riferimento globale della parete;

Parete	Imp.	Fili	C.C.	DGlob X [daN/m²]	DGlob Y [daN/m²]	DGlob Z [daN/m²]
1	Piano 1	1-2	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
2	Piano 1	1-2	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
3	Piano 1	1-2	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
4	Piano 1	1-5	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
5	Piano 1	1-5	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
6	Piano 1	2-3	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
7	Piano 1	2-3	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
8	Piano 1	2-3	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
9	Piano 1	2-6	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
10	Piano 1	2-6	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
11	Piano 1	3-7	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
12	Piano 1	3-7	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
13	Piano 1	4-5	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
14	Piano 1	4-5	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
15	Piano 1	4-9	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
16	Piano 1	4-9	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
17	Piano 1	5-6	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
18	Piano 1	5-6	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
19	Piano 1	5-10	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
20	Piano 1	5-10	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
21	Piano 1	6-7	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
22	Piano 1	6-7	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
23	Piano 1	7-8	Car. Perm. G1	0.00	0.00	-450.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
24	Piano 1	7-8	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
25	Piano 1	7-11	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
26	Piano 1	7-11	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
27	Piano 1	7-11	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
28	Piano 1	15-8	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
29	Piano 1	15-8	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
30	Piano 1	10-11	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
31	Piano 1	10-11	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
32	Piano 1	10-11	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
33	Piano 1	10-11	Car. Perm. G1	0.00	0.00	-525.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
34	Piano 1	10-12	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
35	Piano 1	10-12	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
36	Piano 1	10-12	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
37	Piano 1	11-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
38	Piano 1	11-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
39	Piano 1	11-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
40	Piano 1	11-19	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
41	Piano 1	12-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
42	Piano 1	12-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
43	Piano 1	12-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
44	Piano 1	12-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
45	Piano 1	12-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
46	Piano 1	13-14	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
47	Piano 1	13-14	Car. Perm. G1	0.00	0.00	-450.00

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
48	Piano 1	14-15	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
49	Piano 1	14-15	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
50	Piano 1	19-15	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
51	Piano 2	1-2	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
52	Piano 2	1-2	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
53	Piano 2	1-2	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
54	Piano 2	5-1	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
55	Piano 2	5-1	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
56	Piano 2	2-3	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
57	Piano 2	2-3	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
58	Piano 2	2-3	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
59	Piano 2	2-6	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
60	Piano 2	3-7	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
61	Piano 2	3-7	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
62	Piano 2	5-6	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
63	Piano 2	5-6	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
64	Piano 2	10-5	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
65	Piano 2	10-5	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
66	Piano 2	10-5	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
67	Piano 2	6-7	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
68	Piano 2	6-7	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
69	Piano 2	6-7	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
70	Piano 2	7-11	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
71	Piano 2	7-11	Car. Perm. G1	0.00	0.00	-675.00

			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
72	Piano 2	7-11	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
73	Piano 2	12-10	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
74	Piano 2	12-10	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
75	Piano 2	10-16	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
76	Piano 2	11-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
77	Piano 2	16-11	Car. Perm. G1	0.00	0.00	-450.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
78	Piano 2	19-11	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
79	Piano 2	19-11	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
80	Piano 2	12-17	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
81	Piano 2	12-17	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
82	Piano 2	12-17	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
83	Piano 2	17-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
84	Piano 2	17-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
85	Piano 2	17-13	Car. Perm. G1	0.00	0.00	-675.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
86	Piano 2	13-18	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
87	Piano 2	14-15	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
88	Piano 2	14-15	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
89	Piano 2	18-14	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
90	Piano 2	18-14	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00
91	Piano 2	15-19	Car. Perm. G1	0.00	0.00	-375.00
			Car. Perm. G2	0.00	0.00	0.00
			Car. Eserc.	0.00	0.00	0.00

### 3.7.6 Carichi termici sugli elementi.

#### Aste

Asta : numero dell'asta come da 3.5.2

Imp. : impalcato al quale appartiene l'asta



## RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Fili : fili fissi ai quali appartiene l'asta  
 $\Delta t$  : delta termico costante applicato all'elemento.  
 $\Delta t_{XY}$  : delta termico a farfalla nel piano XY applicato all'elemento.  
 $h_{XY}$  : altezza di riferimento del delta termico nel piano XY applicato all'elemento.  
 $\Delta t_{XZ}$  : delta termico a farfalla nel piano XZ applicato all'elemento.  
 $h_{XZ}$  : altezza di riferimento del delta termico nel piano XZ applicato all'elemento.

Asta	Imp.	Fili	$\Delta t$ [°C]	$\Delta t_{XY}$ [°C]	$h_{XY}$ [cm]	$\Delta t_{XZ}$ [°C]	$h_{XZ}$ [cm]
1	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
2	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
3	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
4	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
5	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
6	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
7	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
8	Fond.	1, 2	10.0	0.0	60.0	0.0	60.0
9	Fond.	1, 5	10.0	0.0	60.0	0.0	60.0
10	Fond.	1, 5	10.0	0.0	60.0	0.0	60.0
11	Fond.	1, 5	10.0	0.0	60.0	0.0	60.0
12	Fond.	1, 5	10.0	0.0	60.0	0.0	60.0
13	Fond.	1, 5	10.0	0.0	60.0	0.0	60.0
14	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
15	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
16	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
17	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
18	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
19	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
20	Fond.	2, 3	10.0	0.0	60.0	0.0	60.0
21	Fond.	2, 6	10.0	0.0	60.0	0.0	60.0
22	Fond.	2, 6	10.0	0.0	60.0	0.0	60.0
23	Fond.	2, 6	10.0	0.0	60.0	0.0	60.0
24	Fond.	2, 6	10.0	0.0	60.0	0.0	60.0
25	Fond.	2, 6	10.0	0.0	60.0	0.0	60.0
26	Fond.	2, 6	10.0	0.0	60.0	0.0	60.0
27	Fond.	3, 7	10.0	0.0	60.0	0.0	60.0
28	Fond.	3, 7	10.0	0.0	60.0	0.0	60.0
29	Fond.	3, 7	10.0	0.0	60.0	0.0	60.0
30	Fond.	3, 7	10.0	0.0	60.0	0.0	60.0
31	Fond.	3, 7	10.0	0.0	60.0	0.0	60.0
32	Fond.	4, 5	10.0	0.0	60.0	0.0	60.0
33	Fond.	4, 5	10.0	0.0	60.0	0.0	60.0
34	Fond.	4, 5	10.0	0.0	60.0	0.0	60.0
35	Fond.	9, 4	10.0	0.0	60.0	0.0	60.0
36	Fond.	9, 4	10.0	0.0	60.0	0.0	60.0
37	Fond.	9, 4	10.0	0.0	60.0	0.0	60.0
38	Fond.	9, 4	10.0	0.0	60.0	0.0	60.0
39	Fond.	9, 4	10.0	0.0	60.0	0.0	60.0
40	Fond.	9, 4	10.0	0.0	60.0	0.0	60.0
41	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
42	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
43	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
44	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
45	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
46	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
47	Fond.	5, 6	10.0	0.0	60.0	0.0	60.0
48	Fond.	5, 10	10.0	0.0	60.0	0.0	60.0
49	Fond.	5, 10	10.0	0.0	60.0	0.0	60.0
50	Fond.	5, 10	10.0	0.0	60.0	0.0	60.0
51	Fond.	5, 10	10.0	0.0	60.0	0.0	60.0
52	Fond.	5, 10	10.0	0.0	60.0	0.0	60.0
53	Fond.	5, 10	10.0	0.0	60.0	0.0	60.0
54	Fond.	6, 7	10.0	0.0	60.0	0.0	60.0
55	Fond.	6, 7	10.0	0.0	60.0	0.0	60.0
56	Fond.	6, 7	10.0	0.0	60.0	0.0	60.0
57	Fond.	6, 7	10.0	0.0	60.0	0.0	60.0
58	Fond.	6, 7	10.0	0.0	60.0	0.0	60.0
59	Fond.	6, 7	10.0	0.0	60.0	0.0	60.0
60	Fond.	7, 8	10.0	0.0	60.0	0.0	60.0
61	Fond.	7, 8	10.0	0.0	60.0	0.0	60.0
62	Fond.	7, 8	10.0	0.0	60.0	0.0	60.0
63	Fond.	7, 8	10.0	0.0	60.0	0.0	60.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

64	Fond.	7, 8	10.0	0.0	60.0	0.0	60.0
65	Fond.	7, 8	10.0	0.0	60.0	0.0	60.0
66	Fond.	7, 11	10.0	0.0	60.0	0.0	60.0
67	Fond.	7, 11	10.0	0.0	60.0	0.0	60.0
68	Fond.	7, 11	10.0	0.0	60.0	0.0	60.0
69	Fond.	7, 11	10.0	0.0	60.0	0.0	60.0
70	Fond.	7, 11	10.0	0.0	60.0	0.0	60.0
71	Fond.	7, 11	10.0	0.0	60.0	0.0	60.0
72	Fond.	8, 15	10.0	0.0	60.0	0.0	60.0
73	Fond.	8, 15	10.0	0.0	60.0	0.0	60.0
74	Fond.	8, 15	10.0	0.0	60.0	0.0	60.0
75	Fond.	8, 15	10.0	0.0	60.0	0.0	60.0
76	Fond.	8, 15	10.0	0.0	60.0	0.0	60.0
77	Fond.	9, 10	10.0	0.0	60.0	0.0	60.0
78	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
79	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
80	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
81	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
82	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
83	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
84	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
85	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
86	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
87	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
88	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
89	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
90	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
91	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
92	Fond.	10, 11	10.0	0.0	60.0	0.0	60.0
93	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
94	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
95	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
96	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
97	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
98	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
99	Fond.	10, 12	10.0	0.0	60.0	0.0	60.0
100	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
101	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
102	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
103	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
104	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
105	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
106	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
107	Fond.	11, 13	10.0	0.0	60.0	0.0	60.0
108	Fond.	15, 11	10.0	0.0	60.0	0.0	60.0
109	Fond.	15, 11	10.0	0.0	60.0	0.0	60.0
110	Fond.	15, 11	10.0	0.0	60.0	0.0	60.0
111	Fond.	15, 11	10.0	0.0	60.0	0.0	60.0
112	Fond.	15, 11	10.0	0.0	60.0	0.0	60.0
113	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
114	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
115	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
116	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
117	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
118	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
119	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
120	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
121	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
122	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
123	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
124	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
125	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
126	Fond.	12, 13	10.0	0.0	60.0	0.0	60.0
127	Fond.	13, 14	10.0	0.0	60.0	0.0	60.0
128	Fond.	13, 14	10.0	0.0	60.0	0.0	60.0
129	Fond.	13, 14	10.0	0.0	60.0	0.0	60.0
130	Fond.	13, 14	10.0	0.0	60.0	0.0	60.0
131	Fond.	13, 14	10.0	0.0	60.0	0.0	60.0
132	Fond.	13, 14	10.0	0.0	60.0	0.0	60.0
133	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0
134	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0
135	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

136	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0
137	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0
138	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0
139	Fond.	15, 14	10.0	0.0	60.0	0.0	60.0
140	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
141	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
142	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
143	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
144	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
145	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
146	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
147	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
148	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
149	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
150	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
151	Piano 1	1, 2	15.0	0.0	25.0	0.0	25.0
152	Piano 1	1, 5	15.0	0.0	25.0	0.0	25.0
153	Piano 1	1, 5	15.0	0.0	25.0	0.0	25.0
154	Piano 1	1, 5	15.0	0.0	25.0	0.0	25.0
155	Piano 1	1, 5	15.0	0.0	25.0	0.0	25.0
156	Piano 1	1, 5	15.0	0.0	25.0	0.0	25.0
157	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
158	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
159	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
160	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
161	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
162	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
163	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
164	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
165	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
166	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
167	Piano 1	2, 3	15.0	0.0	25.0	0.0	25.0
168	Piano 1	2, 6	15.0	0.0	25.0	0.0	25.0
169	Piano 1	2, 6	15.0	0.0	25.0	0.0	25.0
170	Piano 1	2, 6	15.0	0.0	25.0	0.0	25.0
171	Piano 1	2, 6	15.0	0.0	25.0	0.0	25.0
172	Piano 1	2, 6	15.0	0.0	25.0	0.0	25.0
173	Piano 1	2, 6	15.0	0.0	25.0	0.0	25.0
174	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
175	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
176	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
177	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
178	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
179	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
180	Piano 1	3, 7	15.0	0.0	25.0	0.0	25.0
181	Piano 1	4, 5	15.0	0.0	25.0	0.0	25.0
182	Piano 1	4, 5	15.0	0.0	25.0	0.0	25.0
183	Piano 1	4, 5	15.0	0.0	25.0	0.0	25.0
184	Piano 1	4, 9	15.0	0.0	25.0	0.0	25.0
185	Piano 1	4, 9	15.0	0.0	25.0	0.0	25.0
186	Piano 1	4, 9	15.0	0.0	25.0	0.0	25.0
187	Piano 1	4, 9	15.0	0.0	25.0	0.0	25.0
188	Piano 1	4, 9	15.0	0.0	25.0	0.0	25.0
189	Piano 1	4, 9	15.0	0.0	25.0	0.0	25.0
190	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
191	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
192	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
193	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
194	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
195	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
196	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
197	Piano 1	5, 6	15.0	0.0	25.0	0.0	25.0
198	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
199	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
200	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
201	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
202	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
203	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
204	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
205	Piano 1	5, 10	15.0	0.0	25.0	0.0	25.0
206	Piano 1	6, 7	15.0	0.0	25.0	0.0	25.0
207	Piano 1	6, 7	15.0	0.0	25.0	0.0	25.0



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

280	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
281	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
282	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
283	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
284	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
285	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
286	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
287	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
288	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
289	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
290	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
291	Piano 1	12, 13	15.0	0.0	25.0	0.0	25.0
292	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
293	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
294	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
295	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
296	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
297	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
298	Piano 1	13, 14	15.0	0.0	25.0	0.0	25.0
299	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
300	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
301	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
302	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
303	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
304	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
305	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
306	Piano 1	14, 15	15.0	0.0	25.0	0.0	25.0
307	Piano 1	19, 15	15.0	0.0	25.0	0.0	25.0
308	Piano 1	19, 15	15.0	0.0	25.0	0.0	25.0
309	Piano 1	19, 15	15.0	0.0	25.0	0.0	25.0
310	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
311	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
312	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
313	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
314	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
315	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
316	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
317	Piano 2	1, 2	15.0	0.0	25.0	0.0	50.0
318	Piano 2	5, 1	15.0	0.0	25.0	0.0	25.0
319	Piano 2	5, 1	15.0	0.0	25.0	0.0	25.0
320	Piano 2	5, 1	15.0	0.0	25.0	0.0	25.0
321	Piano 2	5, 1	15.0	0.0	25.0	0.0	25.0
322	Piano 2	5, 1	15.0	0.0	25.0	0.0	25.0
323	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
324	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
325	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
326	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
327	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
328	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
329	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
330	Piano 2	2, 3	15.0	0.0	25.0	0.0	50.0
331	Piano 2	2, 6	15.0	0.0	25.0	0.0	25.0
332	Piano 2	2, 6	15.0	0.0	25.0	0.0	25.0
333	Piano 2	2, 6	15.0	0.0	25.0	0.0	25.0
334	Piano 2	2, 6	15.0	0.0	25.0	0.0	25.0
335	Piano 2	3, 7	15.0	0.0	25.0	0.0	25.0
336	Piano 2	3, 7	15.0	0.0	25.0	0.0	25.0
337	Piano 2	3, 7	15.0	0.0	25.0	0.0	25.0
338	Piano 2	3, 7	15.0	0.0	25.0	0.0	25.0
339	Piano 2	3, 7	15.0	0.0	25.0	0.0	25.0
340	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
341	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
342	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
343	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
344	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
345	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
346	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
347	Piano 2	5, 6	15.0	0.0	25.0	0.0	110.0
348	Piano 2	10, 5	15.0	0.0	25.0	0.0	25.0
349	Piano 2	10, 5	15.0	0.0	25.0	0.0	25.0
350	Piano 2	10, 5	15.0	0.0	25.0	0.0	25.0
351	Piano 2	10, 5	15.0	0.0	25.0	0.0	25.0

352	Piano 2	10, 5	15.0	0.0	25.0	0.0	25.0
353	Piano 2	10, 5	15.0	0.0	25.0	0.0	25.0
354	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
355	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
356	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
357	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
358	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
359	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
360	Piano 2	6, 7	15.0	0.0	25.0	0.0	110.0
361	Piano 2	6, 16	15.0	0.0	16.0	0.0	24.0
362	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
363	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
364	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
365	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
366	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
367	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
368	Piano 2	7, 11	15.0	0.0	25.0	0.0	25.0
369	Piano 2	12, 10	15.0	0.0	25.0	0.0	25.0
370	Piano 2	12, 10	15.0	0.0	25.0	0.0	25.0
371	Piano 2	12, 10	15.0	0.0	25.0	0.0	25.0
372	Piano 2	12, 10	15.0	0.0	25.0	0.0	25.0
373	Piano 2	12, 10	15.0	0.0	25.0	0.0	25.0
374	Piano 2	12, 10	15.0	0.0	25.0	0.0	25.0
375	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
376	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
377	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
378	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
379	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
380	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
381	Piano 2	10, 16	15.0	0.0	25.0	0.0	35.0
382	Piano 2	11, 13	15.0	0.0	25.0	0.0	25.0
383	Piano 2	11, 13	15.0	0.0	25.0	0.0	25.0
384	Piano 2	11, 13	15.0	0.0	25.0	0.0	25.0
385	Piano 2	11, 13	15.0	0.0	25.0	0.0	25.0
386	Piano 2	11, 13	15.0	0.0	25.0	0.0	25.0
387	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
388	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
389	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
390	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
391	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
392	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
393	Piano 2	16, 11	15.0	0.0	25.0	0.0	35.0
394	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
395	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
396	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
397	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
398	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
399	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
400	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
401	Piano 2	12, 17	15.0	0.0	25.0	0.0	50.0
402	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
403	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
404	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
405	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
406	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
407	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
408	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
409	Piano 2	17, 13	15.0	0.0	25.0	0.0	50.0
410	Piano 2	16, 17	15.0	0.0	16.0	0.0	24.0

## Pareti

Parete : numero della parete  
 Imp. : impalcato al quale appartiene la parete  
 Fili : fili fissi ai quali appartiene la parete  
 $\Delta t$  : salto termico applicato all'elemento.

Parete	Imp.	Fili	$\Delta t$ [°C]
1	Piano 1	1-2	15.0
2	Piano 1	1-2	15.0

3	Piano 1	1-2	15.0
4	Piano 1	1-5	15.0
5	Piano 1	1-5	15.0
6	Piano 1	2-3	15.0
7	Piano 1	2-3	15.0
8	Piano 1	2-3	15.0
9	Piano 1	2-6	15.0
10	Piano 1	2-6	15.0
11	Piano 1	3-7	15.0
12	Piano 1	3-7	15.0
13	Piano 1	4-5	15.0
14	Piano 1	4-5	15.0
15	Piano 1	4-9	15.0
16	Piano 1	4-9	15.0
17	Piano 1	5-6	15.0
18	Piano 1	5-6	15.0
19	Piano 1	5-10	15.0
20	Piano 1	5-10	15.0
21	Piano 1	6-7	15.0
22	Piano 1	6-7	15.0
23	Piano 1	7-8	15.0
24	Piano 1	7-8	15.0
25	Piano 1	7-11	15.0
26	Piano 1	7-11	15.0
27	Piano 1	7-11	15.0
28	Piano 1	15-8	15.0
29	Piano 1	15-8	15.0
30	Piano 1	10-11	15.0
31	Piano 1	10-11	15.0
32	Piano 1	10-11	15.0
33	Piano 1	10-11	15.0
34	Piano 1	10-12	15.0
35	Piano 1	10-12	15.0
36	Piano 1	10-12	15.0
37	Piano 1	11-13	15.0
38	Piano 1	11-13	15.0
39	Piano 1	11-13	15.0
40	Piano 1	11-19	15.0
41	Piano 1	12-13	15.0
42	Piano 1	12-13	15.0
43	Piano 1	12-13	15.0
44	Piano 1	12-13	15.0
45	Piano 1	12-13	15.0
46	Piano 1	13-14	15.0
47	Piano 1	13-14	15.0
48	Piano 1	14-15	15.0
49	Piano 1	14-15	15.0
50	Piano 1	19-15	15.0
51	Piano 2	1-2	15.0
52	Piano 2	1-2	15.0
53	Piano 2	1-2	15.0
54	Piano 2	5-1	15.0
55	Piano 2	5-1	15.0
56	Piano 2	2-3	15.0
57	Piano 2	2-3	15.0
58	Piano 2	2-3	15.0
59	Piano 2	2-6	15.0
60	Piano 2	3-7	15.0
61	Piano 2	3-7	15.0
62	Piano 2	5-6	15.0
63	Piano 2	5-6	15.0
64	Piano 2	10-5	15.0
65	Piano 2	10-5	15.0
66	Piano 2	10-5	15.0
67	Piano 2	6-7	15.0
68	Piano 2	6-7	15.0
69	Piano 2	6-7	15.0
70	Piano 2	7-11	15.0
71	Piano 2	7-11	15.0
72	Piano 2	7-11	15.0
73	Piano 2	12-10	15.0
74	Piano 2	12-10	15.0

75	Piano 2	10-16	15.0
76	Piano 2	11-13	15.0
77	Piano 2	16-11	15.0
78	Piano 2	19-11	15.0
79	Piano 2	19-11	15.0
80	Piano 2	12-17	15.0
81	Piano 2	12-17	15.0
82	Piano 2	12-17	15.0
83	Piano 2	17-13	15.0
84	Piano 2	17-13	15.0
85	Piano 2	17-13	15.0
86	Piano 2	13-18	15.0
87	Piano 2	14-15	15.0
88	Piano 2	14-15	15.0
89	Piano 2	18-14	15.0
90	Piano 2	18-14	15.0
91	Piano 2	15-19	15.0

#### Platee

Platee : numero della platea  
 Imp. : impalcato al quale appartiene la platea  
 Fili : fili fissi ai quali appartiene la platea  
 $\Delta t$  : salto termico applicato all'elemento.

Platea	Imp.	Fili	$\Delta t$ [°C]
1	Fond.	1, 2, 6, 5	10.0
2	Fond.	2, 3, 7, 6	10.0
3	Fond.	5, 6, 7, 11, 10	10.0
4	Fond.	10, 11, 13, 12	10.0
5	Fond.	7, 8, 15, 11	10.0
6	Fond.	15, 14, 13, 11	10.0

### 3.8 Caratteristiche meccaniche della muratura.

Parete : numero della parete;  
 Imp. : numero dell'impalcato;  
 Fili : numero dei fili fissi iniziale e finale;  
 $f_c$  : fattore di confidenza;  
 Coeff. Corr. : coefficiente correttivo;  
 Coeff. Sic. : Coefficiente di sicurezza;  
 E : Modulo elastico normale  
 G : Modulo elastico tangenziale  
 $f_k - f_m$  : Resistenza caratteristica a compressione o resistenza media a compressione  
 $f_{vk0}$  : Resistenza caratteristica a taglio in assenza di carichi verticali  
 $\tau_0$  : Resistenza media a taglio di riferimento  
 $\gamma$  : Peso specifico

Parete	Imp.	Fili	$f_c$	Coeff. Corr.	Coeff. Sic.	E [daN/cm²]	G [daN/cm²]	$f_k - f_m$ [daN/cm²]	$\tau_0$ [daN/cm²]	$\gamma$ [daN/cm³]
1	Piano 1	1 - 2	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
2	Piano 1	1 - 5	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
3	Piano 1	2 - 3	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
4	Piano 1	2 - 6	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
5	Piano 1	3 - 7	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
6	Piano 1	4 - 5	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
7	Piano 1	4 - 9	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
8	Piano 1	5 - 6	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
9	Piano 1	5 - 10	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
10	Piano 1	6 - 7	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
11	Piano 1	7 - 8	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
12	Piano 1	7 - 11	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
13	Piano 1	15 - 8	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
14	Piano 1	10 - 11	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
15	Piano 1	10 - 12	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
16	Piano 1	11 - 13	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
17	Piano 1	11 - 19	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
18	Piano 1	12 - 13	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00



19	Piano 1	13 - 14	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
20	Piano 1	14 - 15	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
21	Piano 1	19 - 15	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
22	Piano 2	1 - 2	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
23	Piano 2	5 - 1	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
24	Piano 2	2 - 3	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
25	Piano 2	2 - 6	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
26	Piano 2	3 - 7	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
27	Piano 2	5 - 6	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
28	Piano 2	10 - 5	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
29	Piano 2	6 - 7	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
30	Piano 2	7 - 11	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
31	Piano 2	12 - 10	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
32	Piano 2	10 - 16	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
33	Piano 2	11 - 13	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
34	Piano 2	16 - 11	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
35	Piano 2	19 - 11	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
36	Piano 2	12 - 17	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
37	Piano 2	17 - 13	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
38	Piano 2	13 - 18	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
39	Piano 2	14 - 15	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
40	Piano 2	18 - 14	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00
41	Piano 2	15 - 19	1.35	1.00	3.00	45500.00	11375.00	37.04	1.78	1500.00

## 4 Risultati di Calcolo.

### 4.1 Tensioni sul Terreno.

I dati seguenti riportano i valori delle tensioni esercitate dalla fondazione sul terreno.

Asta/Piastra : numerazione interna dell'asta/piastra.  
X : distanza dal nodo iniziale misurata lungo l'asse dell'asta/piastra.  
Comb : combinazione di appartenenza del valore considerato nell'involuppo.  
Tensioni ( $\sigma_T$ ) : valore della tensione dovuta alla pressione dell'asta/piastra di fondazione:

Tabella 1.I

Tensioni Terreno							
				SLV	SLE		
				A1	Caratt.	Freq.	Q. Perm.
Asta	Imp.	Fili	X [cm]	$\sigma_T$ [daN/cm <sup>2</sup> ]	$\sigma_T$ [daN/cm <sup>2</sup> ]	$\sigma_T$ [daN/cm <sup>2</sup> ]	$\sigma_T$ [daN/cm <sup>2</sup> ]
1	Fond.	1-2	0.00	0.71(2)	0.52(1)	0.48(3)	0.46(1)
			30.00	0.68(2)	0.50(1)	0.46(3)	0.45(1)
			60.00	0.66(2)	0.49(1)	0.45(3)	0.44(1)
2	Fond.	1-2	0.00	0.66(2)	0.49(1)	0.45(1)	0.44(1)
			30.00	0.64(2)	0.48(1)	0.44(1)	0.43(1)
			60.00	0.63(2)	0.47(1)	0.43(1)	0.42(1)
3	Fond.	1-2	0.00	0.63(2)	0.47(1)	0.43(1)	0.42(1)
			40.00	0.63(2)	0.47(1)	0.43(1)	0.42(1)
			80.00	0.63(2)	0.47(1)	0.43(1)	0.42(1)
4	Fond.	1-2	0.00	0.63(2)	0.47(1)	0.43(1)	0.42(1)
			41.67	0.63(2)	0.47(1)	0.44(1)	0.43(1)
			83.33	0.63(2)	0.47(1)	0.44(1)	0.43(1)
5	Fond.	1-2	0.00	0.63(3)	0.47(2)	0.44(1)	0.43(1)
			41.67	0.64(3)	0.47(2)	0.44(1)	0.43(1)
			83.33	0.63(3)	0.47(2)	0.44(1)	0.43(1)
6	Fond.	1-2	0.00	0.63(3)	0.47(2)	0.44(1)	0.43(1)
			41.67	0.63(3)	0.47(2)	0.43(1)	0.42(1)
			83.33	0.62(3)	0.46(2)	0.43(1)	0.42(1)
7	Fond.	1-2	0.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
			40.00	0.61(3)	0.46(2)	0.43(1)	0.42(1)
			80.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
8	Fond.	1-2	0.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
			37.50	0.62(3)	0.46(2)	0.43(1)	0.42(1)
			75.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
9	Fond.	1-5	0.00	0.71(2)	0.52(1)	0.48(1)	0.46(1)
			45.00	0.64(2)	0.47(1)	0.43(1)	0.42(1)
			90.00	0.58(2)	0.43(1)	0.40(1)	0.39(1)
10	Fond.	1-5	0.00	0.58(2)	0.43(1)	0.40(1)	0.39(1)
			36.67	0.53(2)	0.39(1)	0.37(1)	0.36(1)

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			73.33	0.50(2)	0.37(1)	0.34(1)	0.33(1)
<b>11</b>	Fond.	1-5	0.00	0.50(2)	0.37(1)	0.34(3)	0.33(1)
			36.67	0.49(2)	0.36(1)	0.33(3)	0.32(1)
			73.33	0.51(2)	0.37(1)	0.33(3)	0.32(1)
<b>12</b>	Fond.	1-5	0.00	0.51(2)	0.37(1)	0.33(3)	0.32(1)
			36.67	0.54(2)	0.40(1)	0.35(3)	0.33(1)
			73.33	0.58(2)	0.42(1)	0.38(3)	0.35(1)
<b>13</b>	Fond.	1-5	0.00	0.58(2)	0.42(1)	0.38(1)	0.35(1)
			35.00	0.59(2)	0.44(1)	0.39(1)	0.37(1)
			70.00	0.60(2)	0.44(1)	0.39(1)	0.38(1)
<b>14</b>	Fond.	2-3	0.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
			30.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
			60.00	0.61(3)	0.45(2)	0.43(1)	0.42(1)
<b>15</b>	Fond.	2-3	0.00	0.61(3)	0.45(2)	0.43(1)	0.42(1)
			40.00	0.60(3)	0.45(2)	0.42(1)	0.41(1)
			80.00	0.60(3)	0.45(2)	0.42(1)	0.41(1)
<b>16</b>	Fond.	2-3	0.00	0.60(3)	0.45(2)	0.42(1)	0.41(1)
			41.67	0.60(3)	0.45(2)	0.42(1)	0.41(1)
			83.33	0.60(3)	0.45(2)	0.42(1)	0.41(1)
<b>17</b>	Fond.	2-3	0.00	0.60(2)	0.45(1)	0.42(1)	0.41(1)
			41.67	0.60(2)	0.45(1)	0.42(1)	0.41(1)
			83.33	0.60(2)	0.45(1)	0.42(1)	0.40(1)
<b>18</b>	Fond.	2-3	0.00	0.60(2)	0.45(1)	0.42(3)	0.40(1)
			41.67	0.61(2)	0.45(1)	0.41(3)	0.40(1)
			83.33	0.60(2)	0.45(1)	0.41(3)	0.39(1)
<b>19</b>	Fond.	2-3	0.00	0.60(4)	0.45(3)	0.41(3)	0.39(1)
			40.00	0.59(4)	0.44(3)	0.40(3)	0.38(1)
			80.00	0.60(4)	0.44(3)	0.40(3)	0.38(1)
<b>20</b>	Fond.	2-3	0.00	0.60(4)	0.44(3)	0.40(3)	0.38(1)
			47.50	0.62(4)	0.46(3)	0.41(3)	0.39(1)
			95.00	0.66(4)	0.49(3)	0.43(3)	0.40(1)
<b>21</b>	Fond.	2-6	0.00	0.62(3)	0.46(2)	0.43(1)	0.42(1)
			35.00	0.58(3)	0.43(2)	0.40(1)	0.39(1)
			70.00	0.55(3)	0.41(2)	0.37(1)	0.36(1)
<b>22</b>	Fond.	2-6	0.00	0.55(3)	0.41(2)	0.37(1)	0.36(1)
			35.00	0.51(3)	0.38(2)	0.34(1)	0.33(1)
			70.00	0.48(3)	0.35(2)	0.32(1)	0.31(1)
<b>23</b>	Fond.	2-6	0.00	0.48(3)	0.35(2)	0.32(1)	0.31(1)
			32.50	0.46(3)	0.34(2)	0.30(1)	0.29(1)
			65.00	0.45(3)	0.33(2)	0.30(1)	0.29(1)
<b>24</b>	Fond.	2-6	0.00	0.45(3)	0.33(2)	0.30(1)	0.29(1)
			32.50	0.47(3)	0.34(2)	0.31(1)	0.30(1)
			65.00	0.49(3)	0.36(2)	0.32(1)	0.31(1)
<b>25</b>	Fond.	2-6	0.00	0.49(3)	0.36(2)	0.32(1)	0.31(1)
			27.50	0.52(3)	0.38(2)	0.33(1)	0.32(1)
			55.00	0.53(3)	0.39(2)	0.34(1)	0.33(1)
<b>26</b>	Fond.	2-6	0.00	0.53(3)	0.39(2)	0.34(1)	0.33(1)
			27.50	0.54(3)	0.39(2)	0.35(1)	0.33(1)
			55.00	0.54(3)	0.39(2)	0.35(1)	0.33(1)
<b>27</b>	Fond.	3-7	0.00	0.66(2)	0.49(1)	0.43(3)	0.40(1)
			47.50	0.61(2)	0.45(1)	0.41(3)	0.39(1)
			95.00	0.58(2)	0.43(1)	0.39(3)	0.38(1)
<b>28</b>	Fond.	3-7	0.00	0.58(2)	0.43(1)	0.39(1)	0.38(1)
			47.50	0.55(2)	0.41(1)	0.38(1)	0.36(1)
			95.00	0.53(2)	0.40(1)	0.36(1)	0.35(1)
<b>29</b>	Fond.	3-7	0.00	0.53(2)	0.40(1)	0.36(1)	0.35(1)
			35.00	0.52(2)	0.39(1)	0.35(1)	0.34(1)
			70.00	0.52(2)	0.38(1)	0.34(1)	0.33(1)
<b>30</b>	Fond.	3-7	0.00	0.52(2)	0.38(1)	0.34(1)	0.33(1)
			30.00	0.51(2)	0.37(1)	0.34(1)	0.33(1)
			60.00	0.50(2)	0.37(1)	0.34(1)	0.33(1)
<b>31</b>	Fond.	3-7	0.00	0.50(3)	0.37(2)	0.34(1)	0.33(1)
			30.00	0.49(3)	0.36(2)	0.33(1)	0.32(1)
			60.00	0.49(3)	0.36(2)	0.33(1)	0.32(1)
<b>32</b>	Fond.	4-5	0.00	0.62(2)	0.46(1)	0.41(3)	0.39(1)
			27.50	0.62(2)	0.45(1)	0.41(3)	0.39(1)
			55.00	0.61(2)	0.45(1)	0.40(3)	0.38(1)
<b>33</b>	Fond.	4-5	0.00	0.61(2)	0.45(1)	0.40(3)	0.38(1)
			35.00	0.61(2)	0.45(1)	0.40(3)	0.38(1)
			70.00	0.61(2)	0.45(1)	0.40(3)	0.38(1)
<b>34</b>	Fond.	4-5	0.00	0.61(2)	0.45(1)	0.40(1)	0.38(1)
			15.00	0.60(2)	0.45(1)	0.40(1)	0.38(1)

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			30.00	0.60(2)	0.44(1)	0.39(1)	0.38(1)
<b>35</b>	Fond.	9-4	0.00	0.54(2)	0.39(1)	0.35(1)	0.33(1)
			45.00	0.51(2)	0.38(1)	0.34(1)	0.33(1)
			90.00	0.49(2)	0.37(1)	0.34(1)	0.32(1)
<b>36</b>	Fond.	9-4	0.00	0.49(3)	0.37(2)	0.34(1)	0.32(1)
			45.00	0.49(3)	0.36(2)	0.33(1)	0.32(1)
			90.00	0.49(3)	0.36(2)	0.33(1)	0.32(1)
<b>37</b>	Fond.	9-4	0.00	0.49(2)	0.36(1)	0.33(1)	0.32(1)
			45.00	0.48(2)	0.36(1)	0.33(1)	0.32(1)
			90.00	0.48(2)	0.36(1)	0.33(1)	0.32(1)
<b>38</b>	Fond.	9-4	0.00	0.48(2)	0.36(1)	0.33(1)	0.32(1)
			45.00	0.49(2)	0.36(1)	0.34(1)	0.33(1)
			90.00	0.51(2)	0.38(1)	0.34(1)	0.33(1)
<b>39</b>	Fond.	9-4	0.00	0.51(2)	0.38(1)	0.34(3)	0.33(1)
			37.50	0.53(2)	0.39(1)	0.35(3)	0.34(1)
			75.00	0.56(2)	0.41(1)	0.37(3)	0.36(1)
<b>40</b>	Fond.	9-4	0.00	0.56(2)	0.41(1)	0.37(3)	0.36(1)
			40.00	0.59(2)	0.43(1)	0.39(3)	0.37(1)
			80.00	0.62(2)	0.46(1)	0.41(3)	0.39(1)
<b>41</b>	Fond.	5-6	0.00	0.60(3)	0.44(2)	0.39(1)	0.38(1)
			40.00	0.56(3)	0.41(2)	0.38(1)	0.36(1)
			80.00	0.53(3)	0.39(2)	0.36(1)	0.35(1)
<b>42</b>	Fond.	5-6	0.00	0.53(3)	0.39(2)	0.36(1)	0.35(1)
			40.00	0.52(3)	0.38(2)	0.34(1)	0.33(1)
			80.00	0.50(3)	0.37(2)	0.33(1)	0.32(1)
<b>43</b>	Fond.	5-6	0.00	0.50(2)	0.37(1)	0.33(1)	0.32(1)
			50.00	0.49(2)	0.36(1)	0.33(1)	0.31(1)
			100.00	0.51(2)	0.37(1)	0.33(1)	0.32(1)
<b>44</b>	Fond.	5-6	0.00	0.51(2)	0.37(1)	0.33(1)	0.32(1)
			43.13	0.52(2)	0.38(1)	0.34(1)	0.33(1)
			86.25	0.52(2)	0.38(1)	0.35(1)	0.33(1)
<b>45</b>	Fond.	5-6	0.00	0.52(3)	0.38(2)	0.35(1)	0.33(1)
			43.13	0.53(3)	0.39(2)	0.35(1)	0.33(1)
			86.25	0.54(3)	0.39(2)	0.35(1)	0.33(1)
<b>46</b>	Fond.	5-6	0.00	0.54(3)	0.39(2)	0.35(1)	0.33(1)
			43.13	0.54(3)	0.39(2)	0.35(1)	0.33(1)
			86.25	0.54(3)	0.39(2)	0.35(1)	0.33(1)
<b>47</b>	Fond.	5-6	0.00	0.54(3)	0.39(2)	0.35(1)	0.33(1)
			43.13	0.54(3)	0.39(2)	0.35(1)	0.33(1)
			86.25	0.54(3)	0.39(2)	0.35(1)	0.33(1)
<b>48</b>	Fond.	5-10	0.00	0.60(2)	0.44(1)	0.39(1)	0.38(1)
			50.00	0.59(2)	0.44(1)	0.40(1)	0.38(1)
			100.00	0.59(2)	0.43(1)	0.40(1)	0.38(1)
<b>49</b>	Fond.	5-10	0.00	0.59(3)	0.43(2)	0.40(1)	0.38(1)
			50.00	0.58(3)	0.43(2)	0.40(1)	0.38(1)
			100.00	0.58(3)	0.43(2)	0.39(1)	0.38(1)
<b>50</b>	Fond.	5-10	0.00	0.58(2)	0.43(1)	0.39(1)	0.38(1)
			50.00	0.58(2)	0.43(1)	0.39(1)	0.38(1)
			100.00	0.59(2)	0.43(1)	0.39(1)	0.38(1)
<b>51</b>	Fond.	5-10	0.00	0.59(2)	0.43(1)	0.39(1)	0.38(1)
			42.50	0.60(2)	0.44(1)	0.40(1)	0.38(1)
			85.00	0.62(2)	0.45(1)	0.40(1)	0.39(1)
<b>52</b>	Fond.	5-10	0.00	0.62(2)	0.45(1)	0.40(1)	0.39(1)
			32.50	0.63(2)	0.46(1)	0.41(1)	0.39(1)
			65.00	0.64(2)	0.47(1)	0.41(1)	0.40(1)
<b>53</b>	Fond.	5-10	0.00	0.64(2)	0.47(1)	0.41(1)	0.40(1)
			32.50	0.65(2)	0.47(1)	0.42(1)	0.40(1)
			65.00	0.65(2)	0.48(1)	0.42(1)	0.40(1)
<b>54</b>	Fond.	6-7	0.00	0.54(3)	0.39(2)	0.35(1)	0.33(1)
			47.50	0.53(3)	0.39(2)	0.34(1)	0.33(1)
			95.00	0.53(3)	0.38(2)	0.34(1)	0.32(1)
<b>55</b>	Fond.	6-7	0.00	0.53(3)	0.38(2)	0.34(1)	0.32(1)
			47.50	0.52(3)	0.38(2)	0.33(1)	0.32(1)
			95.00	0.51(3)	0.37(2)	0.33(1)	0.31(1)
<b>56</b>	Fond.	6-7	0.00	0.51(2)	0.37(1)	0.33(1)	0.31(1)
			47.50	0.50(2)	0.36(1)	0.32(1)	0.31(1)
			95.00	0.48(2)	0.35(1)	0.32(1)	0.30(1)
<b>57</b>	Fond.	6-7	0.00	0.48(2)	0.35(1)	0.32(1)	0.30(1)
			47.50	0.48(2)	0.35(1)	0.31(1)	0.30(1)
			95.00	0.47(2)	0.34(1)	0.30(1)	0.29(1)
<b>58</b>	Fond.	6-7	0.00	0.47(3)	0.34(2)	0.30(1)	0.29(1)
			50.00	0.46(3)	0.34(2)	0.31(1)	0.29(1)

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			100.00	0.48(3)	0.35(2)	0.32(1)	0.30(1)
<b>59</b>	Fond.	6-7	0.00	0.48(3)	0.35(2)	0.32(1)	0.30(1)
			42.50	0.49(3)	0.36(2)	0.32(1)	0.31(1)
			85.00	0.49(3)	0.36(2)	0.33(1)	0.32(1)
<b>60</b>	Fond.	7-8	0.00	0.49(2)	0.36(1)	0.33(3)	0.32(1)
			40.24	0.48(2)	0.35(1)	0.32(3)	0.31(1)
			80.48	0.46(2)	0.34(1)	0.30(3)	0.29(1)
<b>61</b>	Fond.	7-8	0.00	0.46(2)	0.34(1)	0.30(3)	0.29(1)
			43.55	0.40(2)	0.29(1)	0.26(3)	0.25(1)
			87.11	0.33(2)	0.24(1)	0.21(3)	0.20(1)
<b>62</b>	Fond.	7-8	0.00	0.33(2)	0.24(1)	0.21(3)	0.20(1)
			43.55	0.26(2)	0.19(1)	0.17(3)	0.16(1)
			87.11	0.22(2)	0.16(1)	0.14(3)	0.13(1)
<b>63</b>	Fond.	7-8	0.00	0.22(14)	0.16(1)	0.14(1)	0.13(1)
			43.55	0.20(14)	0.15(1)	0.13(1)	0.12(1)
			87.11	0.24(14)	0.15(1)	0.14(1)	0.13(1)
<b>64</b>	Fond.	7-8	0.00	0.24(14)	0.15(1)	0.14(3)	0.13(1)
			43.55	0.30(14)	0.18(1)	0.16(3)	0.15(1)
			87.11	0.39(14)	0.22(1)	0.19(3)	0.18(1)
<b>65</b>	Fond.	7-8	0.00	0.39(14)	0.22(3)	0.19(3)	0.18(1)
			24.10	0.43(14)	0.24(3)	0.21(3)	0.20(1)
			48.20	0.48(14)	0.27(3)	0.23(3)	0.22(1)
<b>66</b>	Fond.	7-11	0.00	0.49(3)	0.36(2)	0.33(1)	0.32(1)
			40.00	0.48(3)	0.35(2)	0.32(1)	0.31(1)
			80.00	0.46(3)	0.34(2)	0.31(1)	0.30(1)
<b>67</b>	Fond.	7-11	0.00	0.46(3)	0.34(2)	0.31(1)	0.30(1)
			42.50	0.45(3)	0.33(2)	0.30(1)	0.29(1)
			85.00	0.44(3)	0.32(2)	0.29(1)	0.28(1)
<b>68</b>	Fond.	7-11	0.00	0.44(3)	0.32(2)	0.29(1)	0.28(1)
			45.00	0.43(3)	0.32(2)	0.28(1)	0.27(1)
			90.00	0.44(3)	0.32(2)	0.28(1)	0.27(1)
<b>69</b>	Fond.	7-11	0.00	0.44(3)	0.32(2)	0.28(1)	0.27(1)
			45.00	0.44(3)	0.32(2)	0.29(1)	0.27(1)
			90.00	0.45(3)	0.33(2)	0.29(1)	0.28(1)
<b>70</b>	Fond.	7-11	0.00	0.45(3)	0.33(2)	0.29(1)	0.28(1)
			42.50	0.47(3)	0.34(2)	0.30(1)	0.29(1)
			85.00	0.50(3)	0.36(2)	0.31(1)	0.30(1)
<b>71</b>	Fond.	7-11	0.00	0.50(3)	0.36(2)	0.31(1)	0.30(1)
			42.50	0.51(3)	0.37(2)	0.32(1)	0.31(1)
			85.00	0.52(3)	0.38(2)	0.33(1)	0.32(1)
<b>72</b>	Fond.	8-15	0.00	0.48(14)	0.27(1)	0.23(3)	0.22(1)
			38.75	0.44(14)	0.26(1)	0.23(3)	0.21(1)
			77.50	0.40(14)	0.26(1)	0.23(3)	0.22(1)
<b>73</b>	Fond.	8-15	0.00	0.40(14)	0.26(1)	0.23(3)	0.22(1)
			38.75	0.38(14)	0.26(1)	0.23(3)	0.22(1)
			77.50	0.39(14)	0.27(1)	0.23(3)	0.22(1)
<b>74</b>	Fond.	8-15	0.00	0.39(14)	0.27(1)	0.23(3)	0.22(1)
			37.50	0.41(14)	0.28(1)	0.24(3)	0.23(1)
			75.00	0.43(14)	0.29(1)	0.25(3)	0.24(1)
<b>75</b>	Fond.	8-15	0.00	0.43(7)	0.29(1)	0.25(3)	0.24(1)
			42.50	0.45(7)	0.30(1)	0.27(3)	0.25(1)
			85.00	0.45(7)	0.32(1)	0.28(3)	0.26(1)
<b>76</b>	Fond.	8-15	0.00	0.45(7)	0.32(1)	0.28(3)	0.26(1)
			42.50	0.46(7)	0.33(1)	0.29(3)	0.27(1)
			85.00	0.46(7)	0.33(1)	0.29(3)	0.28(1)
<b>77</b>	Fond.	9-10	0.00	0.54(2)	0.39(1)	0.35(1)	0.33(1)
			77.50	0.64(2)	0.47(1)	0.41(1)	0.39(1)
			155.00	0.65(2)	0.48(1)	0.42(1)	0.40(1)
<b>78</b>	Fond.	10-11	0.00	0.65(3)	0.48(2)	0.42(1)	0.40(1)
			37.50	0.60(3)	0.44(2)	0.40(1)	0.38(1)
			75.00	0.57(3)	0.42(2)	0.37(1)	0.36(1)
<b>79</b>	Fond.	10-11	0.00	0.57(3)	0.42(2)	0.37(4)	0.36(1)
			37.50	0.54(3)	0.39(2)	0.34(4)	0.33(1)
			75.00	0.49(3)	0.36(2)	0.31(4)	0.29(1)
<b>80</b>	Fond.	10-11	0.00	0.49(3)	0.36(2)	0.31(1)	0.29(1)
			36.67	0.44(3)	0.32(2)	0.27(1)	0.26(1)
			73.33	0.40(3)	0.29(2)	0.25(1)	0.24(1)
<b>81</b>	Fond.	10-11	0.00	0.40(3)	0.29(2)	0.25(1)	0.24(1)
			36.67	0.38(3)	0.27(2)	0.24(1)	0.23(1)
			73.33	0.39(3)	0.28(2)	0.25(1)	0.23(1)
<b>82</b>	Fond.	10-11	0.00	0.39(3)	0.28(2)	0.25(1)	0.23(1)
			36.67	0.42(3)	0.31(2)	0.27(1)	0.26(1)

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			73.33	0.46(3)	0.33(2)	0.29(1)	0.28(1)
<b>83</b>	Fond.	10-11	0.00	0.46(3)	0.33(2)	0.29(1)	0.28(1)
			30.00	0.49(3)	0.35(2)	0.30(1)	0.29(1)
			60.00	0.50(3)	0.36(2)	0.31(1)	0.29(1)
<b>84</b>	Fond.	10-11	0.00	0.50(3)	0.36(2)	0.31(1)	0.29(1)
			30.00	0.49(3)	0.35(2)	0.30(1)	0.28(1)
			60.00	0.46(3)	0.33(2)	0.28(1)	0.26(1)
<b>85</b>	Fond.	10-11	0.00	0.46(3)	0.33(2)	0.28(1)	0.26(1)
			44.17	0.41(3)	0.29(2)	0.25(1)	0.23(1)
			88.33	0.36(3)	0.26(2)	0.22(1)	0.21(1)
<b>86</b>	Fond.	10-11	0.00	0.36(3)	0.26(2)	0.22(1)	0.21(1)
			44.17	0.34(3)	0.25(2)	0.21(1)	0.20(1)
			88.33	0.36(3)	0.26(2)	0.23(1)	0.22(1)
<b>87</b>	Fond.	10-11	0.00	0.36(3)	0.26(2)	0.23(1)	0.22(1)
			44.17	0.41(3)	0.29(2)	0.26(1)	0.24(1)
			88.33	0.46(3)	0.33(2)	0.29(1)	0.27(1)
<b>88</b>	Fond.	10-11	0.00	0.46(3)	0.33(2)	0.29(1)	0.27(1)
			47.50	0.48(3)	0.34(2)	0.30(1)	0.28(1)
			95.00	0.46(3)	0.33(2)	0.29(1)	0.27(1)
<b>89</b>	Fond.	10-11	0.00	0.46(3)	0.33(2)	0.29(1)	0.27(1)
			37.50	0.43(3)	0.31(2)	0.27(1)	0.25(1)
			75.00	0.39(3)	0.28(2)	0.25(1)	0.23(1)
<b>90</b>	Fond.	10-11	0.00	0.39(3)	0.28(2)	0.25(1)	0.23(1)
			37.50	0.38(3)	0.27(2)	0.24(1)	0.23(1)
			75.00	0.39(3)	0.28(2)	0.25(1)	0.24(1)
<b>91</b>	Fond.	10-11	0.00	0.39(3)	0.28(2)	0.25(1)	0.24(1)
			37.50	0.42(3)	0.31(2)	0.27(1)	0.26(1)
			75.00	0.46(3)	0.34(2)	0.30(1)	0.29(1)
<b>92</b>	Fond.	10-11	0.00	0.46(3)	0.34(2)	0.30(1)	0.29(1)
			47.50	0.50(3)	0.37(2)	0.32(1)	0.31(1)
			95.00	0.52(3)	0.38(2)	0.33(1)	0.32(1)
<b>93</b>	Fond.	10-12	0.00	0.65(2)	0.48(1)	0.42(1)	0.40(1)
			25.00	0.65(2)	0.48(1)	0.42(1)	0.40(1)
			50.00	0.65(2)	0.47(1)	0.41(1)	0.40(1)
<b>94</b>	Fond.	10-12	0.00	0.65(2)	0.47(1)	0.41(1)	0.40(1)
			42.50	0.63(2)	0.46(1)	0.41(1)	0.39(1)
			85.00	0.62(2)	0.46(1)	0.41(1)	0.39(1)
<b>95</b>	Fond.	10-12	0.00	0.62(2)	0.46(1)	0.41(1)	0.39(1)
			36.25	0.62(2)	0.45(1)	0.41(1)	0.39(1)
			72.50	0.62(2)	0.46(1)	0.41(1)	0.39(1)
<b>96</b>	Fond.	10-12	0.00	0.62(2)	0.46(1)	0.41(3)	0.39(1)
			36.25	0.63(2)	0.46(1)	0.41(3)	0.39(1)
			72.50	0.64(2)	0.47(1)	0.41(3)	0.40(1)
<b>97</b>	Fond.	10-12	0.00	0.64(2)	0.47(1)	0.41(3)	0.40(1)
			50.00	0.65(2)	0.48(1)	0.42(3)	0.41(1)
			100.00	0.68(2)	0.50(1)	0.45(3)	0.43(1)
<b>98</b>	Fond.	10-12	0.00	0.68(2)	0.50(1)	0.45(3)	0.43(1)
			27.50	0.70(2)	0.52(1)	0.46(3)	0.45(1)
			55.00	0.73(2)	0.54(1)	0.48(3)	0.46(1)
<b>99</b>	Fond.	10-12	0.00	0.73(4)	0.54(3)	0.48(3)	0.46(1)
			27.50	0.77(4)	0.56(3)	0.50(3)	0.47(1)
			55.00	0.81(4) *	0.59(3) *	0.53(3) *	0.49(1) *
<b>100</b>	Fond.	11-13	0.00	0.52(3)	0.38(2)	0.33(1)	0.32(1)
			10.00	0.52(3)	0.38(2)	0.33(1)	0.32(1)
			20.00	0.51(3)	0.38(2)	0.33(1)	0.31(1)
<b>101</b>	Fond.	11-13	0.00	0.51(3)	0.38(2)	0.33(1)	0.31(1)
			27.50	0.51(3)	0.37(2)	0.33(1)	0.31(1)
			55.00	0.51(3)	0.37(2)	0.33(1)	0.31(1)
<b>102</b>	Fond.	11-13	0.00	0.51(3)	0.37(2)	0.33(1)	0.31(1)
			27.50	0.51(3)	0.37(2)	0.33(1)	0.31(1)
			55.00	0.52(3)	0.38(2)	0.33(1)	0.32(1)
<b>103</b>	Fond.	11-13	0.00	0.52(3)	0.38(2)	0.33(1)	0.32(1)
			38.75	0.52(3)	0.38(2)	0.34(1)	0.32(1)
			77.50	0.53(3)	0.38(2)	0.34(1)	0.33(1)
<b>104</b>	Fond.	11-13	0.00	0.53(3)	0.38(2)	0.34(1)	0.33(1)
			38.75	0.52(3)	0.38(2)	0.34(1)	0.33(1)
			77.50	0.52(3)	0.38(2)	0.35(1)	0.33(1)
<b>105</b>	Fond.	11-13	0.00	0.52(3)	0.38(2)	0.35(1)	0.33(1)
			42.50	0.54(3)	0.39(2)	0.36(1)	0.34(1)
			85.00	0.56(3)	0.41(2)	0.38(1)	0.36(1)
<b>106</b>	Fond.	11-13	0.00	0.56(2)	0.41(1)	0.38(1)	0.36(1)
			30.00	0.58(2)	0.43(1)	0.39(1)	0.38(1)

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			60.00	0.61(2)	0.45(1)	0.41(1)	0.39(1)
<b>107</b>	Fond.	11-13	0.00	0.61(2)	0.45(1)	0.41(3)	0.39(1)
			30.00	0.64(2)	0.47(1)	0.42(3)	0.40(1)
			60.00	0.67(2)	0.49(1)	0.43(3)	0.42(1)
<b>108</b>	Fond.	15-11	0.00	0.46(2)	0.33(1)	0.29(1)	0.28(1)
			48.01	0.43(2)	0.31(1)	0.28(1)	0.27(1)
			96.03	0.41(2)	0.30(1)	0.27(1)	0.26(1)
<b>109</b>	Fond.	15-11	0.00	0.41(3)	0.30(2)	0.27(1)	0.26(1)
			48.01	0.40(3)	0.29(2)	0.26(1)	0.25(1)
			96.03	0.40(3)	0.29(2)	0.26(1)	0.25(1)
<b>110</b>	Fond.	15-11	0.00	0.40(3)	0.29(2)	0.26(1)	0.25(1)
			48.01	0.41(3)	0.30(2)	0.26(1)	0.25(1)
			96.03	0.43(3)	0.31(2)	0.28(1)	0.26(1)
<b>111</b>	Fond.	15-11	0.00	0.43(3)	0.31(2)	0.28(1)	0.26(1)
			48.01	0.45(3)	0.33(2)	0.29(1)	0.28(1)
			96.03	0.48(3)	0.35(2)	0.31(1)	0.30(1)
<b>112</b>	Fond.	15-11	0.00	0.48(3)	0.35(2)	0.31(1)	0.30(1)
			48.01	0.51(3)	0.37(2)	0.32(1)	0.31(1)
			96.03	0.52(3)	0.38(2)	0.33(1)	0.32(1)
<b>113</b>	Fond.	12-13	0.00	0.81(2) *	0.59(1) *	0.53(1) *	0.49(1) *
			45.00	0.75(2)	0.56(1)	0.50(1)	0.47(1)
			90.00	0.72(2)	0.53(1)	0.48(1)	0.46(1)
<b>114</b>	Fond.	12-13	0.00	0.72(2)	0.53(1)	0.48(1)	0.46(1)
			45.00	0.69(2)	0.51(1)	0.47(1)	0.45(1)
			90.00	0.68(2)	0.50(1)	0.46(1)	0.45(1)
<b>115</b>	Fond.	12-13	0.00	0.68(2)	0.50(1)	0.46(1)	0.45(1)
			42.50	0.69(2)	0.51(1)	0.46(1)	0.45(1)
			85.00	0.70(2)	0.52(1)	0.47(1)	0.46(1)
<b>116</b>	Fond.	12-13	0.00	0.70(3)	0.52(2)	0.47(1)	0.46(1)
			41.25	0.71(3)	0.52(2)	0.48(1)	0.46(1)
			82.50	0.71(3)	0.52(2)	0.48(1)	0.46(1)
<b>117</b>	Fond.	12-13	0.00	0.71(3)	0.52(2)	0.48(1)	0.46(1)
			41.25	0.71(3)	0.52(2)	0.48(1)	0.46(1)
			82.50	0.71(3)	0.52(2)	0.48(1)	0.46(1)
<b>118</b>	Fond.	12-13	0.00	0.71(3)	0.52(2)	0.48(1)	0.46(1)
			42.50	0.71(3)	0.52(2)	0.48(1)	0.46(1)
			85.00	0.72(3)	0.53(2)	0.49(1)	0.47(1)
<b>119</b>	Fond.	12-13	0.00	0.72(3)	0.53(2)	0.49(1)	0.47(1)
			43.75	0.72(3)	0.53(2)	0.49(1)	0.47(1)
			87.50	0.73(3)	0.54(2)	0.49(1)	0.47(1)
<b>120</b>	Fond.	12-13	0.00	0.73(3)	0.54(2)	0.49(1)	0.47(1)
			43.75	0.72(3)	0.53(2)	0.49(1)	0.47(1)
			87.50	0.72(3)	0.53(2)	0.48(1)	0.47(1)
<b>121</b>	Fond.	12-13	0.00	0.72(3)	0.53(2)	0.48(1)	0.47(1)
			42.50	0.71(3)	0.52(2)	0.48(1)	0.46(1)
			85.00	0.71(3)	0.52(2)	0.47(1)	0.46(1)
<b>122</b>	Fond.	12-13	0.00	0.71(3)	0.52(2)	0.47(1)	0.46(1)
			43.75	0.71(3)	0.52(2)	0.47(1)	0.46(1)
			87.50	0.70(3)	0.52(2)	0.47(1)	0.45(1)
<b>123</b>	Fond.	12-13	0.00	0.70(2)	0.52(1)	0.47(1)	0.45(1)
			43.75	0.69(2)	0.51(1)	0.46(1)	0.45(1)
			87.50	0.68(2)	0.50(1)	0.46(1)	0.44(1)
<b>124</b>	Fond.	12-13	0.00	0.68(2)	0.50(1)	0.46(1)	0.44(1)
			42.50	0.67(2)	0.49(1)	0.45(1)	0.43(1)
			85.00	0.66(2)	0.49(1)	0.44(1)	0.43(1)
<b>125</b>	Fond.	12-13	0.00	0.66(2)	0.49(1)	0.44(1)	0.43(1)
			33.75	0.66(2)	0.49(1)	0.44(1)	0.43(1)
			67.50	0.66(2)	0.49(1)	0.44(1)	0.43(1)
<b>126</b>	Fond.	12-13	0.00	0.66(2)	0.49(1)	0.44(3)	0.43(1)
			33.75	0.67(2)	0.49(1)	0.44(3)	0.42(1)
			67.50	0.67(2)	0.49(1)	0.43(3)	0.42(1)
<b>127</b>	Fond.	13-14	0.00	0.67(2)	0.49(1)	0.43(3)	0.42(1)
			37.50	0.65(2)	0.48(1)	0.42(3)	0.40(1)
			75.00	0.60(2)	0.44(1)	0.39(3)	0.36(1)
<b>128</b>	Fond.	13-14	0.00	0.60(4)	0.44(3)	0.39(3)	0.36(1)
			43.13	0.52(4)	0.38(3)	0.33(3)	0.30(1)
			86.25	0.41(4)	0.30(3)	0.26(3)	0.24(1)
<b>129</b>	Fond.	13-14	0.00	0.41(2)	0.30(1)	0.26(3)	0.24(1)
			43.13	0.33(2)	0.24(1)	0.21(3)	0.20(1)
			86.25	0.28(2)	0.20(1)	0.18(3)	0.17(1)
<b>130</b>	Fond.	13-14	0.00	0.28(19)	0.20(1)	0.18(1)	0.17(1)
			43.13	0.28(19)	0.20(1)	0.18(1)	0.17(1)

			86.25	0.34(19)	0.23(1)	0.21(1)	0.20(1)
<b>131</b>	Fond.	13-14	0.00	0.34(19)	0.23(1)	0.21(1)	0.20(1)
			43.13	0.45(19)	0.28(1)	0.26(1)	0.25(1)
			86.25	0.57(19)	0.36(1)	0.32(1)	0.31(1)
<b>132</b>	Fond.	13-14	0.00	0.57(19)	0.36(1)	0.32(3)	0.31(1)
			27.50	0.65(19)	0.41(1)	0.36(3)	0.35(1)
			55.00	0.73(19)	0.46(1)	0.41(3)	0.39(1)
<b>133</b>	Fond.	15-14	0.00	0.46(2)	0.33(1)	0.29(1)	0.28(1)
			40.00	0.46(2)	0.34(1)	0.30(1)	0.29(1)
			80.00	0.46(2)	0.34(1)	0.30(1)	0.29(1)
<b>134</b>	Fond.	15-14	0.00	0.46(2)	0.34(1)	0.30(1)	0.29(1)
			40.00	0.47(2)	0.34(1)	0.31(1)	0.29(1)
			80.00	0.47(2)	0.34(1)	0.31(1)	0.30(1)
<b>135</b>	Fond.	15-14	0.00	0.47(2)	0.34(1)	0.31(1)	0.30(1)
			40.00	0.47(2)	0.35(1)	0.31(1)	0.30(1)
			80.00	0.48(2)	0.35(1)	0.31(1)	0.30(1)
<b>136</b>	Fond.	15-14	0.00	0.48(2)	0.35(1)	0.31(1)	0.30(1)
			40.00	0.48(2)	0.35(1)	0.32(1)	0.30(1)
			80.00	0.48(2)	0.36(1)	0.32(1)	0.31(1)
<b>137</b>	Fond.	15-14	0.00	0.48(2)	0.36(1)	0.32(1)	0.31(1)
			40.00	0.49(2)	0.36(1)	0.33(1)	0.32(1)
			80.00	0.51(2)	0.38(1)	0.34(1)	0.33(1)
<b>138</b>	Fond.	15-14	0.00	0.51(19)	0.38(1)	0.34(1)	0.33(1)
			40.00	0.55(19)	0.39(1)	0.35(1)	0.34(1)
			80.00	0.60(19)	0.41(1)	0.37(1)	0.35(1)
<b>139</b>	Fond.	15-14	0.00	0.60(19)	0.41(1)	0.37(3)	0.35(1)
			40.00	0.66(19)	0.43(1)	0.38(3)	0.37(1)
			80.00	0.73(19)	0.46(1)	0.41(3)	0.39(1)

Tabella 1.II

Tensioni Terreno				
		SLV	SLE	
		A1	Caratt.	Freq.
Piastra	Fili	$\sigma_t$ [daN/cm <sup>2</sup> ]	$\sigma_t$ [daN/cm <sup>2</sup> ]	$\sigma_t$ [daN/cm <sup>2</sup> ]
<b>1</b>	1, 2, 6, 5	0.71(2)	0.52(1)	0.48(3)
<b>2</b>	2, 3, 7, 6	0.66(4)	0.49(3)	0.43(3)
<b>3</b>	5, 6, 7, 11, 10	0.65(2)	0.48(1)	0.42(1)
<b>4</b>	10, 11, 13, 12	0.81(4) *	0.59(3) *	0.53(3) *
<b>5</b>	7, 8, 15, 11	0.52(3)	0.38(2)	0.33(1)
<b>6</b>	15, 14, 13, 11	0.73(19)	0.49(1)	0.43(3)

\* valore massimo.

## 4.2 Percentuale di forza sismica assorbita dagli elementi in muratura.

Impalcato	Direzione	
	X [%]	Y [%]
<b>Piano 1</b>	100.0	100.0
<b>Piano 2</b>	100.0	100.0

## 4.3 Risultati del calcolo non lineare.

### 4.3.1 Stato degli elementi maschio al collasso della struttura.

Imp. : numero dell'impalcato  
 Fili : numero dei fili fissi iniziale e finale  
 Stato : stato al quale si trova l'elemento al collasso della struttura (E = elastico; P = plastico; C = collassato)  
 N : sforzo normale raggiunto dalla parete al collasso della struttura  
 $k_L$  : rigidezza nel piano dell'elemento  
 $\delta_L$  : spostamento nel piano dell'elemento al collasso della struttura  
 $\delta_{L,0}$  : spostamento elastico nel piano dell'elemento al collasso della struttura  
 $\delta_{L,u}$  : spostamento ultimo nel piano dell'elemento al collasso della struttura  
 $V_L$  : taglio nel piano raggiunto dalla parete al collasso della struttura  
 $V_{L,e}$  : taglio massimo nel piano raggiunto dalla parete in fase elastica

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$V_{L,u}$  : taglio ultimo nel piano dell'elemento al collasso della struttura  
 $\%_{\delta_{L,0}}$  : percentuale dello spostamento elastico nel piano dell'elemento al collasso della struttura  
 $\%_{\delta_{L,u}}$  : percentuale dello spostamento plastico nel piano dell'elemento al collasso della struttura  
 $k_t$  : rigidezza fuori piano dell'elemento  
 $\delta_t$  : spostamento fuori piano dell'elemento al collasso della struttura  
 $\delta_{t,0}$  : spostamento elastico fuori piano dell'elemento al collasso della struttura  
 $\delta_{t,u}$  : spostamento ultimo fuori piano dell'elemento al collasso della struttura  
 $V_t$  : taglio fuori piano raggiunto dalla parete al collasso della struttura  
 $V_{t,e}$  : taglio massimo fuori piano raggiunto dalla parete in fase elastica  
 $V_{t,u}$  : taglio ultimo fuori piano dell'elemento al collasso della struttura  
 $\%_{\delta_{t,0}}$  : percentuale dello spostamento elastico fuori piano dell'elemento al collasso della struttura  
 $\%_{\delta_{t,u}}$  : percentuale dello spostamento plastico fuori piano dell'elemento al collasso della struttura

## Sisma X (+) - Distribuzione forze: Proporzionale masse; (Cond\_X 1(+))

Imp.	Fili	Stato	N [daN]	$k_t$ [daN/cm]	$\delta_t$ [cm]	$\delta_{t,0}$ [cm]	$\delta_{t,u}$ [cm]	$V_L$ [daN]	$V_{L,e}$ [daN]	$V_{L,u}$ [daN]	$\%_{\delta_{t,0}}$	$\%_{\delta_{t,u}}$	$k_t$ [daN/cm]	$\delta_t$ [cm]	$\delta_{t,0}$ [cm]	$\delta_{t,u}$ [cm]	$V_t$ [daN]	$V_{t,e}$ [daN]	$V_{t,u}$ [daN]	$\%_{\delta_{t,0}}$	$\%_{\delta_{t,u}}$
Piano 1	1 - 2	P	-4366	22635	0.30	0.05	1.86	1083	970	1083	100.0	13.9	9479	0.00	0.07	1.86	34	18	650	5.2	0.0
Piano 1	1 - 2	P	-16802	260542	0.30	0.05	1.86	13261	12916	13261	100.0	13.8	31598	0.00	0.08	1.86	62	37	2387	2.6	0.0
Piano 1	1 - 2	P	-4555	12583	0.30	0.07	1.86	836	745	836	100.0	13.0	7584	0.00	0.08	1.86	3	3	627	0.5	0.0
Piano 1	1 - 5	P	-2536	5688	0.00	0.06	1.86	23	0	364	6.3	0.0	5688	0.30	0.06	1.86	364	0	364	100.0	13.2
Piano 1	1 - 5	P	-4108	18939	0.00	0.05	1.86	76	0	915	8.3	0.0	8847	0.30	0.07	1.86	588	0	588	100.0	13.1
Piano 1	2 - 3	P	-3554	5688	0.30	0.09	1.86	487	478	487	100.0	12.1	5688	0.00	0.09	1.86	1	1	487	0.2	0.0
Piano 1	2 - 3	P	-21856	260542	0.30	0.06	1.86	16400	15851	16400	100.0	13.2	31598	0.00	0.09	1.86	53	43	2952	1.8	0.0
Piano 1	2 - 3	P	-9195	40617	0.30	0.06	1.86	2590	2379	2590	100.0	13.2	12007	0.00	0.10	1.86	40	33	1227	3.3	0.0
Piano 1	2 - 6	P	-4951	27078	0.00	0.05	1.24	3	0	1432	0.2	0.0	3749	0.30	0.00	1.24	0	0	0	100.0	24.2
Piano 1	2 - 6	P	-5876	38012	0.00	0.05	1.24	4	0	1965	0.2	0.0	4341	0.30	0.00	1.24	0	0	0	100.0	24.4
Piano 1	3 - 7	P	-14526	102201	0.00	0.06	1.86	392	0	6294	6.2	0.0	18327	0.30	0.11	1.86	1953	0	1953	100.0	11.1
Piano 1	3 - 7	P	-12226	69079	0.00	0.06	1.86	265	0	4379	6.1	0.0	15167	0.30	0.11	1.86	1642	0	1642	100.0	11.1
Piano 1	4 - 5	P	-900	987	0.30	0.09	1.86	85	85	85	100.0	12.2	694	0.00	0.10	1.86	3	3	71	4.8	0.0
Piano 1	4 - 5	P	-962	987	0.30	0.09	1.86	90	85	90	100.0	11.9	694	0.00	0.11	1.86	3	3	75	3.9	0.0
Piano 1	4 - 9	P	-1709	6442	0.01	0.05	1.76	33	0	312	10.5	0.0	1504	0.30	0.09	1.76	142	0	142	100.0	12.5
Piano 1	4 - 9	C	-17921	473441	0.01	0.07	1.03	2416	0	32283	7.5	0.0	45656	1.03	0.06	1.03	2630	0	2630	100.0	100.0
Piano 1	5 - 6	P	-5554	48959	0.30	0.04	1.86	2142	2047	2142	100.0	14.3	7096	0.00	0.09	1.86	25	12	652	3.8	0.0
Piano 1	5 - 6	P	-19009	298329	0.30	0.06	1.86	19354	19098	19354	100.0	13.2	20364	0.00	0.10	1.86	27	22	2053	1.3	0.0
Piano 1	5 - 10	P	-16003	283747	0.00	0.05	1.86	1135	0	13473	8.4	0.0	33494	0.30	0.07	1.86	2288	0	2288	100.0	13.1
Piano 1	5 - 10	P	-5948	40617	0.00	0.04	1.86	162	0	1787	9.1	0.0	12007	0.31	0.07	1.86	846	0	846	100.0	13.1
Piano 1	6 - 7	P	-25000	339599	0.30	0.08	1.86	27552	28134	27552	100.0	12.4	22523	0.00	0.12	1.86	28	25	2642	1.0	0.0
Piano 1	6 - 7	P	-6619	24123	0.30	0.07	1.86	1668	1504	1668	100.0	13.0	5245	0.00	0.13	1.86	18	15	687	2.6	0.0
Piano 1	7 - 8	P	-2086	1184	0.30	0.16	1.86	187	189	187	100.0	8.5	1184	0.00	0.16	1.86	5	4	187	2.6	0.0
Piano 1	7 - 8	P	-1972	694	0.30	0.21	1.86	146	181	146	100.0	5.6	987	0.01	0.18	1.86	7	6	175	3.7	0.0
Piano 1	7 - 11	P	-4629	5688	0.00	0.11	1.86	22	0	621	3.5	0.0	5688	0.30	0.11	1.86	621	0	621	100.0	11.1
Piano 1	7 - 11	P	-18814	153086	0.00	0.07	1.86	587	0	10090	5.8	0.0	22751	0.30	0.11	1.86	2522	0	2522	100.0	11.1
Piano 1	7 - 11	P	-5310	7637	0.00	0.10	1.86	29	0	790	3.7	0.0	6320	0.31	0.11	1.86	711	0	711	100.0	11.0
Piano 1	15 - 8	P	-11496	76772	0.01	0.08	1.24	521	520	5763	9.0	0.0	3934	0.30	0.00	1.24	0	1032	0	100.0	24.6
Piano 1	15 - 8	P	-8323	41886	0.01	0.07	1.24	284	277	3072	9.2	0.0	2893	0.30	0.00	1.24	0	755	0	100.0	24.5
Piano 1	10 - 11	P	-5385	39906	0.31	0.05	1.86	1881	1728	1881	100.0	14.3	6479	0.00	0.10	1.86	23	11	627	3.6	0.0
Piano 1	10 - 11	P	-7305	53728	0.31	0.05	1.86	2743	2503	2743	100.0	14.1	7405	0.00	0.11	1.86	9	5	800	1.2	0.0
Piano 1	10 - 11	P	-6804	31591	0.31	0.06	1.86	1941	1761	1941	100.0	13.6	5862	0.00	0.12	1.86	7	5	715	1.0	0.0
Piano 1	10 - 11	P	-7681	31591	0.31	0.07	1.86	2156	1946	2156	100.0	13.3	5862	0.00	0.14	1.86	20	16	794	2.5	0.0
Piano 1	10 - 12	P	-3176	7637	0.00	0.07	1.86	31	0	502	6.1	0.0	6320	0.31	0.07	1.86	452	0	452	100.0	13.1
Piano 1	10 - 12	P	-9431	102201	0.00	0.04	1.86	409	0	4317	9.5	0.0	18327	0.31	0.07	1.86	1340	0	1340	100.0	13.1
Piano 1	10 -	P	-4340	15586	0.00	0.06	1.86	62	0	889	7.0	0.0	8215	0.31	0.07	1.86	616	0	616	100.0	13.1



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 1	11 - 13	P	-16809	116335	0.00	0.07	1.86	446	0	7743	5.8	0.0	19591	0.31	0.11	1.86	2248	0	2248	100.0	11.0
Piano 1	11 - 13	P	-8259	22635	0.00	0.08	1.86	87	0	1839	4.7	0.0	9479	0.31	0.12	1.86	1103	0	1103	100.0	11.0
Piano 1	11 - 19	P	-15713	134865	0.31	0.07	1.86	9792	9345	9792	100.0	13.0	8379	0.00	0.17	1.86	39	33	1384	2.8	0.0
Piano 1	12 - 13	P	-9526	88519	0.31	0.05	1.86	4267	4034	4267	100.0	14.4	17063	0.00	0.08	1.86	58	28	1422	4.1	0.0
Piano 1	12 - 13	P	-13081	130831	0.31	0.05	1.86	6828	6483	6828	100.0	14.2	20855	0.00	0.09	1.86	38	20	1862	2.0	0.0
Piano 1	12 - 13	P	-15529	145610	0.31	0.06	1.86	8302	7882	8302	100.0	14.0	22119	0.00	0.10	1.86	3	1	2132	0.1	0.0
Piano 1	12 - 13	P	-17217	145610	0.31	0.06	1.86	8994	8495	8994	100.0	13.8	22119	0.00	0.10	1.86	36	23	2313	1.6	0.0
Piano 1	12 - 13	P	-14484	88519	0.31	0.06	1.86	5753	5380	5753	100.0	13.6	17063	0.00	0.11	1.86	55	40	1918	2.9	0.0
Piano 1	13 - 14	P	-2242	1184	0.31	0.17	1.86	200	196	200	100.0	8.3	1184	0.00	0.17	1.86	5	4	200	2.4	0.0
Piano 1	13 - 14	P	-2520	1184	0.31	0.19	1.86	222	196	222	100.0	7.3	1184	0.01	0.19	1.86	8	7	222	3.5	0.0
Piano 1	14 - 15	P	-14700	110410	0.01	0.08	1.24	749	760	9073	8.3	0.0	4860	0.31	0.00	1.24	0	1289	0	100.0	24.9
Piano 1	14 - 15	P	-14416	110410	0.01	0.08	1.24	749	760	8914	8.4	0.0	4860	0.31	0.00	1.24	0	1280	0	100.0	24.7
Piano 1	19 - 15	P	-15403	117182	0.31	0.07	1.86	8756	8419	8756	100.0	12.9	7695	0.01	0.18	1.86	47	39	1347	3.5	0.0
Piano 2	1 - 2	P	-3691	37399	0.03	0.03	1.62	1059	838	1059	100.0	0.1	14837	0.00	0.04	1.62	13	10	596	2.2	0.0
Piano 2	1 - 2	E	-8896	187541	0.03	0.03	2.20	5497	5101	5665	97.0	0.0	18770	0.00	0.06	2.20	11	9	1062	1.0	0.0
Piano 2	1 - 2	E	-2042	5245	0.03	0.05	2.77	154	135	282	54.6	0.0	2633	0.00	0.07	2.77	1	1	195	0.4	0.0
Piano 2	5 - 1	E	-7084	141480	0.00	0.03	1.62	134	124	3804	3.5	0.0	27880	0.03	0.04	1.62	808	690	1141	70.8	0.0
Piano 2	5 - 1	E	-5127	69772	0.00	0.03	1.62	66	59	1925	3.4	0.0	19516	0.03	0.04	1.62	570	487	825	69.1	0.0
Piano 2	2 - 3	E	-1681	3214	0.03	0.06	2.78	94	77	195	48.2	0.0	2198	0.00	0.07	2.78	0	0	160	0.3	0.0
Piano 2	2 - 3	E	-8595	169147	0.03	0.03	2.24	4958	4435	5146	96.3	0.0	17045	0.00	0.06	2.24	1	1	1008	0.1	0.0
Piano 2	2 - 3	P	-5126	67051	0.03	0.03	1.65	1885	1443	1885	100.0	0.1	18549	0.00	0.04	1.65	7	5	808	0.9	0.0
Piano 2	2 - 6	E	-6409	128031	0.00	0.03	3.03	31	0	4160	0.7	0.0	3142	0.03	0.12	3.03	91	0	373	24.5	0.0
Piano 2	3 - 7	E	-6446	84567	0.00	0.03	1.62	40	0	2637	1.5	0.0	21375	0.03	0.05	1.62	624	0	1032	60.5	0.0
Piano 2	3 - 7	E	-7898	133004	0.00	0.03	1.62	63	0	4079	1.5	0.0	26951	0.03	0.05	1.62	781	0	1266	61.7	0.0
Piano 2	5 - 6	P	-1615	19551	0.03	0.02	1.23	429	217	429	100.0	0.6	7095	0.00	0.03	1.23	6	3	234	2.7	0.0
Piano 2	5 - 6	E	-8879	298199	0.03	0.03	2.00	8605	7920	10406	82.7	0.0	12779	0.00	0.06	2.00	6	4	780	0.8	0.0
Piano 2	10 - 5	E	-2805	22350	0.00	0.03	1.62	21	18	655	3.2	0.0	12081	0.03	0.04	1.62	342	292	453	75.5	0.0
Piano 2	10 - 5	E	-8056	193617	0.00	0.03	1.62	183	173	5200	3.5	0.0	33456	0.03	0.04	1.62	956	816	1300	73.5	0.0
Piano 2	10 - 5	E	-1158	1561	0.00	0.07	1.62	1	1	104	1.4	0.0	4647	0.03	0.04	1.62	134	114	187	71.7	0.0
Piano 2	6 - 7	E	-1258	5162	0.03	0.04	2.41	149	95	200	74.6	0.0	1206	0.00	0.08	2.41	0	0	92	0.2	0.0
Piano 2	6 - 7	P	-5806	168263	0.03	0.03	1.82	4455	3636	4455	100.0	0.1	10026	0.00	0.06	1.82	1	1	557	0.2	0.0
Piano 2	6 - 7	P	-2057	28686	0.03	0.02	1.24	613	299	613	100.0	0.6	8178	0.00	0.03	1.24	3	1	283	1.2	0.0
Piano 2	7 - 11	E	-10923	246782	0.00	0.03	1.62	116	0	8187	1.4	0.0	39032	0.03	0.04	1.62	1115	0	1754	63.6	0.0
Piano 2	7 - 11	E	-2265	8364	0.00	0.04	1.62	4	0	364	1.1	0.0	8364	0.03	0.04	1.62	237	0	364	65.0	0.0
Piano 2	12 - 10	E	-3362	43290	0.00	0.02	1.62	41	36	1029	4.0	0.0	15799	0.03	0.03	1.62	439	375	545	80.5	0.0
Piano 2	12 - 10	E	-11644	370574	0.00	0.03	1.62	351	340	11717	3.0	0.0	52042	0.03	0.04	1.62	1461	1248	1884	77.6	0.0
Piano 2	10 - 16	E	-10662	332766	0.03	0.04	2.20	9407	9252	13658	68.9	0.0	11661	0.00	0.07	2.20	7	6	854	0.9	0.0
Piano 2	11 - 13	E	-21451	652960	0.00	0.05	1.62	308	0	34199	0.9	0.0	82710	0.03	0.04	1.62	2314	0	3453	67.0	0.0
Piano 2	16 - 11	E	-11113	331894	0.03	0.04	2.19	9383	9126	14188	66.1	0.0	11729	0.00	0.08	2.19	2	1	893	0.2	0.0
Piano 2	19 - 11	E	-734	713	0.03	0.09	2.08	20	0	62	32.8	0.0	500	0.00	0.10	2.08	0	0	51	0.7	0.0
Piano 2	19 - 11	E	-2456	20765	0.03	0.03	1.87	588	0	702	83.7	0.0	2105	0.00	0.09	1.87	1	0	191	0.6	0.0
Piano 2	12 - 17	P	-4800	107480	0.03	0.02	1.69	2316	1989	2316	100.0	0.4	22393	0.00	0.03	1.69	19	13	772	2.4	0.0
Piano 2	12 - 17	P	-4816	90848	0.03	0.02	2.24	2110	1909	2110	100.0	0.2	12218	0.00	0.05	2.24	7	5	575	1.2	0.0
Piano 2	12 - 17	E	-2332	13885	0.03	0.03	2.75	384	340	460	83.6	0.0	3789	0.00	0.06	2.75	1	1	225	0.5	0.0
Piano 2	17 - 13	E	-1776	6924	0.03	0.04	2.77	192	158	272	70.6	0.0	2888	0.00	0.06	2.77	1	0	170	0.3	0.0
Piano 2	17 - 13	P	-5697	117512	0.03	0.02	2.27	2803	2473	2803	100.0	0.2	13657	0.00	0.05	2.27	1	1	665	0.1	0.0
Piano 2	17 - 13	P	-5278	107711	0.03	0.02	1.69	2449	1986	2449	100.0	0.3	22462	0.00	0.04	1.69	8	5	816	1.0	0.0
Piano 2	13 - 18	E	-4869	97996	0.03	0.03	1.95	2712	2716	2976	91.1	0.0	4120	0.00	0.09	1.95	3	3	363	0.7	0.0
Piano 14 -		E	-2414	21148	0.00	0.03	1.71	21	21	694	3.1	0.0	2517	0.03	0.08	1.71	70	70	204	34.2	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

2	15																				
Piano 2	14 - 15	E	-10250	251162	0.00	0.05	1.71	252	252	11945	2.1	0.0	10218	0.03	0.08	1.71	287	287	865	33.2	0.0
Piano 2	18 - 14	E	-679	719	0.03	0.08	2.07	20	20	57	34.7	0.0	505	0.00	0.09	2.07	0	0	48	0.8	0.0
Piano 2	18 - 14	E	-2477	23754	0.03	0.03	1.82	657	651	750	87.6	0.0	2343	0.00	0.08	1.82	2	2	197	1.1	0.0
Piano 2	15 - 19	E	-5270	92779	0.03	0.03	1.92	2628	0	3106	84.6	0.0	4131	0.00	0.10	1.92	4	0	398	0.9	0.0

## Sisma X (-) - Distribuzione forze: Proporzionale masse; (Cond\_X 1(-))

Imp.	Fili	Stato	N [daN]	k <sub>L</sub> [daN/cm]	δ <sub>L</sub> [cm]	δ <sub>L,0</sub> [cm]	δ <sub>L,u</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,u</sub> [daN]	%_δ <sub>0</sub>	%_δ <sub>u</sub>	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>0</sub> [cm]	δ <sub>u</sub> [cm]	V <sub>t</sub> [daN]	V <sub>t,e</sub> [daN]	V <sub>t,u</sub> [daN]	%_δ <sub>0</sub>	%_δ <sub>u</sub>
Piano 1	1 - 2	P	-6756	22635	0.18	0.07	1.86	1512	1355	1512	100.0	6.3	9479	0.00	0.10	1.86	35	29	907	3.9	0.0
Piano 1	1 - 2	P	-21181	260542	0.18	0.06	1.86	15896	15536	15896	100.0	6.6	31598	0.00	0.09	1.86	65	48	2862	2.3	0.0
Piano 1	1 - 2	P	-4772	12583	0.18	0.07	1.86	871	767	871	100.0	6.2	7584	0.00	0.09	1.86	3	3	653	0.5	0.0
Piano 1	1 - 5	P	-4142	5688	0.00	0.10	1.86	24	0	561	4.2	0.0	5688	0.18	0.10	1.86	561	0	561	100.0	4.6
Piano 1	1 - 5	P	-6718	18939	0.00	0.07	1.86	78	0	1412	5.6	0.0	8847	0.18	0.10	1.86	907	0	907	100.0	4.5
Piano 1	2 - 3	P	-3497	5688	0.18	0.08	1.86	480	474	480	100.0	5.3	5688	0.00	0.08	1.86	1	1	479	0.2	0.0
Piano 1	2 - 3	P	-18172	260542	0.18	0.05	1.86	14124	13636	14124	100.0	6.9	31598	0.00	0.08	1.86	55	32	2542	2.2	0.0
Piano 1	2 - 3	P	-6376	40617	0.18	0.05	1.86	1955	1780	1955	100.0	7.2	12007	0.00	0.08	1.86	42	21	926	4.5	0.0
Piano 1	2 - 6	P	-5037	27078	0.00	0.05	1.24	3	0	1460	0.2	0.0	3749	0.18	0.00	1.24	0	0	0	100.0	14.5
Piano 1	2 - 6	P	-6074	38012	0.00	0.05	1.24	4	0	2033	0.2	0.0	4341	0.18	0.00	1.24	0	0	0	100.0	14.6
Piano 1	3 - 7	P	-9703	102201	0.00	0.04	1.86	406	0	4367	9.3	0.0	18327	0.18	0.07	1.86	1355	0	1355	100.0	5.9
Piano 1	3 - 7	P	-8374	69079	0.00	0.05	1.86	275	0	3110	8.8	0.0	15167	0.18	0.08	1.86	1166	0	1166	100.0	5.9
Piano 1	4 - 5	P	-1661	987	0.18	0.15	1.86	149	155	149	100.0	1.8	694	0.01	0.18	1.86	4	3	125	2.8	0.0
Piano 1	4 - 5	P	-1625	987	0.18	0.15	1.86	146	155	146	100.0	2.0	694	0.00	0.18	1.86	3	3	122	2.5	0.0
Piano 1	4 - 9	P	-3234	6442	0.01	0.09	1.76	34	0	562	6.1	0.0	1504	0.18	0.17	1.76	255	0	255	100.0	0.8
Piano 1	4 - 9	C	-33758	473441	0.01	0.08	1.03	2503	0	37178	6.7	0.0	45656	1.03	0.09	1.03	4303	0	4303	100.0	100.0
Piano 1	5 - 6	P	-8493	48959	0.18	0.06	1.86	2875	2661	2875	100.0	6.8	7096	0.00	0.12	1.86	25	16	875	2.9	0.0
Piano 1	5 - 6	P	-22544	298329	0.18	0.08	1.86	22442	22541	22442	100.0	6.0	20364	0.00	0.12	1.86	27	24	2380	1.2	0.0
Piano 1	5 - 10	P	-26196	283747	0.00	0.07	1.86	1175	0	20794	5.7	0.0	33494	0.18	0.11	1.86	3531	0	3531	100.0	4.4
Piano 1	5 - 10	P	-9748	40617	0.00	0.07	1.86	168	0	2766	6.1	0.0	12007	0.18	0.11	1.86	1310	0	1310	100.0	4.3
Piano 1	6 - 7	P	-22569	339599	0.18	0.07	1.86	25148	24652	25148	100.0	6.0	22523	0.00	0.11	1.86	29	24	2411	1.2	0.0
Piano 1	6 - 7	P	-4781	24123	0.18	0.05	1.86	1289	1150	1289	100.0	7.1	5245	0.00	0.10	1.86	18	10	531	3.5	0.0
Piano 1	7 - 8	P	-1414	1184	0.18	0.11	1.86	130	117	130	100.0	4.1	1184	0.00	0.11	1.86	5	4	130	3.8	0.0
Piano 1	7 - 8	P	-1039	694	0.18	0.12	1.86	80	109	80	100.0	3.8	987	0.01	0.10	1.86	7	6	96	7.0	0.0
Piano 1	7 - 11	P	-3215	5688	0.00	0.08	1.86	23	0	446	5.1	0.0	5688	0.18	0.08	1.86	446	0	446	100.0	5.8
Piano 1	7 - 11	P	-13366	153086	0.00	0.05	1.86	609	0	7398	8.2	0.0	22751	0.18	0.08	1.86	1850	0	1850	100.0	5.8
Piano 1	7 - 11	P	-3855	7637	0.00	0.08	1.86	30	0	591	5.1	0.0	6320	0.18	0.08	1.86	532	0	532	100.0	5.7
Piano 1	15 - 8	P	-6236	76772	0.01	0.04	1.24	540	507	3260	16.5	0.0	3934	0.18	0.00	1.24	0	624	0	100.0	14.9
Piano 1	15 - 8	P	-4366	41886	0.01	0.04	1.24	294	270	1682	17.5	0.0	2893	0.18	0.00	1.24	0	455	0	100.0	14.7
Piano 1	10 - 11	P	-8320	39906	0.19	0.06	1.86	2566	2355	2566	100.0	6.7	6479	0.00	0.13	1.86	23	16	855	2.7	0.0
Piano 1	10 - 11	P	-8823	53728	0.19	0.06	1.86	3148	2917	3148	100.0	7.0	7405	0.00	0.12	1.86	10	6	918	1.1	0.0
Piano 1	10 - 11	P	-6377	31591	0.19	0.06	1.86	1845	1656	1845	100.0	7.0	5862	0.00	0.12	1.86	7	4	680	1.1	0.0
Piano 1	10 - 11	P	-5855	31591	0.19	0.06	1.86	1744	1576	1744	100.0	7.2	5862	0.00	0.11	1.86	20	11	642	3.2	0.0
Piano 1	10 - 12	P	-5207	7637	0.00	0.10	1.86	32	0	777	4.1	0.0	6320	0.19	0.11	1.86	699	0	699	100.0	4.3
Piano 1	10 - 12	P	-15475	102201	0.00	0.07	1.86	423	0	6681	6.3	0.0	18327	0.19	0.11	1.86	2073	0	2073	100.0	4.2
Piano 1	10 - 12	P	-7126	15586	0.00	0.09	1.86	65	0	1376	4.7	0.0	8215	0.19	0.12	1.86	953	0	953	100.0	4.1
Piano 1	11 - 13	P	-12538	116335	0.00	0.05	1.86	463	0	5940	7.8	0.0	19591	0.19	0.09	1.86	1725	0	1725	100.0	5.6
Piano 1	11 - 13	P	-6280	22635	0.00	0.06	1.86	90	0	1436	6.3	0.0	9479	0.19	0.09	1.86	862	0	862	100.0	5.5
Piano 1	11 - 19	P	-10520	134865	0.19	0.05	1.86	7177	6895	7177	100.0	7.3	8379	0.00	0.12	1.86	41	21	1014	4.0	0.0
Piano 1	12 - 13	P	-14638	88519	0.19	0.07	1.86	5768	5402	5768	100.0	6.9	17063	0.00	0.11	1.86	60	40	1923	3.1	0.0
Piano 1	12 - 13	P	-17034	130831	0.19	0.06	1.86	8275	7727	8275	100.0	7.0	20855	0.00	0.11	1.86	39	24	2257	1.7	0.0
Piano 1	12 -	P	-1708	14561	0.19	0.06	1.86	8920	8453	8920	100.0	7.1	22119	0.00	0.10	1.86	3	2	2298	0.1	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1	13		1	0																	
Piano 1	12 - 13	P	-1607 7	14561 0	0.19	0.06	1.86	8541	8015	8541	100.0	7.2	22119	0.00	0.10	1.86	37	21	2196	1.7	0.0
Piano 1	12 - 13	P	-1168 7	88519 7	0.19	0.06	1.86	4897	4552	4897	100.0	7.4	17063	0.00	0.10	1.86	57	30	1632	3.5	0.0
Piano 1	13 - 14	P	-1677	1184	0.19	0.13	1.86	153	192	153	100.0	3.4	1184	0.00	0.13	1.86	5	4	153	3.3	0.0
Piano 1	13 - 14	P	-1512	1184	0.19	0.12	1.86	139	124	139	100.0	4.1	1184	0.01	0.12	1.86	8	7	139	5.8	0.0
Piano 1	14 - 15	P	-8548	11041 0	0.01	0.05	1.24	776	740	5491	14.1	0.0	4860	0.19	0.00	1.24	0	785	0	100.0	15.2
Piano 1	14 - 15	P	-8068	11041 0	0.01	0.05	1.24	776	740	5198	14.9	0.0	4860	0.19	0.00	1.24	0	777	0	100.0	15.0
Piano 1	19 - 15	P	-9084	11718 2	0.19	0.05	1.86	5901	5614	5901	100.0	7.4	7695	0.01	0.12	1.86	48	23	908	5.3	0.0
Piano 2	1 - 2	E	-4351	37399	0.03	0.03	1.62	1093	858	1239	88.2	0.0	14837	0.00	0.05	1.62	13	10	697	1.9	0.0
Piano 2	1 - 2	E	-9689	18754 1	0.03	0.03	2.20	5481	5086	6155	89.1	0.0	18770	0.00	0.06	2.20	11	9	1154	1.0	0.0
Piano 2	1 - 2	E	-2056	5245	0.03	0.05	2.77	153	134	284	54.1	0.0	2633	0.00	0.07	2.77	1	1	196	0.4	0.0
Piano 2	5 - 1	E	-8749	14148 0	0.00	0.03	1.62	139	129	4661	3.0	0.0	27880	0.03	0.05	1.62	805	687	1398	57.6	0.0
Piano 2	5 - 1	E	-6210	69772	0.00	0.03	1.62	69	62	2314	3.0	0.0	19516	0.03	0.05	1.62	568	485	992	57.3	0.0
Piano 2	2 - 3	E	-1642	3214	0.03	0.06	2.78	94	77	191	49.2	0.0	2198	0.00	0.07	2.78	0	0	156	0.3	0.0
Piano 2	2 - 3	P	-7765	16914 7	0.03	0.03	2.24	4669	4230	4669	100.0	0.1	17045	0.00	0.05	2.24	1	1	913	0.2	0.0
Piano 2	2 - 3	P	-4237	67051	0.03	0.02	1.65	1597	1220	1597	100.0	0.3	18549	0.00	0.04	1.65	7	4	684	1.1	0.0
Piano 2	2 - 6	E	-6437	12803 1	0.00	0.03	3.03	32	0	4186	0.8	0.0	3142	0.03	0.12	3.03	91	0	375	24.3	0.0
Piano 2	3 - 7	E	-5204	84567	0.00	0.03	1.62	41	0	2146	1.9	0.0	21375	0.03	0.04	1.62	622	0	840	74.1	0.0
Piano 2	3 - 7	E	-6445	13300 4	0.00	0.03	1.62	65	0	3352	1.9	0.0	26951	0.03	0.04	1.62	778	0	1040	74.8	0.0
Piano 2	5 - 6	P	-1978	19551	0.03	0.03	1.23	507	255	507	100.0	0.2	7095	0.00	0.04	1.23	7	3	276	2.4	0.0
Piano 2	5 - 6	E	-9752	29819 9	0.03	0.04	2.00	8575	7892	11402	75.2	0.0	12779	0.00	0.07	2.00	7	4	855	0.8	0.0
Piano 2	10 - 5	E	-3656	22350	0.00	0.04	1.62	22	19	845	2.6	0.0	12081	0.03	0.05	1.62	341	291	585	58.2	0.0
Piano 2	10 - 5	E	-1027 1	19361 7	0.00	0.03	1.62	190	179	6572	2.9	0.0	33456	0.03	0.05	1.62	952	813	1643	58.0	0.0
Piano 2	10 - 5	E	-1447	1561	0.00	0.08	1.62	2	1	128	1.2	0.0	4647	0.03	0.05	1.62	133	114	231	57.7	0.0
Piano 2	6 - 7	E	-1260	5162	0.03	0.04	2.41	148	95	200	74.2	0.0	1206	0.00	0.08	2.41	0	0	92	0.3	0.0
Piano 2	6 - 7	P	-5323	16826 3	0.03	0.02	1.82	4125	3364	4125	100.0	0.2	10026	0.00	0.05	1.82	1	1	515	0.2	0.0
Piano 2	6 - 7	P	-1722	28686	0.03	0.02	1.24	541	266	541	100.0	0.8	8178	0.00	0.03	1.24	3	1	250	1.4	0.0
Piano 2	7 - 11	E	-9070	24678 2	0.00	0.03	1.62	120	0	6838	1.8	0.0	39032	0.03	0.04	1.62	1111	0	1466	75.8	0.0
Piano 2	7 - 11	E	-1905	8364	0.00	0.04	1.62	4	0	308	1.3	0.0	8364	0.03	0.04	1.62	236	0	308	76.6	0.0
Piano 2	12 - 10	E	-4624	43290	0.00	0.03	1.62	43	38	1400	3.0	0.0	15799	0.03	0.05	1.62	436	373	741	58.9	0.0
Piano 2	12 - 10	E	-1552 4	37057 4	0.00	0.04	1.62	364	353	15471	2.4	0.0	52042	0.03	0.05	1.62	1455	1242	2486	58.5	0.0
Piano 2	10 - 16	E	-1271 0	33276 6	0.03	0.05	2.20	9366	9212	16206	57.8	0.0	11661	0.00	0.09	2.20	8	7	1013	0.8	0.0
Piano 2	11 - 13	E	-1835 4	65296 0	0.00	0.04	1.62	318	0	29349	1.1	0.0	82710	0.03	0.04	1.62	2303	0	2970	77.6	0.0
Piano 2	16 - 11	E	-1039 2	33189 4	0.03	0.04	2.19	9342	9087	13288	70.3	0.0	11729	0.00	0.07	2.19	2	2	836	0.2	0.0
Piano 2	19 - 11	E	-564	713	0.03	0.07	2.08	20	0	48	42.2	0.0	500	0.00	0.08	2.08	0	0	40	1.0	0.0
Piano 2	19 - 11	E	-2009	20765	0.03	0.03	1.87	578	0	578	100.0	0.0	2105	0.00	0.07	1.87	1	0	157	0.8	0.0
Piano 2	12 - 17	E	-6432	10748 0	0.03	0.03	1.69	2960	2522	2983	99.2	0.0	22393	0.00	0.04	1.69	19	15	994	2.0	0.0
Piano 2	12 - 17	E	-5910	90848	0.03	0.03	2.24	2502	2237	2541	98.5	0.0	12218	0.00	0.06	2.24	7	6	693	1.0	0.0
Piano 2	12 - 17	E	-2637	13885	0.03	0.04	2.75	382	338	519	73.7	0.0	3789	0.00	0.07	2.75	1	1	254	0.5	0.0
Piano 2	17 - 13	E	-1932	6924	0.03	0.04	2.77	191	158	295	64.6	0.0	2888	0.00	0.06	2.77	1	0	184	0.3	0.0
Piano 2	17 - 13	P	-5694	11751 2	0.03	0.02	2.27	2801	2473	2801	100.0	0.2	13657	0.00	0.05	2.27	1	1	663	0.1	0.0
Piano 2	17 - 13	P	-4769	10771 1	0.03	0.02	1.69	2257	1835	2257	100.0	0.4	22462	0.00	0.03	1.69	8	5	752	1.1	0.0
Piano 2	13 - 18	P	-4014	97996	0.03	0.03	1.95	2481	2505	2481	100.0	0.1	4120	0.00	0.07	1.95	3	3	303	0.9	0.0
Piano 2	14 - 15	E	-1722	21148	0.00	0.02	1.71	22	22	500	4.4	0.0	2517	0.03	0.06	1.71	69	69	147	47.2	0.0
Piano 2	14 - 15	E	-7222	25116 2	0.00	0.03	1.71	261	262	8508	3.1	0.0	10218	0.03	0.06	1.71	286	286	617	46.3	0.0
Piano 2	18 - 14	E	-532	719	0.03	0.06	2.07	20	20	45	43.9	0.0	505	0.00	0.07	2.07	0	0	38	1.1	0.0
Piano 2	18 - 14	P	-1822	23754	0.03	0.02	1.82	566	568	566	100.0	0.2	2343	0.00	0.06	1.82	2	2	149	1.5	0.0
Piano 2	15 - 19	P	-3864	92779	0.03	0.03	1.92	2329	0	2329	100.0	0.2	4131	0.00	0.07	1.92	4	0	299	1.2	0.0

Sisma X (+) - Distribuzione forze: Proporzionale altezze; (Cond\_X\_2(+))

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Imp.	Fili	Stato	N [daN]	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>t,0</sub> [cm]	δ <sub>t,u</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,u</sub> [daN]	%_δ <sub>o</sub>	%_δ <sub>u</sub>	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>t,0</sub> [cm]	δ <sub>t,u</sub> [cm]	V <sub>t</sub> [daN]	V <sub>t,e</sub> [daN]	V <sub>t,u</sub> [daN]	%_δ <sub>o</sub>	%_δ <sub>u</sub>
Piano 1	1 - 2	P	-4274	22635	0.06	0.05	1.86	1047	932	1047	100.0	0.9	9479	0.00	0.07	1.86	38	19	628	6.1	0.0
Piano 1	1 - 2	P	-1663 4	26054 2	0.06	0.05	1.86	13013	12595	13013	100.0	0.7	31598	0.00	0.07	1.86	70	42	2342	3.0	0.0
Piano 1	1 - 2	E	-4547	12583	0.06	0.07	1.86	777	680	833	93.2	0.0	7584	0.00	0.08	1.86	3	3	625	0.5	0.0
Piano 1	1 - 5	P	-2475	5688	0.00	0.06	1.86	26	0	345	7.4	0.0	5688	0.06	0.06	1.86	345	0	345	100.0	0.1
Piano 1	1 - 5	P	-4009	18939	0.00	0.05	1.86	85	0	869	9.8	0.0	8847	0.06	0.06	1.86	558	0	558	100.0	0.1
Piano 1	2 - 3	E	-3556	5688	0.06	0.09	1.86	351	305	487	72.0	0.0	5688	0.00	0.09	1.86	1	1	488	0.2	0.0
Piano 1	2 - 3	E	-2199 5	26054 2	0.06	0.06	1.86	16083	15453	16636	96.7	0.0	31598	0.00	0.09	1.86	60	53	2995	2.0	0.0
Piano 1	2 - 3	E	-9302	40617	0.06	0.07	1.86	2507	2247	2654	94.5	0.0	12007	0.00	0.10	1.86	46	40	1257	3.6	0.0
Piano 1	2 - 6	E	-4948	27078	0.00	0.05	1.86	3	0	1431	0.2	0.0	3749	0.06	0.12	1.86	233	0	452	51.6	0.0
Piano 1	2 - 6	E	-5868	38012	0.00	0.05	1.86	4	0	1963	0.2	0.0	4341	0.06	0.12	1.86	278	0	536	51.9	0.0
Piano 1	3 - 7	E	-1471 0	10220 1	0.00	0.06	1.86	442	0	6388	6.9	0.0	18327	0.06	0.11	1.86	1144	0	1982	57.7	0.0
Piano 1	3 - 7	E	-1237 2	69079	0.00	0.06	1.86	299	0	4441	6.7	0.0	15167	0.06	0.11	1.86	970	0	1665	58.3	0.0
Piano 1	4 - 5	E	-871	987	0.06	0.08	1.86	64	55	81	78.4	0.0	694	0.01	0.10	1.86	4	3	68	5.7	0.0
Piano 1	4 - 5	E	-936	987	0.06	0.09	1.86	64	55	87	73.2	0.0	694	0.00	0.10	1.86	3	3	73	4.6	0.0
Piano 1	4 - 9	E	-1651	6442	0.01	0.05	1.76	37	0	298	12.4	0.0	1504	0.06	0.09	1.76	97	0	136	71.9	0.0
Piano 1	4 - 9	P	-1731 8	47344 1	0.01	0.07	1.03	2725	0	31876	8.5	0.0	45656	0.07	0.05	1.03	2492	0	2492	100.0	1.3
Piano 1	5 - 6	P	-5442	48959	0.06	0.04	1.86	2079	1910	2079	100.0	1.2	7096	0.00	0.09	1.86	28	12	633	4.4	0.0
Piano 1	5 - 6	P	-1887 4	29832 9	0.06	0.06	1.86	19048	18771	19048	100.0	0.0	20364	0.00	0.10	1.86	30	26	2020	1.5	0.0
Piano 1	5 - 10	P	-1561 4	28374 7	0.00	0.05	1.86	1279	0	12792	10.0	0.0	33494	0.07	0.06	1.86	2172	0	2172	100.0	0.0
Piano 1	5 - 10	P	-5803	40617	0.00	0.04	1.86	183	0	1702	10.8	0.0	12007	0.07	0.07	1.86	806	0	806	100.0	0.0
Piano 1	6 - 7	E	-2509 3	33959 9	0.06	0.08	1.86	21925	21454	27700	79.1	0.0	22523	0.00	0.12	1.86	31	28	2656	1.2	0.0
Piano 1	6 - 7	E	-6689	24123	0.06	0.07	1.86	1557	1386	1703	91.4	0.0	5245	0.00	0.13	1.86	20	18	701	2.9	0.0
Piano 1	7 - 8	E	-2111	1184	0.06	0.16	1.86	77	66	189	40.6	0.0	1184	0.00	0.16	1.86	5	5	189	2.9	0.0
Piano 1	7 - 8	E	-2007	694	0.06	0.21	1.86	45	39	148	30.4	0.0	987	0.01	0.18	1.86	7	6	178	4.1	0.0
Piano 1	7 - 11	E	-4683	5688	0.00	0.11	1.86	25	0	630	3.9	0.0	5688	0.06	0.11	1.86	369	0	630	58.6	0.0
Piano 1	7 - 11	E	-1902 2	15308 6	0.00	0.07	1.86	662	0	10221	6.5	0.0	22751	0.07	0.11	1.86	1510	0	2555	59.1	0.0
Piano 1	7 - 11	E	-5366	7637	0.00	0.10	1.86	33	0	800	4.1	0.0	6320	0.07	0.11	1.86	429	0	720	59.6	0.0
Piano 1	15 - 8	E	-1169 7	76772	0.01	0.08	1.86	587	562	5854	10.0	0.0	3934	0.07	0.22	1.86	264	227	861	30.7	0.0
Piano 1	15 - 8	E	-8474	41886	0.01	0.07	1.86	320	300	3123	10.3	0.0	2893	0.07	0.22	1.86	189	163	625	30.3	0.0
Piano 1	10 - 11	P	-5273	39906	0.07	0.05	1.86	1826	1668	1826	100.0	1.2	6479	0.00	0.09	1.86	26	12	609	4.2	0.0
Piano 1	10 - 11	P	-7248	53728	0.07	0.05	1.86	2702	2506	2702	100.0	1.0	7405	0.00	0.11	1.86	11	6	788	1.3	0.0
Piano 1	10 - 11	P	-6821	31591	0.07	0.06	1.86	1951	1783	1951	100.0	0.4	5862	0.00	0.12	1.86	8	6	719	1.1	0.0
Piano 1	10 - 11	E	-7751	31591	0.07	0.07	1.86	2154	1931	2199	97.9	0.0	5862	0.00	0.14	1.86	22	20	810	2.7	0.0
Piano 1	10 - 12	P	-3098	7637	0.00	0.06	1.86	34	0	478	7.2	0.0	6320	0.07	0.07	1.86	430	0	430	100.0	0.0
Piano 1	10 - 12	P	-9201	10220 1	0.00	0.04	1.86	461	0	4111	11.2	0.0	18327	0.07	0.07	1.86	1276	0	1276	100.0	0.0
Piano 1	10 - 12	P	-4234	15586	0.00	0.05	1.86	70	0	847	8.3	0.0	8215	0.07	0.07	1.86	586	0	586	100.0	0.0
Piano 1	11 - 13	E	-1697 2	11633 5	0.00	0.07	1.86	503	0	7830	6.4	0.0	19591	0.07	0.12	1.86	1369	0	2273	60.2	0.0
Piano 1	11 - 13	E	-8335	22635	0.00	0.08	1.86	98	0	1858	5.3	0.0	9479	0.07	0.12	1.86	677	0	1115	60.7	0.0
Piano 1	11 - 19	E	-1591 1	13486 5	0.07	0.07	1.86	9157	8708	10033	91.3	0.0	8379	0.01	0.17	1.86	44	39	1418	3.1	0.0
Piano 1	12 - 13	P	-9332	88519	0.07	0.05	1.86	4147	3861	4147	100.0	1.4	17063	0.00	0.08	1.86	65	29	1382	4.7	0.0
Piano 1	12 - 13	P	-1293 1	13083 1	0.07	0.05	1.86	6704	6289	6704	100.0	1.1	20855	0.00	0.09	1.86	43	21	1828	2.3	0.0
Piano 1	12 - 13	P	-1547 1	14561 0	0.07	0.06	1.86	8241	7824	8241	100.0	0.8	22119	0.00	0.10	1.86	3	2	2117	0.1	0.0
Piano 1	12 - 13	P	-1726 1	14561 0	0.07	0.06	1.86	9040	8481	9040	100.0	0.5	22119	0.00	0.11	1.86	41	28	2325	1.7	0.0
Piano 1	12 - 13	P	-1459 1	88519	0.07	0.07	1.86	5842	5397	5842	100.0	0.3	17063	0.00	0.11	1.86	62	49	1947	3.2	0.0
Piano 1	13 - 14	E	-2263	1184	0.07	0.17	1.86	85	73	202	42.2	0.0	1184	0.00	0.17	1.86	5	5	202	2.7	0.0
Piano 1	13 - 14	E	-2558	1184	0.07	0.19	1.86	85	73	225	37.8	0.0	1184	0.01	0.19	1.86	9	8	225	3.9	0.0
Piano 1	14 - 15	E	-1493 5	11041 0	0.01	0.08	1.86	845	821	9203	9.2	0.0	4860	0.07	0.23	1.86	345	297	1096	31.5	0.0
Piano 1	14 -	E	-1465	11041	0.01	0.08	1.86	845	821	9050	9.3	0.0	4860	0.07	0.22	1.86	334	288	1077	31.0	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

1	15		9	0																	
Piano 1	19 - 15	E	-1564 4	11718 2	0.07	0.08	1.86	7957	7521	9004	88.4	0.0	7695	0.01	0.18	1.86	52	46	1385	3.8	0.0
Piano 2	1 - 2	P	-3593	37399	0.43	0.03	1.62	1060	833	1060	100.0	25.5	14837	0.00	0.04	1.62	18	10	596	2.9	0.0
Piano 2	1 - 2	P	-8778	18754 1	0.43	0.03	2.20	5656	5327	5656	100.0	18.6	18770	0.00	0.06	2.20	15	9	1060	1.4	0.0
Piano 2	1 - 2	P	-2040	5245	0.43	0.05	2.77	281	247	281	100.0	14.0	2633	0.00	0.07	2.77	1	1	195	0.5	0.0
Piano 2	5 - 1	P	-6836	14148 0	0.00	0.03	1.62	182	157	3710	4.9	0.0	27880	0.43	0.04	1.62	1113	972	1113	100.0	24.9
Piano 2	5 - 1	P	-4966	69772	0.00	0.03	1.62	90	77	1879	4.8	0.0	19516	0.43	0.04	1.62	805	705	805	100.0	24.9
Piano 2	2 - 3	P	-1687	3214	0.43	0.06	2.78	196	266	196	100.0	13.7	2198	0.00	0.07	2.78	1	0	160	0.4	0.0
Piano 2	2 - 3	P	-8718	16914 7	0.43	0.03	2.24	5155	4631	5155	100.0	18.2	17045	0.00	0.06	2.24	2	1	1010	0.2	0.0
Piano 2	2 - 3	P	-5258	67051	0.43	0.03	1.65	1886	1453	1886	100.0	25.0	18549	0.00	0.04	1.65	10	5	808	1.2	0.0
Piano 2	2 - 6	P	-6405	12803 1	0.00	0.03	2.02	42	0	4159	1.0	0.0	3142	0.43	0.00	2.02	0	0	0	100.0	21.5
Piano 2	3 - 7	P	-6631	84567	0.00	0.03	1.62	54	0	2701	2.0	0.0	21375	0.43	0.05	1.62	1057	0	1057	100.0	24.5
Piano 2	3 - 7	P	-8114	13300 4	0.00	0.03	1.62	85	0	4173	2.0	0.0	26951	0.43	0.05	1.62	1295	0	1295	100.0	24.5
Piano 2	5 - 6	P	-1561	19551	0.43	0.02	1.23	429	217	429	100.0	34.0	7095	0.00	0.03	1.23	9	3	234	3.7	0.0
Piano 2	5 - 6	P	-8748	29819 9	0.43	0.03	2.00	10334	9652	10334	100.0	20.3	12779	0.00	0.06	2.00	9	5	775	1.1	0.0
Piano 2	10 - 5	P	-2678	22350	0.00	0.03	1.62	29	22	638	4.5	0.0	12081	0.43	0.04	1.62	442	378	442	100.0	25.0
Piano 2	10 - 5	P	-7726	19361 7	0.00	0.03	1.62	249	212	5070	4.9	0.0	33456	0.43	0.04	1.62	1268	1087	1268	100.0	25.0
Piano 2	10 - 5	P	-1115	1561	0.00	0.06	1.62	2	2	101	2.0	0.0	4647	0.43	0.04	1.62	182	157	182	100.0	24.9
Piano 2	6 - 7	P	-1258	5162	0.43	0.04	2.41	200	131	200	100.0	16.7	1206	0.00	0.08	2.41	0	0	92	0.3	0.0
Piano 2	6 - 7	P	-5878	16826 3	0.43	0.03	1.82	4456	3665	4456	100.0	22.6	10026	0.00	0.06	1.82	2	1	557	0.3	0.0
Piano 2	6 - 7	P	-2106	28686	0.43	0.02	1.24	613	301	613	100.0	33.7	8178	0.00	0.03	1.24	4	1	283	1.6	0.0
Piano 2	7 - 11	P	-1119 9	24678 2	0.00	0.03	1.62	158	0	8360	1.9	0.0	39032	0.43	0.05	1.62	1791	0	1791	100.0	24.6
Piano 2	7 - 11	P	-2319	8364	0.00	0.04	1.62	5	0	371	1.4	0.0	8364	0.43	0.04	1.62	371	0	371	100.0	24.6
Piano 2	12 - 10	P	-3174	43290	0.00	0.02	1.62	56	43	1002	5.6	0.0	15799	0.43	0.03	1.62	530	457	530	100.0	25.1
Piano 2	12 - 10	P	-1106 5	37057 4	0.00	0.03	1.62	477	407	11417	4.2	0.0	52042	0.43	0.04	1.62	1835	1568	1835	100.0	25.0
Piano 2	10 - 16	P	-1035 7	33276 6	0.43	0.04	2.20	13358	13454	13358	100.0	18.2	11661	0.00	0.07	2.20	10	8	835	1.2	0.0
Piano 2	11 - 13	P	-2191 2	65296 0	0.00	0.05	1.62	418	0	34781	1.2	0.0	82710	0.43	0.04	1.62	3513	0	3513	100.0	24.7
Piano 2	16 - 11	P	-1122 1	33189 4	0.43	0.04	2.19	14300	13920	14300	100.0	18.2	11729	0.00	0.08	2.19	2	2	900	0.3	0.0
Piano 2	19 - 11	P	-759	713	0.43	0.09	2.08	63	0	63	100.0	17.3	500	0.00	0.11	2.08	1	0	53	0.9	0.0
Piano 2	19 - 11	P	-2523	20765	0.43	0.03	1.87	711	0	711	100.0	21.7	2105	0.00	0.09	1.87	2	0	193	0.8	0.0
Piano 2	12 - 17	P	-4556	10748 0	0.43	0.02	1.69	2313	2010	2313	100.0	24.6	22393	0.00	0.03	1.69	26	13	771	3.3	0.0
Piano 2	12 - 17	P	-4653	90848	0.43	0.02	2.24	2112	1890	2112	100.0	18.4	12218	0.00	0.05	2.24	9	5	576	1.6	0.0
Piano 2	12 - 17	P	-2286	13885	0.43	0.03	2.75	456	406	456	100.0	14.7	3789	0.00	0.06	2.75	2	1	223	0.7	0.0
Piano 2	17 - 13	P	-1752	6924	0.43	0.04	2.77	269	224	269	100.0	14.4	2888	0.00	0.06	2.77	1	1	168	0.4	0.0
Piano 2	17 - 13	P	-5698	11751 2	0.43	0.02	2.27	2803	2480	2803	100.0	18.2	13657	0.00	0.05	2.27	1	1	665	0.2	0.0
Piano 2	17 - 13	P	-5354	10771 1	0.43	0.02	1.69	2448	1979	2448	100.0	24.6	22462	0.00	0.04	1.69	11	5	816	1.4	0.0
Piano 2	13 - 18	P	-4996	97996	0.43	0.03	1.95	2997	3033	2997	100.0	20.9	4120	0.00	0.09	1.95	3	3	366	1.0	0.0
Piano 2	14 - 15	C	-2517	21148	0.00	0.03	1.14	29	29	720	4.0	0.0	2517	1.14	0.00	1.14	0	248	0	100.0	100.0
Piano 2	14 - 15	C	-1070 2	25116 2	0.00	0.05	1.14	343	343	12412	2.8	0.0	10218	1.14	0.00	1.14	0	1013	0	100.0	100.0
Piano 2	18 - 14	P	-701	719	0.43	0.08	2.07	59	71	59	100.0	17.6	505	0.00	0.10	2.07	1	1	49	1.1	0.0
Piano 2	18 - 14	P	-2575	23754	0.43	0.03	1.82	761	760	761	100.0	22.3	2343	0.00	0.09	1.82	3	2	200	1.5	0.0
Piano 2	15 - 19	P	-5479	92779	0.43	0.03	1.92	3164	0	3164	100.0	21.2	4131	0.00	0.10	1.92	5	0	406	1.2	0.0

## Sisma X (-) - Distribuzione forze: Proporzionale altezze; (Cond\_X 2(-))

Imp.	Fili	Stato	N [daN]	k <sub>L</sub> [daN/cm]	δ <sub>L</sub> [cm]	δ <sub>L,0</sub> [cm]	δ <sub>L,n</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,n</sub> [daN]	%_δ <sub>0</sub>	%_δ <sub>n</sub>	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>t,0</sub> [cm]	δ <sub>t,n</sub> [cm]	V <sub>t</sub> [daN]	V <sub>t,e</sub> [daN]	V <sub>t,n</sub> [daN]	%_δ <sub>0</sub>	%_δ <sub>n</sub>
Piano 1	1 - 2	E	-6895	22635	0.06	0.07	1.86	1464	1295	1560	93.9	0.0	9479	0.00	0.10	1.86	38	34	936	4.1	0.0
Piano 1	1 - 2	P	-2143 6	26054 2	0.06	0.06	1.86	16217	15677	16217	100.0	0.1	31598	0.00	0.09	1.86	70	62	2919	2.4	0.0
Piano 1	1 - 2	E	-4784	12583	0.06	0.07	1.86	814	713	874	93.1	0.0	7584	0.00	0.09	1.86	3	3	656	0.5	0.0
Piano 1	1 - 5	E	-4236	5688	0.00	0.10	1.86	25	0	574	4.4	0.0	5688	0.07	0.10	1.86	370	0	574	64.4	0.0
Piano 1	1 - 5	E	-6871	18939	0.00	0.08	1.86	85	0	1444	5.9	0.0	8847	0.07	0.10	1.86	594	0	928	64.0	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 1	2 - 3	E	-3494	5688	0.06	0.08	1.86	368	319	479	76.8	0.0	5688	0.00	0.08	1.86	1	1	479	0.2	0.0
Piano 1	2 - 3	P	-17956	260542	0.06	0.05	1.86	13881	13543	13881	100.0	0.6	31598	0.00	0.08	1.86	59	39	2498	2.4	0.0
Piano 1	2 - 3	P	-6210	40617	0.06	0.05	1.86	1901	1713	1901	100.0	1.0	12007	0.00	0.07	1.86	45	23	900	5.0	0.0
Piano 1	2 - 6	E	-5042	27078	0.00	0.05	1.86	3	0	1461	0.2	0.0	3749	0.07	0.12	1.86	245	0	461	53.1	0.0
Piano 1	2 - 6	E	-6086	38012	0.00	0.05	1.86	4	0	2037	0.2	0.0	4341	0.07	0.13	1.86	291	0	554	52.4	0.0
Piano 1	3 - 7	E	-9420	102201	0.00	0.04	1.86	439	0	4204	10.4	0.0	18327	0.07	0.07	1.86	1199	0	1305	91.9	0.0
Piano 1	3 - 7	E	-8149	69079	0.00	0.04	1.86	297	0	3003	9.9	0.0	15167	0.07	0.07	1.86	1015	0	1126	90.1	0.0
Piano 1	4 - 5	E	-1706	987	0.07	0.16	1.86	67	57	153	43.5	0.0	694	0.01	0.18	1.86	4	3	128	3.0	0.0
Piano 1	4 - 5	E	-1663	987	0.07	0.15	1.86	67	57	150	44.5	0.0	694	0.00	0.18	1.86	3	3	125	2.6	0.0
Piano 1	4 - 9	E	-3323	6442	0.01	0.09	1.76	37	0	576	6.4	0.0	1504	0.07	0.17	1.76	102	0	262	38.9	0.0
Piano 1	4 - 9	E	-34685	473441	0.01	0.08	0.69	2704	0	37529	7.2	0.0	45656	0.07	0.10	1.03	3191	0	4424	72.1	0.0
Piano 1	5 - 6	P	-8665	48959	0.07	0.06	1.86	2970	2712	2970	100.0	0.4	7096	0.00	0.13	1.86	27	21	904	3.0	0.0
Piano 1	5 - 6	E	-22751	298329	0.07	0.08	1.86	20138	19627	22703	88.7	0.0	20364	0.00	0.12	1.86	30	26	2408	1.2	0.0
Piano 1	5 - 10	E	-26792	283747	0.00	0.07	1.86	1269	0	21271	6.0	0.0	33494	0.07	0.11	1.86	2299	0	3612	63.6	0.0
Piano 1	5 - 10	E	-9971	40617	0.00	0.07	1.86	182	0	2829	6.4	0.0	12007	0.07	0.11	1.86	848	0	1340	63.3	0.0
Piano 1	6 - 7	E	-22426	339599	0.07	0.07	1.86	22924	22432	24932	91.9	0.0	22523	0.00	0.11	1.86	31	27	2391	1.3	0.0
Piano 1	6 - 7	P	-4674	24123	0.07	0.05	1.86	1252	1132	1252	100.0	0.9	5245	0.00	0.10	1.86	20	11	516	3.9	0.0
Piano 1	7 - 8	E	-1374	1184	0.07	0.11	1.86	80	69	127	63.5	0.0	1184	0.00	0.11	1.86	5	5	127	4.3	0.0
Piano 1	7 - 8	E	-985	694	0.07	0.11	1.86	47	41	76	61.9	0.0	987	0.01	0.09	1.86	7	6	91	8.0	0.0
Piano 1	7 - 11	E	-3133	5688	0.00	0.08	1.86	24	0	432	5.6	0.0	5688	0.07	0.08	1.86	386	0	432	89.2	0.0
Piano 1	7 - 11	E	-13047	153086	0.00	0.05	1.86	657	0	7188	9.1	0.0	22751	0.07	0.08	1.86	1576	0	1797	87.7	0.0
Piano 1	7 - 11	E	-3770	7637	0.00	0.08	1.86	33	0	576	5.7	0.0	6320	0.07	0.08	1.86	447	0	518	86.3	0.0
Piano 1	15 - 8	E	-5928	76772	0.01	0.04	1.86	583	562	3107	18.8	0.0	3934	0.07	0.12	1.86	276	237	457	60.3	0.0
Piano 1	15 - 8	E	-4135	41886	0.01	0.04	1.86	318	300	1597	19.9	0.0	2893	0.07	0.11	1.86	198	170	319	61.9	0.0
Piano 1	10 - 11	P	-8492	39906	0.07	0.07	1.86	2653	2437	2653	100.0	0.3	6479	0.00	0.14	1.86	25	22	885	2.9	0.0
Piano 1	10 - 11	P	-8912	53728	0.07	0.06	1.86	3195	2941	3195	100.0	0.6	7405	0.00	0.13	1.86	11	7	932	1.1	0.0
Piano 1	10 - 11	P	-6352	31591	0.07	0.06	1.86	1835	1669	1835	100.0	0.7	5862	0.00	0.12	1.86	8	5	676	1.2	0.0
Piano 1	10 - 11	P	-5748	31591	0.07	0.05	1.86	1707	1534	1707	100.0	0.9	5862	0.00	0.11	1.86	22	12	629	3.5	0.0
Piano 1	10 - 12	E	-5326	7637	0.00	0.10	1.86	34	0	794	4.3	0.0	6320	0.07	0.11	1.86	451	0	715	63.1	0.0
Piano 1	10 - 12	E	-15829	102201	0.00	0.07	1.86	457	0	6834	6.7	0.0	18327	0.07	0.12	1.86	1334	0	2121	62.9	0.0
Piano 1	10 - 12	E	-7290	15586	0.00	0.09	1.86	70	0	1408	5.0	0.0	8215	0.07	0.12	1.86	611	0	974	62.7	0.0
Piano 1	11 - 13	E	-12288	116335	0.00	0.05	1.86	500	0	5800	8.6	0.0	19591	0.07	0.09	1.86	1426	0	1684	84.7	0.0
Piano 1	11 - 13	E	-6164	22635	0.00	0.06	1.86	97	0	1405	6.9	0.0	9479	0.07	0.09	1.86	704	0	843	83.5	0.0
Piano 1	11 - 19	P	-10216	134865	0.07	0.05	1.86	6948	6701	6948	100.0	1.1	8379	0.01	0.12	1.86	44	23	982	4.5	0.0
Piano 1	12 - 13	P	-14937	88519	0.07	0.07	1.86	5948	5495	5948	100.0	0.4	17063	0.00	0.12	1.86	65	51	1983	3.3	0.0
Piano 1	12 - 13	P	-17266	130831	0.07	0.06	1.86	8454	8043	8454	100.0	0.6	20855	0.00	0.11	1.86	43	32	2306	1.8	0.0
Piano 1	12 - 13	P	-17173	145610	0.07	0.06	1.86	8990	8594	8990	100.0	0.7	22119	0.00	0.10	1.86	3	2	2315	0.1	0.0
Piano 1	12 - 13	P	-16010	145610	0.07	0.06	1.86	8496	7979	8496	100.0	0.9	22119	0.00	0.10	1.86	40	24	2184	1.8	0.0
Piano 1	12 - 13	P	-11523	88519	0.07	0.05	1.86	4820	4447	4820	100.0	1.1	17063	0.00	0.09	1.86	62	33	1607	3.8	0.0
Piano 1	13 - 14	E	-1644	1184	0.07	0.13	1.86	89	76	150	59.1	0.0	1184	0.00	0.13	1.86	5	5	150	3.6	0.0
Piano 1	13 - 14	E	-1453	1184	0.07	0.11	1.86	89	76	133	66.4	0.0	1184	0.01	0.11	1.86	9	8	133	6.6	0.0
Piano 1	14 - 15	E	-8188	110410	0.01	0.05	1.86	838	821	5272	15.9	0.0	4860	0.07	0.13	1.86	359	309	628	57.2	0.0
Piano 1	14 - 15	E	-7696	110410	0.01	0.05	1.86	838	821	4971	16.9	0.0	4860	0.07	0.12	1.86	349	300	592	58.9	0.0
Piano 1	19 - 15	P	-8714	117182	0.07	0.05	1.86	5661	5448	5661	100.0	1.2	7695	0.01	0.11	1.86	52	26	871	6.0	0.0
Piano 2	1 - 2	P	-4465	37399	0.40	0.03	1.62	1247	982	1247	100.0	23.0	14837	0.00	0.05	1.62	17	10	702	2.4	0.0
Piano 2	1 - 2	P	-9825	187541	0.40	0.03	2.20	6178	5817	6178	100.0	16.9	18770	0.00	0.06	2.20	14	10	1158	1.2	0.0
Piano 2	1 - 2	P	-2059	5245	0.40	0.05	2.77	284	303	284	100.0	12.7	2633	0.00	0.07	2.77	1	1	197	0.5	0.0
Piano 2	5 - 1	C	-9036	141480	0.00	0.03	1.08	174	161	4797	3.6	0.0	27880	1.08	0.00	1.08	0	1557	0	100.0	100.0
Piano	5 - 1	C	-6397	69772	0.00	0.03	1.08	86	77	2377	3.6	0.0	19516	1.08	0.00	1.08	0	1096	0	100.0	100.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

2																					
Piano 2	2 - 3	P	-1635	3214	0.40	0.06	2.78	190	174	190	100.0	12.5	2198	0.00	0.07	2.78	1	0	156	0.3	0.0
Piano 2	2 - 3	P	-7623	16914 7	0.40	0.03	2.24	4668	4242	4668	100.0	16.7	17045	0.00	0.05	2.24	2	1	913	0.2	0.0
Piano 2	2 - 3	P	-4084	67051	0.40	0.02	1.65	1596	1228	1596	100.0	23.1	18549	0.00	0.04	1.65	9	4	684	1.3	0.0
Piano 2	2 - 6	P	-6442	12803 1	0.00	0.03	2.02	40	0	4188	1.0	0.0	3142	0.40	0.00	2.02	0	0	0	100.0	19.7
Piano 2	3 - 7	P	-4991	84567	0.00	0.02	1.62	52	0	2095	2.5	0.0	21375	0.40	0.04	1.62	820	0	820	100.0	22.8
Piano 2	3 - 7	P	-6194	13300 4	0.00	0.02	1.62	81	0	3283	2.5	0.0	26951	0.40	0.04	1.62	1019	0	1019	100.0	22.8
Piano 2	5 - 6	P	-2041	19551	0.40	0.03	1.23	507	254	507	100.0	30.9	7095	0.00	0.04	1.23	8	3	276	3.0	0.0
Piano 2	5 - 6	P	-9902	29819 9	0.40	0.04	2.00	11505	10661	11505	100.0	18.3	12779	0.00	0.07	2.00	8	5	863	1.0	0.0
Piano 2	10 - 5	P	-3802	22350	0.00	0.04	1.62	27	23	874	3.1	0.0	12081	0.40	0.05	1.62	605	521	605	100.0	22.1
Piano 2	10 - 5	P	-1065 3	19361 7	0.00	0.04	1.62	238	220	6782	3.5	0.0	33456	0.40	0.05	1.62	1695	1451	1695	100.0	22.1
Piano 2	10 - 5	C	-1496	1561	0.00	0.08	1.08	2	2	132	1.4	0.0	4647	1.08	0.00	1.08	0	259	0	100.0	100.0
Piano 2	6 - 7	P	-1260	5162	0.40	0.04	2.41	200	128	200	100.0	15.2	1206	0.00	0.08	2.41	0	0	92	0.3	0.0
Piano 2	6 - 7	P	-5240	16826 3	0.40	0.02	1.82	4123	3404	4123	100.0	20.8	10026	0.00	0.05	1.82	1	1	515	0.3	0.0
Piano 2	6 - 7	P	-1664	28686	0.40	0.02	1.24	541	277	541	100.0	31.0	8178	0.00	0.03	1.24	4	1	250	1.7	0.0
Piano 2	7 - 11	P	-8751	24678 2	0.00	0.03	1.62	150	0	6710	2.2	0.0	39032	0.40	0.04	1.62	1438	0	1438	100.0	22.8
Piano 2	7 - 11	P	-1843	8364	0.00	0.04	1.62	5	0	303	1.7	0.0	8364	0.40	0.04	1.62	303	0	303	100.0	22.8
Piano 2	12 - 10	P	-4842	43290	0.00	0.03	1.62	53	46	1457	3.7	0.0	15799	0.40	0.05	1.62	771	671	771	100.0	22.1
Piano 2	12 - 10	P	-1619 2	37057 4	0.00	0.04	1.62	455	434	16044	2.8	0.0	52042	0.40	0.05	1.62	2578	2229	2578	100.0	22.1
Piano 2	10 - 16	P	-1306 3	33276 6	0.40	0.05	2.20	16598	16496	16598	100.0	16.2	11661	0.00	0.09	2.20	10	8	1037	0.9	0.0
Piano 2	11 - 13	P	-1782 1	65296 0	0.00	0.04	1.62	398	0	28935	1.4	0.0	82710	0.40	0.04	1.62	2928	0	2928	100.0	22.8
Piano 2	16 - 11	P	-1026 7	33189 4	0.40	0.04	2.19	13182	13088	13182	100.0	16.7	11729	0.00	0.07	2.19	2	2	829	0.3	0.0
Piano 2	19 - 11	P	-535	713	0.40	0.06	2.08	45	0	45	100.0	16.6	500	0.00	0.08	2.08	0	0	38	1.3	0.0
Piano 2	19 - 11	P	-1931	20765	0.40	0.03	1.87	578	0	578	100.0	20.1	2105	0.00	0.07	1.87	2	0	157	1.0	0.0
Piano 2	12 - 17	P	-6713	10748 0	0.40	0.03	1.69	2990	2584	2990	100.0	22.2	22393	0.00	0.04	1.69	24	15	997	2.4	0.0
Piano 2	12 - 17	P	-6098	90848	0.40	0.03	2.24	2545	2291	2545	100.0	16.6	12218	0.00	0.06	2.24	9	6	694	1.3	0.0
Piano 2	12 - 17	P	-2690	13885	0.40	0.04	2.75	525	474	525	100.0	13.2	3789	0.00	0.07	2.75	2	1	257	0.6	0.0
Piano 2	17 - 13	P	-1959	6924	0.40	0.04	2.77	298	250	298	100.0	12.9	2888	0.00	0.06	2.77	1	1	186	0.4	0.0
Piano 2	17 - 13	P	-5693	11751 2	0.40	0.02	2.27	2801	2484	2801	100.0	16.6	13657	0.00	0.05	2.27	1	1	663	0.2	0.0
Piano 2	17 - 13	P	-4682	10771 1	0.40	0.02	1.69	2257	1838	2257	100.0	22.6	22462	0.00	0.03	1.69	11	5	752	1.4	0.0
Piano 2	13 - 18	P	-3867	97996	0.40	0.03	1.95	2478	2532	2478	100.0	19.3	4120	0.00	0.07	1.95	3	3	302	1.1	0.0
Piano 2	14 - 15	P	-1603	21148	0.00	0.02	1.14	28	28	469	5.9	0.0	2517	0.40	0.00	1.14	0	161	0	100.0	34.8
Piano 2	14 - 15	P	-6701	25116 2	0.00	0.03	1.14	327	327	7948	4.1	0.0	10218	0.40	0.00	1.14	0	657	0	100.0	34.8
Piano 2	18 - 14	P	-506	719	0.40	0.06	2.07	43	46	43	100.0	16.7	505	0.00	0.07	2.07	1	0	36	1.4	0.0
Piano 2	18 - 14	P	-1709	23754	0.40	0.02	1.82	565	571	565	100.0	20.8	2343	0.00	0.06	1.82	3	2	149	1.9	0.0
Piano 2	15 - 19	P	-3622	92779	0.40	0.03	1.92	2330	0	2330	100.0	19.7	4131	0.00	0.07	1.92	5	0	299	1.6	0.0

## Sisma Y (+) - Distribuzione forze: Proporzionale masse; (Cond\_Y 1(+))

Imp.	Fili	Stato	N [daN]	k <sub>i</sub> [daN/cm]	δ <sub>L</sub> [cm]	δ <sub>L,0</sub> [cm]	δ <sub>L,u</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,u</sub> [daN]	%_δ <sub>L,0</sub>	%_δ <sub>L,u</sub>	k <sub>i</sub> [daN/cm]	δ <sub>L</sub> [cm]	δ <sub>L,0</sub> [cm]	δ <sub>L,u</sub> [cm]	V <sub>i</sub> [daN]	V <sub>i,e</sub> [daN]	V <sub>i,u</sub> [daN]	%_δ <sub>L,0</sub>	%_δ <sub>L,u</sub>
Piano 1	1 - 2	P	-7106	22635	0.01	0.07	1.86	220	168	1596	13.8	0.0	9479	1.59	0.10	1.86	958	863	958	100.0	84.5
Piano 1	1 - 2	P	-2427 0	26054 2	0.01	0.07	1.86	2529	2102	18138	13.9	0.0	31598	1.59	0.10	1.86	3265	2968	3265	100.0	84.7
Piano 1	1 - 2	P	-5960	12583	0.01	0.08	1.86	122	92	1067	11.4	0.0	7584	1.59	0.11	1.86	800	734	800	100.0	84.9
Piano 1	1 - 5	P	-4193	5688	1.59	0.10	1.86	566	0	566	100.0	84.4	5688	0.01	0.10	1.86	51	0	566	9.0	0.0
Piano 1	1 - 5	P	-6095	18939	1.59	0.07	1.86	1278	0	1278	100.0	84.7	8847	0.00	0.09	1.86	40	0	822	4.9	0.0
Piano 1	2 - 3	P	-4506	5688	0.01	0.11	1.86	55	41	605	9.1	0.0	5688	1.60	0.11	1.86	605	556	605	100.0	84.9
Piano 1	2 - 3	P	-2558 0	26054 2	0.01	0.07	1.86	2529	2102	19041	13.3	0.0	31598	1.60	0.11	1.86	3427	3175	3427	100.0	85.1
Piano 1	2 - 3	P	-9951	40617	0.01	0.07	1.86	394	306	2810	14.0	0.0	12007	1.60	0.11	1.86	1331	1243	1331	100.0	85.3
Piano 1	2 - 6	P	-6221	27078	1.59	0.06	1.86	1725	0	1725	100.0	85.2	3749	0.01	0.15	1.86	32	0	545	5.9	0.0
Piano 1	2 - 6	P	-6828	38012	1.59	0.06	1.86	2213	0	2213	100.0	85.3	4341	0.00	0.14	1.86	21	0	604	3.5	0.0
Piano 1	3 - 7	P	-1498	10220	1.60	0.06	1.86	6276	0	6276	100.0	85.8	18327	0.01	0.11	1.86	150	0	1948	7.7	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 1	3 - 7	P	-1186 5	69079	1.60	0.06	1.86	4165	0	4165	100.0	85.8	15167	0.00	0.10	1.86	75	0	1562	4.8	0.0
Piano 1	4 - 5	E	-1412	987	0.00	0.13	1.86	4	3	128	2.9	0.0	694	1.24	0.00	1.24	0	77	0	100.0	100.0
Piano 1	4 - 5	E	-1428	987	0.00	0.13	1.86	4	3	130	2.9	0.0	694	1.24	0.00	1.24	0	78	0	100.0	100.0
Piano 1	4 - 9	P	-2679	6442	1.58	0.07	1.76	470	0	470	100.0	89.7	1504	0.00	0.14	1.76	5	0	214	2.2	0.0
Piano 1	4 - 9	C	-2489 4	47344 1	0.69	0.07	0.69	34278	0	34278	100.0	100.0	45656	0.00	0.07	0.69	62	0	3308	1.9	0.0
Piano 1	5 - 6	P	-7753	48959	0.00	0.06	1.86	182	143	2697	6.7	0.0	7096	1.59	0.12	1.86	821	810	821	100.0	84.3
Piano 1	5 - 6	P	-2304 5	29832 9	0.00	0.08	1.86	1108	934	22953	4.8	0.0	20364	1.59	0.12	1.86	2434	2401	2434	100.0	84.6
Piano 1	5 - 10	P	-2189 2	28374 7	1.59	0.06	1.86	17549	0	17549	100.0	84.7	33494	0.00	0.09	1.86	44	0	2980	1.5	0.0
Piano 1	5 - 10	P	-7294	40617	1.59	0.05	1.86	2145	0	2145	100.0	84.8	12007	0.00	0.08	1.86	35	0	1016	3.4	0.0
Piano 1	6 - 7	P	-2651 9	33959 9	0.00	0.09	1.86	1261	1068	29135	4.3	0.0	22523	1.60	0.12	1.86	2793	2756	2793	100.0	84.9
Piano 1	6 - 7	P	-6382	24123	0.00	0.07	1.86	90	69	1629	5.5	0.0	5245	1.60	0.13	1.86	671	662	671	100.0	85.2
Piano 1	7 - 8	P	-1931	1184	0.00	0.15	1.86	4	3	174	2.0	0.0	1184	1.60	0.15	1.86	174	151	174	100.0	85.1
Piano 1	7 - 8	P	-1670	694	0.00	0.18	1.86	2	2	125	1.7	0.0	987	1.61	0.15	1.86	150	130	150	100.0	85.4
Piano 1	7 - 11	P	-4333	5688	1.60	0.10	1.86	584	0	584	100.0	85.5	5688	0.00	0.10	1.86	17	0	584	3.0	0.0
Piano 1	7 - 11	P	-1654 8	15308 6	1.60	0.06	1.86	8933	0	8933	100.0	85.8	22751	0.00	0.10	1.86	2	0	2226	0.1	0.0
Piano 1	7 - 11	P	-4377	7637	1.60	0.09	1.86	664	0	664	100.0	85.6	6320	0.00	0.09	1.86	21	0	598	3.5	0.0
Piano 1	15 - 8	P	-8864	76772	1.61	0.06	1.86	4537	4317	4537	100.0	86.2	3934	0.00	0.17	1.86	7	2	667	1.0	0.0
Piano 1	15 - 8	P	-6858	41886	1.61	0.06	1.86	2533	2352	2533	100.0	86.2	2893	0.00	0.18	1.86	5	2	507	1.0	0.0
Piano 1	10 - 11	P	-6212	39906	0.00	0.05	1.86	158	123	1996	7.9	0.0	6479	1.59	0.10	1.86	665	588	665	100.0	84.5
Piano 1	10 - 11	P	-7398	53728	0.00	0.05	1.86	213	167	2709	7.8	0.0	7405	1.59	0.11	1.86	790	701	790	100.0	84.7
Piano 1	10 - 11	P	-6121	31591	0.00	0.06	1.86	125	97	1769	7.1	0.0	5862	1.60	0.11	1.86	652	581	652	100.0	85.0
Piano 1	10 - 11	P	-6349	31591	0.00	0.06	1.86	125	97	1830	6.8	0.0	5862	1.60	0.12	1.86	674	604	674	100.0	85.3
Piano 1	10 - 12	P	-3720	7637	1.59	0.08	1.86	573	0	573	100.0	84.6	6320	0.00	0.08	1.86	29	0	516	5.7	0.0
Piano 1	10 - 12	P	-1020 7	10220 1	1.59	0.05	1.86	4803	0	4803	100.0	84.9	18327	0.01	0.08	1.86	138	0	1490	9.3	0.0
Piano 1	10 - 12	P	-4282	15586	1.59	0.06	1.86	902	0	902	100.0	84.8	8215	0.01	0.08	1.86	89	0	624	14.2	0.0
Piano 1	11 - 13	P	-1265 4	11633 5	1.60	0.05	1.86	6210	0	6210	100.0	85.8	19591	0.01	0.09	1.86	148	0	1803	8.2	0.0
Piano 1	11 - 13	P	-5793	22635	1.60	0.06	1.86	1386	0	1386	100.0	85.8	9479	0.01	0.09	1.86	102	0	831	12.3	0.0
Piano 1	11 - 19	P	-1255 0	13486 5	0.00	0.06	1.86	452	372	8061	5.6	0.0	8379	1.61	0.14	1.86	1139	1075	1139	100.0	85.3
Piano 1	12 - 13	P	-8847	88519	0.01	0.04	1.86	1036	754	3773	27.5	0.0	17063	1.59	0.07	1.86	1258	1095	1258	100.0	84.7
Piano 1	12 - 13	P	-1118 5	13083 1	0.01	0.04	1.86	1532	1132	5812	26.3	0.0	20855	1.59	0.08	1.86	1585	1392	1585	100.0	84.9
Piano 1	12 - 13	P	-1229 3	14561 0	0.01	0.05	1.86	1705	1265	6752	25.2	0.0	22119	1.59	0.08	1.86	1736	1538	1736	100.0	85.1
Piano 1	12 - 13	P	-1273 0	14561 0	0.01	0.05	1.86	1705	1265	6970	24.5	0.0	22119	1.60	0.08	1.86	1792	1601	1792	100.0	85.3
Piano 1	12 - 13	P	-1013 2	88519	0.01	0.05	1.86	1036	754	4267	24.3	0.0	17063	1.60	0.08	1.86	1422	1280	1422	100.0	85.5
Piano 1	13 - 14	P	-1522	1184	0.01	0.12	1.86	14	10	140	10.0	0.0	1184	1.60	0.12	1.86	140	123	140	100.0	85.4
Piano 1	13 - 14	P	-1594	1184	0.01	0.12	1.86	14	10	147	9.6	0.0	1184	1.61	0.12	1.86	147	128	147	100.0	85.7
Piano 1	14 - 15	P	-9640	11041 0	1.61	0.06	1.86	6433	6176	6433	100.0	86.2	4860	0.01	0.16	1.86	48	13	766	6.3	0.0
Piano 1	14 - 15	P	-1038 5	11041 0	1.61	0.06	1.86	6700	6447	6700	100.0	86.2	4860	0.01	0.16	1.86	26	7	798	3.2	0.0
Piano 1	19 - 15	P	-1177 7	11718 2	0.00	0.06	1.86	393	322	6937	5.7	0.0	7695	1.61	0.14	1.86	1067	1005	1067	100.0	85.5
Piano 2	1 - 2	E	-4394	37399	0.00	0.03	1.62	75	58	1251	6.0	0.0	14837	0.02	0.05	1.62	348	256	703	49.5	0.0
Piano 2	1 - 2	E	-1021 6	18754 1	0.00	0.03	2.20	374	343	6480	5.8	0.0	18770	0.02	0.06	2.20	428	346	1215	35.2	0.0
Piano 2	1 - 2	E	-2267	5245	0.00	0.06	2.77	10	9	312	3.4	0.0	2633	0.02	0.08	2.77	58	50	216	27.0	0.0
Piano 2	5 - 1	E	-8317	14148 0	0.02	0.03	1.62	3346	3064	4440	75.4	0.0	27880	0.00	0.05	1.62	34	28	1332	2.5	0.0
Piano 2	5 - 1	E	-6125	69772	0.02	0.03	1.62	1650	1465	2284	72.2	0.0	19516	0.00	0.05	1.62	35	29	979	3.6	0.0
Piano 2	2 - 3	E	-1842	3214	0.00	0.07	2.78	6	5	214	3.0	0.0	2198	0.02	0.08	2.78	48	39	175	27.6	0.0
Piano 2	2 - 3	E	-9123	16914 7	0.00	0.03	2.24	337	298	5454	6.2	0.0	17045	0.02	0.06	2.24	363	274	1067	34.0	0.0
Piano 2	2 - 3	E	-5256	67051	0.00	0.03	1.65	134	101	1936	6.9	0.0	18549	0.02	0.04	1.65	382	258	830	46.1	0.0
Piano 2	2 - 6	E	-6937	12803 1	0.02	0.04	3.03	2822	0	4501	62.7	0.0	3142	0.00	0.13	3.03	5	0	403	1.1	0.0
Piano 2	3 - 7	E	-6487	84567	0.02	0.03	1.62	1726	0	2653	65.1	0.0	21375	0.00	0.05	1.62	38	0	1038	3.6	0.0
Piano 2	3 - 7	E	-7765	13300	0.02	0.03	1.62	2715	0	4012	67.7	0.0	26951	0.00	0.05	1.62	32	0	1245	2.6	0.0



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

2				4																	
Piano 2	5 - 6	E	-1866	19551	0.00	0.02	1.23	19	9	482	3.9	0.0	7095	0.02	0.04	1.23	167	74	263	63.4	0.0
Piano 2	5 - 6	E	-9751	29819	0.00	0.04	2.00	287	261	11402	2.5	0.0	12779	0.02	0.07	2.00	289	172	855	33.8	0.0
Piano 2	10 - 5	E	-3126	22350	0.02	0.03	1.62	529	453	727	72.7	0.0	12081	0.00	0.04	1.62	3	3	503	0.6	0.0
Piano 2	10 - 5	E	-9178	19361	0.02	0.03	1.62	4579	4258	5898	77.6	0.0	33456	0.00	0.04	1.62	11	9	1475	0.7	0.0
Piano 2	10 - 5	E	-1345	1561	0.02	0.08	1.62	37	31	120	30.8	0.0	4647	0.00	0.05	1.62	4	3	216	1.9	0.0
Piano 2	6 - 7	E	-1327	5162	0.00	0.04	2.41	5	3	210	2.4	0.0	1206	0.02	0.08	2.41	26	16	97	27.2	0.0
Piano 2	6 - 7	E	-5902	16826	0.00	0.03	1.82	162	130	4538	3.6	0.0	10026	0.02	0.06	1.82	213	111	567	37.5	0.0
Piano 2	6 - 7	E	-2017	28686	0.00	0.02	1.24	28	13	613	4.5	0.0	8178	0.02	0.03	1.24	168	68	283	59.5	0.0
Piano 2	7 - 11	E	-1031	24678	0.02	0.03	1.62	5037	0	7746	65.0	0.0	39032	0.00	0.04	1.62	13	0	1660	0.8	0.0
Piano 2	7 - 11	E	-2074	8364	0.02	0.04	1.62	171	0	334	51.0	0.0	8364	0.00	0.04	1.62	2	0	334	0.7	0.0
Piano 2	12 - 10	E	-3538	43290	0.02	0.02	1.62	1024	893	1081	94.7	0.0	15799	0.00	0.04	1.62	24	20	572	4.2	0.0
Piano 2	12 - 10	E	-1267	37057	0.02	0.03	1.62	8764	8389	12727	68.9	0.0	52042	0.00	0.04	1.62	42	36	2045	2.1	0.0
Piano 2	10 - 16	E	-1128	33276	0.00	0.04	2.20	127	123	14435	0.9	0.0	11661	0.02	0.08	2.20	267	229	902	29.6	0.0
Piano 2	11 - 13	E	-1880	65296	0.02	0.05	1.62	13327	0	30074	44.3	0.0	82710	0.00	0.04	1.62	86	0	3041	2.8	0.0
Piano 2	16 - 11	E	-1055	33189	0.00	0.04	2.19	126	122	13489	0.9	0.0	11729	0.02	0.07	2.19	248	196	849	29.2	0.0
Piano 2	19 - 11	E	-650	713	0.00	0.08	2.08	0	0	55	0.3	0.0	500	0.02	0.09	2.08	10	0	46	21.7	0.0
Piano 2	19 - 11	E	-2227	20765	0.00	0.03	1.87	5	0	639	0.9	0.0	2105	0.02	0.08	1.87	43	0	173	24.6	0.0
Piano 2	12 - 17	E	-4916	10748	0.00	0.02	1.69	185	155	2299	8.0	0.0	22393	0.02	0.03	1.69	524	390	766	68.4	0.0
Piano 2	12 - 17	E	-4719	90848	0.00	0.02	2.24	156	138	2039	7.6	0.0	12218	0.02	0.05	2.24	278	226	556	50.0	0.0
Piano 2	12 - 17	E	-2196	13885	0.00	0.03	2.75	24	21	434	5.5	0.0	3789	0.02	0.06	2.75	84	72	212	39.6	0.0
Piano 2	17 - 13	E	-1642	6924	0.00	0.04	2.77	12	10	252	4.7	0.0	2888	0.02	0.05	2.77	63	51	157	40.2	0.0
Piano 2	17 - 13	E	-5071	11751	0.00	0.02	2.27	202	174	2501	8.1	0.0	13657	0.02	0.04	2.27	291	220	592	49.2	0.0
Piano 2	17 - 13	E	-4499	10771	0.00	0.02	1.69	185	147	2110	8.8	0.0	22462	0.02	0.03	1.69	464	315	703	66.0	0.0
Piano 2	13 - 18	E	-3989	97996	0.00	0.03	1.95	171	169	2453	7.0	0.0	4120	0.02	0.07	1.95	83	82	299	27.6	0.0
Piano 2	14 - 15	E	-1896	21148	0.02	0.03	1.71	406	401	549	73.9	0.0	2517	0.00	0.06	1.71	4	4	162	2.5	0.0
Piano 2	14 - 15	E	-8509	25116	0.02	0.04	1.71	4820	4759	9978	48.3	0.0	10218	0.00	0.07	1.71	8	8	723	1.1	0.0
Piano 2	18 - 14	E	-545	719	0.00	0.06	2.07	1	1	46	2.7	0.0	505	0.02	0.08	2.07	10	10	39	25.8	0.0
Piano 2	18 - 14	E	-1943	23754	0.00	0.02	1.82	41	41	593	7.0	0.0	2343	0.02	0.07	1.82	45	44	156	29.1	0.0
Piano 2	15 - 19	E	-4589	92779	0.00	0.03	1.92	24	0	2717	0.9	0.0	4131	0.02	0.08	1.92	81	0	348	23.1	0.0

## Sisma Y (-) - Distribuzione forze: Proporzionale masse; (Cond\_Y\_1(-))

Imp.	Fili	Stato	N [daN]	k <sub>L</sub> [daN/cm]	δ <sub>L</sub> [cm]	δ <sub>L,0</sub> [cm]	δ <sub>L,u</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,u</sub> [daN]	% δ <sub>L,0</sub>	% δ <sub>L,u</sub>	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>t,0</sub> [cm]	δ <sub>t,u</sub> [cm]	V <sub>t</sub> [daN]	V <sub>t,e</sub> [daN]	V <sub>t,u</sub> [daN]	% δ <sub>t,0</sub>	% δ <sub>t,u</sub>
Piano 1	1 - 2	P	-4022	22635	0.01	0.04	1.86	181	115	980	18.4	0.0	9479	0.20	0.06	1.86	588	527	588	100.0	7.6
Piano 1	1 - 2	P	-1371	26054	0.01	0.04	1.86	2080	1320	11181	18.6	0.0	31598	0.20	0.06	1.86	2013	1752	2013	100.0	7.7
Piano 1	1 - 2	P	-3362	12583	0.01	0.05	1.86	100	58	658	15.3	0.0	7584	0.21	0.07	1.86	493	434	493	100.0	7.8
Piano 1	1 - 5	P	-2490	5688	0.20	0.06	1.86	360	0	360	100.0	7.5	5688	0.01	0.06	1.86	42	0	360	11.7	0.0
Piano 1	1 - 5	P	-4744	18939	0.20	0.06	1.86	1046	0	1046	100.0	7.9	8847	0.00	0.08	1.86	33	0	673	4.9	0.0
Piano 1	2 - 3	P	-2541	5688	0.01	0.07	1.86	45	26	372	12.2	0.0	5688	0.21	0.07	1.86	373	329	373	100.0	7.9
Piano 1	2 - 3	P	-1440	26054	0.01	0.04	1.86	2080	1320	11722	17.7	0.0	31598	0.21	0.07	1.86	2110	1882	2110	100.0	8.0
Piano 1	2 - 3	P	-5594	40617	0.01	0.04	1.86	324	182	1736	18.7	0.0	12007	0.21	0.07	1.86	823	715	823	100.0	8.1
Piano 1	2 - 6	P	-3762	27078	0.21	0.05	1.86	1227	0	1227	100.0	8.9	3749	0.01	0.10	1.86	26	0	387	6.8	0.0
Piano 1	2 - 6	P	-5120	38012	0.21	0.05	1.86	1814	0	1814	100.0	8.7	4341	0.00	0.11	1.86	17	0	495	3.5	0.0
Piano 1	3 - 7	P	-9206	10220	0.21	0.04	1.86	4594	0	4594	100.0	9.3	18327	0.01	0.08	1.86	123	0	1426	8.7	0.0
Piano 1	3 - 7	P	-8707	69079	0.21	0.05	1.86	3385	0	3385	100.0	9.1	15167	0.00	0.08	1.86	62	0	1269	4.9	0.0
Piano 1	4 - 5	P	-1153	987	0.00	0.11	1.24	3	3	106	2.9	0.0	694	0.20	0.00	1.24	0	117	0	100.0	15.8
Piano 1	4 - 5	P	-1162	987	0.00	0.11	1.24	3	3	107	2.9	0.0	694	0.20	0.00	1.24	0	118	0	100.0	16.0
Piano 1	4 - 9	P	-2272	6442	0.20	0.06	1.76	408	0	408	100.0	7.8	1504	0.00	0.12	1.76	4	0	186	2.1	0.0
Piano 1	4 - 9	C	-2688	47344	0.69	0.07	0.69	34923	0	34923	100.0	100.0	45656	0.00	0.08	0.69	51	0	3529	1.4	0.0
Piano 1	5 - 6	P	-6308	48959	0.00	0.05	1.86	150	144	2230	6.7	0.0	7096	0.20	0.10	1.86	679	663	679	100.0	5.9

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 1	5 - 6	P	-1851 9	29832 9	0.00	0.06	1.86	911	935	18791	4.8	0.0	20364	0.20	0.10	1.86	1993	1752	1993	100.0	6.0
Piano 1	5 - 10	P	-2036 2	28374 7	0.20	0.06	1.86	16551	0	16551	100.0	7.8	33494	0.00	0.08	1.86	36	0	2810	1.3	0.0
Piano 1	5 - 10	P	-8427	40617	0.20	0.06	1.86	2397	0	2397	100.0	7.7	12007	0.00	0.09	1.86	29	0	1136	2.5	0.0
Piano 1	6 - 7	P	-2102 4	33959 9	0.00	0.07	1.86	1037	1069	23569	4.4	0.0	22523	0.21	0.10	1.86	2260	2040	2260	100.0	6.1
Piano 1	6 - 7	P	-5004	24123	0.00	0.05	1.86	74	69	1305	5.6	0.0	5245	0.21	0.10	1.86	537	495	537	100.0	6.3
Piano 1	7 - 8	P	-1564	1184	0.00	0.12	1.86	3	3	143	2.0	0.0	1184	0.21	0.12	1.86	143	126	143	100.0	5.3
Piano 1	7 - 8	P	-1335	694	0.00	0.15	1.86	2	2	102	1.7	0.0	987	0.22	0.12	1.86	122	110	122	100.0	5.5
Piano 1	7 - 11	P	-3502	5688	0.21	0.09	1.86	485	0	485	100.0	7.2	5688	0.00	0.09	1.86	14	0	484	3.0	0.0
Piano 1	7 - 11	P	-1559 9	15308 6	0.21	0.06	1.86	8565	0	8565	100.0	8.7	22751	0.00	0.09	1.86	2	0	2145	0.1	0.0
Piano 1	7 - 11	P	-4781	7637	0.21	0.09	1.86	718	0	718	100.0	6.8	6320	0.00	0.10	1.86	17	0	646	2.6	0.0
Piano 1	15 - 8	P	-8838	76772	0.22	0.06	1.86	4528	4276	4528	100.0	8.9	3934	0.00	0.17	1.86	6	2	666	0.9	0.0
Piano 1	15 - 8	P	-5807	41886	0.22	0.05	1.86	2260	2095	2260	100.0	9.2	2893	0.00	0.16	1.86	4	1	452	0.9	0.0
Piano 1	10 - 11	P	-7513	39906	0.00	0.06	1.24	130	124	2379	5.5	0.0	6479	0.20	0.00	1.24	0	1115	0	100.0	16.1
Piano 1	10 - 11	P	-8742	53728	0.00	0.06	1.86	175	169	3158	5.5	0.0	7405	0.20	0.12	1.86	921	809	921	100.0	4.6
Piano 1	10 - 11	P	-7060	31591	0.00	0.06	1.86	103	98	2016	5.1	0.0	5862	0.21	0.13	1.86	743	667	743	100.0	4.7
Piano 1	10 - 11	P	-7179	31591	0.00	0.06	1.86	103	98	2048	5.0	0.0	5862	0.21	0.13	1.86	754	690	754	100.0	4.9
Piano 1	10 - 12	P	-4676	7637	0.20	0.09	1.86	702	0	702	100.0	6.0	6320	0.00	0.10	1.86	24	0	632	3.8	0.0
Piano 1	10 - 12	P	-1474 5	10220 1	0.20	0.06	1.86	6285	0	6285	100.0	7.6	18327	0.01	0.11	1.86	114	0	1951	5.8	0.0
Piano 1	10 - 12	P	-7206	15586	0.20	0.09	1.86	1383	0	1383	100.0	6.2	8215	0.01	0.12	1.86	73	0	957	7.6	0.0
Piano 1	11 - 13	P	-1667 7	11633 5	0.21	0.06	1.86	7553	0	7553	100.0	8.3	19591	0.01	0.11	1.86	122	0	2193	5.5	0.0
Piano 1	11 - 13	P	-8741	22635	0.21	0.08	1.86	1914	0	1914	100.0	7.3	9479	0.01	0.12	1.86	84	0	1148	7.3	0.0
Piano 1	11 - 19	P	-1365 6	13486 5	0.00	0.06	1.24	372	375	8716	4.3	0.0	8379	0.22	0.00	1.24	0	1555	0	100.0	17.4
Piano 1	12 - 13	P	-1536 1	88519	0.01	0.07	1.86	852	831	6137	13.9	0.0	17063	0.20	0.12	1.86	2046	1809	2046	100.0	4.6
Piano 1	12 - 13	P	-1897 0	13083 1	0.01	0.07	1.86	1259	1247	9255	13.6	0.0	20855	0.20	0.12	1.86	2524	2270	2524	100.0	4.7
Piano 1	12 - 13	P	-2034 5	14561 0	0.01	0.07	1.86	1402	1394	10518	13.3	0.0	22119	0.21	0.12	1.86	2705	2476	2705	100.0	4.8
Piano 1	12 - 13	P	-2057 4	14561 0	0.01	0.07	1.86	1402	1394	10627	13.2	0.0	22119	0.21	0.12	1.86	2733	2545	2733	100.0	4.9
Piano 1	12 - 13	P	-1603 5	88519	0.01	0.07	1.86	852	831	6384	13.3	0.0	17063	0.21	0.12	1.86	2128	2013	2128	100.0	5.1
Piano 1	13 - 14	P	-2395	1184	0.01	0.18	1.86	12	11	212	5.4	0.0	1184	0.21	0.18	1.86	212	218	212	100.0	2.1
Piano 1	13 - 14	P	-2433	1184	0.01	0.18	1.86	12	11	215	5.3	0.0	1184	0.22	0.18	1.86	215	223	215	100.0	2.2
Piano 1	14 - 15	P	-1358 2	11041 0	0.22	0.08	1.86	8287	7896	8287	100.0	8.1	4860	0.01	0.20	1.86	40	22	987	4.0	0.0
Piano 1	14 - 15	P	-1206 7	11041 0	0.22	0.07	1.86	7491	7203	7491	100.0	8.5	4860	0.00	0.18	1.86	21	10	892	2.4	0.0
Piano 1	19 - 15	P	-1267 5	11718 2	0.00	0.06	1.24	323	324	7425	4.4	0.0	7695	0.22	0.00	1.24	0	1445	0	100.0	17.6
Piano 2	1 - 2	E	-3650	37399	0.00	0.03	1.62	75	59	1046	7.2	0.0	14837	0.02	0.04	1.62	350	260	588	59.4	0.0
Piano 2	1 - 2	E	-8369	18754 1	0.00	0.03	2.20	375	348	5337	7.0	0.0	18770	0.02	0.05	2.20	430	352	1001	43.0	0.0
Piano 2	1 - 2	E	-1831	5245	0.00	0.05	2.77	10	9	253	4.1	0.0	2633	0.02	0.07	2.77	59	51	175	33.4	0.0
Piano 2	5 - 1	E	-7523	14148 0	0.02	0.03	1.62	3359	3116	4032	83.3	0.0	27880	0.00	0.04	1.62	34	29	1209	2.8	0.0
Piano 2	5 - 1	E	-5216	69772	0.02	0.03	1.62	1657	1489	1957	84.6	0.0	19516	0.00	0.04	1.62	35	30	839	4.2	0.0
Piano 2	2 - 3	E	-1480	3214	0.00	0.05	2.78	6	5	172	3.7	0.0	2198	0.02	0.06	2.78	48	40	141	34.3	0.0
Piano 2	2 - 3	E	-7229	16914 7	0.00	0.03	2.24	338	303	4347	7.8	0.0	17045	0.02	0.05	2.24	365	278	850	42.9	0.0
Piano 2	2 - 3	E	-4099	67051	0.00	0.02	1.65	134	102	1522	8.8	0.0	18549	0.02	0.04	1.65	384	262	652	58.9	0.0
Piano 2	2 - 6	E	-5907	12803 1	0.02	0.03	3.03	2833	0	3845	73.7	0.0	3142	0.00	0.11	3.03	5	0	344	1.3	0.0
Piano 2	3 - 7	E	-5155	84567	0.02	0.03	1.62	1733	0	2126	81.5	0.0	21375	0.00	0.04	1.62	38	0	832	4.6	0.0
Piano 2	3 - 7	E	-6568	13300 4	0.02	0.03	1.62	2725	0	3414	79.8	0.0	26951	0.00	0.04	1.62	33	0	1060	3.1	0.0
Piano 2	5 - 6	E	-1729	19551	0.00	0.02	1.23	19	9	448	4.2	0.0	7095	0.02	0.03	1.23	167	76	244	68.5	0.0
Piano 2	5 - 6	E	-8882	29819 9	0.00	0.03	2.00	288	265	10408	2.8	0.0	12779	0.02	0.06	2.00	290	175	781	37.2	0.0
Piano 2	10 - 5	E	-3339	22350	0.02	0.03	1.62	531	461	775	68.5	0.0	12081	0.00	0.04	1.62	3	3	536	0.6	0.0
Piano 2	10 - 5	E	-9160	19361 7	0.02	0.03	1.62	4597	4329	5887	78.1	0.0	33456	0.00	0.04	1.62	11	9	1472	0.7	0.0
Piano 2	10 - 5	E	-1261	1561	0.02	0.07	1.62	37	31	113	32.9	0.0	4647	0.00	0.04	1.62	4	4	203	2.0	0.0
Piano 2	6 - 7	E	-1191	5162	0.00	0.04	2.41	5	3	189	2.6	0.0	1206	0.02	0.07	2.41	27	16	87	30.4	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

2																					
Piano 2	6 - 7	E	-5223	16826 3	0.00	0.02	1.82	162	132	4028	4.0	0.0	10026	0.02	0.05	1.82	214	113	504	42.4	0.0
Piano 2	6 - 7	E	-1759	28686	0.00	0.02	1.24	28	13	537	5.2	0.0	8178	0.02	0.03	1.24	169	69	248	68.2	0.0
Piano 2	7 - 11	E	-9665	24678 2	0.02	0.03	1.62	5057	0	7273	69.5	0.0	39032	0.00	0.04	1.62	13	0	1558	0.8	0.0
Piano 2	7 - 11	E	-2094	8364	0.02	0.04	1.62	171	0	337	50.8	0.0	8364	0.00	0.04	1.62	2	0	338	0.7	0.0
Piano 2	12 - 10	E	-4457	43290	0.02	0.03	1.62	1028	908	1351	76.1	0.0	15799	0.00	0.05	1.62	24	21	715	3.4	0.0
Piano 2	12 - 10	E	-1451 3	37057 4	0.02	0.04	1.62	8799	8530	14500	60.7	0.0	52042	0.00	0.04	1.62	42	36	2330	1.8	0.0
Piano 2	10 - 16	E	-1209 6	33276 6	0.00	0.05	2.20	127	125	15457	0.8	0.0	11661	0.02	0.08	2.20	268	233	965	27.8	0.0
Piano 2	11 - 13	E	-2098 4	65296 0	0.02	0.05	1.62	13380	0	33433	40.0	0.0	82710	0.00	0.04	1.62	86	0	3381	2.6	0.0
Piano 2	16 - 11	E	-1094 6	33189 4	0.00	0.04	2.19	127	124	13992	0.9	0.0	11729	0.02	0.07	2.19	249	199	879	28.3	0.0
Piano 2	19 - 11	E	-647	713	0.00	0.08	2.08	0	0	54	0.3	0.0	500	0.02	0.09	2.08	10	0	45	21.9	0.0
Piano 2	19 - 11	E	-2235	20765	0.00	0.03	1.87	5	0	641	0.9	0.0	2105	0.02	0.08	1.87	43	0	174	24.6	0.0
Piano 2	12 - 17	E	-6326	10748 0	0.00	0.03	1.69	185	158	2936	6.3	0.0	22393	0.02	0.04	1.69	526	397	978	53.8	0.0
Piano 2	12 - 17	E	-6015	90848	0.00	0.03	2.24	157	140	2585	6.1	0.0	12218	0.02	0.06	2.24	279	230	705	39.6	0.0
Piano 2	12 - 17	E	-2775	13885	0.00	0.04	2.75	24	21	545	4.4	0.0	3789	0.02	0.07	2.75	84	73	267	31.6	0.0
Piano 2	17 - 13	E	-2067	6924	0.00	0.05	2.77	12	10	315	3.8	0.0	2888	0.02	0.07	2.77	64	52	197	32.3	0.0
Piano 2	17 - 13	E	-6322	11751 2	0.00	0.03	2.27	203	177	3103	6.5	0.0	13657	0.02	0.05	2.27	292	224	735	39.8	0.0
Piano 2	17 - 13	E	-5548	10771 1	0.00	0.02	1.69	186	150	2588	7.2	0.0	22462	0.02	0.04	1.69	466	320	863	54.0	0.0
Piano 2	13 - 18	E	-4891	97996	0.00	0.03	1.95	172	172	2990	5.7	0.0	4120	0.02	0.09	1.95	83	83	365	22.8	0.0
Piano 2	14 - 15	E	-2238	21148	0.02	0.03	1.71	407	407	645	63.2	0.0	2517	0.00	0.08	1.71	4	4	190	2.1	0.0
Piano 2	14 - 15	E	-8949	25116 2	0.02	0.04	1.71	4839	4839	10476	46.2	0.0	10218	0.00	0.07	1.71	8	8	759	1.0	0.0
Piano 2	18 - 14	E	-665	719	0.00	0.08	2.07	1	1	56	2.2	0.0	505	0.02	0.09	2.07	10	10	47	21.4	0.0
Piano 2	18 - 14	E	-2353	23754	0.00	0.03	1.82	42	41	714	5.8	0.0	2343	0.02	0.08	1.82	46	45	188	24.2	0.0
Piano 2	15 - 19	E	-4538	92779	0.00	0.03	1.92	25	0	2689	0.9	0.0	4131	0.02	0.08	1.92	81	0	345	23.5	0.0

## Sisma Y (+) - Distribuzione forze: Proporzionale altezze; (Cond. Y\_2(+))

Imp.	Fili	Stato	N [daN]	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>t,0</sub> [cm]	δ <sub>t,u</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,u</sub> [daN]	% δ <sub>t,0</sub>	% δ <sub>t,u</sub>	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>t,0</sub> [cm]	δ <sub>t,u</sub> [cm]	V <sub>t</sub> [daN]	V <sub>t,e</sub> [daN]	V <sub>t,u</sub> [daN]	% δ <sub>t,0</sub>	% δ <sub>t,u</sub>
Piano 1	1 - 2	P	-7446	22635	0.01	0.07	1.86	313	239	1665	18.8	0.0	9479	1.59	0.11	1.86	999	872	999	100.0	84.5
Piano 1	1 - 2	P	-2543 3	26054 2	0.01	0.07	1.86	3608	2990	18921	19.1	0.0	31598	1.59	0.11	1.86	3406	3036	3406	100.0	84.8
Piano 1	1 - 2	P	-6247	12583	0.01	0.09	1.86	174	132	1113	15.7	0.0	7584	1.60	0.11	1.86	835	759	835	100.0	85.0
Piano 1	1 - 5	P	-4381	5688	1.59	0.10	1.86	589	0	589	100.0	84.4	5688	0.01	0.10	1.86	73	0	589	12.4	0.0
Piano 1	1 - 5	P	-6244	18939	1.59	0.07	1.86	1306	0	1306	100.0	84.7	8847	0.01	0.09	1.86	57	0	840	6.8	0.0
Piano 1	2 - 3	P	-4722	5688	0.01	0.11	1.86	79	59	631	12.5	0.0	5688	1.60	0.11	1.86	631	577	631	100.0	85.1
Piano 1	2 - 3	P	-2681 1	26054 2	0.01	0.08	1.86	3608	2990	19863	18.2	0.0	31598	1.61	0.11	1.86	3575	3330	3575	100.0	85.4
Piano 1	2 - 3	P	-1043 1	40617	0.01	0.07	1.86	562	420	2922	19.3	0.0	12007	1.61	0.12	1.86	1384	1201	1384	100.0	85.7
Piano 1	2 - 6	P	-6492	27078	1.60	0.07	1.86	1784	0	1784	100.0	85.5	3749	0.01	0.15	1.86	46	0	563	8.2	0.0
Piano 1	2 - 6	P	-7016	38012	1.60	0.06	1.86	2259	0	2259	100.0	85.5	4341	0.01	0.14	1.86	30	0	616	4.9	0.0
Piano 1	3 - 7	P	-1561 9	10220 1	1.61	0.06	1.86	6478	0	6478	100.0	86.2	18327	0.01	0.11	1.86	214	0	2011	10.6	0.0
Piano 1	3 - 7	P	-1221 2	69079	1.61	0.06	1.86	4256	0	4256	100.0	86.2	15167	0.01	0.11	1.86	107	0	1596	6.7	0.0
Piano 1	4 - 5	E	-1440	987	0.01	0.13	1.86	5	4	131	4.1	0.0	694	1.24	0.00	1.24	0	77	0	100.0	100.0
Piano 1	4 - 5	E	-1457	987	0.01	0.13	1.86	5	4	132	4.0	0.0	694	1.24	0.00	1.24	0	78	0	100.0	100.0
Piano 1	4 - 9	P	-2724	6442	1.58	0.07	1.76	477	0	477	100.0	89.6	1504	0.00	0.14	1.76	7	0	217	3.1	0.0
Piano 1	4 - 9	C	-2467 6	47344 1	0.69	0.07	0.69	34207	0	34207	100.0	100.0	45656	0.00	0.07	0.69	89	0	3283	2.7	0.0
Piano 1	5 - 6	P	-7913	48959	0.01	0.06	1.86	259	207	2748	9.4	0.0	7096	1.59	0.12	1.86	836	815	836	100.0	84.4
Piano 1	5 - 6	P	-2354 3	29832 9	0.01	0.08	1.86	1581	1353	23408	6.8	0.0	20364	1.60	0.12	1.86	2482	2452	2482	100.0	84.8
Piano 1	5 - 10	P	-2206 0	28374 7	1.59	0.06	1.86	17658	0	17658	100.0	84.8	33494	0.00	0.09	1.86	63	0	2999	2.1	0.0
Piano 1	5 - 10	P	-7169	40617	1.59	0.05	1.86	2121	0	2121	100.0	84.8	12007	0.00	0.08	1.86	50	0	1005	5.0	0.0
Piano 1	6 - 7	P	-2712 5	33959 9	0.01	0.09	1.86	1799	1547	29742	6.1	0.0	22523	1.60	0.13	1.86	2852	2859	2852	100.0	85.2
Piano 1	6 - 7	P	-6534	24123	0.01	0.07	1.86	128	100	1664	7.7	0.0	5245	1.61	0.13	1.86	685	695	685	100.0	85.6
Piano 1	7 - 8	P	-1971	1184	0.00	0.15	1.86	5	4	177	2.9	0.0	1184	1.61	0.15	1.86	177	159	177	100.0	85.6

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 1	7 - 8	P	-1707	694	0.00	0.18	1.86	3	2	127	2.3	0.0	987	1.62	0.16	1.86	153	139	153	100.0	86.0
Piano 1	7 - 11	P	-4424	5688	1.61	0.10	1.86	594	0	594	100.0	85.9	5688	0.00	0.10	1.86	25	0	594	4.2	0.0
Piano 1	7 - 11	P	-1665 3	15308 6	1.61	0.06	1.86	8970	0	8970	100.0	86.3	22751	0.00	0.10	1.86	3	0	2236	0.1	0.0
Piano 1	7 - 11	P	-4332	7637	1.61	0.09	1.86	659	0	659	100.0	86.1	6320	0.00	0.09	1.86	30	0	593	5.0	0.0
Piano 1	15 - 8	P	-8867	76772	1.62	0.06	1.86	4538	4317	4538	100.0	86.8	3934	0.00	0.17	1.86	10	2	667	1.5	0.0
Piano 1	15 - 8	P	-6974	41886	1.62	0.06	1.86	2561	2363	2561	100.0	86.8	2893	0.00	0.18	1.86	7	2	512	1.4	0.0
Piano 1	10 - 11	P	-6069	39906	0.01	0.05	1.86	225	175	1954	11.5	0.0	6479	1.59	0.10	1.86	651	594	651	100.0	84.5
Piano 1	10 - 11	P	-7250	53728	0.01	0.05	1.86	303	238	2660	11.4	0.0	7405	1.60	0.10	1.86	776	721	776	100.0	84.9
Piano 1	10 - 11	P	-6018	31591	0.01	0.06	1.86	178	138	1742	10.2	0.0	5862	1.60	0.11	1.86	642	608	642	100.0	85.4
Piano 1	10 - 11	P	-6257	31591	0.01	0.06	1.86	178	133	1808	9.9	0.0	5862	1.61	0.11	1.86	666	584	666	100.0	85.7
Piano 1	10 - 12	P	-3615	7637	1.59	0.07	1.86	559	0	559	100.0	84.7	6320	0.01	0.08	1.86	42	0	503	8.3	0.0
Piano 1	10 - 12	P	-9707	10220 1	1.59	0.05	1.86	4670	0	4670	100.0	84.9	18327	0.01	0.08	1.86	197	0	1449	13.6	0.0
Piano 1	10 - 12	P	-3960	15586	1.59	0.06	1.86	861	0	861	100.0	84.8	8215	0.02	0.07	1.86	127	0	596	21.3	0.0
Piano 1	11 - 13	P	-1221 2	11633 5	1.61	0.05	1.86	6086	0	6086	100.0	86.3	19591	0.01	0.09	1.86	211	0	1767	11.9	0.0
Piano 1	11 - 13	P	-5468	22635	1.61	0.06	1.86	1340	0	1340	100.0	86.3	9479	0.02	0.08	1.86	145	0	804	18.1	0.0
Piano 1	11 - 19	P	-1242 8	13486 5	0.00	0.06	1.86	645	539	7989	8.1	0.0	8379	1.62	0.13	1.86	1129	1136	1129	100.0	85.8
Piano 1	12 - 13	P	-8129	88519	0.02	0.04	1.86	1478	937	3534	41.8	0.0	17063	1.59	0.07	1.86	1178	1065	1178	100.0	84.8
Piano 1	12 - 13	P	-1032 8	13083 1	0.02	0.04	1.86	2185	1308	5494	39.8	0.0	20855	1.59	0.07	1.86	1498	1316	1498	100.0	85.1
Piano 1	12 - 13	P	-1140 6	14561 0	0.02	0.04	1.86	2432	1462	6405	38.0	0.0	22119	1.60	0.07	1.86	1647	1467	1647	100.0	85.4
Piano 1	12 - 13	P	-1186 6	14561 0	0.02	0.05	1.86	2432	1462	6632	36.7	0.0	22119	1.61	0.08	1.86	1706	1540	1706	100.0	85.7
Piano 1	12 - 13	P	-9482	88519	0.02	0.05	1.86	1478	815	4090	36.1	0.0	17063	1.61	0.08	1.86	1363	1190	1363	100.0	86.0
Piano 1	13 - 14	P	-1426	1184	0.02	0.11	1.86	20	14	133	15.0	0.0	1184	1.61	0.11	1.86	133	120	133	100.0	85.9
Piano 1	13 - 14	P	-1502	1184	0.02	0.12	1.86	20	14	139	14.3	0.0	1184	1.62	0.12	1.86	139	127	139	100.0	86.3
Piano 1	14 - 15	P	-9205	11041 0	1.62	0.06	1.86	6277	6040	6277	100.0	86.8	4860	0.01	0.15	1.86	69	15	747	9.2	0.0
Piano 1	14 - 15	P	-1019 9	11041 0	1.62	0.06	1.86	6631	6304	6631	100.0	86.8	4860	0.01	0.16	1.86	37	8	789	4.6	0.0
Piano 1	19 - 15	P	-1167 9	11718 2	0.00	0.06	1.86	561	466	6884	8.2	0.0	7695	1.62	0.14	1.86	1059	1070	1059	100.0	86.1
Piano 2	1 - 2	E	-4575	37399	0.00	0.03	1.62	138	104	1300	10.6	0.0	14837	0.04	0.05	1.62	549	400	731	75.1	0.0
Piano 2	1 - 2	E	-1066 5	18754 1	0.00	0.04	2.20	692	615	6755	10.2	0.0	18770	0.04	0.07	2.20	672	538	1267	53.0	0.0
Piano 2	1 - 2	E	-2372	5245	0.00	0.06	2.77	19	16	326	5.9	0.0	2633	0.03	0.09	2.77	91	78	226	40.4	0.0
Piano 2	5 - 1	P	-8510	14148 0	0.04	0.03	1.62	4509	4218	4509	100.0	0.3	27880	0.00	0.05	1.62	63	41	1353	4.6	0.0
Piano 2	5 - 1	P	-6346	69772	0.04	0.03	1.62	2349	2127	2349	100.0	0.2	19516	0.00	0.05	1.62	65	46	1007	6.4	0.0
Piano 2	2 - 3	E	-1930	3214	0.00	0.07	2.78	12	9	224	5.3	0.0	2198	0.03	0.08	2.78	75	60	183	41.0	0.0
Piano 2	2 - 3	E	-9583	16914 7	0.00	0.03	2.24	624	534	5720	10.9	0.0	17045	0.03	0.07	2.24	563	420	1119	50.3	0.0
Piano 2	2 - 3	E	-5537	67051	0.00	0.03	1.65	248	181	2035	12.2	0.0	18549	0.03	0.05	1.65	589	394	872	67.5	0.0
Piano 2	2 - 6	E	-7187	12803 1	0.03	0.04	3.03	4399	0	4659	94.4	0.0	3142	0.00	0.13	3.03	9	0	417	2.0	0.0
Piano 2	3 - 7	E	-6809	84567	0.03	0.03	1.62	2651	0	2779	95.4	0.0	21375	0.00	0.05	1.62	70	0	1087	6.4	0.0
Piano 2	3 - 7	E	-8055	13300 4	0.03	0.03	1.62	4156	0	4156	100.0	0.0	26951	0.00	0.05	1.62	60	0	1290	4.7	0.0
Piano 2	5 - 6	E	-1899	19551	0.00	0.03	1.23	35	17	490	7.1	0.0	7095	0.04	0.04	1.23	263	116	268	98.4	0.0
Piano 2	5 - 6	E	-9962	29819 9	0.00	0.04	2.00	531	468	11642	4.6	0.0	12779	0.04	0.07	2.00	453	267	873	51.9	0.0
Piano 2	10 - 5	P	-3075	22350	0.04	0.03	1.62	718	635	718	100.0	0.3	12081	0.00	0.04	1.62	6	4	497	1.1	0.0
Piano 2	10 - 5	P	-9183	19361 7	0.04	0.03	1.62	5900	5577	5900	100.0	0.4	33456	0.00	0.04	1.62	20	12	1475	1.4	0.0
Piano 2	10 - 5	E	-1366	1561	0.04	0.08	1.62	58	48	122	47.9	0.0	4647	0.00	0.05	1.62	8	6	219	3.5	0.0
Piano 2	6 - 7	E	-1360	5162	0.00	0.04	2.41	9	6	216	4.3	0.0	1206	0.03	0.08	2.41	41	25	99	41.4	0.0
Piano 2	6 - 7	E	-6067	16826 3	0.00	0.03	1.82	300	233	4661	6.4	0.0	10026	0.03	0.06	1.82	330	171	583	56.6	0.0
Piano 2	6 - 7	E	-2079	28686	0.00	0.02	1.24	51	24	631	8.1	0.0	8178	0.03	0.04	1.24	259	104	291	88.8	0.0
Piano 2	7 - 11	E	-1047 4	24678 2	0.03	0.03	1.62	7736	0	7860	98.4	0.0	39032	0.00	0.04	1.62	23	0	1684	1.4	0.0
Piano 2	7 - 11	E	-2070	8364	0.03	0.04	1.62	262	0	334	78.6	0.0	8364	0.00	0.04	1.62	4	0	334	1.3	0.0
Piano 2	12 - 10	P	-3315	43290	0.04	0.02	1.62	1073	976	1073	100.0	0.8	15799	0.00	0.04	1.62	45	22	568	7.9	0.0
Piano 2	12 -	P	-1223	37057	0.04	0.03	1.62	12370	12180	12370	100.0	0.2	52042	0.00	0.04	1.62	78	55	1988	3.9	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

2	10		4	4																	
Piano 2	10 - 16	E	-11093	332766	0.00	0.04	2.20	235	221	14194	1.7	0.0	11661	0.04	0.08	2.20	420	357	887	47.3	0.0
Piano 2	11 - 13	E	-18281	652960	0.03	0.04	1.62	20469	0	29254	70.0	0.0	82710	0.00	0.04	1.62	159	0	2958	5.4	0.0
Piano 2	16 - 11	E	-10460	331894	0.00	0.04	2.19	234	218	13373	1.8	0.0	11729	0.03	0.07	2.19	383	300	841	45.6	0.0
Piano 2	19 - 11	E	-651	713	0.00	0.08	2.08	0	0	55	0.6	0.0	500	0.03	0.09	2.08	15	0	46	33.1	0.0
Piano 2	19 - 11	E	-2225	20765	0.00	0.03	1.87	10	0	638	1.6	0.0	2105	0.03	0.08	1.87	65	0	173	37.7	0.0
Piano 2	12 - 17	P	-4575	107480	0.00	0.02	1.69	342	235	2176	15.7	0.0	22393	0.04	0.03	1.69	725	557	725	100.0	0.3
Piano 2	12 - 17	E	-4405	90848	0.00	0.02	2.24	289	247	1906	15.2	0.0	12218	0.04	0.04	2.24	436	351	520	83.9	0.0
Piano 2	12 - 17	E	-2056	13885	0.00	0.03	2.75	44	37	406	10.9	0.0	3789	0.03	0.05	2.75	131	112	199	66.0	0.0
Piano 2	17 - 13	E	-1540	6924	0.00	0.03	2.77	22	17	236	9.3	0.0	2888	0.03	0.05	2.77	99	79	148	66.8	0.0
Piano 2	17 - 13	E	-4768	117512	0.00	0.02	2.27	374	312	2354	15.9	0.0	13657	0.03	0.04	2.27	451	339	558	81.0	0.0
Piano 2	17 - 13	P	-4244	107711	0.00	0.02	1.69	342	240	2009	17.0	0.0	22462	0.03	0.03	1.69	670	462	670	100.0	0.1
Piano 2	13 - 18	E	-3770	97996	0.00	0.02	1.95	317	304	2321	13.6	0.0	4120	0.03	0.07	1.95	127	125	283	44.7	0.0
Piano 2	14 - 15	P	-1812	21148	0.03	0.03	1.71	534	539	534	100.0	0.2	2517	0.00	0.06	1.71	7	6	157	4.7	0.0
Piano 2	14 - 15	E	-8402	251162	0.03	0.04	1.71	7307	7178	9855	74.1	0.0	10218	0.00	0.07	1.71	15	14	714	2.1	0.0
Piano 2	18 - 14	E	-516	719	0.00	0.06	2.07	2	2	44	5.3	0.0	505	0.03	0.07	2.07	15	15	37	41.6	0.0
Piano 2	18 - 14	E	-1843	23754	0.00	0.02	1.82	77	73	563	13.6	0.0	2343	0.03	0.06	1.82	69	67	148	46.5	0.0
Piano 2	15 - 19	E	-4601	92779	0.00	0.03	1.92	45	0	2724	1.7	0.0	4131	0.03	0.08	1.92	123	0	349	35.1	0.0

## Sisma Y (-) - Distribuzione forze: Proporzionale altezze; (Cond\_Y 2(-))

Imp.	Fili	Stato	N [daN]	k <sub>L</sub> [daN/cm]	δ <sub>L</sub> [cm]	δ <sub>L,0</sub> [cm]	δ <sub>L,u</sub> [cm]	V <sub>L</sub> [daN]	V <sub>L,e</sub> [daN]	V <sub>L,u</sub> [daN]	%_δ <sub>0</sub>	%_δ <sub>u</sub>	k <sub>t</sub> [daN/cm]	δ <sub>t</sub> [cm]	δ <sub>0</sub> [cm]	δ <sub>u</sub> [cm]	V <sub>t</sub> [daN]	V <sub>t,e</sub> [daN]	V <sub>t,u</sub> [daN]	%_δ <sub>0</sub>	%_δ <sub>u</sub>
Piano 1	1 - 2	P	-3685	22635	0.01	0.04	1.86	250	124	925	27.0	0.0	9479	0.66	0.06	1.86	555	499	555	100.0	33.6
Piano 1	1 - 2	P	-12559	260542	0.01	0.04	1.86	2877	1451	10561	27.2	0.0	31598	0.67	0.06	1.86	1901	1677	1901	100.0	33.8
Piano 1	1 - 2	P	-3078	12583	0.01	0.05	1.86	139	64	621	22.4	0.0	7584	0.67	0.06	1.86	466	417	466	100.0	34.0
Piano 1	1 - 5	P	-2304	5688	0.66	0.06	1.86	342	0	342	100.0	33.5	5688	0.01	0.06	1.86	58	0	342	17.0	0.0
Piano 1	1 - 5	P	-4596	18939	0.66	0.05	1.86	1024	0	1024	100.0	33.7	8847	0.01	0.07	1.86	46	0	658	7.0	0.0
Piano 1	2 - 3	P	-2326	5688	0.01	0.06	1.86	63	27	354	17.7	0.0	5688	0.67	0.06	1.86	354	308	354	100.0	34.0
Piano 1	2 - 3	P	-13178	260542	0.01	0.04	1.86	2877	1347	11132	25.8	0.0	31598	0.68	0.06	1.86	2004	1768	2004	100.0	34.2
Piano 1	2 - 3	P	-5117	40617	0.01	0.04	1.86	448	196	1642	27.3	0.0	12007	0.68	0.06	1.86	778	695	778	100.0	34.4
Piano 1	2 - 6	P	-3493	27078	0.67	0.04	1.86	1189	0	1189	100.0	34.6	3749	0.01	0.10	1.86	37	0	375	9.8	0.0
Piano 1	2 - 6	P	-4933	38012	0.67	0.05	1.86	1781	0	1781	100.0	34.5	4341	0.01	0.11	1.86	24	0	486	5.0	0.0
Piano 1	3 - 7	P	-8573	102201	0.68	0.04	1.86	4468	0	4468	100.0	35.2	18327	0.01	0.08	1.86	171	0	1387	12.3	0.0
Piano 1	3 - 7	P	-8361	69079	0.68	0.05	1.86	3314	0	3314	100.0	35.1	15167	0.01	0.08	1.86	85	0	1243	6.9	0.0
Piano 1	4 - 5	P	-1125	987	0.00	0.11	1.24	4	4	104	4.1	0.0	694	0.66	0.00	1.24	0	394	0	100.0	53.2
Piano 1	4 - 5	P	-1133	987	0.00	0.11	1.24	4	4	104	4.1	0.0	694	0.66	0.00	1.24	0	395	0	100.0	53.4
Piano 1	4 - 9	P	-2227	6442	0.66	0.06	1.76	401	0	401	100.0	35.2	1504	0.00	0.12	1.76	5	0	182	3.0	0.0
Piano 1	4 - 9	C	-27097	473441	0.69	0.07	0.69	34993	0	34993	100.0	100.0	45656	0.00	0.08	0.69	71	0	3553	2.0	0.0
Piano 1	5 - 6	P	-6150	48959	0.00	0.04	1.86	207	186	2182	9.5	0.0	7096	0.66	0.09	1.86	664	597	664	100.0	32.3
Piano 1	5 - 6	P	-18023	298329	0.00	0.06	1.86	1261	1216	18333	6.9	0.0	20364	0.67	0.10	1.86	1944	1814	1944	100.0	32.5
Piano 1	5 - 10	P	-20194	283747	0.66	0.06	1.86	16451	0	16451	100.0	33.5	33494	0.00	0.08	1.86	50	0	2793	1.8	0.0
Piano 1	5 - 10	P	-8551	40617	0.66	0.06	1.86	2426	0	2426	100.0	33.5	12007	0.00	0.10	1.86	40	0	1149	3.5	0.0
Piano 1	6 - 7	P	-20422	339599	0.00	0.07	1.86	1435	1360	22999	6.2	0.0	22523	0.68	0.10	1.86	2206	1940	2206	100.0	32.8
Piano 1	6 - 7	P	-4854	24123	0.00	0.05	1.86	102	88	1272	8.0	0.0	5245	0.68	0.10	1.86	524	478	524	100.0	33.1
Piano 1	7 - 8	P	-1524	1184	0.00	0.12	1.86	4	3	140	2.9	0.0	1184	0.68	0.12	1.86	140	134	140	100.0	32.5
Piano 1	7 - 8	P	-1298	694	0.00	0.14	1.86	2	2	99	2.4	0.0	987	0.69	0.12	1.86	119	106	119	100.0	32.8
Piano 1	7 - 11	P	-3411	5688	0.68	0.08	1.86	475	0	475	100.0	33.8	5688	0.00	0.08	1.86	20	0	475	4.2	0.0
Piano 1	7 - 11	P	-15495	153086	0.68	0.06	1.86	8532	0	8532	100.0	34.8	22751	0.00	0.09	1.86	2	0	2137	0.1	0.0
Piano 1	7 - 11	P	-4825	7637	0.68	0.09	1.86	723	0	723	100.0	33.4	6320	0.00	0.10	1.86	24	0	651	3.6	0.0
Piano 1	15 - 8	P	-8835	76772	0.69	0.06	1.86	4527	4302	4527	100.0	35.1	3934	0.00	0.17	1.86	8	2	666	1.2	0.0
Piano 1	15 - 8	P	-5692	41886	0.69	0.05	1.86	2237	2051	2237	100.0	35.3	2893	0.00	0.15	1.86	6	2	447	1.3	0.0

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 1	10 - 11	P	-7655	39906	0.00	0.06	1.86	180	164	2418	7.4	0.0	6479	0.66	0.12	1.86	806	708	806	100.0	31.1
Piano 1	10 - 11	P	-8890	53728	0.00	0.06	1.86	242	223	3206	7.5	0.0	7405	0.67	0.13	1.86	935	848	935	100.0	31.3
Piano 1	10 - 11	P	-7163	31591	0.00	0.06	1.86	142	129	2043	7.0	0.0	5862	0.68	0.13	1.86	753	706	753	100.0	31.7
Piano 1	10 - 11	P	-7270	31591	0.00	0.07	1.86	142	129	2072	6.9	0.0	5862	0.68	0.13	1.86	763	736	763	100.0	31.9
Piano 1	10 - 12	P	-4780	7637	0.66	0.09	1.86	716	0	716	100.0	32.2	6320	0.01	0.10	1.86	33	0	644	5.2	0.0
Piano 1	10 - 12	P	-1524	10220	0.66	0.06	1.86	6461	0	6461	100.0	33.3	18327	0.01	0.11	1.86	157	0	2005	7.9	0.0
Piano 1	10 - 12	P	-7526	15586	0.66	0.09	1.86	1437	0	1437	100.0	32.2	8215	0.01	0.12	1.86	101	0	995	10.2	0.0
Piano 1	11 - 13	P	-1711	11633	0.68	0.07	1.86	7707	0	7707	100.0	34.4	19591	0.01	0.11	1.86	168	0	2238	7.5	0.0
Piano 1	11 - 13	P	-9064	22635	0.68	0.09	1.86	1974	0	1974	100.0	33.6	9479	0.01	0.12	1.86	116	0	1184	9.8	0.0
Piano 1	11 - 19	P	-1377	13486	0.00	0.07	1.86	514	496	8783	5.9	0.0	8379	0.69	0.15	1.86	1241	1076	1241	100.0	31.4
Piano 1	12 - 13	P	-1607	88519	0.01	0.07	1.86	1179	1098	6394	18.4	0.0	17063	0.66	0.12	1.86	2131	1877	2131	100.0	31.1
Piano 1	12 - 13	P	-1982	13083	0.01	0.07	1.86	1742	1648	9630	18.1	0.0	20855	0.67	0.13	1.86	2626	2373	2626	100.0	31.3
Piano 1	12 - 13	P	-2122	14561	0.01	0.08	1.86	1939	1842	10928	17.7	0.0	22119	0.67	0.13	1.86	2810	2607	2810	100.0	31.5
Piano 1	12 - 13	P	-2143	14561	0.01	0.08	1.86	1939	1842	11025	17.6	0.0	22119	0.68	0.13	1.86	2835	2699	2835	100.0	31.7
Piano 1	12 - 13	P	-1668	88519	0.01	0.07	1.86	1179	1082	6599	17.9	0.0	17063	0.68	0.13	1.86	2200	1913	2200	100.0	31.9
Piano 1	13 - 14	P	-2491	1184	0.01	0.19	1.24	16	14	220	7.2	0.0	1184	0.68	0.00	1.24	0	698	0	100.0	55.2
Piano 1	13 - 14	P	-2525	1184	0.01	0.19	1.24	16	14	223	7.2	0.0	1184	0.69	0.00	1.24	0	705	0	100.0	55.7
Piano 1	14 - 15	P	-1401	11041	0.69	0.08	1.86	8499	8314	8499	100.0	34.5	4860	0.01	0.21	1.86	55	28	1012	5.4	0.0
Piano 1	14 - 15	P	-1225	11041	0.69	0.07	1.86	7571	7273	7571	100.0	34.8	4860	0.01	0.19	1.86	29	12	901	3.2	0.0
Piano 1	19 - 15	P	-1277	11718	0.00	0.06	1.86	447	429	7474	6.0	0.0	7695	0.69	0.15	1.86	1150	1013	1150	100.0	31.6
Piano 2	1 - 2	E	-3472	37399	0.00	0.03	1.62	136	107	997	13.6	0.0	14837	0.04	0.04	1.62	561	423	561	100.0	0.0
Piano 2	1 - 2	E	-7927	18754	0.00	0.03	2.20	682	633	5063	13.5	0.0	18770	0.04	0.05	2.20	695	570	949	73.3	0.0
Piano 2	1 - 2	E	-1727	5245	0.00	0.05	2.77	19	17	239	8.0	0.0	2633	0.04	0.06	2.77	94	82	165	57.1	0.0
Piano 2	5 - 1	P	-7333	14148	0.04	0.03	1.62	3991	3734	3991	100.0	0.7	27880	0.00	0.04	1.62	62	35	1197	5.1	0.0
Piano 2	5 - 1	P	-4999	69772	0.04	0.03	1.62	1928	1756	1928	100.0	0.7	19516	0.00	0.04	1.62	64	35	826	7.7	0.0
Piano 2	2 - 3	E	-1394	3214	0.00	0.05	2.78	12	10	163	7.2	0.0	2198	0.04	0.06	2.78	78	64	133	58.5	0.0
Piano 2	2 - 3	E	-6777	16914	0.00	0.02	2.24	615	550	4081	15.1	0.0	17045	0.03	0.05	2.24	585	446	798	73.2	0.0
Piano 2	2 - 3	E	-3823	67051	0.00	0.02	1.65	244	186	1422	17.1	0.0	18549	0.03	0.03	1.65	610	418	610	100.0	0.0
Piano 2	2 - 6	P	-5661	12803	0.04	0.03	3.03	3743	0	3743	100.0	0.2	3142	0.00	0.11	3.03	8	0	335	2.5	0.0
Piano 2	3 - 7	P	-4837	84567	0.03	0.02	1.62	2073	0	2073	100.0	0.5	21375	0.00	0.04	1.62	69	0	811	8.5	0.0
Piano 2	3 - 7	P	-6282	13300	0.03	0.03	1.62	3343	0	3343	100.0	0.5	26951	0.00	0.04	1.62	59	0	1038	5.7	0.0
Piano 2	5 - 6	P	-1697	19551	0.00	0.02	1.23	34	15	442	7.8	0.0	7095	0.04	0.03	1.23	241	110	241	100.0	0.4
Piano 2	5 - 6	E	-8675	29819	0.00	0.03	2.00	523	481	10171	5.1	0.0	12779	0.04	0.06	2.00	469	283	763	61.5	0.0
Piano 2	10 - 5	P	-3389	22350	0.04	0.04	1.62	784	687	784	100.0	0.2	12081	0.00	0.04	1.62	6	4	543	1.0	0.0
Piano 2	10 - 5	P	-9155	19361	0.04	0.03	1.62	5886	5574	5886	100.0	0.5	33456	0.00	0.04	1.62	20	12	1471	1.3	0.0
Piano 2	10 - 5	E	-1240	1561	0.04	0.07	1.62	60	51	111	54.3	0.0	4647	0.00	0.04	1.62	8	6	199	3.8	0.0
Piano 2	6 - 7	E	-1159	5162	0.00	0.04	2.41	9	6	184	4.9	0.0	1206	0.04	0.07	2.41	43	26	85	50.2	0.0
Piano 2	6 - 7	E	-5061	16826	0.00	0.02	1.82	295	239	3906	7.6	0.0	10026	0.03	0.05	1.82	343	181	488	70.2	0.0
Piano 2	6 - 7	P	-1698	28686	0.00	0.02	1.24	50	21	522	9.6	0.0	8178	0.03	0.03	1.24	241	100	241	100.0	0.3
Piano 2	7 - 11	P	-9510	24678	0.03	0.03	1.62	7182	0	7182	100.0	0.2	39032	0.00	0.04	1.62	23	0	1539	1.5	0.0
Piano 2	7 - 11	E	-2098	8364	0.03	0.04	1.62	273	0	338	80.8	0.0	8364	0.00	0.04	1.62	4	0	338	1.3	0.0
Piano 2	12 - 10	P	-4676	43290	0.04	0.03	1.62	1395	1244	1395	100.0	0.4	15799	0.00	0.05	1.62	44	30	739	6.0	0.0
Piano 2	12 - 10	E	-1495	37057	0.04	0.04	1.62	14295	13858	14919	95.8	0.0	52042	0.00	0.05	1.62	77	66	2398	3.2	0.0
Piano 2	10 - 16	E	-1228	33276	0.00	0.05	2.20	231	228	15691	1.5	0.0	11661	0.04	0.08	2.20	434	378	980	44.3	0.0
Piano 2	11 - 13	E	-2150	65296	0.03	0.05	1.62	21329	0	34232	62.3	0.0	82710	0.00	0.04	1.62	157	0	3462	4.5	0.0
Piano 2	16 - 11	E	-1104	33189	0.00	0.04	2.19	231	224	14104	1.6	0.0	11729	0.03	0.08	2.19	399	319	887	45.0	0.0
Piano 2	19 - 11	E	-646	713	0.00	0.08	2.08	0	0	54	0.6	0.0	500	0.03	0.09	2.08	16	0	45	34.8	0.0
Piano 2	19 - 11	E	-2237	20765	0.00	0.03	1.87	10	0	642	1.6	0.0	2105	0.03	0.08	1.87	68	0	174	39.1	0.0
Piano 2	12 -	E	-6662	10748	0.00	0.03	1.69	337	287	3086	10.9	0.0	22393	0.04	0.05	1.69	854	644	1029	83.0	0.0

2	17			0																	
Piano 2	12 - 17	E	-6325	90848	0.00	0.03	2.24	285	254	2714	10.5	0.0	12218	0.04	0.06	2.24	452	372	740	61.0	0.0
Piano 2	12 - 17	E	-2913	13885	0.00	0.04	2.75	43	38	572	7.6	0.0	3789	0.04	0.07	2.75	136	118	280	48.6	0.0
Piano 2	17 - 13	E	-2168	6924	0.00	0.05	2.77	22	18	330	6.6	0.0	2888	0.04	0.07	2.77	102	84	206	49.5	0.0
Piano 2	17 - 13	E	-6621	11751	0.00	0.03	2.27	368	321	3246	11.3	0.0	13657	0.03	0.06	2.27	469	359	769	61.0	0.0
Piano 2	17 - 13	E	-5798	10771	0.00	0.03	1.69	337	272	2701	12.5	0.0	22462	0.03	0.04	1.69	744	512	900	82.6	0.0
Piano 2	13 - 18	E	-5106	97996	0.00	0.03	1.95	312	312	3117	10.0	0.0	4120	0.03	0.09	1.95	132	133	380	34.7	0.0
Piano 2	14 - 15	E	-2320	21148	0.03	0.03	1.71	644	644	668	96.4	0.0	2517	0.00	0.08	1.71	7	7	196	3.7	0.0
Piano 2	14 - 15	E	-9055	25116	0.03	0.04	1.71	7646	7645	10595	72.2	0.0	10218	0.00	0.08	1.71	14	14	768	1.9	0.0
Piano 2	18 - 14	E	-693	719	0.00	0.08	2.07	2	2	58	3.9	0.0	505	0.03	0.10	2.07	16	16	49	32.6	0.0
Piano 2	18 - 14	E	-2451	23754	0.00	0.03	1.82	76	75	743	10.2	0.0	2343	0.03	0.08	1.82	72	71	195	36.9	0.0
Piano 2	15 - 19	E	-4526	92779	0.00	0.03	1.92	45	0	2682	1.7	0.0	4131	0.03	0.08	1.92	128	0	344	37.2	0.0

#### 4.3.2 Spostamenti degli elementi maschio per SLD.

Imp. : numero dell'impalcato  
 Fili : numero dei fili fissi iniziale e finale  
 H : altezza dell'elemento  
 $\mu$  : frazione per valore limite SLD  
 $\delta_{SLD}$  : spostamento raggiunto dagli elementi per SLD  
 $\delta_{SLD \text{ lim}}$  : spostamento limite per SLD

#### Sisma X (+) - Distribuzione forze: Proporzionale masse; (Cond\_X\_1(+))

Imp.	Fili	H [cm]	$\mu$	$\delta_{SLD}$ [cm]	$\delta_{SLD \text{ lim}}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 5	310.00	0.0030	0.51	0.93
Piano 1	1 - 5	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.51	0.93
Piano 1	2 - 6	310.00	0.0030	0.51	0.93
Piano 1	2 - 6	310.00	0.0030	0.51	0.93
Piano 1	3 - 7	310.00	0.0030	0.51	0.93
Piano 1	3 - 7	310.00	0.0030	0.51	0.93
Piano 1	4 - 5	310.00	0.0030	0.51	0.93
Piano 1	4 - 5	310.00	0.0030	0.51	0.93
Piano 1	4 - 9	292.89	0.0030	0.51	0.88
Piano 1	4 - 9	172.01	0.0030	0.52	0.52
Piano 1	5 - 6	310.00	0.0030	0.51	0.93
Piano 1	5 - 6	310.00	0.0030	0.51	0.93
Piano 1	5 - 10	310.00	0.0030	0.52	0.93
Piano 1	5 - 10	310.00	0.0030	0.52	0.93
Piano 1	6 - 7	310.00	0.0030	0.51	0.93
Piano 1	6 - 7	310.00	0.0030	0.51	0.93
Piano 1	7 - 8	310.00	0.0030	0.51	0.93
Piano 1	7 - 8	310.00	0.0030	0.51	0.93
Piano 1	7 - 11	310.00	0.0030	0.51	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	15 - 8	310.00	0.0030	0.52	0.93
Piano 1	15 - 8	310.00	0.0030	0.51	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 12	310.00	0.0030	0.52	0.93
Piano 1	10 - 12	310.00	0.0030	0.52	0.93
Piano 1	11 - 13	310.00	0.0030	0.52	0.93
Piano 1	11 - 13	310.00	0.0030	0.52	0.93
Piano 1	11 - 19	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	13 - 14	310.00	0.0030	0.52	0.93
Piano 1	13 - 14	310.00	0.0030	0.52	0.93
Piano 1	14 - 15	310.00	0.0030	0.52	0.93
Piano 1	14 - 15	310.00	0.0030	0.52	0.93
Piano 1	19 - 15	310.00	0.0030	0.52	0.93
Piano 2	1 - 2	270.21	0.0030	0.03	0.81
Piano 2	1 - 2	367.04	0.0030	0.03	1.10

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	1 - 2	460.84	0.0030	0.03	1.38
Piano 2	5 - 1	270.00	0.0030	0.03	0.81
Piano 2	5 - 1	270.00	0.0030	0.03	0.81
Piano 2	2 - 3	463.00	0.0030	0.03	1.39
Piano 2	2 - 3	374.00	0.0030	0.03	1.12
Piano 2	2 - 3	275.00	0.0030	0.03	0.83
Piano 2	2 - 6	505.00	0.0030	0.03	1.52
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	5 - 6	205.17	0.0030	0.03	0.62
Piano 2	5 - 6	333.26	0.0030	0.03	1.00
Piano 2	10 - 5	270.00	0.0030	0.03	0.81
Piano 2	10 - 5	270.00	0.0030	0.03	0.81
Piano 2	10 - 5	270.00	0.0030	0.03	0.81
Piano 2	6 - 7	401.00	0.0030	0.03	1.20
Piano 2	6 - 7	304.00	0.0030	0.03	0.91
Piano 2	6 - 7	207.00	0.0030	0.03	0.62
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	12 - 10	270.00	0.0030	0.03	0.81
Piano 2	12 - 10	270.00	0.0030	0.03	0.81
Piano 2	10 - 16	365.90	0.0030	0.03	1.10
Piano 2	11 - 13	270.00	0.0030	0.03	0.81
Piano 2	16 - 11	364.40	0.0030	0.03	1.09
Piano 2	19 - 11	346.51	0.0030	0.03	1.04
Piano 2	19 - 11	311.36	0.0030	0.03	0.93
Piano 2	12 - 17	281.31	0.0030	0.03	0.84
Piano 2	12 - 17	374.10	0.0030	0.03	1.12
Piano 2	12 - 17	458.21	0.0030	0.03	1.37
Piano 2	17 - 13	462.40	0.0030	0.03	1.39
Piano 2	17 - 13	378.00	0.0030	0.03	1.13
Piano 2	17 - 13	281.00	0.0030	0.03	0.84
Piano 2	13 - 18	325.22	0.0030	0.03	0.98
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	18 - 14	345.41	0.0030	0.03	1.04
Piano 2	18 - 14	303.35	0.0030	0.03	0.91
Piano 2	15 - 19	319.46	0.0030	0.03	0.96

## Sisma X (-) - Distribuzione forze: Proporzionale masse; (Cond\_X\_1(-))

Imp.	Fili	H [cm]	$\mu$	$\delta_{S1,0}$ [cm]	$\delta_{S1,0,lim}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 5	310.00	0.0030	0.51	0.93
Piano 1	1 - 5	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.51	0.93
Piano 1	2 - 6	310.00	0.0030	0.51	0.93
Piano 1	2 - 6	310.00	0.0030	0.51	0.93
Piano 1	3 - 7	310.00	0.0030	0.51	0.93
Piano 1	3 - 7	310.00	0.0030	0.51	0.93
Piano 1	4 - 5	310.00	0.0030	0.51	0.93
Piano 1	4 - 5	310.00	0.0030	0.51	0.93
Piano 1	4 - 9	292.89	0.0030	0.51	0.88
Piano 1	4 - 9	172.01	0.0030	0.52	0.52
Piano 1	5 - 6	310.00	0.0030	0.51	0.93
Piano 1	5 - 6	310.00	0.0030	0.51	0.93
Piano 1	5 - 10	310.00	0.0030	0.52	0.93
Piano 1	5 - 10	310.00	0.0030	0.52	0.93
Piano 1	6 - 7	310.00	0.0030	0.51	0.93
Piano 1	6 - 7	310.00	0.0030	0.51	0.93
Piano 1	7 - 8	310.00	0.0030	0.51	0.93
Piano 1	7 - 8	310.00	0.0030	0.51	0.93
Piano 1	7 - 11	310.00	0.0030	0.51	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	15 - 8	310.00	0.0030	0.52	0.93
Piano 1	15 - 8	310.00	0.0030	0.51	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 12	310.00	0.0030	0.52	0.93
Piano 1	10 - 12	310.00	0.0030	0.52	0.93
Piano 1	10 - 12	310.00	0.0030	0.52	0.93
Piano 1	11 - 13	310.00	0.0030	0.52	0.93
Piano 1	11 - 13	310.00	0.0030	0.52	0.93
Piano 1	11 - 19	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	13 - 14	310.00	0.0030	0.52	0.93
Piano 1	13 - 14	310.00	0.0030	0.52	0.93
Piano 1	14 - 15	310.00	0.0030	0.52	0.93
Piano 1	14 - 15	310.00	0.0030	0.52	0.93
Piano 1	19 - 15	310.00	0.0030	0.52	0.93
Piano 2	1 - 2	270.21	0.0030	0.03	0.81
Piano 2	1 - 2	367.04	0.0030	0.03	1.10
Piano 2	1 - 2	460.84	0.0030	0.03	1.38
Piano 2	5 - 1	270.00	0.0030	0.03	0.81



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	5 - 1	270.00	0.0030	0.03	0.81
Piano 2	2 - 3	463.00	0.0030	0.03	1.39
Piano 2	2 - 3	374.00	0.0030	0.03	1.12
Piano 2	2 - 3	275.00	0.0030	0.03	0.83
Piano 2	2 - 6	505.00	0.0030	0.03	1.52
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	5 - 6	205.17	0.0030	0.03	0.62
Piano 2	5 - 6	333.26	0.0030	0.03	1.00
Piano 2	10 - 5	270.00	0.0030	0.03	0.81
Piano 2	10 - 5	270.00	0.0030	0.03	0.81
Piano 2	10 - 5	270.00	0.0030	0.03	0.81
Piano 2	6 - 7	401.00	0.0030	0.03	1.20
Piano 2	6 - 7	304.00	0.0030	0.03	0.91
Piano 2	6 - 7	207.00	0.0030	0.03	0.62
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	12 - 10	270.00	0.0030	0.03	0.81
Piano 2	12 - 10	270.00	0.0030	0.03	0.81
Piano 2	10 - 16	365.90	0.0030	0.03	1.10
Piano 2	11 - 13	270.00	0.0030	0.03	0.81
Piano 2	16 - 11	364.40	0.0030	0.03	1.09
Piano 2	19 - 11	346.51	0.0030	0.03	1.04
Piano 2	19 - 11	311.36	0.0030	0.03	0.93
Piano 2	12 - 17	281.31	0.0030	0.03	0.84
Piano 2	12 - 17	374.10	0.0030	0.03	1.12
Piano 2	12 - 17	458.21	0.0030	0.03	1.37
Piano 2	17 - 13	462.40	0.0030	0.03	1.39
Piano 2	17 - 13	378.00	0.0030	0.03	1.13
Piano 2	17 - 13	281.00	0.0030	0.03	0.84
Piano 2	13 - 18	325.22	0.0030	0.03	0.98
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	18 - 14	345.41	0.0030	0.03	1.04
Piano 2	18 - 14	303.35	0.0030	0.03	0.91
Piano 2	15 - 19	319.46	0.0030	0.03	0.96

## Sisma X (+) - Distribuzione forze: Proporzionale altezze; (Cond\_X\_2(+))

Imp.	Fili	H [cm]	$\mu$	$\delta_{SLD}$ [cm]	$\delta_{SLD\ lim}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.06	0.93
Piano 1	1 - 2	310.00	0.0030	0.06	0.93
Piano 1	1 - 2	310.00	0.0030	0.06	0.93
Piano 1	1 - 5	310.00	0.0030	0.06	0.93
Piano 1	1 - 5	310.00	0.0030	0.06	0.93
Piano 1	2 - 3	310.00	0.0030	0.06	0.93
Piano 1	2 - 3	310.00	0.0030	0.06	0.93
Piano 1	2 - 3	310.00	0.0030	0.06	0.93
Piano 1	2 - 6	310.00	0.0030	0.06	0.93
Piano 1	2 - 6	310.00	0.0030	0.06	0.93
Piano 1	3 - 7	310.00	0.0030	0.06	0.93
Piano 1	3 - 7	310.00	0.0030	0.06	0.93
Piano 1	4 - 5	310.00	0.0030	0.06	0.93
Piano 1	4 - 5	310.00	0.0030	0.06	0.93
Piano 1	4 - 9	292.89	0.0030	0.06	0.88
Piano 1	4 - 9	172.01	0.0030	0.07	0.52
Piano 1	5 - 6	310.00	0.0030	0.06	0.93
Piano 1	5 - 6	310.00	0.0030	0.06	0.93
Piano 1	5 - 10	310.00	0.0030	0.07	0.93
Piano 1	5 - 10	310.00	0.0030	0.07	0.93
Piano 1	6 - 7	310.00	0.0030	0.06	0.93
Piano 1	6 - 7	310.00	0.0030	0.06	0.93
Piano 1	7 - 8	310.00	0.0030	0.06	0.93
Piano 1	7 - 8	310.00	0.0030	0.06	0.93
Piano 1	7 - 11	310.00	0.0030	0.06	0.93
Piano 1	7 - 11	310.00	0.0030	0.07	0.93
Piano 1	7 - 11	310.00	0.0030	0.07	0.93
Piano 1	15 - 8	310.00	0.0030	0.07	0.93
Piano 1	15 - 8	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 12	310.00	0.0030	0.07	0.93
Piano 1	10 - 12	310.00	0.0030	0.07	0.93
Piano 1	10 - 12	310.00	0.0030	0.07	0.93
Piano 1	11 - 13	310.00	0.0030	0.07	0.93
Piano 1	11 - 13	310.00	0.0030	0.07	0.93
Piano 1	11 - 19	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	13 - 14	310.00	0.0030	0.07	0.93
Piano 1	13 - 14	310.00	0.0030	0.07	0.93
Piano 1	14 - 15	310.00	0.0030	0.07	0.93
Piano 1	14 - 15	310.00	0.0030	0.07	0.93
Piano 1	19 - 15	310.00	0.0030	0.07	0.93
Piano 2	1 - 2	270.21	0.0030	0.55	0.81
Piano 2	1 - 2	367.04	0.0030	0.55	1.10
Piano 2	1 - 2	460.84	0.0030	0.55	1.38
Piano 2	5 - 1	270.00	0.0030	0.55	0.81
Piano 2	5 - 1	270.00	0.0030	0.55	0.81
Piano 2	2 - 3	463.00	0.0030	0.55	1.39

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	2 - 3	374.00	0.0030	0.55	1.12
Piano 2	2 - 3	275.00	0.0030	0.55	0.83
Piano 2	2 - 6	505.00	0.0030	0.55	1.52
Piano 2	3 - 7	270.00	0.0030	0.55	0.81
Piano 2	3 - 7	270.00	0.0030	0.55	0.81
Piano 2	5 - 6	205.17	0.0030	0.55	0.62
Piano 2	5 - 6	333.26	0.0030	0.55	1.00
Piano 2	10 - 5	270.00	0.0030	0.55	0.81
Piano 2	10 - 5	270.00	0.0030	0.55	0.81
Piano 2	10 - 5	270.00	0.0030	0.55	0.81
Piano 2	6 - 7	401.00	0.0030	0.55	1.20
Piano 2	6 - 7	304.00	0.0030	0.55	0.91
Piano 2	6 - 7	207.00	0.0030	0.55	0.62
Piano 2	7 - 11	270.00	0.0030	0.55	0.81
Piano 2	7 - 11	270.00	0.0030	0.55	0.81
Piano 2	12 - 10	270.00	0.0030	0.55	0.81
Piano 2	12 - 10	270.00	0.0030	0.55	0.81
Piano 2	10 - 16	365.90	0.0030	0.55	1.10
Piano 2	11 - 13	270.00	0.0030	0.55	0.81
Piano 2	16 - 11	364.40	0.0030	0.55	1.09
Piano 2	19 - 11	346.51	0.0030	0.55	1.04
Piano 2	19 - 11	311.36	0.0030	0.55	0.93
Piano 2	12 - 17	281.31	0.0030	0.55	0.84
Piano 2	12 - 17	374.10	0.0030	0.55	1.12
Piano 2	12 - 17	458.21	0.0030	0.55	1.37
Piano 2	17 - 13	462.40	0.0030	0.55	1.39
Piano 2	17 - 13	378.00	0.0030	0.55	1.13
Piano 2	17 - 13	281.00	0.0030	0.55	0.84
Piano 2	13 - 18	325.22	0.0030	0.55	0.98
Piano 2	14 - 15	285.00	0.0030	0.55	0.86
Piano 2	14 - 15	285.00	0.0030	0.55	0.86
Piano 2	18 - 14	345.41	0.0030	0.55	1.04
Piano 2	18 - 14	303.35	0.0030	0.55	0.91
Piano 2	15 - 19	319.46	0.0030	0.55	0.96

## Sisma X (-) - Distribuzione forze: Proporzionale altezze; (Cond\_X 2(-))

Imp.	Fili	H [cm]	$\mu$	$\delta_{St.P.}$ [cm]	$\delta_{St.P.lim}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.06	0.93
Piano 1	1 - 2	310.00	0.0030	0.06	0.93
Piano 1	1 - 2	310.00	0.0030	0.06	0.93
Piano 1	1 - 5	310.00	0.0030	0.07	0.93
Piano 1	1 - 5	310.00	0.0030	0.07	0.93
Piano 1	2 - 3	310.00	0.0030	0.06	0.93
Piano 1	2 - 3	310.00	0.0030	0.06	0.93
Piano 1	2 - 3	310.00	0.0030	0.06	0.93
Piano 1	2 - 6	310.00	0.0030	0.07	0.93
Piano 1	2 - 6	310.00	0.0030	0.07	0.93
Piano 1	3 - 7	310.00	0.0030	0.07	0.93
Piano 1	3 - 7	310.00	0.0030	0.07	0.93
Piano 1	4 - 5	310.00	0.0030	0.07	0.93
Piano 1	4 - 5	310.00	0.0030	0.07	0.93
Piano 1	4 - 9	292.89	0.0030	0.07	0.88
Piano 1	4 - 9	172.01	0.0030	0.07	0.52
Piano 1	5 - 6	310.00	0.0030	0.07	0.93
Piano 1	5 - 6	310.00	0.0030	0.07	0.93
Piano 1	5 - 10	310.00	0.0030	0.07	0.93
Piano 1	5 - 10	310.00	0.0030	0.07	0.93
Piano 1	6 - 7	310.00	0.0030	0.07	0.93
Piano 1	6 - 7	310.00	0.0030	0.07	0.93
Piano 1	7 - 8	310.00	0.0030	0.07	0.93
Piano 1	7 - 8	310.00	0.0030	0.07	0.93
Piano 1	7 - 11	310.00	0.0030	0.07	0.93
Piano 1	7 - 11	310.00	0.0030	0.07	0.93
Piano 1	7 - 11	310.00	0.0030	0.07	0.93
Piano 1	15 - 8	310.00	0.0030	0.07	0.93
Piano 1	15 - 8	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 11	310.00	0.0030	0.07	0.93
Piano 1	10 - 12	310.00	0.0030	0.07	0.93
Piano 1	10 - 12	310.00	0.0030	0.07	0.93
Piano 1	10 - 12	310.00	0.0030	0.07	0.93
Piano 1	11 - 13	310.00	0.0030	0.07	0.93
Piano 1	11 - 13	310.00	0.0030	0.07	0.93
Piano 1	11 - 19	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	12 - 13	310.00	0.0030	0.07	0.93
Piano 1	13 - 14	310.00	0.0030	0.07	0.93
Piano 1	13 - 14	310.00	0.0030	0.07	0.93
Piano 1	14 - 15	310.00	0.0030	0.07	0.93
Piano 1	14 - 15	310.00	0.0030	0.07	0.93
Piano 1	19 - 15	310.00	0.0030	0.07	0.93
Piano 2	1 - 2	270.21	0.0030	0.81	0.81
Piano 2	1 - 2	367.04	0.0030	0.88	1.10
Piano 2	1 - 2	460.84	0.0030	0.88	1.38
Piano 2	5 - 1	270.00	0.0030	0.81	0.81
Piano 2	5 - 1	270.00	0.0030	0.81	0.81
Piano 2	2 - 3	463.00	0.0030	0.88	1.39
Piano 2	2 - 3	374.00	0.0030	0.88	1.12
Piano 2	2 - 3	275.00	0.0030	0.83	0.83

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	2 - 6	505.00	0.0030	0.88	1.52
Piano 2	3 - 7	270.00	0.0030	0.81	0.81
Piano 2	3 - 7	270.00	0.0030	0.81	0.81
Piano 2	5 - 6	205.17	0.0030	0.62	0.62
Piano 2	5 - 6	333.26	0.0030	0.88	1.00
Piano 2	10 - 5	270.00	0.0030	0.81	0.81
Piano 2	10 - 5	270.00	0.0030	0.81	0.81
Piano 2	10 - 5	270.00	0.0030	0.81	0.81
Piano 2	6 - 7	401.00	0.0030	0.88	1.20
Piano 2	6 - 7	304.00	0.0030	0.88	0.91
Piano 2	6 - 7	207.00	0.0030	0.62	0.62
Piano 2	7 - 11	270.00	0.0030	0.81	0.81
Piano 2	7 - 11	270.00	0.0030	0.81	0.81
Piano 2	12 - 10	270.00	0.0030	0.81	0.81
Piano 2	12 - 10	270.00	0.0030	0.81	0.81
Piano 2	10 - 16	365.90	0.0030	0.88	1.10
Piano 2	11 - 13	270.00	0.0030	0.81	0.81
Piano 2	16 - 11	364.40	0.0030	0.88	1.09
Piano 2	19 - 11	346.51	0.0030	0.88	1.04
Piano 2	19 - 11	311.36	0.0030	0.88	0.93
Piano 2	12 - 17	281.31	0.0030	0.84	0.84
Piano 2	12 - 17	374.10	0.0030	0.88	1.12
Piano 2	12 - 17	458.21	0.0030	0.88	1.37
Piano 2	17 - 13	462.40	0.0030	0.88	1.39
Piano 2	17 - 13	378.00	0.0030	0.88	1.13
Piano 2	17 - 13	281.00	0.0030	0.84	0.84
Piano 2	13 - 18	325.22	0.0030	0.88	0.98
Piano 2	14 - 15	285.00	0.0030	0.86	0.86
Piano 2	14 - 15	285.00	0.0030	0.86	0.86
Piano 2	18 - 14	345.41	0.0030	0.88	1.04
Piano 2	18 - 14	303.35	0.0030	0.88	0.91
Piano 2	15 - 19	319.46	0.0030	0.88	0.96

## Sisma Y (+) - Distribuzione forze: Proporzionale masse; (Cond\_Y\_1(+))

Imp.	Fili	H [cm]	$\mu$	$\delta_{SLD}$ [cm]	$\delta_{SLD\ lim}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.93	0.93
Piano 1	1 - 2	310.00	0.0030	0.93	0.93
Piano 1	1 - 2	310.00	0.0030	0.93	0.93
Piano 1	1 - 5	310.00	0.0030	0.93	0.93
Piano 1	1 - 5	310.00	0.0030	0.93	0.93
Piano 1	2 - 3	310.00	0.0030	0.93	0.93
Piano 1	2 - 3	310.00	0.0030	0.93	0.93
Piano 1	2 - 3	310.00	0.0030	0.93	0.93
Piano 1	2 - 6	310.00	0.0030	0.93	0.93
Piano 1	2 - 6	310.00	0.0030	0.93	0.93
Piano 1	3 - 7	310.00	0.0030	0.93	0.93
Piano 1	3 - 7	310.00	0.0030	0.93	0.93
Piano 1	4 - 5	310.00	0.0030	0.93	0.93
Piano 1	4 - 5	310.00	0.0030	0.93	0.93
Piano 1	4 - 9	292.89	0.0030	0.88	0.88
Piano 1	4 - 9	172.01	0.0030	0.52	0.52
Piano 1	5 - 6	310.00	0.0030	0.93	0.93
Piano 1	5 - 6	310.00	0.0030	0.93	0.93
Piano 1	5 - 10	310.00	0.0030	0.93	0.93
Piano 1	5 - 10	310.00	0.0030	0.93	0.93
Piano 1	6 - 7	310.00	0.0030	0.93	0.93
Piano 1	6 - 7	310.00	0.0030	0.93	0.93
Piano 1	7 - 8	310.00	0.0030	0.93	0.93
Piano 1	7 - 8	310.00	0.0030	0.93	0.93
Piano 1	7 - 11	310.00	0.0030	0.93	0.93
Piano 1	7 - 11	310.00	0.0030	0.93	0.93
Piano 1	7 - 11	310.00	0.0030	0.93	0.93
Piano 1	15 - 8	310.00	0.0030	0.93	0.93
Piano 1	15 - 8	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 12	310.00	0.0030	0.93	0.93
Piano 1	10 - 12	310.00	0.0030	0.93	0.93
Piano 1	10 - 12	310.00	0.0030	0.93	0.93
Piano 1	11 - 13	310.00	0.0030	0.93	0.93
Piano 1	11 - 13	310.00	0.0030	0.93	0.93
Piano 1	11 - 19	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	13 - 14	310.00	0.0030	0.93	0.93
Piano 1	13 - 14	310.00	0.0030	0.93	0.93
Piano 1	14 - 15	310.00	0.0030	0.93	0.93
Piano 1	14 - 15	310.00	0.0030	0.93	0.93
Piano 1	19 - 15	310.00	0.0030	0.93	0.93
Piano 2	1 - 2	270.21	0.0030	0.02	0.81
Piano 2	1 - 2	367.04	0.0030	0.02	1.10
Piano 2	1 - 2	460.84	0.0030	0.02	1.38
Piano 2	5 - 1	270.00	0.0030	0.02	0.81
Piano 2	5 - 1	270.00	0.0030	0.02	0.81
Piano 2	2 - 3	463.00	0.0030	0.02	1.39
Piano 2	2 - 3	374.00	0.0030	0.02	1.12
Piano 2	2 - 3	275.00	0.0030	0.02	0.83
Piano 2	2 - 6	505.00	0.0030	0.02	1.52
Piano 2	3 - 7	270.00	0.0030	0.02	0.81

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	3 - 7	270.00	0.0030	0.02	0.81
Piano 2	5 - 6	205.17	0.0030	0.02	0.62
Piano 2	5 - 6	333.26	0.0030	0.02	1.00
Piano 2	10 - 5	270.00	0.0030	0.02	0.81
Piano 2	10 - 5	270.00	0.0030	0.02	0.81
Piano 2	10 - 5	270.00	0.0030	0.02	0.81
Piano 2	6 - 7	401.00	0.0030	0.02	1.20
Piano 2	6 - 7	304.00	0.0030	0.02	0.91
Piano 2	6 - 7	207.00	0.0030	0.02	0.62
Piano 2	7 - 11	270.00	0.0030	0.02	0.81
Piano 2	7 - 11	270.00	0.0030	0.02	0.81
Piano 2	12 - 10	270.00	0.0030	0.02	0.81
Piano 2	12 - 10	270.00	0.0030	0.02	0.81
Piano 2	10 - 16	365.90	0.0030	0.02	1.10
Piano 2	11 - 13	270.00	0.0030	0.02	0.81
Piano 2	16 - 11	364.40	0.0030	0.02	1.09
Piano 2	19 - 11	346.51	0.0030	0.02	1.04
Piano 2	19 - 11	311.36	0.0030	0.02	0.93
Piano 2	12 - 17	281.31	0.0030	0.02	0.84
Piano 2	12 - 17	374.10	0.0030	0.02	1.12
Piano 2	12 - 17	458.21	0.0030	0.02	1.37
Piano 2	17 - 13	462.40	0.0030	0.02	1.39
Piano 2	17 - 13	378.00	0.0030	0.02	1.13
Piano 2	17 - 13	281.00	0.0030	0.02	0.84
Piano 2	13 - 18	325.22	0.0030	0.02	0.98
Piano 2	14 - 15	285.00	0.0030	0.02	0.86
Piano 2	14 - 15	285.00	0.0030	0.02	0.86
Piano 2	18 - 14	345.41	0.0030	0.02	1.04
Piano 2	18 - 14	303.35	0.0030	0.02	0.91
Piano 2	15 - 19	319.46	0.0030	0.02	0.96

## Sisma Y (-) - Distribuzione forze: Proporzionale masse; (Cond\_Y\_1(-))

Imp.	Fili	H [cm]	$\mu$	$\delta_{SLD}$ [cm]	$\delta_{SLD\ lim}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 2	310.00	0.0030	0.51	0.93
Piano 1	1 - 5	310.00	0.0030	0.51	0.93
Piano 1	1 - 5	310.00	0.0030	0.51	0.93
Piano 1	2 - 3	310.00	0.0030	0.52	0.93
Piano 1	2 - 3	310.00	0.0030	0.52	0.93
Piano 1	2 - 3	310.00	0.0030	0.52	0.93
Piano 1	2 - 6	310.00	0.0030	0.51	0.93
Piano 1	2 - 6	310.00	0.0030	0.51	0.93
Piano 1	3 - 7	310.00	0.0030	0.52	0.93
Piano 1	3 - 7	310.00	0.0030	0.52	0.93
Piano 1	4 - 5	310.00	0.0030	0.51	0.93
Piano 1	4 - 5	310.00	0.0030	0.51	0.93
Piano 1	4 - 9	292.89	0.0030	0.50	0.88
Piano 1	4 - 9	172.01	0.0030	0.50	0.52
Piano 1	5 - 6	310.00	0.0030	0.51	0.93
Piano 1	5 - 6	310.00	0.0030	0.51	0.93
Piano 1	5 - 10	310.00	0.0030	0.51	0.93
Piano 1	5 - 10	310.00	0.0030	0.51	0.93
Piano 1	6 - 7	310.00	0.0030	0.52	0.93
Piano 1	6 - 7	310.00	0.0030	0.52	0.93
Piano 1	7 - 8	310.00	0.0030	0.52	0.93
Piano 1	7 - 8	310.00	0.0030	0.53	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	7 - 11	310.00	0.0030	0.52	0.93
Piano 1	15 - 8	310.00	0.0030	0.53	0.93
Piano 1	15 - 8	310.00	0.0030	0.53	0.93
Piano 1	10 - 11	310.00	0.0030	0.51	0.93
Piano 1	10 - 11	310.00	0.0030	0.51	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 11	310.00	0.0030	0.52	0.93
Piano 1	10 - 12	310.00	0.0030	0.51	0.93
Piano 1	10 - 12	310.00	0.0030	0.51	0.93
Piano 1	10 - 12	310.00	0.0030	0.51	0.93
Piano 1	11 - 13	310.00	0.0030	0.52	0.93
Piano 1	11 - 13	310.00	0.0030	0.52	0.93
Piano 1	11 - 19	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.51	0.93
Piano 1	12 - 13	310.00	0.0030	0.51	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	12 - 13	310.00	0.0030	0.52	0.93
Piano 1	13 - 14	310.00	0.0030	0.52	0.93
Piano 1	13 - 14	310.00	0.0030	0.53	0.93
Piano 1	14 - 15	310.00	0.0030	0.53	0.93
Piano 1	14 - 15	310.00	0.0030	0.53	0.93
Piano 1	19 - 15	310.00	0.0030	0.53	0.93
Piano 2	1 - 2	270.21	0.0030	0.02	0.81
Piano 2	1 - 2	367.04	0.0030	0.02	1.10
Piano 2	1 - 2	460.84	0.0030	0.02	1.38
Piano 2	5 - 1	270.00	0.0030	0.02	0.81
Piano 2	5 - 1	270.00	0.0030	0.02	0.81
Piano 2	2 - 3	463.00	0.0030	0.02	1.39
Piano 2	2 - 3	374.00	0.0030	0.02	1.12
Piano 2	2 - 3	275.00	0.0030	0.02	0.83
Piano 2	2 - 6	505.00	0.0030	0.02	1.52
Piano 2	3 - 7	270.00	0.0030	0.02	0.81
Piano 2	3 - 7	270.00	0.0030	0.02	0.81
Piano 2	5 - 6	205.17	0.0030	0.02	0.62

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	5 - 6	333.26	0.0030	0.02	1.00
Piano 2	10 - 5	270.00	0.0030	0.02	0.81
Piano 2	10 - 5	270.00	0.0030	0.02	0.81
Piano 2	10 - 5	270.00	0.0030	0.02	0.81
Piano 2	6 - 7	401.00	0.0030	0.02	1.20
Piano 2	6 - 7	304.00	0.0030	0.02	0.91
Piano 2	6 - 7	207.00	0.0030	0.02	0.62
Piano 2	7 - 11	270.00	0.0030	0.02	0.81
Piano 2	7 - 11	270.00	0.0030	0.02	0.81
Piano 2	12 - 10	270.00	0.0030	0.02	0.81
Piano 2	12 - 10	270.00	0.0030	0.02	0.81
Piano 2	10 - 16	365.90	0.0030	0.02	1.10
Piano 2	11 - 13	270.00	0.0030	0.02	0.81
Piano 2	16 - 11	364.40	0.0030	0.02	1.09
Piano 2	19 - 11	346.51	0.0030	0.02	1.04
Piano 2	19 - 11	311.36	0.0030	0.02	0.93
Piano 2	12 - 17	281.31	0.0030	0.02	0.84
Piano 2	12 - 17	374.10	0.0030	0.02	1.12
Piano 2	12 - 17	458.21	0.0030	0.02	1.37
Piano 2	17 - 13	462.40	0.0030	0.02	1.39
Piano 2	17 - 13	378.00	0.0030	0.02	1.13
Piano 2	17 - 13	281.00	0.0030	0.02	0.84
Piano 2	13 - 18	325.22	0.0030	0.02	0.98
Piano 2	14 - 15	285.00	0.0030	0.02	0.86
Piano 2	14 - 15	285.00	0.0030	0.02	0.86
Piano 2	18 - 14	345.41	0.0030	0.02	1.04
Piano 2	18 - 14	303.35	0.0030	0.02	0.91
Piano 2	15 - 19	319.46	0.0030	0.02	0.96

## Sisma Y (+) - Distribuzione forze: Proporzionale altezze; (Cond\_Y\_2(+))

Imp.	Fili	H [cm]	$\mu$	$\delta_{SLD}$ [cm]	$\delta_{SLD_{lim}}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.93	0.93
Piano 1	1 - 2	310.00	0.0030	0.93	0.93
Piano 1	1 - 2	310.00	0.0030	0.93	0.93
Piano 1	1 - 5	310.00	0.0030	0.93	0.93
Piano 1	1 - 5	310.00	0.0030	0.93	0.93
Piano 1	2 - 3	310.00	0.0030	0.93	0.93
Piano 1	2 - 3	310.00	0.0030	0.93	0.93
Piano 1	2 - 3	310.00	0.0030	0.93	0.93
Piano 1	2 - 6	310.00	0.0030	0.93	0.93
Piano 1	2 - 6	310.00	0.0030	0.93	0.93
Piano 1	3 - 7	310.00	0.0030	0.93	0.93
Piano 1	3 - 7	310.00	0.0030	0.93	0.93
Piano 1	4 - 5	310.00	0.0030	0.93	0.93
Piano 1	4 - 5	310.00	0.0030	0.93	0.93
Piano 1	4 - 9	292.89	0.0030	0.88	0.88
Piano 1	4 - 9	172.01	0.0030	0.52	0.52
Piano 1	5 - 6	310.00	0.0030	0.93	0.93
Piano 1	5 - 6	310.00	0.0030	0.93	0.93
Piano 1	5 - 10	310.00	0.0030	0.93	0.93
Piano 1	5 - 10	310.00	0.0030	0.93	0.93
Piano 1	6 - 7	310.00	0.0030	0.93	0.93
Piano 1	6 - 7	310.00	0.0030	0.93	0.93
Piano 1	7 - 8	310.00	0.0030	0.93	0.93
Piano 1	7 - 8	310.00	0.0030	0.93	0.93
Piano 1	7 - 11	310.00	0.0030	0.93	0.93
Piano 1	7 - 11	310.00	0.0030	0.93	0.93
Piano 1	7 - 11	310.00	0.0030	0.93	0.93
Piano 1	15 - 8	310.00	0.0030	0.93	0.93
Piano 1	15 - 8	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 11	310.00	0.0030	0.93	0.93
Piano 1	10 - 12	310.00	0.0030	0.93	0.93
Piano 1	10 - 12	310.00	0.0030	0.93	0.93
Piano 1	10 - 12	310.00	0.0030	0.93	0.93
Piano 1	11 - 13	310.00	0.0030	0.93	0.93
Piano 1	11 - 13	310.00	0.0030	0.93	0.93
Piano 1	11 - 19	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	12 - 13	310.00	0.0030	0.93	0.93
Piano 1	13 - 14	310.00	0.0030	0.93	0.93
Piano 1	13 - 14	310.00	0.0030	0.93	0.93
Piano 1	14 - 15	310.00	0.0030	0.93	0.93
Piano 1	14 - 15	310.00	0.0030	0.93	0.93
Piano 1	19 - 15	310.00	0.0030	0.93	0.93
Piano 2	1 - 2	270.21	0.0030	0.04	0.81
Piano 2	1 - 2	367.04	0.0030	0.04	1.10
Piano 2	1 - 2	460.84	0.0030	0.03	1.38
Piano 2	5 - 1	270.00	0.0030	0.04	0.81
Piano 2	5 - 1	270.00	0.0030	0.04	0.81
Piano 2	2 - 3	463.00	0.0030	0.03	1.39
Piano 2	2 - 3	374.00	0.0030	0.03	1.12
Piano 2	2 - 3	275.00	0.0030	0.03	0.83
Piano 2	2 - 6	505.00	0.0030	0.03	1.52
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	5 - 6	205.17	0.0030	0.04	0.62
Piano 2	5 - 6	333.26	0.0030	0.04	1.00
Piano 2	10 - 5	270.00	0.0030	0.04	0.81

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

Piano 2	10 - 5	270.00	0.0030	0.04	0.81
Piano 2	10 - 5	270.00	0.0030	0.04	0.81
Piano 2	6 - 7	401.00	0.0030	0.03	1.20
Piano 2	6 - 7	304.00	0.0030	0.03	0.91
Piano 2	6 - 7	207.00	0.0030	0.03	0.62
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	12 - 10	270.00	0.0030	0.04	0.81
Piano 2	12 - 10	270.00	0.0030	0.04	0.81
Piano 2	10 - 16	365.90	0.0030	0.04	1.10
Piano 2	11 - 13	270.00	0.0030	0.03	0.81
Piano 2	16 - 11	364.40	0.0030	0.03	1.09
Piano 2	19 - 11	346.51	0.0030	0.03	1.04
Piano 2	19 - 11	311.36	0.0030	0.03	0.93
Piano 2	12 - 17	281.31	0.0030	0.04	0.84
Piano 2	12 - 17	374.10	0.0030	0.04	1.12
Piano 2	12 - 17	458.21	0.0030	0.03	1.37
Piano 2	17 - 13	462.40	0.0030	0.03	1.39
Piano 2	17 - 13	378.00	0.0030	0.03	1.13
Piano 2	17 - 13	281.00	0.0030	0.03	0.84
Piano 2	13 - 18	325.22	0.0030	0.03	0.98
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	18 - 14	345.41	0.0030	0.03	1.04
Piano 2	18 - 14	303.35	0.0030	0.03	0.91
Piano 2	15 - 19	319.46	0.0030	0.03	0.96

## Sisma Y (-) - Distribuzione forze: Proporzionale altezze; (Cond\_Y\_2(-))

Imp.	Fili	H [cm]	$\mu$	$\delta_{S.D.}$ [cm]	$\delta_{S.D. lim}$ [cm]
Piano 1	1 - 2	310.00	0.0030	0.66	0.93
Piano 1	1 - 2	310.00	0.0030	0.67	0.93
Piano 1	1 - 2	310.00	0.0030	0.67	0.93
Piano 1	1 - 5	310.00	0.0030	0.66	0.93
Piano 1	1 - 5	310.00	0.0030	0.66	0.93
Piano 1	2 - 3	310.00	0.0030	0.67	0.93
Piano 1	2 - 3	310.00	0.0030	0.68	0.93
Piano 1	2 - 3	310.00	0.0030	0.68	0.93
Piano 1	2 - 6	310.00	0.0030	0.67	0.93
Piano 1	2 - 6	310.00	0.0030	0.67	0.93
Piano 1	3 - 7	310.00	0.0030	0.68	0.93
Piano 1	3 - 7	310.00	0.0030	0.68	0.93
Piano 1	4 - 5	310.00	0.0030	0.66	0.93
Piano 1	4 - 5	310.00	0.0030	0.66	0.93
Piano 1	4 - 9	292.89	0.0030	0.66	0.88
Piano 1	4 - 9	172.01	0.0030	0.52	0.52
Piano 1	5 - 6	310.00	0.0030	0.66	0.93
Piano 1	5 - 6	310.00	0.0030	0.67	0.93
Piano 1	5 - 10	310.00	0.0030	0.66	0.93
Piano 1	5 - 10	310.00	0.0030	0.66	0.93
Piano 1	6 - 7	310.00	0.0030	0.68	0.93
Piano 1	6 - 7	310.00	0.0030	0.68	0.93
Piano 1	7 - 8	310.00	0.0030	0.68	0.93
Piano 1	7 - 8	310.00	0.0030	0.69	0.93
Piano 1	7 - 11	310.00	0.0030	0.68	0.93
Piano 1	7 - 11	310.00	0.0030	0.68	0.93
Piano 1	7 - 11	310.00	0.0030	0.68	0.93
Piano 1	15 - 8	310.00	0.0030	0.69	0.93
Piano 1	15 - 8	310.00	0.0030	0.69	0.93
Piano 1	10 - 11	310.00	0.0030	0.66	0.93
Piano 1	10 - 11	310.00	0.0030	0.67	0.93
Piano 1	10 - 11	310.00	0.0030	0.68	0.93
Piano 1	10 - 11	310.00	0.0030	0.68	0.93
Piano 1	10 - 12	310.00	0.0030	0.66	0.93
Piano 1	10 - 12	310.00	0.0030	0.66	0.93
Piano 1	10 - 12	310.00	0.0030	0.66	0.93
Piano 1	11 - 13	310.00	0.0030	0.68	0.93
Piano 1	11 - 13	310.00	0.0030	0.68	0.93
Piano 1	11 - 19	310.00	0.0030	0.69	0.93
Piano 1	12 - 13	310.00	0.0030	0.66	0.93
Piano 1	12 - 13	310.00	0.0030	0.67	0.93
Piano 1	12 - 13	310.00	0.0030	0.67	0.93
Piano 1	12 - 13	310.00	0.0030	0.68	0.93
Piano 1	12 - 13	310.00	0.0030	0.68	0.93
Piano 1	13 - 14	310.00	0.0030	0.68	0.93
Piano 1	13 - 14	310.00	0.0030	0.69	0.93
Piano 1	14 - 15	310.00	0.0030	0.69	0.93
Piano 1	14 - 15	310.00	0.0030	0.69	0.93
Piano 1	19 - 15	310.00	0.0030	0.69	0.93
Piano 2	1 - 2	270.21	0.0030	0.04	0.81
Piano 2	1 - 2	367.04	0.0030	0.04	1.10
Piano 2	1 - 2	460.84	0.0030	0.04	1.38
Piano 2	5 - 1	270.00	0.0030	0.04	0.81
Piano 2	5 - 1	270.00	0.0030	0.04	0.81
Piano 2	2 - 3	463.00	0.0030	0.04	1.39
Piano 2	2 - 3	374.00	0.0030	0.03	1.12
Piano 2	2 - 3	275.00	0.0030	0.03	0.83
Piano 2	2 - 6	505.00	0.0030	0.04	1.52
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	3 - 7	270.00	0.0030	0.03	0.81
Piano 2	5 - 6	205.17	0.0030	0.04	0.62
Piano 2	5 - 6	333.26	0.0030	0.04	1.00
Piano 2	10 - 5	270.00	0.0030	0.04	0.81
Piano 2	10 - 5	270.00	0.0030	0.04	0.81
Piano 2	10 - 5	270.00	0.0030	0.04	0.81

Piano 2	6 - 7	401.00	0.0030	0.04	1.20
Piano 2	6 - 7	304.00	0.0030	0.03	0.91
Piano 2	6 - 7	207.00	0.0030	0.03	0.62
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	7 - 11	270.00	0.0030	0.03	0.81
Piano 2	12 - 10	270.00	0.0030	0.04	0.81
Piano 2	12 - 10	270.00	0.0030	0.04	0.81
Piano 2	10 - 16	365.90	0.0030	0.04	1.10
Piano 2	11 - 13	270.00	0.0030	0.03	0.81
Piano 2	16 - 11	364.40	0.0030	0.03	1.09
Piano 2	19 - 11	346.51	0.0030	0.03	1.04
Piano 2	19 - 11	311.36	0.0030	0.03	0.93
Piano 2	12 - 17	281.31	0.0030	0.04	0.84
Piano 2	12 - 17	374.10	0.0030	0.04	1.12
Piano 2	12 - 17	458.21	0.0030	0.04	1.37
Piano 2	17 - 13	462.40	0.0030	0.04	1.39
Piano 2	17 - 13	378.00	0.0030	0.03	1.13
Piano 2	17 - 13	281.00	0.0030	0.03	0.84
Piano 2	13 - 18	325.22	0.0030	0.03	0.98
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	14 - 15	285.00	0.0030	0.03	0.86
Piano 2	18 - 14	345.41	0.0030	0.03	1.04
Piano 2	18 - 14	303.35	0.0030	0.03	0.91
Piano 2	15 - 19	319.46	0.0030	0.03	0.96

#### 4.3.3 Calcolo della curva di capacità della struttura.

Num. Prog.	: numero progressivo della parete che si plasticizza
Tipo Elem.	: Tipo di elemento che si plasticizza (parete in muratura, pilastro in c.a.)
Imp.	: numero dell'impalcato
Fili	: numero dei fili fissi iniziale e finale
L	: lunghezza della parete
H	: altezza della parete
t	: spessore della parete
Vu	: resistenza a taglio dell'elemento
Mu	: momento resistente degli elementi in c.a.
k	: rigidezza dell'elemento
$\delta_0$	: spostamento al limite elastico dell'elemento
$\delta_u$	: spostamento ultimo dell'elemento
Tipo Rottura	: rottura degli elementi in muratura (Flessione, Taglio, Deformazione)
$\tau$	: capacità di rotazione degli elementi in c.a.
F	: forza orizzontale totale applicata (taglio alla base)
u	: spostamento del punto di controllo (copertura della struttura)
S	: moltiplicatore di collasso

N.B: Si assume come punto di controllo il baricentro dell'ultimo piano della struttura con le seguenti coordinate globali:

$$x_g = 706.3 \text{ cm}$$

$$y_g = 673.4 \text{ cm}$$

#### Sisma X (+) - Distribuzione forze: Proporzionale masse; (Cond\_X\_1(+))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNm]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	2142	-	48959	0.0438	1.86 = 0.0060*H	Flessione	-	100512.01	0.0632	113.82
2	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	4267	-	88519	0.0482	1.86 = 0.0060*H	Flessione	-	103726.42	0.0652	117.46
3	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	1881	-	39906	0.0471	1.86 = 0.0060*H	Flessione	-	105333.62	0.0663	119.28
4	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	2743	-	53728	0.0511	1.86 = 0.0060*H	Flessione	-	111762.43	0.0706	126.56
5	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	6828	-	130831	0.0522	1.86 = 0.0060*H	Flessione	-	111762.43	0.0706	126.56
6	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	1083	-	22635	0.0478	1.86 = 0.0060*H	Flessione	-	113369.64	0.0717	128.38

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
7	Maschio (P)	Piano 2	6 - 7	65.0	207.0	30.0	613	-	28686	0.0214	1.24 = 0.0060*H	Flessione	-	118191.25	0.0751	133.84
8	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	13261	-	260542	0.0509	1.86 = 0.0060*H	Flessione	-	119798.45	0.0763	135.66
9	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8302	-	145610	0.0570	1.86 = 0.0060*H	Flessione	-	119798.45	0.0763	135.66
10	Maschio (P)	Piano 2	5 - 6	55.0	205.2	30.0	429	-	19551	0.0219	1.23 = 0.0060*H	Flessione	-	121405.65	0.0776	137.48
11	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	2630	-	45656	0.0576	1.03 = 0.0060*H	Flessione	-	124620.06	0.0803	141.12
12	Maschio (P)	Piano 2	12 - 17	135.0	281.3	45.0	2316	-	107480	0.0215	1.69 = 0.0060*H	Flessione	-	124620.06	0.0803	141.12
13	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8994	-	145610	0.0618	1.86 = 0.0060*H	Flessione	-	126227.26	0.0817	142.94
14	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	1941	-	31591	0.0614	1.86 = 0.0060*H	Flessione	-	129441.67	0.0846	146.58
15	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	5753	-	88519	0.0650	1.86 = 0.0060*H	Flessione	-	131048.87	0.0861	148.40
16	Maschio (P)	Piano 2	17 - 13	135.0	281.0	45.0	2449	-	107711	0.0227	1.69 = 0.0060*H	Flessione	-	131048.87	0.0861	148.40
17	Maschio (P)	Piano 2	12 - 17	165.0	374.1	45.0	2110	-	90848	0.0232	2.24 = 0.0060*H	Flessione	-	134263.28	0.0893	152.04
18	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	16400	-	260542	0.0629	1.86 = 0.0060*H	Flessione	-	137477.68	0.0925	155.68
19	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	19354	-	298329	0.0649	1.86 = 0.0060*H	Flessione	-	137477.68	0.0925	155.68
20	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	2156	-	31591	0.0683	1.86 = 0.0060*H	Flessione	-	137477.68	0.0925	155.68
21	Maschio (P)	Piano 2	17 - 13	190.0	378.0	45.0	2803	-	117512	0.0239	2.27 = 0.0060*H	Flessione	-	137477.68	0.0925	155.68
22	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	364	-	5688	0.0639	1.86 = 0.0060*H	Flessione	-	139084.89	0.0950	157.50
23	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	588	-	8847	0.0665	1.86 = 0.0060*H	Flessione	-	139084.89	0.0950	157.50
24	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	2590	-	40617	0.0638	1.86 = 0.0060*H	Flessione	-	139084.89	0.0950	157.50
25	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	2288	-	33494	0.0683	1.86 = 0.0060*H	Flessione	-	139084.89	0.0950	157.50
26	Maschio (P)	Piano 1	1 - 2	60.0	310.0	45.0	836	-	12583	0.0664	1.86 = 0.0060*H	Flessione	-	140692.09	0.0976	159.32
27	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	846	-	12007	0.0705	1.86 = 0.0060*H	Flessione	-	140692.09	0.0976	159.32
28	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	1668	-	24123	0.0692	1.86 = 0.0060*H	Flessione	-	140692.09	0.0976	159.32
29	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	452	-	6320	0.0715	1.86 = 0.0060*H	Flessione	-	140692.09	0.0976	159.32
30	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	1340	-	18327	0.0731	1.86 = 0.0060*H	Flessione	-	140692.09	0.0976	159.32
31	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	616	-	8215	0.0749	1.86 = 0.0060*H	Flessione	-	140692.09	0.0976	159.32



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
32	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	9792	-	134865	0.0726	1.86 = 0.006 0*H	Flessione	-	140692.09	0.0976	159.32
33	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	8756	-	117182	0.0747	1.86 = 0.006 0*H	Flessione	-	142299.29	0.1011	161.14
34	Maschio (P)	Piano 2	6 - 7	240.0	304.0	30.0	4455	-	168263	0.0265	1.82 = 0.006 0*H	Flessione	-	143906.50	0.1053	162.96
35	Maschio (P)	Piano 1	6 - 7	365.0	310.0	35.0	27552	-	339599	0.0811	1.86 = 0.006 0*H	Flessione	-	147120.90	0.1139	166.60
36	Maschio (P)	Piano 1	2 - 3	45.0	310.0	45.0	487	-	5688	0.0856	1.86 = 0.006 0*H	Flessione	-	148728.11	0.1290	168.42
37	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	85	-	987	0.0860	1.86 = 0.006 0*H	Flessione	-	148728.11	0.1290	168.42
38	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	90	-	987	0.0914	1.86 = 0.006 0*H	Flessione	-	148728.11	0.1290	168.42
39	Maschio (P)	Piano 1	4 - 9	55.0	292.9	25.0	142	-	1504	0.0944	1.76 = 0.006 0*H	Flessione	-	148728.11	0.1290	168.42
40	Maschio (P)	Piano 2	2 - 3	105.0	275.0	45.0	1885	-	67051	0.0281	1.65 = 0.006 0*H	Flessione	-	148728.11	0.1290	168.42
41	Maschio (P)	Piano 1	3 - 7	145.0	310.0	45.0	1953	-	18327	0.1066	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
42	Maschio (P)	Piano 1	3 - 7	120.0	310.0	45.0	1642	-	15167	0.1083	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
43	Maschio (P)	Piano 1	7 - 11	45.0	310.0	45.0	621	-	5688	0.1092	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
44	Maschio (P)	Piano 1	7 - 11	180.0	310.0	45.0	2522	-	22751	0.1109	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
45	Maschio (P)	Piano 1	7 - 11	50.0	310.0	45.0	711	-	6320	0.1125	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
46	Maschio (P)	Piano 1	11 - 13	155.0	310.0	45.0	2248	-	19591	0.1147	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
47	Maschio (P)	Piano 1	11 - 13	75.0	310.0	45.0	1103	-	9479	0.1164	1.86 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
48	Maschio (P)	Piano 2	1 - 2	80.0	270.2	45.0	1059	-	37399	0.0283	1.62 = 0.006 0*H	Flessione	-	150335.31	0.1453	170.24
49	Maschio (P)	Piano 1	2 - 6	95.0	310.0	30.0	0	-	3749	0.0000	1.24 = 0.004 0*H	Taglio	-	151942.51	0.2155	172.06
50	Maschio (P)	Piano 1	2 - 6	110.0	310.0	30.0	0	-	4341	0.0000	1.24 = 0.004 0*H	Taglio	-	151942.51	0.2155	172.06
51	Maschio (P)	Piano 1	7 - 8	30.0	310.0	30.0	187	-	1184	0.1577	1.86 = 0.006 0*H	Flessione	-	151942.51	0.2155	172.06
52	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	200	-	1184	0.1685	1.86 = 0.006 0*H	Flessione	-	151942.51	0.2155	172.06
53	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	222	-	1184	0.1873	1.86 = 0.006 0*H	Flessione	-	151942.51	0.2155	172.06
54	Maschio (P)	Piano 1	7 - 8	25.0	310.0	30.0	146	-	694	0.2099	1.86 = 0.006 0*H	Flessione	-	153549.72	0.3331	173.88
55	Maschio (P)	Piano 1	15 - 8	170.0	310.0	25.0	0	-	3934	0.0000	1.24 = 0.004 0*H	Taglio	-	153549.72	0.3331	173.88
56	Maschio (P)	Piano 1	15 - 8	125.0	310.0	25.0	0	-	2893	0.0000	1.24 = 0.004	Taglio	-	153549.72	0.3331	173.88

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
57	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	0	-	4860	0.000 0	1.24 = 0.004 0*H	Taglio	-	15354 9.72	0.333 1	173.8 8
58	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	0	-	4860	0.000 0	1.24 = 0.004 0*H	Taglio	-	15354 9.72	0.333 1	173.8 8
59	Maschio (C)	Piano 1	4 - 9	360.0	172.0	25.0	2630	-	45656	0.057 6	1.03 = 0.006 0*H	Flessione	-	15354 9.72	1.060 7	173.8 8

## Sisma X (-) - Distribuzione forze: Proporzionale masse; (Cond\_X\_1(-))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNc m]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 2	6 - 7	65.0	207.0	30.0	541	-	28686	0.018 9	1.24 = 0.006 0*H	Flessione	-	-1037 26.42	0.065 2	117.4 6
2	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	5901	-	11718 2	0.050 4	1.86 = 0.006 0*H	Flessione	-	-1117 62.43	0.070 3	126.5 6
3	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	1955	-	40617	0.048 1	1.86 = 0.006 0*H	Flessione	-	-1149 76.84	0.072 4	130.2 0
4	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	7177	-	13486 5	0.053 2	1.86 = 0.006 0*H	Flessione	-	-1181 91.25	0.074 5	133.8 4
5	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	4897	-	88519	0.055 3	1.86 = 0.006 0*H	Flessione	-	-1181 91.25	0.074 5	133.8 4
6	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	1289	-	24123	0.053 4	1.86 = 0.006 0*H	Flessione	-	-1214 05.65	0.076 8	137.4 8
7	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	1744	-	31591	0.055 2	1.86 = 0.006 0*H	Flessione	-	-1214 05.65	0.076 8	137.4 8
8	Maschio (P)	Piano 2	17 - 13	135.0	281.0	45.0	2257	-	10771 1	0.021 0	1.69 = 0.006 0*H	Flessione	-	-1214 05.65	0.076 8	137.4 8
9	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8541	-	14561 0	0.058 7	1.86 = 0.006 0*H	Flessione	-	-1230 12.86	0.077 9	139.3 0
10	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	14124	-	26054 2	0.054 2	1.86 = 0.006 0*H	Flessione	-	-1262 27.26	0.080 4	142.9 4
11	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	1845	-	31591	0.058 4	1.86 = 0.006 0*H	Flessione	-	-1262 27.26	0.080 4	142.9 4
12	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	3148	-	53728	0.058 6	1.86 = 0.006 0*H	Flessione	-	-1278 34.47	0.081 8	144.7 6
13	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8920	-	14561 0	0.061 3	1.86 = 0.006 0*H	Flessione	-	-1278 34.47	0.081 8	144.7 6
14	Maschio (P)	Piano 2	2 - 3	105.0	275.0	45.0	1597	-	67051	0.023 8	1.65 = 0.006 0*H	Flessione	-	-1278 34.47	0.081 8	144.7 6
15	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	8275	-	13083 1	0.063 2	1.86 = 0.006 0*H	Flessione	-	-1294 41.67	0.083 4	146.5 8
16	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	2875	-	48959	0.058 7	1.86 = 0.006 0*H	Flessione	-	-1310 48.87	0.085 1	148.4 0
17	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	5768	-	88519	0.065 2	1.86 = 0.006 0*H	Flessione	-	-1326 56.08	0.086 8	150.2 2
18	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	2566	-	39906	0.064 3	1.86 = 0.006 0*H	Flessione	-	-1342 63.28	0.088 7	152.0 4
19	Maschio (P)	Piano 2	6 - 7	240.0	304.0	30.0	4125	-	16826 3	0.024 5	1.82 = 0.006 0*H	Flessione	-	-1342 63.28	0.088 7	152.0 4
20	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	15896	-	26054 2	0.061 0	1.86 = 0.006 0*H	Flessione	-	-1358 70.48	0.090 7	153.8 6

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
21	Maschio (P)	Piano 2	17 - 13	190.0	378.0	45.0	2801	-	117512	0.0238	2.27 = 0.0060*H	Flessione	-	-137477.68	0.0930	155.68
22	Maschio (P)	Piano 2	18 - 14	95.0	303.4	25.0	566	-	23754	0.0238	1.82 = 0.0060*H	Flessione	-	-137477.68	0.0930	155.68
23	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	1512	-	22635	0.0668	1.86 = 0.0060*H	Flessione	-	-140692.09	0.0978	159.32
24	Maschio (P)	Piano 2	5 - 6	55.0	205.2	30.0	507	-	19551	0.0259	1.23 = 0.0060*H	Flessione	-	-140692.09	0.0978	159.32
25	Maschio (P)	Piano 2	15 - 19	195.0	319.5	25.0	2329	-	92779	0.0251	1.92 = 0.0060*H	Flessione	-	-140692.09	0.0978	159.32
26	Maschio (P)	Piano 1	1 - 2	60.0	310.0	45.0	871	-	12583	0.0692	1.86 = 0.0060*H	Flessione	-	-142299.29	0.1002	161.14
27	Maschio (P)	Piano 1	6 - 7	365.0	310.0	35.0	25148	-	339599	0.0741	1.86 = 0.0060*H	Flessione	-	-143906.50	0.1026	162.96
28	Maschio (P)	Piano 2	13 - 18	205.0	325.2	25.0	2481	-	97996	0.0253	1.95 = 0.0060*H	Flessione	-	-143906.50	0.1026	162.96
29	Maschio (P)	Piano 1	3 - 7	145.0	310.0	45.0	1355	-	18327	0.0739	1.86 = 0.0060*H	Flessione	-	-145513.70	0.1064	164.78
30	Maschio (P)	Piano 1	3 - 7	120.0	310.0	45.0	1166	-	15167	0.0769	1.86 = 0.0060*H	Flessione	-	-145513.70	0.1064	164.78
31	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	22442	-	298329	0.0752	1.86 = 0.0060*H	Flessione	-	-145513.70	0.1064	164.78
32	Maschio (P)	Piano 1	7 - 11	45.0	310.0	45.0	446	-	5688	0.0784	1.86 = 0.0060*H	Flessione	-	-147120.90	0.1156	166.60
33	Maschio (P)	Piano 1	7 - 11	180.0	310.0	45.0	1850	-	22751	0.0813	1.86 = 0.0060*H	Flessione	-	-147120.90	0.1156	166.60
34	Maschio (P)	Piano 1	7 - 11	50.0	310.0	45.0	532	-	6320	0.0842	1.86 = 0.0060*H	Flessione	-	-147120.90	0.1156	166.60
35	Maschio (P)	Piano 1	11 - 13	155.0	310.0	45.0	1725	-	19591	0.0880	1.86 = 0.0060*H	Flessione	-	-147120.90	0.1156	166.60
36	Maschio (P)	Piano 1	11 - 13	75.0	310.0	45.0	862	-	9479	0.0909	1.86 = 0.0060*H	Flessione	-	-147120.90	0.1156	166.60
37	Maschio (P)	Piano 2	2 - 3	230.0	374.0	45.0	4669	-	169147	0.0276	2.24 = 0.0060*H	Flessione	-	-147120.90	0.1156	166.60
38	Maschio (P)	Piano 1	2 - 3	45.0	310.0	45.0	480	-	5688	0.0844	1.86 = 0.0060*H	Flessione	-	-148728.11	0.1282	168.42
39	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	4303	-	45656	0.0943	1.03 = 0.0060*H	Flessione	-	-148728.11	0.1282	168.42
40	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	561	-	5688	0.0987	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
41	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	907	-	8847	0.1026	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
42	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	3531	-	33494	0.1054	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
43	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	1310	-	12007	0.1091	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
44	Maschio (P)	Piano 1	7 - 8	30.0	310.0	30.0	130	-	1184	0.1101	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
45	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	699	-	6320	0.1106	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
46	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	2073	-	18327	0.1131	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
47	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	953	-	8215	0.1160	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
48	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	139	-	1184	0.1174	1.86 = 0.0060*H	Flessione	-	-150335.31	0.1447	170.24
49	Maschio (P)	Piano 1	2 - 6	95.0	310.0	30.0	0	-	3749	0.0000	1.24 = 0.0040*H	Taglio	-	-151942.51	0.2124	172.06
50	Maschio (P)	Piano 1	2 - 6	110.0	310.0	30.0	0	-	4341	0.0000	1.24 = 0.0040*H	Taglio	-	-151942.51	0.2124	172.06
51	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	149	-	987	0.1515	1.86 = 0.0060*H	Flessione	-	-151942.51	0.2124	172.06
52	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	146	-	987	0.1484	1.86 = 0.0060*H	Flessione	-	-151942.51	0.2124	172.06
53	Maschio (P)	Piano 1	4 - 9	55.0	292.9	25.0	255	-	1504	0.1698	1.76 = 0.0060*H	Flessione	-	-151942.51	0.2124	172.06
54	Maschio (P)	Piano 1	7 - 8	25.0	310.0	30.0	80	-	694	0.1154	1.86 = 0.0060*H	Flessione	-	-151942.51	0.2124	172.06
55	Maschio (P)	Piano 1	15 - 8	170.0	310.0	25.0	0	-	3934	0.0000	1.24 = 0.0040*H	Taglio	-	-151942.51	0.2124	172.06
56	Maschio (P)	Piano 1	15 - 8	125.0	310.0	25.0	0	-	2893	0.0000	1.24 = 0.0040*H	Taglio	-	-151942.51	0.2124	172.06
57	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	153	-	1184	0.1290	1.86 = 0.0060*H	Flessione	-	-151942.51	0.2124	172.06
58	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	0	-	4860	0.0000	1.24 = 0.0040*H	Taglio	-	-151942.51	0.2124	172.06
59	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	0	-	4860	0.0000	1.24 = 0.0040*H	Taglio	-	-151942.51	0.2124	172.06
60	Maschio (C)	Piano 1	4 - 9	360.0	172.0	25.0	4303	-	45656	0.0943	1.03 = 0.0060*H	Flessione	-	-151942.51	1.0605	172.06

## Sisma X (+) - Distribuzione forze: Proporzionale altezze; (Cond X\_2(+))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNcm]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 2	6 - 7	65.0	207.0	30.0	613	-	28686	0.0214	1.24 = 0.0060*H	Flessione	-	80607.42	0.0576	91.28
2	Maschio (P)	Piano 2	5 - 6	55.0	205.2	30.0	429	-	19551	0.0220	1.23 = 0.0060*H	Flessione	-	82214.62	0.0588	93.10
3	Maschio (P)	Piano 2	12 - 17	135.0	281.3	45.0	2313	-	107480	0.0215	1.69 = 0.0060*H	Flessione	-	85429.03	0.0611	96.74
4	Maschio (P)	Piano 2	17 - 13	135.0	281.0	45.0	2448	-	107711	0.0227	1.69 = 0.0060*H	Flessione	-	88643.44	0.0634	100.38
5	Maschio (P)	Piano 2	12 - 17	165.0	374.1	45.0	2112	-	90848	0.0232	2.24 = 0.0060*H	Flessione	-	90250.64	0.0646	102.20
6	Maschio (P)	Piano 2	17 - 13	190.0	378.0	45.0	2803	-	117512	0.0239	2.27 = 0.0060*H	Flessione	-	93465.04	0.0670	105.84
7	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	2079	-	48959	0.0425	1.86 = 0.0060*H	Flessione	-	98286.65	0.0706	111.30
8	Maschio (P)	Piano 2	6 - 7	240.0	304.0	30.0	4456	-	168263	0.0265	1.82 = 0.0060*H	Flessione	-	98286.65	0.0706	111.30

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
9	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	4147	-	88519	0.0468	1.86 = 0.0060*H	Flessione	-	99893.86	0.0719	113.12
10	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	1826	-	39906	0.0458	1.86 = 0.0060*H	Flessione	-	101501.06	0.0732	114.94
11	Maschio (P)	Piano 2	1 - 2	80.0	270.2	45.0	1060	-	37399	0.0283	1.62 = 0.0060*H	Flessione	-	101501.06	0.0732	114.94
12	Maschio (P)	Piano 2	2 - 3	105.0	275.0	45.0	1886	-	67051	0.0281	1.65 = 0.0060*H	Flessione	-	101501.06	0.0732	114.94
13	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	6704	-	130831	0.0512	1.86 = 0.0060*H	Flessione	-	107929.87	0.0785	122.22
14	Maschio (P)	Piano 2	1 - 2	240.0	367.0	45.0	5656	-	187541	0.0302	2.20 = 0.0060*H	Flessione	-	107929.87	0.0785	122.22
15	Maschio (P)	Piano 2	2 - 3	230.0	374.0	45.0	5155	-	169147	0.0305	2.24 = 0.0060*H	Flessione	-	107929.87	0.0785	122.22
16	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	1047	-	22635	0.0463	1.86 = 0.0060*H	Flessione	-	109537.08	0.0800	124.04
17	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	2702	-	53728	0.0503	1.86 = 0.0060*H	Flessione	-	111144.28	0.0815	125.86
18	Maschio (P)	Piano 2	13 - 18	205.0	325.2	25.0	2997	-	97996	0.0306	1.95 = 0.0060*H	Flessione	-	112751.48	0.0831	127.68
19	Maschio (P)	Piano 2	18 - 14	95.0	303.4	25.0	761	-	23754	0.0320	1.82 = 0.0060*H	Flessione	-	115965.89	0.0862	131.32
20	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	13013	-	260542	0.0499	1.86 = 0.0060*H	Flessione	-	117573.09	0.0878	133.14
21	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8241	-	145610	0.0566	1.86 = 0.0060*H	Flessione	-	117573.09	0.0878	133.14
22	Maschio (P)	Piano 2	12 - 17	92.0	458.2	45.0	456	-	13885	0.0328	2.75 = 0.0060*H	Flessione	-	117573.09	0.0878	133.14
23	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	2492	-	45656	0.0546	1.03 = 0.0060*H	Flessione	-	119180.29	0.0896	134.96
24	Maschio (P)	Piano 2	5 - 6	400.0	333.3	30.0	10334	-	298199	0.0347	2.00 = 0.0060*H	Flessione	-	119180.29	0.0896	134.96
25	Maschio (P)	Piano 2	12 - 10	85.0	270.0	45.0	530	-	15799	0.0336	1.62 = 0.0060*H	Flessione	-	119180.29	0.0896	134.96
26	Maschio (P)	Piano 2	19 - 11	92.2	311.4	25.0	711	-	20765	0.0343	1.87 = 0.0060*H	Flessione	-	119180.29	0.0896	134.96
27	Maschio (P)	Piano 2	15 - 19	195.0	319.5	25.0	3164	-	92779	0.0341	1.92 = 0.0060*H	Flessione	-	119180.29	0.0896	134.96
28	Maschio (P)	Piano 2	12 - 10	280.0	270.0	45.0	1835	-	52042	0.0353	1.62 = 0.0060*H	Flessione	-	120787.50	0.0918	136.78
29	Maschio (P)	Piano 2	10 - 5	65.0	270.0	45.0	442	-	12081	0.0366	1.62 = 0.0060*H	Flessione	-	122394.70	0.0939	138.60
30	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	9040	-	145610	0.0621	1.86 = 0.0060*H	Flessione	-	124001.90	0.0961	140.42
31	Maschio (P)	Piano 2	10 - 5	180.0	270.0	45.0	1268	-	33456	0.0379	1.62 = 0.0060*H	Flessione	-	124001.90	0.0961	140.42
32	Maschio (P)	Piano 2	10 - 5	25.0	270.0	45.0	182	-	4647	0.0392	1.62 = 0.0060*H	Flessione	-	125609.11	0.0984	142.24
33	Maschio (P)	Piano 2	6 - 7	65.0	401.0	30.0	200	-	5162	0.0387	2.41 = 0.0060*H	Flessione	-	125609.11	0.0984	142.24

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
34	Maschio (P)	Piano 2	5 - 1	150.0	270.0	45.0	1113	-	27880	0.0399	1.62 = 0.006 0*H	Flessione	-	12721 6.31	0.1008	144.06
35	Maschio (P)	Piano 2	17 - 13	72.0	462.4	45.0	269	-	6924	0.0389	2.77 = 0.006 0*H	Flessione	-	12721 6.31	0.1008	144.06
36	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	1951	-	31591	0.0618	1.86 = 0.006 0*H	Flessione	-	12882 3.51	0.1032	145.88
37	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	5842	-	88519	0.0660	1.86 = 0.006 0*H	Flessione	-	12882 3.51	0.1032	145.88
38	Maschio (P)	Piano 2	5 - 1	105.0	270.0	45.0	805	-	19516	0.0413	1.62 = 0.006 0*H	Flessione	-	12882 3.51	0.1032	145.88
39	Maschio (P)	Piano 2	10 - 16	480.0	365.9	30.0	13358	-	33276 6	0.0401	2.20 = 0.006 0*H	Flessione	-	12882 3.51	0.1032	145.88
40	Maschio (P)	Piano 2	11 - 13	445.0	270.0	45.0	3513	-	82710	0.0425	1.62 = 0.006 0*H	Flessione	-	13043 0.72	0.1065	147.70
41	Maschio (P)	Piano 2	16 - 11	477.0	364.4	30.0	14300	-	33189 4	0.0431	2.19 = 0.006 0*H	Flessione	-	13043 0.72	0.1065	147.70
42	Maschio (P)	Piano 2	1 - 2	65.0	460.8	45.0	281	-	5245	0.0537	2.77 = 0.006 0*H	Flessione	-	13203 7.92	0.1170	149.52
43	Maschio (P)	Piano 2	3 - 7	115.0	270.0	45.0	1057	-	21375	0.0494	1.62 = 0.006 0*H	Flessione	-	13203 7.92	0.1170	149.52
44	Maschio (P)	Piano 2	3 - 7	145.0	270.0	45.0	1295	-	26951	0.0480	1.62 = 0.006 0*H	Flessione	-	13203 7.92	0.1170	149.52
45	Maschio (P)	Piano 2	7 - 11	210.0	270.0	45.0	1791	-	39032	0.0459	1.62 = 0.006 0*H	Flessione	-	13203 7.92	0.1170	149.52
46	Maschio (P)	Piano 2	7 - 11	45.0	270.0	45.0	371	-	8364	0.0444	1.62 = 0.006 0*H	Flessione	-	13203 7.92	0.1170	149.52
47	Maschio (P)	Piano 2	2 - 3	55.0	463.0	45.0	196	-	3214	0.0610	2.78 = 0.006 0*H	Flessione	-	13364 5.12	0.1654	151.34
48	Maschio (P)	Piano 2	19 - 11	30.0	346.5	25.0	63	-	713	0.0891	2.08 = 0.006 0*H	Flessione	-	13364 5.12	0.1654	151.34
49	Maschio (P)	Piano 2	14 - 15	85.0	285.0	25.0	0	-	2517	0.0000	1.14 = 0.004 0*H	Taglio	-	13364 5.12	0.1654	151.34
50	Maschio (P)	Piano 2	14 - 15	345.0	285.0	25.0	0	-	10218	0.0000	1.14 = 0.004 0*H	Taglio	-	13364 5.12	0.1654	151.34
51	Maschio (P)	Piano 2	18 - 14	30.0	345.4	25.0	59	-	719	0.0820	2.07 = 0.006 0*H	Flessione	-	13364 5.12	0.1654	151.34
52	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	345	-	5688	0.0607	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16
53	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	558	-	8847	0.0631	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16
54	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	19048	-	29832 9	0.0638	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16
55	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	2172	-	33494	0.0649	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16
56	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	806	-	12007	0.0671	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16
57	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	430	-	6320	0.0681	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16
58	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	1276	-	18327	0.0696	1.86 = 0.006 0*H	Flessione	-	13525 2.33	0.4995	153.16

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
59	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	586	-	8215	0.0714	1.86 = 0.0060*H	Flessione	-	135252.33	0.4995	153.16
60	Maschio (P)	Piano 2	2 - 6	335.0	505.0	30.0	0	-	3142	0.0000	2.02 = 0.0040*H	Taglio	-	135252.33	0.4995	153.16
61	Maschio (C)	Piano 2	14 - 15	85.0	285.0	25.0	0	-	2517	0.0000	1.14 = 0.0040*H	Taglio	-	135252.33	1.1400	153.16
62	Maschio (C)	Piano 2	14 - 15	345.0	285.0	25.0	0	-	10218	0.0000	1.14 = 0.0040*H	Taglio	-	135252.33	1.1400	153.16

## Sisma X (-) - Distribuzione forze: Proporzionale altezze; (Cond\_X\_2(-))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNc m]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 2	6 - 7	65.0	207.0	30.0	541	-	28686	0.0189	1.24 = 0.0060*H	Flessione	-	-71211.46	0.0509	80.64
2	Maschio (P)	Piano 2	17 - 13	135.0	281.0	45.0	2257	-	107711	0.0210	1.69 = 0.0060*H	Flessione	-	-82461.88	0.0589	93.38
3	Maschio (P)	Piano 2	2 - 3	105.0	275.0	45.0	1596	-	67051	0.0238	1.65 = 0.0060*H	Flessione	-	-87283.49	0.0624	98.84
4	Maschio (P)	Piano 2	6 - 7	240.0	304.0	30.0	4123	-	168263	0.0245	1.82 = 0.0060*H	Flessione	-	-92105.10	0.0660	104.30
5	Maschio (P)	Piano 2	17 - 13	190.0	378.0	45.0	2801	-	117512	0.0238	2.27 = 0.0060*H	Flessione	-	-93712.31	0.0672	106.12
6	Maschio (P)	Piano 2	18 - 14	95.0	303.4	25.0	565	-	23754	0.0238	1.82 = 0.0060*H	Flessione	-	-93712.31	0.0672	106.12
7	Maschio (P)	Piano 2	5 - 6	55.0	205.2	30.0	507	-	19551	0.0259	1.23 = 0.0060*H	Flessione	-	-95319.51	0.0684	107.94
8	Maschio (P)	Piano 2	15 - 19	195.0	319.5	25.0	2330	-	92779	0.0251	1.92 = 0.0060*H	Flessione	-	-95319.51	0.0684	107.94
9	Maschio (P)	Piano 2	13 - 18	205.0	325.2	25.0	2478	-	97996	0.0253	1.95 = 0.0060*H	Flessione	-	-98533.92	0.0709	111.58
10	Maschio (P)	Piano 2	2 - 3	230.0	374.0	45.0	4668	-	169147	0.0276	2.24 = 0.0060*H	Flessione	-	-100141.12	0.0722	113.40
11	Maschio (P)	Piano 2	19 - 11	92.2	311.4	25.0	578	-	20765	0.0278	1.87 = 0.0060*H	Flessione	-	-103355.53	0.0749	117.04
12	Maschio (P)	Piano 2	12 - 17	135.0	281.3	45.0	2990	-	107480	0.0278	1.69 = 0.0060*H	Flessione	-	-104962.73	0.0762	118.86
13	Maschio (P)	Piano 2	12 - 17	165.0	374.1	45.0	2545	-	90848	0.0280	2.24 = 0.0060*H	Flessione	-	-104962.73	0.0762	118.86
14	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	5661	-	117182	0.0483	1.86 = 0.0060*H	Flessione	-	-108177.13	0.0790	122.50
15	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	1901	-	40617	0.0468	1.86 = 0.0060*H	Flessione	-	-111391.54	0.0819	126.14
16	Maschio (P)	Piano 2	1 - 2	80.0	270.2	45.0	1247	-	37399	0.0334	1.62 = 0.0060*H	Flessione	-	-112998.74	0.0834	127.96
17	Maschio (P)	Piano 2	1 - 2	240.0	367.0	45.0	6178	-	187541	0.0329	2.20 = 0.0060*H	Flessione	-	-112998.74	0.0834	127.96
18	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	6948	-	134865	0.0515	1.86 = 0.0060*H	Flessione	-	-114605.95	0.0850	129.78
19	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	4820	-	88519	0.0545	1.86 = 0.0060*H	Flessione	-	-114605.95	0.0850	129.78

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
20	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	1707	-	31591	0.0540	1.86 = 0.0060*H	Flessione	-	-117820.35	0.0883	133.42
21	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	1252	-	24123	0.0519	1.86 = 0.0060*H	Flessione	-	-119427.56	0.0900	135.24
22	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8496	-	145610	0.0583	1.86 = 0.0060*H	Flessione	-	-121034.76	0.0917	137.06
23	Maschio (P)	Piano 2	7 - 11	45.0	270.0	45.0	303	-	8364	0.0362	1.62 = 0.0060*H	Flessione	-	-121034.76	0.0917	137.06
24	Maschio (P)	Piano 2	11 - 13	445.0	270.0	45.0	2928	-	82710	0.0354	1.62 = 0.0060*H	Flessione	-	-121034.76	0.0917	137.06
25	Maschio (P)	Piano 2	3 - 7	145.0	270.0	45.0	1019	-	26951	0.0378	1.62 = 0.0060*H	Flessione	-	-122641.96	0.0935	138.88
26	Maschio (P)	Piano 2	7 - 11	210.0	270.0	45.0	1438	-	39032	0.0368	1.62 = 0.0060*H	Flessione	-	-122641.96	0.0935	138.88
27	Maschio (P)	Piano 2	3 - 7	115.0	270.0	45.0	820	-	21375	0.0384	1.62 = 0.0060*H	Flessione	-	-124249.17	0.0954	140.70
28	Maschio (P)	Piano 2	5 - 6	400.0	333.3	30.0	11505	-	298199	0.0386	2.00 = 0.0060*H	Flessione	-	-124249.17	0.0954	140.70
29	Maschio (P)	Piano 2	6 - 7	65.0	401.0	30.0	200	-	5162	0.0388	2.41 = 0.0060*H	Flessione	-	-124249.17	0.0954	140.70
30	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	13881	-	260542	0.0533	1.86 = 0.0060*H	Flessione	-	-125856.37	0.0976	142.52
31	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	1835	-	31591	0.0581	1.86 = 0.0060*H	Flessione	-	-125856.37	0.0976	142.52
32	Maschio (P)	Piano 2	12 - 17	92.0	458.2	45.0	525	-	13885	0.0378	2.75 = 0.0060*H	Flessione	-	-125856.37	0.0976	142.52
33	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	3195	-	53728	0.0595	1.86 = 0.0060*H	Flessione	-	-127463.57	0.0999	144.34
34	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	8990	-	145610	0.0617	1.86 = 0.0060*H	Flessione	-	-127463.57	0.0999	144.34
35	Maschio (P)	Piano 2	16 - 11	477.0	364.4	30.0	13182	-	331894	0.0397	2.19 = 0.0060*H	Flessione	-	-127463.57	0.0999	144.34
36	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	8454	-	130831	0.0646	1.86 = 0.0060*H	Flessione	-	-130677.98	0.1063	147.98
37	Maschio (P)	Piano 2	17 - 13	72.0	462.4	45.0	298	-	6924	0.0431	2.77 = 0.0060*H	Flessione	-	-130677.98	0.1063	147.98
38	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	2970	-	48959	0.0607	1.86 = 0.0060*H	Flessione	-	-132285.18	0.1098	149.80
39	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	5948	-	88519	0.0672	1.86 = 0.0060*H	Flessione	-	-132285.18	0.1098	149.80
40	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	2653	-	39906	0.0665	1.86 = 0.0060*H	Flessione	-	-135499.59	0.1170	153.44
41	Maschio (P)	Piano 2	10 - 5	65.0	270.0	45.0	605	-	12081	0.0501	1.62 = 0.0060*H	Flessione	-	-135499.59	0.1170	153.44
42	Maschio (P)	Piano 2	10 - 5	180.0	270.0	45.0	1695	-	33456	0.0507	1.62 = 0.0060*H	Flessione	-	-135499.59	0.1170	153.44
43	Maschio (P)	Piano 2	12 - 10	85.0	270.0	45.0	771	-	15799	0.0488	1.62 = 0.0060*H	Flessione	-	-135499.59	0.1170	153.44
44	Maschio (P)	Piano 2	12 - 10	280.0	270.0	45.0	2578	-	52042	0.0495	1.62 = 0.0060*H	Flessione	-	-135499.59	0.1170	153.44



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

											0*H					
45	Maschio (P)	Piano 2	10 - 16	480.0	365.9	30.0	16598	-	332766	0.0499	2.20 = 0.0060*H	Flessione	-	-135499.59	0.1170	153.44
46	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	16217	-	260542	0.0622	1.86 = 0.0060*H	Flessione	-	-137106.79	0.1327	155.26
47	Maschio (P)	Piano 2	1 - 2	65.0	460.8	45.0	284	-	5245	0.0541	2.77 = 0.0060*H	Flessione	-	-137106.79	0.1327	155.26
48	Maschio (P)	Piano 2	5 - 1	150.0	270.0	45.0	0	-	27880	0.0000	1.08 = 0.0040*H	Taglio	-	-137106.79	0.1327	155.26
49	Maschio (P)	Piano 2	5 - 1	105.0	270.0	45.0	0	-	19516	0.0000	1.08 = 0.0040*H	Taglio	-	-137106.79	0.1327	155.26
50	Maschio (P)	Piano 2	2 - 3	55.0	463.0	45.0	190	-	3214	0.0592	2.78 = 0.0060*H	Flessione	-	-137106.79	0.1327	155.26
51	Maschio (P)	Piano 2	10 - 5	25.0	270.0	45.0	0	-	4647	0.0000	1.08 = 0.0040*H	Taglio	-	-137106.79	0.1327	155.26
52	Maschio (P)	Piano 2	19 - 11	30.0	346.5	25.0	45	-	713	0.0637	2.08 = 0.0060*H	Flessione	-	-137106.79	0.1327	155.26
53	Maschio (P)	Piano 2	14 - 15	85.0	285.0	25.0	0	-	2517	0.0000	1.14 = 0.0040*H	Taglio	-	-137106.79	0.1327	155.26
54	Maschio (P)	Piano 2	14 - 15	345.0	285.0	25.0	0	-	10218	0.0000	1.14 = 0.0040*H	Taglio	-	-137106.79	0.1327	155.26
55	Maschio (P)	Piano 2	18 - 14	30.0	345.4	25.0	43	-	719	0.0600	2.07 = 0.0060*H	Flessione	-	-137106.79	0.1327	155.26
56	Maschio (P)	Piano 2	2 - 6	335.0	505.0	30.0	0	-	3142	0.0000	2.02 = 0.0040*H	Taglio	-	-138713.99	0.1327	157.08
57	Maschio (C)	Piano 2	5 - 1	150.0	270.0	45.0	0	-	27880	0.0000	1.08 = 0.0040*H	Taglio	-	-138713.99	1.0800	157.08
58	Maschio (C)	Piano 2	5 - 1	105.0	270.0	45.0	0	-	19516	0.0000	1.08 = 0.0040*H	Taglio	-	-138713.99	1.0800	157.08
59	Maschio (C)	Piano 2	10 - 5	25.0	270.0	45.0	0	-	4647	0.0000	1.08 = 0.0040*H	Taglio	-	-138713.99	1.0800	157.08

## Sisma Y (+) - Distribuzione forze: Proporzionale masse; (Cond\_Y\_1(+))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNcm]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	4803	-	102201	0.0470	1.86 = 0.0060*H	Flessione	-	91363.32	0.0668	103.46
2	Maschio (P)	Piano 1	11 - 13	155.0	310.0	45.0	6210	-	116335	0.0534	1.86 = 0.0060*H	Flessione	-	91363.32	0.0668	103.46
3	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	6433	-	110410	0.0583	1.86 = 0.0060*H	Flessione	-	96184.93	0.0707	108.92
4	Maschio (P)	Piano 1	15 - 8	170.0	310.0	25.0	4537	-	76772	0.0591	1.86 = 0.0060*H	Flessione	-	97792.13	0.0720	110.74
5	Maschio (P)	Piano 1	7 - 11	180.0	310.0	45.0	8933	-	153086	0.0584	1.86 = 0.0060*H	Flessione	-	99399.33	0.0735	112.56
6	Maschio (P)	Piano 1	15 - 8	125.0	310.0	25.0	2533	-	41886	0.0605	1.86 = 0.0060*H	Flessione	-	99399.33	0.0735	112.56
7	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	6700	-	110410	0.0607	1.86 = 0.0060*H	Flessione	-	99399.33	0.0735	112.56
8	Maschio (P)	Piano 1	3 - 7	120.0	310.0	45.0	4165	-	69079	0.0603	1.86 = 0.0060*H	Flessione	-	101006.54	0.0753	114.38

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
9	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	2145	-	40617	0.0528	1.86 = 0.006 0*H	Flessione	-	101006.54	0.0753	114.38
10	Maschio (P)	Piano 1	2 - 6	110.0	310.0	30.0	2213	-	38012	0.0582	1.86 = 0.006 0*H	Flessione	-	102613.74	0.0773	116.20
11	Maschio (P)	Piano 1	3 - 7	145.0	310.0	45.0	6276	-	102201	0.0614	1.86 = 0.006 0*H	Flessione	-	102613.74	0.0773	116.20
12	Maschio (P)	Piano 1	11 - 13	75.0	310.0	45.0	1386	-	22635	0.0612	1.86 = 0.006 0*H	Flessione	-	102613.74	0.0773	116.20
13	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	902	-	15586	0.0579	1.86 = 0.006 0*H	Flessione	-	105828.15	0.0820	119.84
14	Maschio (P)	Piano 1	2 - 6	95.0	310.0	30.0	1725	-	27078	0.0637	1.86 = 0.006 0*H	Flessione	-	107435.35	0.0844	121.66
15	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	17549	-	283747	0.0618	1.86 = 0.006 0*H	Flessione	-	110649.76	0.0892	125.30
16	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	1278	-	18939	0.0675	1.86 = 0.006 0*H	Flessione	-	113864.16	0.0953	128.94
17	Maschio (P)	Piano 1	7 - 11	50.0	310.0	45.0	664	-	7637	0.0870	1.86 = 0.006 0*H	Flessione	-	117078.57	0.1015	132.58
18	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	1258	-	17063	0.0737	1.86 = 0.006 0*H	Flessione	-	117078.57	0.1015	132.58
19	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	1585	-	20855	0.0760	1.86 = 0.006 0*H	Flessione	-	117078.57	0.1015	132.58
20	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	1736	-	22119	0.0785	1.86 = 0.006 0*H	Flessione	-	117078.57	0.1015	132.58
21	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	1792	-	22119	0.0810	1.86 = 0.006 0*H	Flessione	-	117078.57	0.1015	132.58
22	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	1422	-	17063	0.0834	1.86 = 0.006 0*H	Flessione	-	117078.57	0.1015	132.58
23	Maschio (P)	Piano 1	4 - 9	55.0	292.9	25.0	470	-	6442	0.0729	1.76 = 0.006 0*H	Flessione	-	118685.77	0.1052	134.40
24	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	34278	-	473441	0.0724	0.69 = 0.004 0*H	Taglio	-	118685.77	0.1052	134.40
25	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	573	-	7637	0.0750	1.86 = 0.006 0*H	Flessione	-	118685.77	0.1052	134.40
26	Maschio (P)	Piano 1	7 - 11	45.0	310.0	45.0	584	-	5688	0.1027	1.86 = 0.006 0*H	Flessione	-	121900.18	0.1246	138.04
27	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	958	-	9479	0.1010	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
28	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	3265	-	31598	0.1033	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
29	Maschio (P)	Piano 1	1 - 2	60.0	310.0	45.0	800	-	7584	0.1055	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
30	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	566	-	5688	0.0995	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
31	Maschio (P)	Piano 1	2 - 3	45.0	310.0	45.0	605	-	5688	0.1063	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
32	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	3427	-	31598	0.1085	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
33	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	1331	-	12007	0.1108	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

											0*H					
34	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	665	-	6479	0.1027	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
35	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	790	-	7405	0.1067	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
36	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	652	-	5862	0.1112	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
37	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	674	-	5862	0.1150	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
38	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	140	-	1184	0.1186	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
39	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	147	-	1184	0.1238	1.86 = 0.006 0*H	Flessione	-	123507.38	0.1346	139.86
40	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	821	-	7096	0.1157	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
41	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	2434	-	20364	0.1195	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
42	Maschio (P)	Piano 1	6 - 7	365.0	310.0	35.0	2793	-	22523	0.1240	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
43	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	671	-	5245	0.1279	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
44	Maschio (P)	Piano 1	7 - 8	30.0	310.0	30.0	174	-	1184	0.1469	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
45	Maschio (P)	Piano 1	7 - 8	25.0	310.0	30.0	150	-	987	0.1520	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
46	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	1139	-	8379	0.1359	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
47	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	1067	-	7695	0.1387	1.86 = 0.006 0*H	Flessione	-	125114.58	0.1618	141.68
48	Maschio (C)	Piano 1	4 - 9	360.0	172.0	25.0	34278	-	473441	0.0724	0.69 = 0.004 0*H	Taglio	-	126722	0.1618	143.50

## Sisma Y (-) - Distribuzione forze: Proporzionale masse; (Cond\_Y\_1(-))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNcm]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 1	3 - 7	145.0	310.0	45.0	4594	-	102201	0.0449	1.86 = 0.006 0*H	Flessione	-	-77393.01	0.0566	87.64
2	Maschio (P)	Piano 1	2 - 6	95.0	310.0	30.0	1227	-	27078	0.0453	1.86 = 0.006 0*H	Flessione	-	-82214.62	0.0603	93.10
3	Maschio (P)	Piano 1	3 - 7	120.0	310.0	45.0	3385	-	69079	0.0490	1.86 = 0.006 0*H	Flessione	-	-83821.83	0.0615	94.92
4	Maschio (P)	Piano 1	2 - 6	110.0	310.0	30.0	1814	-	38012	0.0477	1.86 = 0.006 0*H	Flessione	-	-87036.23	0.0641	98.56
5	Maschio (P)	Piano 1	15 - 8	125.0	310.0	25.0	2260	-	41886	0.0540	1.86 = 0.006 0*H	Flessione	-	-88643.44	0.0654	100.38
6	Maschio (P)	Piano 1	7 - 11	180.0	310.0	45.0	8565	-	153086	0.0559	1.86 = 0.006 0*H	Flessione	-	-95072.25	0.0707	107.66
7	Maschio (P)	Piano 1	15 - 8	170.0	310.0	25.0	4528	-	76772	0.0590	1.86 = 0.006 0*H	Flessione	-	-95072.25	0.0707	107.66
8	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	1046	-	18939	0.0552	1.86 = 0.006 0*H	Flessione	-	-103108.26	0.0784	116.76

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
9	Maschio (P)	Piano 1	11 - 13	155.0	310.0	45.0	7553	-	116335	0.0649	1.86 = 0.0060*H	Flessione	-	-104715.47	0.0799	118.58
10	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	7491	-	110410	0.0678	1.86 = 0.0060*H	Flessione	-	-104715.47	0.0799	118.58
11	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	823	-	12007	0.0685	1.86 = 0.0060*H	Flessione	-	-107929.87	0.0837	122.22
12	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	16551	-	283747	0.0583	1.86 = 0.0060*H	Flessione	-	-107929.87	0.0837	122.22
13	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	2397	-	40617	0.0590	1.86 = 0.0060*H	Flessione	-	-107929.87	0.0837	122.22
14	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	2013	-	31598	0.0637	1.86 = 0.0060*H	Flessione	-	-109537.08	0.0860	124.04
15	Maschio (P)	Piano 1	1 - 2	60.0	310.0	45.0	493	-	7584	0.0650	1.86 = 0.0060*H	Flessione	-	-109537.08	0.0860	124.04
16	Maschio (P)	Piano 1	2 - 3	45.0	310.0	45.0	373	-	5688	0.0655	1.86 = 0.0060*H	Flessione	-	-109537.08	0.0860	124.04
17	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	2110	-	31598	0.0668	1.86 = 0.0060*H	Flessione	-	-109537.08	0.0860	124.04
18	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	8287	-	110410	0.0751	1.86 = 0.0060*H	Flessione	-	-109537.08	0.0860	124.04
19	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	588	-	9479	0.0620	1.86 = 0.0060*H	Flessione	-	-111144.28	0.0890	125.86
20	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	6285	-	102201	0.0615	1.86 = 0.0060*H	Flessione	-	-111144.28	0.0890	125.86
21	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	360	-	5688	0.0634	1.86 = 0.0060*H	Flessione	-	-112751.48	0.0924	127.68
22	Maschio (P)	Piano 1	4 - 9	55.0	292.9	25.0	408	-	6442	0.0634	1.76 = 0.0060*H	Flessione	-	-112751.48	0.0924	127.68
23	Maschio (P)	Piano 1	11 - 13	75.0	310.0	45.0	1914	-	22635	0.0846	1.86 = 0.0060*H	Flessione	-	-115965.89	0.0992	131.32
24	Maschio (P)	Piano 1	7 - 11	45.0	310.0	45.0	485	-	5688	0.0852	1.86 = 0.0060*H	Flessione	-	-117573.09	0.1028	133.14
25	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	34923	-	473441	0.0738	0.69 = 0.0040*H	Taglio	-	-119180.29	0.1064	134.96
26	Maschio (P)	Piano 1	7 - 11	50.0	310.0	45.0	718	-	7637	0.0940	1.86 = 0.0060*H	Flessione	-	-120787.50	0.1153	136.78
27	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	1993	-	20364	0.0979	1.86 = 0.0060*H	Flessione	-	-122394.70	0.1245	138.60
28	Maschio (P)	Piano 1	6 - 7	365.0	310.0	35.0	2260	-	22523	0.1003	1.86 = 0.0060*H	Flessione	-	-122394.70	0.1245	138.60
29	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	537	-	5245	0.1025	1.86 = 0.0060*H	Flessione	-	-122394.70	0.1245	138.60
30	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	702	-	7637	0.0919	1.86 = 0.0060*H	Flessione	-	-122394.70	0.1245	138.60
31	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	1383	-	15586	0.0887	1.86 = 0.0060*H	Flessione	-	-122394.70	0.1245	138.60
32	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	679	-	7096	0.0956	1.86 = 0.0060*H	Flessione	-	-124001.90	0.1378	140.42
33	Maschio (P)	Piano 1	7 - 8	30.0	310.0	30.0	143	-	1184	0.1211	1.86 = 0.0060*H	Flessione	-	-124001.90	0.1378	140.42

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

											0*H					
34	Maschio (P)	Piano 1	7 - 8	25.0	310.0	30.0	122	-	987	0.123 9	1.86 = 0.006 0*H	Flessione	-	-1240 01.90	0.137 8	140.4 2
35	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	921	-	7405	0.124 4	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
36	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	743	-	5862	0.126 7	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
37	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	754	-	5862	0.128 7	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
38	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	2046	-	17063	0.119 9	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
39	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	2524	-	20855	0.121 0	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
40	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	2705	-	22119	0.122 3	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
41	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	2733	-	22119	0.123 5	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
42	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	2128	-	17063	0.124 7	1.86 = 0.006 0*H	Flessione	-	-1256 09.11	0.151 9	142.2 4
43	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	0	-	694	0.000 0	1.24 = 0.004 0*H	Taglio	-	-1272 16.31	0.229 0	144.0 6
44	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	0	-	694	0.000 0	1.24 = 0.004 0*H	Taglio	-	-1272 16.31	0.229 0	144.0 6
45	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	0	-	6479	0.000 0	1.24 = 0.004 0*H	Taglio	-	-1272 16.31	0.229 0	144.0 6
46	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	0	-	8379	0.000 0	1.24 = 0.004 0*H	Taglio	-	-1272 16.31	0.229 0	144.0 6
47	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	212	-	1184	0.179 2	1.86 = 0.006 0*H	Flessione	-	-1272 16.31	0.229 0	144.0 6
48	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	215	-	1184	0.181 8	1.86 = 0.006 0*H	Flessione	-	-1272 16.31	0.229 0	144.0 6
49	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	0	-	7695	0.000 0	1.24 = 0.004 0*H	Taglio	-	-1272 16.31	0.229 0	144.0 6
50	Maschio (C)	Piano 1	4 - 9	360.0	172.0	25.0	34923	-	47344 1	0.073 8	0.69 = 0.004 0*H	Taglio	-	-1272 16.31	0.709 8	144.0 6

## Sisma Y (+) - Distribuzione forze: Proporzionale altezze; (Cond\_Y\_2(+))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNc m]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	4670	-	10220 1	0.045 7	1.86 = 0.006 0*H	Flessione	-	89756 .11	0.073 0	101.6 4
2	Maschio (P)	Piano 1	11 - 13	155.0	310.0	45.0	6086	-	11633 5	0.052 3	1.86 = 0.006 0*H	Flessione	-	89756 .11	0.073 0	101.6 4
3	Maschio (P)	Piano 2	12 - 10	85.0	270.0	45.0	1073	-	43290	0.024 8	1.62 = 0.006 0*H	Flessione	-	91363 .32	0.074 4	103.4 6
4	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	6277	-	11041 0	0.056 9	1.86 = 0.006 0*H	Flessione	-	92970 .52	0.075 9	105.2 8
5	Maschio (P)	Piano 1	15 - 8	170.0	310.0	25.0	4538	-	76772	0.059 1	1.86 = 0.006 0*H	Flessione	-	96184 .93	0.078 9	108.9 2
6	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	6631	-	11041 0	0.060 1	1.86 = 0.006 0*H	Flessione	-	96184 .93	0.078 9	108.9 2

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
7	Maschio (P)	Piano 1	7 - 11	180.0	310.0	45.0	8970	-	153086	0.0586	1.86 = 0.006 0*H	Flessione	-	97792.13	0.0806	110.74
8	Maschio (P)	Piano 1	15 - 8	125.0	310.0	25.0	2561	-	41886	0.0611	1.86 = 0.006 0*H	Flessione	-	97792.13	0.0806	110.74
9	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	2121	-	40617	0.0522	1.86 = 0.006 0*H	Flessione	-	99399.33	0.0826	112.56
10	Maschio (P)	Piano 1	11 - 13	75.0	310.0	45.0	1340	-	22635	0.0592	1.86 = 0.006 0*H	Flessione	-	99399.33	0.0826	112.56
11	Maschio (P)	Piano 1	3 - 7	120.0	310.0	45.0	4256	-	69079	0.0616	1.86 = 0.006 0*H	Flessione	-	101006.54	0.0847	114.38
12	Maschio (P)	Piano 1	2 - 6	110.0	310.0	30.0	2259	-	38012	0.0594	1.86 = 0.006 0*H	Flessione	-	102613.74	0.0869	116.20
13	Maschio (P)	Piano 1	3 - 7	145.0	310.0	45.0	6478	-	102201	0.0634	1.86 = 0.006 0*H	Flessione	-	102613.74	0.0869	116.20
14	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	861	-	15586	0.0552	1.86 = 0.006 0*H	Flessione	-	102613.74	0.0869	116.20
15	Maschio (P)	Piano 1	2 - 6	95.0	310.0	30.0	1784	-	27078	0.0659	1.86 = 0.006 0*H	Flessione	-	107435.35	0.0947	121.66
16	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	17658	-	283747	0.0622	1.86 = 0.006 0*H	Flessione	-	110649.76	0.1001	125.30
17	Maschio (P)	Piano 2	10 - 5	180.0	270.0	45.0	5900	-	193617	0.0305	1.62 = 0.006 0*H	Flessione	-	110649.76	0.1001	125.30
18	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	1363	-	17063	0.0799	1.86 = 0.006 0*H	Flessione	-	112256.96	0.1035	127.12
19	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	1498	-	20855	0.0719	1.86 = 0.006 0*H	Flessione	-	113864.16	0.1069	128.94
20	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	1647	-	22119	0.0745	1.86 = 0.006 0*H	Flessione	-	113864.16	0.1069	128.94
21	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	1706	-	22119	0.0771	1.86 = 0.006 0*H	Flessione	-	113864.16	0.1069	128.94
22	Maschio (P)	Piano 2	14 - 15	85.0	285.0	25.0	534	-	21148	0.0252	1.71 = 0.006 0*H	Flessione	-	113864.16	0.1069	128.94
23	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	1306	-	18939	0.0690	1.86 = 0.006 0*H	Flessione	-	115471.36	0.1107	130.76
24	Maschio (P)	Piano 1	7 - 11	50.0	310.0	45.0	659	-	7637	0.0863	1.86 = 0.006 0*H	Flessione	-	115471.36	0.1107	130.76
25	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	1178	-	17063	0.0690	1.86 = 0.006 0*H	Flessione	-	115471.36	0.1107	130.76
26	Maschio (P)	Piano 2	5 - 1	150.0	270.0	45.0	4509	-	141480	0.0319	1.62 = 0.006 0*H	Flessione	-	115471.36	0.1107	130.76
27	Maschio (P)	Piano 2	10 - 5	65.0	270.0	45.0	718	-	22350	0.0321	1.62 = 0.006 0*H	Flessione	-	117078.57	0.1147	132.58
28	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	34207	-	473441	0.0723	0.69 = 0.004 0*H	Taglio	-	118685.77	0.1188	134.40
29	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	559	-	7637	0.0732	1.86 = 0.006 0*H	Flessione	-	118685.77	0.1188	134.40
30	Maschio (P)	Piano 2	12 - 17	135.0	281.3	45.0	725	-	22393	0.0324	1.69 = 0.006 0*H	Flessione	-	118685.77	0.1188	134.40
31	Maschio (P)	Piano 1	4 - 9	55.0	292.9	25.0	477	-	6442	0.0741	1.76 = 0.006 0*H	Flessione	-	120292.97	0.1285	136.22

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
32	Maschio (P)	Piano 1	7 - 11	45.0	310.0	45.0	594	-	5688	0.1045	1.86 = 0.0060*H	Flessione	-	120292.97	0.1285	136.22
33	Maschio (P)	Piano 2	5 - 1	105.0	270.0	45.0	2349	-	69772	0.0337	1.62 = 0.0060*H	Flessione	-	120292.97	0.1285	136.22
34	Maschio (P)	Piano 2	12 - 10	280.0	270.0	45.0	12370	-	370574	0.0334	1.62 = 0.0060*H	Flessione	-	120292.97	0.1285	136.22
35	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	1384	-	12007	0.1153	1.86 = 0.0060*H	Flessione	-	121900.18	0.1390	138.04
36	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	666	-	5862	0.1136	1.86 = 0.0060*H	Flessione	-	121900.18	0.1390	138.04
37	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	133	-	1184	0.1122	1.86 = 0.0060*H	Flessione	-	121900.18	0.1390	138.04
38	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	139	-	1184	0.1177	1.86 = 0.0060*H	Flessione	-	121900.18	0.1390	138.04
39	Maschio (P)	Piano 2	17 - 13	135.0	281.0	45.0	670	-	22462	0.0298	1.69 = 0.0060*H	Flessione	-	121900.18	0.1390	138.04
40	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	999	-	9479	0.1054	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
41	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	3406	-	31598	0.1078	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
42	Maschio (P)	Piano 1	1 - 2	60.0	310.0	45.0	835	-	7584	0.1101	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
43	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	589	-	5688	0.1035	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
44	Maschio (P)	Piano 1	2 - 3	45.0	310.0	45.0	631	-	5688	0.1109	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
45	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	3575	-	31598	0.1131	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
46	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	651	-	6479	0.1005	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
47	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	776	-	7405	0.1048	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
48	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	642	-	5862	0.1095	1.86 = 0.0060*H	Flessione	-	123507.38	0.1505	139.86
49	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	836	-	7096	0.1179	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
50	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	2482	-	20364	0.1219	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
51	Maschio (P)	Piano 1	6 - 7	365.0	310.0	35.0	2852	-	22523	0.1266	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
52	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	685	-	5245	0.1306	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
53	Maschio (P)	Piano 1	7 - 8	30.0	310.0	30.0	177	-	1184	0.1497	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
54	Maschio (P)	Piano 1	7 - 8	25.0	310.0	30.0	153	-	987	0.1551	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
55	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	1129	-	8379	0.1347	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68
56	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	1059	-	7695	0.1376	1.86 = 0.0060*H	Flessione	-	125114.58	0.1781	141.68

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

										0*H						
57	Maschio (C)	Piano 1	4 - 9	360.0	172.0	25.0	34207	-	473441	0.0723	0.69 = 0.0040*H	Taglio	-	126722	0.1781	143.50

## Sisma Y (-) - Distribuzione forze: Proporzionale altezze; (Cond\_Y\_2(-))

Num. Prog.	Tipo Elem.	Imp.	Fili	L [cm]	H [cm]	t [cm]	Vu [daN]	Mu [daNc m]	k [daN/cm]	$\delta_0$ [cm]	$\delta_u$ [cm]	Tipo Rottura	$\theta$ [rad]	F [daN]	u [cm]	S
1	Maschio (P)	Piano 1	3 - 7	145.0	310.0	45.0	4468	-	102201	0.0437	1.86 = 0.0060*H	Flessione	-	-74425.87	0.0606	84.28
2	Maschio (P)	Piano 1	2 - 6	95.0	310.0	30.0	1189	-	27078	0.0439	1.86 = 0.0060*H	Flessione	-	-79247.48	0.0646	89.74
3	Maschio (P)	Piano 1	3 - 7	120.0	310.0	45.0	3314	-	69079	0.0480	1.86 = 0.0060*H	Flessione	-	-82461.88	0.0674	93.38
4	Maschio (P)	Piano 1	2 - 6	110.0	310.0	30.0	1781	-	38012	0.0469	1.86 = 0.0060*H	Flessione	-	-84069.09	0.0688	95.20
5	Maschio (P)	Piano 1	15 - 8	125.0	310.0	25.0	2237	-	41886	0.0534	1.86 = 0.0060*H	Flessione	-	-85676.29	0.0702	97.02
6	Maschio (P)	Piano 1	7 - 11	180.0	310.0	45.0	8532	-	153086	0.0557	1.86 = 0.0060*H	Flessione	-	-92105.10	0.0761	104.30
7	Maschio (P)	Piano 1	15 - 8	170.0	310.0	25.0	4527	-	76772	0.0590	1.86 = 0.0060*H	Flessione	-	-93712.31	0.0777	106.12
8	Maschio (P)	Piano 1	1 - 5	70.0	310.0	45.0	1024	-	18939	0.0541	1.86 = 0.0060*H	Flessione	-	-101748.32	0.0860	115.22
9	Maschio (P)	Piano 2	5 - 1	105.0	270.0	45.0	1928	-	69772	0.0276	1.62 = 0.0060*H	Flessione	-	-101748.32	0.0860	115.22
10	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	7571	-	110410	0.0686	1.86 = 0.0060*H	Flessione	-	-103355.53	0.0877	117.04
11	Maschio (P)	Piano 2	5 - 1	150.0	270.0	45.0	3991	-	141480	0.0282	1.62 = 0.0060*H	Flessione	-	-103355.53	0.0877	117.04
12	Maschio (P)	Piano 2	3 - 7	115.0	270.0	45.0	2073	-	84567	0.0245	1.62 = 0.0060*H	Flessione	-	-103355.53	0.0877	117.04
13	Maschio (P)	Piano 1	2 - 3	45.0	310.0	45.0	354	-	5688	0.0622	1.86 = 0.0060*H	Flessione	-	-104962.73	0.0896	118.86
14	Maschio (P)	Piano 1	2 - 3	250.0	310.0	45.0	2004	-	31598	0.0634	1.86 = 0.0060*H	Flessione	-	-104962.73	0.0896	118.86
15	Maschio (P)	Piano 1	2 - 3	95.0	310.0	45.0	778	-	12007	0.0648	1.86 = 0.0060*H	Flessione	-	-104962.73	0.0896	118.86
16	Maschio (P)	Piano 1	11 - 13	155.0	310.0	45.0	7707	-	116335	0.0662	1.86 = 0.0060*H	Flessione	-	-104962.73	0.0896	118.86
17	Maschio (P)	Piano 1	1 - 2	250.0	310.0	45.0	1901	-	31598	0.0602	1.86 = 0.0060*H	Flessione	-	-106569.93	0.0919	120.68
18	Maschio (P)	Piano 1	1 - 2	60.0	310.0	45.0	466	-	7584	0.0614	1.86 = 0.0060*H	Flessione	-	-106569.93	0.0919	120.68
19	Maschio (P)	Piano 1	5 - 10	265.0	310.0	45.0	16451	-	283747	0.0580	1.86 = 0.0060*H	Flessione	-	-106569.93	0.0919	120.68
20	Maschio (P)	Piano 2	3 - 7	145.0	270.0	45.0	3343	-	133004	0.0251	1.62 = 0.0060*H	Flessione	-	-106569.93	0.0919	120.68
21	Maschio (P)	Piano 1	1 - 2	75.0	310.0	45.0	555	-	9479	0.0585	1.86 = 0.0060*H	Flessione	-	-108177.13	0.0945	122.50
22	Maschio (P)	Piano 1	5 - 10	95.0	310.0	45.0	2426	-	40617	0.0597	1.86 = 0.0060*H	Flessione	-	-108177.13	0.0945	122.50



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

											0*H					
23	Maschio (P)	Piano 1	1 - 5	45.0	310.0	45.0	342	-	5688	0.0601	1.86 = 0.0060*H	Flessione	-	-109784.34	0.0973	124.32
24	Maschio (P)	Piano 1	14 - 15	210.0	310.0	25.0	8499	-	110410	0.0770	1.86 = 0.0060*H	Flessione	-	-109784.34	0.0973	124.32
25	Maschio (P)	Piano 2	10 - 5	180.0	270.0	45.0	5886	-	193617	0.0304	1.62 = 0.0060*H	Flessione	-	-109784.34	0.0973	124.32
26	Maschio (P)	Piano 1	10 - 12	145.0	310.0	45.0	6461	-	102201	0.0632	1.86 = 0.0060*H	Flessione	-	-111391.54	0.1008	126.14
27	Maschio (P)	Piano 1	4 - 9	55.0	292.9	25.0	401	-	6442	0.0623	1.76 = 0.0060*H	Flessione	-	-112998.74	0.1046	127.96
28	Maschio (P)	Piano 2	2 - 6	335.0	505.0	30.0	3743	-	128031	0.0292	3.03 = 0.0060*H	Flessione	-	-112998.74	0.1046	127.96
29	Maschio (P)	Piano 1	7 - 11	45.0	310.0	45.0	475	-	5688	0.0836	1.86 = 0.0060*H	Flessione	-	-114605.95	0.1085	129.78
30	Maschio (P)	Piano 2	12 - 10	85.0	270.0	45.0	1395	-	43290	0.0322	1.62 = 0.0060*H	Flessione	-	-114605.95	0.1085	129.78
31	Maschio (P)	Piano 1	11 - 13	75.0	310.0	45.0	1974	-	22635	0.0872	1.86 = 0.0060*H	Flessione	-	-116213.15	0.1124	131.60
32	Maschio (P)	Piano 1	4 - 9	360.0	172.0	25.0	34993	-	473441	0.0739	0.69 = 0.0040*H	Taglio	-	-119427.56	0.1206	135.24
33	Maschio (P)	Piano 1	7 - 11	50.0	310.0	45.0	723	-	7637	0.0947	1.86 = 0.0060*H	Flessione	-	-119427.56	0.1206	135.24
34	Maschio (P)	Piano 2	5 - 6	55.0	205.2	30.0	241	-	7095	0.0339	1.23 = 0.0060*H	Flessione	-	-119427.56	0.1206	135.24
35	Maschio (P)	Piano 2	6 - 7	65.0	207.0	30.0	241	-	8178	0.0295	1.24 = 0.0060*H	Flessione	-	-119427.56	0.1206	135.24
36	Maschio (P)	Piano 2	7 - 11	210.0	270.0	45.0	7182	-	246782	0.0291	1.62 = 0.0060*H	Flessione	-	-119427.56	0.1206	135.24
37	Maschio (P)	Piano 1	6 - 7	365.0	310.0	35.0	2206	-	22523	0.0979	1.86 = 0.0060*H	Flessione	-	-121034.76	0.1302	137.06
38	Maschio (P)	Piano 1	6 - 7	85.0	310.0	35.0	524	-	5245	0.0999	1.86 = 0.0060*H	Flessione	-	-121034.76	0.1302	137.06
39	Maschio (P)	Piano 2	10 - 5	65.0	270.0	45.0	784	-	22350	0.0351	1.62 = 0.0060*H	Flessione	-	-121034.76	0.1302	137.06
40	Maschio (P)	Piano 1	5 - 6	115.0	310.0	35.0	664	-	7096	0.0936	1.86 = 0.0060*H	Flessione	-	-122641.96	0.1411	138.88
41	Maschio (P)	Piano 1	5 - 6	330.0	310.0	35.0	1944	-	20364	0.0955	1.86 = 0.0060*H	Flessione	-	-122641.96	0.1411	138.88
42	Maschio (P)	Piano 1	7 - 8	25.0	310.0	30.0	119	-	987	0.1210	1.86 = 0.0060*H	Flessione	-	-122641.96	0.1411	138.88
43	Maschio (P)	Piano 1	10 - 12	50.0	310.0	45.0	716	-	7637	0.0937	1.86 = 0.0060*H	Flessione	-	-122641.96	0.1411	138.88
44	Maschio (P)	Piano 1	10 - 12	65.0	310.0	45.0	1437	-	15586	0.0922	1.86 = 0.0060*H	Flessione	-	-122641.96	0.1411	138.88
45	Maschio (P)	Piano 1	7 - 8	30.0	310.0	30.0	140	-	1184	0.1183	1.86 = 0.0060*H	Flessione	-	-124249.17	0.1556	140.70
46	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	2200	-	17063	0.1289	1.86 = 0.0060*H	Flessione	-	-124249.17	0.1556	140.70
47	Maschio (P)	Piano 1	10 - 11	105.0	310.0	35.0	806	-	6479	0.1244	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52

											0*H					
48	Maschio (P)	Piano 1	10 - 11	120.0	310.0	35.0	935	-	7405	0.1263	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
49	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	753	-	5862	0.1284	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
50	Maschio (P)	Piano 1	10 - 11	95.0	310.0	35.0	763	-	5862	0.1302	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
51	Maschio (P)	Piano 1	11 - 19	212.3	310.0	30.0	1241	-	8379	0.1481	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
52	Maschio (P)	Piano 1	12 - 13	135.0	310.0	45.0	2131	-	17063	0.1249	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
53	Maschio (P)	Piano 1	12 - 13	165.0	310.0	45.0	2626	-	20855	0.1259	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
54	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	2810	-	22119	0.1270	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
55	Maschio (P)	Piano 1	12 - 13	175.0	310.0	45.0	2835	-	22119	0.1282	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
56	Maschio (P)	Piano 1	19 - 15	195.0	310.0	30.0	1150	-	7695	0.1494	1.86 = 0.0060*H	Flessione	-	-125856.37	0.1720	142.52
57	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	0	-	694	0.0000	1.24 = 0.0040*H	Taglio	-	-127463.57	0.7098	144.34
58	Maschio (P)	Piano 1	4 - 5	30.0	310.0	25.0	0	-	694	0.0000	1.24 = 0.0040*H	Taglio	-	-127463.57	0.7098	144.34
59	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	0	-	1184	0.0000	1.24 = 0.0040*H	Taglio	-	-127463.57	0.7098	144.34
60	Maschio (P)	Piano 1	13 - 14	30.0	310.0	30.0	0	-	1184	0.0000	1.24 = 0.0040*H	Taglio	-	-127463.57	0.7098	144.34
61	Maschio (C)	Piano 1	4 - 9	360.0	172.0	25.0	34993	-	473441	0.0739	0.69 = 0.0040*H	Taglio	-	-127463.57	0.7231	144.34

#### 4.3.4 Sistema bi-lineare equivalente.

$T^*$  : periodo elastico del sistema bi-lineare equivalente  
 $k^*$  : rigidezza secante del sistema bi-lineare equivalente  
 $m^*$  : massa partecipante del sistema bi-lineare equivalente  
 $m$  : massa della struttura.  
 $\% m^*/m$  : percentuale massa partecipante.  
 $F_y^*$  : forza di snervamento del sistema bi-lineare equivalente  
 $S_e(T^*)$  : spettro di risposta elastico corrispondente al periodo  $T^*$   
 $d_y^*$  : spostamento elastico del sistema bi-lineare equivalente  
 $d_u^*$  : spostamento ultimo del sistema bi-lineare equivalente  
 $Cond\_X\_1(+)$  : Sisma X (+) - Distribuzione forze: Proporzionale masse;  
 $Cond\_X\_1(-)$  : Sisma X (-) - Distribuzione forze: Proporzionale masse;  
 $Cond\_X\_2(+)$  : Sisma X (+) - Distribuzione forze: Proporzionale altezze;  
 $Cond\_X\_2(-)$  : Sisma X (-) - Distribuzione forze: Proporzionale altezze;  
 $Cond\_Y\_1(+)$  : Sisma Y (+) - Distribuzione forze: Proporzionale masse;  
 $Cond\_Y\_1(-)$  : Sisma Y (-) - Distribuzione forze: Proporzionale masse;  
 $Cond\_Y\_2(+)$  : Sisma Y (+) - Distribuzione forze: Proporzionale altezze;  
 $Cond\_Y\_2(-)$  : Sisma Y (-) - Distribuzione forze: Proporzionale altezze;

	$T^*$ [sec]	$k^*$ [daN/cm]	$m^*$ [daNm]	$m$ [daNm]	$\% m^*/m$	$F_y^*$ [daN]	$S_e(T^*)$	$d_y^*$ [cm]	$d_u^*$ [cm]
<b>Cond_X_1(+)</b>	0.0875	1590511.13	308.77	400.8	77.03	124188.25	468.5104	0.0781	0.8620
<b>Cond_X_1(-)</b>	0.0875	1590540.75	308.77	400.8	77.03	123151.13	468.5089	0.0774	0.8620
<b>Cond_X_2(+)</b>	0.0933	1399322.75	308.77	400.8	77.03	109444.75	482.5465	0.0782	0.9265

<b>Cond_X_2(-)</b>	0.0933	1399063.38	308.77	400.8	77.03	111221.97	482.5679	0.0795	0.8778
<b>Cond_Y_1(+)</b>	0.0967	1367089.13	323.93	400.8	80.81	100056.34	490.7529	0.0732	0.1353
<b>Cond_Y_1(-)</b>	0.0967	1367050.13	323.93	400.8	80.81	105632.03	490.7556	0.0773	0.5937
<b>Cond_Y_2(+)</b>	0.1020	1229045.88	323.93	400.8	80.81	99684.18	503.5717	0.0811	0.1489
<b>Cond_Y_2(-)</b>	0.1021	1227712.63	323.93	400.8	80.81	105211.47	503.7053	0.0857	0.6047

#### 4.4 Verifiche.

##### 4.4.1 Verifiche calcolo globale della struttura agli SLV.

$F_{max}$	: valore massimo della forza orizzontale applicata sulla struttura (Taglio alla base della struttura);
$u_{max,C}$	: spostamento massimo raggiunto dal punto di controllo;
$\Gamma$	: coefficiente di partecipazione;
$F_{max}^*$	: $F_{max} / \Gamma$ ;
$u_{max}^*$	: $u_{max} / \Gamma$ ;
$q^*$	: fattore di struttura ( $q^* = m \cdot S_e(T^*) / F^*y$ );
$u_{max}$	: capacità di spostamento della struttura;
$d_{max}$	: spostamento richiesto del punto di controllo della struttura;
$S$	: Coefficiente di sicurezza;
Esito	: V : Verificato
	: NV : Non Verificato;
Cond_X_1(+)	: Sisma X (+) - Distribuzione forze: Proporzionale masse;
Cond_X_1(-)	: Sisma X (-) - Distribuzione forze: Proporzionale masse;
Cond_X_2(+)	: Sisma X (+) - Distribuzione forze: Proporzionale altezze;
Cond_X_2(-)	: Sisma X (-) - Distribuzione forze: Proporzionale altezze;
Cond_Y_1(+)	: Sisma Y (+) - Distribuzione forze: Proporzionale masse;
Cond_Y_1(-)	: Sisma Y (-) - Distribuzione forze: Proporzionale masse;
Cond_Y_2(+)	: Sisma Y (+) - Distribuzione forze: Proporzionale altezze;
Cond_Y_2(-)	: Sisma Y (-) - Distribuzione forze: Proporzionale altezze;

	$F_{max}$ [daN]	$u_{max,C}$ [cm]	$\Gamma$	$F_{max}^*$ [daN]	$u_{max}^*$ [cm]	$q^*$	$u_{max}$ [cm]	$d_{max}$ [cm]	$S$	Esito
<b>Cond_X_1(+)</b>	153550	1.0607	1.2304	124797	0.8620	1.1649	1.0607	0.1807	5.87	V
<b>Cond_X_1(-)</b>	151943	1.0605	1.2304	123491	0.8620	1.1747	1.0605	0.1842	5.76	V
<b>Cond_X_2(+)</b>	135252	1.1400	1.2304	109926	0.9265	1.3614	1.1400	0.2706	4.21	V
<b>Cond_X_2(-)</b>	137107	1.0800	1.2304	111433	0.8778	1.3397	1.0800	0.2644	4.08	V
<b>Cond_Y_1(+)</b>	125115	0.1618	1.1957	104641	0.1353	1.5888	0.1618	0.3368	1.48	V
<b>Cond_Y_1(-)</b>	127216	0.7098	1.1957	106398	0.5937	1.5049	0.7098	0.3181	2.23	V
<b>Cond_Y_2(+)</b>	125115	0.1781	1.1957	104641	0.1489	1.6364	0.1781	0.3801	1.47	V
<b>Cond_Y_2(-)</b>	127464	0.7231	1.1957	106605	0.6047	1.5508	0.7231	0.3613	2.00	V

##### 4.4.2 Verifiche calcolo globale della struttura agli SLD.

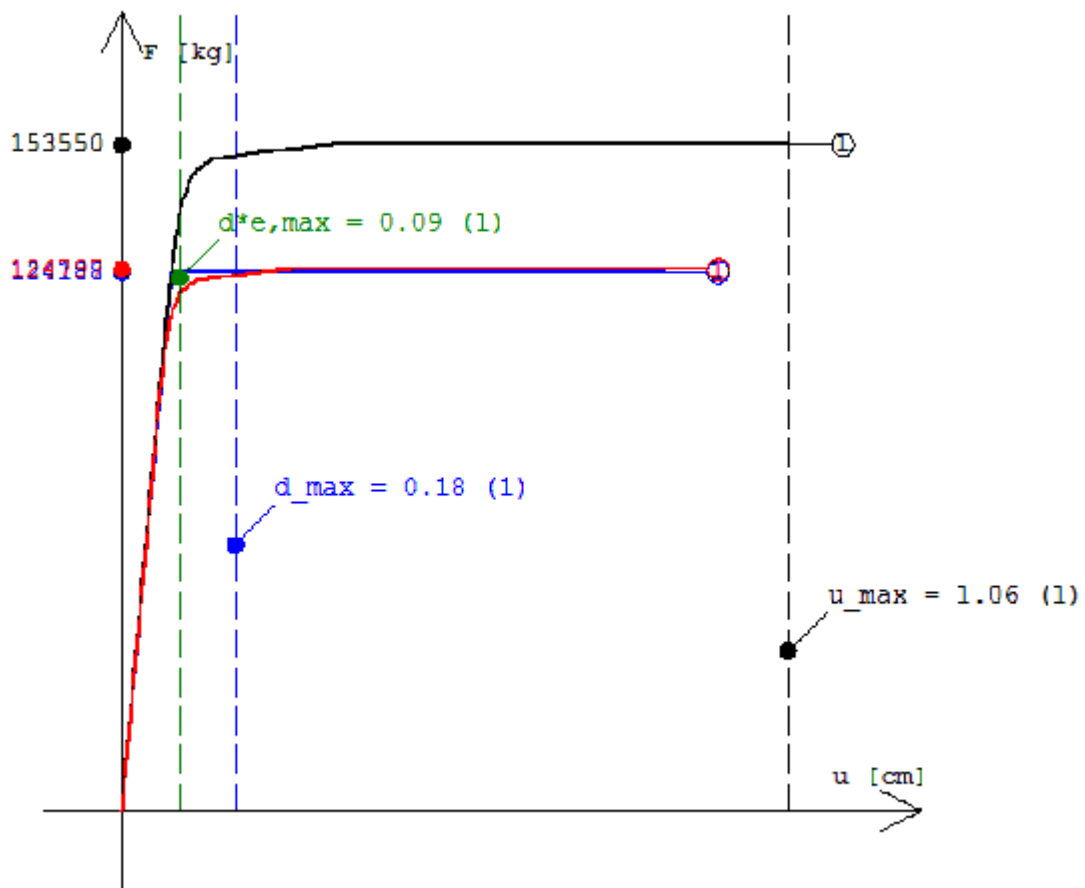
$F_{max}$	: valore massimo della forza orizzontale applicata sulla struttura (Taglio alla base della struttura)
$u_{max,C}$	: spostamento massimo raggiunto dal punto di controllo
$\Gamma$	: coefficiente di partecipazione
$F_{max}^*$	: $F_{max} / \Gamma$ ;
$u_{max}^*$	: $u_{max} / \Gamma$ ;
$u_{max}$	: capacità di spostamento della struttura;
$d_{max}$	: spostamento richiesto del punto di controllo della struttura;
$S$	: coefficiente di sicurezza
Esito	: V : Verificato
	: NV : Non Verificato
Cond_X_1(+)	: Sisma X (+) - Distribuzione forze: Proporzionale masse;
Cond_X_1(-)	: Sisma X (-) - Distribuzione forze: Proporzionale masse;
Cond_X_2(+)	: Sisma X (+) - Distribuzione forze: Proporzionale altezze;
Cond_X_2(-)	: Sisma X (-) - Distribuzione forze: Proporzionale altezze;
Cond_Y_1(+)	: Sisma Y (+) - Distribuzione forze: Proporzionale masse;
Cond_Y_1(-)	: Sisma Y (-) - Distribuzione forze: Proporzionale masse;

Cond\_Y\_2(+) : Sisma Y (+) - Distribuzione forze: Proporzionale altezze;  
 Cond\_Y\_2(-) : Sisma Y (-) - Distribuzione forze: Proporzionale altezze;

	$F_{max}$ [daN]	$u_{max,c}$ [cm]	$\Gamma$	$F^*_{max}$ [daN]	$u^*_{max}$ [cm]	$u_{max}$ [cm]	$d_{max}$ [cm]	S	Esito
Cond_X_1(+)	153550	1.0607	1.2304	124797	0.8620	0.3331	0.0309	10.80	V
Cond_X_1(-)	151943	1.0605	1.2304	123491	0.8620	0.2124	0.0309	6.89	V
Cond_X_2(+)	135252	1.1400	1.2304	109926	0.9265	0.4995	0.0357	13.97	V
Cond_X_2(-)	137107	1.0800	1.2304	111433	0.8778	0.1327	0.0358	3.71	V
Cond_Y_1(+)	125115	0.1618	1.1957	104641	0.1353	0.1618	0.0377	4.29	V
Cond_Y_1(-)	127216	0.7098	1.1957	106398	0.5937	0.2290	0.0377	6.07	V
Cond_Y_2(+)	125115	0.1781	1.1957	104641	0.1489	0.1781	0.0427	4.17	V
Cond_Y_2(-)	127464	0.7231	1.1957	106605	0.6047	0.1720	0.0427	4.03	V

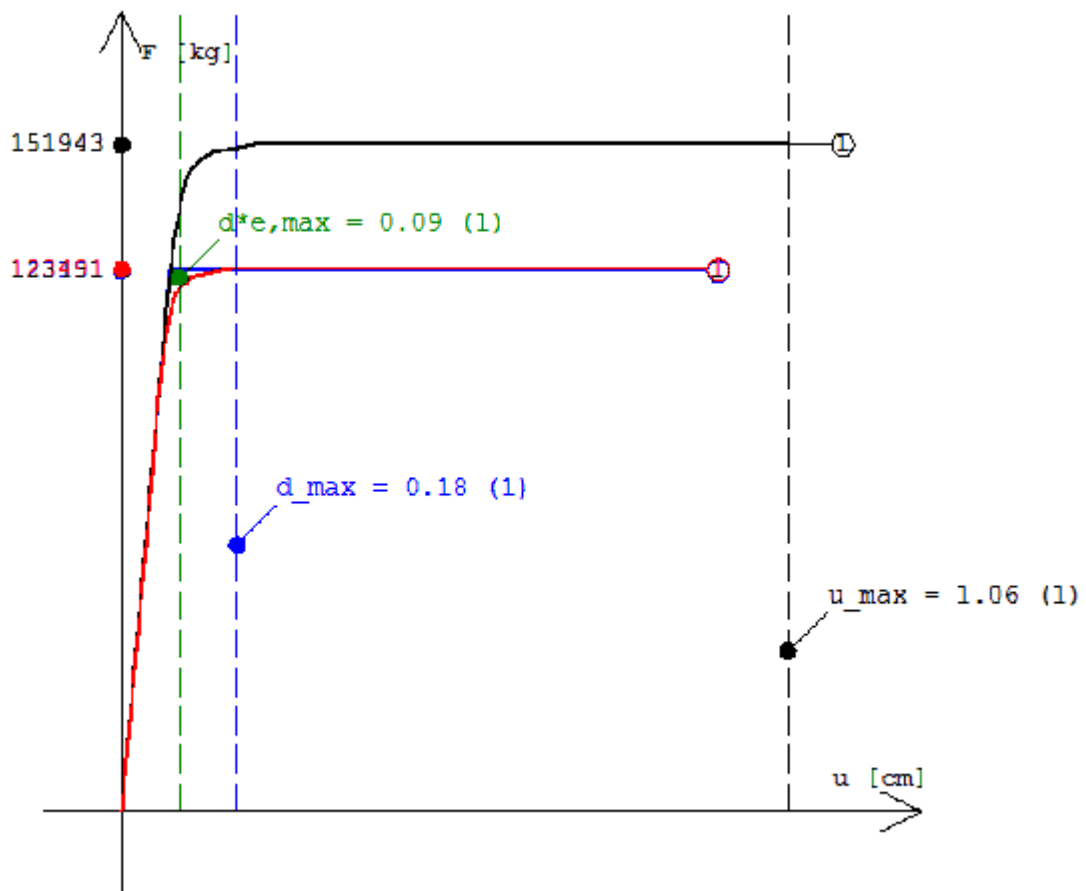
#### 4.4.3 Grafici Analisi non Lineare.

Cond\_X\_1(+) : Sisma X (+) - Distribuzione forze: Proporzionale masse;



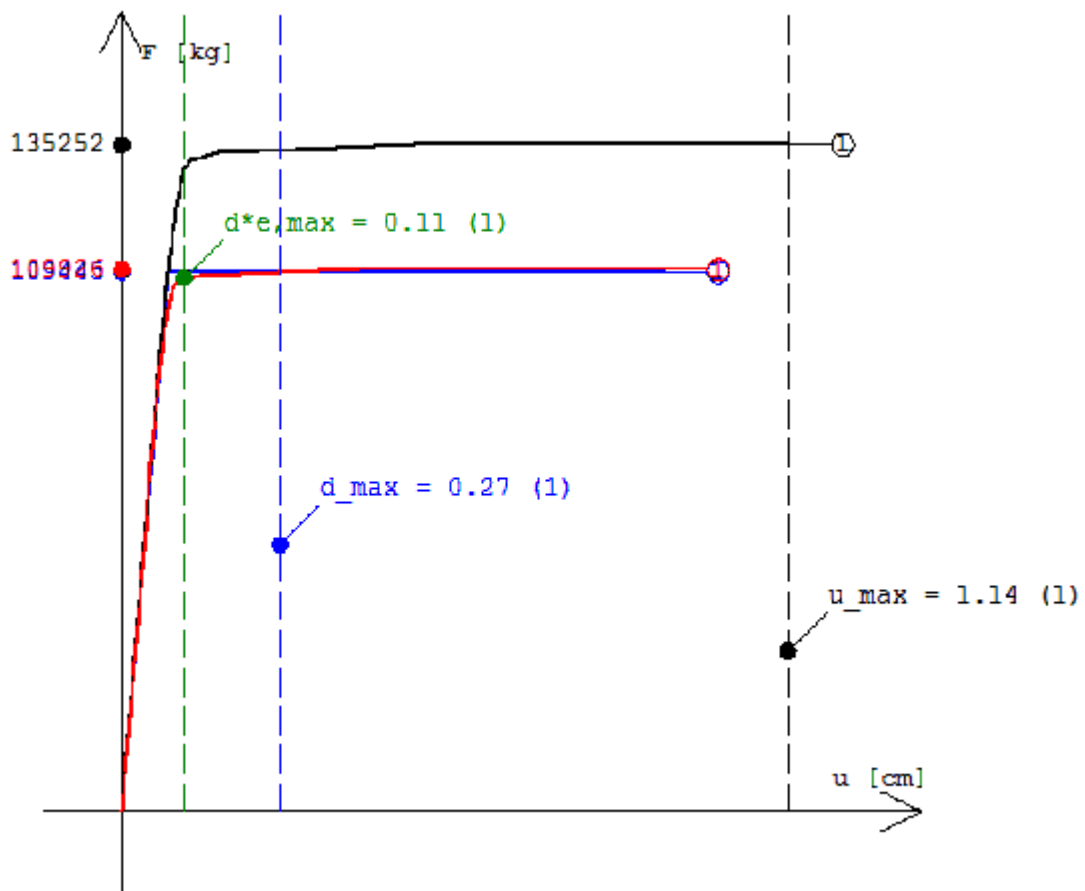
- Curva di capacità ( $F - u$ )
- Curva di capacità ridotta ( $F/A - u/\Gamma$ )
- Sistema bilineare equivalente
- - - Capacità di spostamento elastico ( $d^*e,max$ )
- - - Capacità di spostamento ( $u_{max}$ )
- - - Domanda di spostamento ( $d_{max}$ )

Cond\_X\_1(-) : Sisma X (-) - Distribuzione forze: Proporzionale masse;



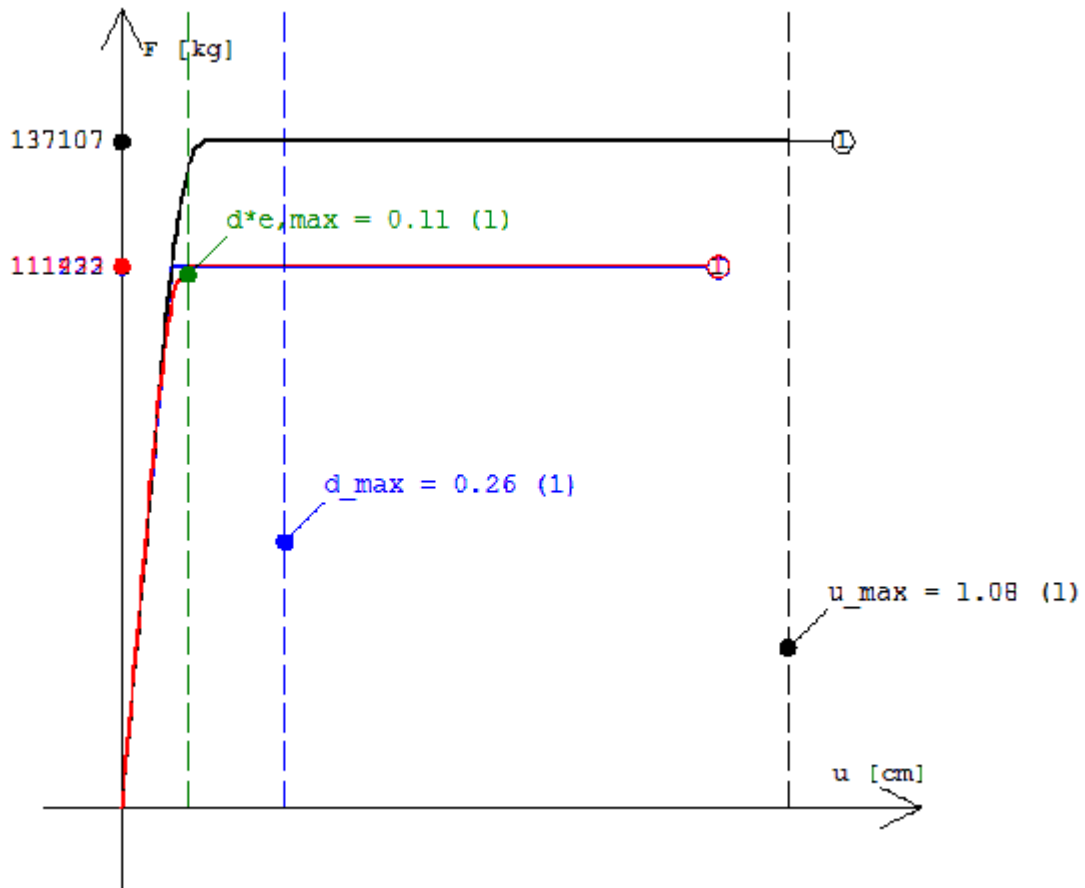
- Curva di capacità ( $F - u$ )
- Curva di capacità ridotta ( $F/\Lambda - u/T$ )
- Sistema bilineare equivalente
- - - Capacità di spostamento elastico ( $d^*e,max$ )
- - - Capacità di spostamento ( $u_{max}$ )
- - - Domanda di spostamento ( $d_{max}$ )

Cond\_X\_2(+) : Sisma X (+) - Distribuzione forze: Proporzionale altezze;



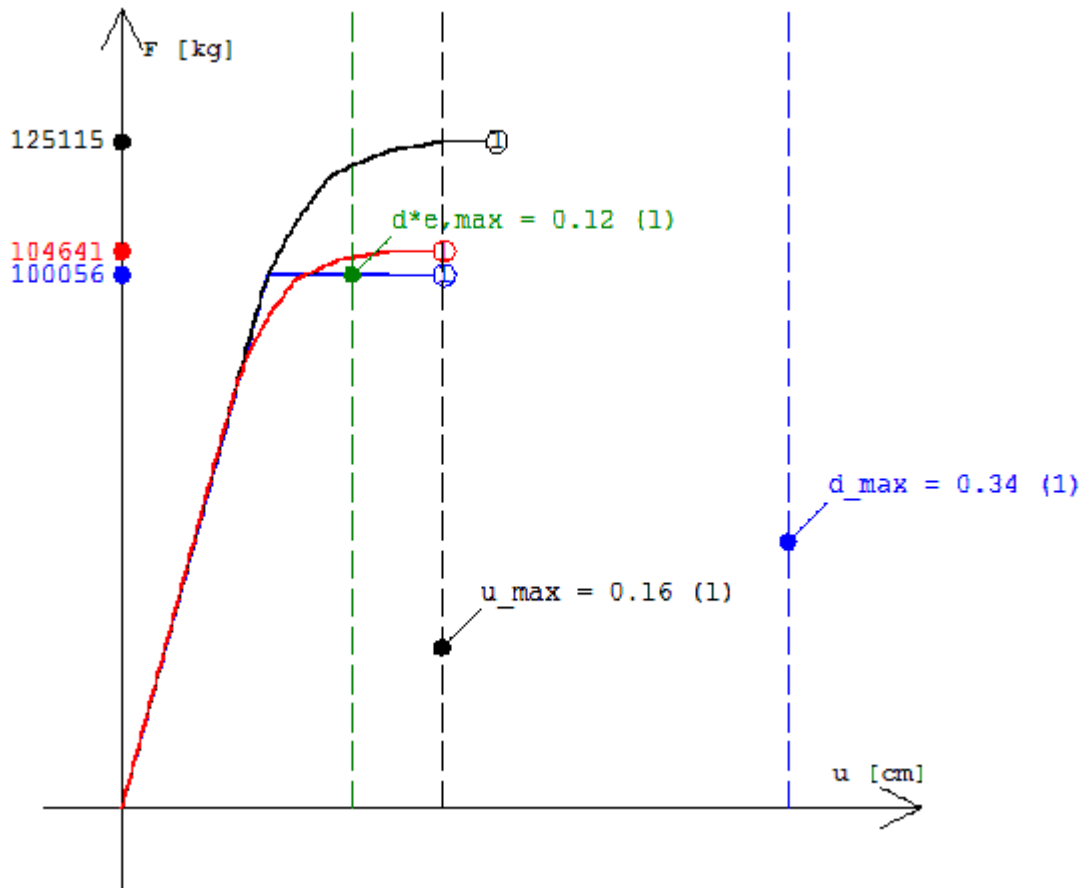
- Curva di capacità ( $F - u$ )
- Curva di capacità ridotta ( $F/\Lambda - u/T$ )
- Sistema bilineare equivalente
- - - Capacità di spostamento elastico ( $d^*e_{max}$ )
- - - Capacità di spostamento ( $u_{max}$ )
- - - Domanda di spostamento ( $d_{max}$ )

Cond\_X\_2(-) : Sisma X (-) - Distribuzione forze: Proporzionale altezze;



- Curva di capacità ( $F - u$ )
- Curva di capacità ridotta ( $F/\Lambda - u/T$ )
- Sistema bilineare equivalente
- - - - - Capacità di spostamento elastico ( $d^*e_{max}$ )
- - - - - Capacità di spostamento ( $u_{max}$ )
- - - - - Domanda di spostamento ( $d_{max}$ )

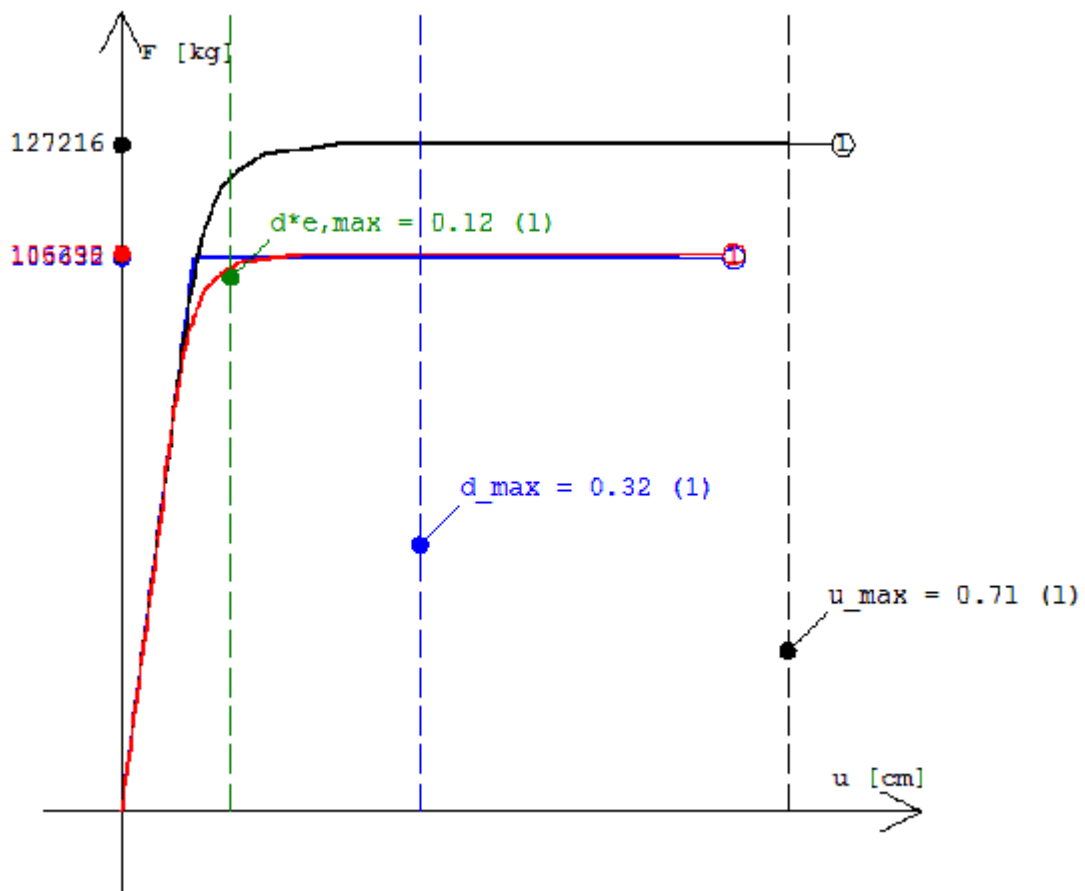
Cond\_Y\_1(+) : Sisma Y (+) - Distribuzione forze: Proporzionale masse;



- Curva di capacità (F - u)
- Curva di capacità ridotta (F/ $\Lambda$  - u/T)
- Sistema bilineare equivalente
- - - - - Capacità di spostamento elastico ( $d^*e_{max}$ )
- - - - - Capacità di spostamento ( $u_{max}$ )
- - - - - Domanda di spostamento ( $d_{max}$ )

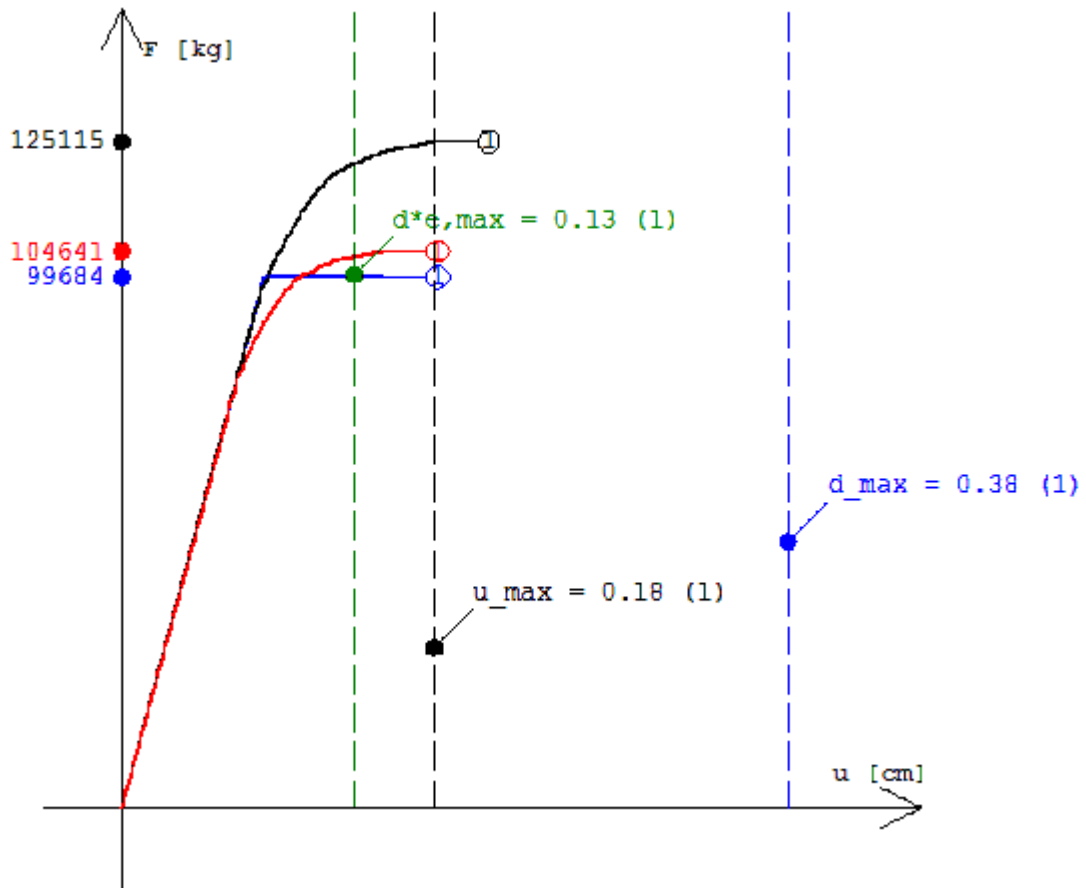


Cond\_Y\_1(-) : Sisma Y (-) - Distribuzione forze: Proporzionale masse;



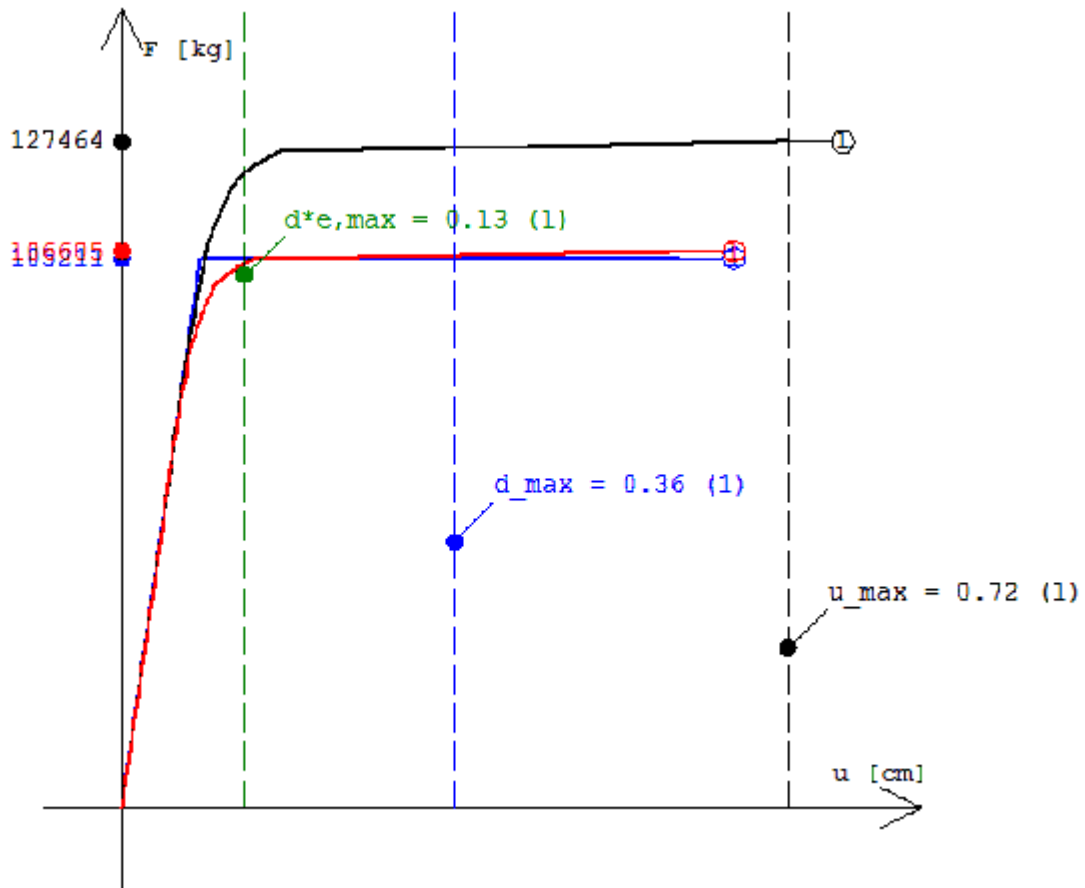
- Curva di capacità (F - u)
- Curva di capacità ridotta (F/ $\Lambda$  - u/T)
- Sistema bilineare equivalente
- - - Capacità di spostamento elastico ( $d^*e, \max$ )
- - - Capacità di spostamento ( $u_{\max}$ )
- - - Domanda di spostamento ( $d_{\max}$ )

Cond\_Y\_2(+) : Sisma Y (+) - Distribuzione forze: Proporzionale altezze;



- Curva di capacità (F - u)
- Curva di capacità ridotta (F/ $\Lambda$  - u/T)
- Sistema bilineare equivalente
- - - - - Capacità di spostamento elastico ( $d^*e, max$ )
- - - - - Capacità di spostamento ( $u_{max}$ )
- - - - - Domanda di spostamento ( $d_{max}$ )

Cond\_Y\_2(-) : Sisma Y (-) - Distribuzione forze: Proporzionale altezze;



- Curva di capacità ( $F - u$ )
- Curva di capacità ridotta ( $F/\Lambda - u/T$ )
- Sistema bilineare equivalente
- - - Capacità di spostamento elastico ( $d^*e,max$ )
- - - Capacità di spostamento ( $u_{max}$ )
- - - Domanda di spostamento ( $d_{max}$ )

#### 4.5 Verifica Aste.

##### 4.5.1 Travi di Elevazione.

##### 4.5.2 Verifica armature cordoli.

Cordolo : numero del cordolo;

Imp. : impalcato al quale appartiene il cordolo;

Fili : fili fissi ai quali appartiene il cordolo;

$A_{f\_sup}$  : armatura superiore;

$A_{f\_inf}$  : armatura inferiore;

$A_{f\_tot}$  : armatura totale;

$A_{f\_min}$  : armatura minima prevista dalla normativa;

S : Coefficiente di sicurezza;

Esito : Esito della verifica : V = VERIFICATO;  
: NV = NON VERIFICATO;

Cordolo	Imp.	Fili		$A_{f\_sup}$ [cm <sup>2</sup> ]	$A_{f\_inf}$ [cm <sup>2</sup> ]	$A_{f\_tot}$ [cm <sup>2</sup> ]	$A_{f\_min}$ [cm <sup>2</sup> ]	S	Esito
1	Piano 1	1-2	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
2	Piano 1	1-5	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
3	Piano 1	2-3	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
4	Piano 1	2-6	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
5	Piano 1	3-7	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
6	Piano 1	4-5	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
7	Piano 1	4-9	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
8	Piano 1	5-6	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
9	Piano 1	5-10	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
10	Piano 1	6-7	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
11	Piano 1	7-8	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
12	Piano 1	7-11	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
13	Piano 1	15-8	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
14	Piano 1	10-11	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
15	Piano 1	10-12	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
16	Piano 1	11-13	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
17	Piano 1	11-19	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V

18	Piano 1	12-13	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
19	Piano 1	13-14	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
20	Piano 1	14-15	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
21	Piano 1	19-15	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
22	Piano 2	1-2	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
23	Piano 2	5-1	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
24	Piano 2	2-3	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
25	Piano 2	2-6	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
26	Piano 2	3-7	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
27	Piano 2	5-6	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
28	Piano 2	10-5	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
29	Piano 2	6-7	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
31	Piano 2	7-11	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
32	Piano 2	12-10	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
33	Piano 2	10-16	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
34	Piano 2	11-13	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
35	Piano 2	16-11	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
36	Piano 2	12-17	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V
37	Piano 2	17-13	estr. in.	4.02	4.02	8.04	8.00	1.01	V
			mezz.	4.02	4.02	8.04	8.00	1.01	V
			estr. fin.	4.02	4.02	8.04	8.00	1.01	V

#### 4.5.2.1 Aste in Legno.

Dati 2 del Tabulato.

#### Campata 6-16 Piano 2[Trave]

Classe di Servizio 1 ( *Umidità relativa max: 65%* ) LAMELLARE **GL24h** ( *Tipo Omogeneo* )  $-\gamma_M=1.45$  (FC=1)

L= 5150 mm - **R 160x240** - SEZIONI UTILIZZATE : 7

**VERIFICHE EFFETTUATE CON ESITO POSITIVO**

VERIFICHE DI RESISTENZA NORMALE

Sezione più gravosa : 1 - [X=0 mm / 5150 mm] - **R 160x240**

Comb. più gravosa : " Comb 4 [SLV] [ST] " - Coeff. Sfruttamento : 0.051 (fs=19.556)

Sforzo Normale di Progetto [daN] : 1018 (TRAZIONE)

Momento Flettente My di Progetto [daNm] : -56

Momento Flettente Mz di Progetto [daNm] : 12

Tipo Verifica : TRAZIONE+FLESSIONE - Kmod = 0.9

#### VERIFICHE DI RESISTENZA TANGENZIALE

Sezione più gravosa: 1 - [X=0 mm / 5150 mm] - **R 160x240**

Comb. più gravosa : " Comb 1 [SLV] [LT] " - Coeff. Sfruttamento : 0.016 (fs=62.692)

Taglio Ty di Progetto [daN] : 1

Taglio Tz di Progetto [daN] : 53

Momento Torcente Mt di Progetto [daNm] : 3

Tipo Verifica : TAGLIO

#### VERIFICA A SVERGOLAMENTO

Tratto più sollecitato .....: 1 (0 - 6 )

Combinazione più sfavorevole	: 1	Sezione più sfavorevole	: 1
Resistenza fless. piano XY	: 12.74 N/mm <sup>2</sup>	Resistenza fless. piano XZ	: 12.70 N/mm <sup>2</sup>
Tensione fless. piano XY	: 0.03 N/mm <sup>2</sup>	Tensione fless. piano XZ	: 0.34 N/mm <sup>2</sup>
Coefficiente sfrutt. nel piano XY	: 0.002	Coefficiente sfrutt. nel piano XZ	: 0.027
Coeff. sfrutt. max euleriano	: 0.000		
Coeff. sfrutt. TOTALE (Piano XY)	: 0.002	Coeff. sfrutt. TOTALE (Piano XZ)	: 0.027
fs	: 37.287		

#### VERIFICA DI DEFORMABILITA'

Metodo di valutazione freccia finale (t->inf.)

· Modulo Elastico Ridotto

Controfreccia	: 0.000 mm	Limite Freccia Istantanea L/500	: 10.300 mm
Freccia Istantanea	: -0.250 mm	Limite Freccia Netta Fin. L/ 350	: 14.714 mm
Freccia Netta Finale	: -0.400 mm	Limite Freccia Finale L/ 300	: 17.167 mm
Freccia Finale	: -0.400 mm	Fatt. sicurezza freccia Netta Finale	: 36.780
Fatt. sicurezza freccia Istantanea	: 41.193	Fatt. sicurezza	: 36.780
Fatt. sicurezza freccia Finale	: 42.910		

### **Campata 16-17 Piano [Trave]**

Classe di Servizio 1 ( Umidità relativa max: 65% ) LAMELLARE **GL24h** ( Tipo Omogeneo ) -  $\gamma_M=1.45$  (FC=1)

L= 4900 mm - **R 160x240** - SEZIONI UTILIZZATE : 7

#### **VERIFICHE EFFETTUATE CON ESITO POSITIVO**

#### VERIFICHE DI RESISTENZA NORMALE

Sezione più gravosa : 1 - [X=0 mm / 4900 mm] - **R 160x240**

Comb. più gravosa : " Comb 4 [SLV] [ST] " - Coeff. Sfruttamento : 0.078 (fs=12.754)

Sforzo Normale di Progetto [daN] : 847 (TRAZIONE)

Momento Flettente My di Progetto [daNm] : -125

Momento Flettente Mz di Progetto [daNm] : -21

Tipo Verifica : TRAZIONE+FLESSIONE - Kmod = 0.9

#### VERIFICHE DI RESISTENZA TANGENZIALE

Sezione più gravosa: 1 - [X=0 mm / 4900 mm] - **R 160x240**

Comb. più gravosa : " Comb 4 [SLV] [ST] " - Coeff. Sfruttamento : 0.021 (fs=47.174)

Taglio Ty di Progetto [daN] : -9

Taglio Tz di Progetto [daN] : 91  
 Momento Torcente Mt di Progetto [daNm] : -21

Tipo Verifica : TAGLIO

VERIFICA A SVERGOLAMENTO

Tratto più sollecitato .....: 1 (0 - 6 )

Combinazione più sfavorevole	: 4	Sezione più sfavorevole	: 1
Resistenza fless. piano XY	: 16.39 N/mm <sup>2</sup>	Resistenza fless. piano XZ	: 16.33 N/mm <sup>2</sup>
Tensione fless. piano XY	: 0.21 N/mm <sup>2</sup>	Tensione fless. piano XZ	: 0.82 N/mm <sup>2</sup>
Coefficiente sfrutt. nel piano XY	: 0.013	Coefficiente sfrutt. nel piano XZ	: 0.050
Coeff. sfrutt. max euleriano	: 0.000		
Coeff. sfrutt. TOTALE (Piano XY)	: 0.013	Coeff. sfrutt. TOTALE (Piano XZ)	: 0.050
fs	: 20.017		

VERIFICA DI DEFORMABILITA'

Metodo di valutazione freccia finale (t->inf.)

· Modulo Elastico Ridotto

Controfreccia	: 0.000 mm	Limite Freccia Istantanea L/500	: 9.800 mm
Freccia Istantanea	: -0.205 mm	Limite Freccia Netta Fin. L/ 350	: 14.000 mm
Freccia Netta Finale	: -0.328 mm	Limite Freccia Finale L/ 300	: 16.333 mm
Freccia Finale	: -0.328 mm	Fatt. sicurezza freccia Netta Finale	: 42.701
Fatt. sicurezza freccia Istantanea	: 47.825	Fatt. sicurezza	: 42.701
Fatt. sicurezza freccia Finale	: 49.818		

## 4.6 Verifica Elementi Bidimensionali.

### 4.6.1 Verifica Pareti.

#### 4.6.1.1 Verifica Pareti in Muratura.

##### Dati geometrici

Maschio : numero identificativo dei maschi murari di ogni parete;

Imp. : numero dell'impalcato al quale appartiene la parete;

Fili : numero dei fili fissi ai quali appartiene la parete;

L : lunghezza della parete;

H : altezza della parete;

sp : spessore della parete;

Maschio	Imp.	Fili	L [cm]	H [cm]	Sp [cm]
1	Piano 1	1, 2	75.00	310.00	45.00
2	Piano 1	1, 2	250.00	310.00	45.00
3	Piano 1	1, 2	60.00	310.00	45.00
4	Piano 1	1, 5	45.00	310.00	45.00
5	Piano 1	1, 5	70.00	310.00	45.00
6	Piano 1	2, 3	45.00	310.00	45.00
7	Piano 1	2, 3	250.00	310.00	45.00
8	Piano 1	2, 3	95.00	310.00	45.00
9	Piano 1	2, 6	95.00	310.00	30.00
10	Piano 1	2, 6	110.00	310.00	30.00
11	Piano 1	3, 7	145.00	310.00	45.00
12	Piano 1	3, 7	120.00	310.00	45.00
13	Piano 1	4, 5	30.00	310.00	25.00
14	Piano 1	4, 5	30.00	310.00	25.00
15	Piano 1	4, 9	55.00	292.89	25.00

16	Piano 1	4, 9	360.00	172.01	25.00
17	Piano 1	5, 6	115.00	310.00	35.00
18	Piano 1	5, 6	330.00	310.00	35.00
19	Piano 1	5, 10	265.00	310.00	45.00
20	Piano 1	5, 10	95.00	310.00	45.00
21	Piano 1	6, 7	365.00	310.00	35.00
22	Piano 1	6, 7	85.00	310.00	35.00
23	Piano 1	7, 8	30.00	310.00	30.00
24	Piano 1	7, 8	25.00	310.00	30.00
25	Piano 1	7, 11	45.00	310.00	45.00
26	Piano 1	7, 11	180.00	310.00	45.00
27	Piano 1	7, 11	50.00	310.00	45.00
28	Piano 1	15, 8	170.00	310.00	25.00
29	Piano 1	15, 8	125.00	310.00	25.00
30	Piano 1	10, 11	105.00	310.00	35.00
31	Piano 1	10, 11	120.00	310.00	35.00
32	Piano 1	10, 11	95.00	310.00	35.00
33	Piano 1	10, 11	95.00	310.00	35.00
34	Piano 1	10, 12	50.00	310.00	45.00
35	Piano 1	10, 12	145.00	310.00	45.00
36	Piano 1	10, 12	65.00	310.00	45.00
37	Piano 1	11, 13	155.00	310.00	45.00
38	Piano 1	11, 13	75.00	310.00	45.00
39	Piano 1	11, 19	212.31	310.00	30.00
40	Piano 1	12, 13	135.00	310.00	45.00
41	Piano 1	12, 13	165.00	310.00	45.00
42	Piano 1	12, 13	175.00	310.00	45.00
43	Piano 1	12, 13	175.00	310.00	45.00
44	Piano 1	12, 13	135.00	310.00	45.00
45	Piano 1	13, 14	30.00	310.00	30.00
46	Piano 1	13, 14	30.00	310.00	30.00
47	Piano 1	14, 15	210.00	310.00	25.00
48	Piano 1	14, 15	210.00	310.00	25.00
49	Piano 1	19, 15	195.00	310.00	30.00
50	Piano 2	1, 2	80.00	270.21	45.00
51	Piano 2	1, 2	240.00	367.04	45.00
52	Piano 2	1, 2	65.00	460.84	45.00
53	Piano 2	5, 1	150.00	270.00	45.00
54	Piano 2	5, 1	105.00	270.00	45.00
55	Piano 2	2, 3	55.00	463.00	45.00
56	Piano 2	2, 3	230.00	374.00	45.00
57	Piano 2	2, 3	105.00	275.00	45.00
58	Piano 2	2, 6	335.00	505.00	30.00
59	Piano 2	3, 7	115.00	270.00	45.00
60	Piano 2	3, 7	145.00	270.00	45.00
61	Piano 2	5, 6	55.00	205.17	30.00
62	Piano 2	5, 6	400.00	333.26	30.00
63	Piano 2	10, 5	65.00	270.00	45.00
64	Piano 2	10, 5	180.00	270.00	45.00
65	Piano 2	10, 5	25.00	270.00	45.00
66	Piano 2	6, 7	65.00	401.00	30.00
67	Piano 2	6, 7	240.00	304.00	30.00
68	Piano 2	6, 7	65.00	207.00	30.00
69	Piano 2	7, 11	210.00	270.00	45.00
70	Piano 2	7, 11	45.00	270.00	45.00
71	Piano 2	12, 10	85.00	270.00	45.00
72	Piano 2	12, 10	280.00	270.00	45.00
73	Piano 2	10, 16	480.00	365.90	30.00
74	Piano 2	11, 13	445.00	270.00	45.00
75	Piano 2	16, 11	477.00	364.40	30.00
76	Piano 2	19, 11	30.00	346.51	25.00
77	Piano 2	19, 11	92.16	311.36	25.00
78	Piano 2	12, 17	135.00	281.31	45.00
79	Piano 2	12, 17	165.00	374.10	45.00
80	Piano 2	12, 17	92.00	458.21	45.00
81	Piano 2	17, 13	72.00	462.40	45.00
82	Piano 2	17, 13	190.00	378.00	45.00
83	Piano 2	17, 13	135.00	281.00	45.00
84	Piano 2	13, 18	205.00	325.22	25.00
85	Piano 2	14, 15	85.00	285.00	25.00
86	Piano 2	14, 15	345.00	285.00	25.00
87	Piano 2	18, 14	30.00	345.41	25.00



<b>88</b>	Piano 2	18, 14	95.00	303.35	25.00
<b>89</b>	Piano 2	15, 19	195.00	319.46	25.00

#### 4.6.1.1.1 Verifica Carichi Verticali.

Parete : numero della parete  
 Imp. : numero dell'impalcato  
 Fili : numero dei fili fissi iniziale e finale  
 Maschio : numero identificativo dei maschi murari di ogni parete;  
 N : Sforzo normale nella sezione testa  
 $\lambda$  : snellezza della parete  
 m : coefficiente di eccentricità  
 $\Phi$  : coefficiente di riduzione  
 A : area della sezione trasversale  
 $\sigma$  : tensione massima raggiunta dalla parete  
 $\sigma_{lim}$  : tensione limite di calcolo  
 S : coefficiente di sicurezza  
 Esito : V : Verificato  
 : NV : Non Verificato

Verifica carichi verticali nella sezione di testa												
Parete	Imp.	Fili	Maschio	N [daN]	$\lambda$	m	$\Phi$	A [cm <sup>2</sup> ]	$\sigma$ [daN/cm <sup>2</sup> ]	$\sigma_{lim}$ [daN/cm <sup>2</sup> ]	S	Esito
<b>1</b>	Piano 1	1, 2	1	3229.32	6.89	0.60	0.64	3375.00	1.50	12.35	8.26	V
			2	1796.457	6.89	0.44	0.70	11250.00	2.28	12.35	5.42	V
			3	3259.86	6.89	0.52	0.67	2700.00	1.81	12.35	6.81	V
<b>2</b>	Piano 1	1, 5	1	2139.13	6.89	0.21	0.82	2025.00	1.28	12.35	9.61	V
			2	3664.50	6.89	0.21	0.82	3150.00	1.41	12.35	8.73	V
<b>3</b>	Piano 1	2, 3	1	2596.06	6.89	0.49	0.68	2025.00	1.89	12.35	6.53	V
			2	1735.266	6.89	0.44	0.70	11250.00	2.20	12.35	5.62	V
			3	4015.36	6.89	0.59	0.64	4275.00	1.46	12.35	8.45	V
<b>4</b>	Piano 1	2, 6	1	5301.69	10.33	0.31	0.70	2850.00	2.68	12.35	4.61	V
			2	6138.80	10.33	0.31	0.70	3300.00	2.68	12.35	4.61	V
<b>5</b>	Piano 1	3, 7	1	4095.83	6.89	0.21	0.82	6525.00	0.76	12.35	16.18	V
			2	2781.22	6.89	0.21	0.82	5400.00	0.63	12.35	19.72	V
<b>6</b>	Piano 1	4, 5	1	2221.17	12.40	1.30	0.29	750.00	10.29	12.35	1.20	V
			2	2221.17	12.40	1.30	0.29	750.00	10.29	12.35	1.20	V
<b>7</b>	Piano 1	4, 9	1	147.14	11.72	0.35	0.64	1375.00	0.17	12.35	73.33	V
			2	963.07	6.88	0.21	0.82	9000.00	0.13	12.35	94.93	V
<b>8</b>	Piano 1	5, 6	1	6802.18	8.86	0.35	0.71	4025.00	2.39	12.35	5.16	V
			2	2862.162	8.86	0.46	0.65	11550.00	3.80	12.35	3.25	V
<b>9</b>	Piano 1	5, 10	1	8265.89	6.89	0.21	0.82	11925.00	0.84	12.35	14.65	V
			2	2662.02	6.89	0.21	0.82	4275.00	0.76	12.35	16.31	V
<b>10</b>	Piano 1	6, 7	1	3550.927	8.86	0.58	0.61	12775.00	4.59	12.35	2.69	V
			2	5629.59	8.86	0.40	0.68	2975.00	2.77	12.35	4.45	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

11	Piano 1	7, 8	1	499.48	10.33	0.31	0.70	900.00	0.80	12.35	15.47	V
			2	416.24	10.33	0.31	0.70	750.00	0.80	12.35	15.47	V
12	Piano 1	7, 11	1	1191.48	6.89	1.07	0.49	2025.00	1.20	12.35	10.26	V
			2	9503.26	6.89	0.64	0.63	8100.00	1.87	12.35	6.60	V
			3	2847.40	6.89	0.61	0.64	2250.00	1.98	12.35	6.22	V
13	Piano 1	15, 8	1	3389.51	12.40	1.23	0.31	4250.00	2.57	12.35	4.80	V
			2	2492.29	12.40	1.23	0.31	3125.00	2.57	12.35	4.80	V
14	Piano 1	10, 11	1	1306.295	8.86	0.39	0.69	3675.00	5.16	12.35	2.39	V
			2	1476.226	8.86	0.39	0.69	4200.00	5.09	12.35	2.43	V
			3	1199.226	8.86	0.39	0.69	3325.00	5.25	12.35	2.35	V
			4	1199.226	8.86	0.39	0.69	3325.00	5.25	12.35	2.35	V
15	Piano 1	10, 12	1	2220.16	6.89	0.21	0.82	2250.00	1.20	12.35	10.29	V
			2	5371.43	6.89	0.21	0.82	6525.00	1.00	12.35	12.34	V
			3	1562.72	6.89	0.21	0.82	2925.00	0.65	12.35	19.01	V
16	Piano 1	11, 13	1	1270.312	6.89	0.54	0.66	6975.00	2.76	12.35	4.47	V
			2	6146.67	6.89	0.54	0.66	3375.00	2.76	12.35	4.47	V
17	Piano 1	11, 19	1	6908.16	10.33	0.78	0.51	6369.45	2.11	12.35	5.84	V
18	Piano 1	12, 13	1	7449.48	6.89	0.60	0.64	6075.00	1.92	12.35	6.43	V
			2	1138.141	6.89	0.52	0.66	7425.00	2.31	12.35	5.35	V
			3	1317.628	6.89	0.50	0.67	7875.00	2.48	12.35	4.97	V
			4	7576.21	6.89	0.71	0.60	7875.00	1.59	12.35	7.75	V
			5	7408.34	6.89	0.61	0.64	6075.00	1.91	12.35	6.46	V
19	Piano 1	13, 14	1	3976.30	10.33	0.75	0.52	900.00	8.49	12.35	1.45	V
			2	2964.96	10.33	0.73	0.53	900.00	6.25	12.35	1.97	V
20	Piano 1	14, 15	1	8267.11	12.40	0.79	0.45	5250.00	3.46	12.35	3.56	V
			2	6744.90	12.40	0.89	0.42	5250.00	3.03	12.35	4.08	V
21	Piano 1	19, 15	1	7061.90	10.33	0.78	0.51	5850.00	2.36	12.35	5.23	V
22	Piano 2	1, 2	1	1423.43	6.00	0.80	0.59	3600.00	0.67	12.35	18.52	V
			2	4270.29	8.16	0.87	0.53	10800.00	0.75	12.35	16.53	V
			3	1156.54	10.24	0.93	0.47	2925.00	0.85	12.35	14.56	V
23	Piano 2	5, 1	1	454.04	6.00	0.18	0.86	6750.00	0.08	12.35	156.95	V
			2	317.83	6.00	0.18	0.86	4725.00	0.08	12.35	156.95	V
24	Piano 2	2, 3	1	942.21	10.29	0.93	0.47	2475.00	0.82	12.35	15.08	V
			2	3940.13	8.31	0.87	0.53	10350.00	0.72	12.35	17.04	V
			3	1798.76	6.11	0.80	0.59	4725.00	0.64	12.35	19.15	V
25	Piano 2	2, 6	1	771.88	5.14	0.50	0.71	10050.00	0.11	12.35	113.41	V
26	Piano 2	3, 7	1	341.41	6.00	0.18	0.86	5175.00	0.08	12.35	160.02	V

			2	430.47	6.00	0.18	0.86	6525.00	0.08	12.35	160.02	V
27	Piano 2	5, 6	1	1874.96	6.84	0.29	0.78	1650.00	1.45	12.35	8.49	V
			2	13636.05	11.11	0.42	0.62	12000.00	1.83	12.35	6.75	V
28	Piano 2	10, 5	1	239.61	6.00	0.18	0.86	2925.00	0.10	12.35	128.87	V
			2	663.54	6.00	0.18	0.86	8100.00	0.10	12.35	128.87	V
			3	92.16	6.00	0.18	0.86	1125.00	0.10	12.35	128.87	V
29	Piano 2	6, 7	1	2657.48	13.37	0.48	0.53	1950.00	2.57	12.35	4.80	V
			2	9812.24	10.13	0.39	0.66	7200.00	2.06	12.35	6.00	V
			3	2657.48	6.90	0.29	0.78	1950.00	1.75	12.35	7.06	V
30	Piano 2	7, 11	1	819.67	6.00	0.18	0.86	9450.00	0.10	12.35	121.71	V
			2	175.64	6.00	0.18	0.86	2025.00	0.10	12.35	121.71	V
31	Piano 2	12, 10	1	231.79	6.00	0.18	0.86	3825.00	0.07	12.35	174.22	V
			2	763.53	6.00	0.18	0.86	12600.00	0.07	12.35	174.22	V
32	Piano 2	10, 16	1	13007.52	12.20	0.37	0.62	14400.00	1.47	12.35	8.41	V
33	Piano 2	11, 13	1	995.31	5.36	0.18	0.87	20025.00	0.06	12.35	215.79	V
34	Piano 2	16, 11	1	12674.37	12.15	0.36	0.62	14310.00	1.43	12.35	8.60	V
35	Piano 2	19, 11	1	962.84	13.86	1.42	0.22	750.00	5.86	12.35	2.11	V
			2	2957.84	12.45	1.37	0.26	2303.99	4.89	12.35	2.53	V
36	Piano 2	12, 17	1	2819.47	6.25	0.87	0.57	6075.00	0.82	12.35	15.06	V
			2	3446.02	8.31	0.93	0.51	7425.00	0.92	12.35	13.44	V
			3	1921.42	10.18	0.99	0.45	4140.00	1.03	12.35	11.94	V
37	Piano 2	17, 13	1	1447.90	10.28	0.99	0.45	3240.00	1.00	12.35	12.31	V
			2	3820.85	8.40	0.93	0.50	8550.00	0.89	12.35	13.89	V
			3	2714.82	6.24	0.87	0.57	6075.00	0.79	12.35	15.66	V
38	Piano 2	13, 18	1	3788.37	13.01	1.39	0.25	5125.00	3.01	12.35	4.10	V
39	Piano 2	14, 15	1	0.00	11.40	0.34	0.65	2125.00	0.00	12.35	-	V
			2	0.00	11.40	0.34	0.65	8625.00	0.00	12.35	-	V
40	Piano 2	18, 14	1	887.03	13.82	1.41	0.22	750.00	5.36	12.35	2.30	V
			2	2808.94	12.13	1.36	0.27	2375.00	4.34	12.35	2.85	V
41	Piano 2	15, 19	1	3603.57	12.78	1.38	0.25	4875.00	2.93	12.35	4.22	V

Verifica carichi verticali nella sezione di mezzeria												
Parete	Imp.	Fili	Maschio	N [daN]	$\lambda$	m	$\Phi$	A [cm <sup>2</sup> ]	$\sigma$ [daN/cm <sup>2</sup> ]	$\sigma_{lim}$ [daN/cm <sup>2</sup> ]	S	Esito
1	Piano 1	1, 2	1	4249.41	6.89	0.30	0.77	3375.00	1.63	12.35	7.59	V
			2	21364.88	6.89	0.22	0.81	11250.00	2.33	12.35	5.30	V
			3	4075.93	6.89	0.26	0.80	2700.00	1.90	12.35	6.51	V
2	Piano 1	1, 5	1	2751.18	6.89	0.10	0.88	2025.00	1.55	12.35	7.96	V
			2	4616.59	6.89	0.10	0.88	3150.00	1.67	12.35	7.37	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

<b>3</b>	Pian o l	2, 3	1	3208. 11	6.89	0.24	0.80	2025.00	1.97	12.35	6.26	V
			2	2075 2.97	6.89	0.22	0.82	11250.00	2.26	12.35	5.46	V
			3	5307. 48	6.89	0.30	0.78	4275.00	1.60	12.35	7.72	V
<b>4</b>	Pian o l	2, 6	1	6163. 10	10.33	0.16	0.77	2850.00	2.80	12.35	4.41	V
			2	7136. 22	10.33	0.16	0.77	3300.00	2.80	12.35	4.41	V
<b>5</b>	Pian o l	3, 7	1	6068. 01	6.89	0.10	0.88	6525.00	1.06	12.35	11.62	V
			2	4413. 37	6.89	0.10	0.88	5400.00	0.93	12.35	13.22	V
<b>6</b>	Pian o l	4, 5	1	2447. 86	12.40	0.65	0.50	750.00	6.54	12.35	1.89	V
			2	2447. 86	12.40	0.65	0.50	750.00	6.54	12.35	1.89	V
<b>7</b>	Pian o l	4, 9	1	539.7 9	11.72	0.18	0.72	1375.00	0.55	12.35	22.60	V
			2	2472. 50	6.88	0.10	0.88	9000.00	0.31	12.35	39.35	V
<b>8</b>	Pian o l	5, 6	1	8018. 74	8.86	0.18	0.80	4025.00	2.50	12.35	4.93	V
			2	3211 2.61	8.86	0.23	0.77	11550.00	3.62	12.35	3.41	V
<b>9</b>	Pian o l	5, 10	1	1187 0.23	6.89	0.10	0.88	11925.00	1.14	12.35	10.86	V
			2	3954. 13	6.89	0.10	0.88	4275.00	1.06	12.35	11.69	V
<b>10</b>	Pian o l	6, 7	1	3937 0.51	8.86	0.29	0.74	12775.00	4.18	12.35	2.96	V
			2	6528. 79	8.86	0.20	0.78	2975.00	2.80	12.35	4.41	V
<b>11</b>	Pian o l	7, 8	1	771.5 1	10.33	0.16	0.77	900.00	1.11	12.35	11.12	V
			2	642.9 2	10.33	0.16	0.77	750.00	1.11	12.35	11.12	V
<b>12</b>	Pian o l	7, 11	1	1803. 53	6.89	0.53	0.66	2025.00	1.35	12.35	9.16	V
			2	1195 1.48	6.89	0.32	0.76	8100.00	1.93	12.35	6.40	V
			3	3527. 47	6.89	0.30	0.77	2250.00	2.03	12.35	6.08	V
<b>13</b>	Pian o l	15, 8	1	4674. 07	12.40	0.62	0.51	4250.00	2.16	12.35	5.73	V
			2	3436. 82	12.40	0.62	0.51	3125.00	2.16	12.35	5.73	V
<b>14</b>	Pian o l	10, 11	1	1417 3.72	8.86	0.19	0.79	3675.00	4.90	12.35	2.52	V
			2	1603 1.71	8.86	0.19	0.79	4200.00	4.85	12.35	2.55	V
			3	1299 7.24	8.86	0.20	0.79	3325.00	4.97	12.35	2.48	V
			4	1299 7.24	8.86	0.20	0.79	3325.00	4.97	12.35	2.48	V
<b>15</b>	Pian o l	10, 12	1	2900. 22	6.89	0.10	0.88	2250.00	1.47	12.35	8.39	V
			2	7343. 61	6.89	0.10	0.88	6525.00	1.29	12.35	9.60	V
			3	2446. 80	6.89	0.10	0.88	2925.00	0.96	12.35	12.92	V
<b>16</b>	Pian o l	11, 13	1	1481 1.31	6.89	0.27	0.79	6975.00	2.69	12.35	4.59	V
			2	7166. 76	6.89	0.27	0.79	3375.00	2.69	12.35	4.59	V
<b>17</b>	Pian o l	11, 19	1	8833. 33	10.33	0.39	0.66	6369.45	2.11	12.35	5.85	V
<b>18</b>	Pian o l	12, 13	1	9285. 65	6.89	0.30	0.77	6075.00	1.98	12.35	6.25	V
			2	1362 5.61	6.89	0.26	0.79	7425.00	2.31	12.35	5.34	V
			3	1555 6.50	6.89	0.25	0.80	7875.00	2.47	12.35	5.01	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			4	9956.43	6.89	0.36	0.75	7875.00	1.69	12.35	7.28	V
			5	9244.51	6.89	0.30	0.77	6075.00	1.97	12.35	6.27	V
19	Piano 1	13, 14	1	4248.32	10.33	0.38	0.66	900.00	7.12	12.35	1.73	V
			2	3236.98	10.33	0.37	0.67	900.00	5.39	12.35	2.29	V
20	Piano 1	14, 15	1	9853.93	12.40	0.40	0.60	5250.00	3.15	12.35	3.92	V
			2	8331.71	12.40	0.44	0.57	5250.00	2.76	12.35	4.47	V
21	Piano 1	19, 15	1	8830.06	10.33	0.39	0.66	5850.00	2.30	12.35	5.36	V
22	Piano 2	1, 2	1	2371.88	6.00	0.40	0.74	3600.00	0.89	12.35	13.88	V
			2	8135.21	8.16	0.43	0.68	10800.00	1.11	12.35	11.16	V
			3	2470.79	10.24	0.46	0.62	2925.00	1.36	12.35	9.08	V
23	Piano 2	5, 1	1	2230.98	6.00	0.09	0.90	6750.00	0.37	12.35	33.68	V
			2	1561.69	6.00	0.09	0.90	4725.00	0.37	12.35	33.68	V
24	Piano 2	2, 3	1	2059.48	10.29	0.46	0.62	2475.00	1.34	12.35	9.20	V
			2	7714.26	8.31	0.44	0.68	10350.00	1.10	12.35	11.21	V
			3	3065.65	6.11	0.40	0.74	4725.00	0.88	12.35	14.05	V
25	Piano 2	2, 6	1	5720.24	5.14	0.25	0.84	10050.00	0.68	12.35	18.13	V
26	Piano 2	3, 7	1	1703.72	6.00	0.09	0.90	5175.00	0.37	12.35	33.81	V
			2	2148.17	6.00	0.09	0.90	6525.00	0.37	12.35	33.81	V
27	Piano 2	5, 6	1	2205.03	6.84	0.14	0.86	1650.00	1.56	12.35	7.90	V
			2	1753.22	11.11	0.21	0.72	12000.00	2.02	12.35	6.10	V
28	Piano 2	10, 5	1	1009.62	6.00	0.09	0.90	2925.00	0.38	12.35	32.25	V
			2	2795.87	6.00	0.09	0.90	8100.00	0.38	12.35	32.25	V
			3	388.31	6.00	0.09	0.90	1125.00	0.38	12.35	32.25	V
29	Piano 2	6, 7	1	3419.88	13.37	0.24	0.64	1950.00	2.75	12.35	4.49	V
			2	1194.32	10.13	0.19	0.76	7200.00	2.19	12.35	5.65	V
			3	3051.04	6.90	0.15	0.85	1950.00	1.83	12.35	6.74	V
30	Piano 2	7, 11	1	3307.38	6.00	0.09	0.90	9450.00	0.39	12.35	31.80	V
			2	708.72	6.00	0.09	0.90	2025.00	0.39	12.35	31.80	V
31	Piano 2	12, 10	1	1238.72	6.00	0.09	0.90	3825.00	0.36	12.35	34.37	V
			2	4080.48	6.00	0.09	0.90	12600.00	0.36	12.35	34.37	V
32	Piano 2	10, 16	1	1814.78	12.20	0.18	0.70	14400.00	1.80	12.35	6.86	V
33	Piano 2	11, 13	1	6266.89	5.36	0.09	0.92	20025.00	0.34	12.35	36.11	V
34	Piano 2	16, 11	1	1775.56	12.15	0.18	0.70	14310.00	1.77	12.35	6.99	V
35	Piano 2	19, 11	1	1216.23	13.86	0.71	0.44	750.00	3.66	12.35	3.37	V
			2	3657.28	12.45	0.69	0.49	2303.99	3.26	12.35	3.78	V
36	Piano 2	12, 17	1	4485.70	6.25	0.44	0.72	6075.00	1.03	12.35	12.01	V
			2	6154.26	8.31	0.47	0.66	7425.00	1.25	12.35	9.84	V

			3	3771.00	10.18	0.49	0.61	4140.00	1.50	12.35	8.24	V
37	Piano 2	17, 13	1	2908.62	10.28	0.50	0.61	3240.00	1.48	12.35	8.32	V
			2	6971.95	8.40	0.47	0.66	8550.00	1.24	12.35	9.97	V
			3	4379.21	6.24	0.44	0.72	6075.00	1.00	12.35	12.31	V
38	Piano 2	13, 18	1	5413.45	13.01	0.70	0.47	5125.00	2.25	12.35	5.49	V
39	Piano 2	14, 15	1	590.48	11.40	0.17	0.73	2125.00	0.38	12.35	32.47	V
			2	2396.67	11.40	0.17	0.73	8625.00	0.38	12.35	32.47	V
40	Piano 2	18, 14	1	1139.62	13.82	0.71	0.44	750.00	3.42	12.35	3.61	V
			2	3511.39	12.13	0.68	0.50	2375.00	2.98	12.35	4.14	V
41	Piano 2	15, 19	1	5121.99	12.78	0.69	0.48	4875.00	2.21	12.35	5.60	V

#### 4.6.1.1.2 Verifica a Pressoflessione nel Piano.

Parete : numero della parete  
 Imp. : numero dell'impalcato  
 Fili : numero dei fili fissi iniziale e finale  
 Maschio : numero identificativo dei maschi murari di ogni parete;  
 N : Sforzo normale nella sezione al piede  
 M : Momento flettente nella sezione al piede  
 $m_t$  : coefficiente di eccentricità valutato con l'eccentricità  $e_t$   
 $m_b$  : coefficiente di eccentricità valutato con l'eccentricità  $e_b$   
 $\Phi_t$  : coefficiente di riduzione valutato con l'eccentricità  $e_t$   
 $\Phi_b$  : coefficiente di riduzione valutato con l'eccentricità  $e_b$   
 A : area della sezione trasversale  
 $\sigma$  : tensione massima raggiunta dalla parete  
 $\sigma_{lim}$  : tensione limite di calcolo  
 S : coefficiente di sicurezza  
 Esito : V : Verificato  
       : NV : Non Verificato

Direzione X														
Parete	Imp.	Fili	Maschio	N [daN]	M	$m_t$	$m_b$	$\Phi_t$	$\Phi_b$	A [cm <sup>2</sup> ]	$\sigma$ [daN/cm <sup>2</sup> ]	$\sigma_{lim}$ [daN/cm <sup>2</sup> ]	S	Esito
1	Piano 1	1, 2	1	5917.50	-0.04	0.30	0.00	0.77	1.00	3375.00	2.26	12.35	5.45	V
			2	2606.120	-0.54	0.22	0.00	0.81	1.00	11250.00	2.84	12.35	4.34	V
			3	5540.01	-0.02	0.26	0.00	0.80	1.00	2700.00	2.58	12.35	4.79	V
2	Piano 1	1, 5	1	4217.12	-0.01	0.10	0.00	0.88	1.00	2025.00	2.38	12.35	5.19	V
			2	6422.55	-0.01	0.10	0.00	0.88	1.00	3150.00	2.33	12.35	5.30	V
3	Piano 1	2, 3	1	4454.67	-0.01	0.24	0.00	0.80	1.00	2025.00	2.74	12.35	4.51	V
			2	2543.579	-0.54	0.22	0.00	0.82	1.00	11250.00	2.77	12.35	4.45	V
			3	7247.60	-0.08	0.30	0.00	0.78	1.00	4275.00	2.18	12.35	5.66	V
4	Piano 1	2, 6	1	7331.64	-0.01	0.16	0.00	0.77	1.00	2850.00	3.33	12.35	3.70	V
			2	8440.77	0.00	0.16	0.00	0.77	1.00	3300.00	3.31	12.35	3.73	V
5	Piano 1	3, 7	1	8512.69	-0.03	0.10	0.00	0.88	1.00	6525.00	1.49	12.35	8.28	V
			2	6518.02	-0.01	0.10	0.00	0.88	1.00	5400.00	1.38	12.35	8.95	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

6	Piano 1	4, 5	1	3028.92	0.00	0.65	0.00	0.50	1.00	750.00	8.09	12.35	1.53	V
			2	3028.92	0.00	0.65	0.00	0.50	1.00	750.00	8.09	12.35	1.53	V
7	Piano 1	4, 9	1	1101.29	0.00	0.18	0.00	0.72	1.00	1375.00	1.11	12.35	11.08	V
			2	4150.79	-0.20	0.10	0.00	0.88	1.00	9000.00	0.53	12.35	23.44	V
8	Piano 1	5, 6	1	9510.92	-0.03	0.18	0.00	0.80	1.00	4025.00	2.97	12.35	4.16	V
			2	35879.22	-0.22	0.23	0.00	0.77	1.00	11550.00	4.04	12.35	3.05	V
9	Piano 1	5, 10	1	16120.03	0.00	0.10	0.00	0.88	1.00	11925.00	1.54	12.35	8.00	V
			2	5891.72	0.01	0.10	0.00	0.88	1.00	4275.00	1.57	12.35	7.84	V
10	Piano 1	6, 7	1	43507.38	-0.25	0.29	0.00	0.74	1.00	12775.00	4.62	12.35	2.68	V
			2	7703.61	-0.02	0.20	0.00	0.78	1.00	2975.00	3.30	12.35	3.74	V
11	Piano 1	7, 8	1	1082.91	0.00	0.16	0.00	0.77	1.00	900.00	1.56	12.35	7.92	V
			2	908.99	0.00	0.16	0.00	0.77	1.00	750.00	1.57	12.35	7.86	V
12	Piano 1	7, 11	1	3046.71	0.00	0.53	0.00	0.66	1.00	2025.00	2.28	12.35	5.42	V
			2	15661.96	0.00	0.32	0.00	0.76	1.00	8100.00	2.53	12.35	4.88	V
			3	4838.65	0.01	0.30	0.00	0.77	1.00	2250.00	2.78	12.35	4.44	V
13	Piano 1	15, 8	1	6260.98	0.00	0.62	0.00	0.51	1.00	4250.00	2.89	12.35	4.28	V
			2	4683.69	0.00	0.62	0.00	0.51	1.00	3125.00	2.94	12.35	4.20	V
14	Piano 1	10, 11	1	15688.73	0.04	0.19	0.00	0.79	1.00	3675.00	5.42	12.35	2.28	V
			2	18261.91	0.05	0.19	0.00	0.79	1.00	4200.00	5.52	12.35	2.24	V
			3	15031.22	0.03	0.20	0.00	0.79	1.00	3325.00	5.75	12.35	2.15	V
			4	14474.72	0.03	0.20	0.00	0.79	1.00	3325.00	5.54	12.35	2.23	V
15	Piano 1	10, 12	1	4240.10	0.01	0.10	0.00	0.88	1.00	2250.00	2.15	12.35	5.74	V
			2	10329.98	0.03	0.10	0.00	0.88	1.00	6525.00	1.81	12.35	6.83	V
			3	3685.26	0.02	0.10	0.00	0.88	1.00	2925.00	1.44	12.35	8.58	V
16	Piano 1	11, 13	1	18330.26	0.03	0.27	0.00	0.79	1.00	6975.00	3.33	12.35	3.71	V
			2	8817.98	0.02	0.27	0.00	0.79	1.00	3375.00	3.31	12.35	3.73	V
17	Piano 1	11, 19	1	10758.49	0.12	0.39	0.00	0.66	1.00	6369.45	2.57	12.35	4.80	V
18	Piano 1	12, 13	1	11767.29	0.24	0.30	0.00	0.77	1.00	6075.00	2.50	12.35	4.93	V
			2	17160.75	0.36	0.26	0.00	0.79	1.00	7425.00	2.91	12.35	4.24	V
			3	19227.66	0.40	0.25	0.00	0.80	1.00	7875.00	3.05	12.35	4.05	V
			4	13627.58	0.40	0.36	0.00	0.75	1.00	7875.00	2.32	12.35	5.32	V
			5	11726.15	0.24	0.30	0.00	0.77	1.00	6075.00	2.50	12.35	4.95	V
19	Piano 1	13, 14	1	4559.16	0.00	0.38	0.00	0.66	1.00	900.00	7.65	12.35	1.61	V
			2	3547.82	0.00	0.37	0.00	0.67	1.00	900.00	5.91	12.35	2.09	V
20	Piano 1	14, 15	1	11778.24	0.01	0.40	0.00	0.60	1.00	5250.00	3.77	12.35	3.28	V
			2	10256.02	0.01	0.44	0.00	0.57	1.00	5250.00	3.40	12.35	3.63	V
21	Piano 1	19, 15	1	10598.23	0.10	0.39	0.00	0.66	1.00	5850.00	2.76	12.35	4.47	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

22	Piano 2	1, 2	1	3840.06	0.05	0.40	0.00	0.74	1.00	3600.00	1.44	12.35	8.58	V
			2	1338.13	-0.21	0.43	0.00	0.68	1.00	10800.00	1.82	12.35	6.78	V
			3	4653.32	-0.03	0.46	0.00	0.62	1.00	2925.00	2.56	12.35	4.82	V
23	Piano 2	5, 1	1	4439.92	0.06	0.09	0.00	0.90	1.00	6750.00	0.73	12.35	16.92	V
			2	3237.54	0.04	0.09	0.00	0.90	1.00	4725.00	0.76	12.35	16.24	V
24	Piano 2	2, 3	1	4029.96	-0.02	0.46	0.00	0.62	1.00	2475.00	2.63	12.35	4.70	V
			2	1285.99	-0.32	0.44	0.00	0.68	1.00	10350.00	1.84	12.35	6.72	V
			3	4850.94	0.05	0.40	0.00	0.74	1.00	4725.00	1.39	12.35	8.88	V
25	Piano 2	2, 6	1	1066.86	-0.02	0.25	0.00	0.84	1.00	10050.00	1.27	12.35	9.72	V
26	Piano 2	3, 7	1	3471.04	0.04	0.09	0.00	0.90	1.00	5175.00	0.74	12.35	16.59	V
			2	4270.88	0.05	0.09	0.00	0.90	1.00	6525.00	0.73	12.35	17.00	V
27	Piano 2	5, 6	1	2660.53	0.01	0.14	0.00	0.86	1.00	1650.00	1.88	12.35	6.55	V
			2	2155.81	-0.51	0.21	0.00	0.72	1.00	12000.00	2.49	12.35	4.96	V
28	Piano 2	10, 5	1	2238.62	0.02	0.09	0.00	0.90	1.00	2925.00	0.85	12.35	14.54	V
			2	5623.44	0.07	0.09	0.00	0.90	1.00	8100.00	0.77	12.35	16.03	V
			3	920.72	0.01	0.09	0.00	0.90	1.00	1125.00	0.91	12.35	13.60	V
29	Piano 2	6, 7	1	4554.91	-0.02	0.24	0.00	0.64	1.00	1950.00	3.66	12.35	3.37	V
			2	1482.14	-0.19	0.19	0.00	0.76	1.00	7200.00	2.71	12.35	4.55	V
			3	3816.72	0.01	0.15	0.00	0.85	1.00	1950.00	2.29	12.35	5.39	V
30	Piano 2	7, 11	1	6432.97	0.08	0.09	0.00	0.90	1.00	9450.00	0.76	12.35	16.35	V
			2	1454.43	0.02	0.09	0.00	0.90	1.00	2025.00	0.80	12.35	15.50	V
31	Piano 2	12, 10	1	2677.65	0.03	0.09	0.00	0.90	1.00	3825.00	0.78	12.35	15.90	V
			2	7829.43	0.11	0.09	0.00	0.90	1.00	12600.00	0.69	12.35	17.91	V
32	Piano 2	10, 16	1	2418.03	-0.15	0.18	0.00	0.70	1.00	14400.00	2.40	12.35	5.15	V
33	Piano 2	11, 13	1	1153.84	0.17	0.09	0.00	0.92	1.00	20025.00	0.63	12.35	19.61	V
34	Piano 2	16, 11	1	2380.75	-0.34	0.18	0.00	0.70	1.00	14310.00	2.37	12.35	5.21	V
35	Piano 2	19, 11	1	1693.29	0.00	0.71	0.00	0.44	1.00	750.00	5.10	12.35	2.42	V
			2	4580.40	0.05	0.69	0.00	0.49	1.00	2303.99	4.09	12.35	3.02	V
36	Piano 2	12, 17	1	6731.56	0.15	0.44	0.00	0.72	1.00	6075.00	1.54	12.35	8.00	V
			2	1028.63	-0.10	0.47	0.00	0.66	1.00	7425.00	2.10	12.35	5.89	V
			3	6467.08	-0.06	0.49	0.00	0.61	1.00	4140.00	2.57	12.35	4.80	V
37	Piano 2	17, 13	1	5211.74	-0.04	0.50	0.00	0.61	1.00	3240.00	2.66	12.35	4.64	V
			2	1151.62	-0.21	0.47	0.00	0.66	1.00	8550.00	2.05	12.35	6.04	V
			3	6594.41	0.10	0.44	0.00	0.72	1.00	6075.00	1.51	12.35	8.17	V
38	Piano 2	13, 18	1	7038.53	0.20	0.70	0.00	0.47	1.00	5125.00	2.93	12.35	4.22	V
39	Piano 2	14, 15	1	1443.47	0.01	0.17	0.00	0.73	1.00	2125.00	0.93	12.35	13.28	V
			2	5055.84	0.03	0.17	0.00	0.73	1.00	8625.00	0.80	12.35	15.39	V



# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

40	Piano 2	18, 14	1	1700.66	0.00	0.71	0.00	0.44	1.00	750.00	5.10	12.35	2.42	V
			2	4522.31	0.06	0.68	0.00	0.50	1.00	2375.00	3.84	12.35	3.22	V
41	Piano 2	15, 19	1	6640.42	0.19	0.69	0.00	0.48	1.00	4875.00	2.86	12.35	4.32	V

Direzione Y														
Parete	Imp.	Fili	Maschio	N [daN]	M	m <sub>t</sub>	m <sub>b</sub>	Φ <sub>t</sub>	Φ <sub>b</sub>	A [cm²]	σ [daN/cm²]	σ <sub>lim</sub> [daN/cm²]	S	Esito
1	Piano 1	1, 2	1	5917.50	0.05	0.30	0.00	0.77	1.00	3375.00	2.26	12.35	5.45	V
			2	2606.120	0.14	0.22	0.00	0.81	1.00	11250.00	2.84	12.35	4.34	V
			3	5540.01	0.03	0.26	0.00	0.80	1.00	2700.00	2.58	12.35	4.79	V
2	Piano 1	1, 5	1	4217.12	0.03	0.10	0.00	0.88	1.00	2025.00	2.38	12.35	5.19	V
			2	6422.55	0.10	0.10	0.00	0.88	1.00	3150.00	2.33	12.35	5.30	V
3	Piano 1	2, 3	1	4454.67	0.02	0.24	0.00	0.80	1.00	2025.00	2.74	12.35	4.51	V
			2	2543.579	0.08	0.22	0.00	0.82	1.00	11250.00	2.77	12.35	4.45	V
			3	7247.60	0.02	0.30	0.00	0.78	1.00	4275.00	2.18	12.35	5.66	V
4	Piano 1	2, 6	1	7331.64	0.10	0.16	0.00	0.77	1.00	2850.00	3.33	12.35	3.70	V
			2	8440.77	0.14	0.16	0.00	0.77	1.00	3300.00	3.31	12.35	3.73	V
5	Piano 1	3, 7	1	8512.69	0.16	0.10	0.00	0.88	1.00	6525.00	1.49	12.35	8.28	V
			2	6518.02	0.11	0.10	0.00	0.88	1.00	5400.00	1.38	12.35	8.95	V
6	Piano 1	4, 5	1	3028.92	0.00	0.65	0.00	0.50	1.00	750.00	8.09	12.35	1.53	V
			2	3028.92	0.00	0.65	0.00	0.50	1.00	750.00	8.09	12.35	1.53	V
7	Piano 1	4, 9	1	1101.29	0.02	0.18	0.00	0.72	1.00	1375.00	1.11	12.35	11.08	V
			2	4150.79	-2.94	0.10	0.00	0.88	1.00	9000.00	0.53	12.35	23.44	V
8	Piano 1	5, 6	1	9510.92	0.04	0.18	0.00	0.80	1.00	4025.00	2.97	12.35	4.16	V
			2	3587.922	0.08	0.23	0.00	0.77	1.00	11550.00	4.04	12.35	3.05	V
9	Piano 1	5, 10	1	1612.03	1.68	0.10	0.00	0.88	1.00	11925.00	1.54	12.35	8.00	V
			2	5891.72	0.22	0.10	0.00	0.88	1.00	4275.00	1.57	12.35	7.84	V
10	Piano 1	6, 7	1	4350.738	0.06	0.29	0.00	0.74	1.00	12775.00	4.62	12.35	2.68	V
			2	7703.61	0.01	0.20	0.00	0.78	1.00	2975.00	3.30	12.35	3.74	V
11	Piano 1	7, 8	1	1082.91	0.00	0.16	0.00	0.77	1.00	900.00	1.56	12.35	7.92	V
			2	908.99	0.00	0.16	0.00	0.77	1.00	750.00	1.57	12.35	7.86	V
12	Piano 1	7, 11	1	3046.71	0.01	0.53	0.00	0.66	1.00	2025.00	2.28	12.35	5.42	V
			2	1566.196	0.25	0.32	0.00	0.76	1.00	8100.00	2.53	12.35	4.88	V
			3	4838.65	0.01	0.30	0.00	0.77	1.00	2250.00	2.78	12.35	4.44	V
13	Piano 1	15, 8	1	6260.98	0.00	0.62	0.00	0.51	1.00	4250.00	2.89	12.35	4.28	V
			2	4683.69	0.00	0.62	0.00	0.51	1.00	3125.00	2.94	12.35	4.20	V
14	Piano 1	10, 11	1	1568.873	0.03	0.19	0.00	0.79	1.00	3675.00	5.42	12.35	2.28	V
			2	1826.191	0.03	0.19	0.00	0.79	1.00	4200.00	5.52	12.35	2.24	V
			3	1503	0.02	0.20	0.00	0.79	1.00	3325.00	5.75	12.35	2.15	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

			4	1.22 1447 4.72	0.01	0.20	0.00	0.79	1.00	3325.00	5.54	12.35	2.23	V
15	Piano 1	10, 12	1	4240 .10	0.04	0.10	0.00	0.88	1.00	2250.00	2.15	12.35	5.74	V
			2	1032 9.98	0.58	0.10	0.00	0.88	1.00	6525.00	1.81	12.35	6.83	V
			3	3685 .26	0.08	0.10	0.00	0.88	1.00	2925.00	1.44	12.35	8.58	V
16	Piano 1	11, 13	1	1833 0.26	0.18	0.27	0.00	0.79	1.00	6975.00	3.33	12.35	3.71	V
			2	8817 .98	0.03	0.27	0.00	0.79	1.00	3375.00	3.31	12.35	3.73	V
17	Piano 1	11, 19	1	1075 8.49	0.01	0.39	0.00	0.66	1.00	6369.45	2.57	12.35	4.80	V
18	Piano 1	12, 13	1	1176 7.29	0.09	0.30	0.00	0.77	1.00	6075.00	2.50	12.35	4.93	V
			2	1716 0.75	0.09	0.26	0.00	0.79	1.00	7425.00	2.91	12.35	4.24	V
			3	1922 7.66	0.08	0.25	0.00	0.80	1.00	7875.00	3.05	12.35	4.05	V
			4	1362 7.58	0.06	0.36	0.00	0.75	1.00	7875.00	2.32	12.35	5.32	V
			5	1172 6.15	0.03	0.30	0.00	0.77	1.00	6075.00	2.50	12.35	4.95	V
19	Piano 1	13, 14	1	4559 .16	0.00	0.38	0.00	0.66	1.00	900.00	7.65	12.35	1.61	V
			2	3547 .82	0.00	0.37	0.00	0.67	1.00	900.00	5.91	12.35	2.09	V
20	Piano 1	14, 15	1	1177 8.24	0.00	0.40	0.00	0.60	1.00	5250.00	3.77	12.35	3.28	V
			2	1025 6.02	0.00	0.44	0.00	0.57	1.00	5250.00	3.40	12.35	3.63	V
21	Piano 1	19, 15	1	1059 8.23	0.00	0.39	0.00	0.66	1.00	5850.00	2.76	12.35	4.47	V
22	Piano 2	1, 2	1	3840 .06	0.00	0.40	0.00	0.74	1.00	3600.00	1.44	12.35	8.58	V
			2	1338 8.13	-0.11	0.43	0.00	0.68	1.00	10800.0 0	1.82	12.35	6.78	V
			3	4653 .32	-0.04	0.46	0.00	0.62	1.00	2925.00	2.56	12.35	4.82	V
23	Piano 2	5, 1	1	4439 .92	0.14	0.09	0.00	0.90	1.00	6750.00	0.73	12.35	16.9 2	V
			2	3237 .54	0.07	0.09	0.00	0.90	1.00	4725.00	0.76	12.35	16.2 4	V
24	Piano 2	2, 3	1	4029 .96	-0.04	0.46	0.00	0.62	1.00	2475.00	2.63	12.35	4.70	V
			2	1285 9.99	-0.12	0.44	0.00	0.68	1.00	10350.0 0	1.84	12.35	6.72	V
			3	4850 .94	-0.02	0.40	0.00	0.74	1.00	4725.00	1.39	12.35	8.88	V
25	Piano 2	2, 6	1	1066 8.61	-2.86	0.25	0.00	0.84	1.00	10050.0 0	1.27	12.35	9.72	V
26	Piano 2	3, 7	1	3471 .04	0.07	0.09	0.00	0.90	1.00	5175.00	0.74	12.35	16.5 9	V
			2	4270 .88	0.11	0.09	0.00	0.90	1.00	6525.00	0.73	12.35	17.0 0	V
27	Piano 2	5, 6	1	2660 .53	0.00	0.14	0.00	0.86	1.00	1650.00	1.88	12.35	6.55	V
			2	2155 9.81	-0.06	0.21	0.00	0.72	1.00	12000.0 0	2.49	12.35	4.96	V
28	Piano 2	10, 5	1	2238 .62	0.02	0.09	0.00	0.90	1.00	2925.00	0.85	12.35	14.5 4	V
			2	5623 .44	0.19	0.09	0.00	0.90	1.00	8100.00	0.77	12.35	16.0 3	V
			3	920. 72	0.00	0.09	0.00	0.90	1.00	1125.00	0.91	12.35	13.6 0	V
29	Piano 2	6, 7	1	4554 .91	-0.01	0.24	0.00	0.64	1.00	1950.00	3.66	12.35	3.37	V
			2	1482 5.14	-0.04	0.19	0.00	0.76	1.00	7200.00	2.71	12.35	4.55	V
			3	3816 .72	0.00	0.15	0.00	0.85	1.00	1950.00	2.29	12.35	5.39	V
30	Piano	7, 11	1	6432	0.21	0.09	0.00	0.90	1.00	9450.00	0.76	12.35	16.3	V

	o 2			.97								5		
			2	1454.43	0.01	0.09	0.00	0.90	1.00	2025.00	0.80	12.35	15.50	V
31	Piano 2	12, 10	1	2677.65	0.04	0.09	0.00	0.90	1.00	3825.00	0.78	12.35	15.90	V
			2	7829.43	0.38	0.09	0.00	0.90	1.00	12600.00	0.69	12.35	17.91	V
32	Piano 2	10, 16	1	2418.32	-0.06	0.18	0.00	0.70	1.00	14400.00	2.40	12.35	5.15	V
33	Piano 2	11, 13	1	1153.847	0.58	0.09	0.00	0.92	1.00	20025.00	0.63	12.35	19.61	V
34	Piano 2	16, 11	1	2380.757	-0.07	0.18	0.00	0.70	1.00	14310.00	2.37	12.35	5.21	V
35	Piano 2	19, 11	1	1693.29	0.00	0.71	0.00	0.44	1.00	750.00	5.10	12.35	2.42	V
			2	4580.40	0.00	0.69	0.00	0.49	1.00	2303.99	4.09	12.35	3.02	V
36	Piano 2	12, 17	1	6731.56	-0.02	0.44	0.00	0.72	1.00	6075.00	1.54	12.35	8.00	V
			2	1028.863	-0.08	0.47	0.00	0.66	1.00	7425.00	2.10	12.35	5.89	V
			3	6467.08	-0.06	0.49	0.00	0.61	1.00	4140.00	2.57	12.35	4.80	V
37	Piano 2	17, 13	1	5211.74	-0.05	0.50	0.00	0.61	1.00	3240.00	2.66	12.35	4.64	V
			2	1151.626	-0.10	0.47	0.00	0.66	1.00	8550.00	2.05	12.35	6.04	V
			3	6594.41	-0.03	0.44	0.00	0.72	1.00	6075.00	1.51	12.35	8.17	V
38	Piano 2	13, 18	1	7038.53	0.00	0.70	0.00	0.47	1.00	5125.00	2.93	12.35	4.22	V
39	Piano 2	14, 15	1	1443.47	0.03	0.17	0.00	0.73	1.00	2125.00	0.93	12.35	13.28	V
			2	5055.84	0.37	0.17	0.00	0.73	1.00	8625.00	0.80	12.35	15.39	V
40	Piano 2	18, 14	1	1700.66	0.00	0.71	0.00	0.44	1.00	750.00	5.10	12.35	2.42	V
			2	4522.31	0.00	0.68	0.00	0.50	1.00	2375.00	3.84	12.35	3.22	V
41	Piano 2	15, 19	1	6640.42	0.00	0.69	0.00	0.48	1.00	4875.00	2.86	12.35	4.32	V

#### 4.6.1.1.3 Verifica a Pressoflessione Fuori Piano

Parete : numero della parete;  
 Imp. : numero dell'impalcato al quale appartiene la parete;  
 Fili : numero dei fili fissi ai quali appartiene la parete;  
 Maschio : numero identificativo dei maschi murari di ogni parete;  
 Nsd : sforzo normale sollecitante di calcolo relativo alla combinazione di carico più gravosa  
 Tp : primo periodo di oscillazione del pannello  
 Po : peso degli orizzontamenti che gravano sulla parete e che devono essere considerati ai fini del calcolo;  
 Pp : Peso proprio del muro esaminato  
 Fo : forza sismica dovuta al peso degli orizzontamenti  
 Fa : forza sismica dovuta al peso del pannello  
 Mu : momento resistente del pannello  
 Ms : momento sollecitante  
 S : coefficiente di sicurezza  
 Esito : V : Verificato  
 : NV : Non Verificato

Par ete	Imp .	Fili	Mas chio	Nsd [da N]	Tp [s]	Po [daN]	Pp [daN]	Fo [daN]	Fa [daN/cm]	Mu [daNm]	Ms [daNm]	S	Esit o
1	Piano 1	1, 2	1	5917.50	0.03	873.28	1569.37	122.73	71.15	1108.98	180.58	6.14	V
			2	26061.2	0.03	2478.95	5231.25	348.40	237.17	4569.32	554.91	8.23	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

				0									
			3	554 0.01	0.03	763.43	1255.50	107.29	56.92	1002.77	151.52	6.62	V
2	Pian o l	1, 5	1	421 7.12	0.03	0.00	941.63	0.00	42.69	760.55	51.28	14.83	V
			2	642 2.55	0.03	0.00	1464.75	0.00	66.41	1164.30	79.77	14.60	V
3	Pian o l	2, 3	1	445 4.67	0.03	0.00	941.63	0.00	42.69	792.19	51.28	15.45	V
			2	254 35.7 9	0.03	0.00	5231.25	0.00	237.17	4489.99	284.90	15.76	V
			3	724 7.60	0.03	0.00	1987.88	0.00	90.12	1367.26	108.25	12.63	V
4	Pian o l	2, 6	1	733 1.64	0.04	0.00	1325.25	0.00	65.22	830.15	78.35	10.60	V
			2	844 0.77	0.04	0.00	1534.50	0.00	75.52	957.51	90.72	10.55	V
5	Pian o l	3, 7	1	851 2.69	0.03	0.00	3034.13	0.00	137.54	1677.23	165.22	10.15	V
			2	651 8.02	0.03	0.00	2511.00	0.00	113.83	1297.86	136.73	9.49	V
6	Pian o l	4, 5	1	302 8.92	0.05	0.00	348.75	0.00	18.03	232.90	21.65	10.76	V
			2	302 8.92	0.05	0.00	348.75	0.00	18.03	232.90	21.65	10.76	V
7	Pian o l	4, 9	1	110 1.29	0.04	282.04	604.08	43.57	31.86	127.15	66.07	1.92	V
			2	415 0.79	0.02	909.68	2322.20	118.14	175.32	496.05	115.65	4.29	V
8	Pian o l	5, 6	1	951 0.92	0.04	0.00	1871.62	0.00	88.95	1289.62	106.85	12.07	V
			2	358 79.2 2	0.04	0.00	5370.75	0.00	255.28	4420.17	306.66	14.41	V
9	Pian o l	5, 10	1	161 20.0 3	0.03	0.00	5545.13	0.00	251.37	3159.79	301.96	10.46	V
			2	589 1.72	0.03	0.00	1987.88	0.00	90.11	1151.54	108.25	10.64	V
10	Pian o l	6, 7	1	435 07.3 8	0.04	0.00	5940.38	0.00	282.38	5142.81	339.21	15.16	V
			2	770 3.61	0.04	0.00	1383.38	0.00	65.75	1015.47	78.98	12.86	V
11	Pian o l	7, 8	1	108 2.91	0.04	0.00	418.50	0.00	20.59	143.81	24.73	5.82	V
			2	908. 99	0.04	0.00	348.75	0.00	17.16	120.60	20.61	5.85	V
12	Pian o l	7, 11	1	304 6.71	0.03	0.00	941.63	0.00	42.69	587.23	51.28	11.45	V
			2	156 61.9 6	0.03	0.00	3766.50	0.00	170.75	2874.63	205.12	14.01	V
			3	483 8.65	0.03	0.00	1046.25	0.00	47.43	865.59	56.98	15.19	V
13	Pian o l	15, 8	1	626 0.98	0.05	1374.75	1976.25	219.95	102.00	672.75	292.98	2.30	V
			2	468 3.69	0.05	1050.86	1453.13	168.13	75.00	501.84	220.39	2.28	V
14	Pian o l	10, 11	1	156 88.7 3	0.04	0.00	1708.88	0.00	81.25	1628.61	97.60	16.69	V
			2	182 61.9 1	0.04	0.00	1953.00	0.00	92.86	1871.65	111.54	16.78	V
			3	150 31.2 2	0.04	0.00	1546.13	0.00	73.51	1497.28	88.31	16.96	V
			4	144 74.7 2	0.04	0.00	1546.13	0.00	73.51	1482.25	88.31	16.79	V
15	Pian o l	10, 12	1	424 0.10	0.03	0.00	1046.25	0.00	47.43	782.70	56.98	13.74	V
			2	103	0.03	0.00	3034.13	0.00	137.55	1973.60	165.23	11.94	V

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

				29.98									
			3	3685.26	0.03	0.00	1360.13	0.00	61.66	729.63	74.07	9.85	V
16	Piano 1	11, 13	1	18330.26	0.03	0.00	3243.38	0.00	147.05	3091.45	176.64	17.50	V
			2	8817.98	0.03	0.00	1569.38	0.00	71.15	1490.06	85.47	17.43	V
17	Piano 1	11, 19	1	10758.49	0.04	159.59	2961.79	24.34	145.72	1354.02	193.91	6.98	V
18	Piano 1	12, 13	1	11767.29	0.03	0.00	2824.88	0.00	128.07	2158.93	153.84	14.03	V
			2	17160.75	0.03	0.00	3452.63	0.00	156.53	3010.77	188.03	16.01	V
			3	19227.66	0.03	0.00	3661.88	0.00	166.02	3319.64	199.43	16.65	V
			4	13627.58	0.03	0.00	3661.88	0.00	166.01	2560.57	199.42	12.84	V
			5	11726.15	0.03	0.00	2824.88	0.00	128.07	2153.08	153.84	14.00	V
19	Piano 1	13, 14	1	4559.16	0.04	0.00	418.50	0.00	20.61	353.74	24.76	14.29	V
			2	3547.82	0.04	0.00	418.50	0.00	20.61	332.26	24.75	13.42	V
20	Piano 1	14, 15	1	11778.24	0.05	1614.61	2441.25	258.44	126.05	1157.52	351.71	3.29	V
			2	10256.02	0.05	1614.61	2441.25	258.40	126.03	1043.35	351.65	2.97	V
21	Piano 1	19, 15	1	10598.23	0.04	134.46	2720.25	20.51	133.84	1315.28	176.67	7.44	V
22	Piano 2	1, 2	1	3840.06	0.02	0.00	1459.16	0.00	120.86	776.19	110.30	7.04	V
			2	13388.13	0.04	0.00	5946.03	0.00	399.13	2656.48	672.12	3.95	V
			3	4653.32	0.06	0.00	2021.92	0.00	121.46	888.27	322.43	2.75	V
23	Piano 2	5, 1	1	4439.92	0.02	0.00	2733.75	0.00	202.60	936.36	184.62	5.07	V
			2	3237.54	0.02	0.00	1913.63	0.00	141.82	680.88	129.23	5.27	V
24	Piano 2	2, 3	1	4029.96	0.06	0.00	1718.89	0.00	103.08	766.05	276.20	2.77	V
			2	12859.99	0.04	0.00	5806.35	0.00	385.54	2550.90	674.10	3.78	V
			3	4850.94	0.02	0.00	1949.06	0.00	159.28	984.68	150.57	6.54	V
25	Piano 2	2, 6	1	10668.61	0.11	0.00	7612.88	0.00	525.51	1438.41	1675.22	0.86	NV
26	Piano 2	3, 7	1	3471.04	0.02	0.00	2095.88	0.00	155.32	731.07	141.54	5.17	V
			2	4270.88	0.02	0.00	2642.63	0.00	195.84	901.01	178.46	5.05	V
27	Piano 2	5, 6	1	2660.53	0.02	0.00	507.80	0.00	54.54	337.76	28.70	11.77	V
			2	21559.81	0.05	0.00	5998.71	0.00	465.69	2680.28	646.51	4.15	V
28	Piano 2	10, 5	1	2238.62	0.02	0.00	1184.63	0.00	87.79	466.96	80.00	5.84	V
			2	5623.44	0.02	0.00	3280.50	0.00	243.12	1181.57	221.54	5.33	V
			3	920.	0.02	0.00	455.63	0.00	33.77	191.01	30.77	6.21	V

				72									
29	Pian o 2	6, 7	1	455 4.91	0.07	0.00	1172.92	0.00	84.50	531.15	169.85	3.13	V
			2	148 25.1 4	0.04	0.00	3283.20	0.00	267.79	1787.43	309.35	5.78	V
			3	381 6.72	0.02	0.00	605.48	0.00	64.57	465.72	34.59	13.47	V
30	Pian o 2	7, 11	1	643 2.97	0.02	0.00	3827.25	0.00	283.64	1353.52	258.46	5.24	V
			2	145 4.43	0.02	0.00	820.13	0.00	60.78	304.85	55.39	5.50	V
31	Pian o 2	12, 10	1	267 7.65	0.02	0.00	1549.12	0.00	114.81	562.28	104.62	5.37	V
			2	782 9.43	0.02	0.00	5103.00	0.00	378.18	1657.31	344.62	4.81	V
32	Pian o 2	10, 16	1	241 80.3 2	0.06	5162.21	7903.47	1407.33	588.86	3046.66	2272.85	1.34	V
33	Pian o 2	11, 13	1	115 38.4 7	0.02	0.00	8110.13	0.00	601.03	2453.60	547.69	4.48	V
34	Pian o 2	16, 11	1	238 07.5 7	0.06	5075.36	7821.85	1380.30	583.76	3004.96	2226.41	1.35	V
35	Pian o 2	19, 11	1	169 3.29	0.06	382.79	389.82	98.37	28.91	166.12	128.61	1.29	V
			2	458 0.40	0.05	983.71	1076.06	237.41	83.41	464.08	285.88	1.62	V
36	Pian o 2	12, 17	1	673 1.56	0.02	1321.55	2563.43	299.03	206.19	1354.67	414.26	3.27	V
			2	102 88.6 3	0.04	1974.08	4166.52	490.92	276.97	2009.26	943.66	2.13	V
			3	646 7.08	0.06	1135.30	2845.51	313.57	171.52	1238.49	809.36	1.53	V
37	Pian o 2	17, 13	1	521 1.74	0.06	960.01	2247.26	266.66	134.99	992.89	669.05	1.48	V
			2	115 16.2 6	0.04	2094.88	4847.85	523.31	320.37	2258.57	1066.73	2.12	V
			3	659 4.41	0.02	1268.91	2560.61	287.04	206.13	1330.26	405.10	3.28	V
38	Pian o 2	13, 18	1	703 8.53	0.05	1375.76	2500.13	339.99	189.98	764.67	527.60	1.45	V
39	Pian o 2	14, 15	1	144 3.47	0.04	0.00	908.44	0.00	71.26	168.75	72.35	2.33	V
			2	505 5.84	0.04	0.00	3687.19	0.00	289.21	596.68	293.64	2.03	V
40	Pian o 2	18, 14	1	170 0.66	0.06	476.36	388.59	122.17	28.85	166.65	148.53	1.12	V
			2	452 2.31	0.05	1174.30	1080.69	279.59	84.82	462.72	309.60	1.49	V
41	Pian o 2	15, 19	1	664 0.42	0.05	1308.65	2336.04	320.16	178.90	722.31	483.91	1.49	V

#### 4.6.2 Verifica Piastra.

##### 4.6.2.0.1 Dati Generali

Piastra : numero della Piastra;  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 Sp. : spessore della Piastra;  
 Largh. Striscia : Larghezza della striscia unitaria di Piastra rispetto alla quale sono state effettuate le verifiche;  
 Lungh. Concio : Lunghezza del concio di Piastra rispetto alla quale sono state effettuate le verifiche a taglio;

Tabella 3.I

Piastra	Imp.	Fili	Sp. [cm]	Largh. striscia	Lungh. concio
---------	------	------	----------	-----------------	---------------

				[cm]	[cm]
1	Fond.	1, 2, 6, 5	15	100	100
2	Fond.	2, 3, 7, 6	15	100	100
3	Fond.	5, 6, 7, 11, 10	15	100	100
4	Fond.	10, 11, 13, 12	15	100	100
5	Fond.	7, 8, 15, 11	15	100	100
6	Fond.	15, 14, 13, 11	15	100	100

#### Disposizione Armature

Piastra : numero della Piastra;  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 Dir. : Direzione rispetto alla quale disporre le armature;  
 Diam. : diametro delle armature da disporre nella direzione indicata;  
 Inter. intrad. : interasse rispetto al quale posizionare le armature all'intradosso nella direzione indicata;  
 Inter. estrad. : interasse rispetto al quale posizionare le armature all'estradosso nella direzione indicata;

Tabella 3.II

Piastra	Imp.	Fili	Dir.	Diam. [mm]	Inter. intrad. [cm]	Inter. estrad. [cm]
1	Fond.	1, 2, 6, 5	X	10	25.0	25.0
	.		Y	10	25.0	25.0
2	Fond.	2, 3, 7, 6	X	10	25.0	25.0
	.		Y	10	25.0	25.0
3	Fond.	5, 6, 7, 11, 10	X	10	25.0	25.0
	.		Y	10	25.0	25.0
4	Fond.	10, 11, 13, 12	X	10	25.0	25.0
	.		Y	10	25.0	25.0
5	Fond.	7, 8, 15, 11	X	10	25.0	25.0
	.		Y	10	25.0	25.0
6	Fond.	15, 14, 13, 11	X	10	25.0	25.0
	.		Y	10	25.0	25.0

#### 4.6.2.0.2 Verifiche SLV - Flessione.

Piastra : numero della Piastra;  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 RCrit : regione critica;  
 Dir. : direzione attorno alla quale sono valutate le caratteristiche flettenti;  
 $\epsilon_{c2}$  : deformazione di contrazione del calcestruzzo al raggiungimento della massima tensione;  
 $\epsilon_{cu2}$  : deformazione ultima di contrazione del calcestruzzo;  
 Msd : momento sollecitante;  
 $\epsilon_{cls}$  : deformazione massima del calcestruzzo compresso  
 $\epsilon_{acc}$  : deformazione massima dell'armatura tesa  
 MRd : momento resistente;  
 S : Coefficiente di sicurezza;  
 Esito : Esito della verifica : V = VERIFICATA;  
 : NV = NON VERIFICATA;

Tabella 4.I

Piastra	Imp.	Fili	RCrit	Dir.	$\epsilon_{c2}$ [%]	$\epsilon_{cu2}$ [%]	Cop. sup. [cm]	Arm. sup.	Cop. inf. [cm]	Arm. inf.	Msd [daNm]	$\epsilon_{cls}$ [%]	$\epsilon_{acc}$ [%]	MRd [daNm]	S	Esito
1	Fond.	1, 2, 6, 5		X	2.00	3.50	3.0	Ø 10 / 25.0	2.0	Ø 10 / 25.0	348	0.63	1.86	1345	3.86	V
				Y	2.00	3.50	2.0	Ø 10 / 25.0	3.0	Ø 10 / 25.0	-696	0.63	1.86	-1345	1.93	V
2	Fond.	2, 3, 7,		X	2.00	3.50	3.0	Ø 10 / 25.0	2.0	Ø 10 / 25.0	297	0.63	1.86	1345	4.54	V

		6														
				Y	2.00	3.50	2.0	Ø 10 / 25.0	3.0	Ø 10 / 25.0	-659	0.63	1.86	-1345	2.04	V
3	Fond.	5, 6, 7, 11, 10		X	2.00	3.50	3.0	Ø 10 / 25.0	2.0	Ø 10 / 25.0	421	0.63	1.86	1345	3.20	V
				Y	2.00	3.50	2.0	Ø 10 / 25.0	3.0	Ø 10 / 25.0	479	0.63	1.86	1345	2.81	V
4	Fond.	10, 11, 13, 12		X	2.00	3.50	3.0	Ø 10 / 25.0	2.0	Ø 10 / 25.0	623	0.63	1.86	1345	2.16	V
				Y	2.00	3.50	2.0	Ø 10 / 25.0	3.0	Ø 10 / 25.0	653	0.63	1.86	1345	2.06	V
5	Fond.	7, 8, 15, 11		X	2.00	3.50	3.0	Ø 10 / 25.0	2.0	Ø 10 / 25.0	348	0.63	1.86	1345	3.87	V
				Y	2.00	3.50	2.0	Ø 10 / 25.0	3.0	Ø 10 / 25.0	1026	0.63	1.86	1345	1.31	V
6	Fond.	15, 14, 13, 11		X	2.00	3.50	3.0	Ø 10 / 25.0	2.0	Ø 10 / 25.0	495	0.63	1.86	1345	2.72	V
				Y	2.00	3.50	2.0	Ø 10 / 25.0	3.0	Ø 10 / 25.0	-278	0.63	1.86	-1345	4.84	V

#### 4.6.2.0.3 Verifiche SLV - Taglio

Piastra : numero della Piastra;  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 RCrit : regione critica;  
 cot( $\theta$ ) : cotangente dell'angolo  $\theta$ ;  
 Diam. : diametro del braccio della staffa;  
 AStaffe : area di armatura a taglio da disporre nell'unità di superficie;  
 DLong : distanza longitudinale fra i bracci delle staffe;  
 DTrasv : distanza trasversale fra i bracci delle staffe;  
 VSd : Taglio sollecitante di calcolo;  
 VRd : Taglio resistente di calcolo;  
 Esito : Esito della verifica : V = VERIFICATA;  
 : NV = NON VERIFICATA;

Tabella 5.I

Piastra	Imp.	Fili	RCrit	cot( $\theta$ )	Armature				Tagli		Esito
					Diam. [mm]	Dlong [cm]	Dtrasv [cm]	Area [cm <sup>2</sup> /m <sup>2</sup> ]	Vsd [daN]	VRd [daN]	
1	Fond.	1, 2, 6, 5		-	-	-	-	-	2244	5536	V
2	Fond.	2, 3, 7, 6		-	-	-	-	-	2523	5536	V
3	Fond.	5, 6, 7, 11, 10		-	-	-	-	-	2652	5536	V
4	Fond.	10, 11, 13, 12		-	-	-	-	-	2524	5536	V
5	Fond.	7, 8, 15, 11		-	-	-	-	-	4193	5536	V
6	Fond.	15, 14, 13, 11		-	-	-	-	-	2058	5536	V

#### 4.6.2.0.4 Verifiche SLE - Fessurazione

Piastra : numero della Piastra;  
 Imp. : impalcato al quale appartiene la piastra;  
 Fili : fili fissi ai quali appartiene la piastra;  
 Comb. : combinazione di carico (Caratteristica, Frequente, Quasi Permanente);  
 RCrit : regione critica;  
 Dir. : direzione dell'asse attorno al quale viene valutata la caratteristica flettente;  
 Msd : azione sollecitante flettente massima;  
 MCr : momento di prima fessurazione;  
 Fess. Calc. : fessura di calcolo;  
 Fess. Lim. : fessura limite;  
 S : Coefficiente di sicurezza;  
 Esito : Esito della verifica : V = VERIFICATA;  
 : NV = NON VERIFICATA;





					Y	-458.18	28.51	112.50	3.95	-1321.42	3600.00	2.72	V
<b>3</b>	Fon d.	5, 6, 7, 11, 10	Caratter istica		X	308.93	19.22	150.00	7.80	-890.96	3600.00	4.04	V
					Y	354.61	22.06	150.00	6.80	-1022.71	3600.00	3.52	V
			Q. Perm.		X	-275.75	17.16	112.50	6.56	-795.29	3600.00	4.53	V
					Y	317.81	19.77	112.50	5.69	-916.59	3600.00	3.93	V
<b>4</b>	Fon d.	10, 11, 13, 12	Caratter istica		X	460.79	28.67	150.00	5.23	-1328.94	3600.00	2.71	V
					Y	474.92	29.55	150.00	5.08	-1369.71	3600.00	2.63	V
			Q. Perm.		X	405.95	25.26	112.50	4.45	-1170.78	3600.00	3.07	V
					Y	406.33	25.28	112.50	4.45	-1171.88	3600.00	3.07	V
<b>5</b>	Fon d.	7, 8, 15, 11	Caratter istica		X	255.12	15.87	150.00	9.45	-735.78	3600.00	4.89	V
					Y	758.16	47.17	150.00	3.18	-2186.57	3600.00	1.65	V
			Q. Perm.		X	233.28	14.51	112.50	7.75	-672.80	3600.00	5.35	V
					Y	665.28	41.39	112.50	2.72	-1918.70	3600.00	1.88	V
<b>6</b>	Fon d.	15, 14, 13, 11	Caratter istica		X	364.93	22.71	150.00	6.61	-1052.49	3600.00	3.42	V
					Y	-186.82	11.62	150.00	12.90	-538.79	3600.00	6.68	V
			Q. Perm.		X	325.79	20.27	112.50	5.55	-939.61	3600.00	3.83	V
					Y	-169.19	10.53	112.50	10.69	-487.94	3600.00	7.38	V

## 5 ALLEGATI.

### 5.1 ALLEGATO A (Verifica Solai e Balconi)

#### Descrizione del modello.

#### Modello e ipotesi di carico

La seguente relazione riguarda tutti i solai realizzati in cemento armato gettato in opera, a nervature parallele.

Il modello utilizzato per il calcolo delle caratteristiche della sollecitazione è quello della trave continua su più appoggi con eventuali sbalzi laterali.

Le ipotesi a cui si è fatto riferimento sono state:

- laterizi o blocchi in polistirene non collaboranti;
- nervature del solaio indipendenti tra loro;
- fascia di soletta collaborante con ogni nervatura di larghezza pari all'interasse;
- comportamento elastico-lineare della struttura.

Note le caratteristiche geometriche della sezione, i carichi permanenti e di esercizio agenti per ogni impalcato, sono stati ricavati i carichi relativi alla singola nervatura da utilizzare nel calcolo della struttura.

La risoluzione di ogni schema di carico teorico è stato eseguito con il metodo degli elementi finiti permettendo così l'analisi della struttura per le diverse condizioni di carico considerate. Per la verifica si è adottato il metodo agli stati limite.

#### Condizioni e combinazioni di carico.

Dallo studio delle linee di influenza della caratteristica flettente, si sono combinati i carichi ripartiti d'esercizio al fine di massimizzare le sollecitazioni di calcolo sia in campata che sugli appoggi. Si sono ricavate e quindi risolte più condizioni di carico.

Il calcolo delle azioni agenti sui solai viene effettuato con il metodo semiprobabilistico agli stati limite cumulando tra loro le azioni agenti sulla struttura nel modo più gravoso, combinando gli effetti dell'azione sismica con le altre azioni nel rispetto della normativa vigente.

I coefficienti di combinazione dei carichi permanenti e delle azioni variabili  $Q_{ki}$ , utilizzati nelle varie combinazioni sono correlati al tipo di calcolo che si sta effettuando, se agli stati limite ultimi o di esercizio, nel rispetto del punto 2.5.3 del DM 14/01/2008. In ogni condizione di carico i carichi permanenti vengono considerati agenti su tutte le campate. I carichi d'esercizio si considerano agenti una volta su tutte le campate e per le altre condizioni, agiranno solo su alcune di esse in modo da rendere massime le sollecitazioni in alcune determinate sezioni della trave continua.

Per i solai a trave continua il massimo momento flettente positivo in campata, è ricavato caricando "a scacchiera", carico d'esercizio agente su campate alterne. Il massimo momento negativo su ogni appoggio viene determinato caricando "a doppia scacchiera", campate adiacenti ad ogni appoggio e le altre alterne.

L'effetto dell'azione sismica verticale sugli sbalzi è stato calcolato considerando agenti su ogni elemento a mensola e solaio inclinato un carico sismico verticale pari ad un'aliquota dei carichi gravitazionali agenti. In funzione del periodo fondamentale di vibrazione dell'elemento si ricava l'ordinata dello spettro di progetto della componente verticale e quindi la frazione dei carichi gravitazionali considerati come azioni sismiche sugli sbalzi e sugli elementi di solaio inclinati.

Ciò ha comportato la risoluzione di ulteriori due condizioni di carico dovuti ai carichi sismici verticali simmetrici perché le azioni agenti hanno segno positivo nel primo e negativo nel secondo caso.

Cumulando le azioni di calcolo, agenti sulla struttura, si sono ottenute più condizioni di carico.

Le massime sollecitazioni di progetto, sono state ricavate da un involucro finale delle stesse condizioni.

Assimilando gli eventuali appoggi estremi, senza sbalzo, ad un incastro cedevole si è calcolato e quindi sommato all'involuppo un momento negativo pari ad  $M^* = (1/12 : 1/20) P l_{Asta}^2$ , con P carico distribuito sull'asta. Questo momento fittizio si considera esteso per una lunghezza  $l^* = (1/5 : 1/6) l_{Asta} = 1/6 l_{Asta}$ . Per tenere conto dell'incremento di momento in campata, che può essere causato da perdita o riduzione di continuità sull'appoggio o da un cedimento dello stesso si è considerato un valore minimo del momento pari a:

$$M_{limite} = (Carico \cdot Luce^2) / 12$$

### Procedure di verifica.

La verifica di resistenza di ogni sezione viene fatta con il metodo agli stati limite nei riguardi degli stati limite ultimi e per i solai di nuova costruzione anche degli stati limite di esercizio.

La resistenza della sezione è data dalle caratteristiche della sollecitazione che da sole o associate causano la rottura della sezione oppure la sua continua deformazione senza ulteriore incremento della sollecitazione stessa fino al valore ultimo della deformazione.

Per ogni sezione si determina il dominio di sicurezza in funzione delle caratteristiche geometriche della sezione, dal suo comportamento meccanico e delle caratteristiche dei materiali, come indicato al par. 2.4.1.

La generica sezione, soggetta ad una determinata combinazione di sollecitazioni di carico risulta verificata quando la condizione di carico risulta interna al dominio di sicurezza della stessa garantendo un coefficiente di sicurezza dettato dalla normativa.

La verifica a taglio è stata eseguita come indicato dalla normativa vigente.

Per gli elementi che non richiedono armatura a taglio, come le nervature del solaio, si è verificato che:

$$V_{Rd} \geq V_{Sd}$$

dove:

$V_{sd}$  : taglio sollecitante di calcolo;

$V_{Rd}$  è il valore di calcolo dello sforzo di taglio agente.

Con riferimento all'elemento fessurato da momento flettente, la resistenza a taglio si valuta con:

$$V_{Rd} = [0.18 \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck})^{1/3} / \gamma_c \cdot 0.15 \cdot \sigma_{cp}] \cdot b_w \cdot d \geq (v_{min} + 0.15 \cdot \sigma_{cp}) \cdot b_w \cdot d$$

con

$$k = 1 + (200 / d)^{1/2} \leq 2$$

$$v_{min} = 0.035 k^{3/2} f_{ck}^{1/2}$$

e dove

d è l'altezza utile della sezione (in mm);

$\rho_1 = A_{sl} / (b_w \cdot d)$  è il rapporto geometrico di armatura longitudinale ( $\leq 0.02$ );

$\sigma_{cp} = N_{Ed} / A_c$  è la tensione media di compressione nella sezione ( $\leq 0.2 f_{cd}$ );

$b_w$  è la larghezza minima della sezione (in mm)

come specificato al par. "Procedure di Verifica degli elementi - Elementi in C.A." della presente relazione.

Per i solai di nuova costruzione le verifiche agli stati limite d'esercizio considerate vengono di seguito specificate.

La verifica dello stato tensionale, come già descritto al par. 2.4.1, viene eseguita sfruttando le ipotesi tradizionali per il calcolo del cemento armato ordinario: assunzione dei materiali elastico lineari; conservazione delle sezioni piane al crescere dei carichi; perfetta aderenza tra acciaio e calcestruzzo; resistenza nulla a trazione del calcestruzzo.

Le verifiche dello stato tensionale vengono eseguite considerando le combinazioni di carico caratteristica, frequente, e quasi permanente. La verifica consiste nel confrontare le tensioni di calcolo con quelle limite dei materiali.

Dovendo la struttura soddisfare delle esigenze di durabilità e di funzionalità, vengono eseguite le verifiche a fessurazione e di deformabilità della struttura della singola trave continua per non avere pregiudicato il corretto funzionamento della struttura. Viene verificato che l'ampiezza massima delle fessure sia minore di quella di progetto.

Le espressioni utilizzate per la verifica a fessurazione, sono state già commentate dettagliatamente al par. 2.4.1 della presente relazione.

Sezione per sezione viene per prima cosa verificata la presenza dell'area minima di armatura, necessaria a limitare le fessure.

$$A_s = K_c K_{f_{ct}} A_{ct} / \sigma_s$$

Si effettua poi il calcolo dell'ampiezza delle fessure, considerando anche la parte di calcestruzzo reagente a trazione utilizzando la seguente relazione:

$$W_k = \beta S_{rm} \epsilon_{sm}$$

dove  $W_k$  : ampiezza di calcolo delle fessure;

$\beta$  : coefficiente di correlazione tra l'ampiezza media delle fessure ed il valore di calcolo;

$S_{rm}$  : distanza media finale tra le fessure;

$\epsilon_{sm}$  : deformazione che tiene conto, nella combinazione di carico considerata, degli effetti "tension stiffening" del ritiro, etc.

Il valore di  $\epsilon_{sm}$  si ricava dalla relazione:

$$\epsilon_{sm} = (\sigma_s / E_s) [1 - \beta_1 \beta_2 (\sigma_{sr} / \sigma_s)^2]$$

La distanza media finale delle fessure deriva dall'espressione:

$$s_{rm} = 50 + 0.25 k_1 k_2 (\phi / \rho_r)$$

Ulteriori verifiche vengono eseguite per il rispetto delle normative vigenti nei riguardi delle caratteristiche geometriche della sezione e dei valori di armatura minima richiesti sezione per sezione secondo la normativa in vigore.

Nelle tabelle successive vengono elencati i dati di progetto di ogni trave continua ed i risultati del calcolo, sollecitazioni di calcolo e tutte le verifiche.

Per quanto riguarda il calcolo della deformabilità dei solai si seguono le prescrizioni riportati nel punto 4.1.2.2.2 del DM 14/01/2008 e nel punto C4.1.2.2.2 nella circolare 617/2009.

### - Legende -

#### - DATI GENERALI -

Tipo Sezione	: tipologia solaio;
Hp	: altezza pignatta;
LaP	: larghezza pignatta;
LuP	: lunghezza pignatta;
Lt	: larghezza travetto;
Ht	: altezza soletta collaborante;
Mat. Cls	: tipo di cls (vedi 3.2);
fcd	: resistenza caratteristica di calcolo del calcestruzzo;
fctd	: resistenza caratteristica a trazione di calcolo del calcestruzzo;
Mat. Barre	: tipo di acciaio delle barre (vedi 3.2).
fyd	: resistenza di calcolo dell'acciaio;

#### - DATI TRALICCIO -

Tipo Sezione	: tipologia solaio;
Hf	: altezza fondello;
Htr	: altezza traliccio;
Ls	: diametro longitudinali superiori traliccio;
Li	: diametro longitudinali inferiori traliccio;
Tr	: diametro traliccio;

$\alpha_{Tr}$  : angolo inclinazione  
 $n^{\circ}Ln$  : numero longitudinali inferiori intermedi;  
 $Ln$  : diametro longitudinali inferiori intermedi;  
Doppio Travetto : eventuale presenza di doppio travetto;

### - DATI GEOMETRICI E CARICHI -

Asta : numerazione interna dell'asta;  
Luce : lunghezza dell'asta proiettata sull'orizzontale;  
Car. Perm. G1 : totale dei carichi permanenti strutturali;  
Car. Perm. G2 : totale dei carichi permanenti non strutturali;  
Car. Acc. : totale dei carichi d'esercizio;  
Sisma Vert. : valore del carico sismico, se presente.

### - RISULTATI DI CALCOLO -

Asta : numerazione interna dell'asta;  
X : distanza dal nodo iniziale misurata lungo l'asse dell'asta;  
M : valore del Momento Flettente X-Z nel punto considerato;  
max : valore massimo (rispetto al sistema di riferimento globale) dell'involuppo;  
min : valore minimo (rispetto al sistema di riferimento globale) dell'involuppo;  
N : valore dello Sforzo Normale nel punto considerato;  
max : valore massimo (rispetto al sistema di riferimento globale) dell'involuppo;  
min : valore minimo (rispetto al sistema di riferimento globale) dell'involuppo;  
T : valore del Taglio X-Z nel punto considerato;  
max : valore massimo (rispetto al sistema di riferimento globale) dell'involuppo;  
min : valore minimo (rispetto al sistema di riferimento globale) dell'involuppo;  
Vmax : Traslazione Z rispetto al sistema di riferimento globale.

### - VERIFICHE DI SICUREZZA -

#### Verifiche a PressoTensoFlessione

Asta : numerazione interna dell'asta;  
X : distanza dal nodo iniziale misurata lungo l'asse dell'asta;  
M : valore del Momento Flettente X-Z nel punto considerato;  
Azioni Sollecitanti:  
- NSd : Sforzo Normale sollecitante;  
- MSdXZ : Momento Flettente X-Z sollecitante di calcolo;  
Azioni Resistenti:  
- NRd : Sforzo Normale resistente;  
- NRdXZ : Momento Flettente X-Z resistente di calcolo;  
Cop : copriferro;  
Aflsup : valore dell'area di armatura superiore presente nella sezione;  
Aflinf : valore dell'area di armatura inferiore presente nella sezione;  
S : Coefficiente di sicurezza minimo della sezione;  
Esito:  
- v : Verificato;  
- NV : Non Verificato;

#### Verifiche a Taglio

Asta : numerazione interna dell'asta;  
X : distanza dal nodo iniziale misurata lungo l'asse dell'asta;  
Taglio Sollecitante:  
- VSdXZ : Taglio X-Z sollecitante di calcolo;  
Taglio Resistente:  
- VRdXZ : Taglio X-Z resistente di calcolo;

S : Coefficiente di sicurezza;  
Esito:  
- v : Verificato;  
- NV : Non Verificato;

### - VERIFICHE DI ESERCIZIO -

#### Stato Tensionale

Asta : numerazione interna dell'asta;  
X : distanza dal nodo iniziale misurata lungo l'asse dell'asta;  
Comb : tipo di combinazione a cui la verifica è riferita;  
Azioni Sollecitanti:  
- NSd : Sforzo Normale Sollecitante;  
- MSdXZ : Momento Flettente X-Z sollecitante di calcolo;  
Tensioni:  
-  $\sigma_c$  : tensioni d'esercizio del calcestruzzo;  
-  $\sigma_s$  : tensioni d'esercizio dell'acciaio;  
S : Coefficiente di sicurezza minimo della sezione;  
Tensioni Limite:  
-  $\sigma_{c,lim}$  : tensioni limite del calcestruzzo;  
-  $\sigma_{s,lim}$  : tensioni limite dell'acciaio;  
Esito:  
- v : Verificato;  
- NV : Non Verificato;

#### Fessurazione

Asta : numerazione interna dell'asta;  
X : distanza dal nodo iniziale misurata lungo l'asse dell'asta;  
Comb : tipo di combinazione a cui la verifica è riferita;  
Sollecitazione : Mxz: Momento Flettente X-Z sollecitante di calcolo;  
Fessura di calcolo : Wk: apertura della fessura calcolata;  
Fessura max : Wk,max: massima apertura ammissibile delle fessure;  
S : Coefficiente di sicurezza;  
Esito:  
- v : Verificato;  
- NV : Non Verificato;

#### Deformabilità

Asta : numerazione interna dell'asta;  
Comb : tipo di combinazione a cui la verifica è riferita;  
Lc : lunghezza della campata;  
f/l : rapporto freccia/lunghezza;  
flim : valore limite del rapporto freccia/lunghezza;  
S : Coefficiente di sicurezza;  
Esito:  
- v : Verificato;  
- NV : Non Verificato;

#### Dati di Progetto.

#### Dati Generali

#### Analisi dei Carichi

##### - Tipologie in Latero-Cemento con traliccio

Nome Sezione	Hp [cm]	LaP [cm]	LuP [cm]	Lt [cm]	Ht [cm]	Mat. Cls	fcd [daN/cm <sup>2</sup> ]	fctd [daN/cm <sup>2</sup> ]	Mat. Barre	fyd [daN/cm <sup>2</sup> ]
--------------	---------	----------	----------	---------	---------	----------	----------------------------	-----------------------------	------------	----------------------------

# RELAZIONE DI CALCOLO - COMUNE DI OSIMO

SLCT_TRAL.16 +4	16.00	35.00	35.00	10.00	4.00	Clsl	113.33	11.97	Barrel	3913.04
--------------------	-------	-------	-------	-------	------	------	--------	-------	--------	---------

## - Dati traliccio

Nome Sezione	Hf [cm]	Htr [cm]	Ls [cm]	Li [cm]	Tr [cm]	$\alpha$ Tr [°]	n°Ln	Ln [mm]	Doppio Travetto
SLCT_TRAL.16 +4	3.0	10.0	6	6	6	45.0	2	10	Non Presente

## 5.1.1 Verifica Solai.

## - IMP. : Piano 2

Destinazione d'uso	$\Psi$ 0i	$\Psi$ 1i	$\Psi$ 2i
Abitazione	0.7	0.5	0.3

## - Trave Continua N° 7 - Nome Sezione: SLCT\_TRAL.16+4

### - DATI GEOMETRICI E CARICHI -

Asta	Luce [cm]	Car. Perm. G1 [daN/m²]	Car. Perm. G2 [daN/m²]	Car. Acc. [daN/m²]	Sisma Vert. [daN/m²]
1	535.19	269	100	150	0

### - RISULTATI DI CALCOLO -

### - INVILUPPI -

## Inviluppo SLV

STATO LIMITE SALVAGUARDIA DELLA VITA								
		Sollecitazioni						Spost.
		M [daNm]		N [daN]		T [daN]		Vz max [cm]
Asta	X [cm]	max	min	max	min	max	min	
1	0.00	0.00	-682.95	0.04	0.00	831.90	0.00	0.00
	267.59	778.40	0.00	0.00	0.00	0.00	0.00	-0.07
	535.19	0.00	-682.95	0.00	-0.04	0.00	-831.90	0.00

## Inviluppo SLE

Stato Limite di Esercizio - Caratteristiche								
		Sollecitazioni						Spost.
		M [daNm]		N [daN]		T [daN]		Vz max [cm]
Asta	X [cm]	max	min	max	min	max	min	
1	0.00	0.00	-489.10	0.03	0.00	595.77	0.00	0.00
	267.59	278.73	0.00	0.00	0.00	0.00	0.00	-0.05
	535.19	0.00	-489.10	0.00	-0.03	0.00	-595.77	0.00

Stato Limite di Esercizio - Frequenti								
		Sollecitazioni						Spost.
		M [daNm]		N [daN]		T [daN]		Vz max [cm]
Asta	X [cm]	max	min	max	min	max	min	
1	0.00	0.00	-418.42	0.02	0.00	509.68	0.00	0.00
	267.59	238.45	0.00	0.00	0.00	0.00	0.00	-0.04
	535.19	0.00	-418.42	0.00	-0.02	0.00	-509.68	0.00

Stato Limite di Esercizio - Quasi Permanenti								
		Sollecitazioni						Spost.
		M [daNm]		N [daN]		T [daN]		Vz max [cm]
Asta	X [cm]	max	min	max	min	max	min	
1	0.00	0.00	-390.15	0.02	0.00	475.24	0.00	0.00
	267.59	222.34	0.00	0.00	0.00	0.00	0.00	-0.04
	535.19	0.00	-390.15	0.00	-0.02	0.00	-475.24	0.00

### - VERIFICHE DI SICUREZZA -

### Verifiche a PressoTensoFlessione

Asta	X [cm]	Azioni Sollecitanti		Azioni Resistenti		Cop.[cm]	Afl <sub>sup</sub> [cm²]	Afl <sub>inf</sub> [cm²]	Afl <sub>Tral</sub> [cm²]	S	Esito
		NSd [daN]	MSdXZ [daNm]	NRd [daN]	MRdXZ [daNm]						
1	0.00	0.00	-682.95	-0.13	-1282.09	2.00	2.26	1.13	0.00	1.88	V
	267.59	0.00	778.40	0.31	1465.54	2.00	0.00	0.00	2.14	1.88	V
	535.19	0.00	-682.95	-0.13	-1282.09	2.00	2.26	1.13	0.00	1.88	V

### Verifiche a Taglio

Asta	X [cm]	VSdXZ [daN]	VRdXZ [daN]	S	Esito
1	0.00	831.90	1305.79	1.57	V
	267.59	0.00	880.53	-	V
	535.19	831.90	1305.80	1.57	V

- VERIFICHE DI ESERCIZIO -

### Stato Tensionale

Asta	Comb	X [cm]	Azioni Sollecitanti		Tensioni		Tensioni Limite		S	Esito
			NSd [daN]	MSdXZ [daNm]	σ <sub>c</sub> [daN/cm²]	σ <sub>s</sub> [daN/cm²]	σ <sub>c,lim</sub> [daN/cm²]	σ <sub>s,lim</sub> [daN/cm²]		
1	Caratteristica	0.00	0.00	-489.10	72.63	-1469.44	150.00	3600.00	2.07	V
		267.59	0.00	278.73	17.91	-807.64	150.00	3600.00	4.46	V
		535.19	0.00	-489.10	72.63	-1469.44	150.00	3600.00	2.07	V

### Fessurazione

			Sollecitazione	Fessura di calcolo	Fessura max		
Asta	Comb	X [cm]	Mxz [daNm]	Wk [mm]	Wk,max [mm]	S	Esito
1	Freq.	0.00	0.00	0.00	0.40	-	V
		267.59	238.45	0.00	0.40	-	V
		535.19	0.00	0.00	0.40	-	V

### Deformabilità

Asta	Comb	Lc [cm]	f/l	f <sub>lim</sub>	S	Esito
1	Caratteristica	535.19	0.000100	0.00200	-	V



### 5.3 ALLEGATO C - (Scheda Sintetica NTC).

#### DESCRIZIONE GENERALE DELL'OPERA

Oggetto : PROGETTO MANUTENZIONE STRAORDINARIA DI EDIFICIO CON STRUTTURA PORTANTE IN MURATURA SEDE DEL CENTRO DI EDUCAZIONE AMBIENTALE LOCALITA' VIA CAPANNE N. 11

#### CRITERI GENERALI DI VERIFICA E RIFERIMENTI NORMATIVI

Normativa : D.M. 14/01/2008 "Norme Tecniche per le Costruzioni"  
 Struttura : Esistente  
 Vita nominale : 50  
 Tipo di opera : Opere ordinarie  
 Classe d'uso : II  
 Vita di riferimento : 50  
 Approccio Verifiche GEO : Approccio 2

#### Analisi dei Carichi

Peso dei materiali strutturali:

##### a - Calcestruzzo

Cls1 - Peso Specifico 2500.00 daN/m<sup>3</sup>

##### b - Legno.

Legno1 - Peso Specifico 380.00 daN/m<sup>3</sup>

##### c - Muratura

Muratura1 - Peso Specifico 1500.00 daN/m<sup>3</sup>

Pesi propri unitari - G1:

Impalcato	Solai [daN/m <sup>2</sup> ]	Balconi [daN/m <sup>2</sup> ]	Scale [daN/m <sup>2</sup> ]
Fond.	-	-	400
Piano 1	36	-	400
Piano 2	36	-	400

- Analisi dei Carichi -

<b>Fond.</b>
--------------

**Tipologia scala prevalente:** Il carico permanente G1 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati.

<b>Piano 1</b>
----------------

#### Solai

**Tipologia solaio prevalente:** LEG\_TAVOLATO(1) (Legno e Tavolato)

Altezza massetto	50 mm
Spessore tavolato	30 mm
Interasse travi	900 mm
Larghezza trave	160 mm
Altezza trave	240 mm
Peso dell'unità di volume massetto	150 daN/m <sup>3</sup>
Peso dell'unità di volume tavolato	380 daN/m <sup>3</sup>
Peso dell'unità di volume travi	380 daN/m <sup>3</sup>

**Peso Proprio Solaio: 36 daN/m<sup>2</sup>**

**Tipologia scala prevalente:** Il carico permanente G1 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati.

**Piano 2**

**Solai**

**Tipologia solaio prevalente:** LEG\_TAVOLATO(1) (Legno e Tavolato)

Altezza massetto	50 mm
Spessore tavolato	30 mm
Interasse travi	900 mm
Larghezza trave	160 mm
Altezza trave	240 mm
Peso dell'unità di volume massetto	150 daN/m <sup>3</sup>
Peso dell'unità di volume tavolato	380 daN/m <sup>3</sup>
Peso dell'unità di volume travi	380 daN/m <sup>3</sup>

**Peso Proprio Solaio: 36 daN/m<sup>2</sup>**

**Carichi Permanenti - G2:**

Impalcato	Solai [daN/m <sup>2</sup> ]	Balconi [daN/m <sup>2</sup> ]	Scale [daN/m <sup>2</sup> ]	Influenza Tramezzi [daN/m <sup>2</sup> ]	Tamponature [daN/m]
<b>Fond.</b>	100	100	100	100	582
<b>Piano 1</b>	100	100	100	100	582
<b>Piano 2</b>	100	100	100	0	0

- Analisi dei Carichi -

**Fond.**

**Scale**

**Tipologia scala prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati

**Influenza Tramezzi**

Il peso proprio degli elementi divisorii interni viene ragguagliato ad un carico permanente portato uniformemente distribuito come definito dal punto 3.1.3.1 - Elementi divisorii interni con  $100 < G2 \leq 200$  daN/m<sup>2</sup> (DM 14/01/2008)

**Piano 1**

**Solai**

**Tipologia solaio prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di solaio adottata in fase di progettazione e descritta nei relativi elaborati

**Scale**

**Tipologia scala prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di scala adottata in fase di progettazione e descritta nei relativi elaborati

**Influenza Tramezzi**

Il peso proprio degli elementi divisorii interni viene ragguagliato ad un carico permanente portato uniformemente distribuito come definito dal punto 3.1.3.1 - Elementi divisorii interni con  $100 < G2 \leq 200$  daN/m<sup>2</sup> (DM 14/01/2008)

**Piano 2**

**Solai**

**Tipologia solaio prevalente:** Il carico permanente non strutturale G2 deriva dall'analisi della tipologia di solaio adottata in fase di progettazione e descritta nei relativi elaborati

**Carichi Variabili - Q:**

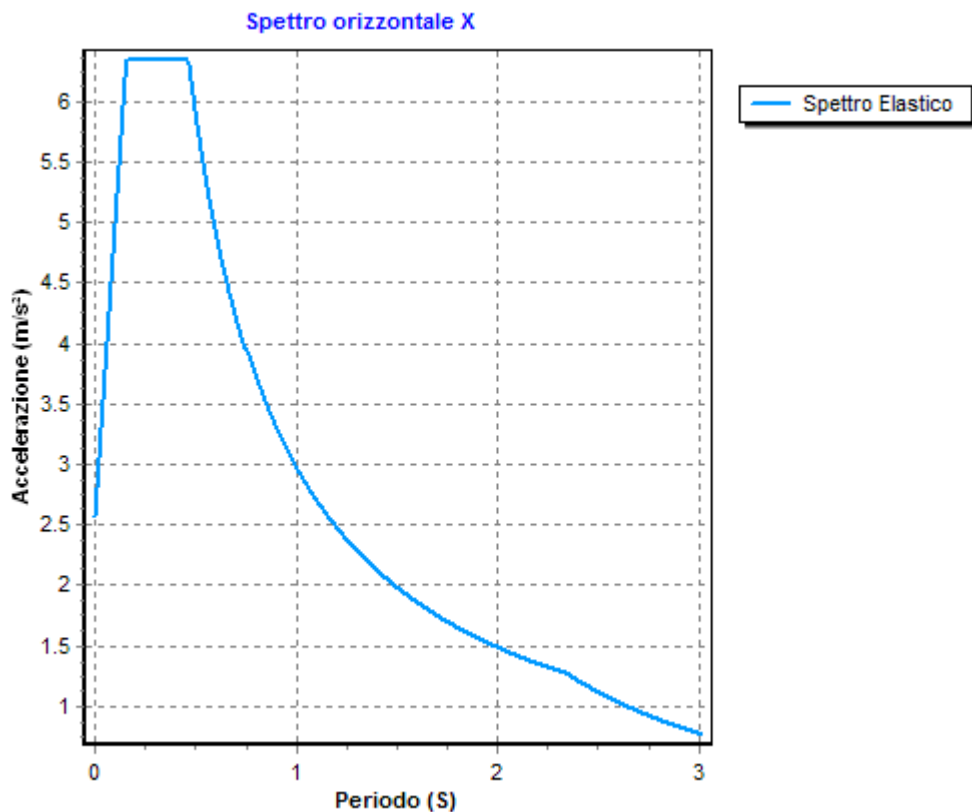
Le intensità assunte per i carichi variabili verticali ripartiti sono riportate nella seguente tabella:

Impalcato	Carichi d'esercizio [daN/m <sup>2</sup> ]		
	Solai	Balconi	Scale
Fond.	300	400	400
Piano 1	200	400	400
Piano 2	150	400	400

#### Azione Sismica

Comune : Osimo  
 Latitudine : 43.4870°  
 Longitudine : 13.4833°  
 Suolo di fondazione : C  
 Categoria topografica : T1  
 Coeff. smorz. viscoso : 0.05

	Parametri dello spettro di risposta orizzontale		
	SLV	SLD	SLO
Tempo di ritorno	475	50	30
Accelerazione sismica	0.183	0.062	0.048
Coefficiente $F_0$	2.476	2.563	2.399
Periodo $T_C^*$	0.299	0.280	0.281
Coefficiente $S_s$	1.43	1.50	1.50
Coefficiente di amplificazione topografica $S_t$	1.00	1.00	1.00
Prodotto $S_s \cdot S_t$	1.43	1.50	1.50
Periodo $T_B$	0.16	0.15	0.15
Periodo $T_C$	0.47	0.45	0.45
Periodo $T_D$	2.33	1.85	1.79
Coefficiente $\eta$	1.00	1.00	1.00



VERIFICHE SLD

: ESEGUITE

**VERIFICHE SLO : NON ESEGUITE**

**MATERIALI**

<b>Materiale</b>	<b>Tipo</b>	<b>Classe</b>	<b>Normativa</b>
Cls1	Calcestruzzo	C25/30	-
Barre1	Acciaio per C.A.	B450C	-
Legno1	Legno - (Regles CB 71)	GL24h	EN 1194
Muratura1	Mattoni pieni e malta cementizia	-	-

**TIPO DI ANALISI SVOLTA:**

ANALISI STATICA NON LINEARE

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