

# REGIONE EMILIA-ROMAGNA

*Comune di Cesenatico - Provincia di Forlì-Cesena*

*Sviluppo del territorio - Servizio Sismica*

*Via M. Moretti 5 - 47042 Cesenatico (FC)*

*Programma di riqualificazione urbana per la  
costruzione di un edificio di ERP comprendente  
n. 18 alloggi nell'area Ex colonea Prealpi in Via  
Galilei, loc. Valverde, Comune di Cesenatico*

*Relazione strutturale*

*ai sensi del DGR 1373/2011*

*Nuova Costruzione ai sensi delle NTC18 e della  
LR19/2008*

*Autorizzazione Sismica  
CORPO B e PENSILINA*

*Committente:*

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## **1. Illustrazione sintetica degli elementi essenziali del progetto strutturale**

### **1.1 Descrizione del contesto edilizio e delle caratteristiche geologiche, morfologiche e idrogeologiche del sito oggetto di intervento e con l'indicazione, per entrambe le tematiche, di eventuali problematiche riscontrate e delle soluzioni ipotizzate, tenuto conto anche delle indicazioni degli strumenti di pianificazione territoriale e urbanistica;**

Il contesto edilizio oggetto di progetto presenta le seguenti caratteristiche che vengono brevemente descritte:

Superficie in pianta: 330 mq

Destinazione d'uso:

N° Piani Interrati: 0

N° Piani fuori terra: 4

Volume: 2800 mc circa

Luce max solai: 4.5 m

Luce max sbalzi-aggetti: 1.8 m

Min quota piano fondale: - 1.25 m

Max. altezza piano copertura: 13.30 m

Foglio: 39

Particella: 226

Sub: /



In riferimento alle caratteristiche geologiche, morfologiche e idrogeologiche si riporta quanto segue:

Localizzazione geografica:

L'area in esame è situata in località Valverde del Comune di Cesenatico e, in particolare, nella zona interposta tra viale Galilei, Viale Pitagora e Viale Archimede. Il fabbricato oggetto di nuova costruzione è situato nella zona EST della città di Cesenatico in una porzione di territorio altamente urbanizzato della frazione di Valverde.

Considerazione geomorfologiche:

L'area pianeggiante in esame è situata nella pianura costiera di Cesenatico a circa 300 m dalla linea di costa ed alla quota di circa 1.5 metri sul livello marino.

Aspetti geologici:

L'area in esame è interessata da un deposito di sabbie litoranee di pertinenza dell'Unità di Modena (AES8a) dell'Olocene. L'insieme di questa Unità è contraddistinto da sabbie, argille e limi di ambiente alluvionale, deltizio e litorale, organizzati in corpi sedimentari lenticolari, nastriformi, tabulari e cuneiformi di spessore plurimetrico.

Sondaggi eseguiti:

- n. 1 sondaggio a carotaggio continuo, n.3 prove CPTU, N.1 indagine geofisica, prove di laboratorio su n. 3 campioni, installazione di n. 3 piezometri

Di seguito si riportano le eventuali problematiche riscontrate in fase di progettazione, tenuto conto anche delle indicazioni degli strumenti di pianificazione territoriale e urbanistica:

Problematiche riscontrate:

Dalle indagini eseguite è emerso che il terreno di fondazione è soggetto alla liquefazione delle sabbie pertanto, prima di eseguire il fabbricato e la sua nuova fondazione, si è pensato di procedere con un consolidamento del terreno attraverso pali di ghiaia della lunghezza di 7 metri del diametro di 60 cm con un interasse massimo di 360 cm gli uni dagli altri.

Vincoli presenti sul fabbricato: ☐ SI ☒ NO

Tipologia di vincolo:

Nessun vincolo identificato.

**1.2 Descrizione generale della struttura, sia in elevazione che in fondazione, e della tipologia di intervento, con indicazione delle destinazioni d'uso previste per la costruzione, dettagliate per ogni livello entro e fuori terra, e dei vincoli imposti dal progetto architettonico;**

Di seguito si descrive l'edificio oggetto di progetto:

Unità strutturale:

Sistema costruttivo:

Tipo di fondazioni:

Fondazioni collegate:

☒ SI ☐ NO

Tipo di struttura:

Bene di interesse culturale (42/2004): ☐ SI ☒ NO

Vincoli architettonici da attuare: Nessun vincolo

Descrizione degli interventi da eseguirsi:

Si prevede la nuova costruzione di un edificio in c.a.

Tipo di intervento (NTC18):

Di seguito si riportano le destinazioni d'uso previste per la costruzione dettagliate per ogni livello:

Piano Terra	Abitativo
Piano Primo	Abitativo
Piano Secondo	Abitativo
Piano Terzo	Abitativo
Piano Quarto	Abitativo / Zona non praticabile / Impianti

**1.3 Normativa tecnica e riferimenti tecnici utilizzati, tra cui le eventuali prescrizioni sismiche contenute negli strumenti di pianificazione territoriale e urbanistica:**

- Legge 5 novembre 1971, n. 1086, recante norme per la disciplina delle opere in conglomerato cementizio armato, normale e precompresso e da struttura metallica;
- Decreto del Presidente della Repubblica 6 giugno 2001, n. 380, testo unico delle disposizioni legislative e regolamentari in materia edilizia;
- OPCM 3 maggio 2005 Ulteriori modifiche ed integrazioni all'ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003, recante "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica"
- Decreto del Ministro delle infrastrutture e dei trasporti 14 settembre 2005, con il quale sono state approvate le "Norme tecniche per le costruzioni"
- NTC08 – D.M. 14/01/2008 "Nuove norme tecniche per le costruzioni";
- Circolare 2 febbraio 2009, n. 617 - Istruzioni per l'applicazione delle «Nuove norme tecniche per le costruzioni» di cui al decreto ministeriale 14 gennaio 2008;
- NTC18 – D.M. 17/01/2018 "Aggiornamento delle Norme tecniche per le costruzioni";
- Circolare applicativa 21/01/2019, n. 7 del Ministero delle Infrastrutture e Trasporti.

**1.4 Definizione dei parametri di progetto che concorrono alla definizione dell'azione sismica di base del sito (vita nominale - VN, classe d'uso, periodo di riferimento - VR, categoria del sottosuolo, categoria topografica, amplificazione topografica, zona sismica del sito, coordinate geografiche del sito), delle azioni considerate sulla costruzione e degli eventuali scenari di azioni eccezionali:**

Di seguito si riportano i parametri di progetto utilizzati per definire l'azione sismica di base del sito ove sorge la costruzione:

Tipo di opera:

Vita Nominale

Classe d'uso

Periodo di riferimento  $V_r = V_n \times C_u$  50

### 2.4.3 PERIODO DI RIFERIMENTO PER L'AZIONE SISMICA

Le azioni sismiche su ciascuna costruzione vengono valutate in relazione ad un periodo di riferimento  $V_R$  che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale  $V_N$  per il coefficiente d'uso  $C_U$ :

$$V_R = V_N \cdot C_U \quad (2.4.1)$$

Il valore del coefficiente d'uso  $C_U$  è definito, al variare della classe d'uso, come mostrato in Tab. 2.4.II.

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

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

Se  $V_R \leq 35$  anni si pone comunque  $V_R = 35$  anni.

Categoria del terreno

Categoria topografica

Coordinate geografiche del sito:

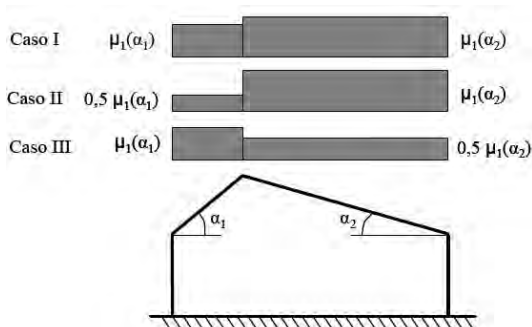
Latitudine: 44.17629 °

Longitudine: 12.428993 °

Di seguito si riportano le azioni (Pesi Propri, Permanenti non strutturali e variabili) considerate sulla costruzione:

	Q Permanente (kg/mq)	Q Portato (kg/mq)	Q Variabile (kg/mq)	Categoria
<b>Solaio PT</b>	/	100	200	A
<b>Solaio ABITAZIONI</b>	365	330	200	A
<b>Solaio BALCONI E PARTI COMUNI</b>	365	155	400	B
<b>Solaio Copertura</b>	365	155	50+120	H/NEVE

Allo stesso tempo è stata considerata l'azione della neve sulla copertura del fabbricato, riassunta di seguito:



Regione: Emilia Romagna

Provincia: Forlì-Cesena  
 Ubicazione: Zona I - Mediterranea  
 Quota sito s.l.m.m. as: 0 m  
 Topografia: Normale  
 Coefficiente di esposizione CE: 1.0  
 Coefficiente termico Ct: 1.00  
 Valore caratteristico di carico neve al suolo (TR=50anni) qsk: 1.50 kN/m<sup>2</sup>  
 Angolo  $\alpha_1$  della falda 1 sull'orizzontale: 20°  
 Angolo  $\alpha_2$  della falda 2 sull'orizzontale: 20°  
 Coefficiente di forma  $\mu_1(\alpha_1)$ : 0.80  
 Coefficiente di forma  $\mu_1(\alpha_2)$ : 0.80  
 Caso (i) - Carico neve in assenza di vento  
 Carico neve su falda 1 q1: 1.20 kN/m<sup>2</sup>  
 Carico neve su falda 2 q2: 1.20 kN/m<sup>2</sup>  
 Caso (ii) - Carico neve in presenza di vento  
 Carico neve su falda 1 q1: 0.60 kN/m<sup>2</sup>  
 Carico neve su falda 2 q2: 1.20 kN/m<sup>2</sup>  
 Caso (iii) - Carico neve in presenza di vento  
 Carico neve su falda 1 q1: 1.20 kN/m<sup>2</sup>  
 Carico neve su falda 2 q2: 0.60 kN/m<sup>2</sup>

Si possono verificare altri scenari di azioni accidentali: ☐ SI ☒ NO

**1.5 Descrizione dei materiali e dei prodotti per uso strutturale, dei requisiti di resistenza meccanica e di durabilità considerati:**

Saranno utilizzati materiali compatibili con le normative vigenti sia in termini di durabilità che di resistenza meccanica, come descritto negli elaborati di progetto architettonici.

Gli interventi di manutenzione ordinaria e straordinaria saranno quelli indicati nel piano di manutenzione del fabbricato, che sarà allegato alla pratica di autorizzazione sismica.

Di seguito si riportano le prescrizioni per i materiali e i prodotti per uso strutturale utilizzati:

**Calcestruzzo in opera - FONDAZIONE**

Classe Resistenza Caratteristica:	C 25/30
Classe esposizione ambientale:	XC2
Classe di consistenza:	S4
Diametro massimo aggregato:	35 mm

**Calcestruzzo in opera - ELEVAZIONE**

Classe Resistenza Caratteristica:	C 25/30
Classe esposizione ambientale:	XC1
Classe di consistenza:	S4
Diametro massimo aggregato:	35 mm

**Acciaio per c.a. in opera**

Tensione caratteristica di snervamento	450 N/mm <sup>2</sup>
Tensione rottura	540 N/mm <sup>2</sup>



## **Strutture METALLICHE in acciaio e/o altri materiali**

☐ S235      ☒ S275      ☐ S355

### **1.6 Illustrazione dei criteri di progettazione e di modellazione: classe di duttilità - CD, regolarità in pianta ed in alzato, tipologia strutturale, fattore di struttura - q e relativa giustificazione, stati limite indagati, giunti di separazione fra strutture contigue, criteri per la valutazione degli elementi non strutturali e degli impianti, requisiti delle fondazioni e collegamenti tra fondazioni, vincolamenti interni e/o esterni, schemi statici adottati;**

Di seguito si illustrano i criteri di progettazione e di modellazione adottati, che in taluni casi sono a favore di sicurezza:

Classe di duttilità:

Regolarità in pianta ☐ SI ☒ NO

Regolarità in elevazione ☐ SI ☒ NO

Tipologia strutturale ai fini sismici: C.A.

Presenza e giustificazione di elementi strutturali secondari:

Sono presenti tamponamenti in laterizio che svolgono funzione secondaria e sono stati opportunamente progettati e vincolati alla struttura principale ove necessario.

Applicazione della gerarchia delle resistenze: ☒ SI ☐ NO

Tipologia dei vincoli utilizzati per i principali elementi strutturali:

Fondazione: ☐ Incastro ☐ Cerniera ☒ Winkler

Pilastrini/Maschi Murari: ☒ Incastro-Incastro ☐ Incastro-Cerniera ☐ Cerniera-Cerniera

Travi/Fascia di piano: ☒ Incastro-Incastro ☐ Incastro-Cerniera ☐ Cerniera-Cerniera

Rigidezza impalcati di copertura: Infinitamente rigidi ☒ SI ☐ NO

Tipologia di Copertura: Copertura in laterocemento

Copertura spingente: ☐ SI ☒ NO

Fattore di struttura adottato: 2.76

Riferimento normativo p.to: 7.4.3.2 NTC18

$\alpha_u / \alpha_1$ : (1.3+1)/2

$K_w$ : 1

$K_r$ : 0.8

Elementi strutturali in falso: ☐ SI ☒ NO

Azione sismica verticale: ☐ SI ☒ NO

Specificare l'accelerazione al suolo adottata per gli stati limite indagati:

$a_{g,SLD}$ : 0.065 g

$a_{g,SLV}$ : 0.182 g

Stati Limite	T.R (anni)	a.g (g)	F.o	T.C* (sec)	S,S	C,C	S	T.B (sec)	T.C (sec)	T.D (sec)	F.v
SLE: SLO	30	0.050	2.442	0.270	1.000	1.000	1.000	0.090	0.270	1.800	0.737
SLE: SLD	50	0.065	2.471	0.280	1.000	1.000	1.000	0.093	0.280	1.860	0.850
SLU: SLV	475	0.182	2.509	0.291	1.000	1.000	1.000	0.097	0.291	2.328	1.445
SLU: SLC	975	0.236	2.523	0.310	1.000	1.000	1.000	0.103	0.310	2.544	1.655

È stata effettuata la verifica della distanza tra costruzioni contigue (giunti e martellamenti)

☒ SI ☐ NO ☐ NON NECESSARIA

È stata effettuata la verifica dei collegamenti tra le fondazioni:

☒ SI ☐ NO ☐ NON NECESSARIA

È stato effettuato il controllo ai fini del danneggiamento di elementi non strutturali e impianti:

☒ SI ☐ NO ☐ NON NECESSARIA

È stata effettuata la verifica degli elementi costruttivi senza funzione strutturale (tamponamenti, tramezzi, ecc):

☒ SI ☐ NO ☐ NON NECESSARIA

☒ Edificio con tamponamento collegato rigidamente alla struttura e che interferiscono con la deformabilità della stessa ( $dr < 0.005 h$ )

Si osserva che all'interno degli ambienti possono essere presenti elementi non strutturali significativi che possono condurre a situazioni di pericolo, pertanto è necessario che il Committente prenda gli opportuni provvedimenti per garantire la sicurezza prima di installarli.

**1.7 Indicazione delle principali combinazioni delle azioni in relazione agli SLU e SLE indagati: coefficienti parziali per le azioni, coefficienti di combinazione;**

Ai fini delle verifiche degli stati limite si dichiara che sono state considerate le seguenti combinazioni delle azioni:

- |  |  |  |
|--|--|--|
| - Combinazione fondamentale (SLU)              | <input checked="" type="checkbox"/> SI | <input type="checkbox"/> NO            |
| - Combinazione caratteristica rara (SLE IRREV) | <input checked="" type="checkbox"/> SI | <input type="checkbox"/> NO            |
| - Combinazione frequente (SLE REV)             | <input checked="" type="checkbox"/> SI | <input type="checkbox"/> NO            |
| - Combinazione quasi permanente (SLE LT)       | <input checked="" type="checkbox"/> SI | <input type="checkbox"/> NO            |
| - Combinazione sismica                         | <input checked="" type="checkbox"/> SI | <input type="checkbox"/> NO            |
| - SLU terreno A1 - Approccio 1/Approccio 2     | <input checked="" type="checkbox"/> SI | <input type="checkbox"/> NO            |
| - SLU terreno A2 - Approccio 1                 | <input type="checkbox"/> SI            | <input checked="" type="checkbox"/> NO |

Risposta alle diverse componenti dell'azione sismica è stata combinata con la formula:

$$1.00 \cdot E_x + 0.30 \cdot E_y + 0.30 \cdot E_z$$

Con rotazione dei coefficienti moltiplicativi e conseguente individuazione degli effetti più gravosi.

- Combinazione eccezionale

☐ SI

☒ NO

**Tabella 2.5.I – Valori dei coefficienti di combinazione**

Categoria/Azione variabile	$\Psi_{0j}$	$\Psi_{1j}$	$\Psi_{2j}$
Categoria A Ambienti ad uso residenziale	0,7	0,5	0,3
Categoria B Uffici	0,7	0,5	0,3
Categoria C Ambienti suscettibili di affollamento	0,7	0,7	0,6
Categoria D Ambienti ad uso commerciale	0,7	0,7	0,6
Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	1,0	0,9	0,8
Categoria F Rimesse e parcheggi (per autoveicoli di peso $\leq 30$ kN)	0,7	0,7	0,6
Categoria G Rimesse e parcheggi (per autoveicoli di peso $> 30$ kN)	0,7	0,5	0,3
Categoria H Coperture	0,0	0,0	0,0
Vento	0,6	0,2	0,0
Neve (a quota $\leq 1000$ m s.l.m.)	0,5	0,2	0,0
Neve (a quota $> 1000$ m s.l.m.)	0,7	0,5	0,2
Variazioni termiche	0,6	0,5	0,0

		Coefficiente $\gamma_F$	EQU	A1 STR	A2 GEO
Carichi permanenti	favorevoli	$\gamma_{G1}$	0,9	1,0	1,0
	sfavorevoli	$\gamma_{G1}$	1,1	1,3	1,0
Carichi permanenti non strutturali <sup>(1)</sup>	favorevoli	$\gamma_{G2}$	0,0	0,0	0,0
	sfavorevoli	$\gamma_{G2}$	1,5	1,5	1,3
Carichi variabili	favorevoli	$\gamma_{Qi}$	0,0	0,0	0,0
	sfavorevoli	$\gamma_{Qi}$	1,5	1,5	1,3

<sup>(1)</sup>Nel caso in cui i carichi permanenti non strutturali (ad es. carichi permanenti portati) siano compiutamente definiti si potranno adottare per essi gli stessi coefficienti validi per le azioni permanenti.

**1.8 Indicazione motivata del metodo di analisi seguito per l'esecuzione della stessa: analisi lineare o non lineare (precisazione del fattore  $\Theta = P \cdot d/V$ ).**

Durante le analisi sono state trascurate le non linearità geometriche perchè il valore del fattore teta è inferiore alla prescrizione di normativa ( $<0.1$ ) e pertanto non è necessario incrementare l'azione sismica o eseguire ulteriori verifiche:

Valore fattore  $\Theta$ : 0.02

Trascurato effetti P-Delta: ☒ SI

☐ NO

**1.9 Analisi statica o dinamica (periodo  $T1 < 2.5T_C$  o  $T_D$ , regolarità in altezza). Nel dettaglio deve essere esplicitato se trattasi di:- analisi lineare statica, - analisi lineare dinamica (numero di modi considerati e relative masse partecipanti), - analisi non lineare statica (distribuzioni di carico adottate e rapporti di sovrarresistenza), - analisi non lineare dinamica (accelerogrammi adottati), - altro, riportando la sintesi dei principali risultati;**

Si dichiara che è stata condotta la seguente tipologia di analisi sismica:

☒ Analisi lineare Dinamica

Percentuale di masse coinvolte: Massa X tot%: 98

Massa Y tot%: 98

Sono stati considerati i seguenti modi di vibrare: N. 12

Le masse attivate sono superiori all'85%: ☒ SI ☐ NO

Di cui nel dettaglio si riportano i primi due periodi principali:

$T_{1x}$ :	0.56 s	Massa %:	4.48
$T_{2x}$ :	0.47 s	Massa %:	78.54
$T_{1y}$ :	0.56 s	Massa %:	60.99
$T_{2y}$ :	0.42 s	Massa %:	18.45

Di seguito si riporta una tabella riassuntiva delle verifiche agli SLU:

Tipo di elemento	% Non Verificate	FS Minimo
Travi Fondazione	0 su 190	>1.0
Travi Elevazione	0 su 473	>1.0
Pilastri	0 su 120	>1.0

Per quanto riguarda le verifiche svolte a livello di fondazione:

Tipo di elemento	% Non Verificate	FS Minimo
Portanza Terreno	0	2.94
Verifica Scorrimento	0	>>1

Gli spostamenti massimi SLD sono i seguenti:

$DIR_x$ : 24.02 mm  $DIR_y$ : 32.7 mm

Gli spostamenti massimi SLV sono i seguenti:

$DIR_x$ : 6.5 cm  $DIR_y$ : 10 cm

Per quanto riguarda le verifiche svolte a livello di fondazione:

Tipo di elemento	% Non Verificate	Valore Massimo
Cedimento max	0	6.11 cm

**1.10 Criteri di verifica agli stati limite indagati, in presenza di azione sismica: - stati limite ultimi, in termini di resistenza, di duttilità e di capacità di deformazione, - stati limite di esercizio, in termini di resistenza e di contenimento del danno agli elementi non strutturali:**

**COSTRUZIONI IN CEMENTO ARMATO**

☒ Per le costruzioni in cemento armato criteri di verifica adottati sono quelli riportati al § 7.4.4 delle NTC18 nel quale vengono riportate le indicazioni da applicare agli elementi principali delle strutture in elevazione per i quali si effettuano le verifiche di resistenza nei modi indicati nei § 7.3.6.1 e verifiche di duttilità in accordo con il § 7.3.6.2

☒ La possibile espulsione sotto l'azione della Fa delle tamponature si può ritenere conseguita con

☒ con l'inserimento di elementi di armatura orizzontale nei letti di malta, a distanza non superiore a 500 mm.

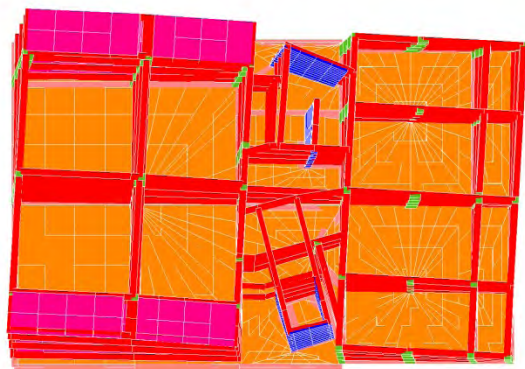
☒ con verifiche specifiche delle partizioni secondarie

Per le verifiche degli elementi strutturali in termini di resistenza, di cui al § 7.3.6.1 delle NTC, nello spettro allo SLD va considerato un valore  $h=2/3$  per tenere in conto la sovraresistenza degli elementi strutturali. Per la valutazione degli spostamenti finalizzati alle verifiche degli elementi strutturali in termini di contenimento del danno agli elementi non strutturali, di cui al § 7.3.6.1 delle NTC, si pone sempre  $h=1$  in quanto, anche nel caso in cui si verificasse un limitato danneggiamento di alcuni elementi strutturali, si assume comunque che gli spostamenti complessivi della costruzione siano pari a quelli calcolati nell'ipotesi di struttura elastica.

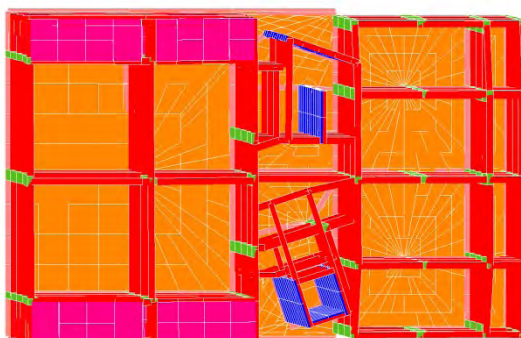
**1.11 Rappresentazione delle configurazioni deformate e delle caratteristiche di sollecitazione delle strutture più significative, così come emergenti dai risultati dell'analisi, sintesi delle verifiche di sicurezza, e giudizio motivato di accettabilità dei risultati;**

Di seguito si riportano i modi di vibrare che caratterizzano il comportamento dinamico della struttura:

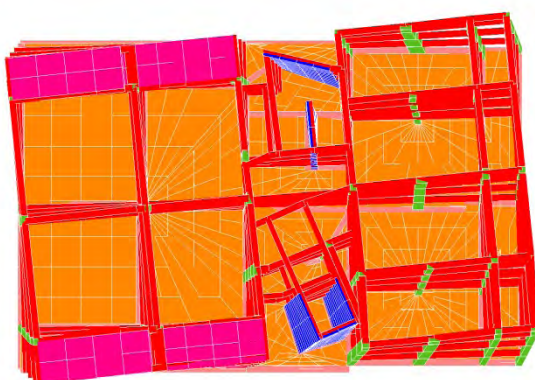
Modo n.1



Modo n.2



Modo n.3

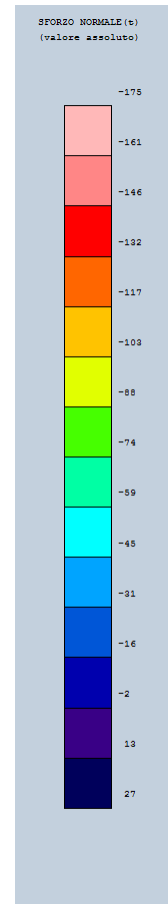
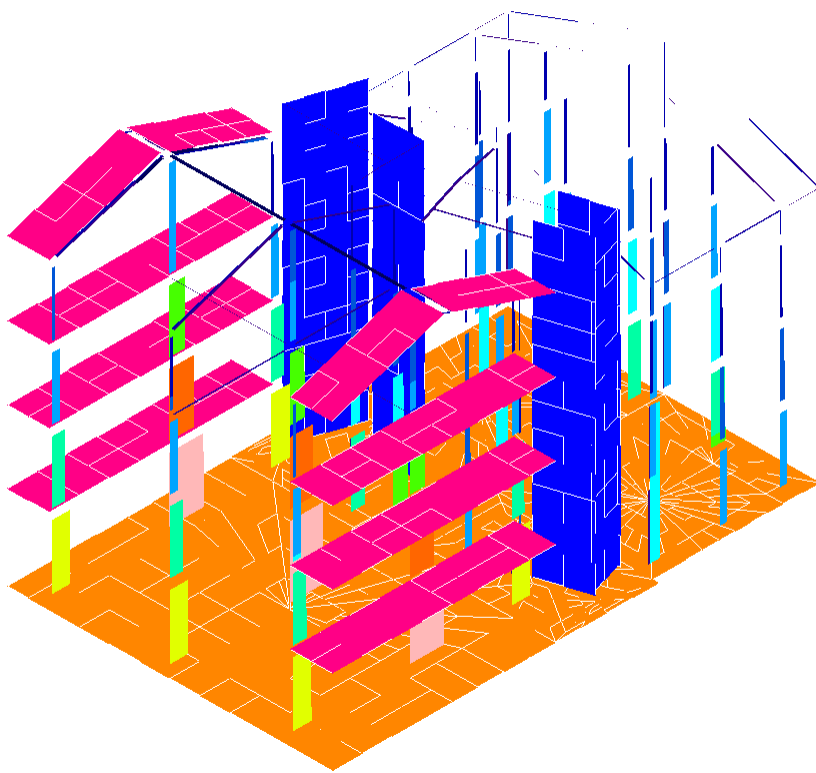


Modo n.4

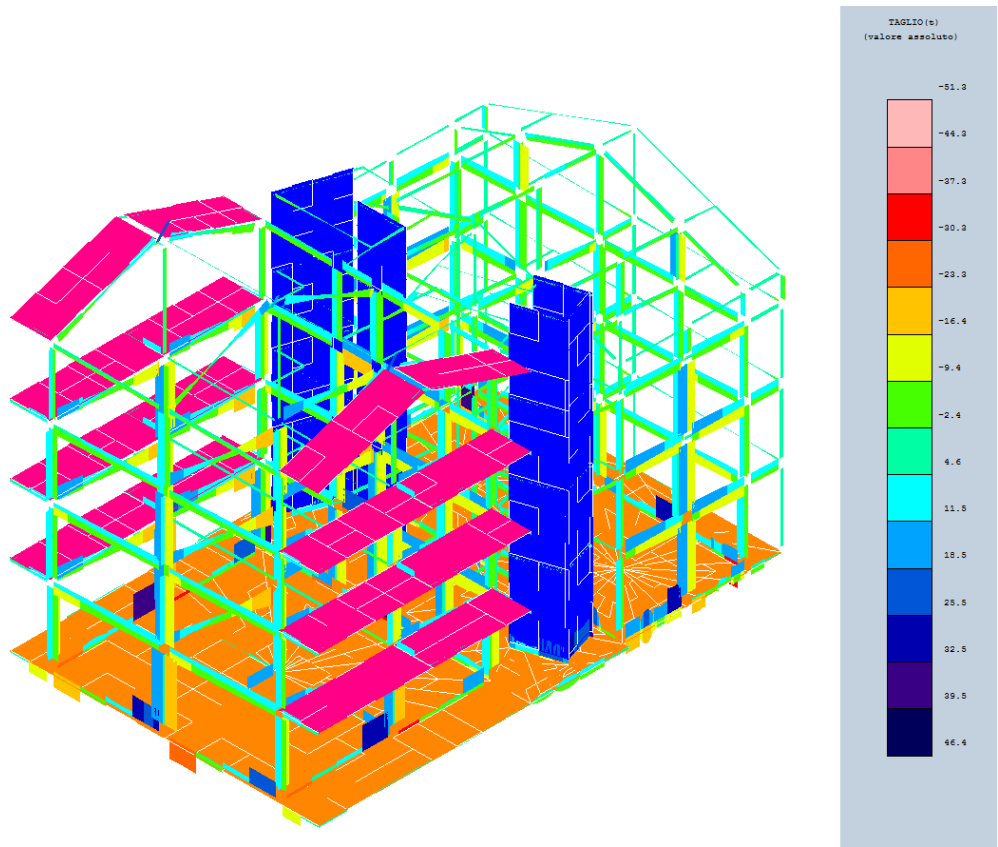


Di seguito si riportano gli involuپی delle sollecitazioni principali:

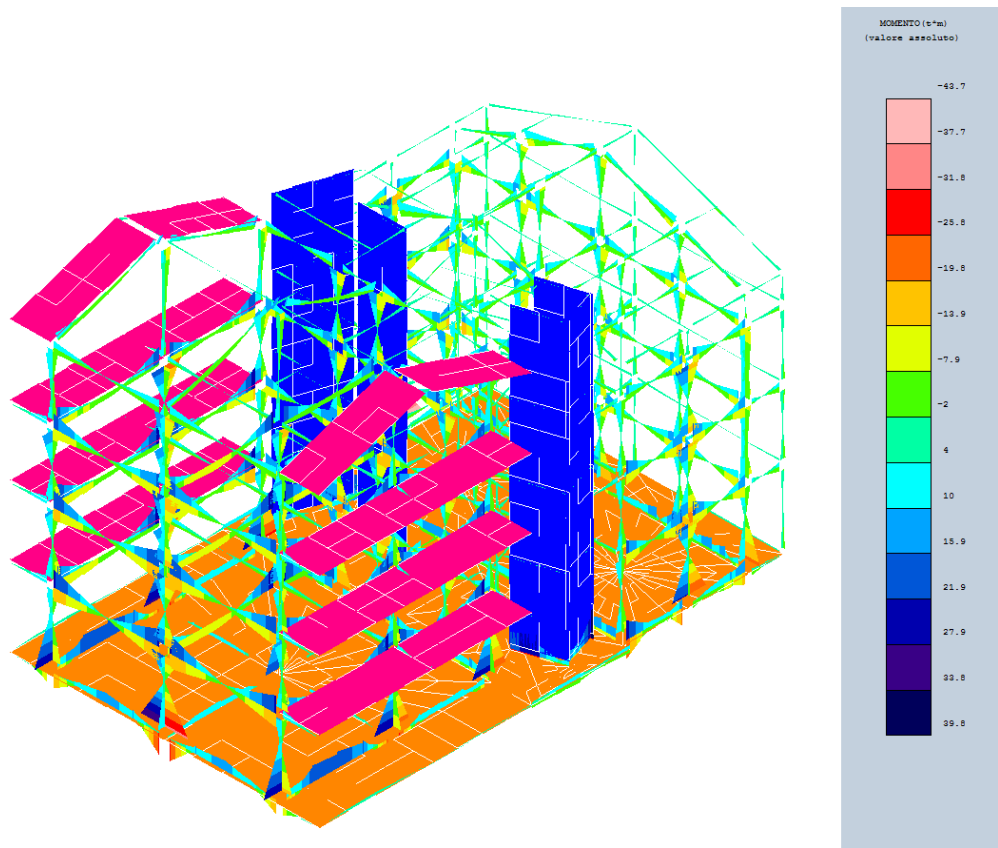
**Sforzo Normale - Involuppo**



**Taglio X/Y - Inviluppo**

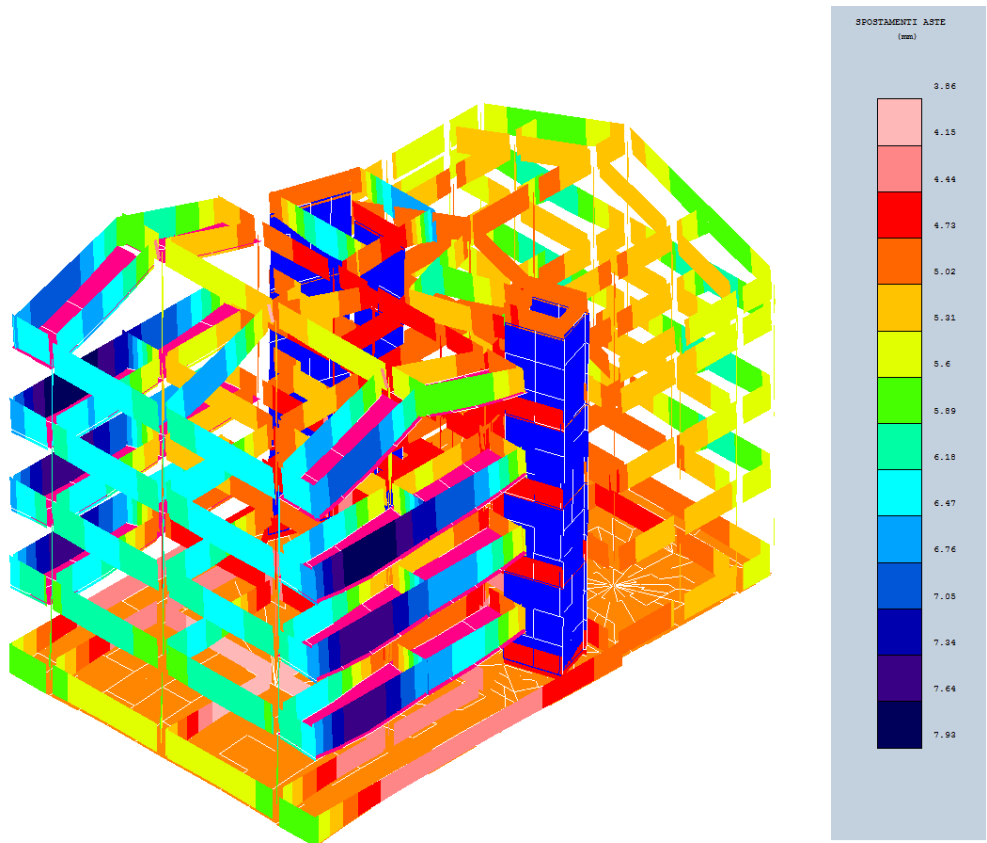


**Momento Flettente 1/2 - Inviluppo**

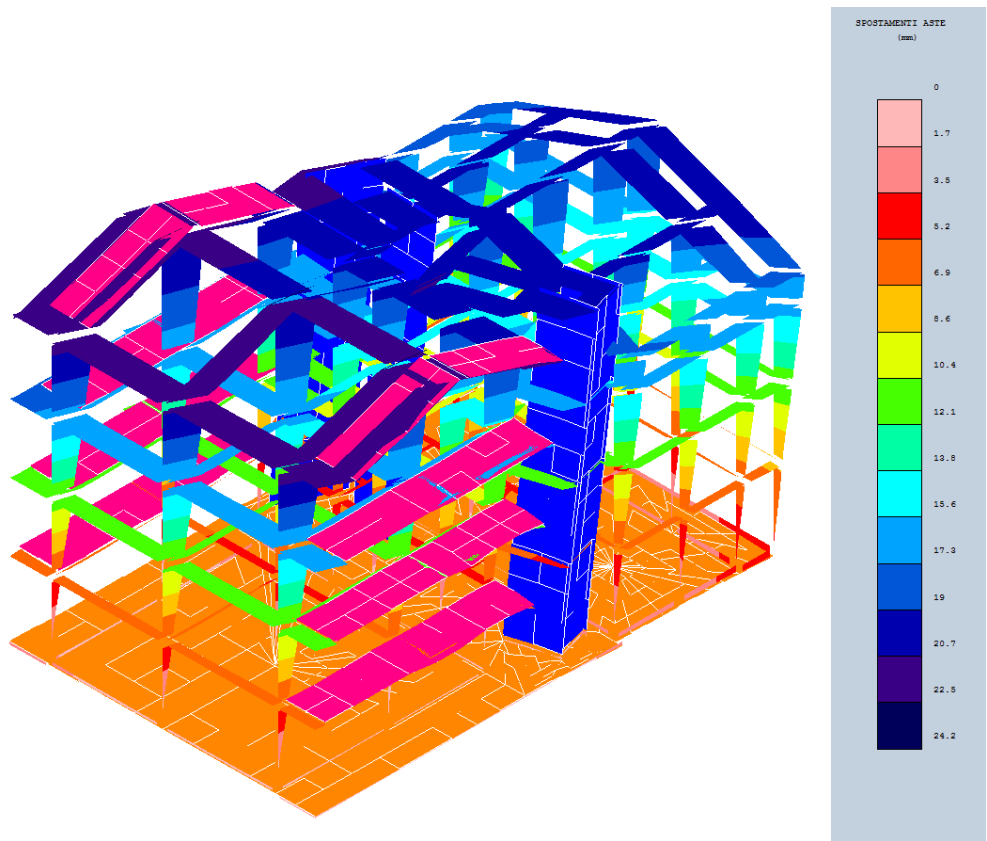




**Deformata - Condizione Statica**

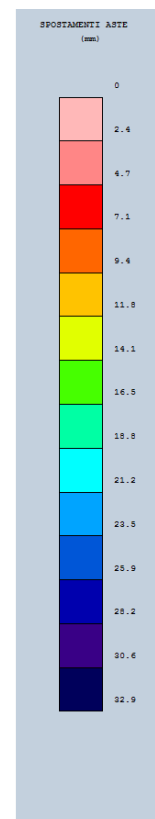
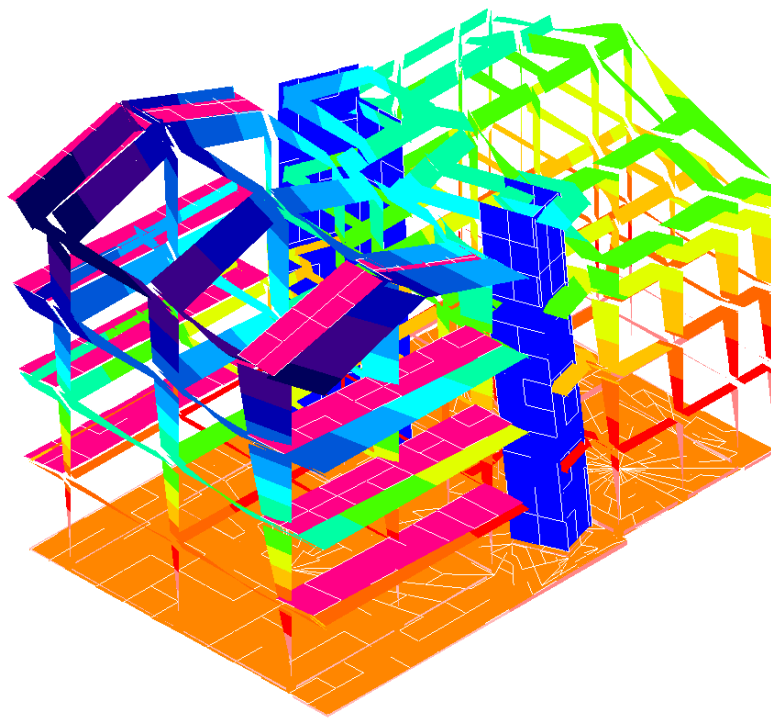


**Deformata - Condizione Sismica Dir1**

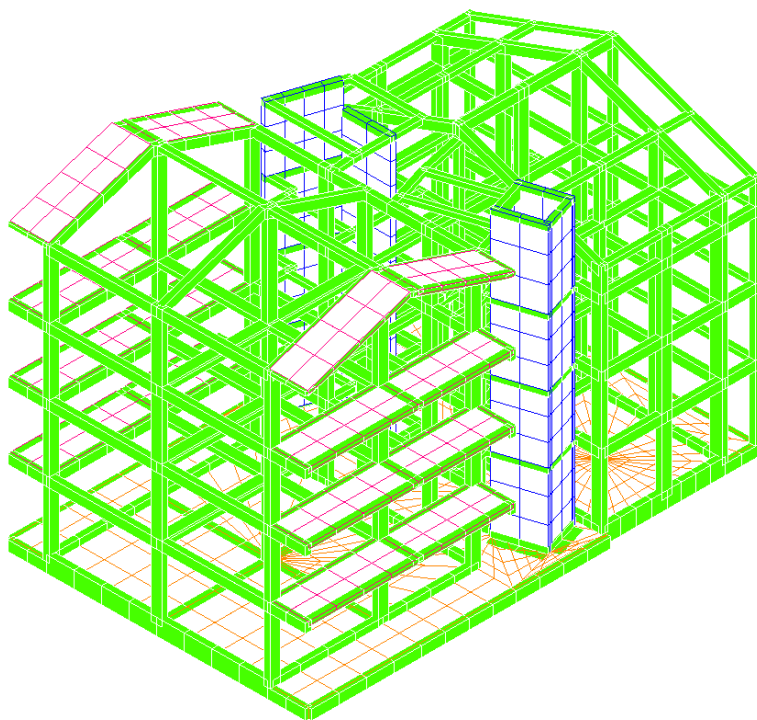




## Deformata - Condizione Sismica Dir2



Si evince infine che le verifiche condotte sono soddisfatte:



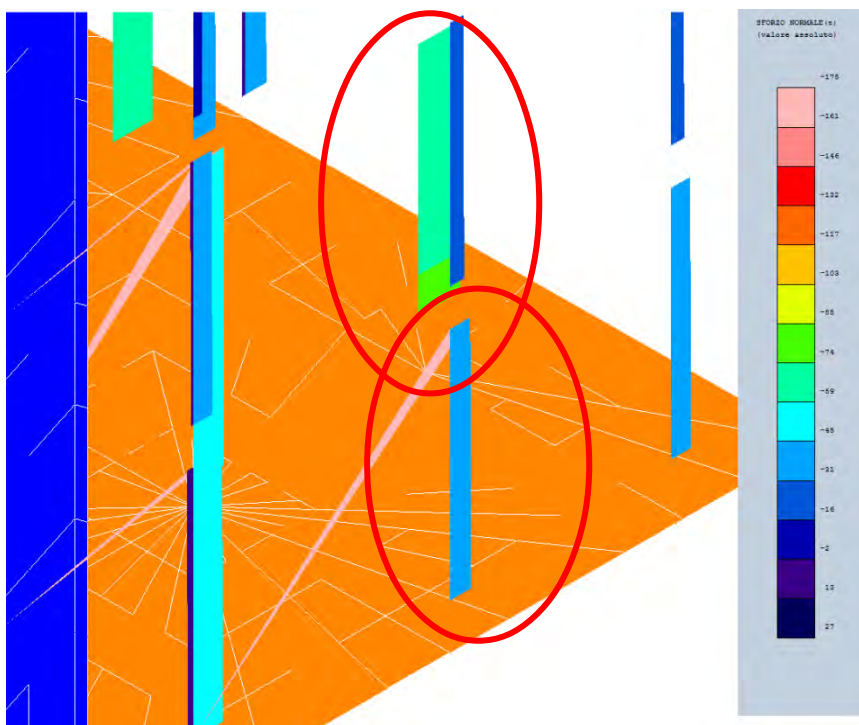
Il software utilizzato ha permesso di modellare analiticamente il comportamento fisico della struttura utilizzando la libreria disponibile di elementi finiti. Le funzioni di visualizzazione ed interrogazione sul modello

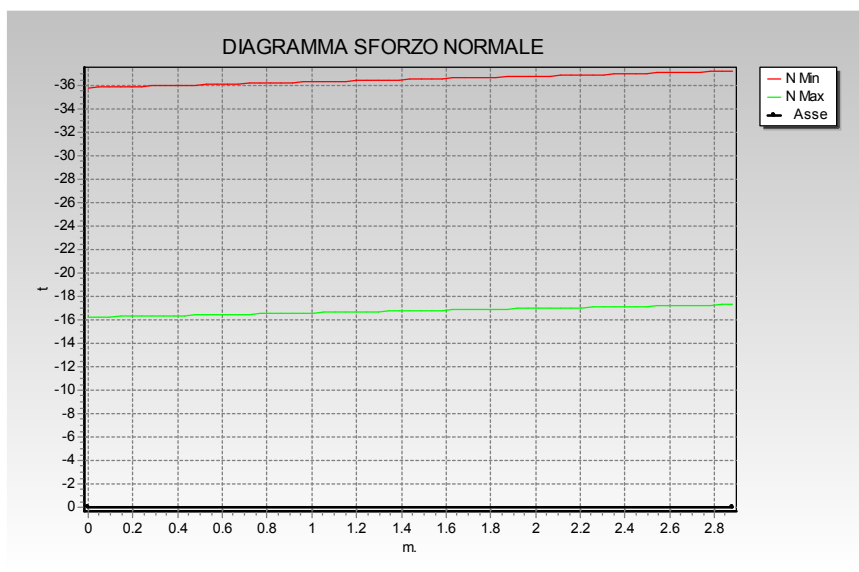
hanno consentito di controllare sia la coerenza geometrica che la adeguatezza delle azioni applicate rispetto alla realtà fisica. Inoltre la visualizzazione ed interrogazione dei risultati ottenuti dall'analisi quali: sollecitazioni, tensioni, deformazioni, spostamenti e reazioni vincolari, hanno permesso un immediato controllo di tali valori con i risultati ottenuti mediante schemi semplificati della struttura stessa. Si è inoltre riscontrato che le reazioni vincolari sono in equilibrio con i carichi applicati, e che i valori dei taglianti di base delle azioni sismiche sono confrontabili con gli omologhi valori ottenuti da modelli SDOF semplificati. Sono state inoltre individuate un numero di travi ritenute significative e, per tali elementi, e' stata effettuata una apposita verifica a flessione e taglio. Le sollecitazioni fornite dal solutore per tali travi sono state validate effettuando gli equilibri alla rotazione e traslazione delle dette travi, secondo quanto meglio descritto nel calcolo semplificato, allegato alla presente relazione. Si sono infine eseguite le verifiche di tali travi con metodologie semplificate e, confrontandole con le analoghe verifiche prodotte in automatico dal programma, si e' potuto riscontrare la congruenza di tali risultati con i valori riportati dal software.

Si è inoltre verificato che tutte le funzioni di controllo ed autodiagnostica del software abbiano dato tutte esito positivo.

Da quanto sopra esposto si può quindi affermare che il calcolo e' andato a buon fine e che il modello di calcolo utilizzato e' risultato essere rappresentativo della realtà fisica, anche in funzione delle modalità e sequenze costruttive.

Si allega dimostrazione dei controlli eseguiti:





È stato eseguito il controllo dei risultati verificando che nella combinazione SLU-Carichi statici i valori coincidessero con quelli ottenuti attraverso semplici calcoli.

L'incidenza dei solai è stata considerata nel seguente modo:

$$P_{\text{Solaio}} = (365+330) \times 1.3 + 200 \times 1.5 = 1210 \text{ kg/mq}$$

$$P_{\text{Copertura}} = (365+155) \times 1.3 + 120 \times 1.5 = 860 \text{ kg/mq}$$

L'area d'incidenza per il pilastro centrale in questione è pari a:  $2.80 \times 1.45 = 4.1 \text{ mq}$

Quindi:

$$P_{\text{tot}} = 14900+3600 \text{ kg} = 18500 \text{ kg}$$

Allo stesso modo è stato valutato il carico derivante dal pilastro e dalle travi in c.a.:

$$P_{\text{Pilastro}} = 0.5 \times 0.3 \times 12 \times 2500 = 4500 \text{ kg} \times 1.3 = 5850 \text{ kg}$$

$$P_{\text{Travi}} = 4 \times (0.45 \times 0.3 \times 3.1 \times 2500) = 4400 \text{ kg} \times 1.3 = 5720 \text{ kg}$$

Inoltre è stata considerata l'incidenza dei tamponamenti presenti pari a:  $2.8 \times 12 \times 0.3 \times 800 = 8064 \text{ kg}$

Quindi riassumendo lo sforzo normale ottenuto dal controllo eseguito corrisponde a:

$$N_{\text{tot}} = 38100 \text{ kg}$$

Il valore è paragonabile a quanto riportato nel programma di calcolo  $N = 38600 \text{ kg}$  perchè compreso nella percentuale di errore ammissibile, viste le approssimazioni considerate.

### **1.12 Caratteristiche e affidabilità del codice di calcolo:**

#### **Origine e caratteristiche dei codici di calcolo:**

Produttore	S.T.S. srl
Titolo	CDSWin
Versione	Rel. 2018
N.ro Licenza	30336

Ragione sociale completa del produttore del software:

S.T.S. s.r.l. Software Tecnico Scientifico S.r.l.  
**Via Tre Torri n°11 – Complesso Tre Torri**  
**95030 Sant'Agata li Battiati (CT).**

L'affidabilità del codice utilizzato e la sua idoneità al caso in esame, è stata attentamente verificata sia effettuando il raffronto tra casi prova di cui si conoscono i risultati esatti sia esaminando le indicazioni, la documentazione ed i test forniti dal produttore stesso.

La S.T.S. s.r.l., a riprova dell'affidabilità dei risultati ottenuti, fornisce direttamente on-line i test sui casi prova liberamente consultabili all' indirizzo:

<http://www.stsweb.it/STSWeb/ITA/homepage.htm>

**1.13 Con riferimento alle strutture geotecniche o di fondazione: fasi di realizzazione dell'opera (se pertinenti), sintesi delle massime pressioni attese, cedimenti e spostamenti assoluti/differenziali, distorsioni angolari, verifiche di stabilità terreno-fondazione eseguite, ed altri aspetti e risultati significativi della progettazione di opere particolari;**

In base alle elaborazioni delle indagini effettuate, è stato possibile suddividere la stratigrafia dell'area nelle seguenti unità:

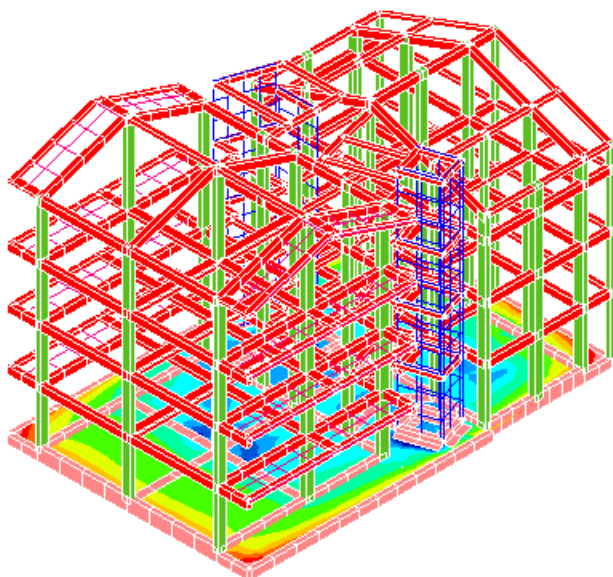
Strato	Tipologia Terreno
0 - 5.00 m	Sabbia fine e/o medio fine limosa mediamente addensata
5.00 - 8.2 m	Sabbia fine e/o medio fine limosa mediamente addensata con intercalazioni lentiformi di limo sabbioso e limo argilloso
8.2 - 12.7 m	Limo argilloso e/o argilla limosa da molle a mediamente consistente
12.7 - 16 m	Limo argilloso e/o argilla limosa mediamente consistente

Falda: ☒ SI ☐ NO

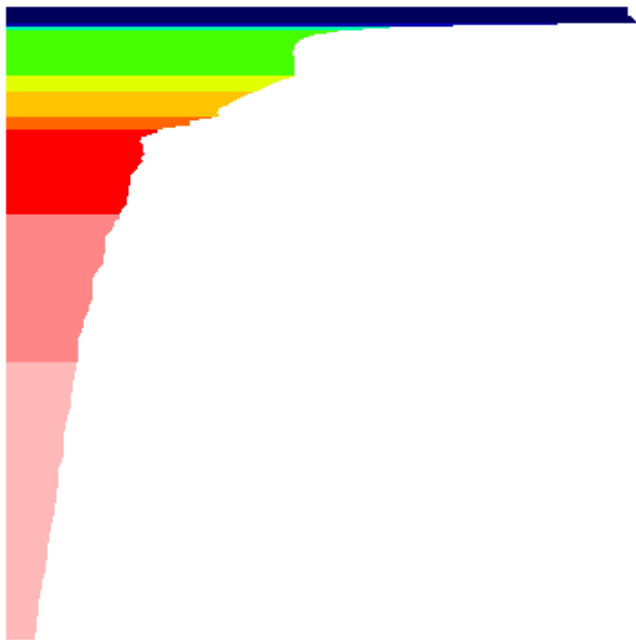
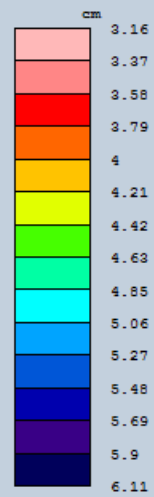
Profondità: -1.5 m dal piano campagna

Sulla base delle caratteristiche dei terreni, descritte nella Relazione geologica a firma del Dott. Geol. Aldo Antoniazzi sono state effettuate le dovute considerazioni per il progetto delle strutture di fondazione, di seguito si riporta un breve riassunto.

**Stato tensionale terreno di fondazione**



CEDIMENTI EDOMETRICI



TENSIONI SOTTOSUOLO



*Elaborato 2*

***RELAZIONE DI CALCOLO STRUTTURALE***

## 2. RELAZIONE DI CALCOLO STRUTTURALE

### 2.1 Modello/i numerico/i

Di seguito i dati del modello numerico utilizzato:

COORDINATE E TIPOLOGIA FILI FISSI							
Filo	Ascissa	Ordinata		Filo	Ascissa	Ordinata	
N.ro	m	m		N.ro	m	m	
1	0.00	0.00		2	5.43	0.00	
3	10.12	0.00		4	14.77	-1.58	
5	17.84	-1.58		6	20.72	-1.58	
7	22.36	-1.58		8	0.00	5.43	
9	5.43	5.43		10	10.12	5.43	
11	0.00	10.85		12	5.43	10.85	
13	10.12	10.85		14	14.77	1.58	
15	17.84	1.58		16	20.73	1.58	
17	14.77	5.43		18	17.84	5.43	
19	20.73	5.43		20	14.77	9.27	
21	17.84	9.27		22	20.73	9.27	
23	14.77	12.43		24	17.84	12.43	
25	20.73	12.43		26	22.36	12.43	
27	22.36	5.43		28	13.20	8.26	
29	12.92	11.35		30	10.12	7.22	
31	13.20	9.45		32	13.20	7.07	
33	11.52	11.80		34	14.43	10.82	
35	10.12	10.43		36	11.65	10.43	
37	11.31	10.43		38	11.31	7.21	
39	13.42	3.16		40	14.38	3.47	
41	14.77	-0.52		42	11.31	1.07	
43	13.98	1.92		44	14.77	10.71	
45	10.13	1.07		46	10.12	2.32	
47	10.78	2.32		48	22.36	9.27	

COORDINATE E TIPOLOGIA FILI FISSI										
Filo	Ascissa	Ordinata		Filo	Ascissa	Ordinata				
N.ro	m	m		N.ro	m	m				
49	22.36	1.58		50	14.77	3.59				
51	14.77	7.07		52	0.00	-1.88				
53	5.43	-1.88		54	10.11	-1.88				
55	0.00	12.74		56	5.43	12.74				
57	10.12	12.74		58	12.52	4.94				
59	10.82	4.40		60	10.11	4.17				
61	11.93	0.96		62	13.63	1.50				
63	14.31	-0.65		64	12.61	-1.19				
65	11.20	7.22		66	11.65	7.22				
67	10.10	6.87		68	11.43	2.53				
69	11.84	1.24		70	13.53	1.78				
71	14.77	9.45		72	10.11	9.45				
73	14.77	-1.88		74	14.77	12.74				
75	5.03	5.43		76	5.03	10.85				
77	5.03	0.00		78	5.03	-1.88				
79	5.03	12.74								

QUOTE PIANI SISMICI ED INTERPIANI										
Quota	Altezza	Tipologia	IrregTamp			Quota	Altezza	Tipologia	IrregTamp	
N.ro	m		XY	Alt.		N.ro	m		XY	Alt.
0	0.00	Piano Terra				1	3.63	Piano sismico	NO	NO
2	6.88	Piano sismico	NO	NO		3	10.13	Piano sismico	NO	NO
4	13.88	Piano sismico	NO	NO						

PILASTRI IN C.A. QUOTA 3.63 m													
Filo	Sez.	Tipologia				Magrone	Ang.	Cod.	dx	dy	Crit.	Tipo Elemento	
N.ro	N.ro				(cm)	(cm)	(Grd)		(cm)	(cm)	N.ro	ai fini sismici	
1	28	Rett.	50.00	x	30.00	0.0	0.00	0	10.00	0.00	5	SismoResist.	
2	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	5	SismoResist.	
3	28	Rett.	50.00	x	30.00	0.0	0.00	0	-10.00	0.00	5	SismoResist.	
4	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	10.00	3	SismoResist.	
5	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.	
6	4	Rett.	30.00	x	60.00	0.0	0.00	0	0.00	15.00	3	SismoResist.	
7	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.	
8	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	0.00	3	SismoResist.	
9	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.	
10	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	0.00	3	SismoResist.	
11	28	Rett.	50.00	x	30.00	0.0	0.00	0	10.00	0.00	5	SismoResist.	





PILASTRI IN C.A. QUOTA 10.13 m												
Filo N.ro	Sez. N.ro	Tipologia (cm)				Magrone (cm)	Ang. (Grd)	Cod.	dx (cm)	dy (cm)	Crit. N.ro	Tipo Elemento ai fini sismici
22	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	-10.00	3	SismoResist.
23	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	-10.00	3	SismoResist.
24	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
25	4	Rett.	30.00	x	60.00	0.0	0.00	0	0.00	-15.00	3	SismoResist.
26	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
27	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
30	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	10.00	3	SismoResist.
39	1	Rett.	30.00	x	30.00	0.0	17.65	0	14.00	4.00	3	SismoResist.
46	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	-10.00	3	SismoResist.

PILASTRI IN C.A. QUOTA 13.88 m												
Filo N.ro	Sez. N.ro	Tipologia (cm)				Magrone (cm)	Ang. (Grd)	Cod.	dx (cm)	dy (cm)	Crit. N.ro	Tipo Elemento ai fini sismici
1	28	Rett.	50.00	x	30.00	0.0	0.00	0	10.00	0.00	3	SismoResist.
2	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
3	28	Rett.	50.00	x	30.00	0.0	0.00	0	-10.00	0.00	3	SismoResist.
4	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	10.00	3	SismoResist.
5	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
6	4	Rett.	30.00	x	60.00	0.0	0.00	0	0.00	15.00	3	SismoResist.
7	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
8	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
9	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
10	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
11	28	Rett.	50.00	x	30.00	0.0	0.00	0	10.00	0.00	3	SismoResist.
12	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
13	28	Rett.	50.00	x	30.00	0.0	0.00	0	-10.00	0.00	3	SismoResist.
14	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
15	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
16	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	10.00	3	SismoResist.
17	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
18	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
19	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
20	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
21	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
22	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	-10.00	3	SismoResist.
23	29	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	-10.00	3	SismoResist.
24	28	Rett.	50.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
25	4	Rett.	30.00	x	60.00	0.0	0.00	0	0.00	-15.00	3	SismoResist.
26	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
27	1	Rett.	30.00	x	30.00	0.0	0.00	0	0.00	0.00	3	SismoResist.
30	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	10.00	3	SismoResist.
46	3	Rett.	30.00	x	50.00	0.0	0.00	0	0.00	-10.00	3	SismoResist.

TRAVI IN C.A. ALLA QUOTA 0 m																							
		DATI GENERALI				QUOTE		SCOSTAMENTI						CARICHI									
Trav	Sez.	Tipo Elem.	Ang	Fil	Fin	Q in.	Q. fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann.	Tamp.	Ball.	Espl.	Tot.	Torc.	Orizz.	Assial	Ali	Cr
N.ro	N.ro	x il sisma	Grd	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm	kg/m	kg/m	kg/m	kg/m	kg/m	kg	kg/m	kg/m	%	Nr
1	30	Tel.SismoRes	0	11	12	0.00	0.00	-15	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
2	30	Tel.SismoRes	0	12	13	0.00	0.00	0	0	30	15	0	30	0	0	0	0	0	0	0	0	0	2
3	30	Tel.SismoRes	0	11	8	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
4	30	Tel.SismoRes	0	1	2	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
5	30	Tel.SismoRes	0	3	46	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
6	30	Tel.SismoRes	0	46	10	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
7	30	Tel.SismoRes	0	10	30	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
8	30	Tel.SismoRes	0	30	72	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2
9	30	Tel.SismoRes	0	8	1	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2

TRAVI IN C.A. ALLA QUOTA 0 m																								
		DATI GENERALI					QUOTE		SCOSTAMENTI						CARICHI									
Trav	Sez.	Tipo Elem.	Ang	Fil	Fil	Q in.	Q fin	Dxi	Dyl	Dzi	Dxf	Dyf	Dzf	Pann.	Tamp.	Ball.	Espl.	Tot.	Torc.	Orizz.	Assial	Ali	Cr	Cit
N.ro	N.ro	x il sisma	Grd	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm	kg/m	kg/m	kg/m	kg/m	kg/m	kg	kg/m	kg/m	%	Nr	Geo
10	30	Tel.SismoRes	0	2	3	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
11	31	Tel.SismoRes	0	12	9	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
12	31	Tel.SismoRes	0	8	9	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
13	31	Tel.SismoRes	0	9	2	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
14	31	Tel.SismoRes	0	9	10	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
15	30	Tel.SismoRes	0	23	44	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
16	30	Tel.SismoRes	0	20	51	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
17	30	Tel.SismoRes	0	17	14	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
18	30	Tel.SismoRes	0	14	4	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
19	30	Tel.SismoRes	0	4	5	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
20	30	Tel.SismoRes	0	6	16	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
21	30	Tel.SismoRes	0	23	24	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
22	30	Tel.SismoRes	0	5	6	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
23	32	Tel.SismoRes	0	6	7	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
24	30	Tel.SismoRes	0	16	19	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
25	30	Tel.SismoRes	0	19	22	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
26	30	Tel.SismoRes	0	22	25	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
27	30	Tel.SismoRes	0	24	25	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2
28	32	Tel.SismoRes	0	25	26	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
29	32	Tel.SismoRes	0	7	27	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
30	32	Tel.SismoRes	0	27	26	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
31	31	Tel.SismoRes	0	17	18	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
32	31	Tel.SismoRes	0	18	19	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
33	31	Tel.SismoRes	0	19	27	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
34	31	Tel.SismoRes	0	10	17	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
35	47	Tel.SismoRes	0	61	62	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2

TRAVI IN C.A. ALLA QUOTA 0 m																											
		DATI GENERALI					QUOTE		SCOSTAMENTI						CARICHI												
Trav	Sez.	Tipo Elem.	Ang	Fil	Fil	Q in.	Q.fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann.	Tamp.	Ball.	Espl.	Tot.	Torc.	Orizz.	Assial	Ali	Cr	Cit			
N.ro	N.ro	x il sisma	Grd	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm	kg/m	kg/m	kg/m	kg/m	kg/m	kg	kg/m	kg/m	%	Nr	Geo			
36	46	Tel.SismoRes	0	62	63	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
37	47	Tel.SismoRes	0	63	64	0.00	0.00	8	16	30	-16	8	30	0	0	0	0	0	0	0	0	0	2	2			
38	46	Tel.SismoRes	0	64	61	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
39	32	Tel.SismoRes	0	1	52	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
40	31	Tel.SismoRes	0	34	33	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
42	44	Tel.SismoRes	0	31	32	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
43	30	Tel.SismoRes	0	51	17	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
44	30	Tel.SismoRes	0	44	20	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
45	32	Tel.SismoRes	0	52	53	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
46	31	Tel.SismoRes	0	31	20	0.00	0.00	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	2	2			
47	31	Tel.SismoRes	0	13	33	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
48	30	Tel.SismoRes	0	35	13	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
49	30	Tel.SismoRes	0	72	35	0.00	0.00	0	0	30	0	0	30	0	0	0	0	0	0	0	0	0	2	2			
50	31	Tel.SismoRes	0	72	31	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
51	31	Tel.SismoRes	0	14	39	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
52	31	Tel.SismoRes	0	39	46	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
53	31	Tel.SismoRes	0	39	17	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
56	32	Tel.SismoRes	0	11	55	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
57	32	Tel.SismoRes	0	55	56	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
58	30	Tel.SismoRes	0	32	51	0.00	0.00	0	14	30	0	14	30	0	0	0	0	0	0	0	0	0	2	2			
61	31	Tel.SismoRes	0	34	44	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
63	32	Tel.SismoRes	0	56	57	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
64	32	Tel.SismoRes	0	57	74	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
65	32	Tel.SismoRes	0	53	54	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
66	32	Tel.SismoRes	0	54	73	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			

TRAVI IN C.A. ALLA QUOTA 3.63 m																												
		DATI GENERALI					QUOTE		SCOSTAMENTI							CARICHI												
Trav	Sez.	Tipo Elem.	Ang	Fil	Fil	Q in.	Q.fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann.	Tamp.	Ball.	Espl.	Tot.	Torc.	Orizz.	Assial	Ali	Cr	Cit				
N.ro	N.ro	x il sisma	Grd	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm	kg/m	kg/m	kg/m	kg/m	kg/m	kg	kg/m	kg/m	%	Nr	Geo				
1	25	Tel.SismoRes	0	1	2	3.63	3.63	0	0	0	0	0	0	2880	728	0	0	3608	0	0	0	30	1					
2	48	Tel.SismoRes	0	8	9	3.63	3.63	0	0	0	0	0	0	4628	728	0	0	5356	0	0	0	30	1					
3	25	Tel.SismoRes	0	11	12	3.63	3.63	0	0	0	0	0	0	2883	728	0	0	3611	0	0	0	30	1					
4	25	Tel.SismoRes	0	1	8	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
5	25	Tel.SismoRes	0	3	45	3.63	3.63	0	0	0	-1	0	0	0	728	0	0	728	0	0	0	0	1					
6	25	Tel.SismoRes	0	2	3	3.63	3.63	0	0	0	0	0	0	2885	728	0	0	3613	0	0	0	30	1					
7	48	Tel.SismoRes	0	9	10	3.63	3.63	0	0	0	0	0	0	4621	728	0	0	5349	0	0	0	30	1					
8	25	Tel.SismoRes	0	12	13	3.63	3.63	0	0	0	0	0	0	2888	728	0	0	3616	0	0	0	30	1					
9	25	Tel.SismoRes	0	8	11	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
10	25	Tel.SismoRes	0	10	30	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
11	25	Tel.SismoRes	0	4	5	3.63	3.63	0	0	0	0	0	0	1437	728	0	0	2165	0	0	0	30	1					
12	39	Tel.SismoRes	0	14	15	3.63	3.63	0	0	0	0	0	0	2989	0	0	0	2989	0	0	0	30	1					
13	25	Tel.SismoRes	0	17	18	3.63	3.63	0	0	0	0	0	0	3314	728	0	0	4042	0	0	0	30	1					
14	39	Tel.SismoRes	0	20	21	3.63	3.63	0	-5	0	0	-5	0	2989	0	0	0	2989	0	0	0	30	1					
15	25	Tel.SismoRes	0	23	24	3.63	3.63	0	0	0	0	0	0	1459	728	0	0	2187	0	0	0	30	1					
16	25	Tel.SismoRes	0	4	41	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
17	25	Tel.SismoRes	0	6	16	3.63	3.63	0	0	0	0	0	0	706	728	0	0	1434	0	0	0	30	1					
18	25	Tel.SismoRes	0	5	6	3.63	3.63	0	0	0	0	0	0	1437	728	0	0	2165	0	0	0	30	1					
19	25	Tel.SismoRes	0	6	7	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
20	39	Tel.SismoRes	0	15	16	3.63	3.63	0	0	0	0	0	0	2989	0	0	0	2989	0	0	0	30	1					
21	25	Tel.SismoRes	0	18	19	3.63	3.63	0	0	0	0	0	0	3314	728	0	0	4042	0	0	0	30	1					
22	25	Tel.SismoRes	0	19	22	3.63	3.63	0	0	0	0	0	0	710	728	0	0	1438	0	0	0	30	1					
23	25	Tel.SismoRes	0	19	27	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
24	39	Tel.SismoRes	0	21	22	3.63	3.63	0	-5	0	0	-5	0	2989	0	0	0	2989	0	0	0	30	1					
25	25	Tel.SismoRes	0	24	25	3.63	3.63	0	0	0	0	0	0	1459	728	0	0	2187	0	0	0	30	1					
26	25	Tel.SismoRes	0	25	26	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					

TRAVI IN C.A. ALLA QUOTA 3.63 m																														
		DATI GENERALI					QUOTE		SCOSTAMENTI							CARICHI														
Trav	Sez.	Tipo Elem.	Ang	Fil	Fil	Q in.	Q.fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann.	Tamp.	Ball.	Espl.	Tot.	Torc.	Orizz.	Assial	Ali	Cr	Cit						
N.ro	N.ro	x il sisma	Grd	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm	kg/m	kg/m	kg/m	kg/m	kg/m	kg	kg/m	kg/m	%	Nr	Geo						
27	25	Tel.SismoRes	0	14	50	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1							
28	25	Tel.SismoRes	0	17	51	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
29	25	Tel.SismoRes	0	20	44	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
30	25	Tel.SismoRes	0	16	19	3.63	3.63	0	0	0	0	0	0	709	728	0	0	1437	0	0	0	30	1							
32	25	Tel.SismoRes	0	30	35	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
33	26	Tel.SismoRes	0	30	38	3.63	3.63	0	0	0	0	0	0	2192	0	0	0	2192	0	0	0	30	1							
35	26	Tel.SismoRes	0	35	37	3.63	3.63	0	0	0	0	0	0	1509	0	0	0	1509	0	0	0	30	1							
36	26	Tel.SismoRes	0	36	33	3.63	3.63	4	0	0	17	0	0	0	0	0	0	0	0	0	0	0	1							
37	26	Tel.SismoRes	0	10	17	3.63	3.63	0	0	0	0	0	0	850	0	0	0	850	0	0	0	30	1							
38	27	Tel.SismoRes	0	37	38	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1							
39	26	Tel.SismoRes	0	38	32	3.63	3.63	0	0	0	0	14	0	850	0	0	1700	2550	0	0	0	30	1							
40	26	Tel.SismoRes	0	37	36	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1							
41	25	Tel.SismoRes	0	35	13	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
42	34	Tel.SismoRes	0	61	62	3.63	3.63	-8	-16	0	16	-8	0	0	0	0	0	0	0	0	0	0	1							
43	25	Tel.SismoRes	0	41	14	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1							
44	26	Tel.SismoRes	0	39	43	3.63	3.63	15	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
45	27	Tel.SismoRes	0	43	70	3.63	3.63	0	0	0	0	0	0	642	0	0	0	642	0	0	0	30	1							
46	27	Tel.SismoRes	0	42	45	3.63	3.63	0	0	0	0	0	0	489	0	0	0	489	0	0	0	30	1							
47	26	Tel.SismoRes	0	39	47	3.63	3.63	0	0	0	0	0	0	649	0	0	0	649	0	0	0	30	1							
48	25	Tel.SismoRes	0	45	46	3.63	3.63	-1	0	0	0	0	0	115	728	0	0	843	0	0	0	30	1							
49	42	Tel.SismoRes	0	34	44	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1							
50	25	Tel.SismoRes	0	46	10	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
51	26	Tel.SismoRes	0	46	47	3.63	3.63	0	0	0	0	0	0	604	0	0	0	604	0	0	0	30	1							
52	25	Tel.SismoRes	0	44	23	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1							
53	26	Tel.SismoRes	0	26	48	3.63	3.63	0	0	0	0	0	0	777	0	0	0	777	0	0	0	30	1							
54	25	Tel.SismoRes	0	22	25	3.63	3.63	0	0	0	0	0	0	706	728	0	0	1434	0	0	0	30	1							

TRAVI IN C.A. ALLA QUOTA 3.63 m																												
		DATI GENERALI					QUOTE		SCOSTAMENTI						CARICHI													
Trav	Sez.	Tipo Elem.	Ang	Fil	Fil	Q in.	Q.fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann.	Tamp.	Ball.	Espl.	Tot.	Torc.	Orizz.	Assial	Ali	Cr	Cit				
N.ro	N.ro	x il sisma	Grd	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm	kg/m	kg/m	kg/m	kg/m	kg/m	kg	kg/m	kg/m	%	Nr	Geo				
55	26	Tel.SismoRes	0	27	49	3.63	3.63	0	0	0	0	0	0	774	0	0	0	774	0	0	0	30	1					
56	26	Tel.SismoRes	0	48	27	3.63	3.63	0	0	0	0	0	0	773	0	0	0	773	0	0	0	30	1					
57	26	Tel.SismoRes	0	49	7	3.63	3.63	0	0	0	0	0	0	776	0	0	0	776	0	0	0	30	1					
58	39	Tel.SismoRes	0	22	48	3.63	3.63	0	-5	0	0	-5	0	0	0	0	0	0	0	0	0	0	1					
59	39	Tel.SismoRes	0	16	49	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
60	1	Tel.SismoRes	0	39	50	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
61	25	Tel.SismoRes	0	50	17	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
62	26	Tel.SismoRes	0	32	51	3.63	3.63	0	14	0	0	14	0	850	0	0	1700	2550	0	0	0	30	1					
63	25	Tel.SismoRes	0	51	20	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
64	26	Tel.SismoRes	0	43	41	3.63	3.63	0	0	0	0	0	0	0	728	0	0	728	0	0	0	0	1					
65	33	Tel.SismoRes	0	2	53	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
66	25	Tel.SismoRes	0	3	54	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
67	25	Tel.SismoRes	0	1	52	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
68	26	Tel.SismoRes	0	52	53	3.63	3.63	0	15	0	0	15	0	559	0	0	0	559	0	0	0	30	1					
69	26	Tel.SismoRes	0	53	54	3.63	3.63	0	15	0	0	15	0	559	0	0	0	559	0	0	0	30	1					
70	25	Tel.SismoRes	0	11	55	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
71	25	Tel.SismoRes	0	13	57	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
72	33	Tel.SismoRes	0	12	56	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
73	26	Tel.SismoRes	0	55	56	3.63	3.63	0	-15	0	0	-15	0	562	0	0	0	562	0	0	0	30	1					
74	26	Tel.SismoRes	0	56	57	3.63	3.63	0	-15	0	0	-15	0	561	0	0	0	561	0	0	0	30	1					
78	27	Tel.SismoRes	0	69	42	3.63	3.63	0	0	0	0	0	0	645	0	0	0	645	0	0	0	30	1					
79	27	Tel.SismoRes	0	70	69	3.63	3.63	0	0	0	0	0	0	645	0	0	0	645	0	0	0	30	1					
80	27	Tel.SismoRes	0	62	70	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
81	27	Tel.SismoRes	0	61	69	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
82	8	Tel.SismoRes	0	12	9	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
83	8	Tel.SismoRes	0	9	2	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					

SETTI ALLA QUOTA 3.63 m																										
		GEOMETRIA			QUOTE		SCOSTAMENTI						CARICHI VERTICALI									PRESSIONI		RINFORZI MUR		
Sett	Sez	Sp.	Fil	Fil	Q in.	Q.fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann	Tamp	Ball	Espl	Tot.	Torc	Orizz	Assia	Ali	Psup.	Pinf.	Mat	Ini	Fin.
N.ro	N.r	cm	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm						kg	kg / m	%	kg/mq			Nro	cm	cm
31	603	28	31	32	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
34	603	28	33	34	3.63	3.63	0	0	0	0	0	0	0	0	0	1700	1700	0	0	0	0	0	0			
75	602	25	61	64	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
76	602	25	64	63	3.63	3.63	-16	8	0	8	16	0	0	0	0	0	0	0	0	0	0	0	0			
77	602	25	63	62	3.63	3.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

SETTI ALLA QUOTA 13.88 m																												
		GEOMETRIA				QUOTE		SCOSTAMENTI						CARICHI VERTICALI										PRESSIONI		RINFORZI MUR		
Sett	Sez	Sp.	Fil	Fil	Q in.	Q.fin	Dxi	Dyi	Dzi	Dxf	Dyf	Dzf	Pann	Tamp	Ball	Espl	Tot.	Torc	Orizz	Assia	Ali	Psup.	Pinf.	Mat	Ini	Fin.		
N.ro	N.r	cm	in.	fin	(m)	(m)	cm	cm	cm	cm	cm	cm							kg / m		%	kg/mq			Nro	cm	cm	
48	602	25	61	64	13.88	13.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
50	602	25	63	62	13.88	13.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
57	602	25	64	63	13.88	13.88	-16	8	0	8	16	0	0	0	0	0	0	0	0	0	0	0	0					
58	603	28	31	32	13.88	13.88	0	0	-60	0	0	-60	0	0	0	0	0	0	0	0	0	0	0					
59	603	28	33	34	13.88	13.88	0	0	-60	0	0	-60	154	0	0	0	154	0	0	0	0	0	0					

GEOMETRIA PIASTRE ALLA QUOTA 0 m													
Piastra	Filo	Filo	Filo	Filo	Tipo	Quota	Quota	Quota	Quota	Tipo	Spess.	Kwinkl.	Tipo
N.ro	1	2	3	4	Car.	Filo1	Filo2	Filo3	Filo4	Sez.	cm	kg/cmc	Mat.
1	12	11	8	9	5	0	0	0	0	1	50.0	1.0	1
2	9	8	1	2	5	0	0	0	0	1	50.0	1.0	1
3	2	1	52	53	5	0	0	0	0	1	50.0	1.0	1
4	56	55	11	12	5	0	0	0	0	1	50.0	1.0	1
5	13	12	9	9	5	0	0	0	0	1	50.0	1.0	1
6	35	13	9	9	5	0	0	0	0	1	50.0	1.0	1
7	72	35	9	9	5	0	0	0	0	1	50.0	1.0	1
8	30	72	9	9	5	0	0	0	0	1	50.0	1.0	1
9	10	30	9	9	5	0	0	0	0	1	50.0	1.0	1
10	46	10	9	9	5	0	0	0	0	1	50.0	1.0	1



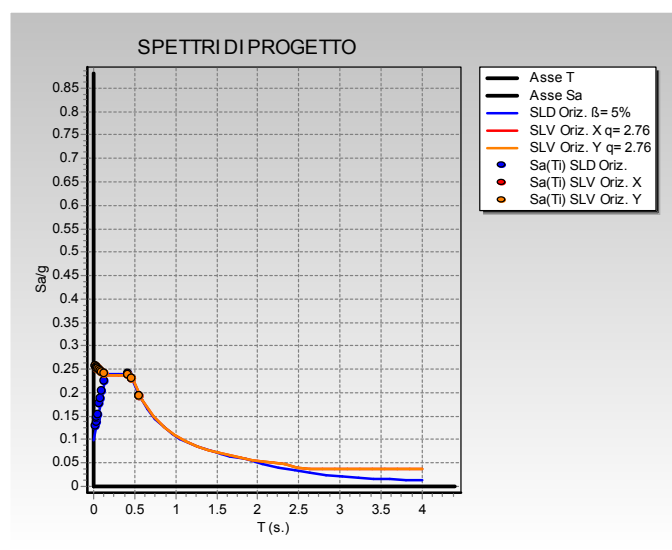
GEOMETRIA PIASTRE ALLA QUOTA 0 m													
Piastra	Filo	Filo	Filo	Filo	Tipo	Quota	Quota	Quota	Quota	Tipo	Spess.	Kwinkl.	Tipo
N.ro	1	2	3	4	Car.	Filo1	Filo2	Filo3	Filo4	Sez.	cm	kg/cmc	Mat.
11	3	46	9	9	5	0	0	0	0	1	50.0	1.0	1
12	2	3	9	9	5	0	0	0	0	1	50.0	1.0	1
13	12	13	57	56	5	0	0	0	0	1	50.0	1.0	1
14	13	33	57	57	5	0	0	0	0	1	50.0	1.0	1
15	33	74	57	57	5	0	0	0	0	1	50.0	1.0	1
16	33	34	74	74	5	0	0	0	0	1	50.0	1.0	1
17	72	31	34	33	5	0	0	0	0	1	50.0	1.0	1
18	34	23	74	74	5	0	0	0	0	1	50.0	1.0	1
19	34	44	23	23	5	0	0	0	0	1	50.0	1.0	1
20	13	35	33	33	5	0	0	0	0	1	50.0	1.0	1
21	35	72	33	33	5	0	0	0	0	1	50.0	1.0	1
25	31	20	44	34	5	0	0	0	0	1	50.0	1.0	1
26	32	51	20	31	5	0	0	0	0	1	50.0	1.0	1
27	30	32	31	72	5	0	0	0	0	1	50.0	1.0	1
28	30	10	32	32	5	0	0	0	0	1	50.0	1.0	1
29	10	17	32	32	5	0	0	0	0	1	50.0	1.0	1
30	17	51	32	32	5	0	0	0	0	1	50.0	1.0	1
31	24	23	21	21	5	0	0	0	0	1	50.0	1.0	1
32	23	44	21	21	5	0	0	0	0	1	50.0	1.0	1
33	44	20	21	21	5	0	0	0	0	1	50.0	1.0	1
34	20	51	21	21	5	0	0	0	0	1	50.0	1.0	1
35	51	17	21	21	5	0	0	0	0	1	50.0	1.0	1
36	17	18	21	21	5	0	0	0	0	1	50.0	1.0	1
37	18	19	21	21	5	0	0	0	0	1	50.0	1.0	1
38	19	22	21	21	5	0	0	0	0	1	50.0	1.0	1
39	22	25	21	21	5	0	0	0	0	1	50.0	1.0	1
40	25	24	21	21	5	0	0	0	0	1	50.0	1.0	1
41	26	25	22	22	5	0	0	0	0	1	50.0	1.0	1

GEOMETRIA PIASTRE ALLA QUOTA 0 m													
Piastra	Filo	Filo	Filo	Filo	Tipo	Quota	Quota	Quota	Quota	Tipo	Spess.	Kwinkl.	Tipo
N.ro	1	2	3	4	Car.	Filo1	Filo2	Filo3	Filo4	Sez.	cm	kg/cmc	Mat.
42	19	27	22	22	5	0	0	0	0	1	50.0	1.0	1
43	27	26	22	22	5	0	0	0	0	1	50.0	1.0	1
44	18	17	15	15	5	0	0	0	0	1	50.0	1.0	1
45	17	14	15	15	5	0	0	0	0	1	50.0	1.0	1
46	14	4	15	15	5	0	0	0	0	1	50.0	1.0	1
47	4	5	15	15	5	0	0	0	0	1	50.0	1.0	1
48	5	6	15	15	5	0	0	0	0	1	50.0	1.0	1
49	6	16	15	15	5	0	0	0	0	1	50.0	1.0	1
50	16	19	15	15	5	0	0	0	0	1	50.0	1.0	1
51	19	18	15	15	5	0	0	0	0	1	50.0	1.0	1
52	27	19	16	16	5	0	0	0	0	1	50.0	1.0	1
53	6	7	16	16	5	0	0	0	0	1	50.0	1.0	1
54	7	27	16	16	5	0	0	0	0	1	50.0	1.0	1
55	61	62	39	39	5	0	0	0	0	1	50.0	1.0	1
56	46	61	39	39	5	0	0	0	0	1	50.0	1.0	1
57	46	3	61	61	5	0	0	0	0	1	50.0	1.0	1
58	14	17	39	39	5	0	0	0	0	1	50.0	1.0	1
59	17	10	39	39	5	0	0	0	0	1	50.0	1.0	1
60	10	46	39	39	5	0	0	0	0	1	50.0	1.0	1
61	62	14	39	39	5	0	0	0	0	1	50.0	1.0	1
62	4	14	62	63	5	0	0	0	0	1	50.0	1.0	1
63	54	73	64	64	5	0	0	0	0	1	50.0	1.0	1
64	73	4	64	64	5	0	0	0	0	1	50.0	1.0	1
65	4	63	64	64	5	0	0	0	0	1	50.0	1.0	1
66	3	54	61	61	5	0	0	0	0	1	50.0	1.0	1
67	61	54	64	64	5	0	0	0	0	1	50.0	1.0	1
68	3	2	53	54	5	0	0	0	0	1	50.0	1.0	1

GEOMETRIA PIASTRE ALLA QUOTA 0 m													
Piastra	Filo	Filo	Filo	Filo	Tipo	Quota	Quota	Quota	Quota	Tipo	Spess.	Kwinkl.	Tipo
N.ro	1	2	3	4	Car.	Filo1	Filo2	Filo3	Filo4	Sez.	cm	kg/cmc	Mat.
69	62	61	64	63	5	0	0	0	0	1	50.0	1.0	1

## 2.2 Metodologia di modellazione ed analisi

L'analisi sismica dinamica è stata svolta con il metodo dell'analisi modale; la ricerca dei modi e delle relative frequenze è stata perseguita con il metodo delle "iterazioni nel sottospazio". I modi di vibrazione considerati sono in numero tale da assicurare l'eccitazione di più dell'85% della massa totale della struttura. Per ciascuna direzione di ingresso del sisma si sono valutate le forze modali che vengono applicate su ciascun nodo spaziale (tre forze, in direzione X, Y e Z, e tre momenti). Per la verifica della struttura si è fatto riferimento all'analisi modale, pertanto sono prima calcolate le sollecitazioni e gli spostamenti modali e poi viene calcolato il loro valore efficace. I valori stampati nei tabulati finali allegati sono proprio i suddetti valori efficaci e pertanto l'equilibrio ai nodi perde di significato. I valori delle sollecitazioni sismiche sono combinate linearmente (in somma e in differenza) con quelle per carichi statici per ottenere le sollecitazioni per sisma nelle due direzioni di calcolo. Gli angoli delle direzioni di ingresso dei sismi sono valutati rispetto all'asse X del sistema di riferimento globale.



Di seguito si riportano le informazioni riguardanti le analisi condotte sull'edificio sia quella per i carichi statici allo SLU che per i carichi sismici allo SLV.

### ANALISI STATICA LINEARE (NON sismica)

In analisi statica non sismica, viene analizzato lo Stato Limite Ultimo (SLU) di salvaguardia della Vita (SLV).

Le Combinazioni di Carico per Analisi Statica non sismica sono le combinazioni di tipo fondamentale, impiegate per gli stati limite ultimi (2.5.1) §2.5.3, espresse dalla formulazione:

$$\gamma_{G1} * G_1 + \gamma_{G2} * G_2 + \gamma_P * P + \gamma_{Q1} * Q_{k,1} + \gamma_{Q2} * \psi_{0,2} Q_{k,2} + \gamma_{Q3} * \psi_{0,3} Q_{k,3} + \dots$$

La definizione delle azioni rispetta quanto formulato in §2.5.1.3 e §2.5.2; in particolare  $Q_{k,1}$  è l'azione variabile dominante, mentre  $Q_{k,2}$ ,  $Q_{k,3}$ , ..., sono azioni variabili che possono agire contemporaneamente a

quella dominante. Le azioni variabili  $Q_{k,j}$  vengono combinate con i coefficienti di combinazione  $\psi$  i cui valori sono forniti in §2.5.3, Tab.2.5.I.

#### ANALISI DINAMICA LINEARE (sismica)

Dal punto di vista sismico, l'edificio può essere schematizzato con un modello tridimensionale (modellazione 3D) oppure scomposto in più modelli piani (modellazione 2D) ognuno analizzato singolarmente. La scomposizione in modelli piani è prevista nel caso di edifici esistenti in muratura con impalcati flessibili (§8.7.1).

Nella modellazione 3D, il sisma è rappresentato da forze sismiche di nodo in coordinate globali: FX, FY, FZ, MX, MY, MZ [normalmente sono diverse da zero solo le componenti: FX, FY (forze orizzontali), MZ (momento torcente intorno all'asse verticale)], che in caso di piano rigido in ipotesi master/slave, sono applicate nel solo nodo master. Gli effetti torcenti sull'edificio vengono interpretati dai momenti torcenti MZ, determinati dal prodotto forza orizzontale per l'eccentricità aggiuntiva. Essi sono presenti nel caso di piano rigido, dove assume significato il centro delle rigidezze e quindi può essere considerata una sua eccentricità rispetto al baricentro.

Secondo Normativa, per gli edifici devono essere analizzati alcuni stati limite di riferimento.

Per tutti i nuovi edifici, si devono analizzare SLV (con verifiche di resistenza) e SLD (con verifiche degli spostamenti).

L'analisi sismica è organizzata secondo la seguente procedura:

- (A) generazione e risoluzione di apposite C.C. elementari sismiche;
- (B) determinazione degli effetti sismici risultanti dalla simultaneità delle componenti orizzontali sismiche (per 'effetti' si intendono le caratteristiche di sollecitazione e di deformazione);
- (C) combinazione degli effetti sismici con gli effetti dovuti ad altre azioni non sismiche.

Nei modelli tridimensionali, le varie componenti orizzontali dell'azione sismica ( $\alpha$ ,  $\alpha+90$  ed eventualmente verticale) devono essere considerate agenti simultaneamente (§7.3.5). Per le due componenti orizzontali ( $\psi$  e  $\psi+90$ ), i valori massimi ( $b_1$ ) e ( $b_2$ ) vengono combinati (a seconda della scelta dell'Utente):

- o calcolando la radice quadrata della somma dei quadrati:  $E = \sqrt{(E_{\alpha}^2 + E_{(\alpha+90)}^2)}$

- o sommando ai massimi ottenuti per l'azione applicata in una direzione, il 30% dei massimi ottenuti per l'azione applicata nell'altra direzione:  $\text{Max} [(E_{\alpha} + 0.30 E_{(\alpha+90)}); (0.30 E_{\alpha} + E_{(\alpha+90)})]$  (§7.3.15), §7.3.5).

Per quanto riguarda gli effetti del sisma verticale, questo deve essere considerato ove necessario (§7.2.1). Complessivamente, viene scelto il massimo valore fra le seguenti combinazioni (regola fissa, quindi non c'è un corrispondente parametro di impostazione scelto dall'Utente):

$$0.30 E_{\alpha} + 0.30 E_{(\alpha+90)} + E_{\text{vert}}$$

$$E_{\alpha} + 0.30 E_{(\alpha+90)} + 0.30 E_{\text{vert}}$$

$$0.30 E_{\alpha} + E_{(\alpha+90)} + 0.30 E_{\text{vert}}$$

A questo punto, gli effetti sismici Esism si combinano con le altre azioni (§3.2.4) per ottenere gli effetti finali da utilizzare nella verifica degli elementi strutturali.

Gli effetti delle altre azioni sono riconducibili alla sommatoria delle Condizioni di Carico elementari (NON sismiche), ognuna delle quali contribuisce con i coefficienti  $\psi_2$ .

La Combinazione di Carico per Analisi Sismica esaminata è quindi la seguente:

$$G_{1,1} + G_{2,2} + P + E + \sum(\psi_{2,j} * Q_{k,j})$$

I risultati complessivi sono sempre espressi nella forma Estat +/- Esism, per ottenere l'effetto massimo e l'effetto minimo.

### **2.3 Informazioni sul codice di calcolo**

#### **Origine e caratteristiche dei codici di calcolo:**

Produttore	S.T.S. srl
Titolo	CDSWin
Versione	Rel. 2018
N.ro Licenza	30336

Ragione sociale completa del produttore del software:

S.T.S. s.r.l. Software Tecnico Scientifico S.r.l.

**Via Tre Torri n°11 – Complesso Tre Torri**

**95030 Sant'Agata li Battiati (CT).**

### **2.4 Modellazione della geometria e delle proprietà meccaniche**

Di seguito si riportano le caratteristiche delle aste di fondazione e delle travi e pilastri con i relativi criteri di progetto utilizzati:

ARCHIVIO SEZIONI ASTE IN C.A.O.									
Tipologia Rettangolare					Tipologia Rettangolare				
Sez.	Base	Altezza	Magrone		Sez.	Base	Altezza	Magrone	
N.ro	(cm)	(cm)	(cm)		N.ro	(cm)	(cm)	(cm)	
1	30.0	30.0	0.0		3	30.0	50.0	0.0	
4	30.0	60.0	0.0		8	50.0	25.0	0.0	
25	30.0	45.0	0.0		26	30.0	25.0	0.0	
27	25.0	25.0	0.0		28	50.0	30.0	0.0	
29	30.0	50.0	0.0		30	30.0	80.0	4.0	
31	50.0	50.0	4.0		32	30.0	50.0	4.0	
33	50.0	18.0	0.0		34	25.0	60.0	0.0	
35	70.0	30.0	0.0		39	40.0	25.0	0.0	
42	28.0	30.0	0.0		43	28.0	25.0	0.0	

ARCHIVIO SEZIONI ASTE IN C.A.O.							
Tipologia a 'T'							
Sez.	Ala sx.	B Anima	Ala dx.	Altezza	Sp. Ali	H Anima	Largh.
N.ro	B1	B2	B3	B4	B5	B6	Magrone
(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
44	30.0	30.0	30.0	80.0	50.0	30.0	135.0
46	40.0	30.0	40.0	80.0	50.0	30.0	150.0
47	40.0	30.0	40.0	80.0	50.0	30.0	4.0

ARCHIVIO SEZIONI ASTE IN C.A.O.																	
Tipologia Poligonale																	
Sez.		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	Magr	Forma	b1	b2	b3	b4
N.ro		(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm )	(cm)	(cm)	Poligon.	cm	cm	cm	cm
48	X	10.0	10.0	0.0	0.0	50.0	50.0	40.0	40.0			0	T1	10	30	10	10
	Y	0.0	35.0	35.0	45.0	45.0	35.0	35.0	0.0			0					35

ARCHIVIO SEZIONI ASTE IN C.A.O.				
CARATTERISTICHE STATICHE DELLE SEZIONI IN C.A.O.				
Sez.	Area	I <sub>xg</sub>	I <sub>yg</sub>	I <sub>p</sub>
N.ro	(cm <sup>2</sup> )	(cm <sup>4</sup> )	(cm <sup>4</sup> )	(cm <sup>4</sup> )
1	900	67500	67500	135000
3	1500	312500	112500	425000
4	1800	540000	135000	675000
8	1250	65104	260417	325521
25	1350	227813	101250	329063
26	750	39063	56250	95313
27	625	32552	32552	65104
28	1500	112500	312500	425000
29	1500	312500	112500	425000
30	2400	1280000	180000	1460000
31	2500	520833	520833	1041667
32	1500	312500	112500	425000

ARCHIVIO SEZIONI ASTE IN C.A.O.				
CARATTERISTICHE STATICHE DELLE SEZIONI IN C.A.O.				
Sez.	Area	I <sub>xg</sub>	I <sub>yg</sub>	I <sub>p</sub>
N.ro	(cm <sup>2</sup> )	(cm <sup>4</sup> )	(cm <sup>4</sup> )	(cm <sup>4</sup> )
33	900	24300	187500	211800
34	1500	450000	78125	528125
35	2100	157500	857500	1015000
39	1000	52083	133333	185417
42	840	63000	54880	117880
43	700	36458	45733	82192
44	5400	2205000	3105000	5310000
46	6400	2450834	5613332	8064166
47	6400	2450834	5613332	8064166
48	1550	282826	182917	465743

ARCHIVIO MATERIALI PIASTRE: MATRICE ELASTICA													
Materiale	Densita'	E <sub>x</sub> *1E3	Ni.x	Alfa.x	E <sub>y</sub> *1E3	Ni.y	Alfa.y	E <sub>11</sub> *1E3	E <sub>12</sub> *1E3	E <sub>13</sub> *1E3	E <sub>22</sub> *1E3	E <sub>23</sub> *1E3	E <sub>33</sub> *1E3
N.ro	kg/mc	kg/cm <sup>q</sup>		(*1E5)	kg/cm <sup>q</sup>		(*1E5)	kg/cm <sup>q</sup>	kg/cm <sup>q</sup>	kg/cm <sup>q</sup>	kg/cm <sup>q</sup>	kg/cm <sup>q</sup>	kg/cm <sup>q</sup>
1	2500	285	0.20	0.00	285	0.20	0.00	296	59	0	296	0	119
11	2000	53	0.25	1.00	53	0.25	1.00	57	14	0	57	0	21
12	1800	25	0.25	1.00	25	0.25	1.00	27	7	0	27	0	10
13	1900	50	0.25	1.00	50	0.25	1.00	53	13	0	53	0	20
14	1800	50	0.25	1.00	50	0.25	1.00	53	13	0	53	0	20
15	1900	50	0.25	1.00	50	0.25	1.00	53	13	0	53	0	20
16	1900	30	0.25	1.00	30	0.25	1.00	32	8	0	32	0	12
17	1900	30	0.25	1.00	30	0.25	1.00	32	8	0	32	0	12

ARCHIVIO SEZIONI SHELLS			
Sezione	Spessore	Tipo	Tipo Elemento
N.ro	cm	Mater.	(descrizione)
601	30	1	LASTRA-PIASTRA
602	25	1	LASTRA-PIASTRA
603	28	1	LASTRA-PIASTRA

BARICENTRI MASSE E RIGIDENZE														
IDENTIFICATORE		BARICENTRI MASSE E RIGIDENZE							RIGIDENZE FLESSIONALI E TORSIONALI					
PIANO	QUOTA	PESO	XG	YG	XR	YR	DX	DY	Lpianta	Bpianta	Rig.FleX	Rig.FleY	RigTors.	r / ls
N.ro	(m)	(t)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(t/m)	(t/m)	(t*m)	
1	3.63	390.96	11.25	5.49	13.66	5.15	2.41	-0.34	14.62	22.36	103290	91122	6614888	0.97
2	6.88	424.10	10.50	5.51	13.65	4.86	3.15	-0.65	14.62	22.36	63321	54764	4251317	1.03
3	10.13	449.40	10.94	5.61	13.61	4.56	2.66	-1.06	14.62	22.36	43053	38925	3007661	1.00
4	13.21	113.55	13.27	4.90	13.91	4.97	0.64	0.07	14.62	22.36	24572	26519	2081246	1.12

VARIAZIONI MASSE E RIGIDENZE DI PIANO													
				DIREZIONE X					DIREZIONE Y				
Piano	Quota	Peso	Variaz.	Tagliante	Spost.	Klat.	Variaz	Teta	Tagliante	Spost.	Klat.	Variaz	Teta
N.ro	(m)	(t)	(%)	(t)	(mm)	(t/m)	(%)		(t)	(mm)	(t/m)	(%)	
1	3.63	390.96	0.0	248.87	4.38	56807	0.0	0.018	161.98	3.43	47241	0.0	0.022
2	6.88	424.10	8.5	218.06	4.78	45599	-19.7	0.018	141.58	3.64	38865	-17.7	0.022
3	10.13	449.40	6.0	148.12	4.64	31917	-30.0	0.015	93.16	3.40	27435	-29.4	0.017
4	13.21	113.55	-74.7	36.29	3.94	9217	-71.1	0.011	19.78	2.62	7562	-72.4	0.013

## 2.5 Modellazione dei vincoli interni ed esterni

Di seguito la modellazione dei nodi interni ed esterni:

NODI ALLA QUOTA 13.88 m																
IDENTIFICAZIONE					RIGIDENZE NODO ESTERNE						CARICHI NODALI CONCENTRATI					
Filo	Quo	D.Quo	P.	Co	Tx	Ty	Tz	Rx	Ry	Rz	Fx	Fy	Fz	Mx	My	Mz
N.ro	N.	cm	sis	di	(t/m)	(t/m)	(t/m)	(t-m)	(t-m)	(t-m)	(t)	(t)	(t)	(t-m)	(t-m)	(t-m)
1	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
2	4	108	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
3	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
4	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
5	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
6	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
7	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
8	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
9	4	108	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
10	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
11	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
12	4	108	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000



NODI ALLA QUOTA 13.88 m																
IDENTIFICAZIONE					RIGIDEZZE NODO ESTERNE						CARICHI NODALI CONCENTRATI					
Filo	Quo	D.Quo	P.	Co	Tx	Ty	Tz	Rx	Ry	Rz	Fx	Fy	Fz	Mx	My	Mz
N.ro	N.	cm	sis	di	(t/m)	(t/m)	(t/m)	(t-m)	(t-m)	(t-m)	(t)	(t)	(t)	(t-m)	(t-m)	(t-m)
13	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
14	4	-138	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
15	4	-138	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
16	4	-138	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
20	4	-138	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
21	4	-138	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
22	4	-138	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
23	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
24	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
25	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
26	4	-254	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
30	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
35	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
46	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
48	4	-140	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
49	4	-140	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
52	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
53	4	108	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
54	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
55	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
56	4	108	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
57	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
60	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
67	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
72	4	-46	4	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
75	4	122	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000

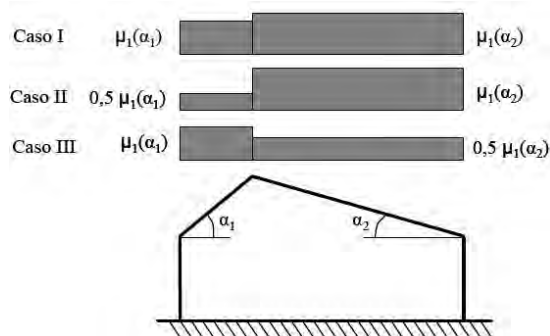
NODI ALLA QUOTA 13.88 m																
IDENTIFICAZIONE					RIGIDEZZE NODO ESTERNE						CARICHI NODALI CONCENTRATI					
Filo	Quo	D.Quo	P.	Co	Tx	Ty	Tz	Rx	Ry	Rz	Fx	Fy	Fz	Mx	My	Mz
N.ro	N.	cm	sis	di	(t/m)	(t/m)	(t/m)	(t-m)	(t-m)	(t-m)	(t)	(t)	(t)	(t-m)	(t-m)	(t-m)
76	4	122	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
77	4	122	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
78	4	122	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
79	4	122	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000

## 2.6 Modellazione delle azioni

Di seguito si riportano le azioni considerate sugli impalcati:

ARCHIVIO TIPOLOGIE DI CARICO										
Car. N.ro	Peso Strut kg/mq	Perman. NONstru kg/mq	Varia bile kg/mq	Neve kg/mq	Destinaz. d'Uso	Psi 0	Psi 1	Psi 2	Anal Car. N.ro	DESCRIZIONE SINTETICA DEL TIPO DI CARICO
1	365	330	200	0	Categ. A	0.7	0.5	0.3		
2	365	155	400	0	Categ. B	0.7	0.5	0.3		
3	260	0	0	0	Categ. B	0.7	0.5	0.3		
4	365	155	50	120	CopNeve<1 k	0.5	0.2	0.0		
5	0	100	200	0	Categ. A	0.7	0.5	0.3		
6	450	155	400	0	Categ. B	0.7	0.5	0.3		
7	0	155	400	0	Categ. B	0.7	0.5	0.3		
8	0	155	50	120	CopNeve<1 k	0.5	0.2	0.0		

Si riporta inoltre il calcolo delle azioni derivante dalla neve e dal vento:



Regione: Emilia Romagna  
 Provincia: Forlì-Cesena  
 Ubicazione: Zona I - Mediterranea  
 Quota sito s.l.m.m. as: 0 m  
 Topografia: Normale  
 Coefficiente di esposizione CE: 1.0  
 Coefficiente termico Ct: 1.00  
 Valore caratteristico di carico neve al suolo (TR=50anni) qsk: 1.50 kN/m2  
 Angolo  $\alpha_1$  della falda 1 sull'orizzontale: 20°  
 Angolo  $\alpha_2$  della falda 2 sull'orizzontale: 20°  
 Coefficiente di forma  $\mu_1(\alpha_1)$ : 0.80  
 Coefficiente di forma  $\mu_1(\alpha_2)$ : 0.80  
 Caso (i) - Carico neve in assenza di vento  
 Carico neve su falda 1 q1: 1.20 kN/m2

Carico neve su falda 2  $q_2$ : 1.20 kN/m<sup>2</sup>  
 Caso (ii) - Carico neve in presenza di vento  
 Carico neve su falda 1  $q_1$ : 0.60 kN/m<sup>2</sup>  
 Carico neve su falda 2  $q_2$ : 1.20 kN/m<sup>2</sup>  
 Caso (iii) - Carico neve in presenza di vento  
 Carico neve su falda 1  $q_1$ : 1.20 kN/m<sup>2</sup>  
 Carico neve su falda 2  $q_2$ : 0.60 kN/m<sup>2</sup>

Dati sito

Regione: Emilia Romagna

Provincia: Forlì-Cesena

$v_0$ : 25.00 m/s

$a_0$ : 750.00 m

$k_a$ : 0.02 s<sup>-1</sup>

Zona: 2

Classe di rugosità: C

Distanza dalla costa: 0 km

Categoria di esposizione: I

$k_r$ : 0.17

$z_0$ : 0.01 m

$z_{min}$ : 2.00 m

Quota s.l.m.m.: 0 m

Pendenza falda  $\alpha$ : 20 °

Altezza edificio sul p.c.: 15 m

Tempo di ritorno TR: 50 anni

Coefficiente di topografia  $c_t$ : 1.00

Coefficiente dinamico  $c_d$ : 1.00

Coefficiente di esposizione  $c_e$ : 3.03

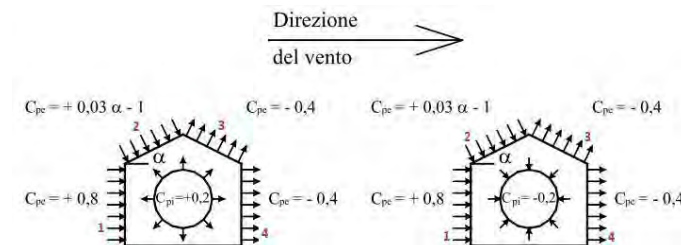
$\alpha_R$ : 1.00

$v_b$ : 25.00 m/s

$v_b(TR)$ : 25.02 m/s

$q_b(TR)$ : 391.20 N/m<sup>2</sup>

Caso (1): Costruzioni aventi una parete con aperture di superficie <33% di quella totale



Coefficienti di pressione

$c_{pe,1} = 0.8$

$c_{pe,2} = -0.4$

$c_{pe,3} = -0.4$

$c_{pe,4} = -0.4$

$c_{pi} = \pm 0.2$

Pressioni del vento (area interna in pressione)

$p_1 = 0.71$  kN/m<sup>2</sup>

$p_2 = -0.71$  kN/m<sup>2</sup>

$p_3 = -0.71$  kN/m<sup>2</sup>

$p_4 = -0.71$  kN/m<sup>2</sup>

Pressioni del vento (area interna in depressione)

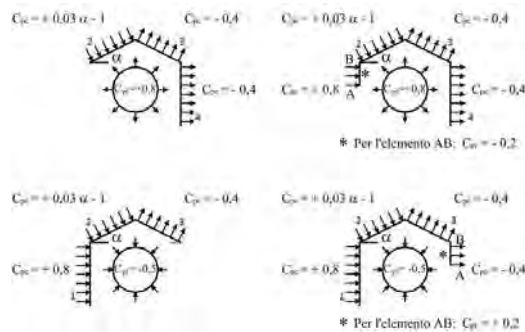
$p_1 = 1.19$  kN/m<sup>2</sup>

$p_2 = -0.24$  kN/m<sup>2</sup>

$p_3 = -0.24$  kN/m<sup>2</sup>

$p_4 = -0.24$  kN/m<sup>2</sup>

Caso (2): Costruzioni aventi una parete con aperture di superficie  $\geq 33\%$  di quella totale



Coefficienti di pressione

$c_{pe,AB} = 0.8$

$c_{pe,2} = -0.4$

$c_{pe,3} = -0.4$

$c_{pe,4} = -0.4$

$c_{pi,sop} = 0.8$

$c_{pi,sot} = -0.5$

$c_{pi,AB} = -0.2$

Pressioni del vento (apertura sopravento)

$p_{AB} = 1.19 \text{ kN/m}^2$

$p_2 = -1.42 \text{ kN/m}^2$

$p_3 = -1.42 \text{ kN/m}^2$

$p_4 = -1.42 \text{ kN/m}^2$

Pressioni del vento (apertura sottovento)

$p_1 = 1.54 \text{ kN/m}^2$

$p_2 = 0.12 \text{ kN/m}^2$

$p_3 = 0.12 \text{ kN/m}^2$

$p_{AB} = -0.24 \text{ kN/m}^2$

Caso (3): Costruzioni che presentano su due pareti opposte, normali alla direzione del vento, aperture di superficie  $\geq 33\%$  di quella totale

Coefficienti di pressione

$c_{pe} + c_{pi} = \pm 1.2$

$c_{pi} = \pm 0.2$

Pressioni del vento

$p_1 = 1.42 \text{ kN/m}^2$

$p_2 = -0.24 \text{ kN/m}^2$

$p_3 = -0.24 \text{ kN/m}^2$

$p_4 = -1.42 \text{ kN/m}^2$

## 2.7 Combinazioni e/o percorsi di carico

Di seguito si riportano le combinazioni di carico considerate nella fase di progettazione:

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Peso Strutturale	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.00
Perm.Non Strutturale	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.00
Var.Abitazioni	1.50	1.05	1.50	1.05	1.05	1.50	1.05	1.05	1.50	1.05	1.05	1.50	1.05	1.05	0.30
Var.Uffici	1.50	1.05	1.50	1.05	1.05	1.50	1.05	1.05	1.50	1.05	1.05	1.50	1.05	1.05	0.30
Var.Neve $h \leq 1000$	0.75	1.50	0.75	1.50	0.75	0.75	1.50	0.75	0.75	1.50	0.75	0.75	1.50	0.75	0.00
Var.Coperture	1.50	0.00	1.50	0.00	0.00	1.50	0.00	0.00	1.50	0.00	0.00	1.50	0.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.90	0.90	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.90	0.90	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	1.50	0.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	1.50	0.00
Corr. Tors. dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Corr. Tors. dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Sisma direz. grd 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Sisma direz. grd 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Var.Abitazioni	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Var.Uffici	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Var.Neve h<=1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Var.Coperture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 0	-1.00	1.00	-1.00	1.00	-1.00	1.00	-1.00	-1.00	1.00	-1.00	1.00	-1.00	1.00	-1.00	1.00
Corr. Tors. dir. 90	0.30	-0.30	-0.30	-0.30	-0.30	0.30	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30	0.30	0.30
Sisma direz. grd 0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Sisma direz. grd 90	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30	0.30	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Var.Abitazioni	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Var.Uffici	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Var.Neve h<=1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Var.Coperture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 0	0.30	-0.30	0.30	-0.30	0.30	-0.30	0.30	-0.30	-0.30	0.30	-0.30	0.30	-0.30	0.30	-0.30
Corr. Tors. dir. 90	1.00	1.00	-1.00	-1.00	-1.00	-1.00	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	1.00
Sisma direz. grd 0	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30
Sisma direz. grd 90	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.	
DESCRIZIONI	46
Peso Strutturale	1.00
Perm.Non Strutturale	1.00
Var.Abitazioni	0.30
Var.Uffici	0.30
Var.Neve h<=1000	0.00
Var.Coperture	0.00
Vento dir. 0	0.00
Vento dir. 90	0.00
Vento dir. 180	0.00
Vento dir. 270	0.00
Corr. Tors. dir. 0	0.30
Corr. Tors. dir. 90	1.00
Sisma direz. grd 0	-0.30
Sisma direz. grd 90	-1.00

COMBINAZIONI RARE - S.L.E.														
DESCRIZIONI	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

COMBINAZIONI RARE - S.L.E.														
DESCRIZIONI	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Var.Abitazioni	1.00	0.70	1.00	0.70	0.70	1.00	0.70	0.70	1.00	0.70	0.70	1.00	0.70	0.70
Var.Uffici	1.00	0.70	1.00	0.70	0.70	1.00	0.70	0.70	1.00	0.70	0.70	1.00	0.70	0.70
Var.Neve h<=1000	0.50	1.00	0.50	1.00	0.50	0.50	1.00	0.50	0.50	1.00	0.50	0.50	1.00	0.50
Var.Coperture	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.60	0.60	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.00
Corr. Tors. dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sisma direz. grd 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sisma direz. grd 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

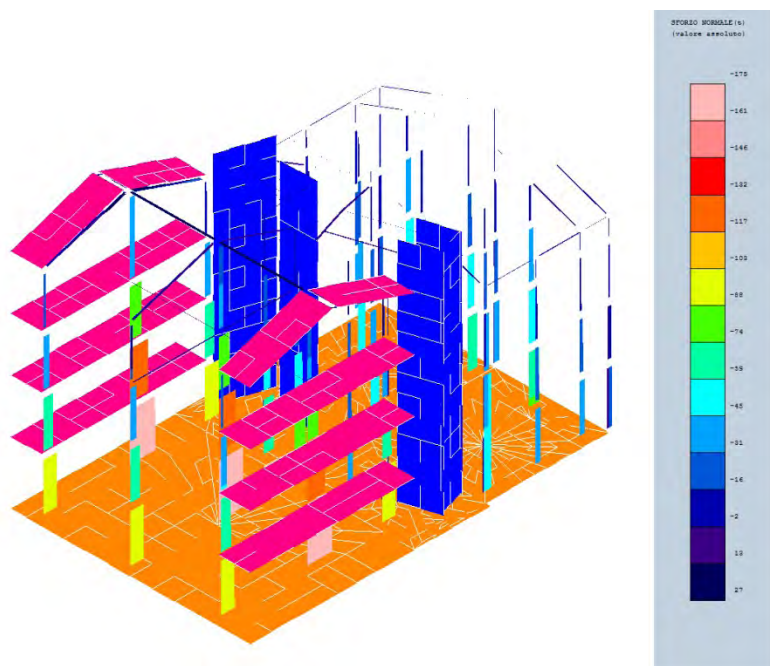
COMBINAZIONI FREQUENTI - S.L.E.							
DESCRIZIONI	1	2	3	4	5	6	
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	
Var.Abitazioni	0.50	0.30	0.30	0.30	0.30	0.30	
Var.Uffici	0.50	0.30	0.30	0.30	0.30	0.30	
Var.Neve h<=1000	0.00	0.20	0.00	0.00	0.00	0.00	
Var.Coperture	0.00	0.00	0.00	0.00	0.00	0.00	
Vento dir. 0	0.00	0.00	0.20	0.00	0.00	0.00	
Vento dir. 90	0.00	0.00	0.00	0.20	0.00	0.00	
Vento dir. 180	0.00	0.00	0.00	0.00	0.20	0.00	
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.20	
Corr. Tors. dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	
Corr. Tors. dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	
Sisma direz. grd 0	0.00	0.00	0.00	0.00	0.00	0.00	
Sisma direz. grd 90	0.00	0.00	0.00	0.00	0.00	0.00	

**COMBINAZIONI PERMANENTI - S.L.E.**

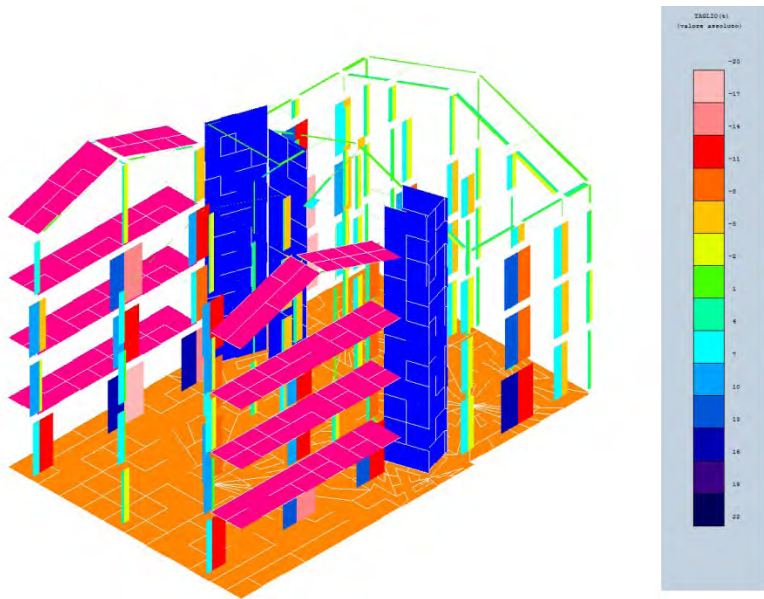
DESCRIZIONI	1
Peso Strutturale	1.00
Perm.Non Strutturale	1.00
Var.Abitazioni	0.30
Var.Uffici	0.30
Var.Neve h<=1000	0.00
Var.Coperture	0.00
Vento dir. 0	0.00
Vento dir. 90	0.00
Vento dir. 180	0.00
Vento dir. 270	0.00
Corr. Tors. dir. 0	0.00
Corr. Tors. dir. 90	0.00
Sisma direz. grd 0	0.00
Sisma direz. grd 90	0.00

**2.8 Principali risultati**

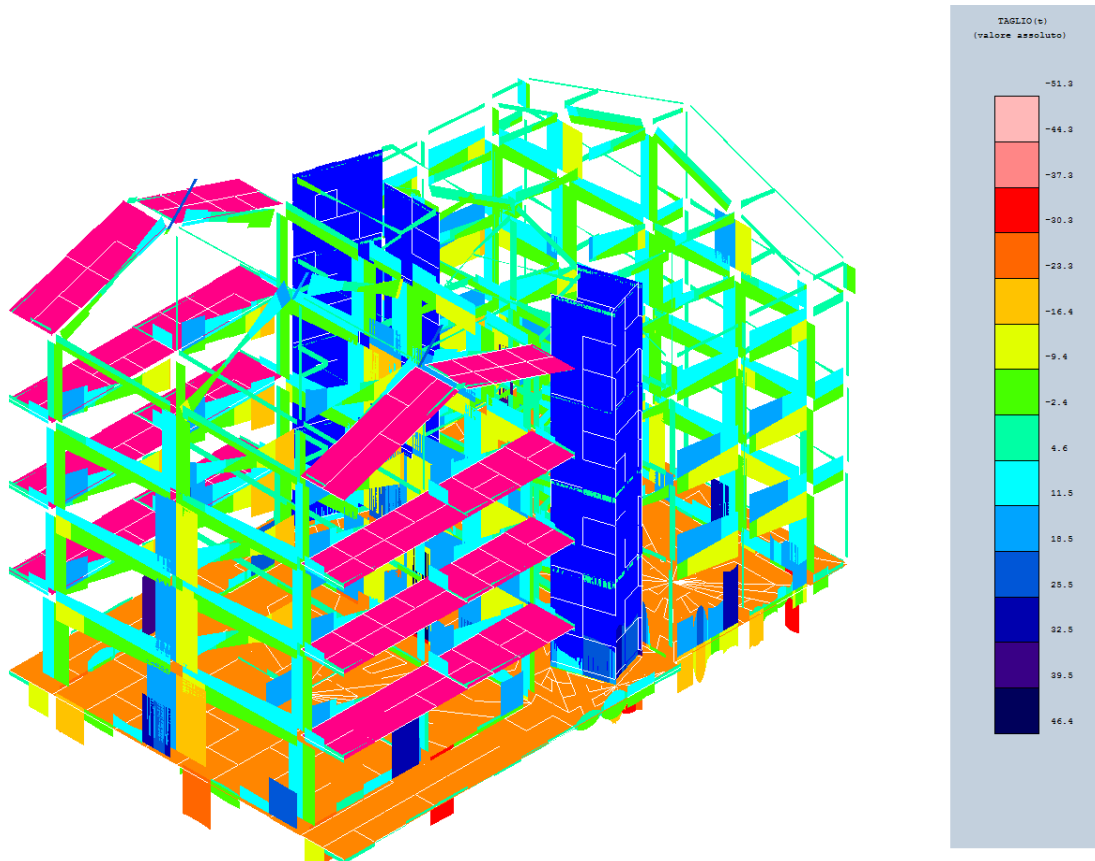
Di seguito si riportano gli involuppi delle sollecitazioni principali:

**Sforzo Normale - Inviluppo**

**Taglio X - Inviluppo**

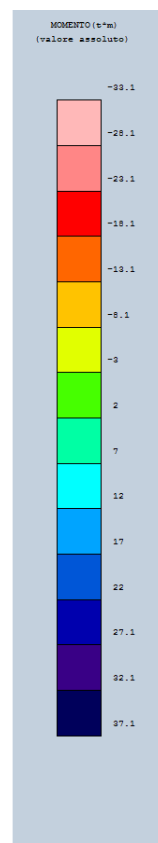
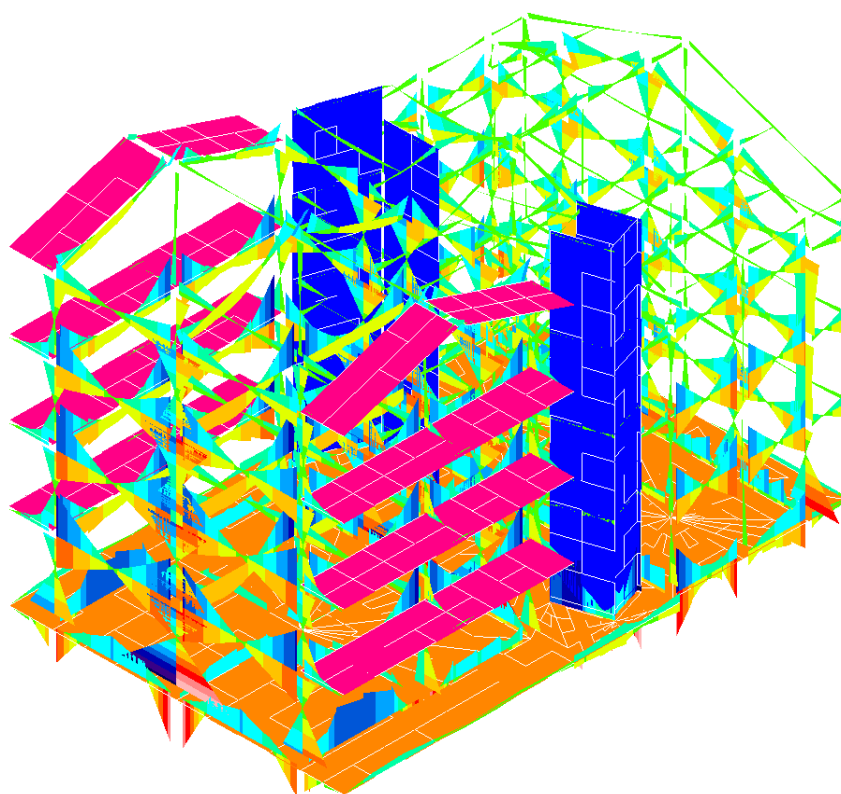




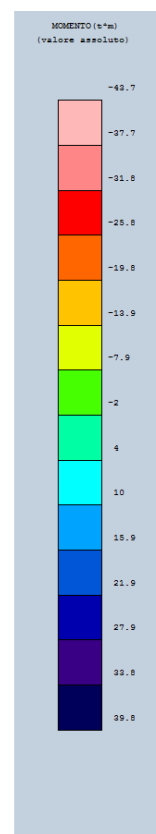
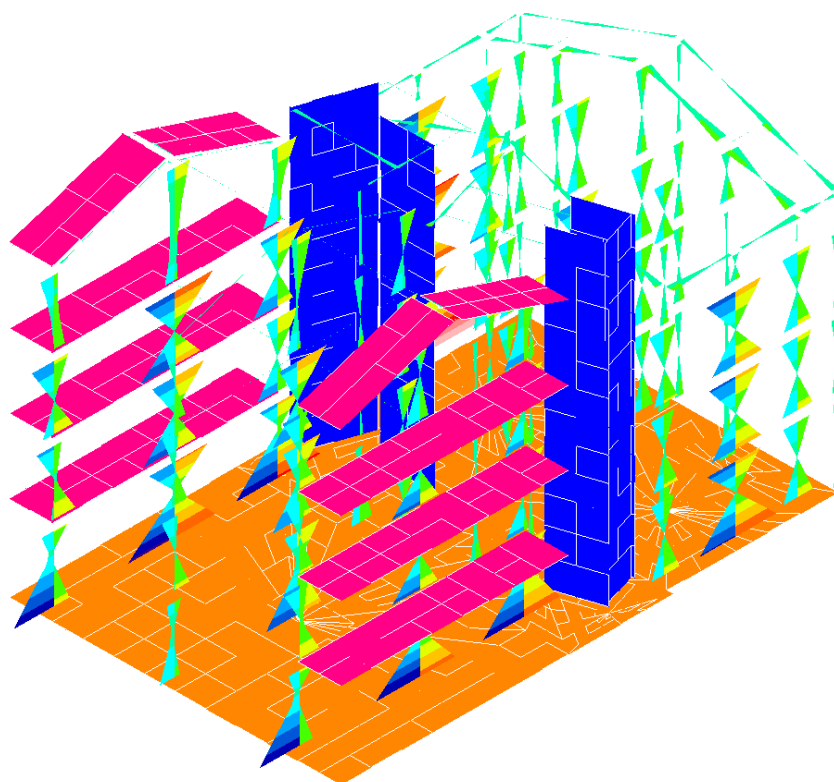
**Taglio Y - Involuppo**



**Momento Flettente 1 - Involuppo**



**Momento Flettente 2 - Involuppo**



**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final	T r a t	Sez Bas Alt	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE													
					Co Nr	Gam Rd	M Exd (t*m)	N Ed (t)	x/ /d	εf% 100	εc% 100	Area cmq sup inf	Co Nr	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe				
																								Pas	Lun	Fi		
11 12 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	18 18 41	1.10 1.10 1.10	18.2 18.2 -15.5	0.0 0.0 0.0	25 24 23	16 16 15	6 5 5	4.8 7.0 7.0	7.8 7.8 4.8	34 34 0	0.0 0.0 0.0	-26.5 -26.5 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	53 53 0	63 87 0	0.0 0.0 0.0	16 22 22	77 44 0	8 8 8	
12 13 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	18 18 41	1.10 1.10 1.10	29.2 29.2 -9.8	0.0 0.0 0.0	30 31 19	18 16 10	8 8 3	5.7 4.8 4.8	11.3 12.3 4.8	3 0 0	0.0 0.0 0.0	-36.5 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	73 0 0	87 0 0	0.0 0.0 0.0	16 22 18	64 0 38	8 8 8	
11 8 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	46 46 25	1.10 1.10 1.10	19.6 19.6 -7.0	0.0 0.0 0.0	26 26 19	16 16 10	6 6 2	4.8 4.8 4.8	8.3 8.3 4.8	12 9 0	0.0 0.0 0.0	-19.5 -19.6 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	39 39 0	46 64 0	0.0 0.0 0.0	16 22 22	77 49 0	8 8 8	
1 2 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	21 21 46	1.10 1.10 1.10	18.2 18.2 -15.4	0.0 0.0 0.0	25 24 23	16 16 15	6 5 5	4.8 7.0 7.0	7.8 7.8 4.8	37 37 0	0.0 0.0 0.0	-25.4 -25.4 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	51 50 0	60 83 0	0.0 0.0 0.0	16 22 22	77 44 0	8 8 8	
3 46 2.5	0.00 0.00 2	1 / 2	30 30 80	1 3 5	41 37 37	1.10 1.10 1.10	13.3 -12.5 -12.5	0.0 0.0 0.0	21 19 19	15 17 17	4 4 4	4.8 4.8 4.8	5.8 5.8 5.8	37 21 0	0.0 0.0 0.0	-14.4 -16.2 0.0	-1.0 -0.8 0.0	46.4 11.7 11.7	50.2 33.7 33.7	5.7 8.2 8.2	1.1 1.1 0.0	47 48 0	45 58 0	3.9 3.9 0.0	16 20 20	77 14 0	8 8 8	
46 10 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	37 37 37	1.10 1.10 1.10	-24.0 -24.0 -24.0	0.0 0.0 0.0	26 26 26	17 17 17	6 6 6	9.7 9.7 9.7	8.0 8.0 8.0	37 0 0	0.0 0.0 0.0	25.2 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	50 0 0	60 0 0	0.0 0.0 0.0	16 22 22	68 0 0	8 8 8	
10 30 2.5	0.00 0.00 2	1 / 2	30 30 80	1 3 5	21 21 21	1.10 1.10 1.10	14.9 14.9 14.9	0.0 0.0 0.0	21 21 21	17 17 17	5 5 5	4.8 4.8 4.8	5.8 5.8 5.8	21 0 0	0.0 0.0 0.0	-16.1 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	32 0 0	38 0 0	0.0 0.0 0.0	16 22 22	70 0 0	8 8 8	
30 72 2.5	0.00 0.00 2	1 / 2	30 30 80	1 3 5	46 46 46	1.10 1.10 1.10	-16.0 -16.0 -14.6	0.0 0.0 0.0	21 21 21	17 17 17	5 5 5	6.1 6.1 5.8	8.1 8.1 4.8	34 34 0	0.0 0.0 0.0	-28.6 -28.1 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	57 56 0	68 92 0	0.0 0.0 0.0	16 22 22	77 18 0	8 8 8	
8 1 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	46 46 25	1.10 1.10 1.10	27.9 27.9 -8.9	0.0 0.0 0.0	29 30 19	18 18 12	8 8 3	5.5 4.8 4.8	10.9 10.9 4.8	46 46 0	0.0 0.0 0.0	-27.2 -27.5 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	54 55 0	65 90 0	0.0 0.0 0.0	16 22 22	77 49 0	8 8 8	
2 3 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	21 21 46	1.10 1.10 1.10	27.8 27.8 -9.0	0.0 0.0 0.0	29 30 19	17 18 12	8 8 3	5.4 4.8 4.8	10.9 10.9 4.8	3 0 0	0.0 0.0 0.0	-36.7 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	73 0 0	87 0 0	0.0 0.0 0.0	16 22 18	64 0 38	8 8 8	
12 9 2.5	0.00 0.00 4	1 / 4	31 50 50	1 3 5	46 46 30	1.10 1.10 1.10	8.7 8.7 -4.8	0.0 0.0 0.0	23 23 19	14 14 11	5 5 3	5.0 5.0 5.0	7.0 7.0 5.0	9 9 0	0.0 0.0 0.0	-13.1 -13.5 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	26 26 0	42 43 0	0.0 0.0 0.0	13 13 13	47 82 0	8 8 8	
8 9 2.5	0.00 0.00 4	1 / 4	31 50 50	1 3 5	30 27 27	1.10 1.10 1.10	-4.1 -5.9 -5.9	0.0 0.0 0.0	19 19 19	9 13 13	2 3 3	5.0 5.0 5.0	5.0 5.0 5.0	41 41 0	0.0 0.0 0.0	-4.3 -4.6 0.0	1.2 1.2 0.0	50.9 50.9 31.5	50.9 50.9 31.5	6.3 6.3 13.9	1.3 1.3 0.0	28 29 0	24 25 0	3.8 3.8 0.0	13 13 13	47 79 0	8 8 8	
9 2 2.5	0.00 0.00 4	1 / 4	31 50 50	1 3 5	37 37 37	1.10 1.10 1.10	3.7 3.7 1.8	0.0 0.0 0.0	19 19 19	8 8 4	2 2 1	5.0 5.0 5.0	5.0 5.0 5.0	12 12 0	0.0 0.0 0.0	-3.0 -3.4 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	6 7 0	10 11 0	0.0 0.0 0.0	13 13 13	47 82 0	8 8 8	
9 10 2.5	0.00 0.00 4	1 / 4	31 50 50	1 3 5	15 15 27	1.10 1.10 1.10	5.9 5.9 -0.8	0.0 0.0 0.0	19 19 19	13 13 2	3 3 0	5.0 5.0 5.0	5.0 5.0 5.0	15 15 0	0.0 0.0 0.0	-5.6 -5.8 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	11 12 0	18 19 0	0.0 0.0 0.0	13 13 13	47 61 0	8 8 8	
23 44 2.5	0.00 0.00 2	1 / 2	30 30 80	1 3 5	30 46 46	1.10 1.10 1.10	-10.0 -10.1 -10.1	0.0 0.0 0.0	19 19 19	14 14 14	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	46 0 0	0.0 0.0 0.0	-24.8 0.0 0.0	-0.4 0.0 0.0	14.6 11.7 11.7	42.1 33.7 33.7	10.3 8.2 8.2	1.1 0.0 0.0	57 0 0	63 0 0	4.0 0.0 0.0	16 20 20	69 0 0	8 8 8	
20 51 2.5	0.00 0.00 2	1 / 2	30 30 80	1 3 5	34 34 40	1.10 1.10 1.10	7.8 7.8 -7.3	0.0 0.0 0.0	19 19 19	11 11 10	3 3 3	4.8 4.8 4.8	4.8 4.8 4.8	41 41 0	0.0 0.0 0.0	-15.0 -13.7 0.0	-0.7 -0.7 0.0	14.6 11.7 11.7	42.1 33.7 33.7	10.3 8.2 8.2	1.2 1.2 0.0	42 39 0	42 49 0	4.3 4.3 0.0	16 20 20	77 21 0	8 8 8	
17 14 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	27 27 41	1.10 1.10 1.10	8.4 8.4 8.1	0.0 0.0 0.0	19 19 19	12 12 11	3 3 3	4.8 4.8 4.8	4.8 4.8 4.8	43 43 0	0.0 0.0 0.0	-11.1 -10.4 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	22 21 0	26 34 0	0.0 0.0 0.0	16 22 22	77 12 0	8 8 8	
14 4 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	40 40 40	1.10 1.10 1.10	26.4 26.4 26.4	0.0 0.0 0.0	27 27 27	17 17 17	7 7 7	8.7 8.7 8.7	10.4 10.4 10.4	40 0 0	0.0 0.0 0.0	-30.6 0.0 0.0	-0.9 0.0 0.0	14.6 11.7 11.7	42.1 33.7 33.7	10.3 8.2 8.2	0.9 0.0 0.0	77 0 0	82 0 0	3.5 0.0 0.0	16 20 20	66 0 0	8 8 8	
4 5 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	25 25 25	1.10 1.10 1.10	-26.3 -26.3 -26.3	0.0 0.0 0.0	26 26 26	17 17 17	7 7 7	10.4 10.4 10.4	10.2 10.2 10.2	21 0 0	0.0 0.0 0.0	-21.3 0.0 0.0	1.4 0.0 0.0	46.4 11.7 11.7	50.2 33.7 33.7	5.7 8.2 8.2	1.8 0.0 0.0	67 0 0	64 0 0	6.5 0.0 0.0	16 20 20	67 0 0	8 8 8	
6 16 2.5	0.00 0.00 4	1 / 4	30 30 80	1 3 5	37 37 21	1.10 1.10 1.10	13.9 13.9 -8.2	0.0 0.0 0.0	21 21 19	16 16 11	5 5 3	4.8 4.8 4.8	5.8 5.8 4.8	37 0 0	0.0 0.0 0.0	-34.0 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	68 0 0	81 0 0	0.0 0.0				

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final	T r a t	Sez a Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														
					Co	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRld (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi				
23 24 2.5	0.00 0.00 4	1 30 80	30 30 5	30 30 30	1.10 1.10 1.10	-16.1 -16.1 -16.1	0.0 0.0 0.0	22 22 22	18 18 18	5 5 5	6.1 6.1 6.1	5.8 5.8 5.8	18 0 0	0.0 0.0 0.0	-15.0 0.0 0.0	-1.8 0.0 0.0	46.4 11.7 11.7	50.2 33.7 33.7	5.7 8.2 8.2	1.8 0.0 0.0	61 0 0	54 0 0	6.4 0.0 0.0	16 20 20	64 0 0	8 8 8			
5 6 2.5	0.00 0.00 4	1 30 80	30 30 5	31 31 31	1.10 1.10 1.10	7.9 7.9 7.9	0.0 0.0 0.0	19 19 19	11 11 11	3 3 3	4.8 4.8 4.8	4.8 4.8 4.8	15 0 0	0.0 0.0 0.0	-19.0 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	38 0 0	45 0 0	0.0 0.0 0.0	16 22 22	62 0 0	8 8 8			
6 7 2.5	0.00 0.00 2	1 30 50	32 30 5	1 37 41	1.10 1.10 1.10	-4.3 -4.3 4.2	0.0 0.0 0.0	19 19 20	15 15 15	4 4 4	3.1 3.1 3.1	4.1 4.1 3.1	41 41 0	0.0 0.0 0.0	-6.8 -6.9 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	22 23 0	26 37 0	0.0 0.0 0.0	16 22 22	47 20 0	8 8 8			
16 19 2.5	0.00 0.00 4	1 30 80	30 30 5	1 40 40	1.10 1.10 1.10	20.8 20.8 -4.8	0.0 0.0 0.0	25 25 19	16 16 7	6 6 2	8.4 8.4 4.8	8.7 8.7 4.8	40 0 0	0.0 0.0 0.0	-31.7 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	63 0 0	75 0 0	0.0 0.0 0.0	16 22 21	59 0 22	8 8 8			
19 22 2.5	0.00 0.00 4	1 30 80	1 30 5	1 46 46	1.10 1.10 1.10	10.8 10.8 10.8	0.0 0.0 0.0	19 19 19	15 15 15	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	46 40 0	0.0 0.0 0.0	-16.2 -15.5 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	32 31 0	38 51 0	0.0 0.0 0.0	16 22 22	77 5 0	8 8 8			
22 25 2.5	0.00 0.00 4	1 30 80	1 30 5	1 31 31	1.10 1.10 1.10	-12.1 -12.1 -12.1	0.0 0.0 0.0	20 20 20	17 17 17	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	31 0 0	0.0 0.0 0.0	10.1 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	20 0 0	24 0 0	0.0 0.0 0.0	16 22 22	64 0 0	8 8 8			
24 25 2.5	0.00 0.00 4	1 30 80	1 30 5	1 34 34	1.10 1.10 1.10	13.9 13.9 -4.8	0.0 0.0 0.0	21 21 19	16 16 7	5 5 2	4.8 4.8 4.8	5.8 5.8 4.8	34 0 0	0.0 0.0 0.0	-32.5 0.0 0.0	-1.1 0.0 0.0	14.6 11.7 11.7	42.1 33.7 33.7	10.3 8.2 8.2	1.3 0.0 0.0	84 0 0	88 0 0	4.6 0.0 0.0	16 20 20	59 0 0	8 8 8			
25 26 2.5	0.00 0.00 2	1 30 50	32 30 5	1 46 46	1.10 1.10 1.10	4.4 4.4 3.6	0.0 0.0 0.0	20 20 20	16 16 13	4 4 3	3.1 3.1 3.1	3.1 3.1 3.1	46 46 0	0.0 0.0 0.0	-5.8 -5.9 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	19 19 0	23 32 0	0.0 0.0 0.0	16 22 22	47 20 0	8 8 8			
7 27 2.5	0.00 0.00 4	1 30 50	32 30 5	1 36 20	1.10 1.10 1.10	-2.2 -2.6 -2.7	0.0 0.0 0.0	19 20 20	8 9 10	2 2 3	3.1 3.1 3.1	3.1 3.1 3.1	21 21 0	0.0 0.0 0.0	-1.2 -1.0 0.0	-0.5 -0.5 0.0	29.0 29.0 14.6	30.5 30.5 25.6	3.4 3.4 6.0	0.5 0.5 0.0	19 19 0	13 13 0	2.2 2.2 0.0	16 16 16	47 121 0	8 8 8			
27 26 2.5	0.00 0.00 4	1 30 50	32 30 5	1 21 31	1.10 1.10 1.10	1.5 1.4 -1.2	0.0 0.0 0.0	19 19 19	6 5 4	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	15 15 0	0.0 0.0 0.0	-1.4 -1.4 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	5 5 0	6 8 0	0.0 0.0 0.0	16 22 22	47 121 0	8 8 8			
17 18 2.5	0.00 0.00 4	1 50 50	31 30 5	1 31 34	1.10 1.10 1.10	3.0 3.0 -1.6	0.0 0.0 0.0	19 19 19	7 7 4	2 2 1	5.0 5.0 5.0	5.0 5.0 5.0	31 31 0	0.0 0.0 0.0	-6.9 -6.9 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	14 14 0	22 22 0	0.0 0.0 0.0	13 13 13	47 20 0	8 8 8			
18 19 2.5	0.00 0.00 4	1 50 50	31 30 5	1 15 18	1.10 1.10 1.10	3.9 -4.1 -4.1	0.0 0.0 0.0	19 19 19	9 9 9	2 2 2	5.0 5.0 5.0	5.0 5.0 5.0	3 3 0	0.0 0.0 0.0	-14.1 -14.2 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	28 28 0	45 45 0	0.0 0.0 0.0	13 13 13	47 15 0	8 8 8			
19 27 2.5	0.00 0.00 2	1 50 50	31 30 5	1 30 18	1.10 1.10 1.10	2.3 2.3 -2.2	0.0 0.0 0.0	19 19 19	5 5 5	1 1 1	5.0 5.0 5.0	5.0 5.0 5.0	3 3 0	0.0 0.0 0.0	-5.6 -5.7 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	11 11 0	18 18 0	0.0 0.0 0.0	13 13 13	47 20 0	8 8 8			
10 17 2.5	0.00 0.00 4	1 50 50	31 30 5	1 41 18	1.10 1.10 1.10	5.4 5.4 1.3	0.0 0.0 0.0	19 19 19	12 12 3	3 3 1	5.0 5.0 5.0	5.0 5.0 5.0	41 41 0	0.0 0.0 0.0	-5.9 -6.1 0.0	1.1 1.1 0.0	50.9 50.9 31.5	50.9 50.9 31.5	6.3 6.3 13.9	1.3 1.3 0.0	30 30 0	27 28 0	3.8 3.8 0.0	13 13 13	47 62 0	8 8 8			
61 62 1.79	0.00 0.00 2	1 30 80	47 30 5	1 25 25	1.10 1.10 1.10	32.1 32.1 26.9	0.0 0.0 0.0	29 29 29	16 16 14	7 7 6	12.8 12.8 12.8	12.8 12.8 12.8	15 15 0	0.0 0.0 0.0	25.7 24.4 0.0	11.6 11.6 0.0	57.1 57.1 8.4	61.8 61.8 24.2	20.8 20.8 17.5	11.6 11.6 0.0	98 96 0	95 92 0	18.3 18.3 0.0	11 11 20	77 13 0	8 8 8			
62 63 2.5	0.00 0.00 2	1 30 80	46 30 5	1 41 40	1.10 1.10 1.10	25.2 25.2 20.7	0.0 0.0 0.0	29 29 29	13 13 11	6 6 5	12.8 12.8 12.8	12.8 12.8 12.8	41 27 0	0.0 0.0 0.0	-21.9 -24.1 0.0	-5.0 2.6 0.0	11.7 11.7 11.7	33.7 33.7 33.7	24.3 24.3 24.3	5.8 5.9 0.0	73 70 0	85 82 0	12.6 12.8 0.0	20 20 20	0 113 0	8 8 8			
63 64 2.5	0.00 0.00 2	1 30 80	47 30 5	1 21 21	1.10 1.10 1.10	28.9 28.9 27.9	0.0 0.0 0.0	29 29 29	15 15 14	6 6 6	12.8 12.8 12.8	12.8 12.8 12.8	25 0 0	0.0 0.0 0.0	25.5 0.0 0.0	7.8 0.0 0.0	13.0 11.7 11.7	37.4 33.7 33.7	26.9 24.3 24.3	8.5 0.0 0.0	97 0 0	97 0 0	18.5 0.0 0.0	18 20 19	45 0 45	8 8 8			
64 61 2.5	0.00 0.00 2	1 30 80	46 30 5	1 37 25	1.10 1.10 1.10	9.1 18.0 18.0	0.0 0.0 0.0	28 29 29	5 9 9	2 4 4	12.8 12.8 12.8	12.8 12.8 12.8	21 21 0	0.0 0.0 0.0	-20.3 -20.3 0.0	-7.3 -7.3 0.0	11.7 11.7 11.7	33.7 33.7 33.7	24.3 24.3 24.3	7.3 7.3 0.0	84 83 0	90 90 0	15.8 15.8 0.0	20 20 20	0 113 0	8 8 8			
1 52 2.5	0.00 0.00 2	1 30 50	32 30 5	1 46 30	1.10 1.10 1.10	10.4 10.4 -1.2	0.0 0.0 0.0	30 30 19	16 16 4	8 8 1	3.7 3.1 3.1	7.3 7.3 3.1	46 46 0	0.0 0.0 0.0	-13.3 -13.3 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	44 44 0	52 72 0	0.0 0.0 0.0	16 22 22	47 40 0	8 8 8			
34 33 2.5	0.00 0.00 4	1 50 40	31 30 5	1 18 18	1.10 1.10 1.10	14.2 14.2 13.1	0.0 0.0 0.0	25 25 25	17 17 17	6 6 6	7.9 7.9 7.5	9.3 9.3 8.7	34 34 0	0.0 0.0 0.0	-5.2 -5.4 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	10 11 0	16 17 0	0.0 0.0 0.0	13 13 13	0 77 0	8 8 8			

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	Sez a Bas c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE													
					Co	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ /d	εf% 100	εc% 100	Area cmq sup inf	Co	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRld (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi			
31 32 2.5	0.00 0.00	1 / 2	44 30 80	1 3 5	137 37 37	1.10 1.10 1.10	-24.8 -24.8 -19.6	0.0 0.0 0.0	20 20 20	13 3 10	3 3 3	10.8 10.8 10.8	10.8 46 10.8	34 0 0	0.0 0.0 0.0	-14.6 18.0 0.0	4.7 -3.5 0.0	11.7 11.7 11.7	33.7 33.7 33.7	20.0 20.0 20.0	5.7 61 0.0	63 71 0	67 13.2 0	13.2 20 0	20 119 20	0 8 0	8 8 8	
51 17 2.5	0.00 0.00	1 / 2	30 30 80	1 3 5	140 40 40	1.10 1.10 1.10	-13.9 -13.9 -13.9	0.0 0.0 0.0	21 21 21	16 16 16	5 5 5	5.8 5.8 5.8	4.8 4.8 4.8	19 0 0	0.0 0.0 0.0	-2.8 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	6 0 0	7 0 0	0.0 0.0 0.0	16 22 22	75 0 0	8 8 8	
44 20 2.5	0.00 0.00	1 / 2	30 30 80	1 3 5	130 30 30	1.10 1.10 1.10	-24.5 -24.5 -24.5	0.0 0.0 0.0	26 26 26	17 17 17	6 6 6	9.8 9.8 9.8	9.2 9.2 9.2	20 0 0	0.0 0.0 0.0	-13.1 0.0 0.0	0.0 0.0 0.0	14.6 10.6 10.6	42.1 30.6 30.6	10.3 7.5 7.5	0.0 0.0 0.0	26 0 0	31 0 0	0.0 0.0 0.0	16 22 22	59 0 0	8 8 8	
52 53 2.5	0.00 0.00	1 / 4	32 30 50	1 3 5	127 27 27	1.10 1.10 1.10	-1.3 -3.1 -3.1	0.0 0.0 0.0	19 20 20	5 11 11	1 3 3	3.1 3.1 3.1	3.1 3.1 3.1	9 9 0	0.0 0.0 0.0	-2.3 -2.3 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	7 8 0	9 12 0	0.0 0.0 0.0	16 22 22	47 89 0	8 8 8	
31 20 2.5	0.00 0.00	1 / 2	1 50 50	1 3 5	141 41 37	1.10 1.10 1.10	8.7 8.7 -7.2	0.0 0.0 0.0	21 21 20	16 16 16	5 5 4	7.0 7.0 5.0	6.0 6.0 5.0	20 20 0	0.0 0.0 0.0	16.3 16.0 0.0	-1.5 -1.5 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	1.8 55 0.0	56 61 0	62 5.5 0	5.5 13 0	13 25 0	47 8 8		
13 33 2.5	0.00 0.00	1 / 2	1 50 50	1 3 5	134 34 18	1.10 1.10 1.10	14.1 14.1 -6.8	0.0 0.0 0.0	26 26 20	17 17 15	7 7 4	6.0 6.0 5.0	9.2 9.2 5.0	18 18 0	0.0 0.0 0.0	-27.8 -27.9 0.0	2.4 2.4 0.0	34.1 34.1 31.5	34.1 34.1 31.5	15.1 15.1 13.9	2.4 2.4 0.0	93 93 0	97 98 0	7.1 7.1 0.0	12 12 13	47 28 0	8 8 8	
35 13 2.5	0.00 0.00		30 30 80	1 3 5	18 18 18	1.10 1.10 1.10	19.2 19.2 19.2	0.0 0.0 0.0	25 25 25	16 16 16	6 6 6	4.8 4.8 4.8	8.1 8.1 8.1	18 0 18	0.0 0.0 0.0	36.5 0.0 36.4	-0.8 0.0 -0.8	14.6 11.7 14.6	42.1 33.7 42.1	10.3 8.2 10.3	1.5 0.0 1.5	86 0 86	94 0 94	5.3 0.0 5.3	16 20 16	14 0 14	8 8 8	
72 35 2.5	0.00 0.00		30 30 80	1 3 5	30 30 30	1.10 1.10 1.10	-13.3 -13.3 -12.5	0.0 0.0 0.0	21 21 20	15 15 17	4 4 4	5.8 5.8 4.8	4.8 4.8 4.8	30 0 30	0.0 0.0 0.0	8.6 0.0 8.5	0.0 0.0 0.0	14.6 10.6 14.6	42.1 30.6 42.1	10.3 7.5 10.3	0.0 0.0 0.0	17 0 17	21 0 20	0.0 0.0 0.0	16 22 16	49 0 49	8 8 8	
72 31 2.5	0.00 0.00	1 / 4	1 50 50	1 3 5	124 24 24	1.10 1.10 1.10	4.3 4.3 3.9	0.0 0.0 0.0	19 19 19	10 10 9	3 3 2	5.0 5.0 5.0	5.0 5.0 5.0	33 34 0	0.0 0.0 0.0	-6.3 -6.0 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	12 12 0	20 19 0	0.0 0.0 0.0	13 13 13	47 31 0	8 8 8	
14 39 2.5	0.00 0.00	1 / 2	1 50 50	1 3 5	140 40 40	1.10 1.10 1.10	6.3 6.8 6.8	0.0 0.0 0.0	19 20 20	14 15 15	4 4 4	5.0 5.0 5.0	5.0 5.0 5.0	37 37 0	0.0 0.0 0.0	-4.4 -4.7 0.0	3.0 3.0 0.0	50.9 50.9 31.5	50.9 50.9 31.5	6.3 6.3 13.9	3.0 3.0 0.0	56 56 0	35 36 0	8.8 8.8 0.0	13 13 13	47 34 0	8 8 8	
39 46 2.5	0.00 0.00	1 / 4	1 50 50	1 3 5	136 36 36	1.10 1.10 1.10	-2.7 -3.5 -3.5	0.0 0.0 0.0	19 19 19	6 8 8	2 2 2	5.0 5.0 5.0	5.0 5.0 5.0	25 25 0	0.0 0.0 0.0	3.4 3.3 0.0	-2.4 -2.4 0.0	50.9 50.9 31.5	50.9 50.9 31.5	6.3 6.3 13.9	2.4 2.4 0.0	44 44 0	29 29 0	7.0 7.0 0.0	13 13 13	47 34 0	8 8 8	
39 17 2.5	0.00 0.00	1 / 4	1 50 50	1 3 5	143 43 31	1.10 1.10 1.10	-10.0 -10.0 -2.9	0.0 0.0 0.0	23 23 19	16 16 6	5 5 2	7.1 7.1 5.0	5.0 5.0 5.0	43 43 0	0.0 0.0 0.0	24.3 24.2 0.0	-1.0 -1.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	2.4 2.4 0.0	64 64 0	84 84 0	7.1 7.1 0.0	13 13 13	47 6 0	8 8 8	
11 55 2.5	0.00 0.00	1 / 2	1 30 50	1 3 5	125 25 24	1.10 1.10 1.10	10.4 10.4 -1.3	0.0 0.0 0.0	30 30 19	16 16 5	8 8 1	3.7 3.1 3.1	7.3 7.3 3.1	41 41 0	0.0 0.0 0.0	-12.5 -12.5 0.0	-0.4 -0.4 0.0	14.6 14.6 14.6	25.6 25.6 25.6	6.0 6.0 6.0	0.5 0.5 0.0	53 53 0	55 55 0	2.1 2.1 0.0	16 16 16	47 40 0	8 8 8	
55 56 2.5	0.00 0.00	1 / 4	1 30 50	1 3 5	124 24 24	1.10 1.10 1.10	-1.4 -3.4 -3.4	0.0 0.0 0.0	19 20 20	5 12 12	1 3 3	3.1 3.1 3.1	3.1 3.1 3.1	24 24 0	0.0 0.0 0.0	-2.5 -2.5 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	8 8 0	10 13 0	0.0 0.0 0.0	16 22 22	47 89 0	8 8 8	
32 51 2.5	0.00 0.00	1 / 2	1 30 80	1 3 5	136 36 36	1.10 1.10 1.10	12.1 12.1 12.1	0.0 0.0 0.0	20 20 20	17 17 17	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	24 24 0	0.0 0.0 0.0	-9.5 -9.7 0.0	0.9 0.9 0.0	46.4 11.7 11.7	50.2 33.7 33.7	5.7 8.2 8.2	0.9 0.9 0.0	34 34 0	31 39 0	3.1 3.1 0.0	16 20 20	77 2 0	8 8 8	
34 44 NoVer.	0.00 0.00	1 / 2	1 50 50	1 3 5	118 18 18	1.10 1.10 1.10	21.7 21.7 21.7	0.0 0.0 0.0	0 0 0	0 0 0	0 0 0	3.1 3.1 3.1	3.1 3.1 3.1	18 18 18	0.0 0.0 0.0	-56.1 -56.0 -56.1	-5.1 -5.1 -5.1	73.8 73.8 73.8	73.8 73.8 73.8	9.1 9.1 9.1	0.0 0.0 0.0	132 132 0	0 0 0	0.0 0.0 0.0	0 0 0	0 0 0	8 8 8	
56 57 2.5	0.00 0.00	1 / 4	1 30 50	1 3 5	118 30 30	1.10 1.10 1.10	1.5 -1.7 -1.7	0.0 0.0 0.0	19 19 19	6 6 6	1 2 2	3.1 3.1 3.1	3.1 3.1 3.1	28 30 0	0.0 0.0 0.0	-0.7 -0.8 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	2 3 0	3 4 0	0.0 0.0 0.0	16 22 22	47 71 0	8 8 8	
57 74 2.5	0.00 0.00	1 / 4	1 30 50	1 3 5	130 30 30	1.10 1.10 1.10	6.7 6.7 6.5	0.0 0.0 0.0	23 23 23	17 17 17	6 6 5	4.1 4.1 4.1	4.4 4.4 4.3	16 18 0	0.0 0.0 0.0	0.6 0.4 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	2 1 0	2 2 0	0.0 0.0 0.0	16 22 22	47 70 0	8 8 8	
53 54 2.5	0.00 0.00	1 / 4	1 30 50	1 3 5	131 31 31	1.10 1.10 1.10	1.2 1.2 1.2	0.0 0.0 0.0	19 19 19	4 4 4	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	43 43 0	0.0 0.0 0.0	-0.5 -0.6 0.0	0.0 0.0 0.0	14.6 10.6 10.6	25.6 18.6 18.6	6.0 4.4 4.4	0.0 0.0 0.0	2 2 0	2 3 0	0.0 0.0 0.0	16 22 22	47 71 0	8 8 8	
54 73 2.5	0.00 0.00	1 / 4	1 32 50	1 3 5	121 15 15	1.10 1.10 1.10	-4.2 -4.8 -4.8	0.0 0.0 0.0	20 20 20	15 17 17	4 5 5	3.1 3.1 3.1	3.1 3.1 3.1	37 37 0	0.0 0.0 0.0	4.2 4.5 0.0	0.6 0.6 0.0	29.0 29.0 14.6	30.5 30.5 25.6	3.4 3.4 6.0	0.6 0.6 0.0	31 32 0	26 27 0	2.5 2.5 0.0	16 16 16	47 70 0	8 8 8	

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	Sez a Bas Alt	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE															
					Co	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co	Nr	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi				
11 12 2.5	0.00 0.00 4	2 3 4	30 30 80	1 3 5	1.30 1.10 1.10	-21.0 -21.0 -19.3	0.0 0.0 0.0	26 26 25	16 16 16	6 6 6	8.7 8.7 8.2	4.8 4.8 4.8	30 46 0	0.0 0.0 0.0	4.9 7.4 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	10 15 0	16 24 0	0.0 0.0 0.0	22 22 22	0 121 0	8 8 8				
11 12 2.5	0.00 0.00 4	3 3 80	30 30 80	1 3 5	1.25 1.10 1.10	-19.1 -19.1 -17.5	0.0 0.0 0.0	25 25 24	16 16 16	6 6 5	8.1 8.1 7.6	4.8 4.8 4.8	9 9 0	0.0 0.0 0.0	6.1 6.1 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	12 12 0	20 20 0	0.0 0.0 0.0	22 22 22	0 121 0	8 8 8				
11 12 2.5	0.00 0.00 4	4 3 80	30 30 80	1 3 5	1.24 1.10 1.10	-16.3 21.2 21.2	0.0 0.0 0.0	22 26 27	17 16 16	5 6 6	6.4 5.8 4.8	4.8 8.8 8.8	9 0 9	0.0 0.0 0.0	33.0 0.0 32.8	0.0 0.0 0.0	11.7 10.6 14.6	33.7 30.6 42.1	8.2 7.5 10.3	0.0 0.0 0.0	66 0 65	98 0 78	0.0 0.0 0.0	20 22 16	51 0 70	8 8 8				
12 13 2.5	0.00 0.00 4	2 3 80	30 30 80	1 3 5	1.24 1.10 1.10	-9.7 -9.7 -9.5	0.0 0.0 0.0	19 19 19	13 13 13	3 3 3	4.8 4.8 4.8	4.8 4.8 4.8	18 18 0	0.0 0.0 0.0	-8.2 -8.6 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	16 17 0	27 28 0	0.0 0.0 0.0	22 22 22	0 102 0	8 8 8				
12 13 2.5	0.00 0.00 4	3 3 80	30 30 80	1 3 5	1.24 1.10 1.10	-9.2 -9.2 -9.2	0.0 0.0 0.0	19 19 19	13 13 13	3 3 3	4.8 4.8 4.8	4.8 4.8 4.8	18 18 0	0.0 0.0 0.0	-7.8 -8.3 0.0	0.8 0.8 0.0	11.7 11.7 11.7	33.7 33.7 33.7	8.2 8.2 8.2	0.8 0.8 0.0	29 30 0	33 34 0	3.0 3.0 0.0	20 20 20	0 102 0	8 8 8				
12 13 2.5	0.00 0.00 4	4 3 80	30 30 80	1 3 5	1.20 1.10 1.10	-8.5 16.7 16.7	0.0 0.0 0.0	19 24 24	12 15 15	3 5 5	4.8 4.8 4.8	4.8 7.3 7.3	24 24 24	0.0 0.0 0.0	24.7 24.7 24.7	-1.1 -1.1 -1.1	11.7 11.7 14.6	33.7 33.7 42.1	8.2 8.2 10.3	1.1 1.1 1.1	68 68 67	86 86 69	3.8 3.8 3.8	20 20 16	0 26 77	8 8 8				
11 8 2.5	0.00 0.00 4	2 3 80	30 30 80	1 3 5	1.27 1.10 1.10	-8.9 -11.0 -11.0	0.0 0.0 0.0	19 19 19	12 15 15	3 4 4	4.8 4.8 4.8	4.8 4.8 4.8	12 46 0	0.0 0.0 0.0	-6.0 -6.6 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	12 13 0	20 22 0	0.0 0.0 0.0	22 22 22	0 126 0	8 8 8				
11 8 2.5	0.00 0.00 4	3 3 80	30 30 80	1 3 5	1.30 1.10 1.10	-10.3 -10.3 -9.4	0.0 0.0 0.0	19 19 19	14 14 13	4 4 3	4.8 4.8 4.8	4.8 4.8 4.8	41 41 0	0.0 0.0 0.0	6.7 6.5 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	13 13 0	22 21 0	0.0 0.0 0.0	22 22 22	0 126 0	8 8 8				
11 8 2.5	0.00 0.00 4	4 3 80	30 30 80	1 3 5	1.30 1.10 1.10	-9.3 28.2 28.2	0.0 0.0 0.0	19 30 29	13 18 18	3 8 8	4.8 4.8 5.5	4.8 11.0 11.0	41 41 41	0.0 0.0 0.0	27.2 27.1 26.9	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	54 54 53	89 89 64	0.0 0.0 0.0	22 22 16	0 49 77	8 8 8				
1 2 2.5	0.00 0.00 4	2 3 80	30 30 80	1 3 5	1.27 1.10 1.10	-19.8 -19.8 -18.4	0.0 0.0 0.0	26 26 25	16 16 16	6 6 6	8.3 8.3 7.9	4.8 4.8 4.8	25 27 0	0.0 0.0 0.0	4.5 4.4 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	9 9 0	15 14 0	0.0 0.0 0.0	22 22 22	0 121 0	8 8 8				
1 2 2.5	0.00 0.00 4	3 3 80	30 30 80	1 3 5	1.30 1.10 1.10	-17.6 -17.6 -16.0	0.0 0.0 0.0	25 25 23	16 16 16	5 5 5	7.6 7.6 6.8	4.8 4.8 4.8	9 9 0	0.0 0.0 0.0	6.1 6.0 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	12 12 0	20 20 0	0.0 0.0 0.0	22 22 22	0 121 0	8 8 8				
1 2 2.5	0.00 0.00 4	4 3 80	30 30 80	1 3 5	1.27 1.10 1.10	-14.7 20.4 20.4	0.0 0.0 0.0	22 26 26	16 16 16	5 6 6	6.2 5.8 4.8	4.8 8.5 8.5	9 0 9	0.0 0.0 0.0	32.0 0.0 31.8	0.0 0.0 0.0	11.1 10.6 14.6	32.1 30.6 42.1	7.8 7.5 10.3	0.0 0.0 0.0	64 0 63	100 0 76	0.0 0.0 0.0	21 22 16	51 0 70	8 8 8				
3 46 2.5	0.00 0.00 2	2 3 80	30 30 80	1 3 5	1.41 1.10 1.10	11.7 12.0 12.0	0.0 0.0 0.0	20 20 20	16 17 17	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	40 40 40	0.0 0.0 0.0	8.6 8.4 8.2	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	17 17 16	28 27 20	0.0 0.0 0.0	22 22 16	0 14 77	8 8 8				
46 10 2.5	0.00 0.00 4	2 3 80	30 30 80	1 3 5	1.37 1.10 1.10	-11.5 -11.5 -11.5	0.0 0.0 0.0	20 20 20	16 16 16	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	41 41 0	0.0 0.0 0.0	-9.5 -9.8 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	19 19 0	31 32 0	0.0 0.0 0.0	22 22 22	0 68 0	8 8 8				
46 10 2.5	0.00 0.00 4	3 3 80	30 30 80	1 3 5	1.25 1.10 1.10	-11.5 -11.5 -11.5	0.0 0.0 0.0	20 20 20	16 16 16	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	37 41 0	0.0 0.0 0.0	14.4 -15.4 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	29 31 0	47 50 0	0.0 0.0 0.0	22 22 22	0 68 0	8 8 8				
46 10 2.2	0.00 0.00 4	4 3 80	30 30 80	1 3 5	1.25 1.10 1.10	-19.3 28.2 28.2	0.0 0.0 0.0	25 28 28	16 17 17	6 7 7	8.1 9.1 9.1	4.8 11.0 11.0	37 37 37	0.0 0.0 0.0	50.1 50.2 50.3	0.0 0.0 0.0	18.7 18.7 18.7	53.9 53.9 53.9	13.1 13.1 13.1	0.0 0.0 0.0	91 92 92	93 93 93	0.0 0.0 0.0	11 11 11	0 0 68	8 8 8				
10 30 2.5	0.00 0.00 2	2 3 80	30 30 80	1 3 5	1.20 1.10 1.10	11.1 11.1 11.1	0.0 0.0 0.0	20 20 20	15 15 15	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	18 0 36	0.0 0.0 0.0	7.3 0.0 7.4	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	14 0 15	24 0 18	0.0 0.0 0.0	22 22 16	0 0 70	8 8 8				
30 72 2.5	0.00 0.00 2	2 3 80	30 30 80	1 3 5	1.30 1.10 1.10	-15.2 -15.2 -14.8	0.0 0.0 0.0	22 22 21	17 17 17	5 5 5	5.9 5.9 5.8	4.8 4.8 4.8	46 46 46	0.0 0.0 0.0	6.1 6.0 5.7	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	12 12 11	20 19 14	0.0 0.0 0.0	22 22 16	0 18 77	8 8 8				
8 1 2.5	0.00 0.00 4	2 3 80	30 30 80	1 3 5	1.25 1.10 1.10	-8.7 -9.9 -9.9	0.0 0.0 0.0	19 19 19	12 14 14	3 4 4	4.8 4.8 4.8	4.8 4.8 4.8	37 37 0	0.0 0.0 0.0	-6.3 -7.1 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	13 14 0	21 23 0	0.0 0.0 0.0	22 22 22	0 126 0	8 8 8				
8 1 2.5	0.00 0.00 4	3 3 80	30 30 80	1 3 5	1.27 1.10 1.10	-10.5 -10.5 -8.8	0.0 0.0 0.0	19 19 19	15 15 12	4 4 3	4.8 4.8 4.8	4.8 4.8 4.8	6 6 0	0.0 0.0 0.0	6.3 6.3 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	13 13 0	21 21 0	0.0 0.0 0.0	22 22 22	0 126 0	8 8 8				

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	Sez Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE													
					Co	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co	Nr	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi		
8 1 2.5	0.00 0.00	4 /	30 30 40	1 3 5	46 41 41	1.10 1.10 1.10	-6.9 18.7 18.7	0.0 0.0 0.0	19 25 25	10 16 16	2 6 6	4.8 4.8 4.8	4.8 8.0 8.0	9 9 9	0.0 0.0 0.0	19.3 19.3 19.2	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	39 39 38	63 63 46	0.0 0.0 0.0	22 22 16	0 49 77	8 8 8	
2 3 2.5	0.00 0.00	2 /	30 30 40	1 3 5	27 27 27	1.10 1.10 1.10	-8.0 -8.2 -8.2	0.0 0.0 0.0	19 19 19	11 11 11	3 3 3	4.8 4.8 4.8	4.8 4.8 4.8	15 15 0	0.0 0.0 0.0	-5.9 -6.3 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	12 13 0	19 21 0	0.0 0.0 0.0	22 22 22	0 102 0	8 8 8	
2 3 2.5	0.00 0.00	3 /	30 30 40	1 3 5	143 43 43	1.10 1.10 1.10	-7.4 -7.4 -7.1	0.0 0.0 0.0	19 19 19	10 10 10	3 3 2	4.8 4.8 4.8	4.8 4.8 4.8	31 31 0	0.0 0.0 0.0	-5.2 -5.6 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	10 11 0	17 18 0	0.0 0.0 0.0	22 22 22	0 102 0	8 8 8	
2 3 2.5	0.00 0.00	4 /	30 30 40	1 3 5	137 43 43	1.10 1.10 1.10	-7.9 12.2 12.2	0.0 0.0 0.0	19 20 20	11 17 17	3 4 4	4.8 4.8 4.8	4.8 4.8 4.8	43 43 43	0.0 0.0 0.0	19.5 19.4 19.2	0.7 0.7 0.7	11.7 11.7 14.6	33.7 33.7 42.1	8.2 8.2 10.3	0.9 0.9 0.9	51 50 50	66 66 52	3.2 3.2 3.2	20 20 16	0 26 77	8 8 8	
12 9 2.5	0.00 0.00	2 /	31 50 40	1 3 5	124 30 30	1.10 1.10 1.10	-3.5 -4.6 -4.6	0.0 0.0 0.0	19 19 19	8 10 10	2 3 3	5.0 5.0 5.0	5.0 5.0 5.0	12 1 0	0.0 0.0 0.0	-1.5 -2.1 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	3 4 0	5 7 0	0.0 0.0 0.0	13 13 13	0 128 0	8 8 8	
12 9 2.5	0.00 0.00	3 /	31 50 40	1 3 5	130 30 30	1.10 1.10 1.10	-4.5 -4.5 -4.0	0.0 0.0 0.0	19 19 19	10 10 9	3 3 2	5.0 5.0 5.0	5.0 5.0 5.0	7 6 0	0.0 0.0 0.0	1.5 1.5 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	3 3 0	5 5 0	0.0 0.0 0.0	13 13 13	0 128 0	8 8 8	
12 9 2.5	0.00 0.00	4 /	31 50 40	1 3 5	118 34 34	1.10 1.10 1.10	2.0 3.8 3.8	0.0 0.0 0.0	19 19 19	4 8 8	1 2 2	5.0 5.0 5.0	5.0 5.0 5.0	6 6 6	0.0 0.0 0.0	3.5 3.5 3.1	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	7 7 6	11 11 10	0.0 0.0 0.0	13 13 13	0 82 47	8 8 8	
8 9 2.5	0.00 0.00	2 /	31 50 40	1 3 5	127 27 27	1.10 1.10 1.10	-7.3 -7.8 -7.8	0.0 0.0 0.0	20 21 21	16 15 15	4 4 4	5.0 6.0 6.0	5.0 5.0 5.0	3 1 0	0.0 0.0 0.0	-0.7 -1.2 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	1 2 0	2 4 0	0.0 0.0 0.0	13 13 13	0 126 0	8 8 8	
8 9 2.5	0.00 0.00	3 /	31 50 40	1 3 5	127 27 27	1.10 1.10 1.10	-6.2 -6.2 -6.1	0.0 0.0 0.0	19 19 19	14 14 14	4 4 4	5.0 5.0 5.0	5.0 5.0 5.0	37 34 0	0.0 0.0 0.0	0.4 -0.4 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	1 1 0	1 1 0	0.0 0.0 0.0	13 13 13	0 126 0	8 8 8	
8 9 2.5	0.00 0.00	4 /	31 50 40	1 3 5	127 30 30	1.10 1.10 1.10	-7.2 10.1 10.1	0.0 0.0 0.0	20 23 23	16 16 16	4 5 5	5.0 5.0 5.0	5.0 7.2 7.2	9 9 9	0.0 0.0 0.0	16.2 16.2 15.8	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	32 32 31	51 51 50	0.0 0.0 0.0	13 13 13	0 79 47	8 8 8	
9 2 2.5	0.00 0.00	2 /	31 50 40	1 3 5	130 46 46	1.10 1.10 1.10	-3.4 -4.2 -4.2	0.0 0.0 0.0	19 19 19	7 9 9	2 2 2	5.0 5.0 5.0	5.0 5.0 5.0	19 19 0	0.0 0.0 0.0	-1.0 -1.5 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	2 3 0	3 5 0	0.0 0.0 0.0	13 13 13	0 128 0	8 8 8	
9 2 2.5	0.00 0.00	3 /	31 50 40	1 3 5	146 46 46	1.10 1.10 1.10	-4.1 -4.1 -3.2	0.0 0.0 0.0	19 19 19	9 9 7	2 2 2	5.0 5.0 5.0	5.0 5.0 5.0	6 6 0	0.0 0.0 0.0	2.2 2.2 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	4 4 0	7 7 0	0.0 0.0 0.0	13 13 13	0 128 0	8 8 8	
9 2 2.5	0.00 0.00	4 /	31 50 40	1 3 5	143 25 25	1.10 1.10 1.10	-3.9 9.2 9.2	0.0 0.0 0.0	19 23 23	9 15 15	2 5 5	5.0 5.0 5.0	5.0 6.9 6.9	9 9 9	0.0 0.0 0.0	13.2 13.2 12.8	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	26 26 25	42 42 41	0.0 0.0 0.0	13 13 13	0 82 47	8 8 8	
9 10 2.5	0.00 0.00	2 /	31 50 40	1 3 5	130 30 30	1.10 1.10 1.10	-3.5 -3.5 -2.8	0.0 0.0 0.0	19 19 19	8 8 6	2 2 2	5.0 5.0 5.0	5.0 5.0 5.0	15 15 0	0.0 0.0 0.0	-1.7 -2.2 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	3 4 0	6 7 0	0.0 0.0 0.0	13 13 13	0 107 0	8 8 8	
9 10 2.5	0.00 0.00	3 /	31 50 40	1 3 5	146 46 21	1.10 1.10 1.10	-3.2 -3.2 -2.8	0.0 0.0 0.0	19 19 19	7 7 6	2 2 2	5.0 5.0 5.0	5.0 5.0 5.0	25 25 0	0.0 0.0 0.0	3.1 3.1 0.0	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	6 6 0	10 10 0	0.0 0.0 0.0	13 13 13	0 107 0	8 8 8	
9 10 2.5	0.00 0.00	4 /	31 50 40	1 3 5	146 25 25	1.10 1.10 1.10	-2.9 8.2 8.2	0.0 0.0 0.0	19 21 21	6 15 15	2 5 5	5.0 5.0 5.0	5.0 6.0 6.0	25 23 25	0.0 0.0 0.0	10.1 10.0 9.8	0.0 0.0 0.0	31.5 31.5 31.5	31.5 31.5 31.5	13.9 13.9 13.9	0.0 0.0 0.0	20 20 19	32 32 31	0.0 0.0 0.0	13 13 13	0 61 47	8 8 8	
23 44 2.5	0.00 0.00	2 /	30 30 40	1 3 5	130 30 30	1.10 1.10 1.10	-23.6 -23.6 -23.6	0.0 0.0 0.0	26 26 26	17 17 17	6 6 6	9.6 9.6 9.6	9.4 9.4 9.4	34 0 34	0.0 0.0 0.0	13.9 0.0 13.7	1.2 0.0 1.2	11.7 11.7 46.4	33.7 33.7 50.2	8.2 8.2 5.7	1.2 0.0 1.2	48 0 48	56 0 44	4.3 0.0 4.3	20 20 16	0 20 69	8 8 8	
20 51 2.5	0.00 0.00	2 /	30 30 40	1 3 5	140 30 40	1.10 1.10 1.10	-13.5 -13.8 -13.8	0.0 0.0 0.0	21 21 21	16 16 16	4 5 5	5.8 5.8 5.8	4.8 4.8 4.8	37 37 41	0.0 0.0 0.0	4.7 4.8 -4.3	0.8 0.8 -0.9	11.7 11.7 46.4	33.7 33.7 50.2	8.2 8.2 5.7	1.0 1.0 1.0	24 24 25	24 25 20	3.5 3.5 3.5	20 20 16	0 21 77	8 8 8	
17 14 2.5	0.00 0.00	2 /	30 30 40	1 3 5	136 36 36	1.10 1.10 1.10	-10.7 -10.9 -10.9	0.0 0.0 0.0	19 19 19	15 15 15	4 4 4	4.8 4.8 4.8	4.8 4.8 4.8	31 43 0	0.0 0.0 0.0	5.7 -5.5 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	11 11 0	19 18 0	0.0 0.0 0.0	22 22 22	0 89 0	8 8 8	
17 14 2.5	0.00 0.00	3 /	30 30 40	1 3 5	136 36 36	1.10 1.10 1.10	-18.0 -18.4 -18.4	0.0 0.0 0.0	24 24 24	16 16 16	5 5 5	7.7 7.9 7.9	5.8 5.8 5.8	40 0 0	0.0 0.0 0.0	11.4 11.4 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	23 23 0	37 37 0	0.0 0.0 0.0	22 22 22	0 89 0	8 8 8	

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	Sez Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE													
					Co	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co	Nr	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi		
17 14 2.5	0.00 0.00	4 3 4	30 30 80	1 3 5	140 1.10 40	1.10 27.4 1.10	26.3 27.4 27.4	0.0 0.0 0.0	27 27 27	17 17 17	7 7 7	9.5 9.8 9.8	10.4 10.8 10.8	40 40 40	0.0 0.0 0.0	24.4 24.4 24.3	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	49 49 48	80 80 58	0.0 0.0 0.0	22 22 16	0 12 77	8 8 8	
14 4 2.5	0.00 0.00	2 / 4	30 30 80	1 3 5	143 3.43 43	1.10 1.10 1.10	-14.3 -14.3 -14.3	0.0 0.0 0.0	21 21 21	17 17 17	5 5 5	5.8 5.8 5.8	5.8 31 0	0.0 0.0 0.0	-11.0 -11.2 0.0	-0.9 -0.9 0.0	11.7 11.7 11.7	33.7 33.7 33.7	8.2 8.2 8.2	1.1 1.1 0.0	37 38 0	43 44 0	4.0 4.0 0.0	20 20 20	0 66 0	8 8 8		
14 4 2.5	0.00 0.00	3 / 4	30 30 80	1 3 5	125 3.25 25	1.10 1.10 1.10	-15.4 -15.4 -15.4	0.0 0.0 0.0	22 22 22	17 17 17	5 5 5	5.9 5.9 5.9	4.8 39 0	0.0 0.0 0.0	-5.4 -29.6 0.0	-1.2 -1.1 0.0	46.4 12.3 11.7	50.2 35.4 33.7	5.7 8.6 8.2	1.2 1.2 0.0	32 80 0	31 97 0	4.4 4.4 0.0	20 19 20	0 66 0	8 8 8		
14 4 2.5	0.00 0.00	4 / 4	30 30 80	1 3 5	125 3.25 25	1.10 1.10 1.10	-12.3 -12.3 -12.3	0.0 0.0 0.0	20 20 20	17 17 17	4 4 4	4.8 4.8 4.8	4.8 0 15	0.0 0.0 0.0	0.2 0.0 -1.2	-1.6 0.0 -1.6	46.4 11.7 46.4	50.2 33.7 50.2	5.7 8.2 5.7	1.6 0.0 1.6	29 0 31	20 0 19	6.0 0.0 6.0	20 20 16	0 0 66	8 8 8		
4 5 2.5	0.00 0.00	2 / 4	30 30 80	1 3 5	125 3.25 25	1.10 1.10 1.10	-12.6 -12.6 -12.6	0.0 0.0 0.0	20 20 20	18 18 18	5 5 5	4.8 4.8 4.8	4.8 41 0	0.0 0.0 0.0	-11.3 22.5 0.0	0.7 0.7 0.0	11.7 11.7 11.7	33.7 33.7 33.7	8.2 8.2 8.2	1.0 1.0 0.0	35 58 0	42 76 0	3.7 3.7 0.0	20 20 20	0 67 0	8 8 8		
4 5 2.5	0.00 0.00	3 / 4	30 30 80	1 3 5	141 3.25 25	1.10 1.10 1.10	7.4 7.8 7.8	0.0 0.0 0.0	19 19 19	10 11 11	3 3 3	4.8 4.8 4.8	4.8 25 0	0.0 0.0 0.0	18.2 17.8 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	36 36 0	59 58 0	0.0 0.0 0.0	22 22 22	0 67 0	8 8 8		
4 5 2.5	0.00 0.00	4 / 4	30 30 80	1 3 5	125 3.25 25	1.10 1.10 1.10	23.3 23.3 23.3	0.0 0.0 0.0	27 27 27	17 17 17	7 7 7	5.8 5.8 5.8	9.5 25 25	0.0 0.0 0.0	33.9 33.5 33.6	0.0 0.0 0.0	12.3 11.7 14.6	35.4 33.7 42.1	8.6 8.2 10.3	0.0 0.0 0.0	68 67 67	96 100 80	0.0 0.0 0.0	19 20 16	0 16 51	8 8 8		
6 16 2.5	0.00 0.00	2 / 4	30 30 80	1 3 5	136 3.36 36	1.10 1.10 1.10	-14.0 -14.0 -14.0	0.0 0.0 0.0	21 21 21	16 16 16	5 5 5	5.8 5.8 5.8	4.8 43 0	0.0 0.0 0.0	15.1 14.9 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	30 30 0	49 49 0	0.0 0.0 0.0	22 22 22	0 64 0	8 8 8		
6 16 2.5	0.00 0.00	3 / 4	30 30 80	1 3 5	136 3.36 36	1.10 1.10 1.10	-14.6 -14.6 -14.6	0.0 0.0 0.0	21 21 21	17 17 17	5 5 5	5.8 5.8 5.8	4.8 43 0	0.0 0.0 0.0	9.4 9.1 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	19 18 0	31 30 0	0.0 0.0 0.0	22 22 22	0 64 0	8 8 8		
6 16 2.5	0.00 0.00	4 / 4	30 30 80	1 3 5	120 3.20 20	1.10 1.10 1.10	-13.5 -13.5 -13.5	0.0 0.0 0.0	21 21 21	16 16 16	4 4 4	5.8 5.8 5.8	4.8 0 20	0.0 0.0 0.0	-11.5 0.0 -11.6	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	23 0 23	38 0 28	0.0 0.0 0.0	22 22 16	0 0 64	8 8 8		
23 24 2.5	0.00 0.00	2 / 4	30 30 80	1 3 5	130 3.30 30	1.10 1.10 1.10	-7.8 -7.8 -7.8	0.0 0.0 0.0	19 19 19	11 11 11	3 3 3	4.8 4.8 4.8	4.8 34 0	0.0 0.0 0.0	-11.3 -14.2 0.0	-1.1 -1.1 0.0	11.7 11.7 11.7	33.7 33.7 33.7	8.2 8.2 8.2	1.3 1.3 0.0	42 48 0	47 56 0	4.7 4.7 0.0	20 20 20	0 64 0	8 8 8		
23 24 2.5	0.00 0.00	3 / 4	30 30 80	1 3 5	134 3.46 46	1.10 1.10 1.10	-11.6 12.3 12.3	0.0 0.0 0.0	20 20 20	16 17 17	4 4 4	4.8 4.8 4.8	4.8 46 0	0.0 0.0 0.0	22.1 21.9 0.0	0.4 0.4 0.0	11.7 11.7 11.7	33.7 33.7 33.7	8.2 8.2 8.2	1.2 1.2 0.0	50 50 0	70 69 0	4.3 4.3 0.0	20 20 20	0 64 0	8 8 8		
23 24 2.09	0.00 0.00	4 / 4	30 30 80	1 3 5	146 3.46 46	1.10 1.10 1.10	28.0 28.0 28.0	0.0 0.0 0.0	28 28 28	17 17 17	7 7 7	7.9 7.9 7.9	11.0 46 46	0.0 0.0 0.0	43.3 0.0 43.1	1.4 0.0 1.4	52.2 9.8 52.2	56.5 28.3 56.5	6.4 6.9 6.4	1.5 0.0 1.5	99 0 99	96 0 95	4.5 0.0 4.5	11 20 11	16 0 49	8 8 8		
5 6 2.5	0.00 0.00	2 / 4	30 30 80	1 3 5	121 3.21 21	1.10 1.10 1.10	-8.4 -8.4 -8.4	0.0 0.0 0.0	19 19 19	12 12 12	3 3 3	4.8 4.8 4.8	4.8 37 0	0.0 0.0 0.0	-7.7 -7.9 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	15 16 0	25 26 0	0.0 0.0 0.0	22 22 22	0 62 0	8 8 8		
5 6 2.5	0.00 0.00	3 / 4	30 30 80	1 3 5	121 3.21 21	1.10 1.10 1.10	-11.2 -11.2 -11.2	0.0 0.0 0.0	20 20 20	16 16 16	4 4 4	4.8 4.8 4.8	4.8 41 0	0.0 0.0 0.0	5.8 6.5 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	12 13 0	19 21 0	0.0 0.0 0.0	22 22 22	0 62 0	8 8 8		
5 6 2.5	0.00 0.00	4 / 4	30 30 80	1 3 5	121 3.21 21	1.10 1.10 1.10	-15.7 -15.7 -15.7	0.0 0.0 0.0	21 21 21	17 17 17	5 5 5	6.0 6.0 6.0	7.4 0 41	0.0 0.0 0.0	14.2 0.0 14.1	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	28 0 28	47 0 33	0.0 0.0 0.0	22 22 16	0 0 62	8 8 8		
6 7 2.5	0.00 0.00	2 / 2	32 30 50	1 3 5	121 3.21 21	1.10 1.10 1.10	-2.6 -2.6 -2.3	0.0 0.0 0.0	20 20 19	9 9 8	2 2 2	3.1 3.1 3.1	3.1 21 21	0.0 0.0 0.0	2.6 2.5 2.7	0.8 0.8 0.8	29.0 29.0 29.0	30.5 30.5 30.5	3.4 3.4 3.4	0.8 0.8 0.8	32 32 32	23 23 24	3.4 3.4 3.4	16 16 16	0 20 47	8 8 8		
16 19 2.5	0.00 0.00	2 / 4	30 30 80	1 3 5	120 3.20 20	1.10 1.10 1.10	-14.2 -14.2 -14.2	0.0 0.0 0.0	21 21 21	16 16 16	5 5 5	5.8 5.8 5.8	4.8 40 0	0.0 0.0 0.0	9.7 -9.8 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	19 20 0	32 32 0	0.0 0.0 0.0	22 22 22	0 81 0	8 8 8		
16 19 2.5	0.00 0.00	3 / 4	30 30 80	1 3 5	120 3.20 20	1.10 1.10 1.10	-9.1 -9.1 -9.1	0.0 0.0 0.0	19 19 19	13 13 13	3 3 3	4.8 4.8 4.8	4.8 20 0	0.0 0.0 0.0	5.9 5.8 0.0	0.0 0.0 0.0	10.6 10.6 10.6	30.6 30.6 30.6	7.5 7.5 7.5	0.0 0.0 0.0	12 12 0	19 19 0	0.0 0.0 0.0	22 22 22	0 81 0	8 8 8		
16 19 2.5	0.00 0.00	4 / 4	30 30 80	1 3 5	127 3.43 43	1.10 1.10 1.10	8.0 10.0 10.0	0.0 0.0 0.0	19 19 19	11 14 14	3 4 4	4.8 4.8 4.8	4.8 36 36	0.0 0.0 0.0	16.4 16.3 16.2	0.0 0.0 0.0	10.6 10.6 14.6	30.6 30.6 42.1	7.5 7.5 10.3	0.0 0.0 0.0	33 32 32	53 53 39						



**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz. Fin. Ctg0	Quota Iniz. Fin.	T r a t	Sez Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE																staffe			
					Co	Gam	Rd	M	Exd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Pas	Lun
			Alt		Nr			(t*m)		(t)	/d		100	100	sup	inf	Nr	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq			
19	0.00	2	30	1	31	1.10	-8.3	0.0	19	12	3	4.8	4.8	31	0.0	-5.0	0.0	10.6	30.6	7.5	0.0	10	16	0.0	22	0	8							
22	0.00	/	30	3	31	1.10	-8.3	0.0	19	12	3	4.8	4.8	31	0.0	-5.3	0.0	10.6	30.6	7.5	0.0	10	17	0.0	22	81	8							
2.5		4	80	5	31	1.10	-8.3	0.0	19	12	3	4.8	4.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
19	0.00	3	30	1	31	1.10	-13.7	0.0	21	16	5	5.8	4.8	31	0.0	-8.7	0.0	10.6	30.6	7.5	0.0	17	29	0.0	22	0	8							
22	0.00	/	30	3	31	1.10	-13.7	0.0	21	16	5	5.8	4.8	31	0.0	-9.0	0.0	10.6	30.6	7.5	0.0	18	29	0.0	22	81	8							
2.5		4	80	5	31	1.10	-13.7	0.0	21	16	5	5.8	4.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
19	0.00	4	30	1	36	1.10	-4.3	0.0	19	6	2	4.8	4.8	36	0.0	27.0	0.0	10.6	30.6	7.5	0.0	54	88	0.0	22	0	8							
22	0.00	/	30	3	40	1.10	-18.6	0.0	24	16	5	8.0	7.6	36	0.0	27.0	0.0	10.6	30.6	7.5	0.0	54	88	0.0	22	5	8							
2.5		4	80	5	40	1.10	-18.6	0.0	24	16	5	8.0	7.6	36	0.0	27.0	0.0	14.6	42.1	10.3	0.0	54	64	0.0	16	77	8							
22	0.00	2	30	1	31	1.10	-13.8	0.0	21	16	5	5.8	4.8	40	0.0	-9.2	0.0	10.6	30.6	7.5	0.0	18	30	0.0	22	0	8							
25	0.00	/	30	3	31	1.10	-13.8	0.0	21	16	5	5.8	4.8	40	0.0	-9.4	0.0	10.6	30.6	7.5	0.0	19	31	0.0	22	64	8							
2.5		4	80	5	31	1.10	-13.8	0.0	21	16	5	5.8	4.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
22	0.00	3	30	1	40	1.10	-14.1	0.0	21	16	5	5.8	4.8	46	0.0	-15.9	0.0	10.6	30.6	7.5	0.0	32	52	0.0	22	0	8							
25	0.00	/	30	3	40	1.10	-14.1	0.0	21	16	5	5.8	4.8	40	0.0	-21.9	0.0	10.6	30.6	7.5	0.0	44	71	0.0	22	64	8							
2.5		4	80	5	40	1.10	-14.1	0.0	21	16	5	5.8	4.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
22	0.00	4	30	1	34	1.10	-8.0	0.0	19	11	3	4.8	4.8	34	0.0	35.0	0.0	12.3	35.4	8.6	0.0	70	99	0.0	18	15	8							
25	0.00	/	30	3	34	1.10	15.0	0.0	21	17	5	4.8	5.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
2.5		4	80	5	34	1.10	15.0	0.0	21	17	5	4.8	5.8	34	0.0	36.4	0.0	14.6	42.1	10.3	0.0	73	87	0.0	16	48	8							
24	0.00	2	30	1	34	1.10	-6.0	0.0	19	8	2	4.8	4.8	34	0.0	-13.2	0.0	10.6	30.6	7.5	0.0	26	43	0.0	22	0	8							
25	0.00	/	30	3	34	1.10	-6.0	0.0	19	8	2	4.8	4.8	34	0.0	-13.4	0.0	10.6	30.6	7.5	0.0	27	44	0.0	22	60	8							
2.5		4	80	5	34	1.10	-6.0	0.0	19	8	2	4.8	4.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
24	0.00	3	30	1	34	1.10	-8.7	0.0	19	12	3	4.8	4.8	46	0.0	7.7	0.0	10.6	30.6	7.5	0.0	15	25	0.0	22	0	8							
25	0.00	/	30	3	34	1.10	-8.7	0.0	19	12	3	4.8	4.8	46	0.0	7.5	0.0	10.6	30.6	7.5	0.0	15	25	0.0	22	60	8							
2.5		4	80	5	34	1.10	-8.7	0.0	19	12	3	4.8	4.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
24	0.00	4	30	1	34	1.10	-14.0	0.0	21	16	5	5.8	5.8	46	0.0	14.1	0.0	10.6	30.6	7.5	0.0	28	46	0.0	22	0	8							
25	0.00	/	30	3	34	1.10	-14.0	0.0	21	16	5	5.8	5.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
2.5		4	80	5	34	1.10	-14.0	0.0	21	16	5	5.8	5.8	46	0.0	13.9	0.0	14.6	42.1	10.3	0.0	28	33	0.0	16	59	8							
25	0.00	2	32	1	18	1.10	-2.2	0.0	19	8	2	3.1	3.1	34	0.0	2.3	-0.8	29.0	30.5	3.4	0.8	31	22	3.4	16	0	8							
26	0.00	/	30	3	18	1.10	-2.2	0.0	19	8	2	3.1	3.1	18	0.0	1.9	-0.8	29.0	30.5	3.4	0.8	30	21	3.4	16	20	8							
2.5		2	50	5	18	1.10	-2.0	0.0	19	7	2	3.1	3.1	34	0.0	2.4	-0.8	29.0	30.5	3.4	0.8	31	22	3.4	16	47	8							
7	0.00	2	32	1	20	1.10	-2.8	0.0	20	10	3	3.1	3.1	27	0.0	0.4	0.0	10.6	18.6	4.4	0.0	1	2	0.0	22	0	8							
27	0.00	/	30	3	20	1.10	-2.9	0.0	20	10	3	3.1	3.1	27	0.0	0.4	0.0	10.6	18.6	4.4	0.0	1	2	0.0	22	168	8							
2.5		4	50	5	20	1.10	-2.9	0.0	20	10	3	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8							
7	0.00	3	32	1	20	1.10	-3.3	0.0	20	12	3	3.1	3.1	20	0.0	1.1	0.0	10.6	18.6	4.4	0.0	4	6	0.0	22	0	8							
27	0.00	/	30	3	20	1.10	-3.1	0.0	20	11	3	3.1	3.1	20	0.0	1.1	0.0	10.6	18.6	4.4	0.0	4	6	0.0	22	168	8							
2.5		4	50	5	20	1.10	-2.0	0.0	19	7	2	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8							
7	0.00	4	32	1	20	1.10	-1.3	0.0	19	5	1	3.1	3.1	18	0.0	1.5	0.0	10.6	18.6	4.4	0.0	5	8	0.0	22	0	8							
27	0.00	/	30	3	34	1.10	1.2	0.0	19	4	1	3.1	3.1	18	0.0	1.5	0.0	10.6	18.6	4.4	0.0	5	8	0.0	22	121	8							
2.5		4	50	5	18	1.10	1.4	0.0	19	5	1	3.1	3.1	18	0.0	1.5	0.0	14.6	25.6	6.0	0.0	5	6	0.0	16	47	8							
27	0.00	2	32	1	31	1.10	-1.9	0.0	19	7	2	3.1	3.1	15	0.0	-1.0	0.0	10.6	18.6	4.4	0.0	3	6	0.0	22	0	8							
26	0.00	/	30	3	31	1.10	-2.9	0.0	20	10	3	3.1	3.1	15	0.0	-1.0	0.0	10.6	18.6	4.4	0.0	3	6	0.0	22	168	8							
2.5		4	50	5	31	1.10	-3.0	0.0	20	11	3	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8							
27	0.00	3	32	1	31	1.10	-2.7	0.0	20	10	3	3.1	3.1	36	0.0	0.2	0.0	10.6	18.6	4.4	0.0	1	1	0.0	22	0	8							
26	0.00	/	30	3	31	1.10	-2.7	0.0	20	10	3	3.1	3.1	28	0.0	-0.5	0.0	10.6	18.6	4.4	0.0	2	3	0.0	22	168	8							
2.5		4	50	5	31	1.10	-2.7	0.0	20	10	3	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8							
27	0.00	4	32	1	31	1.10	-2.5	0.0	19	9	2	3.1	3.1	34	0.0	1.1	0.5	29.0	30.5	3.4	0.6	20	13	2.3	16	0	8							
26	0.00	/	30	3	31	1.10	-2.4	0.0	19	9	2	3.1	3.1	18	0.0	1.1	0.6	29.0	30.5	3.4	0.6	20	14	2.3	16	121	8							
2.5		4	50	5	31	1.10	-2.1	0.0	19	8	2	3.1	3.1	18	0.0	1.2	0.6	29.0	30.5	3.4	0.6													

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final	T r a t	Sez Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														staffe					
					Co	Gam	Rd	M	Exd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Pas	Lun
					Nr			(t*m)	(t)	(t)	/d	100	100		sup	inf	Nr	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq			
18	0.00	3	31	1	18	1.10	-4.3	0.0	19	10	2	5.0	5.0	18	0.0	2.2	0.0	31.5	31.5	13.9	0.0	4	7	0.0	13	0	8							
19	0.00	/	50	3	18	1.10	-4.3	0.0	19	10	2	5.0	5.0	16	0.0	2.2	0.0	31.5	31.5	13.9	0.0	4	7	0.0	13	62	8							
2.5		4	50	5	18	1.10	-4.1	0.0	19	9	2	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8							
18	0.00	4	31	1	30	1.10	4.9	0.0	19	11	3	5.0	5.0	27	0.0	7.3	0.0	31.5	31.5	13.9	0.0	14	23	0.0	13	0	8							
19	0.00	/	50	3	30	1.10	5.5	0.0	19	12	3	5.0	5.0	28	0.0	7.3	0.0	31.5	31.5	13.9	0.0	14	23	0.0	13	15	8							
2.5		4	50	5	30	1.10	5.5	0.0	19	12	3	5.0	5.0	27	0.0	7.2	0.0	31.5	31.5	13.9	0.0	14	23	0.0	13	47	8							
19	0.00	2	31	1	18	1.10	-2.5	0.0	19	5	1	5.0	5.0	15	0.0	-3.3	0.0	31.5	31.5	13.9	0.0	6	10	0.0	13	0	8							
27	0.00	/	50	3	18	1.10	-2.9	0.0	19	7	2	5.0	5.0	15	0.0	-3.3	0.0	31.5	31.5	13.9	0.0	7	11	0.0	13	20	8							
2.5		2	50	5	18	1.10	-2.9	0.0	19	7	2	5.0	5.0	15	0.0	-3.5	0.0	31.5	31.5	13.9	0.0	7	11	0.0	13	47	8							
10	0.00	2	31	1	21	1.10	-2.9	0.0	19	6	2	5.0	5.0	36	0.0	4.1	-1.3	50.9	50.9	6.3	1.3	28	22	3.8	13	0	8							
17	0.00	/	50	3	41	1.10	-3.4	0.0	19	8	2	5.0	5.0	36	0.0	4.1	-1.3	50.9	50.9	6.3	1.3	28	23	3.8	13	109	8							
2.5		4	50	5	41	1.10	-3.4	0.0	19	8	2	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8							
10	0.00	3	31	1	31	1.10	-2.1	0.0	19	5	1	5.0	5.0	21	0.0	2.3	0.0	31.5	31.5	13.9	0.0	4	7	0.0	13	0	8							
17	0.00	/	50	3	41	1.10	-2.8	0.0	19	6	2	5.0	5.0	21	0.0	2.6	0.0	31.5	31.5	13.9	0.0	5	8	0.0	13	109	8							
2.5		4	50	5	41	1.10	-2.8	0.0	19	6	2	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8							
10	0.00	4	31	1	41	1.10	-2.8	0.0	19	6	2	5.0	5.0	41	0.0	4.6	-0.8	50.9	50.9	6.3	1.1	22	21	3.2	13	0	8							
17	0.00	/	50	3	41	1.10	-2.8	0.0	19	6	2	5.0	5.0	41	0.0	4.8	-0.8	50.9	50.9	6.3	1.1	22	21	3.2	13	62	8							
2.5		4	50	5	40	1.10	2.5	0.0	19	5	1	5.0	5.0	41	0.0	4.7	-0.8	50.9	50.9	6.3	1.1	22	21	3.2	13	47	8							
61	0.00	2	47	1	15	1.10	17.2	0.0	29	9	4	12.8	12.8	31	0.0	31.1	7.7	15.1	43.5	31.3	10.2	95	96	18.7	13	0	8							
62	0.00	/	30	3	31	1.10	24.8	0.0	29	13	6	12.8	12.8	31	0.0	33.4	7.7	52.2	56.5	19.0	10.2	99	93	18.7	12	13	8							
2.09		2	80	5	31	1.10	24.8	0.0	29	13	6	12.8	12.8	31	0.0	33.6	7.7	52.2	56.5	19.0	10.2	100	94	18.7	12	77	8							
62	0.00	2	46	1	21	1.10	25.0	0.0	29	13	6	12.8	12.8	41	0.0	-32.3	-4.2	13.7	39.6	28.5	6.1	89	96	13.3	17	0	8							
63	0.00	/	30	3	21	1.10	34.4	0.0	29	17	8	13.8	13.3	41	0.0	-36.6	-4.2	46.4	50.2	16.9	6.2	98	94	13.6	15	113	8							
2.5		2	80	5	21	1.10	34.4	0.0	29	17	8	13.8	13.3	0	0.0	0.0	0.0	11.7	33.7	24.3	0.0	0	0	0.0	20	0	8							
63	0.00	2	47	1	43	1.10	18.3	0.0	29	9	4	12.8	12.8	25	0.0	29.2	8.2	50.7	54.9	18.4	8.4	98	96	16.0	14	45	8							
64	0.00	/	30	3	43	1.10	18.7	0.0	29	10	4	12.8	12.8	0	0.0	0.0	0.0	10.3	29.6	21.3	0.0	0	0	0.0	20	0	8							
2.2		2	80	5	43	1.10	18.7	0.0	29	10	4	12.8	12.8	0	0.0	0.0	0.0	10.3	29.6	21.3	0.0	0	0	0.0	15	45	8							
64	0.00	2	46	1	25	1.10	34.3	0.0	29	18	8	12.8	12.8	27	0.0	-16.6	5.3	11.7	33.7	24.3	8.8	66	71	19.1	20	0	8							
61	0.00	/	30	3	25	1.10	34.3	0.0	29	18	8	12.8	12.8	15	0.0	17.0	-6.8	11.7	33.7	24.3	8.7	74	79	19.0	20	113	8							
2.5		2	80	5	25	1.10	31.9	0.0	29	16	7	12.8	12.8	0	0.0	0.0	0.0	11.7	33.7	24.3	0.0	0	0	0.0	20	0	8							
1	0.00	2	32	1	46	1.10	1.9	0.0	19	7	2	3.1	3.1	46	0.0	-2.4	0.0	10.6	18.6	4.4	0.0	8	13	0.0	22	0	8							
52	0.00	/	30	3	46	1.10	1.9	0.0	19	7	2	3.1	3.1	46	0.0	-2.4	0.0	10.6	18.6	4.4	0.0	8	13	0.0	22	40	8							
2.5		2	50	5	46	1.10	-0.2	0.0	19	1	0	3.1	3.1	46	0.0	-2.3	0.0	14.6	25.6	6.0	0.0	8	9	0.0	16	47	8							
34	0.00	2	31	1	18	1.10	9.4	0.0	21	17	5	6.0	6.0	18	0.0	-13.3	-1.6	31.5	31.5	13.9	1.6	52	54	4.9	13	0	8							
33	0.00	/	50	3	18	1.10	9.4	0.0	21	17	5	6.0	6.0	18	0.0	-13.7	-1.6	31.5	31.5	13.9	1.6	53	55	4.9	13	77	8							
2.5		4	50	5	39	1.10	2.9	0.0	19	6	2	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8							
34	0.00	3	31	1	30	1.10	5.9	0.0	19	13	3	5.0	5.0	18	0.0	-10.0	-1.9	50.9	50.9	6.3	1.9	50	46	5.7	13	0	8							
33	0.00	/	50	3	18	1.10	-7.4	0.0	19	16	4	5.0	6.0	18	0.0	-10.3	-1.9	50.9	50.9	6.3	1.9	51	47	5.7	13	77	8							
2.5		4	50	5	18	1.10	-7.4	0.0	19	16	4	5.0	6.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8							
34	0.00	4	31	1	30	1.10	13.4	0.0	25	17	6	8.0	8.9	18	0.0	1.2	-2.5	50.9	50.9	6.3	2.5	43	22	7.5	13	0	8							
33	0.00	/	30	3	30	1.10	13.4	0.0	25	17	6	8.0	8.9	18	0.0	1.1	-2.5	50.9	50.9	6.3	2.5	43	22	7.5	13	77	8							
2.5		4	50	5	30	1.10	13.2	0.0	25	17	6	7.8	8.7	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8							
31	0.00	2	44	1	36	1.10	27.0	0.0	28	16	7	10.8	10.8	40	0.0	-20.8	-2.7	11.7	33.7	20.0	5.0	63	75	11.7	20	0	8							
32	0.00	/	30	3	36	1.10	34.9	0.0	30	18	8	11.8	13.1	36	0.0	24.8	3.9	11.7	33.7	20.0	5.0	77	93	11.7	20	119	8							
2.5		2	80	5	36	1.10	34.9	0.0	30	18	8	11.8	13.1	0	0.0	0.0	0.0	11.7	33.7	20.0	0.0	0	0	0.0	20	0	8							
51	0.00	2	30	1	43	1.10	13.1	0.0	21	15	4	4.8	5.8	27	0.0	13.3	0.0	10.6	30.6	7.5	0.0	26	43	0.0	22	0	8							
17	0.00	/	30	3	43	1.10	13.1	0.0	21	15	4	4.8	5.8	0	0.0	0.0	0.0	10.6	30.6	7.5	0.0	0	0	0.0	22	0	8							
2.5		2	80	5	43	1.10	13.1	0.0	21	15	4	4.8</																						

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	Sez Bas Alt	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE																staffe				
					Co	Gam	Rd	M	Exd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Pas	Lun	Fi
					Nr			(t*m)	(t)	(t)	/d	100	100		sup	inf	Nr	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq				
31	0.00	2	31	1	20	1.10	6.2	0.0	19	14	4	5.0	5.0	20	0.0	9.7	-0.9	31.5	31.5	13.9	1.1	33	37	3.2	13	0	8								
20	0.00	/	50	3	20	1.10	7.9	0.0	20	17	5	5.0	5.0	36	0.0	12.0	0.0	31.5	31.5	13.9	1.1	33	38	3.2	13	25	8								
2.5		2	50	5	20	1.10	7.9	0.0	20	17	5	5.0	5.0	37	0.0	12.2	0.0	31.5	31.5	13.9	1.1	33	39	3.2	13	47	8								
13	0.00	2	31	1	30	1.10	14.3	0.0	25	17	6	8.7	9.3	30	0.0	-12.5	-3.5	50.9	50.9	6.3	3.5	80	65	10.3	13	0	8								
33	0.00	/	50	3	30	1.10	14.3	0.0	25	17	6	8.7	9.3	30	0.0	-12.6	-3.5	50.9	50.9	6.3	3.5	80	65	10.3	13	28	8								
2.5		2	50	5	30	1.10	11.5	0.0	23	16	5	7.5	7.9	30	0.0	-12.7	-3.5	50.9	50.9	6.3	3.5	80	65	10.3	13	47	8								
72	0.00	2	31	1	30	1.10	5.9	0.0	19	13	3	5.0	5.0	46	0.0	-3.5	1.0	50.9	50.9	6.3	1.0	23	18	3.0	13	0	8								
31	0.00	/	50	3	30	1.10	5.9	0.0	19	13	3	5.0	5.0	46	0.0	-3.8	1.0	50.9	50.9	6.3	1.0	24	19	3.0	13	77	8								
2.5		4	50	5	30	1.10	5.0	0.0	19	11	3	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8								
72	0.00	3	31	1	30	1.10	6.9	0.0	20	15	4	5.0	5.0	46	0.0	-8.6	1.8	50.9	50.9	6.3	1.8	46	40	5.4	13	0	8								
31	0.00	/	50	3	30	1.10	6.9	0.0	20	15	4	5.0	5.0	46	0.0	-10.3	1.8	50.9	50.9	6.3	1.8	49	46	5.4	13	77	8								
2.5		4	50	5	30	1.10	5.0	0.0	19	11	3	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8								
72	0.00	4	31	1	46	1.10	6.5	0.0	19	14	4	5.0	5.0	46	0.0	-22.2	2.9	31.5	31.5	13.9	2.9	89	91	8.5	13	0	8								
31	0.00	/	50	3	37	1.10	-11.5	0.0	23	16	6	7.9	7.3	46	0.0	-21.9	2.9	31.5	31.5	13.9	2.9	88	90	8.5	13	31	8								
2.5		4	50	5	37	1.10	-11.5	0.0	23	16	6	7.9	7.3	46	0.0	-22.5	2.9	31.5	31.5	13.9	2.9	90	92	8.5	13	47	8								
14	0.00	2	31	1	25	1.10	7.5	0.0	20	17	4	5.0	5.0	21	0.0	-8.3	1.7	50.9	50.9	6.3	1.8	44	39	5.3	13	0	8								
39	0.00	/	50	3	25	1.10	10.2	0.0	23	16	5	7.0	7.2	21	0.0	-8.3	1.7	50.9	50.9	6.3	1.8	44	39	5.3	13	34	8								
2.5		2	50	5	25	1.10	10.2	0.0	23	16	5	7.0	7.2	21	0.0	-8.6	1.7	50.9	50.9	6.3	1.8	44	40	5.3	13	47	8								
39	0.00	2	31	1	21	1.10	-3.9	0.0	19	9	2	5.0	5.0	27	0.0	4.5	-1.9	50.9	50.9	6.3	1.9	39	28	5.7	13	0	8								
46	0.00	/	50	3	21	1.10	-4.5	0.0	19	10	3	5.0	5.0	27	0.0	4.2	-1.9	50.9	50.9	6.3	1.9	39	27	5.7	13	80	8								
2.5		4	50	5	21	1.10	-4.5	0.0	19	10	3	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8								
39	0.00	3	31	1	21	1.10	-6.6	0.0	19	15	4	5.0	5.0	27	0.0	9.5	-1.1	31.5	31.5	13.9	1.2	37	38	3.7	13	0	8								
46	0.00	/	50	3	25	1.10	8.8	0.0	21	16	5	6.0	6.0	41	0.0	10.9	0.5	31.5	31.5	13.9	1.2	36	38	3.7	13	80	8								
2.5		4	50	5	25	1.10	8.8	0.0	21	16	5	6.0	6.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8								
39	0.00	4	31	1	41	1.10	5.5	0.0	19	12	3	5.0	5.0	37	0.0	4.9	-1.6	50.9	50.9	6.3	1.6	35	31	4.7	13	0	8								
46	0.00	/	50	3	25	1.10	7.1	0.0	20	16	4	5.0	5.0	41	0.0	8.5	1.3	50.9	50.9	6.3	1.6	37	36	4.7	13	34	8								
2.5		4	50	5	25	1.10	7.1	0.0	20	16	4	5.0	5.0	41	0.0	8.8	1.3	50.9	50.9	6.3	1.6	37	37	4.7	13	47	8								
39	0.00	2	31	1	43	1.10	-5.7	0.0	19	13	3	5.0	5.0	35	0.0	9.7	-1.5	50.9	50.9	6.3	1.9	42	42	5.5	13	0	8								
17	0.00	/	50	3	43	1.10	-5.7	0.0	19	13	3	5.0	5.0	36	0.0	11.4	-1.4	31.5	31.5	13.9	1.9	45	47	5.5	13	53	8								
2.5		4	50	5	27	1.10	-4.6	0.0	19	10	3	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8								
39	0.00	3	31	1	41	1.10	-3.4	0.0	19	7	2	5.0	5.0	21	0.0	2.7	-1.4	50.9	50.9	6.3	1.4	27	20	4.1	13	0	8								
17	0.00	/	50	3	41	1.10	-3.4	0.0	19	7	2	5.0	5.0	21	0.0	2.9	-1.4	50.9	50.9	6.3	1.4	27	20	4.1	13	53	8								
2.5		4	50	5	41	1.10	-3.4	0.0	19	7	2	5.0	5.0	0	0.0	0.0	0.0	31.5	31.5	13.9	0.0	0	0	0.0	13	0	8								
39	0.00	4	31	1	30	1.10	4.6	0.0	19	10	3	5.0	5.0	46	0.0	14.9	-0.6	31.5	31.5	13.9	1.0	40	52	3.0	13	0	8								
17	0.00	/	50	3	46	1.10	7.4	0.0	20	16	4	5.0	5.0	46	0.0	14.8	-0.6	31.5	31.5	13.9	1.0	40	51	3.0	13	6	8								
2.5		4	50	5	46	1.10	7.4	0.0	20	16	4	5.0	5.0	46	0.0	14.8	-0.6	31.5	31.5	13.9	1.0	40	51	3.0	13	47	8								
11	0.00	2	32	1	41	1.10	1.9	0.0	19	7	2	3.1	3.1	41	0.0	-2.3	0.0	10.6	18.6	4.4	0.0	8	13	0.0	22	0	8								
55	0.00	/	30	3	41	1.10	1.9	0.0	19	7	2	3.1	3.1	41	0.0	-2.3	0.0	10.6	18.6	4.4	0.0	8	13	0.0	22	40	8								
2.5		2	50	5	41	1.10	-0.2	0.0	19	1	0	3.1	3.1	41	0.0	-2.3	0.0	14.6	25.6	6.0	0.0	8	9	0.0	16	47	8								
55	0.00	2	32	1	24	1.10	-3.6	0.0	20	13	3	3.1	3.1	23	0.0	-0.7	0.0	10.6	18.6	4.4	0.0	2	4	0.0	22	0	8								
56	0.00	/	30	3	24	1.10	-4.1	0.0	20	15	4	3.1	3.1	23	0.0	-0.7	0.0	10.6	18.6	4.4	0.0	2	4	0.0	22	136	8								
2.5		4	50	5	24	1.10	-4.1	0.0	20	15	4	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8								
55	0.00	3	32	1	25	1.10	-4.0	0.0	20	14	4	3.1	3.1	9	0.0	1.7	0.0	10.6	18.6	4.4	0.0	5	9	0.0	22	0	8								
56	0.00	/	30	3	25	1.10	-4.0	0.0	20	14	4	3.1	3.1	6	0.0	1.7	0.0	10.6	18.6	4.4	0.0	5	9	0.0	22	136	8								
2.5		4	50	5	24	1.10	-3.0	0.0	20	11	3	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8								
55	0.00	4	32	1	25	1.10	-2.2	0.0	19	8	2	3.1	3.1	6	0.0	1.7	0.0	10.6	18.6	4.4	0.0	6	9	0.0	22	0	8								
56	0.00	/	30	3	25	1.10	-2.2	0.0	19	8	2	3.1	3.1	34	0.0	2.0	0.0	10.6	18.6	4.4	0.0	7	11	0.0	22										

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a	Sez a Bas	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														staffe		
					Co	Gam	Rd	M Exd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRld	Coe	Coe	ALon	Pas	Lun	Fi				
		t	Alt	c	Nr		(t*m)	(t)	/d	100	100	sup	inf	Nr	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq							
56	0.00	4	32	1	18	1.10	-1.7	0.0	19	6	2	3.1	3.1	30	0.0	3.4	0.0	10.6	18.6	4.4	0.0	11	18	0.0	22	0	8				
57	0.00	/	30	3	18	1.10	-3.3	0.0	20	12	3	3.1	3.1	30	0.0	3.5	0.0	10.6	18.6	4.4	0.0	11	19	0.0	22	71	8				
2.5		4	50	5	18	1.10	-3.3	0.0	20	12	3	3.1	3.1	30	0.0	3.5	0.0	14.6	25.6	6.0	0.0	11	14	0.0	16	47	8				
57	0.00	2	32	1	30	1.10	6.8	0.0	23	17	6	4.1	4.5	18	0.0	0.9	0.0	10.6	18.6	4.4	0.0	3	5	0.0	22	0	8				
74	0.00	/	30	3	30	1.10	6.8	0.0	23	17	6	4.1	4.5	18	0.0	0.9	0.0	10.6	18.6	4.4	0.0	3	5	0.0	22	116	8				
2.5		4	50	5	30	1.10	6.3	0.0	22	17	5	4.1	4.2	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8				
57	0.00	3	32	1	18	1.10	-4.7	0.0	19	17	4	3.1	4.1	30	0.0	-2.9	0.0	10.6	18.6	4.4	0.0	10	16	0.0	22	0	8				
74	0.00	/	30	3	18	1.10	-4.7	0.0	19	17	4	3.1	4.1	30	0.0	-2.9	0.0	10.6	18.6	4.4	0.0	10	16	0.0	22	116	8				
2.5		4	50	5	30	1.10	3.4	0.0	20	12	3	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8				
57	0.00	4	32	1	34	1.10	1.0	0.0	19	4	1	3.1	3.1	30	0.0	-2.1	0.0	10.6	18.6	4.4	0.0	7	11	0.0	22	0	8				
74	0.00	/	30	3	18	1.10	2.2	0.0	19	8	2	3.1	3.1	30	0.0	-2.1	0.0	10.6	18.6	4.4	0.0	7	11	0.0	22	70	8				
2.5		4	50	5	18	1.10	2.2	0.0	19	8	2	3.1	3.1	30	0.0	-2.1	0.0	14.6	25.6	6.0	0.0	7	8	0.0	16	47	8				
53	0.00	2	32	1	43	1.10	-1.3	0.0	19	5	1	3.1	3.1	12	0.0	-1.3	0.0	10.6	18.6	4.4	0.0	4	7	0.0	22	0	8				
54	0.00	/	30	3	43	1.10	-1.9	0.0	19	7	2	3.1	3.1	3	0.0	-1.5	0.0	10.6	18.6	4.4	0.0	5	8	0.0	22	117	8				
2.5		4	50	5	43	1.10	-1.9	0.0	19	7	2	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8				
53	0.00	3	32	1	43	1.10	-1.9	0.0	19	7	2	3.1	3.1	27	0.0	0.8	0.0	10.6	18.6	4.4	0.0	3	4	0.0	22	0	8				
54	0.00	/	30	3	43	1.10	-1.9	0.0	19	7	2	3.1	3.1	27	0.0	0.9	0.0	10.6	18.6	4.4	0.0	3	5	0.0	22	117	8				
2.5		4	50	5	36	1.10	-1.6	0.0	19	6	1	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8				
53	0.00	4	32	1	21	1.10	-1.4	0.0	19	5	1	3.1	3.1	25	0.0	1.8	0.0	10.6	18.6	4.4	0.0	6	10	0.0	22	0	8				
54	0.00	/	30	3	21	1.10	-1.8	0.0	19	6	2	3.1	3.1	25	0.0	1.7	0.0	10.6	18.6	4.4	0.0	6	9	0.0	22	71	8				
2.5		4	50	5	21	1.10	-1.8	0.0	19	6	2	3.1	3.1	25	0.0	1.6	0.0	14.6	25.6	6.0	0.0	5	6	0.0	16	47	8				
54	0.00	2	32	1	21	1.10	-5.6	0.0	22	15	5	4.1	4.1	43	0.0	2.5	0.0	10.6	18.6	4.4	0.0	8	13	0.0	22	0	8				
73	0.00	/	30	3	15	1.10	-6.7	0.0	23	17	6	4.4	4.3	43	0.0	8.0	0.0	10.6	18.6	4.4	0.0	26	43	0.0	22	117	8				
2.5		4	50	5	15	1.10	-6.7	0.0	23	17	6	4.4	4.3	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8				
54	0.00	3	32	1	27	1.10	4.5	0.0	19	16	4	4.1	3.1	15	0.0	6.3	0.0	10.6	18.6	4.4	0.0	21	34	0.0	22	0	8				
73	0.00	/	30	3	27	1.10	4.5	0.0	19	16	4	4.1	3.1	15	0.0	6.5	0.0	10.6	18.6	4.4	0.0	21	35	0.0	22	117	8				
2.5		4	50	5	25	1.10	-3.6	0.0	20	13	3	3.1	3.1	0	0.0	0.0	0.0	10.6	18.6	4.4	0.0	0	0	0.0	22	0	8				
54	0.00	4	32	1	25	1.10	-4.3	0.0	20	15	4	3.1	3.1	15	0.0	2.2	0.0	10.6	18.6	4.4	0.0	7	12	0.0	22	0	8				
73	0.00	/	30	3	25	1.10	-5.6	0.0	22	15	5	4.1	4.1	21	0.0	2.2	0.0	10.6	18.6	4.4	0.0	7	12	0.0	22	70	8				
2.5		4	50	5	25	1.10	-5.6	0.0	22	15	5	4.1	4.1	21	0.0	2.2	0.0	14.6	25.6	6.0	0.0	7	9	0.0	16	47	8				

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a	Sez a Bas	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														Staffe		
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRld	Coe	Coe	ALon	Pas	Lun	Fi					
		t	Alt	c	Nr	(t*m)	(t*m)	(t)	/d	100	100	sup	inf	Nr	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq							
31	3.63	1	42	1	6	-0.2	0.0	0.0	26	1	0	4.0	4.0	12	0.0	0.5	0.0	10.3	11.1	2.2	0.0	3	5	0.0	21	0	8				
32	3.63	/	28	3	37	0.3	0.0	0.0	26	1	1	4.0	4.0	12	0.0	0.5	0.0	10.3	11.1	2.2	0.0	3	5	0.0	21	119	8				
2.5	1.00	2	30	5	37	0.3	0.0	0.0	26	2	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8				
33	3.63	1	42	1	34	0.4	0.0	0.0	26	2	1	4.0	4.0	34	0.0	-0.5	0.0	10.3	11.1	2.2	0.0	3	5	0.0	21	0	8				
34	3.63	/	28	3	34	0.4	0.0	0.0	26	2	1	4.0	4.0	34	0.0	-0.7	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	77	8				
2.5	1.00	4	30	5	24	-0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8				
61	3.63	1	27	1	25	-0.9	0.0	0.0	29	6	3	4.0	4.0	25	0.0	1.6	0.0	11.1	11.1	1.9	0.0	14	15	0.0	17	0	8				
64	3.63	/	25	3	25	-0.6	0.0	0.0	29	3	2	4.0	4.0	25	0.0	1.6	0.0	11.1	11.1	1.9	0.0	14	15	0.0	17	113	8				
2.5	1.00	2	25	5	25	0.8	0.0	0.0	29	5	3	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8				
64	3.63	1	27	1	25	-0.5	0.0	0.0	29	3	2	4.0	4.0	25	0.0	1.1	0.0	11.1	11.1	1.9	0.0	10	10	0.0	17	0	8				
63	3.63	/	25	3	25	-0.3	0.0	0.0	29	2	1	4.0	4.0	25	0.0	1.1	0.0	11.1	11.1	1.9	0.0	10	10	0.0	17	89	8				
2.5	1.00	2	25	5	21	-0.5	0.0	0.0	29	3	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8				
63	3.63	1	27	1	15	0.9	0.0	0.0	29	6	3	4.0	4.0	15	0.0	-1.5	0.0	11.1	11.1	1.9	0.0	13	13	0.0	17	0	8				
62	3.63	/	25	3	15	0.5	0.0	0.0	29	3	2	4.0	4.0	15	0.0	-1.7	0.0	11.1	11.1	1.9	0.0	14	15	0.0	17	113	8				
2.5	1.00	2	25	5	15	-0.9	0.0	0.0	29	6	3	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8				
1	3.63	1	25	1	25	-16.5	0.0	0.0	31	23	12	11.4	9.3	25	0.0	14.6	-0.3	26.1	27.2	3.0	0.4	65	44	1.9	10	45	8				
2	3.63	/	30	3	25	-16.5	0.0	0.0	33	19	11	11.5	9.3	25	0.0	13.0	-0.3	15.6	24.4	5.7	0.4	59	59	1.9	15	76	8				
2.5	1.00	4	45	5	21	11.1	0.0	0.0																							

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra a t	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE										Staffe		
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRLd	Coe	Coe	ALon	Pas	Lun	Fi	
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq				
2.5	1.00	4	45	5	18	11.6	0.0	0.0	32	17	9	5.5	8.6	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
1	3.63		25	1	37	-22.4	0.0	0.0	38	19	13	15.7	11.5	37	0.0	10.7	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8
8	3.63		30	3	37	8.4	0.0	0.0	28	18	8	3.9	5.8	37	0.0	10.3	0.0	11.1	17.4	4.1	0.0	38	59	0.0	21	413	8
2.5	1.00		45	5	41	-22.3	0.0	0.0	37	19	13	15.6	12.3	41	0.0	-10.4	0.0	26.1	27.2	3.0	0.0	38	29	0.0	10	45	8
3	3.63		25	1	37	-13.4	0.0	0.0	32	18	9	9.6	8.3	41	0.0	-13.0	-0.8	26.1	27.2	3.0	0.9	48	36	4.2	10	45	8
45	3.63		30	3	37	-13.4	0.0	0.0	32	18	9	9.6	8.3	41	0.0	-13.0	-0.8	15.6	24.4	5.7	0.9	48	54	4.2	15	2	8
2.5	1.00		45	5	37	-6.9	0.0	0.0	27	17	7	5.3	3.5	41	0.0	-13.5	-0.8	26.1	27.2	3.0	0.9	50	37	4.2	10	45	8
2	3.63	1	25	1	25	-22.3	0.0	0.0	37	22	14	15.6	9.3	25	0.0	17.8	-0.5	26.1	27.2	3.0	0.6	83	55	2.7	10	45	8
3	3.63	/	30	3	25	-22.3	0.0	0.0	37	22	14	15.6	9.3	25	0.0	16.2	-0.5	26.1	27.2	3.0	0.6	77	76	2.7	15	57	8
2.5	1.00	4	45	5	21	10.0	0.0	0.0	19	39	10	9.3	6.7	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
9	3.63		48	1	30	-23.2	0.0	0.0	44	17	16	13.2	6.6	9	0.0	18.3	0.0	26.1	27.2	2.6	0.0	67	50	0.0	10	45	8
10	3.63		30	3	30	8.3	0.0	0.0	12	90	14	3.6	5.3	30	0.0	15.7	0.0	14.6	22.8	4.7	0.0	58	69	0.0	16	339	8
2.5	1.00		45	5	18	-18.7	0.0	0.0	42	16	13	11.1	6.3	18	0.0	-16.2	0.0	26.1	27.2	2.6	0.0	59	44	0.0	10	45	8
12	3.63	1	25	1	30	-25.6	0.0	0.0	29	44	20	17.5	10.1	30	0.0	19.9	0.5	26.1	27.2	3.0	0.6	90	60	2.7	10	45	8
13	3.63	/	30	3	30	-25.6	0.0	0.0	42	18	15	18.5	10.1	30	0.0	18.4	0.5	26.1	27.2	3.0	0.6	84	84	2.7	15	57	8
2.5	1.00	4	45	5	30	-14.9	0.0	0.0	33	18	10	10.5	8.2	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
8	3.63		25	1	37	-22.5	0.0	0.0	37	19	13	15.8	12.2	37	0.0	10.5	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8
11	3.63		30	3	41	8.4	0.0	0.0	28	18	8	3.9	5.8	41	0.0	-10.2	0.0	11.1	17.4	4.1	0.0	37	59	0.0	21	413	8
2.5	1.00		45	5	41	-22.3	0.0	0.0	38	19	13	15.7	11.6	41	0.0	-10.7	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8
10	3.63		25	1	37	-17.1	0.0	0.0	30	23	11	11.7	11.5	37	0.0	25.3	0.0	19.7	30.9	7.2	0.0	78	82	0.0	9	45	8
30	3.63		30	3	41	-15.6	0.0	0.0	32	19	10	10.9	10.4	41	0.0	-25.0	0.0	16.7	26.1	6.1	0.0	92	96	0.0	8	49	8
1.89	1.00		45	5	41	-18.0	0.0	0.0	28	28	12	12.2	11.7	41	0.0	-25.7	0.0	31.2	32.6	3.6	0.0	79	74	0.0	8	45	8
4	3.63		25	1	25	-17.4	0.0	0.0	29	28	13	11.9	9.6	25	0.0	15.8	0.0	26.1	27.2	3.0	0.0	58	43	0.0	10	45	8
5	3.63		30	3	25	10.7	0.0	0.0	31	17	8	6.1	8.1	25	0.0	14.7	0.0	11.1	17.4	4.1	0.0	54	85	0.0	21	177	8
2.5	1.00		45	5	21	-16.9	0.0	0.0	31	22	11	11.6	11.5	21	0.0	-14.3	0.0	26.1	27.2	3.0	0.0	53	39	0.0	10	45	8
14	3.63		39	1	25	-5.5	0.0	0.0	32	22	13	7.6	4.2	25	0.0	6.4	0.0	20.0	18.8	2.0	0.0	34	17	0.0	5	25	8
15	3.63		40	3	21	2.5	0.0	0.0	15	81	17	3.1	3.2	21	0.0	-6.0	0.0	20.1	11.8	3.6	0.0	32	51	0.0	16	227	8
2.5	1.00		25	5	21	-5.3	0.0	0.0	34	19	12	7.5	3.7	21	0.0	-6.7	0.0	20.0	18.8	2.0	0.0	36	18	0.0	5	25	8
17	3.63		25	1	30	-11.0	0.0	0.0	31	17	9	8.3	5.6	30	0.0	12.9	0.0	26.1	27.2	3.0	0.0	47	35	0.0	10	45	8
18	3.63		30	3	30	7.5	0.0	0.0	25	18	7	5.3	5.3	18	0.0	-11.8	0.0	11.1	17.4	4.1	0.0	43	68	0.0	21	177	8
2.5	1.00		45	5	30	9.6	0.0	0.0	21	28	8	10.3	6.5	18	0.0	-13.6	0.0	26.1	27.2	3.0	0.0	50	37	0.0	10	45	8
20	3.63		39	1	30	-6.3	0.0	0.0	37	18	13	9.5	4.7	30	0.0	6.8	0.0	20.0	18.8	2.0	0.0	36	18	0.0	5	25	8
21	3.63		40	3	18	2.8	0.0	0.0	27	17	8	3.1	4.2	18	0.0	-6.4	0.0	20.1	11.8	3.6	0.0	34	54	0.0	16	227	8
2.5	1.00		25	5	18	-5.7	0.0	0.0	30	29	16	7.9	3.9	18	0.0	-7.1	0.0	20.0	18.8	2.0	0.0	38	19	0.0	5	25	8
23	3.63		25	1	46	-18.2	0.0	0.0	30	27	13	12.5	10.8	46	0.0	18.0	0.0	26.1	27.2	3.0	0.0	66	49	0.0	10	45	8
24	3.63		30	3	46	13.3	0.0	0.0	31	18	9	8.9	9.6	46	0.0	17.0	0.0	13.0	20.3	4.7	0.0	62	84	0.0	18	167	8
2.5	1.00		45	5	34	-21.6	0.0	0.0	35	18	11	15.3	14.7	34	0.0	-17.4	0.0	26.1	27.2	3.0	0.0	64	48	0.0	10	45	8
4	3.63		25	1	40	3.3	0.0	0.0	23	10	3	4.3	4.3	43	0.0	2.3	0.0	26.1	27.2	3.0	0.0	8	6	0.0	10	36	8
41	3.63		30	3	40	3.3	0.0	0.0	23	10	3	4.3	4.3	43	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8
2.5	1.00		45	5	40	3.3	0.0	0.0	23	10	3	4.3	4.3	43	0.0	1.9	0.0	26.1	27.2	3.0	0.0	7	5	0.0	10	36	8
6	3.63		25	1	41	-9.7	0.0	0.0	20	32	9	6.5	10.0	37	0.0	-9.4	0.0	26.1	27.2	3.0	0.0	35	26	0.0	10	45	8
16	3.63		30	3	37	8.8	0.0	0.0	28	19	8	4.3	6.0	37	0.0	-12.0	0.0	11.1	17.4	4.1	0.0	44	69	0.0	21	166	8
2.5	1.00		45	5	37	-13.4	0.0	0.0	34	18	10	9.6	5.3	37	0.0	-12.7	0.0	26.1	27.2	3.0	0.0	47	35	0.0	10	45	8
5	3.63		25	1	25	-17.5	0.0	0.0	29	28	13	11.9	9.8	25	0.0	15.3	0.0	26.1	27.2	3.0	0.0	56	42	0.0	10	45	8
6	3.63		30	3	25	-9.5	0.0	0.0	21	32	10	6.4	6.0	25	0.0	14.1	0.0	11.1	17.4	4.1	0.0	52	81	0.0	21	158	8
2.5	1.00		45	5	21	-14.5	0.0	0.0	32	18	10	10.2	9.6	21	0.0	-14.2	0.0	26.1	27.2	3.0	0.0	52	39	0.0	10	45	8
6	3.63		25	1	25	-5.0	0.0	0.0	23	15	5	4.3	4.3	25	0.0	9.2	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10	45	8
7	3.63		30	3	25	5.9	0.0	0.0	23	17	6	4.3	4.3	25	0.0	8.6	0.0	11.1	17.4	4.1	0.0	32	50	0.0	21	44	8
2.5	1.00		45	5	25	6.3	0.0	0.0	23	18	6	4.3	4.3	25	0.0	8.2	0.0	26.1	27.2	3.0	0.0	30	22	0.0	10	45	8
15	3.63		39	1	25	-5.0	0.0	0.0	33	18	11	7.1	3.5	25	0.0	6.5	0.0	20.0	18.8	2.0	0.0	35	17	0.0	5	25	8
16	3.63		40	3	25	2.3	0.0	0.0	24	18	7	3.2	3.2	25	0.0	5.8	0.0	20.1	11.8	3.6	0.0	31	49	0.0	16	208	8
2.5	1.00		25	5	21	-5.2	0.0	0.0	33	18	12	7.3	4.2	21	0.0	-6.0	0.0	20.0	18.8	2.0	0.0	32	16	0.0	5	25	8
18	3.63		25	1	30	-13.4	0.0	0.0	33	18	10	9.6	5.3	30	0.0	13.4	0.0	26.1	27.2	3.0	0.0	49	37	0.0	10	45	8
19	3.63		30	3	30	-6.6	0.0	0.0	26	16	6	5.3	4.3	30	0.0	11.5	0.0	11.1	17.4	4.1	0.						

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz. Fin. Ctg0	Quota Iniz. Final AmpC	T r a Bas c	Sez o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE												Staffe		
				Co mb	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe CIs	Coe Sta	ALon cmq	Pas Lun Fi			
2.5	1.00	45	5 30	5.8	0.0	0.0	0.0	23	17	6	4.3 4.3	30	0.0	8.0	0.0	26.1	27.2	3.0	0.0	29	22	0.0	10 45	8		
21	3.63	39	1 30	-4.9	0.0	0.0	0.0	33	18	11	7.1 3.5	30	0.0	6.5	0.0	20.0	18.8	2.0	0.0	35	17	0.0	5 25	8		
22	3.63	40	3 30	2.3	0.0	0.0	0.0	24	18	7	3.2 3.2	30	0.0	5.8	0.0	20.1	11.8	3.6	0.0	31	49	0.0	16 208	8		
2.5	1.00	25	5 18	-5.4	0.0	0.0	0.0	33	21	13	7.6 4.2	18	0.0	-6.2	0.0	20.0	18.8	2.0	0.0	33	16	0.0	5 25	8		
24	3.63	25	1 34	18.6	0.0	0.0	0.0	23	36	12	15.4 12.6	46	0.0	18.3	0.0	26.1	27.2	3.0	0.0	67	50	0.0	10 45	8		
25	3.63	30	3 46	-13.5	0.0	0.0	0.0	31	18	9	9.7 9.2	46	0.0	17.1	0.0	13.7	21.5	5.0	0.0	63	79	0.0	17 148	8		
2.5	1.00	45	5 34	-16.4	0.0	0.0	0.0	31	21	11	11.3 10.6	34	0.0	-17.5	0.0	26.1	27.2	3.0	0.0	64	48	0.0	10 45	8		
25	3.63	25	1 46	-4.0	0.0	0.0	0.0	23	12	4	4.3 4.3	46	0.0	8.4	0.0	26.1	27.2	3.0	0.0	31	23	0.0	10 45	8		
26	3.63	30	3 46	5.9	0.0	0.0	0.0	23	17	6	4.3 4.3	46	0.0	7.9	0.0	11.1	17.4	4.1	0.0	29	45	0.0	21 44	8		
2.5	1.00	45	5 46	6.3	0.0	0.0	0.0	23	18	6	4.3 4.3	46	0.0	7.4	0.0	26.1	27.2	3.0	0.0	27	20	0.0	10 45	8		
14	3.63	25	1 36	-6.1	0.0	0.0	0.0	23	18	6	4.3 4.3	36	0.0	3.0	0.0	26.1	27.2	3.0	0.0	11	8	0.0	10 45	8		
50	3.63	30	3 36	-5.3	0.0	0.0	0.0	23	16	5	4.3 4.3	36	0.0	2.9	0.0	11.1	17.4	4.1	0.0	11	17	0.0	21 97	8		
2.5	1.00	45	5 43	-2.4	0.0	0.0	0.0	23	7	2	4.3 4.3	36	0.0	2.5	0.0	26.1	27.2	3.0	0.0	9	7	0.0	10 45	8		
17	3.63	25	1 20	-7.0	0.0	0.0	0.0	26	17	7	5.3 4.3	20	0.0	6.8	0.0	26.1	27.2	3.0	0.0	25	19	0.0	10 45	8		
51	3.63	30	3 20	-6.0	0.0	0.0	0.0	23	18	6	4.3 4.3	20	0.0	6.3	0.0	11.1	17.4	4.1	0.0	23	36	0.0	21 60	8		
2.5	1.00	45	5 20	2.1	0.0	0.0	0.0	24	6	2	3.1 4.3	20	0.0	5.7	0.0	26.1	27.2	3.0	0.0	21	16	0.0	10 45	8		
20	3.63	25	1 46	-12.0	0.0	0.0	0.0	32	18	10	8.8 5.3	46	0.0	10.5	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10 45	8		
44	3.63	30	3 46	-12.0	0.0	0.0	0.0	32	18	10	8.8 5.3	46	0.0	10.0	0.0	11.1	17.4	4.1	0.0	37	58	0.0	21 28	8		
2.5	1.00	45	5 46	-4.8	0.0	0.0	0.0	23	14	5	4.3 4.3	46	0.0	9.7	0.0	26.1	27.2	3.0	0.0	36	27	0.0	10 45	8		
16	3.63	25	1 40	10.2	0.0	0.0	0.0	18	47	11	9.0 6.8	36	0.0	9.3	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10 45	8		
19	3.63	30	3 40	5.7	0.0	0.0	0.0	23	17	6	4.3 4.3	40	0.0	-9.0	0.0	11.1	17.4	4.1	0.0	33	52	0.0	21 235	8		
2.5	1.00	45	5 36	9.5	0.0	0.0	0.0	21	27	8	9.5 6.4	40	0.0	-9.7	0.0	26.1	27.2	3.0	0.0	36	26	0.0	10 45	8		
30	3.63	25	1 46	-14.7	0.0	0.0	0.0	33	18	10	10.4 8.3	46	0.0	10.6	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10 45	8		
35	3.63	30	3 34	6.4	0.0	0.0	0.0	20	24	7	5.4 4.3	46	0.0	10.1	0.0	11.1	17.4	4.1	0.0	37	58	0.0	21 197	8		
2.5	1.00	45	5 34	-12.0	0.0	0.0	0.0	30	17	9	8.8 8.3	34	0.0	-9.6	0.0	26.1	27.2	3.0	0.0	35	26	0.0	10 45	8		
30	3.63	26	1 30	-5.5	0.0	0.0	0.0	30	36	20	7.7 4.1	30	0.0	5.7	0.0	14.5	14.1	1.4	0.0	40	15	0.0	5 25	8		
38	3.63	30	3 30	-4.7	0.0	0.0	0.0	36	18	13	6.8 4.1	30	0.0	5.2	0.0	13.7	11.1	2.4	0.0	37	47	0.0	17 54	8		
2.5	1.00	25	5 18	2.2	0.0	0.0	0.0	26	18	8	3.1 3.1	30	0.0	4.3	0.0	14.5	14.1	1.4	0.0	30	11	0.0	5 25	8		
35	3.63	26	1 30	-2.8	0.0	0.0	0.0	30	17	9	4.1 3.1	30	0.0	2.9	0.0	14.5	14.1	1.4	0.0	20	8	0.0	5 25	8		
37	3.63	30	3 30	-2.1	0.0	0.0	0.0	26	17	7	3.1 3.1	30	0.0	2.5	0.0	13.7	11.1	2.4	0.0	18	23	0.0	17 69	8		
2.5	1.00	25	5 18	0.9	0.0	0.0	0.0	25	7	3	3.1 3.1	30	0.0	1.7	0.0	14.5	14.1	1.4	0.0	12	5	0.0	5 25	8		
36	3.63	26	1 34	-0.5	0.0	0.0	0.0	25	4	2	3.1 3.1	34	0.0	-2.1	-0.2	14.5	14.1	1.4	0.3	15	5	1.8	5 25	8		
33	3.63	30	3 34	-2.2	0.0	0.0	0.0	26	18	8	3.1 3.1	34	0.0	-2.2	-0.2	14.5	14.1	1.4	0.3	16	12	1.8	10 87	8		
2.5	1.00	25	5 34	-3.0	0.0	0.0	0.0	30	18	10	4.1 3.1	34	0.0	-2.3	-0.2	14.5	14.1	1.4	0.3	16	6	1.8	5 25	8		
10	3.63	26	1 30	-2.9	0.0	0.0	0.0	30	18	10	4.1 3.1	9	0.0	3.3	0.0	14.5	14.1	1.4	0.0	24	9	0.0	5 25	8		
17	3.63	30	3 3	1.0	0.0	0.0	0.0	25	8	3	3.1 3.1	9	0.0	3.0	0.0	13.7	11.1	2.4	0.0	21	26	0.0	17 385	8		
2.5	1.00	25	5 18	-2.2	0.0	0.0	0.0	26	18	8	3.1 3.1	3	0.0	-3.0	0.0	14.5	14.1	1.4	0.0	21	8	0.0	5 25	8		
37	3.63	27	1 37	0.3	0.0	0.0	0.0	27	3	1	3.1 3.1	41	0.0	0.3	0.0	11.8	11.8	1.1	0.0	3	1	0.0	5 25	8		
38	3.63	25	3 37	0.3	0.0	0.0	0.0	27	3	1	3.1 3.1	37	0.0	-0.4	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17 272	8		
2.5	1.00	25	5 46	-0.2	0.0	0.0	0.0	27	2	1	3.1 3.1	14	0.0	-0.4	0.0	11.8	11.8	1.1	0.0	4	1	0.0	5 25	8		
38	3.63	26	1 18	2.0	0.0	0.0	0.0	26	16	7	3.1 3.1	30	0.0	3.6	0.0	14.5	14.1	1.4	0.0	25	9	0.0	5 25	8		
32	3.63	30	3 18	-2.4	0.0	0.0	0.0	18	53	14	3.1 3.1	18	0.0	-5.4	0.0	13.7	11.1	2.4	0.0	38	49	0.0	17 139	8		
2.5	1.00	25	5 18	-5.2	0.0	0.0	0.0	35	22	15	7.3 3.7	18	0.0	-6.1	0.0	14.5	14.1	1.4	0.0	43	16	0.0	5 25	8		
37	3.63	26	1 34	0.5	0.0	0.0	0.0	25	4	2	3.1 3.1	20	0.0	-1.3	-0.2	14.5	14.1	1.4	0.3	9	3	1.8	5 17	8		
36	3.63	30	3 34	0.5	0.0	0.0	0.0	25	4	2	3.1 3.1	0	0.0	0.0	0.0	23.3	18.9	4.0	0.0	0	0	0.0	10 0	8		
2.5	1.00	25	5 3	0.3	0.0	0.0	0.0	25	2	1	3.1 3.1	20	0.0	-1.3	-0.2	14.5	14.1	1.4	0.3	9	3	1.8	5 17	8		
35	3.63	25	1 34	-14.8	0.0	0.0	0.0	32	18	10	10.4 9.1	46	0.0	4.0	2.6	12.1	19.0	4.4	2.6	11	22	10.9	10 14	8		
13	3.63	30	3 34	-14.8	0.0	0.0	0.0	32	18	10	10.4 9.1	0	0.0	0.0	0.0	8.1	12.7	3.0	0.0	0	0	0.0	15 0	8		
1.29	1.00	45	5 34	-14.8	0.0	0.0	0.0	32	18	10	10.4 9.1	46	0.0	3.8	2.6	17.3	27.1	6.4	2.6	11	14	10.9	7 14	8		
61	3.63	34	1 46	-3.6	0.0	0.0	0.0	23	7	2	4.8 4.8	46	0.0	4.3	0.0	28.2	30.9	3.2	0.0	14	9	0.0	11 60	8		
62	3.63	25	3 46	-3.2	0.0	0.0	0.0	23	6	2	4.8 4.8	46	0.0	4.1	0.0	9.0	23.7	4.4	0.0	13	17	0.0	21 58	8		
2.5	1.00	60	5 34	-3.4	0.0	0.0	0.0	23	7	2	4.8 4.8	34	0.0	-4.2	0.0	28.2	30.9	3.2	0.0	14	9	0.0	11 60	8		
41	3.63	25	1 31	3.9	0.0	0.0	0.0	23	11	4	4.3 4.3	31	0.0	-3.1	0.0	26.1	27.2	3.0	0.0	11	8	0.0	10 45	8		
14	3.63	30	3 31	3.0	0.0	0.0	0.0	23	9	3	4.3 4.3	31	0.0	-3.4	0.0	11.1	17.4	4.1	0.0	12	20	0.0	21 105	8		
2.5	1.00	45	5 31	-2.5	0.0	0.0	0.0	24	7	2	4.3 3.1	31	0.0	-3.6	0.0	26.1	27.2	3.0	0.0	13	10	0.0	10 45	8		
39	3.63	26																								

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra a C	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE												Staffe			
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRLd	Coe	Coe	ALon	Staffe				
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi		
2.5	1.00		25	5	43	-2.4	0.0	0.0	31	15	8	4.1	3.1	43	0.0	-5.6	0.0	11.8	11.8	1.1	0.2	48	15	1.6	5	23	8	
42	3.63		27	1	25	1.2	0.0	0.0	27	10	5	3.1	3.1	21	0.0	2.7	0.0	11.8	11.8	1.1	0.0	23	7	0.0	5	25	8	
45	3.63		25	3	25	-1.2	0.0	0.0	27	10	5	3.1	3.1	25	0.0	-2.8	0.0	11.1	11.1	1.9	0.0	24	25	0.0	17	69	8	
2.5	1.00		25	5	25	-1.9	0.0	0.0	28	15	7	3.1	3.1	25	0.0	-2.9	0.0	11.8	11.8	1.1	0.0	25	8	0.0	5	25	8	
39	3.63		26	1	15	-2.7	0.0	0.0	29	17	9	4.1	3.1	15	0.0	2.4	0.0	14.5	14.1	1.4	0.0	17	6	0.0	5	25	8	
47	3.63		30	3	27	1.0	0.0	0.0	25	8	3	3.1	3.1	15	0.0	2.3	0.0	13.7	11.1	2.4	0.0	16	20	0.0	17	227	8	
2.5	1.00		25	5	27	-1.7	0.0	0.0	26	14	6	3.1	3.1	27	0.0	-2.0	0.0	14.5	14.1	1.4	0.0	14	5	0.0	5	25	8	
45	3.63		25	1	41	-7.9	0.0	0.0	27	18	8	5.5	3.9	41	0.0	-15.8	0.7	27.7	28.9	3.2	1.0	55	47	4.3	10	45	8	
46	3.63		30	3	41	-15.0	0.0	0.0	33	18	10	10.5	8.3	0	0.0	0.0	0.0	14.3	22.4	5.2	0.0	0	0	0.0	15	0	8	
2.29	1.00		45	5	41	-15.0	0.0	0.0	33	18	10	10.5	8.3	41	0.0	-16.3	0.7	27.7	28.9	3.2	1.0	57	49	4.3	10	45	8	
34	3.63		42	1	11	-1.7	0.0	0.0	24	11	4	3.1	3.1	11	0.0	4.9	0.2	16.1	16.2	1.6	0.3	41	15	1.5	6	18	8	
44	3.63		28	3	11	-1.7	0.0	0.0	24	11	4	3.1	3.1	0	0.0	0.0	0.0	19.6	21.2	4.3	0.0	0	0	0.0	11	0	8	
2.5	1.00		30	5	6	-0.2	0.0	0.0	24	1	1	3.1	3.1	11	0.0	4.8	0.2	16.1	16.2	1.6	0.3	40	15	1.5	6	18	8	
46	3.63		25	1	37	-19.1	0.0	0.0	35	18	11	13.8	11.3	37	0.0	14.9	0.0	26.1	27.2	3.0	0.0	55	41	0.0	10	45	8	
10	3.63		30	3	37	-9.8	0.0	0.0	20	40	11	6.6	6.2	37	0.0	14.3	0.0	11.1	17.4	4.1	0.0	53	82	0.0	21	181	8	
2.5	1.00		45	5	37	17.3	0.0	0.0	30	24	11	11.5	11.8	41	0.0	-13.7	0.0	26.1	27.2	3.0	0.0	50	37	0.0	10	45	8	
46	3.63		26	1	27	-2.7	0.0	0.0	29	17	9	4.1	3.1	27	0.0	2.3	0.4	14.5	14.1	1.4	0.4	16	6	2.7	5	25	8	
47	3.63		30	3	27	-2.7	0.0	0.0	29	17	9	4.1	3.1	27	0.0	2.1	0.4	14.5	14.1	1.4	0.4	15	11	2.7	10	2	8	
2.5	1.00		25	5	27	-2.1	0.0	0.0	26	17	7	3.1	3.1	27	0.0	2.1	0.4	14.5	14.1	1.4	0.4	15	6	2.7	5	25	8	
44	3.63		25	1	34	-2.5	0.0	0.0	23	7	2	4.3	4.3	46	0.0	10.2	0.0	26.1	27.2	3.0	0.0	37	28	0.0	10	45	8	
23	3.63		30	3	46	11.6	0.0	0.0	32	17	9	5.4	8.6	46	0.0	9.7	0.0	11.1	17.4	4.1	0.0	35	56	0.0	21	47	8	
2.5	1.00		45	5	46	12.6	0.0	0.0	32	18	10	5.8	9.1	46	0.0	9.2	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10	45	8	
26	3.63		26	1	46	-2.0	0.0	0.0	26	17	7	3.1	3.1	3	0.0	2.6	0.0	14.5	14.1	1.4	0.0	18	7	0.0	5	25	8	
48	3.63		30	3	34	1.2	0.0	0.0	25	9	4	3.1	3.1	3	0.0	2.2	0.0	13.7	11.1	2.4	0.0	16	20	0.0	17	251	8	
2.5	1.00		25	5	18	0.6	0.0	0.0	25	5	2	3.1	3.1	9	0.0	-1.5	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8	
22	3.63		25	1	34	-14.9	0.0	0.0	34	19	11	10.5	5.9	34	0.0	13.9	0.0	26.1	27.2	3.0	0.0	51	38	0.0	10	45	8	
25	3.63		30	3	34	9.8	0.0	0.0	19	47	13	4.3	6.6	34	0.0	13.2	0.0	11.1	17.4	4.1	0.0	49	76	0.0	21	166	8	
2.5	1.00		45	5	34	15.6	0.0	0.0	33	19	11	8.6	10.9	34	0.0	10.6	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8	
27	3.63		26	1	37	-3.0	0.0	0.0	29	20	10	4.1	3.1	6	0.0	3.2	0.0	14.5	14.1	1.4	0.0	23	9	0.0	5	25	8	
49	3.63		30	3	41	1.2	0.0	0.0	25	10	4	3.1	3.1	6	0.0	2.8	0.0	13.7	11.1	2.4	0.0	20	26	0.0	17	320	8	
2.5	1.00		25	5	31	0.7	0.0	0.0	25	5	2	3.1	3.1	12	0.0	-1.8	0.0	14.5	14.1	1.4	0.0	12	5	0.0	5	25	8	
48	3.63		26	1	30	-0.7	0.0	0.0	25	6	2	3.1	3.1	6	0.0	1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8	
27	3.63		30	3	46	1.0	0.0	0.0	25	8	3	3.1	3.1	12	0.0	-2.8	0.0	13.7	11.1	2.4	0.0	20	25	0.0	17	320	8	
2.5	1.00		25	5	34	-3.2	0.0	0.0	21	47	15	4.3	3.1	12	0.0	-3.2	0.0	14.5	14.1	1.4	0.0	22	8	0.0	5	25	8	
49	3.63		26	1	43	-0.5	0.0	0.0	25	4	2	3.1	3.1	9	0.0	1.5	0.0	14.5	14.1	1.4	0.0	11	4	0.0	5	25	8	
7	3.63		30	3	46	0.8	0.0	0.0	25	7	3	3.1	3.1	3	0.0	-2.2	0.0	13.7	11.1	2.4	0.0	15	19	0.0	17	251	8	
2.5	1.00		25	5	34	-1.9	0.0	0.0	26	16	7	3.1	3.1	3	0.0	-2.5	0.0	14.5	14.1	1.4	0.0	18	7	0.0	5	25	8	
22	3.63		39	1	9	-5.1	0.0	0.0	33	18	12	7.2	3.6	6	0.0	3.7	0.0	20.0	18.8	2.0	0.0	20	10	0.0	5	25	8	
48	3.63		40	3	9	-3.8	0.0	0.0	31	16	9	5.9	3.1	6	0.0	3.6	0.0	20.1	11.8	3.6	0.0	19	31	0.0	16	99	8	
2.5	1.00		25	5	6	0.1	0.0	0.0	23	1	0	3.1	3.2	6	0.0	3.3	0.0	20.0	18.8	2.0	0.0	18	9	0.0	5	25	8	
16	3.63		39	1	9	-5.1	0.0	0.0	33	18	12	7.2	3.6	9	0.0	3.8	0.0	20.0	18.8	2.0	0.0	20	10	0.0	5	25	8	
49	3.63		40	3	9	-3.8	0.0	0.0	31	16	9	5.9	3.1	9	0.0	3.7	0.0	20.1	11.8	3.6	0.0	19	31	0.0	16	99	8	
2.5	1.00		25	5	12	0.1	0.0	0.0	23	1	0	3.1	3.2	9	0.0	3.3	0.0	20.0	18.8	2.0	0.0	18	9	0.0	5	25	8	
39	3.63		1	1	43	-4.4	0.0	0.0	27	23	10	4.7	3.1	43	0.0	4.7	0.0	17.4	17.4	1.8	0.0	27	12	0.0	6	30	8	
50	3.63		30	3	43	-3.6	0.0	0.0	28	18	8	4.1	3.1	43	0.0	4.3	0.0	11.1	11.1	2.5	0.0	25	39	0.0	21	52	8	
2.5	1.00		30	5	27	0.3	0.0	0.0	23	2	1	3.1	3.1	43	0.0	3.9	0.0	17.4	17.4	1.8	0.0	22	10	0.0	6	30	8	
50	3.63		25	1	43	-1.7	0.0	0.0	23	5	2	4.3	4.3	43	0.0	5.1	0.0	26.1	27.2	3.0	0.0	19	14	0.0	10	45	8	
17	3.63		30	3	31	-6.0	0.0	0.0	23	18	6	4.3	4.3	31	0.0	-5.6	0.0	11.1	17.4	4.1	0.0	20	32	0.0	21	78	8	
2.5	1.00		45	5	31	-7.2	0.0	0.0	26	17	7	5.3	4.3	31	0.0	-6.1	0.0	26.1	27.2	3.0	0.0	22	17	0.0	10	45	8	
32	3.63		26	1	24	-4.1	0.0	0.0	35	17	12	6.2	3.1	24	0.0	4.8	0.0	14.5	14.1	1.4	0.0	34	13	0.0	5	25	8	
51	3.63		30	3	24	-2.5	0.0	0.0	29	15	8	4.1	3.1	24	0.0	4.2	0.0	13.7	11.1	2.4	0.0	30	38	0.0	17	107	8	
2.5	1.00		25	5	20	-0.5	0.0	0.0	25	4	2	3.1	3.1	20	0.0	-3.2	0.0	14.5	14.1	1.4	0.0	23	9	0.0	5	25	8	
51	3.63		25	1	36	3.5	0.0	0.0	23	10	3	4.3	4.3	40	0.0	-3.6	0.0	26.1	27.2	3.0	0.0	13	10	0.0	10	45	8	
20	3.63		30	3	40	-6.5	0.0																					

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRld	Coe	Coe	ALon	Staffe			
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi	
2.5	1.00	2	18	5	6	1.0	0.0	0.0	24	12	5	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8
3	3.63	1	25	1	12	-8.2	0.0	0.0	28	18	8	5.6	3.1	12	0.0	6.1	-0.5	26.1	27.2	3.0	0.6	39	22	2.7	10	45	8
54	3.63	/	30	3	12	-8.2	0.0	0.0	28	18	8	5.6	3.1	3	0.0	5.7	-0.5	26.1	27.2	3.0	0.6	38	33	2.7	15	42	8
2.5	1.00	2	45	5	12	-5.8	0.0	0.0	24	17	6	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
1	3.63	1	25	1	12	-9.4	0.0	0.0	22	37	11	6.3	3.2	9	0.0	7.2	0.5	26.1	27.2	3.0	0.5	42	25	2.2	10	45	8
52	3.63	/	30	3	12	-9.4	0.0	0.0	22	37	12	6.3	3.1	9	0.0	7.0	0.5	26.1	27.2	3.0	0.5	42	37	2.2	15	42	8
2.5	1.00	2	45	5	12	-6.6	0.0	0.0	17	44	10	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
52	3.63	1	26	1	21	0.3	0.0	0.0	25	3	1	3.1	3.1	3	0.0	1.6	0.0	14.5	14.1	1.4	0.0	11	4	0.0	5	25	8
53	3.63	/	30	3	3	1.0	0.0	0.0	25	8	3	3.1	3.1	3	0.0	1.3	0.0	13.7	11.1	2.4	0.0	9	11	0.0	17	111	8
2.5	1.00	4	25	5	21	1.2	0.0	0.0	25	10	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
53	3.63	1	26	1	9	-1.3	0.0	0.0	25	10	4	3.1	3.1	3	0.0	1.9	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
54	3.63	/	30	3	9	-0.9	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	92	8
2.5	1.00	4	25	5	21	0.5	0.0	0.0	25	4	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
11	3.63	1	25	1	6	-9.5	0.0	0.0	21	40	12	6.4	3.2	9	0.0	7.2	-0.5	26.1	27.2	3.0	0.5	43	26	2.4	10	45	8
55	3.63	/	30	3	6	-9.5	0.0	0.0	21	40	12	6.4	3.1	9	0.0	7.0	-0.5	26.1	27.2	3.0	0.5	42	37	2.4	15	42	8
2.5	1.00	2	45	5	6	-6.6	0.0	0.0	27	16	7	5.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
13	3.63	1	25	1	6	-8.5	0.0	0.0	29	19	8	5.8	3.1	3	0.0	6.5	0.5	26.1	27.2	3.0	0.7	41	24	2.9	10	45	8
57	3.63	/	30	3	6	-8.5	0.0	0.0	29	19	8	5.8	3.1	3	0.0	6.3	0.5	26.1	27.2	3.0	0.7	41	35	2.9	15	42	8
2.5	1.00	2	45	5	6	-6.0	0.0	0.0	24	18	6	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
12	3.63	1	33	1	12	-6.3	0.0	0.0	37	31	27	13.9	7.0	12	0.0	8.5	0.0	18.3	15.9	1.6	0.0	53	20	0.0	3	18	8
56	3.63	/	50	3	12	-4.8	0.0	0.0	42	18	20	10.8	3.1	12	0.0	8.4	0.0	37.2	11.6	4.2	0.0	53	72	0.0	11	69	8
2.5	1.00	2	18	5	12	1.0	0.0	0.0	24	12	5	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8
55	3.63	1	26	1	18	0.3	0.0	0.0	25	3	1	3.1	3.1	3	0.0	1.5	0.0	14.5	14.1	1.4	0.0	11	4	0.0	5	25	8
56	3.63	/	30	3	18	1.0	0.0	0.0	25	8	3	3.1	3.1	3	0.0	1.3	0.0	13.7	11.1	2.4	0.0	9	11	0.0	17	111	8
2.5	1.00	4	25	5	18	1.2	0.0	0.0	25	10	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
56	3.63	1	26	1	9	-1.3	0.0	0.0	25	11	4	3.1	3.1	3	0.0	1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
57	3.63	/	30	3	9	-0.9	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	92	8
2.5	1.00	4	25	5	18	0.5	0.0	0.0	25	4	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
69	3.63	27	1	21	-2.6	0.0	0.0	0.0	30	16	9	4.1	4.1	21	0.0	3.0	-0.3	11.8	11.8	1.1	0.3	26	8	2.3	5	25	8
42	3.63	25	3	21	-2.6	0.0	0.0	0.0	30	16	9	4.1	4.1	21	0.0	2.8	-0.3	11.8	11.8	1.1	0.3	24	13	2.3	9	5	8
2.5	1.00	25	5	25	1.8	0.0	0.0	0.0	28	14	7	3.1	3.1	21	0.0	2.8	-0.3	11.8	11.8	1.1	0.3	24	7	2.3	5	25	8
70	3.63	27	1	43	-2.1	0.0	0.0	0.0	28	17	8	3.1	3.1	43	0.0	2.3	0.0	11.8	11.8	1.1	0.0	20	6	0.0	5	25	8
69	3.63	25	3	37	-1.7	0.0	0.0	0.0	28	14	7	3.1	3.1	43	0.0	2.2	0.0	11.1	11.1	1.9	0.0	19	20	0.0	17	128	8
2.5	1.00	25	5	21	-2.3	0.0	0.0	0.0	21	39	13	3.1	3.1	31	0.0	-1.9	0.0	11.8	11.8	1.1	0.0	16	5	0.0	5	25	8
62	3.63	27	1	43	-2.3	0.0	0.0	0.0	22	32	11	3.1	3.1	43	0.0	7.7	-0.3	15.7	15.7	1.5	0.3	49	34	2.3	5	15	8
70	3.63	25	3	43	-2.3	0.0	0.0	0.0	22	32	11	3.1	3.1	0	0.0	0.0	0.0	14.2	14.2	2.4	0.0	0	0	0.0	8	0	8
1.5	1.00	25	5	43	-1.8	0.0	0.0	0.0	28	15	7	3.1	3.1	43	0.0	7.7	-0.3	15.7	15.7	1.5	0.3	49	34	2.3	5	15	8
61	3.63	27	1	21	-1.7	0.0	0.0	0.0	28	14	6	3.1	3.1	21	0.0	4.8	0.3	12.1	12.1	1.1	0.3	40	13	2.3	5	15	8
69	3.63	25	3	21	-1.7	0.0	0.0	0.0	28	14	6	3.1	3.1	0	0.0	0.0	0.0	20.2	20.2	3.4	0.0	0	0	0.0	9	0	8
2.4	1.00	25	5	21	-1.4	0.0	0.0	0.0	27	11	5	3.1	3.1	21	0.0	4.8	0.3	12.1	12.1	1.1	0.3	40	13	2.3	5	15	8
12	3.63	8	1	41	-6.4	0.0	0.0	0.0	19	86	24	8.5	6.1	41	0.0	2.9	0.0	25.4	23.5	2.6	0.0	12	8	0.0	5	25	8
9	3.63	50	3	41	-1.7	0.0	0.0	0.0	23	11	4	4.0	4.0	41	0.0	2.8	0.0	31.5	14.6	5.8	0.0	12	19	0.0	13	463	8
2.5	1.00	25	5	37	-5.4	0.0	0.0	0.0	30	18	10	7.5	6.4	37	0.0	-2.6	0.0	25.4	23.5	2.6	0.0	11	7	0.0	5	25	8
9	3.63	8	1	41	-5.2	0.0	0.0	0.0	30	18	10	7.3	6.4	41	0.0	2.6	0.0	25.4	23.5	2.6	0.0	11	7	0.0	5	25	8
2	3.63	50	3	37	-1.7	0.0	0.0	0.0	23	11	4	4.0	4.0	37	0.0	-2.8	0.0	31.5	14.6	5.8	0.0	12	19	0.0	13	463	8
2.5	1.00	25	5	37	-6.4	0.0	0.0	0.0	20	82	24	8.5	5.0	37	0.0	-2.9	0.0	25.4	23.5	2.6	0.0	12	8	0.0	5	25	8
31	6.88	1	42	1	6	-0.3	0.0	0.0	26	2	1	4.0	4.0	1	0.0	0.6	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	0	8
32	6.88	/	28	3	6	-0.2	0.0	0.0	26	1	0	4.0	4.0	1	0.0	0.6	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	119	8
2.5	1.00	2	30	5	12	0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8
33	6.88	1	42	1	34	0.4	0.0	0.0	26	2	1	4.0	4.0	34	0.0	-0.6	0.0	10.3	11.1	2.2	0.0	4	5	0.0	21	0	8
34	6.88	/	28	3	34	0.4	0.0	0.0	26	2	1	4.0	4.0	34	0.0	-0.7	0.0	10.3	11.1	2.2	0.0	5	7	0.0	21	77	8
2.5	1.00	4	30	5	11	-0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8
61	6.88	1	27	1	41	-0.4	0.0	0.0	29	3	1	4.0	4.0	25	0.0	0.9	0.0	11.1	11.1	1.9	0.0	7	8	0.0	17	0	8
64	6.88	/	25	3	25	0.3	0.0	0.0	29	2	1	4.0	4.0	25	0.0	0.9	0.0	11.1	11.1	1.9	0.0	7	8	0.0	17	113	8
2.5	1.00	2	25	5	25	0.5	0.0	0.0	2																		



**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a l t	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE												Staffe Pas Lun Fi		
					Co m b	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co m b	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe Cls	Coe Sta	ALon cmq				
2.5	1.00	2	25	5	15	-0.7	0.0	0.0	29	4	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8
1	6.88	1	25	1	25	-17.7	0.0	0.0	26	45	18	12.1	6.0	25	0.0	15.2	-0.4	26.1	27.2	3.0	0.5	68	46	2.1	10	45	8
2	6.88	/	30	3	25	-17.7	0.0	0.0	38	18	13	13.1	6.1	25	0.0	13.6	-0.4	15.6	24.4	5.7	0.5	62	62	2.1	15	76	8
2.5	1.00	4	45	5	21	8.5	0.0	0.0	27	18	8	5.3	5.8	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
8	6.88		48	1	30	-16.3	0.0	0.0	40	15	12	9.2	5.4	9	0.0	17.1	0.0	26.1	27.2	2.6	0.0	63	47	0.0	10	45	8
9	6.88		30	3	3	9.8	0.0	0.0	17	42	9	3.6	6.5	3	0.0	-17.3	0.0	13.0	20.3	4.2	0.0	63	85	0.0	18	394	8
2.5	1.00		45	5	18	-25.2	0.0	0.0	45	18	17	14.3	7.1	3	0.0	-22.3	0.0	26.1	27.2	2.6	0.0	82	61	0.0	10	64	8
11	6.88	1	25	1	30	-20.8	0.0	0.0	39	19	13	14.8	8.4	30	0.0	16.8	0.4	26.1	27.2	3.0	0.5	75	51	2.2	10	45	8
12	6.88	/	30	3	30	-20.8	0.0	0.0	39	19	13	14.8	8.4	30	0.0	15.2	0.4	15.6	24.4	5.7	0.5	69	69	2.2	15	76	8
2.5	1.00	4	45	5	18	9.9	0.0	0.0	19	44	11	6.4	6.6	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
1	6.88		25	1	37	-20.7	0.0	0.0	37	18	12	14.8	10.6	37	0.0	10.1	0.0	26.1	27.2	3.0	0.0	37	28	0.0	10	45	8
8	6.88		30	3	37	7.8	0.0	0.0	27	18	8	3.7	5.4	37	0.0	9.6	0.0	11.1	17.4	4.1	0.0	35	55	0.0	21	413	8
2.5	1.00		45	5	41	-20.7	0.0	0.0	37	18	12	14.8	11.3	41	0.0	-9.8	0.0	26.1	27.2	3.0	0.0	36	27	0.0	10	45	8
3	6.88		25	1	37	-12.0	0.0	0.0	30	17	9	8.8	8.4	41	0.0	-13.1	0.0	26.1	27.2	3.0	0.0	48	36	0.0	10	45	8
45	6.88		30	3	37	-12.0	0.0	0.0	30	17	9	8.8	8.4	41	0.0	-13.2	0.0	11.1	17.4	4.1	0.0	48	76	0.0	21	2	8
2.5	1.00		45	5	37	-6.3	0.0	0.0	24	18	6	4.3	3.5	41	0.0	-13.7	0.0	26.1	27.2	3.0	0.0	50	37	0.0	10	45	8
2	6.88	1	25	1	25	-19.2	0.0	0.0	37	18	12	13.9	8.6	25	0.0	15.8	-0.5	26.1	27.2	3.0	0.6	74	49	2.7	10	45	8
3	6.88	/	30	3	25	-19.2	0.0	0.0	37	18	12	14.0	8.6	25	0.0	14.3	-0.5	26.1	27.2	3.0	0.6	69	67	2.7	15	57	8
2.5	1.00	4	45	5	21	9.3	0.0	0.0	24	23	8	8.1	6.3	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
9	6.88		48	1	30	-22.1	0.0	0.0	44	17	15	12.6	6.3	9	0.0	17.3	0.0	26.1	27.2	2.6	0.0	64	47	0.0	10	45	8
10	6.88		30	3	18	8.2	0.0	0.0	21	18	6	3.6	5.6	30	0.0	15.1	0.0	11.7	18.3	3.8	0.0	55	83	0.0	20	339	8
2.5	1.00		45	5	18	-19.6	0.0	0.0	42	16	14	11.1	5.6	18	0.0	-16.7	0.0	26.1	27.2	2.6	0.0	61	46	0.0	10	45	8
12	6.88	1	25	1	30	-23.2	0.0	0.0	38	20	14	16.3	10.1	30	0.0	18.3	0.5	26.1	27.2	3.0	0.6	84	56	2.7	10	45	8
13	6.88	/	30	3	30	-23.2	0.0	0.0	40	18	14	17.2	10.1	30	0.0	16.8	0.5	26.1	27.2	3.0	0.6	79	78	2.7	15	57	8
2.5	1.00	4	45	5	30	-13.4	0.0	0.0	32	18	9	9.6	8.2	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
8	6.88		25	1	37	-20.9	0.0	0.0	37	18	12	14.8	11.3	37	0.0	9.9	0.0	26.1	27.2	3.0	0.0	36	27	0.0	10	45	8
11	6.88		30	3	41	7.8	0.0	0.0	27	18	8	3.7	5.4	41	0.0	-9.6	0.0	11.1	17.4	4.1	0.0	35	55	0.0	21	413	8
2.5	1.00		45	5	41	-20.7	0.0	0.0	37	18	12	14.8	10.7	41	0.0	-10.1	0.0	26.1	27.2	3.0	0.0	37	28	0.0	10	45	8
10	6.88		25	1	41	15.1	0.0	0.0	32	18	10	9.8	10.6	41	0.0	-22.4	0.0	29.4	30.7	3.3	0.0	73	73	0.0	10	45	8
30	6.88		30	3	41	-14.4	0.0	0.0	32	18	10	10.2	9.0	41	0.0	-23.0	0.0	15.6	24.4	5.7	0.0	84	94	0.0	10	49	8
2.09	1.00		45	5	41	-16.6	0.0	0.0	31	22	11	11.4	10.0	41	0.0	-23.5	0.0	19.6	30.7	7.2	0.0	77	77	0.0	10	45	8
4	6.88		25	1	25	-17.3	0.0	0.0	29	27	13	11.8	9.5	25	0.0	14.9	0.0	26.1	27.2	3.0	0.0	55	41	0.0	10	45	8
5	6.88		30	3	25	10.0	0.0	0.0	19	48	12	5.7	6.7	25	0.0	14.1	0.0	11.1	17.4	4.1	0.0	52	81	0.0	21	177	8
2.5	1.00		45	5	25	16.1	0.0	0.0	32	19	10	10.9	11.2	21	0.0	-13.3	0.0	26.1	27.2	3.0	0.0	49	36	0.0	10	45	8
14	6.88		39	1	25	-5.3	0.0	0.0	34	19	12	7.4	3.7	25	0.0	6.3	0.0	20.0	18.8	2.0	0.0	34	17	0.0	5	25	8
15	6.88		40	3	21	2.2	0.0	0.0	24	17	6	3.1	3.2	21	0.0	-5.7	0.0	20.1	11.8	3.6	0.0	30	48	0.0	16	227	8
2.5	1.00		25	5	21	-5.1	0.0	0.0	33	18	12	7.2	3.6	21	0.0	-6.4	0.0	20.0	18.8	2.0	0.0	34	17	0.0	5	25	8
17	6.88		25	1	30	-11.4	0.0	0.0	31	17	9	8.5	5.8	30	0.0	13.3	0.0	26.1	27.2	3.0	0.0	49	36	0.0	10	45	8
18	6.88		30	3	18	-8.0	0.0	0.0	26	18	7	5.5	5.5	18	0.0	-12.2	0.0	11.1	17.4	4.1	0.0	45	70	0.0	21	177	8
2.5	1.00		45	5	30	10.3	0.0	0.0	17	45	10	10.8	6.8	18	0.0	-14.1	0.0	26.1	27.2	3.0	0.0	52	39	0.0	10	45	8
20	6.88		39	1	30	-6.3	0.0	0.0	37	17	13	9.4	4.7	30	0.0	6.9	0.0	20.0	18.8	2.0	0.0	37	18	0.0	5	25	8
21	6.88		40	3	18	2.5	0.0	0.0	14	87	18	3.1	3.2	18	0.0	-6.2	0.0	20.1	11.8	3.6	0.0	33	52	0.0	16	227	8
2.5	1.00		25	5	18	-5.7	0.0	0.0	31	27	15	7.8	3.9	18	0.0	-6.9	0.0	20.0	18.8	2.0	0.0	37	18	0.0	5	25	8
23	6.88		25	1	46	-18.4	0.0	0.0	29	28	13	12.6	10.9	46	0.0	17.0	0.0	26.1	27.2	3.0	0.0	63	47	0.0	10	45	8
24	6.88		30	3	46	12.1	0.0	0.0	31	17	9	8.3	8.9	46	0.0	16.2	0.0	13.0	20.3	4.7	0.0	59	80	0.0	18	167	8
2.5	1.00		45	5	34	-19.9	0.0	0.0	35	18</																	

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra a t	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														
					Co mb	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ /d	εf% 100	εc% 100	Area cmq sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRld (t*m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi			
2.5	1.00		25	5	15	-4.8	0.0	0.0	33	18	11	6.9	3.4	15	0.0	-5.8	0.0	20.0	18.8	2.0	0.0	31	15	0.0	5	25	8
18	6.88		25	1	30	-14.1	0.0	0.0	34	18	11	10.0	5.8	30	0.0	13.9	0.0	26.1	27.2	3.0	0.0	51	38	0.0	10	45	8
19	6.88		30	3	30	-7.1	0.0	0.0	26	17	7	5.3	4.3	30	0.0	12.0	0.0	11.1	17.4	4.1	0.0	44	69	0.0	21	158	8
2.5	1.00		45	5	18	-10.5	0.0	0.0	17	64	15	6.9	5.9	18	0.0	-12.4	0.0	26.1	27.2	3.0	0.0	45	34	0.0	10	45	8
19	6.88		25	1	40	9.5	0.0	0.0	22	27	8	9.4	6.4	36	0.0	9.6	0.0	26.1	27.2	3.0	0.0	35	26	0.0	10	45	8
22	6.88		30	3	36	5.6	0.0	0.0	23	16	6	4.3	4.3	36	0.0	8.8	0.0	11.1	17.4	4.1	0.0	32	51	0.0	21	235	8
2.5	1.00		45	5	36	10.0	0.0	0.0	18	41	10	8.9	6.7	40	0.0	-9.2	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10	45	8
19	6.88		25	1	30	-5.0	0.0	0.0	23	15	5	4.3	4.3	30	0.0	9.3	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10	45	8
27	6.88		30	3	30	6.0	0.0	0.0	23	18	6	4.3	4.3	30	0.0	8.8	0.0	11.1	17.4	4.1	0.0	32	50	0.0	21	44	8
2.5	1.00		45	5	30	6.5	0.0	0.0	18	33	8	4.3	4.3	30	0.0	8.3	0.0	26.1	27.2	3.0	0.0	30	23	0.0	10	45	8
21	6.88		39	1	30	-5.0	0.0	0.0	33	18	12	7.1	3.6	30	0.0	6.5	0.0	20.0	18.8	2.0	0.0	35	17	0.0	5	25	8
22	6.88		40	3	30	2.2	0.0	0.0	24	18	7	3.1	3.2	30	0.0	5.8	0.0	20.1	11.8	3.6	0.0	31	49	0.0	16	208	8
2.5	1.00		25	5	18	-5.5	0.0	0.0	32	23	13	7.7	4.2	18	0.0	-6.4	0.0	20.0	18.8	2.0	0.0	34	17	0.0	5	25	8
24	6.88		25	1	34	17.9	0.0	0.0	29	24	11	14.4	12.1	46	0.0	17.1	0.0	26.1	27.2	3.0	0.0	63	47	0.0	10	45	8
25	6.88		30	3	46	-12.2	0.0	0.0	30	17	9	8.9	8.7	46	0.0	16.2	0.0	13.7	21.5	5.0	0.0	59	75	0.0	17	148	8
2.5	1.00		45	5	34	-16.5	0.0	0.0	31	21	11	11.4	10.7	34	0.0	-16.6	0.0	26.1	27.2	3.0	0.0	61	46	0.0	10	45	8
25	6.88		25	1	46	-4.9	0.0	0.0	23	14	5	4.3	4.3	46	0.0	9.7	0.0	26.1	27.2	3.0	0.0	36	26	0.0	10	45	8
26	6.88		30	3	46	7.1	0.0	0.0	26	17	7	4.3	5.3	46	0.0	9.4	0.0	11.1	17.4	4.1	0.0	34	54	0.0	21	44	8
2.5	1.00		45	5	18	-6.4	0.0	0.0	19	29	8	4.3	5.3	46	0.0	9.1	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10	45	8
14	6.88		25	1	36	-5.9	0.0	0.0	23	17	6	4.3	4.3	36	0.0	3.0	0.0	26.1	27.2	3.0	0.0	11	8	0.0	10	45	8
50	6.88		30	3	36	-5.2	0.0	0.0	23	15	5	4.3	4.3	36	0.0	2.8	0.0	11.1	17.4	4.1	0.0	10	16	0.0	21	97	8
2.5	1.00		45	5	43	-2.5	0.0	0.0	23	7	2	4.3	4.3	36	0.0	2.5	0.0	26.1	27.2	3.0	0.0	9	7	0.0	10	45	8
17	6.88		25	1	20	-6.7	0.0	0.0	26	16	6	5.3	4.3	20	0.0	6.6	0.0	26.1	27.2	3.0	0.0	24	18	0.0	10	45	8
51	6.88		30	3	20	-5.8	0.0	0.0	23	17	6	4.3	4.3	20	0.0	6.1	0.0	11.1	17.4	4.1	0.0	22	35	0.0	21	60	8
2.5	1.00		45	5	36	1.9	0.0	0.0	23	6	2	3.1	4.3	20	0.0	5.5	0.0	26.1	27.2	3.0	0.0	20	15	0.0	10	45	8
20	6.88		25	1	37	-10.3	0.0	0.0	18	60	14	6.8	5.3	37	0.0	8.7	0.0	26.1	27.2	3.0	0.0	32	24	0.0	10	45	8
44	6.88		30	3	37	-10.3	0.0	0.0	18	60	14	6.8	5.3	37	0.0	8.2	0.0	11.1	17.4	4.1	0.0	30	47	0.0	21	28	8
2.5	1.00		45	5	37	-4.4	0.0	0.0	23	13	4	4.3	4.3	37	0.0	7.9	0.0	26.1	27.2	3.0	0.0	29	22	0.0	10	45	8
16	6.88		25	1	40	9.8	0.0	0.0	20	34	9	8.8	6.5	36	0.0	8.9	0.0	26.1	27.2	3.0	0.0	33	24	0.0	10	45	8
19	6.88		30	3	40	5.5	0.0	0.0	23	16	5	4.3	4.3	40	0.0	-8.7	0.0	11.1	17.4	4.1	0.0	32	50	0.0	21	235	8
2.5	1.00		45	5	40	-12.5	0.0	0.0	32	18	10	9.1	6.1	40	0.0	-9.4	0.0	26.1	27.2	3.0	0.0	34	26	0.0	10	45	8
30	6.88		25	1	41	10.4	0.0	0.0	17	48	11	10.5	6.9	37	0.0	10.4	0.0	26.1	27.2	3.0	0.0	38	28	0.0	10	45	8
35	6.88		30	3	37	-8.1	0.0	0.0	27	18	8	5.6	4.3	37	0.0	9.9	0.0	11.1	17.4	4.1	0.0	36	57	0.0	21	197	8
2.5	1.00		45	5	41	-10.7	0.0	0.0	17	67	15	7.1	6.9	41	0.0	-8.9	0.0	26.1	27.2	3.0	0.0	33	24	0.0	10	45	8
30	6.88		26	1	30	-5.0	0.0	0.0	37	19	14	7.2	3.6	30	0.0	5.4	0.0	14.5	14.1	1.4	0.0	38	14	0.0	5	25	8
38	6.88		30	3	30	-4.2	0.0	0.0	35	17	12	6.3	3.1	30	0.0	4.9	0.0	13.7	11.1	2.4	0.0	35	44	0.0	17	55	8
2.5	1.00		25	5	18	2.0	0.0	0.0	26	16	7	3.1	3.1	30	0.0	4.0	0.0	14.5	14.1	1.4	0.0	28	10	0.0	5	25	8
35	6.88		26	1	30	-2.5	0.0	0.0	29	16	8	4.1	3.1	30	0.0	2.8	0.0	14.5	14.1	1.4	0.0	20	7	0.0	5	25	8
37	6.88		30	3	30	-1.9	0.0	0.0	26	16	7	3.1	3.1	30	0.0	2.4	0.0	13.7	11.1	2.4	0.0	17	22	0.0	17	69	8
2.5	1.00		25	5	34	0.9	0.0	0.0	25	7	3	3.1	3.1	18	0.0	-1.7	0.0	14.5	14.1	1.4	0.0	12	5	0.0	5	25	8
36	6.88		26	1	46	0.4	0.0	0.0	25	3	1	3.1	3.1	18	0.0	-2.1	-0.2	14.5	14.1	1.4	0.3	15	5	1.7	5	25	8
33	6.88		30	3	34	-2.2	0.0	0.0	26	18	8	3.1	3.1	18	0.0	-2.2	-0.2	14.5	14.1	1.4	0.3	16	12	1.7	10	87	8
2.5	1.00		25	5	34	-2.9	0.0	0.0	30	18	10	4.1	3.1	18	0.0	-2.3	-0.2	14.5	14.1	1.4	0.3	16	6	1.7	5	25	8
10	6.88		26	1	9	-2.9	0.0	0.0	30	18	10	4.1	3.1	9	0.0	3.3	0.0	14.5	14.1	1.4	0.0	24	9	0.0	5	25	8
17	6.88		30	3	12	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	3.0	0.0	13.7	11.1	2.4	0.0	21	27	0.0	17	385	8
2.5	1.00		25	5	18	-2.2	0.0	0.0	26	18	8	3.1	3.1	3	0.0	-3.0	0.0	14.5	14.1	1.4	0.0	21	8	0.0	5		

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t Alt	Sez Bas n c	C o m b	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														Staffe Pas Lun Fi		
					Co M (t°m)	Exd (t°m)	M Eyd (t°m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area sup inf cmq	Co V mb	V Exd (t)	V Eyd (t)	T Sdu (t°m)	V Rxd (t)	V Ryd (t)	TRd (t°m)	TRId (t°m)	Coe CIs	Coe Sta	ALon cmq						
2.5	1.00		45 5 31		-2.2	0.0	0.0	0.0	23	6	2	4.3	4.3	31	0.0	-3.3	0.0	26.1	27.2	3.0	0.0	12	9	0.0	10	45	8		
39	6.88		26 1 40		-3.7	0.0	0.0	0.0	33	17	10	5.8	4.1	40	0.0	4.7	0.0	14.5	14.1	1.4	0.0	33	12	0.0	5	25	8		
43	6.88		30 3 40		-2.7	0.0	0.0	0.0	29	17	9	4.1	3.1	40	0.0	4.4	0.0	13.7	11.1	2.4	0.0	31	40	0.0	17	69	8		
2.5	1.00		25 5 43		-1.6	0.0	0.0	0.0	26	13	5	3.1	3.1	36	0.0	-3.9	0.0	14.5	14.1	1.4	0.0	28	10	0.0	5	25	8		
43	6.88		27 1 25		-0.3	0.0	0.0	0.0	27	3	1	3.1	3.1	36	0.0	-5.6	0.1	11.8	11.8	1.1	0.2	48	15	1.6	5	23	8		
70	6.88		25 3 43		-2.4	0.0	0.0	0.0	31	15	9	4.1	3.1	0	0.0	0.0	0.0	21.0	21.0	3.5	0.0	0	0	0.0	9	0	8		
2.5	1.00		25 5 43		-2.4	0.0	0.0	0.0	31	15	9	4.1	3.1	36	0.0	-5.6	0.1	11.8	11.8	1.1	0.2	48	15	1.6	5	23	8		
68	6.88		26 1 41		0.9	0.0	0.0	0.0	25	7	3	3.1	3.1	25	0.0	-3.4	-0.4	14.5	14.1	1.4	0.4	24	9	2.7	5	25	8		
47	6.88		30 3 15		1.6	0.0	0.0	0.0	26	13	6	3.1	3.1	25	0.0	-3.4	-0.4	14.5	14.1	1.4	0.4	24	18	2.7	10	17	8		
2.5	1.00		25 5 15		1.7	0.0	0.0	0.0	26	14	6	3.1	3.1	25	0.0	-3.5	-0.4	14.5	14.1	1.4	0.4	25	9	2.7	5	25	8		
39	6.88		26 1 18		-2.0	0.0	0.0	0.0	26	17	7	3.1	3.1	34	0.0	1.4	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8		
68	6.88		30 3 18		-1.4	0.0	0.0	0.0	26	11	5	3.1	3.1	34	0.0	1.3	0.0	13.7	11.1	2.4	0.0	9	12	0.0	17	159	8		
2.5	1.00		25 5 41		0.9	0.0	0.0	0.0	25	7	3	3.1	3.1	34	0.0	1.0	0.0	14.5	14.1	1.4	0.0	7	3	0.0	5	25	8		
45	6.88		25 1 41		-7.1	0.0	0.0	0.0	27	17	7	5.3	3.5	41	0.0	-14.2	0.0	26.1	27.2	3.0	0.0	52	39	0.0	10	45	8		
46	6.88		30 3 41		-13.5	0.0	0.0	0.0	33	18	10	9.7	6.1	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
2.5	1.00		45 5 41		-13.5	0.0	0.0	0.0	33	18	10	9.7	6.1	41	0.0	-14.6	0.0	26.1	27.2	3.0	0.0	54	40	0.0	10	45	8		
34	6.88		42 1 11		-2.0	0.0	0.0	0.0	25	13	5	3.1	3.1	11	0.0	5.7	0.0	16.1	16.2	1.6	0.0	35	15	0.0	6	18	8		
44	6.88		28 3 11		-2.0	0.0	0.0	0.0	25	13	5	3.1	3.1	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8		
2.5	1.00		30 5 8		-0.4	0.0	0.0	0.0	24	3	1	3.1	3.1	11	0.0	5.7	0.0	16.1	16.2	1.6	0.0	35	15	0.0	6	18	8		
46	6.88		25 1 37		-19.7	0.0	0.0	0.0	36	18	12	14.2	10.8	37	0.0	15.3	0.0	26.1	27.2	3.0	0.0	56	42	0.0	10	45	8		
10	6.88		30 3 37		-10.1	0.0	0.0	0.0	18	53	13	6.8	5.9	37	0.0	14.8	0.0	11.7	18.3	4.3	0.0	54	81	0.0	20	181	8		
2.5	1.00		45 5 37		17.9	0.0	0.0	0.0	29	28	13	11.3	12.2	41	0.0	-13.2	0.0	26.1	27.2	3.0	0.0	48	36	0.0	10	45	8		
46	6.88		26 1 21		3.3	0.0	0.0	0.0	18	75	20	5.6	4.4	25	0.0	3.6	0.0	14.5	14.1	1.4	0.0	25	9	0.0	5	25	8		
47	6.88		30 3 21		3.3	0.0	0.0	0.0	18	75	20	5.6	4.4	25	0.0	3.5	0.0	13.7	11.1	2.4	0.0	25	32	0.0	17	2	8		
2.5	1.00		25 5 25		-2.4	0.0	0.0	0.0	17	70	17	3.1	3.1	25	0.0	3.5	0.0	14.5	14.1	1.4	0.0	25	9	0.0	5	25	8		
44	6.88		25 1 41		-2.5	0.0	0.0	0.0	23	7	2	4.3	4.3	37	0.0	9.1	0.0	26.1	27.2	3.0	0.0	33	25	0.0	10	45	8		
23	6.88		30 3 37		9.8	0.0	0.0	0.0	19	45	12	5.3	6.6	37	0.0	8.5	0.0	11.1	17.4	4.1	0.0	31	49	0.0	21	47	8		
2.5	1.00		45 5 37		10.7	0.0	0.0	0.0	17	72	16	5.7	7.1	37	0.0	8.1	0.0	26.1	27.2	3.0	0.0	29	22	0.0	10	45	8		
26	6.88		26 1 6		-2.0	0.0	0.0	0.0	26	16	7	3.1	3.1	1	0.0	2.7	0.0	14.5	14.1	1.4	0.0	19	7	0.0	5	25	8		
48	6.88		30 3 34		1.0	0.0	0.0	0.0	25	8	3	3.1	3.1	3	0.0	2.3	0.0	13.7	11.1	2.4	0.0	17	21	0.0	17	251	8		
2.5	1.00		25 5 34		0.7	0.0	0.0	0.0	25	5	2	3.1	3.1	1	0.0	-1.3	0.0	14.5	14.1	1.4	0.0	9	4	0.0	5	25	8		
22	6.88		25 1 34		-13.1	0.0	0.0	0.0	33	18	10	9.5	6.0	34	0.0	12.3	0.0	26.1	27.2	3.0	0.0	45	34	0.0	10	45	8		
25	6.88		30 3 34		8.3	0.0	0.0	0.0	27	18	7	5.3	5.7	34	0.0	11.6	0.0	11.1	17.4	4.1	0.0	43	67	0.0	21	166	8		
2.5	1.00		45 5 34		13.3	0.0	0.0	0.0	31	18	9	9.0	9.5	46	0.0	-10.2	0.0	26.1	27.2	3.0	0.0	37	28	0.0	10	45	8		
27	6.88		26 1 6		-3.0	0.0	0.0	0.0	30	19	10	4.1	3.1	6	0.0	3.3	0.0	14.5	14.1	1.4	0.0	23	9	0.0	5	25	8		
49	6.88		30 3 41		1.2	0.0	0.0	0.0	25	10	4	3.1	3.1	6	0.0	2.9	0.0	13.7	11.1	2.4	0.0	20	26	0.0	17	320	8		
2.5	1.00		25 5 31		0.6	0.0	0.0	0.0	25	5	2	3.1	3.1	12	0.0	-1.7	0.0	14.5	14.1	1.4	0.0	12	5	0.0	5	25	8		
48	6.88		26 1 46		-0.7	0.0	0.0	0.0	25	6	2	3.1	3.1	6	0.0	1.8	0.0	14.5	14.1	1.4	0.0	12	5	0.0	5	25	8		
27	6.88		30 3 46		1.0	0.0	0.0	0.0	25	8	3	3.1	3.1	12	0.0	-2.8	0.0	13.7	11.1	2.4	0.0	20	25	0.0	17	320	8		
2.5	1.00		25 5 34		-3.2	0.0	0.0	0.0	20	54	17	4.3	3.1	12	0.0	-3.2	0.0	14.5	14.1	1.4	0.0	23	9	0.0	5	25	8		
49	6.88		26 1 31		0.4	0.0	0.0	0.0	25	3	1	3.1	3.1	9	0.0	1.4	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8		
7	6.88		30 3 46		0.7	0.0	0.0	0.0	25	6	3	3.1	3.1	3	0.0	-2.3	0.0	13.7	11.1	2.4	0.0	16	21	0.0	17	251	8		
2.5	1.00		25 5 34		-2.2	0.0	0.0	0.0	26	18	8	3.1	3.1	3	0.0	-2.7	0.0	14.5	14.1	1.4	0.0	19	7	0.0	5	25	8		
22	6.88		39 1 6		-4.8	0.0	0.0	0.0	33	18	11	6.9	3.5	6	0.0	3.6	0.0	20.0	18.8	2.0	0.0	19	9	0.0	5	25	8		
48	6.88		40 3 6		-3.6	0.0	0.0	0.0	17	82	20	4.7	3.1	6	0.0	3.5	0.0	20.1	11.8	3.6	0.0	18	29	0.0	16	99	8		
2.5	1.00		25 5 6		0.1	0.0	0.0	0.0	23	1																			

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														
					Co mb	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi			
2.5	1.00		45	5	40	-8.0	0.0	0.0	27	18	8	5.6	4.3	40	0.0	-5.2	0.0	26.1	27.2	3.0	0.0	19	14	0.0	10	45	8
43	6.88		26	1	43	-1.5	0.0	0.0	26	12	5	3.1	3.1	43	0.0	1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
41	6.88		30	3	31	1.1	0.0	0.0	25	9	4	3.1	3.1	31	0.0	-1.9	0.0	13.7	11.1	2.4	0.0	13	17	0.0	17	207	8
2.5	1.00		25	5	15	-1.2	0.0	0.0	25	10	4	3.1	3.1	31	0.0	-2.1	0.0	14.5	14.1	1.4	0.0	15	6	0.0	5	25	8
52	6.88	1	26	1	21	0.3	0.0	0.0	25	2	1	3.1	3.1	3	0.0	1.4	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8
53	6.88	/	30	3	3	0.9	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	111	8
2.5	1.00	4	25	5	21	1.0	0.0	0.0	25	8	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
53	6.88	1	26	1	9	-1.2	0.0	0.0	25	10	4	3.1	3.1	3	0.0	1.9	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
54	6.88	/	30	3	9	-0.8	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	92	8
2.5	1.00	4	25	5	21	0.5	0.0	0.0	25	4	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
3	6.88	1	25	1	12	-8.0	0.0	0.0	28	18	8	5.5	3.1	3	0.0	5.7	-0.5	26.1	27.2	3.0	0.6	39	22	2.5	10	45	8
54	6.88	/	30	3	12	-8.0	0.0	0.0	28	18	8	5.5	3.1	3	0.0	5.5	-0.5	26.1	27.2	3.0	0.6	38	32	2.5	15	42	8
2.5	1.00	2	45	5	12	-5.7	0.0	0.0	24	17	6	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
1	6.88	1	25	1	3	-9.2	0.0	0.0	23	31	11	6.2	3.1	9	0.0	7.0	0.5	26.1	27.2	3.0	0.5	44	26	2.4	10	45	8
52	6.88	/	30	3	3	-9.2	0.0	0.0	23	31	11	6.2	3.1	9	0.0	6.8	0.5	26.1	27.2	3.0	0.5	43	38	2.4	15	42	8
2.5	1.00	2	45	5	12	-6.5	0.0	0.0	18	37	9	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
2	6.88	1	33	1	6	-6.4	0.0	0.0	33	47	33	14.0	7.0	6	0.0	8.6	0.0	18.3	15.9	1.6	0.0	54	20	0.0	3	18	8
53	6.88	/	50	3	6	-4.9	0.0	0.0	42	18	20	10.9	3.1	6	0.0	8.5	0.0	37.2	11.6	4.2	0.0	54	73	0.0	11	69	8
2.5	1.00	2	18	5	6	1.0	0.0	0.0	24	12	5	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8
11	6.88	1	25	1	3	-9.3	0.0	0.0	23	34	11	6.3	3.1	9	0.0	7.1	-0.6	26.1	27.2	3.0	0.6	45	26	2.6	10	45	8
55	6.88	/	30	3	3	-9.3	0.0	0.0	23	34	11	6.3	3.1	9	0.0	6.9	-0.6	26.1	27.2	3.0	0.6	44	38	2.6	15	42	8
2.5	1.00	2	45	5	6	-6.5	0.0	0.0	17	48	11	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
13	6.88	1	25	1	6	-8.4	0.0	0.0	28	18	8	5.7	3.1	3	0.0	6.4	0.5	26.1	27.2	3.0	0.6	41	24	2.8	10	45	8
57	6.88	/	30	3	6	-8.4	0.0	0.0	28	18	8	5.7	3.1	3	0.0	6.2	0.5	26.1	27.2	3.0	0.6	41	35	2.8	15	42	8
2.5	1.00	2	45	5	6	-5.9	0.0	0.0	24	17	6	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
12	6.88	1	33	1	12	-6.4	0.0	0.0	33	47	33	14.0	7.0	12	0.0	8.5	0.0	18.3	15.9	1.6	0.0	54	20	0.0	3	18	8
56	6.88	/	50	3	12	-4.9	0.0	0.0	42	18	20	10.9	3.1	12	0.0	8.5	0.0	37.2	11.6	4.2	0.0	53	73	0.0	11	69	8
2.5	1.00	2	18	5	12	1.0	0.0	0.0	24	12	5	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8
55	6.88	1	26	1	18	0.3	0.0	0.0	25	2	1	3.1	3.1	3	0.0	1.4	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8
56	6.88	/	30	3	18	0.9	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	111	8
2.5	1.00	4	25	5	18	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
56	6.88	1	26	1	9	-1.2	0.0	0.0	25	10	4	3.1	3.1	3	0.0	1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
57	6.88	/	30	3	9	-0.8	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	92	8
2.5	1.00	4	25	5	18	0.5	0.0	0.0	25	4	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
61	6.88		34	1	46	-4.0	0.0	0.0	23	8	2	4.8	4.8	46	0.0	4.8	0.0	28.2	30.9	3.2	0.0	15	11	0.0	11	60	8
62	6.88		25	3	46	-3.6	0.0	0.0	23	7	2	4.8	4.8	46	0.0	4.5	0.0	9.0	23.7	4.4	0.0	15	19	0.0	21	58	8
2.5	1.00		60	5	34	-3.9	0.0	0.0	23	7	2	4.8	4.8	34	0.0	-4.6	0.0	28.2	30.9	3.2	0.0	15	10	0.0	11	60	8
61	6.88		27	1	21	-4.3	0.0	0.0	34	18	12	6.4	6.4	21	0.0	3.0	0.0	11.8	11.8	1.1	0.0	26	8	0.0	5	15	8
69	6.88		25	3	21	-4.3	0.0	0.0	34	18	12	6.4	6.4	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8
2.5	1.00		25	5	21	-4.2	0.0	0.0	34	17	11	6.2	6.2	25	0.0	-3.0	0.0	11.8	11.8	1.1	0.0	26	8	0.0	5	15	8
70	6.88		27	1	36	-2.1	0.0	0.0	28	17	8	3.1	3.1	43	0.0	1.4	0.0	11.8	11.8	1.1	0.0	12	4	0.0	5	25	8
69	6.88		25	3	36	-1.5	0.0	0.0	27	12	6	3.1	3.1	43	0.0	1.4	0.0	11.1	11.1	1.9	0.0	12	12	0.0	17	128	8
2.5	1.00		25	5	43	0.2	0.0	0.0	27	1	1	3.1	3.1	43	0.0	1.2	0.0	11.8	11.8	1.1	0.0	10	3	0.0	5	25	8
69	6.88		27	1	21	-3.5	0.0	0.0	33	16	10	5.6	5.5	21	0.0	3.1	0.0	11.8	11.8	1.1	0.0	26	8	0.0	5	25	8
68	6.88		25	3	25	2.5	0.0	0.0	30	16	9	4.1	4.1	21	0.0	3.1	0.0	11.1	11.1	1.9	0.0	26	28	0.0	17	85	8
2.5	1.00		25	5	21	0.6	0.0	0.0	27	5	2	3.1	3.1	25	0.0	-3.1	0.0	11.8	11.8	1.1	0.0	26	8	0.0	5	25	8
62	6.88		27	1	36	-2.2	0.																				

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a l t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE															
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRld	Coe	Coe	ALon	Staffe				
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup	inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi
2.5	1.00	4	30	5	34	-0.2	0.0	0.0	26	1	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8	
61	10.13	1	27	1	21	-0.3	0.0	0.0	29	2	1	4.0	4.0	19	0.0	0.5	0.0	11.1	11.1	1.9	0.0	4	5	0.0	17	0	8	
64	10.13	/	25	3	21	-0.2	0.0	0.0	29	1	1	4.0	4.0	21	0.0	0.5	0.0	11.1	11.1	1.9	0.0	4	5	0.0	17	113	8	
2.5	1.00	2	25	5	21	0.2	0.0	0.0	29	1	1	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8	
64	10.13	1	27	1	41	-0.1	0.0	0.0	29	1	0	4.0	4.0	41	0.0	0.3	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	0	8	
63	10.13	/	25	3	41	-0.1	0.0	0.0	29	1	0	4.0	4.0	41	0.0	0.3	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	89	8	
2.5	1.00	2	25	5	37	-0.1	0.0	0.0	29	1	0	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8	
63	10.13	1	27	1	37	0.2	0.0	0.0	29	2	1	4.0	4.0	41	0.0	0.4	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	0	8	
62	10.13	/	25	3	37	-0.2	0.0	0.0	29	1	1	4.0	4.0	37	0.0	-0.6	0.0	11.1	11.1	1.9	0.0	5	5	0.0	17	113	8	
2.5	1.00	2	25	5	37	-0.3	0.0	0.0	29	2	1	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8	
1	10.13	1	25	1	25	-16.7	0.0	0.0	30	32	15	11.5	5.7	9	0.0	13.6	-0.5	26.1	27.2	3.0	0.5	67	44	2.2	10	45	8	
2	10.13	/	30	3	25	-16.7	0.0	0.0	30	32	15	11.5	5.7	25	0.0	12.9	-0.4	26.1	27.2	3.0	0.5	60	60	2.2	15	76	8	
2.5	1.00	4	45	5	21	8.2	0.0	0.0	26	18	7	5.3	5.6	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8	
8	10.13		48	1	30	-14.5	0.0	3.0	35	20	12	5.2	4.4	9	0.0	17.2	0.0	26.1	27.2	2.6	0.0	63	47	0.0	10	45	8	
9	10.13		30	3	3	10.1	0.0	-1.2	13	86	15	3.6	6.4	3	0.0	-17.1	0.0	12.3	19.2	4.0	0.0	63	89	0.0	19	394	8	
2.5	1.00		45	5	18	-22.3	0.0	-4.2	45	17	16	12.1	6.0	3	0.0	-22.1	0.0	26.1	27.2	2.6	0.0	81	61	0.0	10	64	8	
11	10.13	1	25	1	30	-17.6	0.0	0.0	28	38	17	12.0	6.0	9	0.0	13.9	0.5	26.1	27.2	3.0	0.5	68	46	2.2	10	45	8	
12	10.13	/	30	3	30	-17.6	0.0	0.0	38	18	13	13.0	5.8	30	0.0	13.4	0.4	26.1	27.2	3.0	0.5	62	62	2.2	15	76	8	
2.5	1.00	4	45	5	18	8.3	0.0	0.0	26	18	7	5.3	5.7	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8	
1	10.13		25	1	37	-17.8	0.0	0.0	28	32	14	12.1	8.8	37	0.0	8.9	0.0	26.1	27.2	3.0	0.0	33	24	0.0	10	45	8	
8	10.13		30	3	37	6.5	0.0	0.0	17	42	10	3.1	4.3	37	0.0	8.4	0.0	11.1	17.4	4.1	0.0	31	48	0.0	21	413	8	
2.5	1.00		45	5	41	-17.5	0.0	0.0	29	29	13	11.9	9.5	41	0.0	-8.6	0.0	26.1	27.2	3.0	0.0	31	23	0.0	10	45	8	
3	10.13		25	1	37	-9.4	0.0	0.0	22	31	10	6.4	5.9	41	0.0	-9.9	-0.7	26.1	27.2	3.0	0.8	36	27	3.8	10	45	8	
45	10.13		30	3	37	-9.4	0.0	0.0	22	31	10	6.4	5.9	41	0.0	-9.9	-0.7	15.6	24.4	5.7	0.8	37	41	3.8	15	2	8	
2.5	1.00		45	5	37	-5.5	0.0	0.0	23	16	5	4.3	4.3	41	0.0	-10.4	-0.7	26.1	27.2	3.0	0.8	38	29	3.8	10	45	8	
2	10.13	1	25	1	25	-16.8	0.0	0.0	30	32	15	11.6	6.2	25	0.0	14.6	-0.4	26.1	27.2	3.0	0.6	68	45	2.6	10	45	8	
3	10.13	/	30	3	25	-16.8	0.0	0.0	31	27	14	11.7	6.2	25	0.0	13.1	-0.4	26.1	27.2	3.0	0.6	62	61	2.6	15	57	8	
2.5	1.00	4	45	5	25	-9.2	0.0	0.0	25	24	9	6.2	5.3	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8	
9	10.13		48	1	30	-19.2	0.0	-3.5	43	17	15	10.1	5.0	9	0.0	17.2	0.0	26.1	27.2	2.6	0.0	63	47	0.0	10	45	8	
10	10.13		30	3	18	6.7	0.0	4.9	18	18	4	3.6	5.3	28	0.0	13.9	0.0	13.0	20.3	4.2	0.0	51	68	0.0	18	339	8	
2.5	1.00		45	5	18	-17.9	0.0	4.9	26	45	18	7.3	5.8	3	0.0	-16.7	0.0	26.1	27.2	2.6	0.0	61	46	0.0	10	45	8	
12	10.13	1	25	1	30	-18.9	0.0	0.0	38	18	13	13.7	6.9	30	0.0	15.8	0.4	26.1	27.2	3.0	0.6	73	48	2.6	10	45	8	
13	10.13	/	30	3	30	-18.9	0.0	0.0	39	18	13	13.8	6.6	30	0.0	14.3	0.4	26.1	27.2	3.0	0.6	67	66	2.6	15	57	8	
2.5	1.00	4	45	5	30	-10.5	0.0	0.0	17	67	15	7.0	5.6	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8	
8	10.13		25	1	37	-17.4	0.0	0.0	29	28	13	11.9	9.6	37	0.0	8.5	0.0	26.1	27.2	3.0	0.0	31	23	0.0	10	45	8	
11	10.13		30	3	41	6.5	0.0	0.0	17	50	11	3.1	4.3	41	0.0	-8.4	0.0	11.1	17.4	4.1	0.0	31	49	0.0	21	413	8	
2.5	1.00		45	5	41	-18.0	0.0	0.0	27	38	15	12.2	8.8	41	0.0	-8.9	0.0	26.1	27.2	3.0	0.0	33	24	0.0	10	45	8	
10	10.13		25	1	37	-9.7	0.0	0.0	20	34	9	6.5	8.7	41	0.0	-17.6	0.0	26.1	27.2	3.0	0.0	65	48	0.0	10	45	8	
30	10.13		30	3	41	-11.4	0.0	0.0	31	17	9	8.5	6.0	41	0.0	-17.9	0.0	11.7	18.3	4.3	0.0	66	98	0.0	15	49	8	
2.5	1.00		45	5	37	10.1	0.0	0.0	18	42	10	9.4	6.7	41	0.0	-18.7	0.0	26.1	27.2	3.0	0.0	69	51	0.0	10	45	8	
4	10.13		25	1	25	-11.4	0.0	0.0	32	17	9	8.5	5.4	25	0.0	10.8	0.0	26.1	27.2	3.0	0.0	40	30	0.0	10	45	8	
5	10.13		30	3	25	7.2	0.0	0.0	26	17	7	4.3	5.3	25	0.0	10.0	0.0	11.1	17.4	4.1	0.0	37	57	0.0	21	177	8	
2.5	1.00		45	5	25	11.0	0.0	0.0	30	17	8	8.2	8.3	21	0.0	-9.4	0.0	26.1	27.2	3.0	0.0	35	26	0.0	10	45	8	
14	10.13		39	1	25	-6.2	0.0	0.0	37	17	13	9.4	4.7	25	0.0	7.0	0.0	20.0	18.8	2.0	0.0	37	18	0.0	5	25	8	
15	10.13		40	3	21	2.4	0.0	0.0	19	35	10	3.1	3.2	25	0.0	6.3	0.0	20.1	11.8	3.6	0.0	33	53	0.0	16	227	8	
2.5	1.00		25	5	21																							

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE															
					Co mb	M (t*m)	Exd (t*m)	N (t)	x/ d	εf 100	εc 100	Area sup inf	cmq inf	Co mb	V (t)	Exd (t)	V (t)	T (t*m)	V (t)	Rxd (t)	V (t)	TRd (t*m)	TRld (t*m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi			
2.5	1.00		45	5	31	-9.6	0.0	0.0	21	40	11	6.4	4.3	31	0.0	-8.8	0.0	26.1	27.2	3.0	0.0	32	24	0.0	10	45	8			
5	10.13		25	1	21	9.7	0.0	0.0	20	32	9	8.6	6.5	25	0.0	10.7	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8			
6	10.13		30	3	21	6.1	0.0	0.0	23	18	6	4.3	4.3	25	0.0	9.8	0.0	11.1	17.4	4.1	0.0	36	57	0.0	21	158	8			
2.5	1.00		45	5	25	9.3	0.0	0.0	23	24	8	8.2	6.3	21	0.0	-10.5	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8			
6	10.13		25	1	46	-1.9	0.0	0.0	23	6	2	4.3	3.1	25	0.0	4.1	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8			
7	10.13		30	3	25	3.6	0.0	0.0	23	11	4	4.3	4.3	25	0.0	3.8	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	44	8			
2.5	1.00		45	5	25	3.8	0.0	0.0	23	11	4	4.3	4.3	25	0.0	3.5	0.0	26.1	27.2	3.0	0.0	13	10	0.0	10	45	8			
15	10.13		39	1	25	-5.5	0.0	0.0	32	23	13	7.6	3.8	25	0.0	6.8	0.0	20.0	18.8	2.0	0.0	36	18	0.0	5	25	8			
16	10.13		40	3	25	2.3	0.0	0.0	24	18	7	3.1	3.2	25	0.0	6.1	0.0	20.1	11.8	3.6	0.0	32	52	0.0	16	208	8			
2.5	1.00		25	5	21	-5.7	0.0	0.0	30	28	15	7.8	4.2	21	0.0	-6.6	0.0	20.0	18.8	2.0	0.0	35	17	0.0	5	25	8			
18	10.13		25	1	27	-11.5	0.0	0.0	32	18	9	8.5	4.3	27	0.0	12.1	0.0	26.1	27.2	3.0	0.0	45	33	0.0	10	45	8			
19	10.13		30	3	27	-5.4	0.0	0.0	23	16	5	4.3	4.3	27	0.0	10.2	0.0	11.1	17.4	4.1	0.0	38	59	0.0	21	158	8			
2.5	1.00		45	5	15	-8.5	0.0	0.0	27	18	8	5.8	5.3	15	0.0	-10.5	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8			
19	10.13		25	1	36	-11.7	0.0	0.0	32	18	9	8.7	5.6	36	0.0	9.0	0.0	26.1	27.2	3.0	0.0	33	25	0.0	10	45	8			
22	10.13		30	3	36	5.7	0.0	0.0	23	17	6	4.3	4.3	36	0.0	8.3	0.0	11.1	17.4	4.1	0.0	30	48	0.0	21	235	8			
2.5	1.00		45	5	36	9.8	0.0	0.0	19	37	10	8.6	6.6	40	0.0	-8.5	0.0	26.1	27.2	3.0	0.0	31	23	0.0	10	45	8			
19	10.13		25	1	27	-3.2	0.0	0.0	23	9	3	4.3	4.3	27	0.0	6.2	0.0	26.1	27.2	3.0	0.0	23	17	0.0	10	45	8			
27	10.13		30	3	15	-4.1	0.0	0.0	23	12	4	4.3	4.3	27	0.0	5.7	0.0	11.1	17.4	4.1	0.0	21	33	0.0	21	44	8			
2.5	1.00		45	5	15	-4.4	0.0	0.0	23	13	4	4.3	4.3	15	0.0	-5.3	0.0	26.1	27.2	3.0	0.0	20	15	0.0	10	45	8			
21	10.13		39	1	30	-5.0	0.0	0.0	33	18	11	7.1	3.5	30	0.0	6.4	0.0	20.0	18.8	2.0	0.0	34	17	0.0	5	25	8			
22	10.13		40	3	30	2.1	0.0	0.0	24	17	6	3.1	3.2	30	0.0	5.7	0.0	20.1	11.8	3.6	0.0	30	48	0.0	16	208	8			
2.5	1.00		25	5	18	-5.5	0.0	0.0	32	22	13	7.6	3.8	18	0.0	-6.4	0.0	20.0	18.8	2.0	0.0	34	17	0.0	5	25	8			
24	10.13		25	1	18	9.6	0.0	0.0	20	32	9	8.4	6.5	30	0.0	10.6	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8			
25	10.13		30	3	18	6.0	0.0	0.0	23	18	6	4.3	4.3	18	0.0	-9.8	0.0	11.1	17.4	4.1	0.0	36	56	0.0	21	158	8			
2.5	1.00		45	5	18	-11.2	0.0	0.0	31	17	9	8.4	6.2	18	0.0	-10.7	0.0	26.1	27.2	3.0	0.0	39	29	0.0	10	45	8			
25	10.13		25	1	46	-2.0	0.0	0.0	24	6	2	4.3	3.1	30	0.0	4.7	0.0	26.1	27.2	3.0	0.0	17	13	0.0	10	45	8			
26	10.13		30	3	30	3.6	0.0	0.0	23	11	4	4.3	4.3	30	0.0	4.4	0.0	11.1	17.4	4.1	0.0	16	25	0.0	21	44	8			
2.5	1.00		45	5	30	3.8	0.0	0.0	23	11	4	4.3	4.3	30	0.0	4.2	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8			
14	10.13		25	1	36	-6.5	0.0	0.0	17	40	9	4.3	4.3	36	0.0	3.0	0.0	26.1	27.2	3.0	0.0	11	8	0.0	10	45	8			
50	10.13		30	3	36	-5.7	0.0	0.0	23	17	6	4.3	4.3	36	0.0	2.8	0.0	11.1	17.4	4.1	0.0	10	16	0.0	21	97	8			
2.5	1.00		45	5	36	-2.6	0.0	0.0	23	8	3	4.3	4.3	40	0.0	-2.5	0.0	26.1	27.2	3.0	0.0	9	7	0.0	10	45	8			
17	10.13		25	1	20	-5.5	0.0	0.0	23	16	6	4.3	4.3	20	0.0	6.1	0.0	26.1	27.2	3.0	0.0	22	17	0.0	10	45	8			
51	10.13		30	3	20	-4.7	0.0	0.0	23	14	5	4.3	4.3	20	0.0	5.5	0.0	11.1	17.4	4.1	0.0	20	32	0.0	21	60	8			
2.5	1.00		45	5	36	2.4	0.0	0.0	23	7	2	4.3	4.3	20	0.0	4.9	0.0	26.1	27.2	3.0	0.0	18	14	0.0	10	45	8			
20	10.13		25	1	37	-9.7	0.0	0.0	20	40	11	6.5	5.3	37	0.0	7.3	0.0	26.1	27.2	3.0	0.0	27	20	0.0	10	45	8			
44	10.13		30	3	37	-9.7	0.0	0.0	20	40	11	6.5	5.3	37	0.0	6.8	0.0	11.1	17.4	4.1	0.0	25	39	0.0	21	28	8			
2.5	1.00		45	5	37	-4.7	0.0	0.0	23	14	5	4.3	4.3	37	0.0	6.5	0.0	26.1	27.2	3.0	0.0	24	18	0.0	10	45	8			
16	10.13		25	1	40	9.6	0.0	0.0	21	31	9	8.4	6.5	36	0.0	8.2	0.0	26.1	27.2	3.0	0.0	30	23	0.0	10	45	8			
19	10.13		30	3	40	5.7	0.0	0.0	23	17	6	4.3	4.3	40	0.0	-8.2	0.0	11.1	17.4	4.1	0.0	30	47	0.0	21	235	8			
2.5	1.00		45	5	40	-11.3	0.0	0.0	32	17	9	8.4	5.3	40	0.0	-8.8	0.0	26.1	27.2	3.0	0.0	32	24	0.0	10	45	8			
30	10.13		25	1	37	-13.5	0.0	0.0	33	18	10	9.7	6.1	37	0.0	9.4	0.0	26.1	27.2	3.0	0.0	35	26	0.0	10	45	8			
35	10.13		30	3	37	-7.4	0.0	0.0	26	18	7	5.3	4.3	37	0.0	8.9	0.0	11.1	17.4	4.1	0.0	33	51	0.0	21	197	8			
2.5	1.00		45	5	41	-9.7	0.0	0.0	20	38	10	6.5	6.1	41	0.0	-8.0	0.0	26.1	27.2	3.0	0.0	29	22	0.0	10	45	8			
30	10.13		26	1	30	-4.5	0.0	0.0	36	18	13	6.6	3.3	12	0.0	5.3	0.0	14.5	14.1	1.4	0.0	37	14	0.0	5	25	8			
38	10.13		30	3	30	-3.7	0.0	0.0	34	17	11	5.8	3.1	30	0.0	4.6	0.0	13.7	11.1	2.4	0.0	32	41	0.0	17	54	8			
2.5	1.00		25	5	18	1.9	0.0	0.0	26	15	6	3.1	3.1	30	0.0	3.6	0.0	14.5	14.1	1.4	0									

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra a C	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE															
					Co mb	M Exd (t* m)	M Eyd (t* m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area sup cmq	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t* m)	V Rxd (t)	V Ryd (t)	TRd (t* m)	TRLd (t* m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi				
2.5	1.00		25	5	18	-4.5	0.0	0.0	0.0	36	18	13	6.7	3.3	3	0.0	-5.8	0.0	14.5	14.1	1.4	0.0	41	15	0.0	5	25	8
37	10.13		26	1	18	0.5	0.0	0.0	0.0	25	4	2	3.1	3.1	20	0.0	-1.4	-0.3	14.5	14.1	1.4	0.3	10	4	1.7	5	17	8
36	10.13		30	3	18	0.5	0.0	0.0	0.0	25	4	2	3.1	3.1	0	0.0	0.0	0.0	23.3	18.9	4.0	0.0	0	0	0.0	10	0	8
2.5	1.00		25	5	3	0.3	0.0	0.0	0.0	25	2	1	3.1	3.1	20	0.0	-1.4	-0.3	14.5	14.1	1.4	0.3	10	4	1.7	5	17	8
35	10.13		25	1	37	10.2	0.0	0.0	0.0	18	47	11	8.9	6.8	30	0.0	-2.8	2.2	17.7	27.8	6.5	2.2	9	10	9.8	10	14	8
13	10.13		30	3	37	10.2	0.0	0.0	0.0	18	47	11	8.9	6.8	0	0.0	0.0	0.0	11.8	18.5	4.3	0.0	0	0	0.0	15	0	8
1.89	1.00		45	5	37	10.2	0.0	0.0	0.0	18	47	11	8.9	6.8	30	0.0	-2.9	2.2	17.7	27.8	6.5	2.2	10	11	9.8	10	14	8
61	10.13		34	1	37	-3.2	0.0	0.0	0.0	23	6	2	4.8	4.8	37	0.0	3.7	0.0	28.2	30.9	3.2	0.0	12	8	0.0	11	60	8
62	10.13		25	3	37	-2.8	0.0	0.0	0.0	23	5	2	4.8	4.8	37	0.0	3.4	0.0	9.0	23.7	4.4	0.0	11	15	0.0	21	58	8
2.5	1.00		60	5	41	-2.9	0.0	0.0	0.0	23	6	2	4.8	4.8	41	0.0	-3.6	0.0	28.2	30.9	3.2	0.0	12	8	0.0	11	60	8
41	10.13		25	1	31	2.8	0.0	0.0	0.0	23	8	3	4.3	4.3	40	0.0	-2.4	0.0	26.1	27.2	3.0	0.0	9	7	0.0	10	45	8
14	10.13		30	3	31	2.2	0.0	0.0	0.0	23	6	2	4.3	4.3	40	0.0	-2.8	0.0	11.1	17.4	4.1	0.0	10	16	0.0	21	105	8
2.5	1.00		45	5	40	-2.4	0.0	0.0	0.0	23	7	2	4.3	4.3	40	0.0	-2.9	0.0	26.1	27.2	3.0	0.0	11	8	0.0	10	45	8
39	10.13		26	1	40	-2.3	0.0	0.0	0.0	20	39	11	3.1	3.1	31	0.0	3.2	0.0	14.5	14.1	1.4	0.0	23	9	0.0	5	25	8
43	10.13		30	3	40	-1.6	0.0	0.0	0.0	26	13	6	3.1	3.1	31	0.0	3.0	0.0	13.7	11.1	2.4	0.0	21	27	0.0	17	69	8
2.5	1.00		25	5	43	-1.4	0.0	0.0	0.0	26	11	5	3.1	3.1	43	0.0	-2.8	0.0	14.5	14.1	1.4	0.0	20	7	0.0	5	25	8
43	10.13		27	1	27	-0.8	0.0	0.0	0.0	27	7	3	3.1	3.1	27	0.0	-3.6	-0.1	11.8	11.8	1.1	0.2	30	9	1.2	5	23	8
70	10.13		25	3	43	-2.1	0.0	0.0	0.0	28	17	8	3.1	3.1	0	0.0	0.0	0.0	21.0	21.0	3.5	0.0	0	0	0.0	9	0	8
2.5	1.00		25	5	43	-2.1	0.0	0.0	0.0	28	17	8	3.1	3.1	27	0.0	-3.7	-0.1	11.8	11.8	1.1	0.2	32	10	1.2	5	23	8
42	10.13		27	1	25	1.3	0.0	0.0	0.0	27	10	5	3.1	3.1	21	0.0	2.7	0.0	11.8	11.8	1.1	0.0	23	7	0.0	5	25	8
45	10.13		25	3	21	1.1	0.0	0.0	0.0	27	9	4	3.1	3.1	25	0.0	-2.6	0.0	11.1	11.1	1.9	0.0	22	23	0.0	17	69	8
2.5	1.00		25	5	25	-1.7	0.0	0.0	0.0	28	13	6	3.1	3.1	25	0.0	-2.7	0.0	11.8	11.8	1.1	0.0	23	7	0.0	5	25	8
39	10.13		26	1	18	-2.3	0.0	0.0	0.0	24	22	9	3.1	3.1	3	0.0	2.3	0.0	14.5	14.1	1.4	0.0	16	6	0.0	5	25	8
47	10.13		30	3	18	-0.7	0.0	0.0	0.0	25	6	2	3.1	3.1	3	0.0	2.0	0.0	13.7	11.1	2.4	0.0	14	18	0.0	17	227	8
2.5	1.00		25	5	15	1.2	0.0	0.0	0.0	25	10	4	3.1	3.1	27	0.0	-1.5	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8
45	10.13		25	1	41	-5.8	0.0	0.0	0.0	23	17	6	4.3	4.3	41	0.0	-12.4	0.6	26.1	27.2	3.0	0.9	46	34	3.9	10	45	8
46	10.13		30	3	41	-11.6	0.0	0.0	0.0	32	18	10	8.6	4.3	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
2.5	1.00		45	5	41	-11.6	0.0	0.0	0.0	32	18	10	8.6	4.3	41	0.0	-12.9	0.6	26.1	27.2	3.0	0.9	48	35	3.9	10	45	8
34	10.13		42	1	11	-2.2	0.0	0.0	0.0	25	14	6	3.1	3.1	11	0.0	6.3	0.0	16.1	16.2	1.6	0.0	39	16	0.0	6	18	8
44	10.13		28	3	11	-2.2	0.0	0.0	0.0	25	14	6	3.1	3.1	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8
2.5	1.00		30	5	8	-0.6	0.0	0.0	0.0	24	4	1	3.1	3.1	11	0.0	6.3	0.0	16.1	16.2	1.6	0.0	39	16	0.0	6	18	8
46	10.13		25	1	37	-18.1	0.0	0.0	0.0	26	37	15	12.3	9.8	37	0.0	14.2	0.0	26.1	27.2	3.0	0.0	52	39	0.0	10	45	8
10	10.13		30	3	37	-9.2	0.0	0.0	0.0	24	25	9	6.2	5.4	37	0.0	13.7	0.0	11.1	17.4	4.1	0.0	50	79	0.0	21	181	8
2.5	1.00		45	5	37	16.6	0.0	0.0	0.0	31	22	11	10.4	11.4	41	0.0	-12.0	0.0	26.1	27.2	3.0	0.0	44	33	0.0	10	45	8
46	10.13		26	1	27	-2.0	0.0	0.0	0.0	26	16	7	3.1	3.1	27	0.0	1.8	0.3	14.5	14.1	1.4	0.3	13	5	2.0	5	25	8
47	10.13		30	3	27	-2.0	0.0	0.0	0.0	26	16	7	3.1	3.1	27	0.0	1.6	0.3	14.5	14.1	1.4	0.3	12	9	2.0	10	2	8
2.5	1.00		25	5	27	-1.5	0.0	0.0	0.0	26	12	5	3.1	3.1	27	0.0	1.6	0.3	14.5	14.1	1.4	0.3	12	4	2.0	5	25	8
44	10.13		25	1	11	-2.1	0.0	0.0	0.0	23	6	2	4.3	4.3	37	0.0	8.4	0.0	26.1	27.2	3.0	0.0	31	23	0.0	10	45	8
23	10.13		30	3	37	7.9	0.0	0.0	0.0	27	18	7	4.3	5.5	37	0.0	7.9	0.0	11.1	17.4	4.1	0.0	29	45	0.0	21	47	8
2.5	1.00		45	5	37	8.7	0.0	0.0	0.0	28	19	8	4.3	5.9	37	0.0	7.4	0.0	26.1	27.2	3.0	0.0	27	20	0.0	10	45	8
26	10.13		26	1	46	-2.5	0.0	0.0	0.0	29	15	8	4.1	3.1	3	0.0	2.8	0.0	14.5	14.1	1.4	0.0	20	7	0.0	5	25	8
48	10.13		30	3	34	1.1	0.0	0.0	0.0	25	9	4	3.1	3.1	3	0.0	2.4	0.0	13.7	11.1	2.4	0.0	17	22	0.0	17	251	8
2.5	1.00		25	5	18	0.6	0.0	0.0	0.0	25	5	2	3.1	3.1	9	0.0	-1.3	0.0	14.5	14.1	1.4	0.0	9	3	0.0	5	25	8
22	10.13		25	1	34	-11.0	0.0	0.0	0.0	31	17	9	8.3	5.3	34	0.0	10.2	0.0	26.1	27.2	3.0	0.0	37	28	0.0	10	45	8
25	10.13		30	3	34	6.7	0.0	0.0	0.0	26	16																	

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a Bas n Alt	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE												Staffe Pas Lun Fi		
					Co mb	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe Cls	Coe Sta	ALon cmq				
2.5	1.00		25	5	12	0.1	0.0	0.0	23	1	0	3.1	3.2	9	0.0	3.1	0.0	20.0	18.8	2.0	0.0	16	8	0.0	5	25	8
39	10.13		1	1	43	-3.8	0.0	0.0	29	18	9	4.3	3.1	27	0.0	4.3	0.0	17.4	17.4	1.8	0.0	25	11	0.0	6	30	8
50	10.13		30	3	43	-3.1	0.0	0.0	28	15	7	4.1	3.1	27	0.0	4.0	0.0	11.1	11.1	2.5	0.0	23	36	0.0	21	52	8
2.5	1.00		30	5	27	0.4	0.0	0.0	23	3	1	3.1	3.1	27	0.0	3.5	0.0	17.4	17.4	1.8	0.0	20	9	0.0	6	30	8
50	10.13		25	1	43	-1.8	0.0	0.0	23	5	2	4.3	4.3	43	0.0	4.8	0.0	26.1	27.2	3.0	0.0	17	13	0.0	10	45	8
17	10.13		30	3	31	-4.5	0.0	0.0	23	13	4	4.3	4.3	31	0.0	-4.4	0.0	11.1	17.4	4.1	0.0	16	25	0.0	21	78	8
2.5	1.00		45	5	31	-5.4	0.0	0.0	23	16	5	4.3	4.3	31	0.0	-4.9	0.0	26.1	27.2	3.0	0.0	18	14	0.0	10	45	8
32	10.13		26	1	24	-4.2	0.0	0.0	35	17	12	6.3	3.2	24	0.0	5.0	0.0	14.5	14.1	1.4	0.0	35	13	0.0	5	25	8
51	10.13		30	3	24	-2.6	0.0	0.0	29	16	8	4.1	3.1	24	0.0	4.3	0.0	13.7	11.1	2.4	0.0	31	39	0.0	17	107	8
2.5	1.00		25	5	24	0.6	0.0	0.0	25	5	2	3.1	3.1	20	0.0	-2.8	0.0	14.5	14.1	1.4	0.0	20	7	0.0	5	25	8
51	10.13		25	1	36	3.7	0.0	0.0	23	11	4	4.3	4.3	40	0.0	-3.6	0.0	26.1	27.2	3.0	0.0	13	10	0.0	10	45	8
20	10.13		30	3	40	-7.0	0.0	0.0	26	17	7	5.3	4.3	40	0.0	-4.7	0.0	11.1	17.4	4.1	0.0	17	27	0.0	21	105	8
2.5	1.00		45	5	40	-8.5	0.0	0.0	28	18	8	5.8	4.3	40	0.0	-5.3	0.0	26.1	27.2	3.0	0.0	19	14	0.0	10	45	8
43	10.13		26	1	43	-1.4	0.0	0.0	26	11	5	3.1	3.1	43	0.0	1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
41	10.13		30	3	31	1.0	0.0	0.0	25	8	3	3.1	3.1	31	0.0	-1.8	0.0	13.7	11.1	2.4	0.0	12	16	0.0	17	207	8
2.5	1.00		25	5	15	-1.3	0.0	0.0	25	10	4	3.1	3.1	31	0.0	-2.0	0.0	14.5	14.1	1.4	0.0	14	5	0.0	5	25	8
12	10.13		8	1	41	-5.0	0.1	1.1	30	19	10	7.0	4.6	41	0.0	2.4	0.0	25.4	23.5	2.6	0.0	10	6	0.0	5	25	8
9	10.13		50	3	41	-1.3	0.0	1.1	21	8	3	4.0	4.0	41	0.0	2.3	0.0	31.5	14.6	5.8	0.0	10	16	0.0	13	463	8
2.5	1.00		25	5	37	-3.9	0.1	-1.1	19	44	12	5.0	5.0	37	0.0	-2.0	0.0	25.4	23.5	2.6	0.0	9	5	0.0	5	25	8
52	10.13	1	26	1	21	0.3	0.0	0.0	25	2	1	3.1	3.1	3	0.0	1.4	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8
53	10.13	/	30	3	3	0.9	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.2	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	111	8
2.5	1.00	4	25	5	21	1.0	0.0	0.0	25	8	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
53	10.13	1	26	1	9	-1.1	0.0	0.0	25	9	4	3.1	3.1	3	0.0	1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8
54	10.13	/	30	3	9	-0.7	0.0	0.0	25	6	2	3.1	3.1	3	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	13	0.0	17	92	8
2.5	1.00	4	25	5	21	0.4	0.0	0.0	25	3	1	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
3	10.13	1	25	1	12	-8.2	0.0	0.0	28	18	8	5.7	3.1	3	0.0	5.9	-0.6	26.1	27.2	3.0	0.6	40	23	2.5	10	45	8
54	10.13	/	30	3	12	-8.2	0.0	0.0	28	18	8	5.7	3.1	3	0.0	5.7	-0.6	26.1	27.2	3.0	0.6	40	33	2.5	15	42	8
2.5	1.00	2	45	5	12	-5.9	0.0	0.0	24	17	6	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
1	10.13	1	25	1	3	-9.4	0.0	0.0	21	39	12	6.4	3.2	9	0.0	7.2	0.6	26.1	27.2	3.0	0.6	45	26	2.5	10	45	8
52	10.13	/	30	3	3	-9.4	0.0	0.0	21	40	12	6.4	3.1	9	0.0	7.0	0.6	26.1	27.2	3.0	0.6	44	39	2.5	15	42	8
2.5	1.00	2	45	5	3	-6.6	0.0	0.0	27	16	7	5.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
2	10.13	1	33	1	6	-6.1	0.0	0.0	43	19	21	13.7	6.8	6	0.0	8.3	0.0	18.3	15.9	1.6	0.0	52	19	0.0	3	18	8
53	10.13	/	50	3	6	-4.7	0.0	0.0	41	18	19	10.6	3.1	6	0.0	8.2	0.0	37.2	11.6	4.2	0.0	52	71	0.0	11	69	8
2.5	1.00	2	18	5	9	0.9	0.0	0.0	24	11	5	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8
11	10.13	1	25	1	3	-9.5	0.0	0.0	21	42	12	6.4	3.2	9	0.0	7.2	-0.6	26.1	27.2	3.0	0.6	46	26	2.5	10	45	8
55	10.13	/	30	3	3	-9.5	0.0	0.0	21	43	12	6.4	3.1	9	0.0	7.0	-0.6	26.1	27.2	3.0	0.6	45	39	2.5	15	42	8
2.5	1.00	2	45	5	3	-6.7	0.0	0.0	27	16	7	5.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
13	10.13	1	25	1	6	-8.6	0.0	0.0	29	19	8	5.9	3.1	3	0.0	6.5	0.6	26.1	27.2	3.0	0.6	43	25	2.6	10	45	8
57	10.13	/	30	3	6	-8.6	0.0	0.0	29	19	8	5.9	3.1	3	0.0	6.3	0.6	26.1	27.2	3.0	0.6	42	36	2.6	15	42	8
2.5	1.00	2	45	5	6	-6.1	0.0	0.0	24	18	6	4.3	3.1	0	0.0	0.0	0.0	15.6	24.4	5.7	0.0	0	0	0.0	15	0	8
12	10.13	1	33	1	12	-6.1	0.0	0.0	43	19	21	13.7	6.8	12	0.0	8.2	0.0	18.3	15.9	1.6	0.0	52	19	0.0	3	18	8
56	10.13	/	50	3	12	-4.7	0.0	0.0	41	18	19	10.6	3.1	12	0.0	8.2	0.0	37.2	11.6	4.2	0.0	51	70	0.0	11	69	8
2.5	1.00	2	18	5	12	0.9	0.0	0.0	24	11	5	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8
55	10.13	1	26	1	18	0.3	0.0	0.0	25	2	1	3.1	3.1	3	0.0	1.4	0.0	14.5	14.1	1.4	0.0	10	4	0.0	5	25	8
56	10.13	/	30	3	3	0.9	0.0	0.0	25	7	3	3.1	3.1	3	0.0	1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	111	8
2.5	1.00	4	25	5	18	1.0	0.0	0.0	25	8	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
56																											



**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe			
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRLd	Coe	Coe	ALon	Staffe	Pas	Lun	Fi		
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq						
2.5	1.00	25	5	36	-1.3	0.0	0.0	0.0	27	11	5	3.1	3.1	43	0.0	6.9	-0.2	11.8	11.8	1.1	0.3	59	18	1.9	5	15	8		
9	10.13	8	1	41	-3.8	0.0	-1.1	23	27	10	5.0	5.0	41	0.0	2.0	0.0	25.4	23.5	2.6	0.0	8	5	0.0	5	25	8			
2	10.13	50	3	37	-1.3	0.0	1.1	21	9	3	4.0	4.0	37	0.0	-2.3	0.0	31.5	14.6	5.8	0.0	10	16	0.0	13	463	8			
2.5	1.00	25	5	37	-5.1	0.0	1.1	28	21	11	7.0	4.6	37	0.0	-2.4	0.0	25.4	23.5	2.6	0.0	10	6	0.0	5	25	8			
61	13.88	1	27	1	21	-0.8	0.0	0.0	29	5	3	4.0	4.0	21	0.0	1.2	0.0	11.1	11.1	1.9	0.0	10	11	0.0	17	0	8		
64	13.88	/	25	3	21	-0.5	0.0	0.0	29	3	2	4.0	4.0	21	0.0	1.2	0.0	11.1	11.1	1.9	0.0	10	11	0.0	17	113	8		
2.5	1.00	2	25	5	21	0.5	0.0	0.0	29	3	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
63	13.88	1	27	1	43	0.6	0.0	0.0	29	4	2	4.0	4.0	43	0.0	-1.0	0.0	11.1	11.1	1.9	0.0	9	9	0.0	17	0	8		
62	13.88	/	25	3	43	0.4	0.0	0.0	29	3	1	4.0	4.0	43	0.0	-1.2	0.0	11.1	11.1	1.9	0.0	10	11	0.0	17	113	8		
2.5	1.00	2	25	5	43	-0.6	0.0	0.0	29	4	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
64	13.88	1	27	1	31	-0.1	0.0	0.0	29	1	0	4.0	4.0	15	0.0	0.3	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	0	8		
63	13.88	/	25	3	31	-0.1	0.0	0.0	29	1	0	4.0	4.0	15	0.0	0.3	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	89	8		
2.5	1.00	2	25	5	25	-0.1	0.0	0.0	29	1	0	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
31	13.28	42	1	12	-0.3	0.0	0.3	23	2	1	4.0	4.0	3	0.1	0.6	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	0	8			
126	13.28	28	3	12	0.2	-0.1	0.3	22	1	0	4.0	4.0	1	0.1	0.6	0.0	10.3	11.1	2.2	0.0	4	5	0.0	21	119	8			
2.5	1.00	30	5	12	0.3	-0.1	0.3	23	1	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
126	13.28	42	1	3	-0.5	0.0	1.2	20	3	1	4.0	4.0	1	-0.1	0.9	0.0	10.3	11.1	2.2	0.0	6	8	0.0	21	0	8			
32	13.28	28	3	3	-0.3	0.0	1.2	18	2	1	4.0	4.0	1	-0.1	0.9	0.0	10.3	11.1	2.2	0.0	6	8	0.0	21	119	8			
2.5	1.00	30	5	12	0.4	0.1	1.2	18	3	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
33	13.28	42	1	7	0.6	-0.2	-0.7	30	3	1	4.0	4.0	7	-0.3	-1.1	0.0	10.3	11.1	2.2	0.0	9	10	0.0	21	0	8			
28	13.28	28	3	7	0.6	-0.2	-0.7	30	3	1	4.0	4.0	10	-0.2	-1.3	0.0	10.3	11.1	2.2	0.0	10	12	0.0	21	77	8			
2.5	1.00	30	5	10	-0.3	0.1	-0.6	31	1	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
28	13.28	42	1	9	0.2	0.0	0.8	15	1	0	4.0	4.0	9	0.0	-0.4	0.0	10.3	11.1	2.2	0.0	2	3	0.0	21	0	8			
29	13.28	28	3	9	-0.2	0.0	0.8	17	1	0	4.0	4.0	9	0.0	-0.6	0.0	10.3	11.1	2.2	0.0	4	5	0.0	21	77	8			
2.5	1.00	30	5	9	-0.2	0.0	0.8	17	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
29	13.28	42	1	9	0.2	0.0	1.2	10	2	0	4.0	4.0	9	0.0	-0.5	0.0	10.3	11.1	2.2	0.0	3	4	0.0	21	0	8			
40	13.28	28	3	10	-0.3	0.0	1.2	16	2	0	4.0	4.0	9	0.0	-0.7	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	77	8			
2.5	1.00	30	5	10	-0.3	0.0	1.2	16	2	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
40	13.28	42	1	4	0.2	0.0	3.2	0	3	1	4.0	4.0	10	0.1	-1.2	0.0	10.3	11.1	2.2	0.0	8	10	0.0	21	0	8			
34	13.28	28	3	10	-0.7	-0.1	3.2	17	6	1	4.0	4.0	10	0.1	-1.4	0.0	10.3	11.1	2.2	0.0	9	12	0.0	21	77	8			
2.5	1.00	30	5	10	-0.7	-0.1	3.2	17	6	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
17	13.88	25	1	13	1.5	0.0	0.0	23	4	1	4.3	4.3	25	0.0	4.3	0.0	26.1	27.2	3.0	0.0	16	12	0.0	10	45	8			
18	13.88	30	3	21	-3.4	0.0	0.0	23	10	3	4.3	4.3	21	0.0	-4.7	0.0	11.1	17.4	4.1	0.0	17	27	0.0	21	177	8			
2.5	1.00	45	5	21	-6.4	0.0	0.0	20	26	7	4.3	4.3	4	0.0	-6.4	0.0	26.1	27.2	3.0	0.0	23	17	0.0	10	45	8			
18	13.88	25	1	25	-6.2	0.0	0.0	23	18	6	4.3	4.3	25	0.0	6.8	0.0	26.1	27.2	3.0	0.0	25	19	0.0	10	45	8			
19	13.88	30	3	25	-2.8	0.0	0.0	23	8	3	4.3	4.3	25	0.0	5.6	0.0	11.1	17.4	4.1	0.0	21	32	0.0	21	158	8			
2.5	1.00	45	5	21	-4.5	0.0	0.0	23	13	4	4.3	4.3	21	0.0	-5.7	0.0	26.1	27.2	3.0	0.0	21	16	0.0	10	45	8			
19	13.88	25	1	18	-1.9	0.0	0.0	23	5	2	4.3	4.3	6	0.0	3.4	0.0	26.1	27.2	3.0	0.0	12	9	0.0	10	45	8			
27	13.88	30	3	18	-1.7	0.0	0.0	23	5	2	4.3	4.3	34	0.0	2.1	0.0	11.1	17.4	4.1	0.0	8	12	0.0	21	44	8			
2.5	1.00	45	5	25	1.4	0.0	0.0	23	4	1	4.3	4.3	46	0.0	-2.6	0.0	26.1	27.2	3.0	0.0	9	7	0.0	10	45	8			
24	11.34	26	1	24	-1.7	-0.5	-2.5	29	12	6	3.1	3.1	24	-0.7	2.1	0.0	14.5	14.1	1.4	0.0	20	6	0.0	5	25	8			
25	11.34	30	3	36	0.7	0.3	-1.4	30	4	2	3.1	3.1	20	0.8	-2.0	0.0	14.5	14.1	1.4	0.0	19	18	0.0	17	198	8			
2.5	1.00	25	5	20	-1.6	-1.4	0.7	25	14	6	3.1	3.1	20	0.8	-2.3	0.0	14.5	14.1	1.4	0.0	21	6	0.0	5	25	8			
25	11.34	26	1	36	-1.1	-1.1	-0.5	26	9	4	3.1	3.1	43	-1.9	2.1	0.0	14.5	14.1	1.4	0.0	28	6	0.0	5	25	8			
26	11.34	30	3	36	-0.6	-0.8	-0.5	27	5	2	3.1	3.1	43	-1.9	1.9	0.0	14.5	14.1	1.4	0.0	26	17	0.0	17	84	8			
2.5	1.00	25	5	43	0.9	1.0	-0.9	28	7	3	3.1	3.1	43	-1.9	1.0	0.0	14.5	14.1	1.4	0.0	20	4	0.0	5	25	8			
5	11.34	26	1	27	-2.1	0.6	-3.6	30	14	8	3.1	3.1	27	1.0	2.4	0.0	14.5	14.1	1.4	0.0	24	6	0.0	5	25	8			
6	11.34	30	3	43	0.6	-1.0	-0.3	26	5	2	3.1	3.1	15	-1.1	-2.2	0.0	14.5	14.1	1.4	0.0	23	20	0.0	17	198	8			
2.5	1.00	25	5	15	-1.9	2.1	1.5	24	17	6	3.1	3.1	15	-1.1	-2.5	0.0	14.5	14.1	1.4	0.0	25	7	0.0	5	25	8			
6	11.34	26	1	40	-1.1	1.9	-1.0	28	8	4	3.1	3.1	25	2.9	2.1	0.0	14.5	14.1	1.4	0.0	35	6	0.0	5	25	8			
7	11.34	30	3	40	-0.5	1.4	-1.0	29	4	2	3.1	3.1	25	2.9	1.8	0.0	14.5	14.1	1.4	0.0	33	21	0.0	17	84	8			
2.5	1.00	25	5	41	1.1	-1.4	-1.3	28	8	4	3.1	3.1	25	2.9	0.9	0.0	14.5	14.1	1.4	0.0	26	6	0.0	5	25	8			
23	11.34	25	1	14	3.7	0.5	10.3	13	16	3	4.3	4.3	14	0.4	-2.0	0.0	26.1	27.2	3.0	0.0	9	6	0.0	10	45	8			
20	12.50	30	3	14	2.4	0.1																							

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra a t	Sez Bas n	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE																			
					Co	M	Exd	M	Eyd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Staffe	
					mb	(t*m)	(t*m)	(t)	(t)	(t)	/d	100	100	100	sup	inf	mb	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi
2.5	1.00		45	5	36	-6.6	1.6	-0.5	16	51	11	4.3	4.3	35	-0.7	-2.7	0.0	26.1	27.2	3.0	0.0	12	7	0.0	10	45	8							
14	12.50		25	1	25	-1.9	-3.5	1.9	19	7	2	4.3	4.3	25	-2.1	1.0	0.0	26.1	27.2	3.0	0.0	12	9	0.0	10	45	8							
4	11.34		30	3	25	-1.3	-1.7	1.8	18	5	1	4.3	4.3	25	-2.1	0.9	0.0	11.1	17.4	4.1	0.0	11	19	0.0	21	200	8							
2.5	1.00		45	5	8	1.5	0.6	3.8	14	6	1	4.3	4.3	25	-2.1	0.3	0.0	23.3	36.5	8.5	0.0	9	9	0.0	10	45	8							
14	12.50		26	1	25	-5.5	0.0	0.0	30	36	20	7.7	4.1	25	0.0	5.6	0.0	14.5	14.1	1.4	0.0	40	15	0.0	5	25	8							
15	12.50		30	3	21	2.2	0.0	0.0	26	18	8	3.1	3.1	25	0.0	5.1	0.0	13.7	11.1	2.4	0.0	36	46	0.0	17	227	8							
2.5	1.00		25	5	21	-4.7	0.0	0.0	36	18	13	6.8	3.4	21	0.0	-5.6	0.0	14.5	14.1	1.4	0.0	39	15	0.0	5	25	8							
20	12.50		26	1	30	-4.6	0.0	0.0	36	18	13	6.7	3.4	30	0.0	5.0	0.0	14.5	14.1	1.4	0.0	36	13	0.0	5	25	8							
21	12.50		30	3	18	1.8	0.0	0.0	26	15	6	3.1	3.1	30	0.0	4.5	0.0	13.7	11.1	2.4	0.0	32	41	0.0	17	227	8							
2.5	1.00		25	5	18	-4.0	0.0	0.0	35	17	12	6.1	3.1	18	0.0	-4.9	0.0	14.5	14.1	1.4	0.0	35	13	0.0	5	25	8							
15	12.50		26	1	25	-4.5	0.0	0.0	36	18	13	6.6	3.3	25	0.0	5.6	0.0	14.5	14.1	1.4	0.0	39	15	0.0	5	25	8							
16	12.50		30	3	25	2.2	0.0	0.0	26	18	8	3.1	3.1	25	0.0	5.1	0.0	13.7	11.1	2.4	0.0	36	45	0.0	17	208	8							
2.5	1.00		25	5	25	3.1	0.0	0.0	20	42	13	7.3	4.2	21	0.0	-5.4	0.0	14.5	14.1	1.4	0.0	38	14	0.0	5	25	8							
21	12.50		26	1	30	-3.4	0.0	0.0	33	16	10	5.5	3.1	30	0.0	4.6	0.0	14.5	14.1	1.4	0.0	33	12	0.0	5	25	8							
22	12.50		30	3	30	1.6	0.0	0.0	26	13	5	3.1	3.1	30	0.0	4.1	0.0	13.7	11.1	2.4	0.0	29	37	0.0	17	208	8							
2.5	1.00		25	5	18	-4.0	0.0	0.0	35	17	12	6.1	3.1	18	0.0	-4.6	0.0	14.5	14.1	1.4	0.0	33	12	0.0	5	25	8							
25	11.34		25	1	35	0.1	0.5	4.6	12	3	3	3.1	4.3	20	-0.8	-1.2	0.0	26.1	27.2	3.0	0.0	8	6	0.0	10	45	8							
22	12.50		30	3	36	-3.3	-0.3	4.9	18	12	3	4.3	4.3	30	1.5	0.3	0.0	11.1	17.4	4.1	0.0	10	13	0.0	21	191	8							
2.5	1.00		45	5	36	-4.6	-0.6	5.0	19	16	4	4.3	4.3	20	-0.8	-2.0	0.0	26.1	27.2	3.0	0.0	10	6	0.0	10	45	8							
22	12.50		25	1	40	-9.7	0.3	-0.5	18	55	13	6.4	6.0	40	0.1	4.7	0.0	26.1	27.2	3.0	0.0	18	13	0.0	10	45	8							
19	13.88		30	3	40	-5.3	0.1	-0.3	24	15	5	4.3	4.3	36	-0.1	-4.7	0.0	11.1	17.4	4.1	0.0	18	27	0.0	21	263	8							
2.5	1.00		45	5	36	-6.1	0.1	0.0	23	18	6	4.3	4.3	36	-0.1	-4.8	0.0	26.1	27.2	3.0	0.0	18	13	0.0	10	45	8							
19	13.88		25	1	31	-6.1	-1.5	0.0	23	18	6	4.3	4.3	40	0.9	4.8	0.0	26.1	27.2	3.0	0.0	21	13	0.0	10	45	8							
16	12.50		30	3	40	5.6	-1.3	-0.3	24	16	6	4.3	4.3	40	0.9	4.7	0.0	11.1	17.4	4.1	0.0	21	27	0.0	21	263	8							
2.5	1.00		45	5	36	-9.3	2.0	-0.5	19	42	11	6.2	6.1	36	-0.9	-4.5	0.0	26.1	27.2	3.0	0.0	20	12	0.0	10	45	8							
16	12.50		25	1	31	-5.1	-0.9	5.8	19	18	5	4.3	4.3	21	2.4	1.6	0.0	26.1	27.2	3.0	0.0	15	12	0.0	10	45	8							
6	11.34		30	3	31	-3.6	-0.4	5.6	18	13	3	4.3	4.3	25	-2.7	0.4	0.0	11.1	17.4	4.1	0.0	14	25	0.0	21	191	8							
2.5	1.00		45	5	40	0.4	2.5	6.1	11	4	3	3.1	4.3	21	2.4	0.8	0.0	26.1	27.2	3.0	0.0	12	12	0.0	10	45	8							
27	13.88		26	1	31	-1.6	-1.0	0.0	26	13	6	3.1	3.1	15	-0.8	1.0	0.0	14.5	14.1	1.4	0.0	12	3	0.0	5	25	8							
49	12.48		30	3	37	0.8	0.0	-0.2	26	7	3	3.1	3.1	15	-0.8	0.9	0.0	14.5	14.1	1.4	0.0	12	8	0.0	17	345	8							
2.5	1.00		25	5	21	1.0	1.3	-0.3	26	8	3	3.1	3.1	27	0.6	-0.6	0.0	14.5	14.1	1.4	0.0	9	2	0.0	5	25	8							
49	12.48		26	1	21	0.9	1.6	-0.8	27	7	3	3.1	3.1	25	-1.4	0.6	0.0	14.5	14.1	1.4	0.0	14	3	0.0	5	25	8							
7	11.34		30	3	40	0.7	0.5	0.8	23	6	2	3.1	3.1	25	-1.4	0.6	0.0	14.5	14.1	1.4	0.0	14	10	0.0	17	272	8							
2.5	1.00		25	5	36	-1.8	-0.8	-4.8	32	11	7	3.1	3.1	21	0.9	-0.9	0.0	14.5	14.1	1.4	0.0	13	3	0.0	5	25	8							
26	11.34		26	1	31	-1.9	-0.7	-5.0	32	12	7	3.1	3.1	31	-0.5	0.9	0.0	14.5	14.1	1.4	0.0	10	2	0.0	5	25	8							
48	12.48		30	3	31	-1.1	-0.2	-4.9	35	6	4	3.1	3.1	31	-0.5	0.9	0.0	14.5	14.1	1.4	0.0	9	8	0.0	17	271	8							
2.5	1.00		25	5	36	0.6	-0.9	1.4	21	6	2	3.1	3.1	43	0.8	-0.5	0.0	14.5	14.1	1.4	0.0	10	2	0.0	5	25	8							
48	12.48		26	1	20	0.7	1.1	-0.3	26	5	2	3.1	3.1	30	-0.5	0.4	0.0	14.5	14.1	1.4	0.0	6	1	0.0	5	25	8							
27	13.88		30	3	36	-0.4	0.0	-0.1	26	3	1	3.1	3.1	18	0.7	-0.7	0.0	14.5	14.1	1.4	0.0	9	7	0.0	17	346	8							
2.5	1.00		25	5	36	-1.3	0.0	0.0	25	11	5	3.1	3.1	18	0.7	-0.7	0.0	14.5	14.1	1.4	0.0	10	2	0.0	5	25	8							
16	12.50		26	1	40	-3.0	-0.1	0.0	30	19	10	4.1	3.1	10	0.0	4.4	0.0	14.5	14.1	1.4	0.0	31	11	0.0	5	25	8							
49	12.48		30	3	40	-1.7	-0.1	0.0	26	14	6	3.1	3.1	10	0.0	3.4	0.0	13.7	11.1	2.4	0.0	24	30	0.0	17	99	8							
2.5	1.00		25	5	40	0.7	0.0	0.0	25	5	2	3.1	3.1	36	0.1	-1.5	0.0	14.5	14.1	1.4	0.0	11	4	0.0	5	25	8							
22	12.50		26	1	43	-3.2	0.1	0.0	22	43	15	4.3	3.1	10	0.0	4.3	0.0	14.5	14.1	1.4	0.0	30	11	0.0	5	25	8							
48	12.48		30	3	43	-1.9	0.0	0.0	26	16	7	3.1	3.1	43	0.1	3.4	0.0	13.7	11.1	2.4	0.0	25	31	0.0	17	99	8							
2.5	1.00		25	5	36	0.6	0.0	0.0	25	5	2	3.1	3.1	31	-0.1	-1.7	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8							
75	15.10		25	1	4	-11.6	0.0	4.6	18	61	15	8.3	5.1	4	0.0	13.3	0.0	26.1	27.2	3.0	0.0	49	36	0.0	10	45	8							
8	13.42		30	3	4	7.4	0.0	0.0	27	18	7	3.6	5.3	4	0.0	11.0	0.0	11.1	17.4	4.1	0.0	40	63	0.0	21	426	8							
2.5	1.00		45	5	27	-8.1	-0.1	6.4	22	22	7	6.3	4.3	10	0.0	-11.0	0.0	26.1	27.2	3.0	0.0	40	30	0.0	10	45	8							
11	13.42		25	1	41	-8.3	0.0	0.0	27	18	7	5.7	5.3	41	0.0	4.0	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8							
8	13.42		30	3	41	3.6	0.0	0.0	23	10	3	4.3	4.3	37	0.0	-3.9	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	413	8							
2.5	1.00		45	5	37	-9.2	0.0	0.0	28	19	8	6.2	5.3	37	0.0	-4.0	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8							
8	13.42		25	1	41	-9.7	0.0	0.0	20	40	11	6.5	5.3	41	0.0	4.3	0.0	26.1	27.2	3.0	0.0	16	12	0.0	10	45	8							
1	13.42		30	3	37	3.5	0.0	0.0	23	10	3	4.3	4.3	41	0.0	4.1	0.0	11.1	17.4	4.1	0.0	15	24											

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE																				
					Co	M	Exd	M	Eyd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Staffe		
					mb	(t°m)	(t°m)	(t)	(t)	/d	100	100	100	100	sup	inf	mb	(t)	(t)	(t)	(t°m)	(t)	(t)	(t)	(t)	(t)	(t°m)	(t°m)	Cls	Sta	cmq	Pas	Lun	Fi	
2.5	1.00		45	5	37	-13.6	0.0	0.0	0.0	33	18	10	9.7	5.9	37	0.0	0.0	-10.4	0.0	26.1	27.2	3.0	0.5	38	29	2.0	10	45	8						
9	14.96		25	1	27	-10.2	-0.1	11.3	19	40	10	8.3	5.1	10	0.0	11.4	0.0	26.1	27.2	3.0	0.0	42	31	0.0	10	45	8								
10	13.42		30	3	27	4.4	-0.1	8.5	17	18	4	3.1	4.3	10	0.0	9.3	0.0	11.1	17.4	4.1	0.0	34	54	0.0	21	366	8								
2.5	1.00		45	5	15	-9.6	0.1	-5.8	31	18	9	6.3	4.3	4	0.0	-10.0	0.0	26.1	27.2	3.0	0.0	37	27	0.0	10	45	8								
12	14.96	1	25	1	24	-8.0	-0.8	27.0	16	18	4	9.3	5.6	9	-2.0	8.4	0.0	26.1	27.2	3.0	0.0	39	23	0.0	10	45	8								
13	13.42	/	30	3	24	-8.0	-0.6	26.7	16	18	4	9.3	5.6	30	-1.5	7.2	0.0	11.1	17.4	4.1	0.0	34	41	0.0	21	64	8								
2.5	1.00	4	45	5	41	0.1	0.6	22.4	0	13	8	6.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8								
76	15.10	1	25	1	3	-7.4	-0.2	7.1	24	17	6	6.3	4.1	3	0.2	9.1	0.0	26.1	27.2	3.0	0.0	34	25	0.0	10	45	8								
11	13.42	/	30	3	3	-6.9	-0.3	6.6	24	16	6	6.3	4.3	3	0.2	7.7	0.0	11.1	17.4	4.1	0.0	29	44	0.0	21	79	8								
2.5	1.00	4	45	5	41	1.5	0.0	14.8	11	13	5	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8								
2	14.96	1	25	1	27	-8.8	0.7	21.6	20	17	5	9.3	5.6	10	1.9	8.2	0.0	26.1	27.2	3.0	0.0	37	24	0.0	10	45	8								
3	13.42	/	30	3	27	-8.8	-0.5	21.3	20	17	5	9.3	5.6	25	1.3	7.8	0.0	11.1	17.4	4.1	0.0	34	45	0.0	21	64	8								
2.5	1.00	4	45	5	27	-3.9	-1.0	20.9	5	43	2	5.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8								
77	15.10	1	25	1	21	-8.1	0.2	4.7	27	16	7	7.3	4.6	3	-0.1	9.3	0.0	26.1	27.2	3.0	0.0	35	25	0.0	10	45	8								
1	13.42	/	30	3	21	-7.7	0.2	4.4	26	17	7	6.3	4.3	3	-0.1	7.9	0.0	11.1	17.4	4.1	0.0	29	45	0.0	21	79	8								
2.5	1.00	4	45	5	46	1.6	0.0	14.0	7	12	4	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8								
3	13.42	1	33	1	14	-0.5	0.0	0.0	24	6	3	3.1	3.1	14	0.0	0.9	0.0	18.3	15.9	1.6	0.0	5	2	0.0	3	18	8								
54	13.42	/	50	3	14	-0.4	0.0	0.0	23	4	2	3.1	3.1	14	0.0	0.8	0.0	37.2	11.6	4.2	0.0	5	7	0.0	11	69	8								
2.5	1.00	2	18	5	41	0.2	0.0	0.0	23	2	1	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8								
1	13.42	1	33	1	14	-1.1	0.0	0.0	24	14	6	3.1	3.1	12	0.0	1.9	0.0	18.3	15.9	1.6	0.0	12	4	0.0	3	18	8								
52	13.42	/	50	3	14	-0.8	0.0	0.0	24	10	4	3.1	3.1	12	0.0	1.8	0.0	37.2	11.6	4.2	0.0	11	15	0.0	11	69	8								
2.5	1.00	2	18	5	34	0.4	0.0	0.0	23	4	2	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8								
2	14.96	1	33	1	12	-1.0	0.8	8.4	14	38	8	3.1	3.1	9	-0.7	1.7	0.0	18.3	15.9	1.6	0.0	14	4	0.0	3	18	8								
53	14.96	/	50	3	12	-0.7	1.0	8.4	14	16	3	3.1	3.1	9	-0.7	1.6	0.0	37.2	11.6	4.2	0.0	14	14	0.0	11	69	8								
2.5	1.00	2	18	5	9	0.3	1.0	8.6	3	11	0	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8								
53	14.96	1	26	1	3	-0.9	0.1	-2.6	31	6	3	3.1	3.1	9	0.1	1.5	0.0	14.6	14.3	1.4	0.0	11	4	0.0	5	25	8								
54	13.42	/	30	3	3	-0.6	0.1	-2.7	35	3	2	3.1	3.1	9	0.1	1.3	0.0	13.7	11.1	2.4	0.0	10	12	0.0	17	98	8								
2.5	1.00	4	25	5	9	0.5	0.0	-3.2	43	2	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8								
78	15.10	1	26	1	6	-1.6	0.1	-1.3	28	12	6	3.1	3.1	3	0.2	2.2	0.0	14.6	14.2	1.4	0.0	16	6	0.0	5	25	8								
52	13.42	/	30	3	6	-1.1	0.1	-1.4	29	7	4	3.1	3.1	3	0.2	2.0	0.0	13.7	11.1	2.4	0.0	15	18	0.0	17	108	8								
2.5	1.00	4	25	5	3	0.8	-0.1	-1.9	31	5	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8								
13	13.42	1	33	1	8	-0.8	0.0	0.0	24	9	4	3.1	3.1	8	0.0	1.2	0.0	18.3	15.9	1.6	0.0	8	3	0.0	3	18	8								
57	13.42	/	50	3	8	-0.6	0.0	0.0	24	7	3	3.1	3.1	8	0.0	1.2	0.0	37.2	11.6	4.2	0.0	7	10	0.0	11	69	8								
2.5	1.00	2	18	5	8	0.2	0.0	0.0	23	2	1	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8								
11	13.42	1	33	1	21	-1.2	0.0	0.0	24	15	6	3.1	3.1	21	0.0	2.0	0.0	18.3	15.9	1.6	0.0	13	5	0.0	3	18	8								
55	13.42	/	50	3	21	-0.9	0.0	0.0	24	11	5	3.1	3.1	21	0.0	2.0	0.0	37.2	11.6	4.2	0.0	12	17	0.0	11	69	8								
2.5	1.00	2	18	5	21	0.4	0.0	0.0	23	5	2	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8								
12	14.96	1	33	1	6	-1.0	-0.9	8.3	14	34	7	3.1	3.1	9	0.7	1.6	0.0	18.3	15.9	1.6	0.0	14	4	0.0	3	18	8								
56	14.96	/	50	3	6	-0.7	-1.1	8.3	14	16	3	3.1	3.1	6	0.5	1.6	0.0	37.2	11.6	4.2	0.0	13	14	0.0	11	69	8								
2.5	1.00	2	18	5	9	0.3	-1.0	8.4	2	11	0	3.1	3.1	0	0.0	0.0	0.0	37.2	11.6	4.2	0.0	0	0	0.0	11	0	8								
55	13.42	1	26	1	3	-0.5	0.1	0.3	24	4	2	3.1	3.1	3	-0.1	1.5	0.0	14.5	14.1	1.4	0.0	12	4	0.0	5	25	8								
79	15.10	/	30	3	3	0.8	0.2	0.4	24	7	3	3.1	3.1	3	-0.1	1.4	0.0	13.7	11.1	2.4	0.0	11	12	0.0	17	108	8								
2.5	1.00	4	25	5	3	1.0	0.2	0.5	24	9	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8								
56	14.96	1	26	1	3	-0.9	-0.1	-2.7	31	6	3	3.1	3.1	9	-0.1	1.5	0.0	14.7	14.3	1.4	0.0	11	4	0.0	5	25	8								
57	13.42	/	30	3	3	-0.6	-0.1	-2.8	36	3	2	3.1	3.1	9	-0.1	1.3	0.0	13.7	11.1	2.4	0.0	10	12	0.0	17	98	8								
2.5	1.00	4	25	5	9	0.5	0.0	-3.3	43	2	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8								
2	14.96		26	1	6	0.0	0.1	16.4	0	11	10	4.1	3.6	37	0.0	0.9	0.0	14.5	14.1	1.4	0.0	7	2	0.0	5	25	8								

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra a t	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe Pas Lun Fi								
					Co	M	Exd	M	Eyd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon		
					mb	(t*m)	(t*m)	(t)	(t)	(t)	/d	100	100	100	sup	inf	mb	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq			
2.5	1.00	25	5	27	-0.1	-0.8	9.0	17	8	6	3.1	3.1	27	1.0	-1.4	0.0	14.5	14.1	1.4	0.0	17	4	0.0	5	25	8								
59	13.28	26	1	43	0.0	-0.5	7.6	7	6	5	3.1	3.1	31	5.5	-1.3	0.0	14.5	14.1	1.4	0.0	48	12	0.0	5	25	8								
60	13.42	30	3	10	-1.1	-2.3	6.1	16	13	3	3.1	3.1	31	5.5	-1.6	0.0	14.5	14.1	1.4	0.0	49	41	0.0	17	26	8								
2.5	1.00	25	5	10	-1.3	-2.3	6.2	17	15	4	3.1	3.1	31	5.5	-1.8	0.0	14.5	14.1	1.4	0.0	51	12	0.0	5	25	8								
10	13.42	25	1	41	-10.4	0.0	0.0	17	51	12	6.9	8.8	41	0.0	9.4	0.6	26.1	27.2	3.0	0.7	35	26	3.3	10	45	8								
60	13.42	30	3	41	-10.4	0.0	0.0	17	51	12	6.9	8.8	41	0.0	9.2	0.6	15.6	24.4	5.7	0.7	34	38	3.3	15	11	8								
2.5	1.00	45	5	37	7.7	0.0	0.0	26	18	7	4.3	5.4	41	0.0	9.2	0.6	26.1	27.2	3.0	0.7	34	25	3.3	10	45	8								
59	13.28	27	1	15	-0.1	0.0	6.4	0	6	4	3.1	3.1	7	-0.1	1.3	0.0	11.8	11.8	1.1	0.0	12	3	0.0	5	25	8								
61	13.88	25	3	41	0.8	-0.1	3.7	19	10	3	3.1	3.1	13	-0.1	-1.9	0.0	11.1	11.1	1.9	0.0	17	17	0.0	17	316	8								
2.5	1.00	25	5	21	-2.2	-0.2	5.2	25	17	7	4.1	3.6	13	-0.1	-2.2	0.0	11.8	11.8	1.1	0.0	19	6	0.0	5	25	8								
62	13.88	27	1	13	-2.2	-0.1	0.5	25	23	9	3.1	3.1	13	0.0	2.3	0.0	11.8	11.8	1.1	0.0	20	6	0.0	5	25	8								
58	13.28	25	3	7	0.6	0.0	0.1	26	5	2	3.1	3.1	13	0.0	2.0	0.0	11.1	11.1	1.9	0.0	17	18	0.0	17	317	8								
2.5	1.00	25	5	7	-0.1	0.1	-0.1	28	1	1	3.1	3.1	7	0.0	-1.2	0.0	11.8	11.8	1.1	0.0	10	3	0.0	5	25	8								
66	13.28	26	1	34	0.4	1.2	-1.2	32	2	1	3.1	3.1	13	-0.1	2.6	0.0	14.5	14.1	1.4	0.0	19	7	0.0	5	25	8								
33	13.28	30	3	13	2.2	-0.1	-1.4	28	17	8	3.1	3.1	7	0.0	-3.5	0.0	13.7	11.1	2.4	0.0	25	31	0.0	17	408	8								
2.5	1.00	25	5	7	-3.1	0.0	-0.9	29	22	11	4.1	3.6	7	0.0	-3.8	0.0	14.5	14.1	1.4	0.0	27	10	0.0	5	25	8								
51	13.28	26	1	10	0.1	0.1	0.0	26	1	0	3.1	3.1	13	0.2	-2.9	0.0	14.5	14.1	1.4	0.0	22	8	0.0	5	25	8								
32	13.28	30	3	13	-3.9	-0.2	-0.1	35	17	11	6.1	3.1	2	0.2	-4.0	0.0	13.7	11.1	2.4	0.0	30	36	0.0	17	107	8								
2.5	1.00	25	5	13	-5.4	-0.2	-0.1	38	18	14	8.1	4.0	13	0.2	-4.3	0.0	14.5	14.1	1.4	0.0	32	11	0.0	5	25	8								
32	13.28	26	1	15	-3.6	-0.7	-0.1	33	16	10	5.7	4.1	13	-0.4	3.7	-0.2	14.5	14.1	1.4	0.2	29	10	1.3	5	25	8								
66	13.28	30	3	15	-2.5	-0.4	-0.1	29	15	8	4.1	3.6	13	-0.4	3.4	-0.2	14.5	14.1	1.4	0.2	27	18	1.3	10	105	8								
2.5	1.00	25	5	10	1.2	0.3	0.9	24	11	4	3.1	3.1	13	-0.4	2.2	-0.2	14.5	14.1	1.4	0.2	18	6	1.3	5	25	8								
66	13.28	26	1	10	1.2	0.4	0.8	24	11	4	3.1	3.1	30	1.0	-1.5	0.0	14.5	14.1	1.4	0.0	18	4	0.0	5	22	8								
65	13.28	30	3	10	1.2	0.4	0.8	24	11	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8								
2.5	1.00	25	5	10	1.1	0.3	0.8	24	9	4	3.1	3.1	28	1.0	-1.7	0.0	14.5	14.1	1.4	0.0	19	5	0.0	5	22	8								
65	13.28	26	1	7	0.8	-0.2	0.7	24	7	3	3.1	3.1	13	1.2	-1.5	0.2	14.5	14.1	1.4	0.2	36	7	1.5	5	25	8								
67	13.42	30	3	30	-1.6	-0.8	0.8	25	13	5	3.1	3.1	13	1.2	-2.3	0.2	14.5	14.1	1.4	0.2	42	18	1.5	10	66	8								
2.5	1.00	25	5	30	-2.1	-1.0	0.8	25	18	7	3.1	3.1	13	1.2	-2.7	0.2	14.5	14.1	1.4	0.2	44	10	1.5	5	25	8								
23	11.34	26	1	46	-1.4	-1.8	0.0	26	12	5	3.1	3.1	46	-1.0	2.5	0.0	14.5	14.1	1.4	0.0	24	7	0.0	5	25	8								
24	11.34	30	3	46	1.4	-0.5	0.0	26	11	5	3.1	3.1	46	-1.0	2.2	0.0	14.5	14.1	1.4	0.0	22	20	0.0	17	217	8								
2.5	1.00	25	5	34	-2.5	-0.8	-2.4	29	18	9	3.1	3.1	34	1.0	-2.3	0.0	14.5	14.1	1.4	0.0	23	6	0.0	5	25	8								
4	11.34	26	1	25	-1.8	2.6	0.7	25	15	6	3.1	3.1	25	1.2	2.4	0.0	14.5	14.1	1.4	0.0	26	6	0.0	5	25	8								
5	11.34	30	3	41	0.5	1.3	0.4	24	5	2	3.1	3.1	25	1.2	2.1	0.0	14.5	14.1	1.4	0.0	23	19	0.0	17	217	8								
2.5	1.00	25	5	21	-1.8	0.7	-3.1	30	13	7	3.1	3.1	21	-1.1	-2.1	0.0	14.5	14.1	1.4	0.0	23	6	0.0	5	25	8								
67	13.42	25	1	41	-4.7	0.0	0.0	23	14	5	4.3	4.3	41	0.0	7.8	0.0	26.1	27.2	3.0	0.0	29	21	0.0	10	45	8								
10	13.42	30	3	41	-4.7	0.0	0.0	23	14	5	4.3	4.3	41	0.0	7.7	0.0	11.1	17.4	4.1	0.0	28	44	0.0	21	29	8								
2.5	1.00	45	5	41	4.5	0.0	0.0	23	13	4	4.3	4.3	41	0.0	7.6	0.0	26.1	27.2	3.0	0.0	28	21	0.0	10	45	8								
44	13.28	26	1	7	-0.7	0.0	-0.1	25	5	2	3.1	3.1	13	-0.1	2.8	0.0	14.5	14.1	1.4	0.0	20	7	0.0	5	25	8								
51	13.28	30	3	13	2.0	0.1	-0.2	26	16	7	3.1	3.1	2	0.0	2.4	0.0	13.7	11.1	2.4	0.0	17	21	0.0	17	314	8								
2.5	1.00	25	5	13	-0.5	0.2	-0.2	26	4	2	3.1	3.1	13	-0.1	-2.7	0.0	14.5	14.1	1.4	0.0	20	7	0.0	5	25	8								
34	13.28	43	1	7	-1.4	0.0	0.0	26	11	5	3.1	3.1	7	-0.1	2.9	-0.6	13.4	13.2	1.3	0.6	70	16	4.0	5	18	8								
44	13.28	28	3	7	-1.4	0.0	0.0	26	11	5	3.1	3.1	0	0.0	0.0	0.0	24.0	21.0	4.1	0.0	0	0	0.0	9	0	8								
2.5	1.00	25	5	7	-1.0	0.0	0.0	26	8	4	3.1	3.1	7	-0.1	2.9	-0.6	13.4	13.2	1.3	0.6	70	16	4.0	5	18	8								
30	13.42	25	1	41	-6.2	0.0	0.0	23	18	6	4.3	4.3	27	0.0	5.2	1.7	18.7	29.2	6.8	1.7	17	18	7.5	10	10	8								
67	13.42	30	3	41	-6.2	0.0	0.0	23	18	6	4.3	4.3	0	0.0	0.0	0.0	12.4	19.5	4.6	0.0	0	0	0.0	15	0	8								
2	1.00	45	5	41	-6.2	0.0	0.0	23	18	6	4.3	4.3	27	0.0	5.2	1.7	18.7	29.2	6.8	1.7	17	18	7.5	10	10	8								
46	13.42	25	1	41	-5.8	0.0	0.0	24	17	6	4.3	3.1	41	0.0	6.5	0.0	26.1	27.2	3.0	0.0	24	18	0.0	10	45	8								
3	13.42	30	3	6	-4.3	0.0	0.0	24	13	4	4.3	3.1	41	0.0	6.4	0.0	11.1	17.4	4.1</															

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a Bas t	Sez a n c	C o m b	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe			
					M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe CIs	Coe Sta	ALon cmq	Pas	Lun	Fi				
2.5	1.00	25	5	3	-2.7	0.6	-10.1	35	15	10	3.1	3.1	6	-1.2	2.8	0.0	15.2	14.8	1.4	0.0	27	7	0.0	5	21	8			
79	15.10	26	1	12	-3.2	-0.4	-9.9	32	22	13	3.1	3.1	12	1.1	2.7	0.0	15.2	14.8	1.4	0.0	26	7	0.0	5	21	8			
56	14.96	30	3	12	-3.2	-0.6	-9.9	32	22	13	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8			
2.5	1.00	25	5	3	-2.7	-0.6	-9.9	35	15	10	3.1	3.1	12	1.1	2.7	0.0	15.2	14.8	1.4	0.0	26	7	0.0	5	21	8			
31	3.63	2	42	1	37	-0.4	0.0	0.0	26	2	1	4.0	4.0	12	0.0	0.7	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	0	8		
32	3.63	/	28	3	37	-0.3	0.0	0.0	26	2	1	4.0	4.0	12	0.0	0.6	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	119	8		
2.5	1.00	2	30	5	6	0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8		
33	3.63	2	42	1	34	0.1	0.0	0.0	26	1	0	4.0	4.0	11	0.0	-0.3	0.0	10.3	11.1	2.2	0.0	2	2	0.0	21	0	8		
34	3.63	/	28	3	11	-0.2	0.0	0.0	26	1	0	4.0	4.0	11	0.0	-0.5	0.0	10.3	11.1	2.2	0.0	3	4	0.0	21	77	8		
2.5	1.00	4	30	5	11	-0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8		
33	3.63	3	42	1	11	0.2	0.0	0.0	26	1	0	4.0	4.0	11	0.0	-0.4	0.0	10.3	11.1	2.2	0.0	2	4	0.0	21	0	8		
34	3.63	/	28	3	11	-0.2	0.0	0.0	26	1	0	4.0	4.0	11	0.0	-0.6	0.0	10.3	11.1	2.2	0.0	4	5	0.0	21	77	8		
2.5	1.00	4	30	5	11	-0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8		
33	3.63	4	42	1	30	0.2	0.0	0.0	26	1	1	4.0	4.0	11	0.0	-0.8	0.0	10.3	11.1	2.2	0.0	5	7	0.0	21	0	8		
34	3.63	/	28	3	11	-0.5	0.0	0.0	26	2	1	4.0	4.0	11	0.0	-1.0	0.0	10.3	11.1	2.2	0.0	6	9	0.0	21	77	8		
2.5	1.00	4	30	5	11	-0.5	0.0	0.0	26	2	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8		
61	3.63	2	27	1	25	-1.2	0.0	0.0	29	8	4	4.0	4.0	25	0.0	2.3	0.0	11.1	11.1	1.9	0.0	19	21	0.0	17	0	8		
64	3.63	/	25	3	25	0.8	0.0	0.0	29	5	3	4.0	4.0	25	0.0	2.3	0.0	11.1	11.1	1.9	0.0	19	20	0.0	17	113	8		
2.5	1.00	2	25	5	25	1.3	0.0	0.0	29	8	4	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
64	3.63	2	27	1	21	0.4	0.0	0.0	29	2	1	4.0	4.0	25	0.0	1.0	0.0	11.1	11.1	1.9	0.0	8	9	0.0	17	0	8		
63	3.63	/	25	3	21	-0.3	0.0	0.0	29	2	1	4.0	4.0	21	0.0	-1.0	0.0	11.1	11.1	1.9	0.0	9	9	0.0	17	89	8		
2.5	1.00	2	25	5	21	-0.5	0.0	0.0	29	3	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
63	3.63	2	27	1	21	0.7	0.0	0.0	29	4	2	4.0	4.0	21	0.0	-1.2	0.0	11.1	11.1	1.9	0.0	10	10	0.0	17	0	8		
62	3.63	/	25	3	21	-0.4	0.0	0.0	29	3	1	4.0	4.0	21	0.0	-1.3	0.0	11.1	11.1	1.9	0.0	11	12	0.0	17	113	8		
2.5	1.00	2	25	5	21	-0.7	0.0	0.0	29	5	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
1	3.63	2	25	1	21	10.6	0.0	0.0	17	79	18	4.3	7.0	25	0.0	7.2	0.0	11.1	17.4	4.1	0.0	26	41	0.0	21	0	8		
2	3.63	/	30	3	21	10.6	0.0	0.0	17	91	20	3.1	7.0	25	0.0	7.0	0.0	11.1	17.4	4.1	0.0	26	40	0.0	21	121	8		
2.5	1.00	4	45	5	3	7.9	0.0	0.0	28	18	8	3.1	5.5	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
1	3.63	3	25	1	3	7.1	0.0	0.0	27	17	7	3.1	5.3	21	0.0	-6.7	0.0	11.1	17.4	4.1	0.0	25	38	0.0	21	0	8		
2	3.63	/	30	3	3	7.1	0.0	0.0	26	17	7	4.3	5.3	21	0.0	-10.7	0.0	11.1	17.4	4.1	0.0	39	61	0.0	21	121	8		
2.5	1.00	4	45	5	21	-5.5	0.0	0.0	23	16	5	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
1	3.63	4	25	1	21	-11.9	0.0	0.0	33	18	10	8.7	4.4	21	0.0	-14.4	0.4	26.1	27.2	3.0	0.6	67	66	2.9	15	0	8		
2	3.63	/	30	3	21	-24.3	0.0	0.0	45	20	19	17.8	4.5	3	0.0	-15.5	0.6	26.1	27.2	3.0	0.6	79	76	2.9	15	76	8		
2.5	1.00	4	45	5	21	-24.3	0.0	0.0	33	33	19	17.0	8.5	3	0.0	-18.1	0.6	26.1	27.2	3.0	0.6	88	57	2.9	10	45	8		
11	3.63	2	25	1	18	10.9	0.0	0.0	32	17	9	4.3	8.2	30	0.0	7.8	0.0	11.1	17.4	4.1	0.0	29	45	0.0	21	0	8		
12	3.63	/	30	3	18	10.9	0.0	0.0	33	17	10	3.1	8.2	30	0.0	7.7	0.0	11.1	17.4	4.1	0.0	28	44	0.0	21	121	8		
2.5	1.00	4	45	5	18	7.8	0.0	0.0	28	18	8	3.1	5.4	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
11	3.63	3	25	1	3	7.1	0.0	0.0	27	17	7	3.1	5.3	18	0.0	-6.9	0.0	11.1	17.4	4.1	0.0	26	40	0.0	21	0	8		
12	3.63	/	30	3	3	7.1	0.0	0.0	26	17	7	4.3	5.3	18	0.0	-11.0	0.0	11.1	17.4	4.1	0.0	40	63	0.0	21	121	8		
2.5	1.00	4	45	5	18	-5.9	0.0	0.0	23	17	6	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
11	3.63	4	25	1	18	-12.3	0.0	0.0	33	18	10	9.0	4.5	18	0.0	-14.8	-0.5	26.1	27.2	3.0	0.6	70	69	2.8	15	0	8		
12	3.63	/	30	3	18	-25.1	0.0	0.0	44	23	21	18.2	4.6	18	0.0	-17.2	-0.5	15.6	24.4	5.7	0.6	78	79	2.8	15	76	8		
2.5	1.00	4	45	5	18	-25.1	0.0	0.0	30	46	22	17.2	8.6	3	0.0	-17.7	-0.6	26.1	27.2	3.0	0.6	86	57	2.8	10	45	8		
2	3.63	2	25	1	21	7.8	0.0	0.0	26	18	7	5.3	5.4	25	0.0	11.5	0.0	11.1	17.4	4.1	0.0	42	66	0.0	21	0	8		
3	3.63	/	30	3	21	7.8	0.0	0.0	26	18	7	5.3	5.4	25	0.0	11.4	0.0	11.1	17.4	4.1	0.0	42	65	0.0	21	102	8		
2.5	1.00	4	45	5	21	4.9	0.0	0.0	24	14	5	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
2	3.63	3	25	1	25	6.6	0.0	0.0	27	16	7	3.1	5.3	25	0.0	8.5	0.0	11.1	17.4	4.1	0.0	31	49	0.0	21	0	8		
3	3.63	/	30	3	25	10.0	0.0	0.0	19	48	12	5.8	6.7	21	0.0	-11.8	0.0	11.1	17.4	4.1	0.0	43	68	0.0	21	102	8		
2.5	1.00	4	45	5	25	10.0	0.0	0.0	19	48	12	5.8	6.7	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
2	3.63	4	25	1	21	-13.8	0.0	0.0	32	18	10	9.9	8.4	21	0.0	-16.5	0.5	26.1	27.2	3.0	0.5	78	77	2.3	15	0	8		
3	3.63	/	30	3	21	-24.5	0.0	0.0	41	18	15	17.9	10.0	21	0.0	-18.3	0.5	26.1	27.2	3.0	0.5	85	84	2.3	15	57	8		
2.5	1.00	4	45	5	21	-24.5	0.0	0.0	31	36	18	16.9	10.0	21	0.0	-19.9	0.5	26.1	27.2	3.0	0.5	90	60	2.3	10	45	8		
12	3.63	2	25	1	18	8.4	0.0	0.0	27	18	7	5.6	5.8	30	0.0	12.7	0.0	11.1	17.4	4.1	0.0	47	73	0.0					

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a n	C o n	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe			
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRLd	Coe	Coe	ALon	Staffe	Pas	Lun	Fi		
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq						
2.5	1.00	4	45	5	18	-26.2	0.0	0.0	31	34	18	18.1	12.0	18	0.0	-21.2	-0.5	26.1	27.2	3.0	0.5	94	64	2.3	10	45	8		
2	3.63	2	33	1	6	-0.7	0.0	0.0	24	9	4	3.1	3.1	6	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	0	8		
53	3.63	/	50	3	6	-0.5	0.0	0.0	24	6	2	3.1	3.1	6	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	69	8		
2.5	1.00	2	18	5	9	0.3	0.0	0.0	23	4	1	3.1	3.1	6	0.0	1.1	0.0	18.3	15.9	1.6	0.0	7	3	0.0	3	18	8		
3	3.63	2	25	1	12	-3.2	0.0	0.0	24	9	3	4.3	3.1	12	0.0	4.0	0.0	11.1	17.4	4.1	0.0	15	23	0.0	21	0	8		
54	3.63	/	30	3	12	-3.2	0.0	0.0	24	9	3	4.3	3.1	12	0.0	4.0	0.0	11.1	17.4	4.1	0.0	15	23	0.0	21	42	8		
2.5	1.00	2	45	5	37	-1.1	0.0	0.0	23	3	1	4.3	4.3	12	0.0	3.8	0.0	26.1	27.2	3.0	0.0	14	10	0.0	10	45	8		
1	3.63	2	25	1	12	-3.5	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	16	24	0.0	21	0	8		
52	3.63	/	30	3	12	-3.5	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	16	24	0.0	21	42	8		
2.5	1.00	2	45	5	41	-1.0	0.0	0.0	23	3	1	4.3	4.3	1	0.0	4.0	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8		
52	3.63	2	26	1	3	1.6	0.0	0.0	26	13	5	3.1	3.1	9	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	0	8		
53	3.63	/	30	3	3	1.6	0.0	0.0	26	13	6	3.1	3.1	3	0.0	-0.8	0.0	13.7	11.1	2.4	0.0	6	7	0.0	17	136	8		
2.5	1.00	4	25	5	3	1.5	0.0	0.0	26	12	5	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
52	3.63	3	26	1	3	1.6	0.0	0.0	26	13	5	3.1	3.1	21	0.0	-0.5	0.0	13.7	11.1	2.4	0.0	4	5	0.0	17	0	8		
53	3.63	/	30	3	12	1.4	0.0	0.0	26	11	5	3.1	3.1	3	0.0	-1.8	0.0	13.7	11.1	2.4	0.0	12	16	0.0	17	136	8		
2.5	1.00	4	25	5	9	0.5	0.0	0.0	25	4	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
52	3.63	4	26	1	25	0.4	0.0	0.0	25	3	1	3.1	3.1	25	0.0	-0.6	0.0	13.7	11.1	2.4	0.0	4	5	0.0	17	0	8		
53	3.63	/	30	3	6	-0.8	0.0	0.0	25	6	3	3.1	3.1	9	0.0	-1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	111	8		
2.5	1.00	4	25	5	6	-1.3	0.0	0.0	25	10	4	3.1	3.1	6	0.0	-1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8		
53	3.63	2	26	1	21	0.5	0.0	0.0	25	4	2	3.1	3.1	9	0.0	1.7	0.0	13.7	11.1	2.4	0.0	12	15	0.0	17	0	8		
54	3.63	/	30	3	12	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	117	8		
2.5	1.00	4	25	5	9	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
53	3.63	3	26	1	9	1.0	0.0	0.0	25	8	3	3.1	3.1	27	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	0	8		
54	3.63	/	30	3	9	1.1	0.0	0.0	25	9	4	3.1	3.1	15	0.0	-0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	117	8		
2.5	1.00	4	25	5	27	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
53	3.63	4	26	1	25	1.0	0.0	0.0	25	8	3	3.1	3.1	25	0.0	-0.5	0.0	13.7	11.1	2.4	0.0	4	5	0.0	17	0	8		
54	3.63	/	30	3	25	0.8	0.0	0.0	25	7	3	3.1	3.1	25	0.0	-0.9	0.0	13.7	11.1	2.4	0.0	7	8	0.0	17	92	8		
2.5	1.00	4	25	5	25	0.3	0.0	0.0	25	2	1	3.1	3.1	9	0.0	-1.2	0.0	14.5	14.1	1.4	0.0	8	3	0.0	5	25	8		
11	3.63	2	25	1	6	-3.5	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	16	24	0.0	21	0	8		
55	3.63	/	30	3	6	-3.5	0.0	0.0	24	10	4	4.3	3.1	3	0.0	4.2	0.0	11.1	17.4	4.1	0.0	16	24	0.0	21	42	8		
2.5	1.00	2	45	5	46	-1.1	0.0	0.0	23	3	1	4.3	4.3	3	0.0	4.1	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8		
13	3.63	2	25	1	6	-3.2	0.0	0.0	24	9	3	4.3	3.1	6	0.0	3.9	0.0	11.1	17.4	4.1	0.0	14	23	0.0	21	0	8		
57	3.63	/	30	3	6	-3.2	0.0	0.0	24	9	3	4.3	3.1	6	0.0	3.9	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	42	8		
2.5	1.00	2	45	5	34	-1.2	0.0	0.0	23	3	1	4.3	4.3	6	0.0	3.7	0.0	26.1	27.2	3.0	0.0	14	10	0.0	10	45	8		
12	3.63	2	33	1	12	-0.7	0.0	0.0	24	9	4	3.1	3.1	12	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	0	8		
56	3.63	/	50	3	12	-0.5	0.0	0.0	24	6	2	3.1	3.1	12	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	69	8		
2.5	1.00	2	18	5	9	0.3	0.0	0.0	23	4	2	3.1	3.1	12	0.0	1.1	0.0	18.3	15.9	1.6	0.0	7	3	0.0	3	18	8		
55	3.63	2	26	1	3	1.5	0.0	0.0	26	12	5	3.1	3.1	9	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	0	8		
56	3.63	/	30	3	3	1.6	0.0	0.0	26	13	6	3.1	3.1	3	0.0	-0.8	0.0	13.7	11.1	2.4	0.0	5	7	0.0	17	136	8		
2.5	1.00	4	25	5	3	1.5	0.0	0.0	26	12	5	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
55	3.63	3	26	1	3	1.6	0.0	0.0	26	13	5	3.1	3.1	18	0.0	-0.6	0.0	13.7	11.1	2.4	0.0	4	5	0.0	17	0	8		
56	3.63	/	30	3	3	1.4	0.0	0.0	26	11	5	3.1	3.1	3	0.0	-1.7	0.0	13.7	11.1	2.4	0.0	12	16	0.0	17	136	8		
2.5	1.00	4	25	5	9	0.6	0.0	0.0	25	5	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
55	3.63	4	26	1	30	0.4	0.0	0.0	25	3	1	3.1	3.1	30	0.0	-0.6	0.0	13.7	11.1	2.4	0.0	4	6	0.0	17	0	8		
56	3.63	/	30	3	12	-0.8	0.0	0.0	25	6	3	3.1	3.1	9	0.0	-1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	111	8		
2.5	1.00	4	25	5	9	-1.3	0.0	0.0	25	11	4	3.1	3.1	9	0.0	-1.9	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8		
56	3.63	2	26	1	30	-0.5	0.0	0.0	25	4	2	3.1	3.1	9	0.0	1.6	0.0	13.7	11.1	2.4	0.0	12	15	0.0	17	0	8		
57	3.63	/	30	3	6	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	117	8		
2.5	1.00	4	25	5	9	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
56	3.63	3	26	1	9	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	0.8	0.0	13.7	11.1	2.4	0.0	5	7	0.0	17	0	8		
57	3.63	/	30	3	9	1.1	0.0	0.0	25	9	4	3.1	3.1	9	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	117	8		
2.5	1.00	4	25	5	30	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8		
56	3.63	4	26	1	30	1.0	0.0	0.0	25	8	3	3.1	3.1	30	0.0	-0.5	0.0	13.7	11.1	2.4	0.0	3	4	0.0	17	0	8		
57	3.63	/	30	3	30	0.8	0.0	0.0	25	7	3	3.1	3.1	30															

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														Staffe			
					Co	M Exd	M Eyd	N Ed	x/	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRLd	Coe	Coe	ALon	Staffe						
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi				
2.5	1.00	4	30	5	11	-0.2	0.0	0.0	26	1	0	4.0	4.0	0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8				
33	6.88	3	42	1	11	0.2	0.0	0.0	26	1	0	4.0	4.0	11	0.0	-0.6	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	0	8			
34	6.88	/	28	3	11	-0.3	0.0	0.0	26	2	1	4.0	4.0	11	0.0	-0.8	0.0	10.3	11.1	2.2	0.0	5	7	0.0	21	77	8			
2.5	1.00	4	30	5	11	-0.3	0.0	0.0	26	2	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
33	6.88	4	42	1	11	0.3	0.0	0.0	26	2	1	4.0	4.0	11	0.0	-1.2	0.0	10.3	11.1	2.2	0.0	8	11	0.0	21	0	8			
34	6.88	/	28	3	11	-0.7	0.0	0.0	26	3	1	4.0	4.0	11	0.0	-1.4	0.0	10.3	11.1	2.2	0.0	9	13	0.0	21	77	8			
2.5	1.00	4	30	5	11	-0.7	0.0	0.0	26	3	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8			
61	6.88	2	27	1	25	-0.8	0.0	0.0	29	5	3	4.0	4.0	25	0.0	1.6	0.0	11.1	11.1	1.9	0.0	13	14	0.0	17	0	8			
64	6.88	/	25	3	25	0.5	0.0	0.0	29	3	2	4.0	4.0	25	0.0	1.6	0.0	11.1	11.1	1.9	0.0	13	14	0.0	17	113	8			
2.5	1.00	2	25	5	21	-0.9	0.0	0.0	29	6	3	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8			
64	6.88	2	27	1	41	-0.3	0.0	0.0	29	2	1	4.0	4.0	41	0.0	0.8	0.0	11.1	11.1	1.9	0.0	7	8	0.0	17	0	8			
63	6.88	/	25	3	37	-0.3	0.0	0.0	29	2	1	4.0	4.0	37	0.0	-0.8	0.0	11.1	11.1	1.9	0.0	7	8	0.0	17	89	8			
2.5	1.00	2	25	5	37	-0.4	0.0	0.0	29	2	1	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8			
63	6.88	2	27	1	21	0.5	0.0	0.0	29	3	2	4.0	4.0	21	0.0	-0.9	0.0	11.1	11.1	1.9	0.0	8	8	0.0	17	0	8			
62	6.88	/	25	3	21	-0.3	0.0	0.0	29	2	1	4.0	4.0	21	0.0	-1.1	0.0	11.1	11.1	1.9	0.0	9	10	0.0	17	113	8			
2.5	1.00	2	25	5	21	-0.6	0.0	0.0	29	4	2	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8			
1	6.88	2	25	1	21	8.5	0.0	0.0	28	18	8	4.3	5.8	25	0.0	7.5	0.0	11.1	17.4	4.1	0.0	28	43	0.0	21	0	8			
2	6.88	/	30	3	21	8.5	0.0	0.0	29	19	8	3.1	5.8	25	0.0	7.3	0.0	11.1	17.4	4.1	0.0	27	42	0.0	21	121	8			
2.5	1.00	4	45	5	3	6.6	0.0	0.0	17	43	10	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
1	6.88	3	25	1	3	6.3	0.0	0.0	24	19	7	3.1	4.3	21	0.0	-5.6	0.0	11.1	17.4	4.1	0.0	21	32	0.0	21	0	8			
2	6.88	/	30	3	3	6.3	0.0	0.0	23	19	6	4.3	4.3	21	0.0	-9.6	0.0	11.1	17.4	4.1	0.0	35	55	0.0	21	121	8			
2.5	1.00	4	45	5	21	-5.0	0.0	0.0	23	15	5	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
1	6.88	4	25	1	21	-10.7	0.0	0.0	17	81	18	7.1	4.3	21	0.0	-12.9	0.4	26.1	27.2	3.0	0.7	62	61	3.0	15	0	8			
2	6.88	/	30	3	21	-22.0	0.0	0.0	32	43	23	15.5	4.3	3	0.0	-14.2	0.7	26.1	27.2	3.0	0.7	74	71	3.0	15	76	8			
2.5	1.00	4	45	5	21	-22.0	0.0	0.0	36	25	16	15.5	7.8	3	0.0	-16.7	0.7	26.1	27.2	3.0	0.7	84	54	3.0	10	45	8			
11	6.88	2	25	1	18	9.6	0.0	0.0	20	40	12	4.3	6.4	30	0.0	8.5	0.0	11.1	17.4	4.1	0.0	31	49	0.0	21	0	8			
12	6.88	/	30	3	18	9.6	0.0	0.0	20	40	12	4.3	6.4	30	0.0	8.4	0.0	11.1	17.4	4.1	0.0	31	48	0.0	21	121	8			
2.5	1.00	4	45	5	18	7.0	0.0	0.0	27	17	7	3.1	5.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
11	6.88	3	25	1	3	6.3	0.0	0.0	24	19	7	3.1	4.3	18	0.0	-6.4	0.0	11.1	17.4	4.1	0.0	23	37	0.0	21	0	8			
12	6.88	/	30	3	3	6.3	0.0	0.0	23	19	6	4.3	4.3	18	0.0	-10.4	0.0	11.1	17.4	4.1	0.0	38	60	0.0	21	121	8			
2.5	1.00	4	45	5	30	5.8	0.0	0.0	23	17	6	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
11	6.88	4	25	1	18	-11.8	0.0	0.0	33	18	10	8.7	4.4	18	0.0	-14.0	-0.5	26.1	27.2	3.0	0.7	67	66	3.0	15	0	8			
12	6.88	/	30	3	18	-24.0	0.0	0.0	45	19	18	17.6	4.4	18	0.0	-16.4	-0.5	26.1	27.2	3.0	0.7	76	76	3.0	15	76	8			
2.5	1.00	4	45	5	18	-24.0	0.0	0.0	38	24	16	17.0	8.5	3	0.0	-16.5	-0.7	26.1	27.2	3.0	0.7	83	55	3.0	10	45	8			
2	6.88	2	25	1	21	7.5	0.0	0.0	26	18	7	4.3	5.3	25	0.0	10.0	0.0	11.1	17.4	4.1	0.0	37	57	0.0	21	0	8			
3	6.88	/	30	3	21	7.5	0.0	0.0	26	18	7	4.3	5.3	25	0.0	9.8	0.0	11.1	17.4	4.1	0.0	36	56	0.0	21	102	8			
2.5	1.00	4	45	5	21	5.0	0.0	0.0	24	15	5	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
2	6.88	3	25	1	25	5.5	0.0	0.0	24	16	6	3.1	4.3	21	0.0	-7.6	0.0	11.1	17.4	4.1	0.0	28	44	0.0	21	0	8			
3	6.88	/	30	3	25	7.9	0.0	0.0	26	18	7	5.3	5.5	21	0.0	-11.0	0.0	11.1	17.4	4.1	0.0	40	63	0.0	21	102	8			
2.5	1.00	4	45	5	25	7.9	0.0	0.0	26	18	7	5.3	5.5	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
2	6.88	4	25	1	21	-12.3	0.0	0.0	32	18	10	9.0	5.8	21	0.0	-15.3	0.5	26.1	27.2	3.0	0.5	72	71	2.2	15	0	8			
3	6.88	/	30	3	21	-22.3	0.0	0.0	43	18	15	16.7	6.7	21	0.0	-17.2	0.5	15.6	24.4	5.7	0.5	79	79	2.2	15	57	8			
2.5	1.00	4	45	5	21	-22.3	0.0	0.0	35	26	16	15.7	7.8	21	0.0	-18.7	0.5	26.1	27.2	3.0	0.5	84	57	2.2	10	45	8			
12	6.88	2	25	1	18	8.6	0.0	0.0	27	18	8	5.3	5.9	30	0.0	11.5	0.0	11.1	17.4	4.1	0.0	42	66	0.0	21	0	8			
13	6.88	/	30	3	18	8.6	0.0	0.0	27	18	8	5.3	5.9	30	0.0	11.4	0.0	11.1	17.4	4.1	0.0	42	65	0.0	21	102	8			
2.5	1.00	4	45	5	18	5.5	0.0	0.0	24	16	6	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
12	6.88	3	25	1	30	6.3	0.0	0.0	24	19	7	3.1	4.3	18	0.0	-8.4	0.0	11.1	17.4	4.1	0.0	31	48	0.0	21	0	8			
13	6.88	/	30	3	30	9.6	0.0	0.0	20	38	11	5.6	6.5	18	0.0	-11.8	0.0	11.1	17.4	4.1	0.0	43	68	0.0	21	102	8			
2.5	1.00	4	45	5	30	9.6	0.0	0.0	20	38	11	5.6	6.5	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8			
12	6.88	4	25	1	18	-14.2	0.0	0.0	32	18	10	10.1	8.4	18	0.0	-17.4	-0.5	26.1	27.2	3.0	0.5	80	80	2.2	15	0	8			
13	6.88	/	30	3	18	-25.3	0.0	0.0	42	18	15	18.4	10.1	18	0.0	-19.2	-0.5	15.6	24.4	5.7	0.5	87	87	2.2	15	57	8			

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	Tr a Bas t	Sez a n	Co n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe		
					Co mb	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe CIs	Coe Sta	ALon cmq	Pas	Lun	Fi		
2.5	1.00	4	25	5	9	-1.2	0.0	0.0	25	10	4	3.1	3.1	9	0.0	-1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8	
53	6.88	2	26	1	15	0.5	0.0	0.0	25	4	2	3.1	3.1	9	0.0	1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	0	8	
54	6.88	/	30	3	12	1.0	0.0	0.0	25	8	4	3.1	3.1	9	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	117	8	
2.5	1.00	4	25	5	9	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8	
53	6.88	3	26	1	9	1.0	0.0	0.0	25	8	3	3.1	3.1	27	0.0	0.6	0.0	13.7	11.1	2.4	0.0	4	6	0.0	17	0	8	
54	6.88	/	30	3	9	1.1	0.0	0.0	25	9	4	3.1	3.1	3	0.0	-0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	117	8	
2.5	1.00	4	25	5	9	1.0	0.0	0.0	25	8	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8	
53	6.88	4	26	1	25	0.8	0.0	0.0	25	7	3	3.1	3.1	21	0.0	0.4	0.0	13.7	11.1	2.4	0.0	3	4	0.0	17	0	8	
54	6.88	/	30	3	25	0.7	0.0	0.0	25	6	2	3.1	3.1	9	0.0	-0.8	0.0	13.7	11.1	2.4	0.0	6	8	0.0	17	92	8	
2.5	1.00	4	25	5	25	0.2	0.0	0.0	25	2	1	3.1	3.1	9	0.0	-1.1	0.0	14.5	14.1	1.4	0.0	8	3	0.0	5	25	8	
3	6.88	2	25	1	12	-3.1	0.0	0.0	24	9	3	4.3	3.1	12	0.0	3.9	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	0	8	
54	6.88	/	30	3	12	-3.1	0.0	0.0	24	9	3	4.3	3.1	12	0.0	3.9	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	42	8	
2.5	1.00	2	45	5	37	-1.0	0.0	0.0	23	3	1	4.3	4.3	12	0.0	3.7	0.0	26.1	27.2	3.0	0.0	14	10	0.0	10	45	8	
1	6.88	2	25	1	9	-3.4	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	15	24	0.0	21	0	8	
52	6.88	/	30	3	9	-3.4	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	15	24	0.0	21	42	8	
2.5	1.00	2	45	5	9	-1.9	0.0	0.0	23	5	2	4.3	4.3	1	0.0	4.0	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8	
2	6.88	2	33	1	6	-0.8	0.0	0.0	24	9	4	3.1	3.1	1	0.0	1.3	0.0	37.2	11.6	4.2	0.0	9	12	0.0	11	0	8	
53	6.88	/	50	3	6	-0.5	0.0	0.0	24	6	3	3.1	3.1	6	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	12	0.0	11	69	8	
2.5	1.00	2	18	5	9	0.3	0.0	0.0	23	4	1	3.1	3.1	1	0.0	1.1	0.0	18.3	15.9	1.6	0.0	7	3	0.0	3	18	8	
11	6.88	2	25	1	9	-3.5	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	15	24	0.0	21	0	8	
55	6.88	/	30	3	9	-3.5	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.2	0.0	11.1	17.4	4.1	0.0	15	24	0.0	21	42	8	
2.5	1.00	2	45	5	9	-1.9	0.0	0.0	23	5	2	4.3	4.3	1	0.0	4.0	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8	
13	6.88	2	25	1	6	-3.2	0.0	0.0	24	9	3	4.3	3.1	6	0.0	3.9	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	0	8	
57	6.88	/	30	3	6	-3.2	0.0	0.0	24	9	3	4.3	3.1	6	0.0	3.8	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	42	8	
2.5	1.00	2	45	5	34	-1.1	0.0	0.0	23	3	1	4.3	4.3	6	0.0	3.7	0.0	26.1	27.2	3.0	0.0	13	10	0.0	10	45	8	
12	6.88	2	33	1	12	-0.7	0.0	0.0	24	9	4	3.1	3.1	12	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	12	0.0	11	0	8	
56	6.88	/	50	3	12	-0.5	0.0	0.0	24	6	3	3.1	3.1	12	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	69	8	
2.5	1.00	2	18	5	9	0.3	0.0	0.0	23	4	2	3.1	3.1	9	0.0	1.1	0.0	18.3	15.9	1.6	0.0	7	3	0.0	3	18	8	
55	6.88	2	26	1	3	1.4	0.0	0.0	26	11	5	3.1	3.1	9	0.0	0.8	0.0	13.7	11.1	2.4	0.0	5	7	0.0	17	0	8	
56	6.88	/	30	3	3	1.5	0.0	0.0	26	12	5	3.1	3.1	3	0.0	-0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	136	8	
2.5	1.00	4	25	5	3	1.4	0.0	0.0	26	11	5	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8	
55	6.88	3	26	1	3	1.4	0.0	0.0	26	12	5	3.1	3.1	18	0.0	-0.5	0.0	13.7	11.1	2.4	0.0	4	4	0.0	17	0	8	
56	6.88	/	30	3	12	1.3	0.0	0.0	25	11	5	3.1	3.1	3	0.0	-1.6	0.0	13.7	11.1	2.4	0.0	12	15	0.0	17	136	8	
2.5	1.00	4	25	5	9	0.6	0.0	0.0	25	5	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8	
55	6.88	4	26	1	30	0.4	0.0	0.0	25	4	1	3.1	3.1	30	0.0	-0.6	0.0	13.7	11.1	2.4	0.0	4	5	0.0	17	0	8	
56	6.88	/	30	3	6	-0.7	0.0	0.0	25	6	2	3.1	3.1	9	0.0	-1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	111	8	
2.5	1.00	4	25	5	9	-1.2	0.0	0.0	25	10	4	3.1	3.1	9	0.0	-1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8	
56	6.88	2	26	1	18	0.5	0.0	0.0	25	4	2	3.1	3.1	9	0.0	1.6	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	0	8	
57	6.88	/	30	3	3	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	117	8	
2.5	1.00	4	25	5	9	1.1	0.0	0.0	25	9	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8	
56	6.88	3	26	1	9	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	0	8	
57	6.88	/	30	3	9	1.1	0.0	0.0	25	9	4	3.1	3.1	9	0.0	0.6	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	117	8	
2.5	1.00	4	25	5	9	1.0	0.0	0.0	25	8	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8	
56	6.88	4	26	1	30	0.9	0.0	0.0	25	7	3	3.1	3.1	18	0.0	0.4	0.0	13.7	11.1	2.4	0.0	3	4	0.0	17	0	8	
57	6.88	/	30	3	30	0.8	0.0	0.0	25	6	3	3.1	3.1	9	0.0	-0.8	0.0	13.7	11.1	2.4	0.0	6	7	0.0	17	92	8	
2.5	1.00	4	25	5	30	0.3	0.0	0.0	25	2	1	3.1	3.1	9	0.0	-1.1	0.0	14.5	14.1	1.4	0.0	8	3	0.0	5	25	8	
31	10.13	2	42	1	6	-0.4	0.0	0.0	26	2	1	4.0	4.0	1	0.0	0.8	0.0	10.3	11.1	2.2	0.0	5	7	0.0	21	0	8	
32	10.13	/	28	3	6	-0.3	0.0	0.0	26	1	1	4.0	4.0	1	0.0	0.8	0.0	10.3	11.1	2.2	0.0	5	7	0.0	21	119	8	
2.5	1.00	2	30	5	12	0.4	0.0	0.0	26	2	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8	
33	10.13	2	42	1	11	0.2	0.0	0.0	26	1	0	4.0	4.0	11	0.0	-0.5	0.0	10.3	11.1	2.2	0.0	3	4	0.0	21	0	8	
34	10.13	/	28	3	11	-0.2	0.0	0.0	26	1	1	4.0	4.0	11	0.0	-0.7	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	77	8	
2.5	1.00	4	30	5	11	-0.2	0.0	0.0	26	1	1	4.0	4.0	0	0.0	0.0	0.0	10.3	11.1	2.2	0.0	0	0	0.0	21	0	8	
33	10.13	3	42	1	11	0.3	0.0	0.0	26	1	1	4.0	4.0	11	0.0	-0.7	0.0	10.3	11.1	2.2	0.0	4	6	0.0	21	0	8	
34	10.13	/	28	3	11	-0.4	0.0	0.0	26	2	1	4.0	4.0	11	0.0	-0.9	0.0	10.3	11.1	2.2	0.0	6	8	0.0	21	77	8	
2.5	1.00	4	30	5	11	-0.4	0.0	0.0	26</																			



## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz. Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a n	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														
					Co	M Exd	M Eyd	N Ed	x/ d	εf%	εc%	Area sup inf	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRd	TRId	Coe	Coe	ALon	Staffe					
					mb	(t*m)	(t*m)	(t)	/	100	100	cmq	cmq	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi		
2.5	1.00	2	25	5	21	0.2	0.0	0.0	29	1	1	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
64	10.13	2	27	1	41	-0.1	0.0	0.0	29	1	0	4.0	4.0	41	0.0	0.3	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	0	8		
63	10.13	/	25	3	41	-0.1	0.0	0.0	29	1	0	4.0	4.0	41	0.0	0.3	0.0	11.1	11.1	1.9	0.0	3	3	0.0	17	89	8		
2.5	1.00	2	25	5	37	-0.1	0.0	0.0	29	1	0	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
63	10.13	2	27	1	37	0.3	0.0	0.0	29	2	1	4.0	4.0	37	0.0	-0.5	0.0	11.1	11.1	1.9	0.0	4	5	0.0	17	0	8		
62	10.13	/	25	3	36	-0.3	0.0	0.0	29	2	1	4.0	4.0	35	0.0	-0.7	0.0	11.1	11.1	1.9	0.0	6	6	0.0	17	113	8		
2.5	1.00	2	25	5	36	-0.4	0.0	0.0	29	3	1	4.0	4.0	0	0.0	0.0	0.0	11.1	11.1	1.9	0.0	0	0	0.0	17	0	8		
1	10.13	2	25	1	21	8.5	0.0	0.0	28	18	8	4.3	5.8	25	0.0	7.1	0.0	11.1	17.4	4.1	0.0	26	41	0.0	21	0	8		
2	10.13	/	30	3	21	8.5	0.0	0.0	29	19	8	3.1	5.8	25	0.0	6.9	0.0	11.1	17.4	4.1	0.0	25	40	0.0	21	121	8		
2.5	1.00	4	45	5	3	6.8	0.0	0.0	27	16	7	3.1	5.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
1	10.13	3	25	1	3	6.7	0.0	0.0	27	16	7	3.1	5.3	21	0.0	-5.1	0.0	11.1	17.4	4.1	0.0	19	29	0.0	21	0	8		
2	10.13	/	30	3	3	6.7	0.0	0.0	27	16	7	3.1	5.3	21	0.0	-9.1	0.0	11.1	17.4	4.1	0.0	33	52	0.0	21	121	8		
2.5	1.00	4	45	5	25	4.4	0.0	0.0	23	13	4	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
1	10.13	4	25	1	21	-9.2	0.0	0.0	24	28	10	6.2	4.3	3	0.0	-10.2	0.6	26.1	27.2	3.0	0.6	58	56	2.8	15	0	8		
2	10.13	/	30	3	21	-19.9	0.0	0.0	42	19	15	14.3	4.3	3	0.0	-14.0	0.6	26.1	27.2	3.0	0.6	73	69	2.8	15	76	8		
2.5	1.00	4	45	5	21	-19.9	0.0	0.0	39	18	14	14.3	7.2	3	0.0	-16.6	0.6	26.1	27.2	3.0	0.6	82	53	2.8	10	45	8		
11	10.13	2	25	1	18	8.5	0.0	0.0	28	18	8	4.3	5.8	30	0.0	7.4	0.0	11.1	17.4	4.1	0.0	27	42	0.0	21	0	8		
12	10.13	/	30	3	18	8.5	0.0	0.0	28	18	8	4.3	5.8	30	0.0	7.2	0.0	11.1	17.4	4.1	0.0	26	42	0.0	21	121	8		
2.5	1.00	4	45	5	3	6.7	0.0	0.0	27	16	7	3.1	5.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
11	10.13	3	25	1	3	6.6	0.0	0.0	27	16	7	3.1	5.3	18	0.0	-5.2	0.0	11.1	17.4	4.1	0.0	19	30	0.0	21	0	8		
12	10.13	/	30	3	3	6.6	0.0	0.0	27	16	7	3.1	5.3	18	0.0	-9.2	0.0	11.1	17.4	4.1	0.0	34	53	0.0	21	121	8		
2.5	1.00	4	45	5	30	4.6	0.0	0.0	23	13	5	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
11	10.13	4	25	1	18	-9.4	0.0	0.0	22	35	11	6.4	4.3	18	0.0	-12.1	-0.4	26.1	27.2	3.0	0.6	58	57	2.8	15	0	8		
12	10.13	/	30	3	18	-20.3	0.0	0.0	42	18	16	14.8	4.3	3	0.0	-13.8	-0.6	26.1	27.2	3.0	0.6	72	68	2.8	15	76	8		
2.5	1.00	4	45	5	18	-20.3	0.0	0.0	39	18	14	14.5	7.3	3	0.0	-16.4	-0.6	26.1	27.2	3.0	0.6	81	52	2.8	10	45	8		
2	10.13	2	25	1	21	6.2	0.0	0.0	23	18	6	4.3	4.3	25	0.0	9.1	0.0	11.1	17.4	4.1	0.0	33	52	0.0	21	0	8		
3	10.13	/	30	3	21	6.2	0.0	0.0	23	18	6	4.3	4.3	25	0.0	9.0	0.0	11.1	17.4	4.1	0.0	33	51	0.0	21	102	8		
2.5	1.00	4	45	5	21	4.1	0.0	0.0	24	12	4	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
2	10.13	3	25	1	25	5.5	0.0	0.0	24	16	6	3.1	4.3	21	0.0	-6.8	0.0	11.1	17.4	4.1	0.0	25	39	0.0	21	0	8		
3	10.13	/	30	3	25	7.4	0.0	0.0	25	18	7	5.3	5.3	21	0.0	-10.2	0.0	11.1	17.4	4.1	0.0	38	59	0.0	21	102	8		
2.5	1.00	4	45	5	25	7.4	0.0	0.0	25	18	7	5.3	5.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
2	10.13	4	25	1	21	-11.7	0.0	0.0	32	18	9	8.7	5.3	21	0.0	-14.3	0.5	26.1	27.2	3.0	0.5	68	67	2.4	15	0	8		
3	10.13	/	30	3	21	-21.2	0.0	0.0	37	24	16	15.0	5.8	21	0.0	-16.2	0.5	26.1	27.2	3.0	0.5	75	75	2.4	15	57	8		
2.5	1.00	4	45	5	21	-21.2	0.0	0.0	40	19	14	15.0	7.5	21	0.0	-17.7	0.5	26.1	27.2	3.0	0.5	81	54	2.4	10	45	8		
12	10.13	2	25	1	18	6.6	0.0	0.0	26	16	6	4.3	5.3	30	0.0	9.8	0.0	11.1	17.4	4.1	0.0	36	56	0.0	21	0	8		
13	10.13	/	30	3	18	6.6	0.0	0.0	26	16	6	4.3	5.3	30	0.0	9.6	0.0	11.1	17.4	4.1	0.0	35	55	0.0	21	102	8		
2.5	1.00	4	45	5	18	4.4	0.0	0.0	24	13	4	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
12	10.13	3	25	1	30	5.7	0.0	0.0	24	17	6	3.1	4.3	18	0.0	-6.8	0.0	11.1	17.4	4.1	0.0	25	39	0.0	21	0	8		
13	10.13	/	30	3	30	8.1	0.0	0.0	26	18	7	5.3	5.6	18	0.0	-10.2	0.0	11.1	17.4	4.1	0.0	37	59	0.0	21	102	8		
2.5	1.00	4	45	5	30	8.1	0.0	0.0	26	18	7	5.3	5.6	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8		
12	10.13	4	25	1	18	-12.1	0.0	0.0	32	18	9	8.9	6.0	18	0.0	-15.0	-0.5	26.1	27.2	3.0	0.5	70	70	2.4	15	0	8		
13	10.13	/	30	3	18	-21.9	0.0	0.0	36	27	17	15.5	6.9	18	0.0	-16.9	-0.5	15.6	24.4	5.7	0.5	77	77	2.4	15	57	8		
2.5	1.00	4	45	5	18	-21.9	0.0	0.0	36	24	16	15.5	7.7	18	0.0	-18.4	-0.5	26.1	27.2	3.0	0.5	83	56	2.4	10	45	8		
52	10.13	2	26	1	3	1.4	0.0	0.0	26	11	5	3.1	3.1	9	0.0	0.8	0.0	13.7	11.1	2.4	0.0	5	7	0.0	17	0	8		
53	10.13	/	30	3	3	1.5	0.0	0.0	26	12	5	3.1	3.1	3	0.0	-0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	136	8		
2.5	1.00	4	25	5	3	1.4	0.0	0.0	26	11																			

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T ra Bas t	Sez a n	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														Staffe		
					Co	M	Ed	N	x/	εf%	εc%	Area cmq		Co	V	V	T	V	V	TRd	TRId	Coe	Coe	ALon				Pas	Lun	Fi	
					mb	(t*m)	(t*m)	(t)	/d	100	100	sup	inf	mb	(t)	(t)	(t*m)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq							
2.5	1.00	4	25	5	25	0.2	0.0	0.0	25	2	1	3.1	3.1	9	0.0	-1.1	0.0	14.5	14.1	1.4	0.0	8	3	0.0	5	25	8				
3	10.13	2	25	1	12	-3.2	0.0	0.0	24	9	3	4.3	3.1	12	0.0	4.0	0.0	11.1	17.4	4.1	0.0	15	23	0.0	21	0	8				
54	10.13	/	30	3	12	-3.2	0.0	0.0	24	9	3	4.3	3.1	12	0.0	4.0	0.0	11.1	17.4	4.1	0.0	15	23	0.0	21	42	8				
2.5	1.00	2	45	5	37	-1.0	0.0	0.0	23	3	1	4.3	4.3	9	0.0	3.8	0.0	26.1	27.2	3.0	0.0	14	11	0.0	10	45	8				
1	10.13	2	25	1	9	-3.6	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.3	0.0	11.1	17.4	4.1	0.0	16	25	0.0	21	0	8				
52	10.13	/	30	3	9	-3.6	0.0	0.0	24	10	4	4.3	3.1	1	0.0	4.3	0.0	11.1	17.4	4.1	0.0	16	25	0.0	21	42	8				
2.5	1.00	2	45	5	9	-1.9	0.0	0.0	23	6	2	4.3	4.3	1	0.0	4.1	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8				
2	10.13	2	33	1	6	-0.7	0.0	0.0	24	9	4	3.1	3.1	1	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	0	8				
53	10.13	/	50	3	6	-0.5	0.0	0.0	24	6	2	3.1	3.1	1	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	69	8				
2.5	1.00	2	18	5	9	0.3	0.0	0.0	23	4	1	3.1	3.1	6	0.0	1.1	0.0	18.3	15.9	1.6	0.0	7	3	0.0	3	18	8				
11	10.13	2	25	1	12	-3.6	0.0	0.0	24	11	4	4.3	3.1	1	0.0	4.3	0.0	11.1	17.4	4.1	0.0	16	25	0.0	21	0	8				
55	10.13	/	30	3	12	-3.6	0.0	0.0	24	11	4	4.3	3.1	1	0.0	4.3	0.0	11.1	17.4	4.1	0.0	16	25	0.0	21	42	8				
2.5	1.00	2	45	5	12	-1.9	0.0	0.0	23	6	2	4.3	4.3	1	0.0	4.1	0.0	26.1	27.2	3.0	0.0	15	11	0.0	10	45	8				
13	10.13	2	25	1	6	-3.3	0.0	0.0	24	10	3	4.3	3.1	6	0.0	4.0	0.0	11.1	17.4	4.1	0.0	15	23	0.0	21	0	8				
57	10.13	/	30	3	6	-3.3	0.0	0.0	24	10	3	4.3	3.1	6	0.0	4.0	0.0	11.1	17.4	4.1	0.0	15	23	0.0	21	42	8				
2.5	1.00	2	45	5	34	-1.1	0.0	0.0	23	3	1	4.3	4.3	6	0.0	3.8	0.0	26.1	27.2	3.0	0.0	14	10	0.0	10	45	8				
12	10.13	2	33	1	12	-0.7	0.0	0.0	24	9	4	3.1	3.1	12	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	0	8				
56	10.13	/	50	3	12	-0.5	0.0	0.0	24	6	2	3.1	3.1	12	0.0	1.3	0.0	37.2	11.6	4.2	0.0	8	11	0.0	11	69	8				
2.5	1.00	2	18	5	9	0.3	0.0	0.0	23	4	1	3.1	3.1	1	0.0	1.1	0.0	18.3	15.9	1.6	0.0	7	3	0.0	3	18	8				
55	10.13	2	26	1	3	1.4	0.0	0.0	26	11	5	3.1	3.1	9	0.0	0.8	0.0	13.7	11.1	2.4	0.0	5	7	0.0	17	0	8				
56	10.13	/	30	3	3	1.5	0.0	0.0	26	12	5	3.1	3.1	3	0.0	-0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	136	8				
2.5	1.00	4	25	5	3	1.4	0.0	0.0	26	11	5	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8				
55	10.13	3	26	1	3	1.5	0.0	0.0	26	12	5	3.1	3.1	18	0.0	-0.4	0.0	13.7	11.1	2.4	0.0	3	4	0.0	17	0	8				
56	10.13	/	30	3	3	1.4	0.0	0.0	26	11	5	3.1	3.1	3	0.0	-1.6	0.0	13.7	11.1	2.4	0.0	12	15	0.0	17	136	8				
2.5	1.00	4	25	5	9	0.6	0.0	0.0	25	5	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8				
55	10.13	4	26	1	30	0.4	0.0	0.0	25	3	1	3.1	3.1	30	0.0	-0.5	0.0	13.7	11.1	2.4	0.0	3	4	0.0	17	0	8				
56	10.13	/	30	3	6	-0.6	0.0	0.0	25	5	2	3.1	3.1	9	0.0	-1.5	0.0	13.7	11.1	2.4	0.0	11	13	0.0	17	111	8				
2.5	1.00	4	25	5	9	-1.1	0.0	0.0	25	9	4	3.1	3.1	9	0.0	-1.8	0.0	14.5	14.1	1.4	0.0	13	5	0.0	5	25	8				
56	10.13	2	26	1	3	0.4	0.0	0.0	25	3	1	3.1	3.1	9	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	14	0.0	17	0	8				
57	10.13	/	30	3	9	1.0	0.0	0.0	25	8	3	3.1	3.1	9	0.0	1.5	0.0	13.7	11.1	2.4	0.0	11	13	0.0	17	117	8				
2.5	1.00	4	25	5	9	1.1	0.0	0.0																							

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	Tr a Bas t	Sez a n	Co n	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														
					Co mb	M Exd (t*m)	M Eyd (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co mb	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRLd (t*m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi			
2.5	1.00	4	45	5	18	5.2	0.0	-8.9	31	11	6	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8
76	15.10	4	25	1	18	4.4	-0.3	-6.6	30	10	5	4.3	4.3	30	-0.5	-5.5	0.0	11.1	17.4	4.1	0.0	22	32	0.0	21	0	8
11	13.42	/	30	3	24	-6.9	0.2	3.1	24	18	6	5.3	4.3	30	-0.5	-6.8	0.0	11.1	17.4	4.1	0.0	28	39	0.0	21	79	8
2.5	1.00	4	45	5	30	-8.6	0.4	-0.4	25	23	9	5.8	4.3	6	-1.3	-7.7	0.0	26.1	27.2	3.0	0.0	33	22	0.0	10	45	8
2	14.96	2	25	1	27	-2.2	0.0	7.3	11	10	1	4.3	4.3	25	0.0	5.5	0.0	11.1	17.4	4.1	0.0	20	32	0.0	21	0	8
3	13.42	/	30	3	25	3.0	0.0	1.3	21	9	3	4.3	4.3	25	0.0	5.4	0.0	11.1	17.4	4.1	0.0	20	31	0.0	21	109	8
2.5	1.00	4	45	5	46	1.0	0.0	10.1	22	9	3	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8
2	14.96	3	25	1	25	4.0	0.0	-4.0	29	10	4	3.1	4.3	21	-0.2	-3.8	0.0	11.1	17.4	4.1	0.0	14	22	0.0	21	0	8
3	13.42	/	30	3	25	5.4	0.0	-4.4	27	13	6	4.3	4.3	21	-0.2	-5.7	0.0	11.1	17.4	4.1	0.0	21	33	0.0	21	109	8
2.5	1.00	4	45	5	25	5.4	0.1	-4.7	28	13	6	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8
2	14.96	4	25	1	21	-7.7	-0.1	-8.6	29	18	8	4.3	4.3	21	-0.4	-8.5	0.0	11.1	17.4	4.1	0.0	33	49	0.0	21	0	8
3	13.42	/	30	3	21	-13.7	0.2	-9.0	36	19	12	8.6	4.6	21	-0.4	-9.5	0.0	11.1	17.4	4.1	0.0	36	55	0.0	21	64	8
2.5	1.00	4	45	5	21	-13.7	0.2	-9.3	35	21	12	8.5	4.6	21	-0.4	-10.4	0.0	26.1	27.2	3.0	0.0	39	28	0.0	10	45	8
77	15.10	2	25	1	13	3.1	0.0	-2.0	26	8	3	4.3	4.3	3	0.1	5.0	0.0	11.1	17.4	4.1	0.0	19	29	0.0	21	0	8
1	13.42	/	30	3	3	5.3	-0.1	-6.1	29	12	6	3.1	4.3	3	0.1	4.9	0.0	11.1	17.4	4.1	0.0	18	28	0.0	21	124	8
2.5	1.00	4	45	5	3	5.3	-0.1	-6.6	30	12	6	3.1	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8
77	15.10	3	25	1	21	5.3	0.0	-6.2	30	12	6	3.1	4.3	21	0.0	3.1	0.0	11.1	17.4	4.1	0.0	11	18	0.0	21	0	8
1	13.42	/	30	3	21	6.5	0.0	-6.6	29	16	7	4.3	4.3	25	0.2	-4.2	0.0	11.1	17.4	4.1	0.0	16	24	0.0	21	124	8
2.5	1.00	4	45	5	21	6.6	0.1	-6.9	29	16	7	4.3	4.3	0	0.0	0.0	0.0	11.1	17.4	4.1	0.0	0	0	0.0	21	0	8
77	15.10	4	25	1	21	6.0	0.1	-5.1	28	15	6	4.3	4.3	25	1.0	-6.6	0.0	11.1	17.4	4.1	0.0	28	38	0.0	21	0	8
1	13.42	/	30	3	25	-10.3	-0.7	-4.4	31	18	9	6.8	4.3	25	1.0	-7.9	0.0	11.1	17.4	4.1	0.0	33	46	0.0	21	79	8
2.5	1.00	4	45	5	25	-10.8	-0.9	-4.7	32	19	10	6.9	4.3	25	1.0	-8.8	0.0	26.1	27.2	3.0	0.0	36	24	0.0	10	45	8
3	13.42	2	33	1	14	-0.1	0.0	0.0	23	1	0	3.1	3.1	14	0.0	0.2	0.0	37.2	11.6	4.2	0.0	1	1	0.0	11	0	8
54	13.42	/	50	3	21	-0.1	0.0	0.0	23	1	0	3.1	3.1	8	0.0	-0.2	0.0	37.2	11.6	4.2	0.0	1	2	0.0	11	69	8
2.5	1.00	2	18	5	8	-0.1	0.0	0.0	23	2	1	3.1	3.1	8	0.0	-0.3	0.0	18.3	15.9	1.6	0.0	2	1	0.0	3	18	8
1	13.42	2	33	1	12	-0.2	0.0	0.0	23	2	1	3.1	3.1	14	0.0	0.4	0.0	37.2	11.6	4.2	0.0	2	3	0.0	11	0	8
52	13.42	/	50	3	12	-0.1	0.0	0.0	23	2	1	3.1	3.1	12	0.0	0.4	0.0	37.2	11.6	4.2	0.0	2	3	0.0	11	69	8
2.5	1.00	2	18	5	46	0.0	0.0	0.0	23	1	0	3.1	3.1	12	0.0	0.2	0.0	18.3	15.9	1.6	0.0	1	0	0.0	3	18	8
2	14.96	2	33	1	12	-0.3	0.1	3.4	14	6	1	3.1	3.1	12	-0.1	0.6	0.0	37.2	11.6	4.2	0.0	5	5	0.0	11	0	8
53	14.96	/	50	3	12	-0.2	0.1	3.4	9	5	1	3.1	3.1	12	-0.1	0.6	0.0	37.2	11.6	4.2	0.0	5	5	0.0	11	69	8
2.5	1.00	2	18	5	15	0.0	0.0	2.6	6	2	2	3.1	3.1	9	-0.2	0.4	0.0	18.3	15.9	1.6	0.0	4	1	0.0	3	18	8
53	14.96	2	26	1	9	0.5	0.0	-6.2	67	0	2	3.1	3.1	9	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	0	8
54	13.42	/	30	3	9	0.7	0.0	-6.3	49	2	3	3.1	3.1	10	0.0	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	123	8
2.5	1.00	4	25	5	9	0.8	0.0	-6.4	49	2	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
53	14.96	3	26	1	9	0.8	-0.2	-4.3	38	4	3	3.1	3.1	15	-0.2	-0.2	0.0	14.5	14.1	1.4	0.0	3	3	0.0	17	0	8
54	13.42	/	30	3	9	0.8	-0.2	-4.4	39	3	3	3.1	3.1	9	-0.3	-0.7	0.0	14.5	14.1	1.4	0.0	7	6	0.0	17	123	8
2.5	1.00	4	25	5	25	0.6	0.1	-4.7	48	2	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
53	14.96	4	26	1	9	0.7	-0.3	2.8	18	8	2	3.1	3.1	9	-0.3	-0.6	0.0	14.5	14.1	1.4	0.0	6	6	0.0	17	0	8
54	13.42	/	30	3	9	0.5	-0.2	2.7	17	6	2	3.1	3.1	9	-0.3	-1.1	0.0	14.5	14.1	1.4	0.0	10	10	0.0	17	98	8
2.5	1.00	4	25	5	9	-0.5	0.1	2.5	16	6	1	3.1	3.1	9	-0.3	-1.3	0.0	14.5	14.1	1.4	0.0	11	3	0.0	5	25	8
78	15.10	2	26	1	3	0.6	0.1	-8.4	73	0	2	3.1	3.1	3	0.1	0.9	0.0	13.7	11.1	2.4	0.0	7	8	0.0	17	0	8
52	13.42	/	30	3	3	1.0	0.0	-8.5	49	3	4	3.1	3.1	3	0.1	0.9	0.0	13.7	11.1	2.4	0.0	7	8	0.0	17	133	8
2.5	1.00	4	25	5	3	1.1	0.0	-8.6	48	3	4	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
78	15.10	3	26	1	3	1.1	0.2	-7.5	43	4	4	3.1	3.1	1	0.3	0.1	0.0	14.7	14.3	1.4	0.0	2	2	0.0	17	0	8
52	13.42	/	30	3	3	1.1	0.2	-7.6	44	4	4	3.1	3.1	3	0.3	-0.7	0.0	14.7	14.3	1.4	0.0	7	7	0.0	17	133	8
2.5	1.00	4	25	5	3	0.8	-0.1	-7.8	53	2	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8
78	15.10	4	26	1	3	1.1	0.2	0.4	24	9	4	3.1	3.1	3	0.1	-0.8	0.0	13.7	11.1	2.4	0.0	7	7				

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ELEVAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final AmpC	T r a t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe								
					Co	M	Exd	M	Eyd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Staffe	
					mb	(t*m)	(t*m)	(t)	(t)	/d	100	100	100	100	sup	inf	mb	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi
2.5	1.00	4	25	5	3	1.1	0.2	-7.5	43	4	4	3.1	3.1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8			
55	13.42	3	26	1	3	1.1	-0.1	-8.8	48	3	4	3.1	3.1	15	0.0	-0.2	0.0	13.7	11.1	2.4	0.0	2	2	0.0	17	0	8							
79	15.10	/	30	3	3	1.0	0.0	-8.7	50	3	3	3.1	3.1	3	-0.1	-0.9	0.0	13.7	11.1	2.4	0.0	7	8	0.0	17	133	8							
2.5	1.00	4	25	5	3	0.6	0.1	-8.5	74	0	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8							
55	13.42	4	26	1	3	0.8	-0.1	-2.0	31	5	3	3.1	3.1	3	-0.2	-1.4	0.0	13.7	11.1	2.4	0.0	11	12	0.0	17	0	8							
79	15.10	/	30	3	9	-1.0	-0.1	-1.4	28	7	4	3.1	3.1	3	-0.2	-2.0	0.0	13.7	11.1	2.4	0.0	15	18	0.0	17	108	8							
2.5	1.00	4	25	5	12	-1.6	0.1	-1.5	28	12	6	3.1	3.1	3	-0.2	-2.2	0.0	14.6	14.2	1.4	0.0	16	6	0.0	5	25	8							
56	14.96	2	26	1	9	0.5	0.0	-6.4	69	0	2	3.1	3.1	10	0.1	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	0	8							
57	13.42	/	30	3	9	0.7	0.0	-6.5	51	2	2	3.1	3.1	9	0.1	0.7	0.0	13.7	11.1	2.4	0.0	5	6	0.0	17	123	8							
2.5	1.00	4	25	5	9	0.7	-0.1	-6.6	51	2	3	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8							
56	14.96	3	26	1	9	0.8	0.2	-4.6	40	3	3	3.1	3.1	7	0.3	0.1	0.0	14.6	14.2	1.4	0.0	3	3	0.0	17	0	8							
57	13.42	/	30	3	9	0.8	0.2	-4.7	40	3	3	3.1	3.1	9	0.4	-0.7	0.0	14.6	14.2	1.4	0.0	7	6	0.0	17	123	8							
2.5	1.00	4	25	5	9	0.6	-0.2	-4.8	49	1	2	3.1	3.1	0	0.0	0.0	0.0	13.7	11.1	2.4	0.0	0	0	0.0	17	0	8							
56	14.96	4	26	1	9	0.7	0.3	2.5	19	8	2	3.1	3.1	9	0.2	-0.6	0.0	14.5	14.1	1.4	0.0	6	6	0.0	17	0	8							
57	13.42	/	30	3	9	0.6	0.2	2.4	18	6	2	3.1	3.1	9	0.2	-1.1	0.0	13.7	11.1	2.4	0.0	10	10	0.0	17	98	8							
2.5	1.00	4	25	5	9	-0.5	0.0	2.3	17	6	1	3.1	3.1	9	0.2	-1.3	0.0	14.5	14.1	1.4	0.0	11	3	0.0	5	25	8							

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

Filo Iniz Fin. Ctg0	Quota Iniz. Final N/Nc	T r a t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE													Staffe								
					Co	M	Exd	M	Eyd	N	Ed	x/	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRld	Coe	Coe	ALon	Staffe	
					mb	(t*m)	(t*m)	(t)	(t)	/d	100	100	100	100	b	h	mb	(t)	(t)	(t)	(t*m)	(t)	(t)	(t)	(t)	(t)	(t*m)	(t*m)	Cls	Sta	cmq	Pas	Lun	Fi
1	0.00		28	1	19	-6.7	24.6	-52.9		30	33	11.2	15.4	37	-10.3	-6.9	0.0	35.7	33.3	3.8	0.0	50	49	0.0	6	64	8							
1	3.63		50	3	37	-4.4	10.6	-68.6		10	18	4.9	5.7	41	3.8	8.7	0.0	25.0	14.0	5.3	0.0	37	62	0.0	16	174	8							
2.5	0.35		30	5	41	-10.2	5.9	-47.0		34	33	6.2	5.0	37	-10.3	-6.9	0.0	35.7	33.3	3.8	0.0	50	34	0.0	16	50	8							
2	0.00		28	1	19	-2.7	26.8	-96.8		21	33	6.7	12.4	21	-16.6	-0.7	0.0	24.9	14.0	5.2	0.0	57	67	0.0	4	60	8							
2	3.63		50	3	12	-3.4	3.4	-170.5		4	16	5.6	5.0	21	-16.6	-0.7	0.0	24.9	14.0	5.2	0.0	57	67	0.0	16	178	8							
2.49	0.59		30	5	21	-1.9	-20.1	-95.9		20	32	5.6	5.0	21	-16.6	-0.7	0.0	30.6	28.6	3.8	0.0	57	46	0.0	16	50	8							
3	0.00		28	1	25	5.4	-22.7	0.6		47	33	7.0	12.9	21	-13.8	-1.7	0.0	25.0	14.0	5.3	0.0	52	55	0.0	5	64	8							
3	3.63		50	3	25	1.2	-10.0	1.0		25	12	5.5	5.1	21	-13.8	-1.7	0.0	25.0	14.0	5.3	0.0	52	55	0.0	16	174	8							
2.5	0.45		30	5	41	-6.9	6.0	1.8		55	30	6.0	5.9	21	-13.8	-1.7	0.0	29.9	27.9	3.8	0.0	52	38	0.0	16	50	8							
4	0.00		29	1	21	-1.0	9.6	9.6		83	23	6.5	10.3	25	6.2	2.0	0.0	16.5	29.1	6.7	0.0	28	38	0.0	10	55	8							
4	3.63		30	3	21	-0.6	2.1	10.0		10	3	6.3	6.2	25	6.2	2.0	0.0	14.5	25.5	5.9	0.0	28	43	0.0	16	183	8							
2.5	0.24		50	5	21	0.																												

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final N/Nc	T r a t	Sez a Alt	C o n c	VERIFICA A PRESSO-FLESSIONE							VERIFICA A TAGLIO E TORSIONE											Staffe				
					Co	M Exd	M Eyd	N Ed	x/d	εf%	εc%	Area cmq	Co	V Exd	V Eyd	T Sdu	V Rxd	V Ryd	TRld	TRld	Coe	Coe	ALon	Pas	Lun	Fi	
13	3.63		50	3	46	-3.4	-9.6	-8.4		25	17	5.6	5.0	30	13.2	-4.4	0.0	31.0	28.9	3.8	0.0	58	53	0.0	16	174	8
2.5	0.46		30	5	45	7.7	8.7	-9.1		49	33	6.7	6.5	30	13.2	-4.4	0.0	31.0	28.9	3.8	0.0	58	36	0.0	16	50	8
14	0.00		1	1	31	8.1	2.3	-18.7		40	32	6.9	5.6	43	1.7	-1.6	0.0	19.5	19.5	1.8	0.0	17	10	0.0	11	61	8
14	3.63		30	3	9	0.8	0.8	-38.6		1	5	5.1	5.1	27	2.3	-0.8	0.0	11.0	11.0	2.4	0.0	16	21	0.0	21	182	8
2.5	0.27		30	5	31	-8.1	-0.8	-18.1		52	28	6.7	5.2	43	1.7	-1.6	0.0	19.5	19.5	1.8	0.0	17	10	0.0	14	45	8
15	0.00		1	1	15	1.1	5.4	-34.7		11	16	5.1	5.1	25	2.2	0.0	0.0	16.5	16.5	3.6	0.0	10	13	0.0	11	71	8
15	3.63		30	3	3	1.1	-1.1	-53.6		2	7	5.1	5.1	25	2.2	0.0	0.0	11.0	11.0	2.4	0.0	10	20	0.0	21	218	8
2.5	0.28		30	5	25	0.7	5.6	-33.3		11	15	5.1	5.1	25	2.2	0.0	0.0	16.5	16.5	3.6	0.0	10	13	0.0	14	49	8
16	0.00		3	1	34	20.8	-1.8	-41.3		52	33	7.3	6.3	31	0.7	9.9	0.0	16.5	29.1	6.7	0.0	31	34	0.0	8	60	8
16	3.63		30	3	40	4.4	-2.1	-35.1		3	6	6.1	6.4	31	0.7	9.9	0.0	14.5	25.5	5.9	0.0	31	39	0.0	16	178	8
2.5	0.30		50	5	34	-20.8	-0.8	-40.2		63	33	7.0	6.3	31	0.7	9.9	0.0	16.5	29.1	6.7	0.0	31	34	0.0	14	50	8
17	0.00		1	1	44	-10.7	-3.6	-43.0		26	33	8.6	8.4	43	2.4	-3.0	0.0	21.3	21.3	1.8	0.0	26	18	0.0	8	51	8
17	3.63		30	3	9	-1.2	-1.2	-59.1		2	8	5.1	5.1	30	3.9	0.4	0.0	11.0	11.0	2.4	0.0	20	35	0.0	21	192	8
2.5	0.37		30	5	24	-2.9	10.0	-44.9		25	33	8.6	8.1	43	2.4	-3.0	0.0	21.3	21.3	1.8	0.0	26	18	0.0	14	45	8
18	0.00		28	1	24	2.4	-16.3	-54.1		17	19	6.4	6.2	30	8.2	0.2	0.0	29.1	16.5	6.7	0.0	22	28	0.0	9	67	8
18	3.63		50	3	9	-1.6	-1.6	-80.9		2	6	6.4	6.1	30	8.2	0.2	0.0	22.6	12.9	5.2	0.0	22	36	0.0	18	201	8
2.5	0.26		30	5	25	-1.1	16.5	-53.1		15	16	6.4	6.1	30	8.2	0.2	0.0	29.1	16.5	6.7	0.0	22	28	0.0	14	50	8
19	0.00		3	1	24	12.5	-10.0	-36.5		36	32	8.2	8.4	40	-0.1	10.4	0.0	16.5	29.1	6.7	0.0	30	36	0.0	9	57	8
19	3.63		30	3	40	5.9	-0.9	-44.9		2	6	6.1	6.4	40	-0.1	10.4	0.0	15.4	27.2	6.3	0.0	30	38	0.0	15	181	8
2.5	0.26		50	5	24	-8.3	10.0	-35.5		39	33	7.0	7.3	40	-0.1	10.4	0.0	16.5	29.1	6.7	0.0	30	36	0.0	14	50	8
20	0.00		3	1	34	9.4	5.2	-12.5		28	20	6.4	6.2	37	1.8	-6.5	0.0	30.3	32.0	3.5	0.0	26	22	0.0	9	66	8
20	3.63		30	3	18	-2.0	2.7	-14.3		5	5	6.2	6.4	36	1.4	-6.8	0.0	11.0	19.4	4.5	0.0	26	35	0.0	21	172	8
2.5	0.28		50	5	43	13.4	2.7	-54.7		12	16	6.1	6.4	37	1.8	-6.5	0.0	30.3	32.0	3.5	0.0	26	22	0.0	14	50	8
21	0.00		1	1	20	-1.4	5.8	-34.4		13	18	5.1	5.1	30	2.2	0.1	0.0	16.5	16.5	3.6	0.0	11	13	0.0	11	67	8
21	3.63		30	3	6	-1.1	-1.1	-53.1		2	7	5.1	5.1	30	2.2	0.1	0.0	11.0	11.0	2.4	0.0	11	20	0.0	21	222	8
2.5	0.28		30	5	15	-0.7	-5.8	-34.7		12	16	5.1	5.1	30	2.2	0.1	0.0	16.5	16.5	3.6	0.0	11	13	0.0	14	49	8
22	0.00		3	1	45	17.6	-4.5	-31.0		44	33	7.4	6.6	34	-1.6	-10.4	0.0	16.5	29.1	6.7	0.0	35	36	0.0	8	57	8
22	3.63		30	3	34	-5.3	1.5	-63.2		1	7	6.1	6.4	34	-1.6	-10.4	0.0	15.4	27.2	6.3	0.0	35	38	0.0	15	181	8
2.5	0.31		50	5	45	-17.6	2.2	-29.9		50	29	6.5	6.4	34	-1.6	-10.4	0.0	16.5	29.1	6.7	0.0	35	36	0.0	14	50	8
23	0.00		29	1	16	5.8	11.1	17.2		74	32	8.9	11.3	46	6.2	-8.2	0.0	28.8	30.4	3.5	0.0	49	38	0.0	13	59	8
23	3.63		30	3	34	3.9	2.4	14.2		17	7	6.5	6.1	46	6.2	-8.2	0.0	28.8	30.4	3.5	0.0	49	38	0.0	14	179	8
2.5	0.20		50	5	18	-3.0	-11.1	19.7		74	26	7.6	12.3	46	6.2	-8.2	0.0	28.8	30.4	3.5	0.0	49	38	0.0	14	50	8
24	0.00		35	1	45	-3.1	-42.2	-21.6		74	33	8.4	13.1	46	22.0	-1.1	0.0	46.0	42.6	5.1	0.0	50	50	0.0	10	70	8
24	3.63		70	3	46	-1.7	-18.4	-21.3</																			

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

Filo Iniz Fin. Ctg0	Quota Iniz. Final N/Nc	T ra t	Sez a Alt	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE													
					Co m b	M Exd (t°m)	M Eyd (t°m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq b h	Co m b	V Exd (t)	V Eyd (t)	T Sdu (t°m)	V Rxd (t)	V Ryd (t)	TRd (t°m)	TRLd (t°m)	Coe Clos	Coe Sta	ALon cmq	Staffe Pas Lun Fi				
3 2.5	6.88 0.31		50 30 5	3 5 41	21 21 41	1.3 -8.1 2.8	-3.3 2.8 2.8	-64.5 -2.4 -2.4		1 71	6 26	6 7.1	6.2 6.6 6.6	41 41 41	1.4 1.4 1.4	5.8 5.8 5.8	0.0 0.0 0.0	19.4 29.1 16.5	11.0 16.5 6.7	4.5 6.7 0.0	0.0 0.0 0.0	25 25 25	53 35 0.0	0.0 0.0 0.0	21 21 21	178 52 8	8	
4 4 2.5	3.63 6.88 0.16		29 30 50	1 3 5	21 21 21	-2.2 -0.7 1.6	10.1 1.3 -9.9	3.9 4.3 4.9		74 6 94	25 2 27	6.2 6.1 6.0	10.4 6.4 10.4	25 25 25	6.1 6.1 6.1	0.8 0.8 0.8	0.0 0.0 0.0	16.5 13.6 16.5	29.1 24.0 29.1	6.7 5.5 6.7	0.0 0.0 0.0	24 24 24	37 45 37	0.0 0.0 0.0	14 17 14	50 180 50	8 8 8	
5 5 2.5	3.63 6.88 0.10		28 50 30	1 3 5	24 25 24	-0.3 -0.3 -0.2	-22.4 3.5 23.4	-13.3 -13.6 -12.3		79 3 81	23 3 23	6.4 6.4 6.2	10.6 6.1 11.6	25 25 25	11.6 11.6 11.6	0.1 0.1 0.1	0.0 0.0 0.0	31.4 31.4 31.4	17.8 17.8 17.8	7.2 7.2 7.2	0.0 0.0 0.0	37 37 37	37 37 37	0.0 0.0 0.0	13 13 13	50 180 50	8 8 8	
6 6 2.5	3.63 6.88 0.09		4 30 60	1 3 5	20 41 24	-5.1 4.5 1.3	19.5 1.6 16.3	-23.1 -5.1 -3.2		61 7 85	33 5 29	8.0 7.1 7.1	16.6 7.0 15.7	25 25 25	6.8 6.8 6.8	1.2 1.2 1.2	0.0 0.0 0.0	17.6 17.8 17.6	37.6 38.1 37.6	8.8 8.9 8.8	0.0 0.0 0.0	23 23 23	39 38 39	0.0 0.0 0.0	13 13 13	60 160 60	8 8 8	
7 7 2.5	3.63 6.88 0.12		1 30 30	1 3 5	25 25 25	-0.1 0.1 0.2	-7.2 -0.9 6.5	6.5 6.8 7.1		53 7 50	17 1 16	5.3 5.1 5.2	8.5 5.1 7.9	21 25 21	-2.3 2.8 -2.3	-0.8 -0.1 -0.8	0.0 0.0 0.0	17.3 11.0 17.3	17.3 11.0 17.3	1.8 2.4 1.8	0.0 0.0 0.0	18 17 18	14 26 14	0.0 0.0 0.0	14 21 14	48 186 46	8 8 8	
8 8 2.19	3.63 6.88 0.25		29 30 50	1 3 5	35 9 31	-28.9 1.4 -29.0	-4.6 -1.9 0.8	-45.9 -68.6 -39.6		36 1 53	33 5 29	13.3 6.1 14.7	11.5 6.5 7.5	37 37 37	3.0 3.0 3.0	-12.9 -12.9 -12.9	0.0 0.0 0.0	36.9 36.9 36.9	39.0 39.0 39.0	3.8 3.8 3.8	0.0 0.0 0.0	41 41 41	36 36 36	0.0 0.0 0.0	10 10 10	50 180 50	8 8 8	
9 9 2.5	3.63 6.88 0.42		28 50 30	1 3 5	16 9 19	-1.4 -2.4 2.5	39.9 2.4 -27.0	-69.6 -120.3 -71.2		33 3 29	33 10 33	6.6 6.4 6.5	17.0 6.1 9.9	18 18 18	-10.8 -10.8 -10.8	0.1 0.1 0.1	0.0 0.0 0.0	29.1 27.2 29.1	16.5 15.4 16.5	6.7 6.3 6.7	0.0 0.0 0.0	33 33 33	37 40 37	0.0 0.0 0.0	14 15 14	50 180 50	8 8 8	
10 10 2.48	3.63 6.88 0.21		29 30 50	1 3 5	32 34 34	24.1 3.0 -26.5	6.8 1.4 -7.0	-26.8 -25.2 -24.5		39 1 39	33 4 33	9.9 6.1 11.9	12.6 6.4 11.7	41 41 41	-2.5 -2.5 -2.5	13.2 13.2 13.2	0.0 0.0 0.0	31.6 31.6 31.6	33.4 33.4 33.4	3.5 3.5 3.5	0.0 0.0 0.0	47 47 47	42 42 42	0.0 0.0 0.0	13 13 13	50 180 50	8 8 8	
11 11 2.5	3.63 6.88 0.26		28 50 30	1 3 5	37 6 37	-9.8 -1.4 10.2	-8.9 -3.1 7.2	-34.5 -70.4 -33.5		39 1 39	32 6 31	7.1 6.2 7.1	7.2 6.4 6.9	37 37 37	5.7 5.7 5.7	-7.1 -7.1 -7.1	0.0 0.0 0.0	19.4 19.4 29.1	11.0 11.0 16.5	4.5 4.5 6.7	0.0 0.0 0.0	38 38 38	65 65 43	0.0 0.0 0.0	14 21 21	50 180 50	8 8 8	
12 12 2.5	3.63 6.88 0.45		28 50 30	1 3 5	18 6 18	-3.4 -2.5 3.1	19.1 2.5 -18.7	-64.8 -125.3 -63.8		27 3 23	30 10 26	6.5 6.4 6.6	6.0 6.1 6.0	18 18 18	-13.5 -13.5 -13.5	-2.3 -2.3 -2.3	0.0 0.0 0.0	19.4 19.4 30.8	11.0 11.0 29.1	4.5 4.5 3.5	0.0 0.0 0.0	52 52 52	70 70 46	0.0 0.0 0.0	14 21 21	50 180 50	8 8 8	
13 13 2.5	3.63 6.88 0.32		28 50 30	1 3 5	46 18 46	-6.3 1.3 6.6	-4.4 -3.1 5.6	-9.4 -64.8 -8.4		22 1 30	15 6 19	6.3 6.4 6.3	6.3 6.2 6.3	18 18 18	-9.4 -9.4 -9.4	-1.3 -1.3 -1.3	0.0 0.0 0.0	19.4 19.4 31.6	11.0 11.0 29.9	4.5 4.5 3.5	0.0 0.0 0.0	34 34 34	48 48 32	0.0 0.0 0.0	14 21 21	50 180 50	8 8 8	
14 14 2.5	3.63 6.88 0.20		1 30 30	1 3 5	40 6 40	9.6 0.6 -9.5	-2.1 -0.6 2.2	-16.1 -27.9 -15.4		42 1 42	31 3 32	8.6 5.1 8.6	5.8 5.1 5.7	39 40 39	1.6 1.5 1.6	2.4 2.5 2.4	0.0 0.0 0.0	18.7 11.0 18.7	18.7 11.0 18.7	1.8 2.4 1.8	0.0 0.0 0.0	21 21 21	15 22 15	0.0 0.0 0.0	14 21 14	46 185 49	8 8 8	
15 15 2.5	3.63 6.88 0.20		1 30 30	1 3 5	18 3 21	-0.5 -0.8 -0.5	6.8 0.8 -7.6	-25.2 -38.8 -24.7		19 1 60	18 5 31	5.1 5.1 5.1	5.1 5.1 5.4	21 21 21	-2.5 -2.5 -2.5	-0.1 -0.1 -0.1	0.0 0.0 0.0	16.5 11.0 16.5	16.5 11.0 16.5	3.6 2.4 3.6	0.0 0.0 0.0	13 13 13	15 22 15	0.0 0.0 0.0	14 21 14	51 199 50	8 8 8	
16 16 2.5	3.63 6.88 0.21		3 30 50	1 3 5	41 3 40	18.5 1.0 -31.0	-0.5 -1.0 1.8	-24.5 -52.2 -25.1		69 1 61	26 4 31	7.0 6.1 14.6	6.4 6.4 6.7	40 40 40	0.0 0.0 0.0	8.0 8.0 8.0	0.0 0.0 0.0	16.5 12.2 16.5	29.1 21.5 29.1	6.7 5.0 6.7	0.0 0.0 0.0	24 24 24	27 37 27	0.0 0.0 0.0	14 19 14	50 180 50	8 8 8	
17 17 2.5	3.63 6.88 0.26		1 30 30	1 3 5	23 9 24	2.7 -0.8 -2.9	-11.2 -0.8 11.8	-31.9 -41.7 -31.4		30 1 30	33 5 33	8.4 5.1 8.2	9.8 5.1 10.7	43 30 43	2.8 4.3 2.8	-3.0 0.3 -3.0	0.0 0.0 0.0	20.1 11.6 20.1	20.1 11.6 20.1	1.8 2.5 1.8	0.0 0.0 0.0	29 23 29	18 37 18	0.0 0.0 0.0	14 20 14	47 187 47	8 8 8	
18 18 2.5	3.63 6.88 0.19		28 50 30	1 3 5	27 9 21	-0.8 -1.2 -0.7	-19.7 -1.2 -17.9	-39.6 -58.9 -37.1		61 1 28	32 4 19	6.5 6.4 6.4	6.4 6.1 6.1	30 30 30	9.0 9.0 9.0	-0.1 -0.1 -0.1	0.0 0.0 0.0	29.1 25.5 29.1	16.5 14.5 16.5	6.7 5.9 6.7	0.0 0.0 0.0	25 25 25	31 35 31	0.0 0.0 0.0	14 16 14	50 180 50	8 8 8	
19 19 2.5	3.63 6.88 0.19		3 30 50	1 3 5	18 3 15	-3.0 -1.0 0.8	14.1 1.0 -14.2	-40.1 -49.1 -39.0		50 1 61	33 3 32	7.1 6.1 7.0	11.4 6.4 11.4	18 18 18	-5.2 -5.2 -5.2	-2.1 -2.1 -2.1	0.0 0.0 0.0	16.5 14.5 16.5	29.1 25.5 29.1	6.7 5.9 6.7	0.0 0.0 0.0	22 22 22	31 36 31	0.0 0.0 0.0	14 16 14	50 180 50	8 8 8	
20 20 2.5	3.63 6.88 0.19		3 30 50	1 3 5	33 46 34	14.9 -1.4 -14.7	0.4 -0.8 -0.9	-11.1 -39.8 -9.7		80 1 80	23 3 24	6.2 6.1 6.1	6.7 6.4 6.7	37 41 37	1.2 0.3 1.2	-5.9 5.9 -5.9	0.0 0.0 0.0	30.1 11.0 30.1	31.8 19.4 31.8	3.5 4.5 3.5	0.0 0.0 0.0	23 20 23	20 31 20	0.0 0.0 0.0	14 21 14	50 180 50	8 8 8	
21 21 2.5	3.63 6.88 0.20		1 30 30	1 3 5	20 3 20	0.5 0.8 -0.5	7.7 0.8 -7.2	-24.9 -38.4 -24.2		60 1 39	31 5 25	5.1 5.1 5.1	5.4 5.1 5.1	18 18 18	-2.8 -2.8 -2.8	0.3 0.3 0.3	0.0 0.0 0.0	16.5 11.0 16.5	16.5 11.0 16.5	3.6 2.4 3.6	0.0 0.0 0.0	15 15 15	17 25 17	0.0 0.0 0.0	14 21 14	51 200 49	8 8 8	
22 22 2.5	3.63 6.88 0.22		3 30 50	1 3 5	45 36 36	17.9 8.8 33.7	-2.2 0.6 0.8	-23.1 -29.5 -29.1		65 7 71	32 8 32	7.2 6.1 15.4	6.5 6.4 6.7	36 36 36	0.6 0.6 0.6	-8.7 -8.7 -8.7	0.0 0.0 0.0	16.5 13.6 16.5	29.1 24.0 29.1	6.7 5.5 6.7	0.0 0.0 0.0	28 28 28	30 36 30	0.0 0.0 0.0	14 17 14	50 180 50	8 8 8	
23 23 2.5	3.63 6.88 0.22		29 30 50	1 3 5	18 3 24	-1.0 13.4 11.0				83 7 71	25 8 32	6.6 6.1 15.4	14.7 6.4 6.7	46 36 36	6.8 0.6 0.6	-3.3 -8.7 -8.7	0.0 0.0 0.0	16.5 13.6 16.5	29.1 24.0 29.1	6.7 5.5 6.7	0.0 0.0 0.0	34 28 28	41 36 30	0.0 0.0 0.0	14 17 14	50 180 50	8 8 8	

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final N/Nc	T ra t	Sez a Alt	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE														
					Co m b	M (t°m)	Exd (t°m)	M (t°m)	N Ed	x/ d	εf% 100	εc% 100	Area cmq b h	Co m b	V (t)	Exd (t)	V (t)	Eyd (t°m)	T (t°m)	V (t)	Rxd (t)	V (t)	Ryd (t)	TRd (t°m)	TRld (t°m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi
23 2.5	6.88 0.13		30 50	3 5	34 18	0.5 0.5	1.7 -12.4	7.9 12.0				8 74	3 22	6.3 6.5	6.3 13.8	46 46	6.8 6.8	-3.3 -3.3	0.0 0.0	15.4 16.5	27.2 29.1	6.3 6.7	0.0 0.0	34 34	44 41	0.0 0.0	15 14	180 50	8 8
24 24 2.1	3.63 6.88 0.08		35 70 30	1 3 5	20 46 29	0.5 0.4 0.3	33.2 6.6 38.5	-13.1 -13.2 -16.8				86 4 94	24 3 24	8.8 8.1 7.8	8.8 7.5 11.4	46 46 46	18.1 18.1 18.1	0.0 0.0 0.0	0.0 0.0 0.0	44.2 44.6 44.2	17.5 17.7 17.5	10.5 10.6 10.5	0.0 0.0 0.0	40 40 40	41 41 41	0.0 0.0 0.0	11 11 11	70 140 70	8 8 8
25 25 2.5	3.63 6.88 0.09		4 30 60	1 3 5	18 46 16	-4.8 1.6 5.1	21.6 -2.3 -18.9	-12.8 -8.3 -12.1				64 5 65	33 4 33	8.8 6.9 8.5	19.4 7.2 16.9	46 46 46	7.6 7.6 7.6	4.7 4.7 4.7	0.0 0.0 0.0	20.7 21.1 20.7	44.3 45.1 44.3	10.4 10.6 10.4	0.0 0.0 0.0	34 34 34	37 36 37	0.0 0.0 0.0	11 11 11	60 160 60	8 8 8
26 26 2.5	3.63 6.88 0.13		1 30 30	1 3 5	30 46 30	0.4 0.1 -0.3	-8.0 -0.9 6.3	6.0 6.0 6.6				57 7 59	20 2 18	5.5 5.1 5.3	9.2 5.1 7.6	34 46 34	-2.5 2.9 -2.5	0.9 0.1 0.9	0.0 0.0 0.0	17.3 11.0 17.3	17.3 11.0 17.3	1.8 2.4 1.8	0.0 0.0 0.0	20 18 20	15 27 15	0.0 0.0 0.0	14 21 14	48 186 46	8 8 8
27 27 2.5	3.63 6.88 0.20		1 30 30	1 3 5	30 30 27	0.9 0.2 -0.5	-5.4 -0.8 6.3	1.7 1.9 2.4				63 5 42	22 2 17	5.1 5.1 5.1	6.1 5.1 7.2	30 30 30	2.5 2.5 2.5	0.6 0.6 0.6	0.0 0.0 0.0	17.3 11.0 17.3	17.3 11.0 17.3	1.8 2.4 1.8	0.0 0.0 0.0	18 18 18	15 23 15	0.0 0.0 0.0	14 21 14	48 186 46	8 8 8
30 30 2.4	3.63 6.88 0.22		3 30 50	1 3 5	37 37 37	-23.9 -3.6 26.7	-1.5 -0.3 1.6	-3.6 -3.2 -2.5				95 5 86	30 3 28	12.2 6.1 10.0	6.9 6.4 7.0	37 37 37	1.1 1.1 1.1	-12.1 -12.1 -12.1	0.0 0.0 0.0	17.1 17.1 17.1	30.1 30.1 30.1	7.0 7.0 7.0	0.0 0.0 0.0	35 35 35	40 40 40	0.0 0.0 0.0	13 13 13	50 180 50	8 8 8
39 39 2.5	3.63 6.88 0.10		1 30 30	1 3 5	43 43 43	-2.2 0.3 2.3	-3.0 0.6 3.0	-6.5 -6.1 -5.9				15 1 16	12 2 12	5.1 5.1 5.1	5.1 5.1 5.1	43 27 43	2.0 2.2 2.0	-0.7 0.3 -0.7	0.0 0.0 0.0	17.7 11.0 17.7	17.7 11.0 17.7	1.8 2.4 1.8	0.0 0.0 0.0	16 14 16	12 20 12	0.0 0.0 0.0	14 21 14	51 194 50	8 8 8
46 46 2.5	3.63 6.88 0.11		3 30 50	1 3 5	43 41 40	-24.9 -3.4 -26.2	-0.4 0.7 1.0	-21.4 -14.8 -14.6				92 3 90	28 3 29	11.0 6.1 12.6	6.5 6.4 6.5	37 37 37	-0.4 -0.4 -0.4	-11.5 -11.5 -11.5	0.0 0.0 0.0	16.5 14.5 16.5	29.1 25.5 29.1	6.7 5.9 6.7	0.0 0.0 0.0	37 37 37	39 45 39	0.0 0.0 0.0	14 16 14	50 180 50	8 8 8
1 1 2.5	6.88 10.13 0.14		28 50 30	1 3 5	41 41 41	9.1 -2.4 -10.0	-6.8 1.7 7.4	-25.5 -24.9 -24.4				49 2 46	33 4 33	6.6 6.3 7.5	6.3 6.2 7.0	41 41 41	5.1 5.1 5.1	6.8 6.8 6.8	0.0 0.0 0.0	19.4 19.4 29.1	11.0 11.0 16.5	4.5 4.5 6.7	0.0 0.0 0.0	36 36 36	62 62 41	0.0 0.0 0.0	14 21 21	50 180 50	8 8 8
2 2 2.5	6.88 10.13 0.29		28 50 30	1 3 5	21 3 19	2.0 -2.0 -2.3	17.8 -1.8 -19.3	-43.3 -72.1 -42.1				25 1 47	21 6 33	6.5 6.5 6.6	6.1 6.0 6.7	21 21 21	-13.5 -13.5 -13.5	1.5 1.5 1.5	0.0 0.0 0.0	19.4 19.4 29.1	11.0 11.0 16.5	4.5 4.5 6.7	0.0 0.0 0.0	43 43 43	69 69 46	0.0 0.0 0.0	14 21 21	50 180 50	8 8 8
3 3 2.5	6.88 10.13 0.18		28 50 30	1 3 5	41 41 41	7.1 -1.6 -7.4	4.5 -0.9 -4.4	-6.3 -5.7 -5.3				38 4 67	20 3 28	6.3 6.4 6.4	6.2 6.2 6.2	31 41 31	-6.8 -3.2 -6.8	4.1 5.2 4.1	0.0 0.0 0.0	19.4 19.4 30.7	11.0 11.0 29.1	4.5 4.5 3.5	0.0 0.0 0.0	37 28 37	38 47 25	0.0 0.0 0.0	14 21 21	50 180 50	8 8 8
4 4 2.5	6.88 10.13 0.07		29 30 50	1 3 5	30 21 25	0.4 0.9 -1.6	-12.0 -1.8 9.4	-12.2 -0.6 -14.5				78 6 94	27 3 32	6.1 6.0 6.0	10.6 6.6 7.4	25 25 25	6.3 6.3 6.3	1.0 1.0 1.0	0.0 0.0 0.0	16.5 12.2 16.5	29.1 21.5 29.1	6.7 5.0 6.7	0.0 0.0 0.0	25 25 25	38 52 38	0.0 0.0 0.0	14 19 14	50 179 51	8 8 8
5 5 2.38	6.88 10.13 0.06		28 50 30	1 3 5	30 25 24	0.2 0.3 0.7	-24.1 4.3 31.2	-10.7 -9.3 -8.4				80 5 81	22 4 25	6.0 6.2 6.1	12.3 6.3 16.8	25 25 25	12.4 12.4 12.4	-0.3 -0.3 -0.3	0.0 0.0 0.0	33.1 33.1 33.1	31.3 31.3 31.3	3.6 3.6 3.6	0.0 0.0 0.0	39 39 39	38 38 38	0.0 0.0 0.0	12 12 12	50 180 50	8 8 8
6 6 2.5	6.88 10.13 0.05		4 30 60	1 3 5	24 41 25	1.0 -4.2 1.6	-15.3 1.8 9.3	-2.2 -2.1 -1.3				83 7 75	27 5 23	6.8 7.1 6.7	14.9 7.0 8.3	25 25 25	6.5 6.5 6.5	-3.1 -3.1 -3.1	0.0 0.0 0.0	17.6 14.5 17.6	37.6 31.0 37.6	8.8 7.3 8.8	0.0 0.0 0.0	27 27 27	37 45 37	0.0 0.0 0.0	13 16 13	60 160 60	8 8 8
7 7 2.5	6.88 10.13 0.06		1 30 30	1 3 5	24 41 25	-0.2 0.5 0.1	-5.5 0.6 9.5	0.8 0.5 1.3				57 4 42	17 3 18	5.1 5.1 5.3	6.1 5.1 10.5	41 25 41	2.0 2.4 2.0	-0.9 -0.1 -0.9	0.0 0.0 0.0	17.3 11.0 17.3	17.3 11.0 17.3	1.8 2.4 1.8	0.0 0.0 0.0	17 15 17	12 22 12	0.0 0.0 0.0	14 21 14	45 181 53	8 8 8
8 8 1.87	6.88 10.13 0.15		29 30 50	1 3 5	34 30 44	26.2 6.2 33.8	0.6 1.8 6.2	-27.8 -29.9 -26.6				77 5 38	32 7 33	13.6 6.1 17.8	7.5 6.5 8.9	46 46 46	4.4 4.4 4.4	-12.9 -12.9 -12.9	0.0 0.0 0.0	38.5 38.5 38.5	40.6 40.6 40.6	4.2 4.2 4.2	0.0 0.0 0.0	43 43 43	38 38 38	0.0 0.0 0.0	9 9 9	50 179 51	8 8 8
9 9 2.5	6.88 10.13 0.27		28 50 30	1 3 5	15 9 18	-0.8 -1.5 -0.8	28.7 1.5 -49.9	-42.4 -75.1 -41.3				62 2 53	33 5 29	6.3 6.4 6.4	12.1 6.1 24.4	18 18 18	-12.0 -12.0 -12.0	0.2 0.2 0.2	0.0 0.0 0.0	29.1 29.1 29.1	16.5 16.5 16.5	6.7 6.7 6.7	0.0 0.0 0.0	34 34 34	41 41 41	0.0 0.0 0.0	14 14 14	50 179 51	8 8 8
10 10 2.07	6.88 10.13 0.10		29 30 50	1 3 5	34 34 31	22.6 -2.8 -25.5	7.0 -1.5 -6.8	-18.2 -17.6 -17.4				42 3 42	33 4 33	9.1 6.0 12.3	12.7 6.5 11.3	34 18 34	-5.0 -6.6 -5.0	9.1 -0.4 9.1	0.0 0.0 0.0	35.7 16.1 35.7	37.7 28.3 37.7	3.9 6.5 3.9	0.0 0.0 0.0	38 19 38	32 41 32	0.0 0.0 0.0	12 12 12	50 180 50	8 8 8
11 11 2.5	6.88 10.13 0.15		28 50 30	1 3 5	44 46 37	-7.7 2.5 9.0	-9.6 4.0 9.2	-25.8 -24.6 -22.0				45 5 43	33 7 32	7.7 6.3 9.0	7.8 6.3 9.0	46 46 46	9.0 9.0 9.0	-7.0 -7.0 -7.0	0.0 0.0 0.0	19.4 19.4 33.4	11.0 11.0 31.7	4.5 4.5 3.5	0.0 0.0 0.0	49 49 49	63 63 42	0.0 0.0 0.0	14 21 21	50 179 51	8 8 8
12 12 2.5	6.88 10.13 0.31		28 50 30	1 3 5	16 30 16	-2.2 1.7 2.3	20.5 4.7 -23.4	-39.2 -58.2 -38.1				48 1 48	32 6 32	6.7 6.5 6.9	7.6 6.0 9.4	18 18 18	-16.3 -16.3 -16.3	-1.5 -1.5 -1.5	0.0 0.0 0.0	19.4 19.4 29.1	11.0 11.0 16.5	4.5 4.5 6.7	0.0 0.0 0.0	51 51 51	84 84 56	0.0 0.0 0.0	14 21 21	50 179 51	8 8 8
13	6.88		28	1	46	-6.4	-7.7	-8.4				37	23	6.4	6.2	18	-11.5	-1.3	0.0	19.4	11.0	4.5	0.0	41	59	0.0	14	50	8

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

Filo Iniz Fin. Ctg0	Quota Iniz. Final N/Nc	T r a t	Sez a Alt	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE																					
					Co	M	Exd	M	Eyd	N	Ed	x/ d	εf%	εc%	Area	cmq	Co	V	Exd	V	Eyd	T	Sdu	V	Rxd	V	Ryd	TRd	TRId	Coe	Coe	ALon	Staffe	
					mb	(t'm)	(t'm)	(t)	(t)	(t)	(t)				b	h	mb	(t)	(t)	(t)	(t'm)	(t)	(t)	(t)	(t)	(t)	(t'm)	(t'm)	Cls	Sta	cmq	Pas	Lun	Fi
13	10.13		50	3	46	1.5	2.9	-7.7					5	4	6.4	6.2	18	-11.5	-1.3	0.0	19.4	11.0	4.5	0.0	41	59	0.0	21	179	8				
2.5	0.18		30	5	45	6.6	9.5	-7.8					53	32	6.7	6.6	18	-11.5	-1.3	0.0	31.4	29.7	3.5	0.0	41	40	0.0	21	51	8				
14	6.88		1	1	40	7.4	-0.7	-9.7					55	25	6.8	5.3	43	1.3	-1.4	0.0	17.9	17.9	1.8	0.0	15	8	0.0	14	51	8				
14	10.13		30	3	27	0.4	-0.6	-17.7					0	2	5.1	5.1	40	0.5	1.8	0.0	11.0	11.0	2.4	0.0	13	17	0.0	21	184	8				
2.5	0.14		30	5	40	-6.2	0.7	-9.0					72	27	5.6	5.1	43	1.3	-1.4	0.0	17.9	17.9	1.8	0.0	15	8	0.0	14	45	8				
15	6.88		1	1	30	0.3	-6.2	-15.6					21	16	5.1	5.1	27	1.7	0.1	0.0	16.5	16.5	3.6	0.0	10	11	0.0	14	53	8				
15	10.13		30	3	6	0.5	-0.5	-24.4					1	3	5.1	5.1	27	1.7	0.1	0.0	11.0	11.0	2.4	0.0	10	16	0.0	21	197	8				
2.5	0.13		30	5	18	0.4	-4.8	-15.2					14	11	5.1	5.1	27	1.7	0.1	0.0	16.5	16.5	3.6	0.0	10	11	0.0	14	50	8				
16	6.88		3	1	46	27.0	-1.4	-22.6					69	31	12.2	6.8	46	0.9	7.1	0.0	30.6	32.3	3.5	0.0	25	24	0.0	14	50	8				
16	10.13		30	3	3	0.7	-0.7	-33.0					1	2	6.1	6.4	46	0.9	7.1	0.0	11.0	19.4	4.5	0.0	25	36	0.0	21	180	8				
2.5	0.13		50	5	46	-27.7	1.2	-21.6					70	30	12.7	6.7	46	0.9	7.1	0.0	30.6	32.3	3.5	0.0	25	24	0.0	14	50	8				
17	6.88		1	1	23	2.8	-11.7	-19.4					36	33	7.8	10.9	24	3.4	2.2	0.0	19.1	19.1	1.8	0.0	29	21	0.0	14	46	8				
17	10.13		30	3	24	-0.7	1.0	-19.0					0	4	5.1	5.1	30	4.2	0.4	0.0	11.0	11.0	2.4	0.0	24	39	0.0	21	186	8				
2.5	0.15		30	5	36	11.7	0.9	-14.3					46	33	9.3	10.5	24	3.4	2.2	0.0	19.1	19.1	1.8	0.0	29	21	0.0	14	48	8				
18	6.88		28	1	20	-0.5	17.7	-23.7					79	27	6.5	6.5	30	9.3	0.2	0.0	29.1	16.5	6.7	0.0	28	32	0.0	14	50	8				
18	10.13		50	3	30	-0.5	3.2	-24.6					1	3	6.4	6.1	30	9.3	0.2	0.0	27.2	15.4	6.3	0.0	28	34	0.0	15	180	8				
2.5	0.12		30	5	18	0.5	-25.1	-22.9					93	29	6.5	10.9	30	9.3	0.2	0.0	29.1	16.5	6.7	0.0	28	32	0.0	14	50	8				
19	6.88		3	1	18	-4.1	13.6	-26.1					56	33	7.5	12.1	20	-4.0	-6.7	0.0	30.3	32.0	3.5	0.0	34	24	0.0	14	50	8				
19	10.13		30	3	24	-2.3	1.0	-13.3					2	3	6.1	6.4	18	-5.0	-3.1	0.0	13.6	24.0	5.5	0.0	26	37	0.0	17	180	8				
2.5	0.12		50	5	28	-3.5	16.0	-11.5					68	33	7.2	15.0	20	-4.0	-6.7	0.0	30.3	32.0	3.5	0.0	34	24	0.0	14	50	8				
20	6.88		3	1	46	-9.4	-3.2	-23.6					15	13	5.8	6.8	37	1.7	-3.6	0.0	29.6	31.3	3.5	0.0	17	12	0.0	14	50	8				
20	10.13		30	3	30	-0.5	0.8	-24.2					0	2	6.1	6.4	46	2.5	-2.7	0.0	11.0	19.4	4.5	0.0	17	23	0.0	21	180	8				
2.5	0.12		50	5	46	7.8	3.8	-22.5					13	13	5.8	6.8	37	1.7	-3.6	0.0	29.6	31.3	3.5	0.0	17	12	0.0	14	50	8				
21	6.88		1	1	20	0.3	6.3	-15.7					31	18	5.1	5.1	18	-2.4	-0.1	0.0	16.5	16.5	3.6	0.0	13	14	0.0	14	51	8				
21	10.13		30	3	3	0.5	0.5	-24.1					1	3	5.1	5.1	18	-2.4	-0.1	0.0	11.0	11.0	2.4	0.0	13	22	0.0	21	197	8				
2.5	0.13		30	5	18	0.3	-5.9	-15.5					18	14	5.1	5.1	18	-2.4	-0.1	0.0	16.5	16.5	3.6	0.0	13	14	0.0	14	52	8				
22	6.88		3	1	34	-31.5	1.8	-26.6					64	33	14.5	7.0	34	-1.5	-8.2	0.0	30.6	32.3	3.5	0.0	30	28	0.0	14	50	8				
22	10.13		30	3	46	-2.3	0.9	-15.0					1	3	6.1	6.4	34	-1.5	-8.2	0.0	12.9	22.6	5.2	0.0	30	36	0.0	18	180	8				
2.5	0.13		50	5	34	32.3	-2.4	-25.6																										



**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

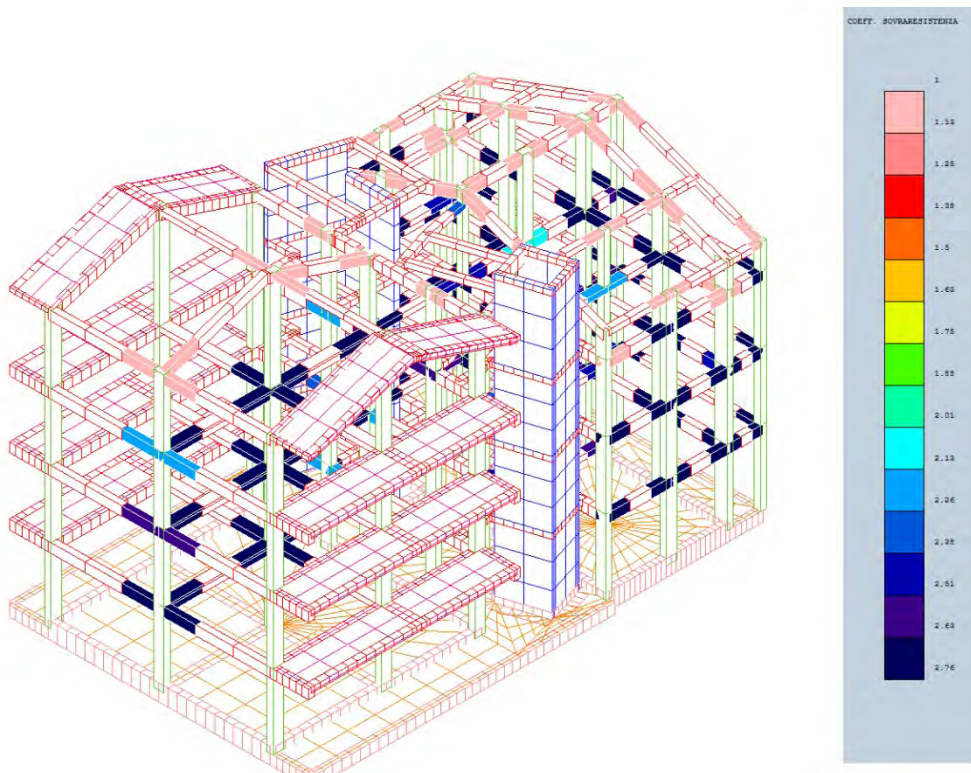
Filo Iniz. Fin. Ctg0	Quota Iniz. Final N/Nc	T ra t	Sez a Alt	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE												
					Co mb	M (t*m)	Exd (t*m)	M (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq b h	Co mb	V (t)	Exd (t)	V (t)	Eyd (t)	T (t*m)	V (t)	Rxd (t)	V (t)	Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta
3 2.5	13.42 0.07		50 30	5 5	31 31	-0.9 -4.4	-5.6 -11.6	-12.0 -11.6		7 33	6 22	6.1 6.2	6.5 6.4	15 31	-9.2 -7.6	0.8 3.1	0.0 0.0	19.4 30.4	11.0 28.8	4.5 3.5	0.0 0.0	33 36	47 26	0.0 0.0	21 21	183 51	8 8
4 4 2.5	10.13 11.34 0.01		29 30 50	1 3 5	8 8 8	2.0 0.8 -1.0	-1.4 -0.5 0.7	-1.4 -1.2 -0.9		6 2 3	4 1 2	5.7 5.8 5.7	6.9 6.7 6.9	8 0 8	2.4 0.0 2.4	3.4 0.0 3.4	0.0 0.0 0.0	28.9 11.0 28.9	30.5 19.4 30.5	3.5 4.5 3.5	0.0 0.0 0.0	20 0 20	14 0 14	0.0 0.0 0.0	14 21 14	44 0 44	8 8 8
5 5 2.5	10.13 11.34 0.02		28 50 30	1 5 3	20 37 25	-0.7 -0.9 0.2	6.4 1.2 2.1	-3.4 -3.9 -3.2		11 3 3	6 2 2	6.1 6.1 6.2	6.5 6.5 6.4	21 0 21	-5.7 0.0 -0.6	-0.6 0.0 -1.4	-1.4 0.0 -1.4	30.7 19.4 30.7	29.1 11.0 29.1	3.5 4.5 3.5	1.4 0.0 1.4	62 0 62	41 0 41	6.2 0.0 6.2	14 21 14	48 0 48	8 8 8
6 6 2.5	10.13 11.34 0.01		4 30 60	1 3 5	5 5 8	3.1 1.1 -2.1	0.7 0.3 -0.3	-1.2 -1.0 -0.3		4 1 3	3 1 1	7.3 7.2 7.3	6.8 6.9 6.8	5 0 5	-1.1 0.0 -1.1	5.3 0.0 5.3	0.0 0.0 0.0	34.6 11.0 34.6	37.0 23.6 37.0	4.3 5.5 4.3	0.0 0.0 0.0	17 0 17	15 0 15	0.0 0.0 0.0	14 21 14	46 0 46	8 8 8
7 7 2.5	10.13 11.34 0.04		1 30 30	1 3 5	39 36 36	5.0 -1.7 1.1	0.3 -0.5 -0.7	0.7 -4.4 -4.2		53 6 4	16 5 4	5.5 5.1 5.1	5.1 5.1 5.1	20 20 20	-0.6 -0.6 -0.6	-3.8 -3.8 -3.8	0.3 0.3 0.3	17.3 17.3 17.3	17.3 17.3 17.3	1.8 1.8 1.8	0.4 0.4 0.4	42 42 42	32 41 32	2.3 2.3 2.3	14 18 14	45 6 45	8 8 8
8 8 2.5	10.13 13.42 0.05		29 30 50	1 3 5	39 41 41	18.5 -4.7 -15.0	-5.3 1.1 5.5	-10.5 -10.0 -9.6		50 7 50	33 5 32	8.5 5.8 7.3	9.1 6.8 7.7	41 41 41	3.9 3.9 3.9	8.9 8.9 8.9	0.0 0.0 0.0	29.8 11.6 29.8	31.5 20.4 31.5	3.5 4.7 3.5	0.0 0.0 0.0	41 41 41	31 44 31	0.0 0.0 0.0	14 20 14	50 176 58	8 8 8
9 9 2.5	10.13 14.96 0.12		28 50 30	1 3 5	21 21 21	-1.3 0.4 1.5	17.5 -2.7 -8.8	-16.7 -15.8 -15.1		78 1 12	27 3 9	6.1 6.3 6.0	7.5 6.3 6.6	21 21 21	-3.5 -3.5 -3.5	-0.6 -0.6 -0.6	0.0 0.0 0.0	32.3 19.4 32.3	30.6 11.0 30.6	3.5 4.5 3.5	0.0 0.0 0.0	13 13 13	12 18 12	0.0 0.0 0.0	14 21 14	66 277 87	8 8 8
10 10 2.5	10.13 13.42 0.04		3 30 50	1 3 5	31 21 15	17.8 2.4 3.6	6.0 -1.6 -8.1	-8.9 -5.5 -6.6		47 5 80	32 4 30	8.4 5.8 6.4	9.2 6.8 7.5	41 15 41	-2.3 -5.5 -2.3	9.5 -2.5 9.5	0.0 0.0 0.0	29.1 11.6 29.1	30.7 20.4 30.7	3.5 4.7 3.5	0.0 0.0 0.0	39 27 39	33 48 33	0.0 0.0 0.0	14 20 14	50 183 51	8 8 8
11 11 2.5	10.13 13.42 0.06		28 50 30	1 3 5	41 46 37	4.5 1.8 8.0	-6.5 3.9 4.9	-8.9 -10.5 -11.0		18 6 65	13 6 31	6.2 6.1 6.2	6.4 6.5 6.5	37 37 37	2.8 2.8 2.8	-5.1 -5.1 -5.1	0.0 0.0 0.0	19.4 19.4 29.1	11.0 11.0 16.5	4.5 4.5 6.7	0.0 0.0 0.0	26 26 26	46 46 31	0.0 0.0 0.0	14 21 21	50 177 57	8 8 8
12 12 2.5	10.13 14.96 0.16		28 50 30	1 3 5	21 34 18	-2.1 -0.9 1.1	6.0 -4.0 -9.5	-8.6 -24.8 -11.8		11 2 14	8 4 9	6.5 6.6 6.2	6.1 5.9 6.4	16 18 16	-3.5 -3.5 -3.5	-0.8 -0.8 -0.8	0.0 0.0 0.0	19.4 19.4 31.4	11.0 11.0 29.7	4.5 4.5 3.5	0.0 0.0 0.0	14 14 14	18 18 12	0.0 0.0 0.0	14 21 21	58 271 101	8 8 8
13 13 2.5	10.13 13.42 0.07		28 50 30	1 3 5	37 34 21	-6.0 -1.0 4.8	8.1 -4.4 -10.0	-7.1 -12.3 -12.1		36 5 28	22 5 20	6.2 6.0 6.2	6.3 6.6 6.4	21 37 21	-7.1 -5.4 -7.1	-3.3 -4.4 -3.3	0.0 0.0 0.0	19.4 19.4 30.4	11.0 11.0 28.8	4.5 4.5 3.5	0.0 0.0 0.0	35 33 35	37 40 24	0.0 0.0 0.0	14 21 21	50 177 57	8 8 8
14 14 2.5	10.13 12.50 0.07		1 30 30	1 3 5	37 41 41	-12.5 1.2 -4.2	1.6 -1.2 2.8	-6.2 -4.2 -3.9		56 6 33	33 5 22	12.7 5.1 5.1	7.7 5.1 5.1	41 41 41	3.5 3.5 3.5	4.8 4.8 4.8	0.0 0.0 0.0	17.4 17.4 17.4	17.4 17.4 17.4	1.8 1.8 1.8	0.0 0.0 0.0	48 48 48	29 35 29	0.0 0.0 0.0	14 17 14	45 96 45	8 8 8
15 15 2.5	10.13 12.50 0.05		1 30 30	1 3 5	21 25 25	0.1 -0.1 -0.1	10.4 1.3 6.3	-6.7 -6.2 -6.0		41 3 54	21 3 19	5.2 5.1 5.1	10.6 5.1 6.1	25 25 25	5.9 5.9 5.9	0.0 0.0 0.0	0.0 0.0 0.0	16.5 14.5 16.5	16.5 14.5 16.5	3.6 3.1 3.6	0.0 0.0 0.0	33 33 33	36 41 36	0.0 0.0 0.0	14 16 14	45 122 45	8 8 8
16 16 2.12	10.13 12.50 0.06		3 30 50	1 3 5	31 41 40	35.6 2.4 -8.8	-0.8 -1.4 2.0	-9.5 -7.8 -7.4		79 4 16	26 4 10	18.9 6.3 6.5	6.6 6.3 6.1	40 31 40	2.7 0.6 2.7	10.5 12.4 10.5	0.0 0.0 0.0	33.9 33.9 33.9	35.8 35.8 35.8	3.9 3.9 3.9	0.0 0.0 0.0	37 36 37	30 36 30	0.0 0.0 0.0	10 10 10	50 86 50	8 8 8
17 17 2.5	13.28 13.88 0.03		1 30 30	1 3 5	27 25 41	0.2 -1.9 -3.7	10.0 3.4 1.3	-4.0 -3.7 -3.0		48 17 17	22 12 11	5.6 5.1 5.1	10.1 5.1 5.1	27 0 27	-6.2 0.0 -0.2	2.1 0.0 2.1	0.3 0.0 0.3	17.6 12.2 17.6	17.6 12.2 17.6	1.8 2.6 1.8	0.4 0.0 0.4	66 0 66	47 0 47	2.1 0.0 2.1	14 19 14	30 0 30	8 8 8
18 18 2.5	10.13 13.88 0.05		28 50 30	1 3 5	21 20 21	0.6 0.4 0.2	13.6 -2.1 -8.2	-8.9 -8.3 -7.7		35 2 12	15 2 6	6.4 6.4 6.4	6.1 6.1 6.1	21 21 21	-4.5 -4.5 -4.5	0.1 0.1 0.1	0.0 0.0 0.0	29.1 19.4 29.1	16.5 11.0 16.5	6.7 4.5 6.7	0.0 0.0 0.0	15 15 15	16 23 16	0.0 0.0 0.0	14 21 14	58 211 61	8 8 8
19 19 2.5	10.13 13.88 0.05		3 30 50	1 3 5	25 36 36	3.0 3.1 9.8	-8.7 -0.5 -2.5	-3.9 -6.1 -5.7		67 4 20	27 3 12	6.6 6.1 6.1	7.6 6.4 6.4	36 40 36	-1.5 1.3 -1.5	-5.2 5.3 -5.2	0.0 0.0 0.0	29.0 11.0 29.0	30.7 19.4 30.7	3.5 4.5 3.5	0.0 0.0 0.0	22 22 22	18 27 18	0.0 0.0 0.0	14 21 14	50 209 62	8 8 8
20 20 2.5	10.13 12.50 0.05		3 30 50	1 3 5	37 41 46	-16.5 4.1 4.5	1.3 -1.8 2.6	-4.5 -9.1 -6.0		90 7 11	27 6 8	7.6 6.2 5.7	6.9 6.4 6.8	37 37 37	1.4 1.4 1.4	-8.6 -8.6 -8.6	0.0 0.0 0.0	29.1 13.6 29.1	30.7 24.0 30.7	3.5 5.5 3.5	0.0 0.0 0.0	33 33 33	30 36 30	0.0 0.0 0.0	14 17 14	50 83 50	8 8 8
21 21 2.5	10.13 12.50 0.06		1 30 30	1 3 5	21 18 18	0.2 0.3 0.1	9.0 -1.0 -4.7	-6.6 -6.5 -6.3		73 2 17	26 3 10	5.3 5.1 5.1	8.9 5.1 5.1	18 18 18	-4.4 -4.4 -4.4	0.2 0.2 0.2	0.0 0.0 0.0	16.5 12.2 16.5	16.5 12.2 16.5	3.6 2.6 3.6	0.0 0.0 0.0	26 26 26	26 36 26	0.0 0.0 0.0	14 19 14	45 122 45	8 8 8
22 22 2.18	10.13 12.50 0.05		3 30 50	1 3 5	36 40 43	-33.5 3.2 7.9	2.1 -1.8 2.4	-8.5 -9.8 -7.1		79 6 15	33 5 10	17.6 6.3 6.5	6.9 6.3 6.0	36 36 36	-1.9 -1.9 -1.9	-11.9 -11.9 -11.9	0.0 0.0 0.0	33.1 33.1 33.1	35.0 35.0 35.0	3.8 3.8 3.8	0.0 0.0 0.0	40 40 40	37 37 37	0.0 0.0 0.0	11 11 11	50 86 50	8 8 8
23	10.13		29	1	14	-5.2	-1.3	2.8		12	6	6.3	6.3	14	2.3	-8.7	0.0	28.8	30.4	3.5	0.0	37	30	0.0	14	44	8

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - PILASTRI**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final N/Nc	T r a t	Sez a Bas n	C o n	VERIFICA A PRESSO-FLESSIONE												VERIFICA A TAGLIO E TORSIONE												
					Co mb	M (t*m)	Exd (t*m)	M (t*m)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq b h	Co mb	V (t)	Exd (t)	V (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	Staffe Pas Lun Fi			
23 2.5	11.34 0.00	30 50	3 5	14 14	-2.1 2.6	-0.5 0.7	3.0 3.2		5 7	2 3	6.3 6.2	6.2 6.4	0 14	0.0 2.3	0.0 -8.7	0.0 0.0	11.0 28.8	19.4 30.4	4.5 3.5	0.0 0.0	0 37	0 30	0.0 0.0	21 14	0 44	8 8			
24 24 2.5	10.13 11.34 0.02	28 50 30	1 3 5	20 38 46	-0.8 -1.0 -0.3	4.1 0.6 2.1	-2.6 -2.1 -2.2		7 3 3	4 2 2	6.0 6.1 6.4	6.5 6.5 6.1	34 0 34	-3.4 0.0 -3.4	1.0 0.0 1.0	0.9 0.0 0.9	30.7 19.4 30.7	29.0 11.0 29.0	3.5 4.5 3.5	0.9 0.0 0.9	40 0 40	25 0 25	3.9 0.0 3.9	14 21 14	48 0 48	8 8 8			
25 25 2.5	10.13 11.34 0.01	4 30 60	1 3 5	14 14 14	-2.0 -0.5 1.9	0.6 0.2 -0.3	-1.6 -1.4 -1.1		3 1 2	2 1 1	7.0 7.4 7.3	7.0 6.7 6.8	14 0 14	-1.0 0.0 -1.0	-4.2 0.0 -4.2	0.0 0.0 0.0	34.7 11.0 34.7	37.1 23.6 37.1	4.3 5.5 4.3	0.0 0.0 0.0	14 0 14	12 0 12	0.0 0.0 0.0	14 21 14	46 0 46	8 8 8			
26 26 2.5	10.13 11.34 0.04	1 30 30	1 3 5	34 31 46	5.9 2.4 -1.3	-1.2 -0.8 0.5	-3.8 -4.4 0.1		79 10 7	29 7 4	5.9 5.1 5.1	5.2 5.1 5.1	15 40 15	0.5 0.5 0.5	3.8 4.5 3.8	-0.3 0.2 -0.3	17.3 12.9 17.3	17.3 12.9 17.3	1.8 2.8 1.8	0.4 0.4 0.4	41 38 41	31 41 31	2.4 2.4 2.4	14 18 14	45 6 45	8 8 8			
27 27 2.5	10.13 13.88 0.04	1 30 30	1 3 5	21 40 36	0.4 -0.5 1.1	3.5 0.2 -1.1	-4.4 -1.7 -3.6		13 2 6	8 1 5	5.1 5.1 5.1	5.1 5.1 5.1	15 21 15	-0.6 -0.9 -0.6	0.5 0.2 0.5	0.0 0.0 0.0	17.4 11.0 17.4	17.4 11.0 17.4	1.8 2.4 1.8	0.0 0.0 0.0	6 6 6	4 8 4	0.0 0.0 0.0	14 21 14	54 212 64	8 8 8			
30 30 2.5	10.13 13.42 0.04	3 30 50	1 3 5	36 37 37	-14.6 2.9 11.5	0.1 0.6 0.7	-4.9 -4.5 -4.1		81 4 21	20 3 11	6.5 6.0 6.0	6.8 6.6 6.6	37 37 37	0.5 0.5 0.5	-7.6 -7.6 -7.6	0.0 0.0 0.0	29.3 11.0 29.3	30.9 19.4 30.9	3.5 4.5 3.5	0.0 0.0 0.0	26 26 26	26 39 26	0.0 0.0 0.0	14 21 14	50 183 51	8 8 8			
46 46 2.5	10.13 13.42 0.05	3 30 50	1 3 5	40 41 41	17.7 -3.5 -13.5	-0.6 -0.1 0.2	-2.4 -1.2 -0.8		81 6 92	21 3 20	9.2 6.3 7.0	6.2 6.2 6.0	41 41 41	0.3 0.3 0.3	8.8 8.8 8.8	0.0 0.0 0.0	16.5 11.6 16.5	29.1 20.4 29.1	6.7 4.7 6.7	0.0 0.0 0.0	30 30 30	30 43 30	0.0 0.0 0.0	14 20 14	50 183 51	8 8 8			
17 17 2.5	10.13 13.28 0.05	1 30 30	1 3 5	41 43 15	7.1 -0.7 0.1	0.1 -0.7 -7.6	-6.8 -6.1 -5.6		75 2 45	29 3 19	5.6 5.1 5.1	6.7 5.1 7.6	21 15 21	-2.0 -2.5 -2.0	-1.1 -0.2 -1.1	0.0 0.0 0.0	18.0 11.0 18.0	18.0 11.0 18.0	1.8 2.4 1.8	0.0 0.0 0.0	17 15 17	12 22 12	0.0 0.0 0.0	14 21 14	53 191 46	8 8 8			

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - STABILITA' ELEMENTI SNELLI IN C.A.**

Asta 3d	Filo Iniz	Quota Iniz.	Filo Fina	Quota Final	Lambda Elemen	Lambda Minimo	Sf.Nor. (t)	Ecc.EX (mm)	Ecc.AX (mm)	Ecc.2X (mm)	Ecc.EY (mm)	Ecc.AY (mm)	Ecc.2Y (mm)
62	2	3.63	2	0.00	33	33	-121.18	12	7	1	51	7	1
69	9	3.63	9	0.00	37	36	-100.73	16	8	2	125	8	3
72	12	3.63	12	0.00	33	33	-122.19	11	7	2	84	7	2
75	15	3.63	15	0.00	39	38	-53.58	8	8	1	20	8	2
81	21	3.63	21	0.00	39	39	-53.05	20	8	2	20	8	2



**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI			MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite	
8 9 gRd=	3.63 3.63 1.1		48 30 45	4.67	4.99	i c f	31.56 31.57	0.32 0.32	-17.66 -28.91	0.15 0.20	22.72 20.48 -1.57	1.57 -18.75 -22.72	27.24 27.24 27.24	36.54 21.49 36.54	10 45 17 379 10 79	23.32 21.81 25.78	22.72 20.48 22.72	q = 1	
1 8 gRd=	3.63 3.63 1.1		25 30 45	1.07	1.07	i c f	18.92 18.92	0.16 0.16	-23.41 -23.41	0.20 0.20	11.94 11.46 6.59	-6.59 -11.46 -11.94	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 413 10 45	11.94 11.46 11.94	20.20 19.72 20.20	q = 1	
3 45 gRd=	3.63 3.63 1.1		25 30 45	1.40	1.49	i c f	15.19 15.19	0.17 0.17	-15.19 -15.19	0.17 0.17	19.45 0.00 0.00	-19.24 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 45 10 2 10 45	19.45 0.00 0.00	32.01 0.00 0.00	q = 1	
9 10 gRd=	3.63 3.63 1.1		48 30 45	4.66	4.99	i c f	29.20 26.64	0.31 0.29	-26.64 -18.55	0.19 0.17	24.36 22.11 3.66	-2.24 -20.69 -22.94	27.24 27.24 27.24	36.54 22.84 36.54	10 45 16 339 10 45	24.36 22.11 22.94	26.15 23.91 26.15	q = 1	
8 11 gRd=	3.63 3.63 1.1		25 30 45	1.07	1.07	i c f	18.91 18.92	0.15 0.16	-27.93 -23.41	0.21 0.20	12.93 12.45 7.58	-6.59 -11.46 -11.94	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 413 10 45	12.93 12.45 11.94	20.45 19.97 20.45	q = 1	
10 30 gRd=	3.63 3.63 1.1		25 30 45	1.07	1.07	i c f	18.16 18.18	0.18 0.17	-18.16 -21.04	0.18 0.19	29.50 29.02 28.01	-30.29 -31.29 -31.77	32.56 32.56 32.56	30.85 34.71 34.71	9 45 8 49 8 45	30.29 31.29 31.77	58.71 58.23 58.71	q = 1	
4 5 gRd=	3.63 3.63 1.1		25 30 45	2.16	2.26	i c f	15.18 18.16	0.16 0.18	-18.09 -18.16	0.18 0.18	17.95 16.94 12.06	-10.86 -15.74 -16.75	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 177 10 45	17.95 16.94 16.75	28.20 27.18 28.20	q = 1	
14 15 gRd=	3.63 3.63 1.1		39 40 25	2.54	2.75	i c f	3.57 3.57	0.18 0.18	-5.73 -5.73	0.23 0.23	7.50 6.81 0.18	-0.18 -6.81 -7.50	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 227 5 25	7.50 6.81 7.50	10.26 9.58 10.26	q = 1	
17 18 gRd=	3.63 3.63 1.1		25 30 45	3.61	3.84	i c f	9.36 11.66	0.13 0.14	-13.91 -16.16	0.18 0.19	15.66 13.93 5.71	-5.69 -13.91 -15.64	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 177 10 45	15.66 13.93 15.64	25.01 23.28 25.01	q = 1	
20 21 gRd=	3.63 3.63 1.1		39 40 25	2.54	2.75	i c f	4.65 3.57	0.19 0.18	-7.87 -6.80	0.25 0.25	8.35 7.66 1.03	-1.03 -7.67 -8.35	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 227 5 25	8.35 7.67 8.35	10.56 9.88 10.56	q = 1	
23 24 gRd=	3.63 3.63 1.1		25 30 45	2.17	2.28	i c f	18.90 23.51	0.18 0.18	-18.90 -23.51	0.18 0.18	21.08 20.06 15.36	-15.36 -20.06 -21.08	27.24 27.24 27.24	36.54 20.30 36.54	10 45 18 167 10 45	21.08 20.06 21.08	31.74 30.72 31.74	q = 1	
4 41 gRd=	3.63 3.63 1.1		25 30 45	1.08	1.09	i c f	7.06 7.06	0.13 0.13	-7.06 -7.06	0.13 0.13	4.01 0.00 0.00	-1.72 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 36 10 0 10 36	7.01 0.00 0.00	4.01 0.00 0.00	q = 1	
6 16 gRd=	3.63 3.63 1.1		25 30 45	1.44	1.54	i c f	15.15 12.18	0.18 0.15	-12.18 -15.15	0.15 0.18	12.46 11.76 8.65	-11.20 -14.32 -15.01	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 166 10 45	12.46 14.32 15.01	19.43 18.74 19.43	q = 1	
5 6 gRd=	3.63 3.63 1.1		25 30 45	2.16	2.26	i c f	15.18 15.18	0.16 0.16	-18.09 -18.09	0.18 0.18	17.56 16.54 12.08	-12.08 -16.54 -17.56	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 158 10 45	17.56 16.54 17.56	26.84 25.82 26.84	q = 1	
6 7 gRd=	3.63 3.63 1.1		25 30 45	1.07	1.07	i c f	9.18 9.18	0.14 0.14	-9.18 -9.18	0.14 0.14	14.93 14.45 13.50	-13.50 -14.45 -14.93	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 44 10 45	15.79 15.31 15.79	14.93 14.45 14.93	q = 1	
15 16 gRd=	3.63 3.63 1.1		39 40 25	2.54	2.75	i c f	3.57 3.57	0.18 0.18	-5.73 -5.73	0.23 0.23	7.51 6.82 0.69	-0.69 -6.82 -7.51	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 208 5 25	7.51 6.82 7.51	9.74 9.05 9.74	q = 1	
18 19 gRd=	3.63 3.63 1.1		25 30 45	3.61	3.84	i c f	9.35 9.36	0.13 0.14	-16.09 -11.68	0.19 0.16	16.06 14.33 6.81	-4.85 -12.37 -14.10	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 158 10 45	16.06 14.33 14.10	23.55 21.82 23.55	q = 1	
19 22	3.63 3.63		25 30	1.44	1.54	i c	12.18	0.15	-15.15	0.18	11.76 11.06	-6.90 -11.06	27.24 27.24	36.54 17.40	10 45 21 235	11.76 11.06	16.92 16.23	q =	

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
	gRd= 1.1		45			f	12.18	0.15	-15.15	0.18	6.90	-11.76	27.24	36.54	10 45	11.76	16.92	1
19 27	3.63 3.63		25 30	1.07	1.07	i c	7.06	0.13	-7.06	0.13	12.31	-10.89	27.24	36.54	10 45	12.31	17.32	q
	gRd= 1.1		45			f	7.06	0.13	-7.06	0.13	10.89	-12.31	27.24	36.54	10 45	12.31	17.32	1
21 22	3.63 3.63		39 40	2.54	2.75	i c	3.57	0.18	-5.73	0.23	7.51	-0.69	18.82	37.86	5 25	7.51	9.66	q
	gRd= 1.1		25			f	3.57	0.18	-5.73	0.23	0.69	-7.51	18.82	37.86	5 25	7.51	9.66	1
24 25	3.63 3.63		25 30	2.17	2.28	i c	18.92	0.16	-23.41	0.20	22.27	-14.89	27.24	36.54	10 45	22.27	31.27	q
	gRd= 1.1		45			f	18.90	0.18	-18.90	0.18	16.97	-20.19	27.24	36.54	10 45	20.19	31.27	1
25 26	3.63 3.63		25 30	1.07	1.07	i c	9.56	0.14	-9.56	0.14	12.58	-11.16	27.24	36.54	10 45	16.41	12.58	q
	gRd= 1.1		45			f	9.56	0.14	-9.56	0.14	11.16	-12.58	27.24	36.54	10 45	16.41	12.58	1
14 50	3.63 3.63		25 30	0.79	0.82	i c	7.06	0.13	-7.06	0.13	5.31	-4.18	27.24	36.54	10 45	5.31	6.09	q
	gRd= 1.1		45			f	7.06	0.13	-7.06	0.13	0.00	0.00	27.24	36.54	10 45	0.00	0.00	1
17 51	3.63 3.63		25 30	1.38	1.40	i c	7.06	0.12	-9.38	0.15	7.81	-2.70	27.24	36.54	10 45	7.81	11.57	q
	gRd= 1.1		45			f	7.06	0.13	-7.06	0.13	0.00	0.00	27.24	36.54	10 45	0.00	0.00	1
20 44	3.63 3.63		25 30	1.42	1.55	i c	9.36	0.13	-13.91	0.18	14.86	-5.32	27.24	36.54	10 45	14.86	22.04	q
	gRd= 1.1		45			f	9.36	0.13	-13.91	0.18	0.00	0.00	27.24	36.54	10 45	0.00	0.00	1
16 19	3.63 3.63		25 30	1.44	1.54	i c	12.18	0.15	-15.15	0.18	11.75	-6.90	27.24	36.54	10 45	11.75	16.90	q
	gRd= 1.1		45			f	12.18	0.15	-15.15	0.18	6.90	-11.75	27.24	36.54	10 45	11.75	16.90	1
30 35	3.63 3.63		25 30	1.43	1.53	i c	15.18	0.16	-18.09	0.18	13.79	-9.61	27.24	36.54	10 45	13.79	22.09	q
	gRd= 1.1		45			f	15.19	0.17	-15.19	0.17	0.00	0.00	27.24	36.54	10 45	0.00	0.00	1
30 38	3.63 3.63		26 30	0.85	0.95	i c	3.49	0.19	-5.64	0.25	5.06	0.80	14.11	37.86	5 25	5.06	8.55	q
	gRd= 1.1		25			f	3.49	0.19	-5.64	0.25	0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
35 37	3.63 3.63		26 30	0.96	1.13	i c	2.40	0.18	-3.49	0.21	4.47	-1.99	14.11	37.86	5 25	5.58	4.47	q
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
36 33	3.63 3.63		26 30	0.19	0.19	i c	2.40	0.18	-3.49	0.21	3.29	-3.04	14.11	37.86	5 25	4.85	3.29	q
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	3.04	-3.29	14.11	37.86	5 25	4.85	3.29	1
10 17	3.63 3.63		26 30	0.62	0.75	i c	2.40	0.18	-3.49	0.21	3.00	0.14	14.11	37.86	5 25	3.11	3.00	q
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.03	-2.84	14.11	37.86	5 25	2.84	3.00	1
37 38	3.63 3.63		27 25	0.16	0.16	i c	2.37	0.19	-2.37	0.19	0.56	-0.05	11.76	37.86	5 25	1.87	0.56	q
	gRd= 1.1		25			f	2.37	0.19	-2.37	0.19	0.05	-0.56	11.76	37.86	5 25	1.87	0.56	1
38 32	3.63 3.63		26 30	0.85	0.95	i c	3.49	0.19	-5.64	0.25	5.06	0.80	14.11	37.86	5 25	5.06	8.52	q
	gRd= 1.1		25			f	3.49	0.19	-5.64	0.25	4.82	-2.90	14.11	37.86	5 25	4.82	8.29	=
											0.88	-3.13	14.11	37.86	5 25	3.13	6.59	1
37 36	3.63 3.63		26 30	0.96	1.13	i c	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	37.86	5 17	0.00	0.00	q
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	37.86	5 17	0.00	0.00	=
											2.85	-3.55	14.11	37.86	5 17	4.64	3.55	1
35 13	3.63 3.63		25 30	1.43	1.53	i c	15.18	0.16	-18.09	0.18	0.00	0.00	38.18	19.00	10 14	0.00	0.00	q
	gRd= 1.1		45			f	15.18	0.16	-18.09	0.18	0.00	0.00	38.18	27.14	7 0	0.00	0.00	=
											9.24	-14.35	38.18	27.14	7 14	14.35	20.35	1
61	3.63		34	0.38	0.38	i	12.89	0.13	-12.89	0.13	8.27	-7.60	30.90	45.22	11 60	16.24	8.27	q

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz. Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
62 gRd=	3.63 1.1	25 60				c f	12.89	0.13	-12.89	0.13	8.04 7.60	-8.04 -8.27	30.90 30.90	23.69 45.22	21 58 11 60	16.01 16.24	8.04 8.27	= 1
41 14 gRd=	3.63 3.63 1.1	25 30 45	1.08 1.09	1.09	i c f		7.06	0.13	-7.06	0.13	0.00 0.00 2.65	0.00 0.00 -6.12	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 105 10 45	0.00 0.00 7.60	0.00 0.00 6.12	q = 1
39 43 gRd=	3.63 3.63 1.1	26 30 25	0.70 0.71	0.71	i c f		3.49	0.20	-4.57	0.22	3.24 0.00 0.00	-0.52 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 69 5 25	3.24 0.00 0.00	10.04 0.00 0.00	q = 1
43 70 gRd=	3.63 3.63 1.1	27 25 25	0.41 0.43	0.43	i c f		2.37	0.19	-3.45	0.22	1.24 0.00 0.00	-3.76 0.00 0.00	11.76 11.76 11.76	37.86 37.86 37.86	5 23 5 0 5 23	3.76 0.00 0.00	11.26 0.00 0.00	q = 1
42 45 gRd=	3.63 3.63 1.1	27 25 25	0.39 0.47	0.47	i c f		2.37	0.19	-2.37	0.19	4.67 4.56 4.16	-4.16 -4.56 -4.67	11.76 11.76 11.76	37.86 11.13 37.86	5 25 17 69 5 25	4.67 4.56 4.67	5.66 5.55 5.66	q = 1
39 47 gRd=	3.63 3.63 1.1	26 30 25	0.51 0.61	0.61	i c f		2.40	0.18	-3.49	0.21	3.18 3.03 1.64	-1.21 -2.60 -2.75	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 227 5 25	3.18 3.03 2.75	4.14 3.99 4.14	q = 1
45 46 gRd=	3.63 3.63 1.1	25 30 45	1.40 1.49	1.49	i c f		15.18	0.16	-18.09	0.18	0.00 0.00 16.80	0.00 0.00 -21.82	28.89 28.89 28.89	33.61 33.61 33.61	10 45 10 0 10 45	0.00 0.00 21.82	0.00 0.00 34.62	q = 1
46 10 gRd=	3.63 3.63 1.1	25 30 45	1.07 1.07	1.07	i c f		18.18	0.17	-21.04	0.19	17.36 16.88 14.47	-13.30 -15.71 -16.19	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 181 10 45	17.36 16.88 16.19	29.95 29.47 29.95	q = 1
46 47 gRd=	3.63 3.63 1.1	26 30 25	0.48 0.57	0.57	i c f		2.40	0.18	-3.49	0.21	3.45 3.31 3.18	-3.18 -3.31 -3.45	14.11 14.11 14.11	37.86 37.86 37.86	5 25 5 2 5 25	12.73 12.58 12.73	3.45 3.31 3.45	q = 1
44 23 gRd=	3.63 3.63 1.1	25 30 45	1.42 1.55	1.55	i c f		13.91	0.18	-9.36	0.13	0.00 0.00 11.09	0.00 0.00 -9.12	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 47 10 45	0.00 0.00 11.09	0.00 0.00 20.21	q = 1
26 48 gRd=	3.63 3.63 1.1	26 30 25	0.36 0.44	0.44	i c f		2.41	0.18	-2.41	0.18	-0.47 0.00 0.00	-1.91 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 251 5 25	2.10 0.00 0.00	1.91 0.00 0.00	q = 1
22 25 gRd=	3.63 3.63 1.1	25 30 45	1.44 1.54	1.54	i c f		12.17	0.14	-18.01	0.19	17.51 16.82 13.70	-9.94 -13.05 -13.74	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 166 10 45	17.51 16.82 13.74	20.72 20.03 20.72	q = 1
27 49 gRd=	3.63 3.63 1.1	26 30 25	0.36 0.44	0.44	i c f		2.40	0.18	-3.49	0.21	-0.61 0.00 0.00	-2.64 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 320 5 25	2.64 0.00 0.00	2.76 0.00 0.00	q = 1
48 27 gRd=	3.63 3.63 1.1	26 30 25	0.36 0.44	0.44	i c f		2.41	0.18	-2.41	0.18	0.00 0.00 2.61	0.00 0.00 0.58	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 320 5 25	0.00 0.00 2.61	0.00 0.00 2.82	q = 1
49 7 gRd=	3.63 3.63 1.1	26 30 25	0.36 0.44	0.44	i c f		2.41	0.18	-2.41	0.18	0.00 0.00 1.94	0.00 0.00 0.39	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 251 5 25	0.00 0.00 2.07	0.00 0.00 1.94	q = 1
22 48 gRd=	3.63 3.63 1.1	39 40 25	0.25 0.25	0.25	i c f		3.57	0.18	-5.73	0.23	1.21 1.14 0.83	-0.83 -1.14 -1.21	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 99 5 25	7.05 6.99 7.05	1.21 1.14 1.21	q = 1
16 49 gRd=	3.63 3.63 1.1	39 40 25	0.25 0.25	0.25	i c f		3.57	0.18	-5.73	0.23	0.94 0.88 0.57	-0.57 -0.88 -0.94	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 99 5 25	7.05 6.99 7.05	0.94 0.88 0.94	q = 1
39 50 gRd=	3.63 3.63 1.1	1 30 30	0.95 0.95	0.95	i c f		2.98	0.15	-5.75	0.21	7.36 7.07 6.29	-6.29 -7.07 -7.36	17.39 17.39 17.39	38.89 11.11 38.89	6 30 21 52 6 30	9.12 8.83 8.05	7.36 7.07 7.36	q = 1

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI			MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO		
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
50 17 gRd=	3.63 3.63 1.1		25 30 45	0.79	0.82	i c f	7.06 7.06	0.13 0.12	-7.06 -9.38	0.13 0.15	0.00 0.00 2.48	0.00 0.00 -7.05	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 78 10 45	0.00 0.00 7.05	0.00 0.00 13.14	q = 1
32 51 gRd=	3.63 3.63 1.1		26 30 25	0.85	0.95	i c f	2.40 2.40	0.18 0.18	-4.56 -4.56	0.24 0.24	0.00 0.00 0.88	0.00 0.00 -3.13	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 107 5 25	0.00 0.00 3.13	0.00 0.00 6.34	q = 1
51 20 gRd=	3.63 3.63 1.1		25 30 45	1.38	1.40	i c f	7.06 7.06	0.13 0.12	-7.06 -9.38	0.13 0.15	0.00 0.00 3.03	0.00 0.00 -7.51	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 105 10 45	0.00 0.00 7.51	0.00 0.00 8.88	q = 1
43 41 gRd=	3.63 3.63 1.1		26 30 25	0.70	0.71	i c f	2.41 2.41	0.18 0.18	-2.41 -2.41	0.18 0.18	0.00 0.00 0.14	0.00 0.00 -3.03	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 207 5 25	0.00 0.00 3.18	0.00 0.00 3.03	q = 1
69 42 gRd=	3.63 3.63 1.1		27 25 25	0.41	0.43	i c f	3.45 3.45	0.21 0.21	-3.45 -3.45	0.21 0.21	0.00 0.00 2.44	0.00 0.00 -2.61	11.76 11.76 11.76	37.86 37.86 37.86	5 25 5 5 5 25	0.00 0.00 2.61	0.00 0.00 5.54	q = 1
70 69 gRd=	3.63 3.63 1.1		27 25 25	0.41	0.43	i c f	2.37 2.37	0.19 0.19	-3.45 -3.45	0.22 0.22	2.44 2.33 1.24	-2.61 -3.65 -3.76	11.76 11.76 11.76	37.86 11.13 37.86	5 25 17 128 5 25	2.61 3.65 3.76	3.22 4.01 4.12	q = 1
62 70 gRd=	3.63 3.63 1.1		27 25 25	0.16	0.16	i c f	3.45 3.45	0.21 0.21	-3.45 -3.45	0.21 0.21	12.72 12.70 12.68	-12.68 -12.70 -12.72	15.74 15.74 15.74	22.71 22.71 22.71	5 15 5 0 5 15	25.82 25.79 25.82	12.72 12.70 12.72	q = 1
61 69 gRd=	3.63 3.63 1.1		27 25 25	0.16	0.16	i c f	3.45 3.45	0.21 0.21	-3.45 -3.45	0.21 0.21	8.37 8.35 8.33	-8.33 -8.35 -8.37	12.11 12.11 12.11	36.34 36.34 36.34	5 15 5 0 5 15	25.82 25.79 25.82	8.37 8.35 8.37	q = 1
12 9 gRd=	3.63 3.63 1.1		8 50 25	0.31	0.31	i c f	6.06 6.06	0.20 0.20	-7.47 -6.06	0.22 0.20	3.70 3.63 2.10	-1.80 -3.32 -3.40	23.52 23.52 23.52	37.86 14.56 37.86	5 25 13 463 5 25	3.70 3.63 3.40	5.26 5.18 5.26	q = 1
9 2 gRd=	3.63 3.63 1.1		8 50 25	0.31	0.31	i c f	6.06 4.65	0.20 0.19	-6.06 -7.46	0.20 0.23	3.10 3.02 1.50	-2.10 -3.62 -3.70	23.52 23.52 23.52	37.86 14.56 37.86	5 25 13 463 5 25	3.10 3.62 3.70	5.11 5.03 5.11	q = 1
8 9 gRd=	6.88 6.88 1.1		48 30 45	4.67	4.99	i c f	27.29 27.38	0.29 0.30	-15.17 -24.02	0.15 0.19	21.86 19.61 -2.44	1.23 -19.85 -23.06	27.24 27.24 27.24	36.54 20.30 36.54	10 45 18 394 10 64	21.86 20.56 23.77	23.06 20.82 23.06	q = 1
1 8 gRd=	6.88 6.88 1.1		25 30 45	1.07	1.07	i c f	18.92 18.92	0.16 0.16	-23.41 -23.41	0.20 0.20	11.94 11.46 6.59	-6.59 -11.46 -11.94	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 413 10 45	11.94 11.46 11.94	18.86 18.38 18.86	q = 1
3 45 gRd=	6.88 6.88 1.1		25 30 45	1.40	1.50	i c f	14.24 14.24	0.15 0.15	-18.79 -18.79	0.19 0.19	20.72 0.00 0.00	-19.41 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 45 10 2 10 45	20.72 0.00 0.00	30.13 0.00 0.00	q = 1
9 10 gRd=	6.88 6.88 1.1		48 30 45	4.66	4.99	i c f	18.85 13.64	0.26 0.23	-20.93 -17.90	0.20 0.21	19.56 17.31 -1.14	0.58 -17.88 -20.12	27.24 27.24 27.24	36.54 18.27 36.54	10 45 20 339 10 45	19.56 17.88 20.12	26.04 23.80 26.04	q = 1
8 11 gRd=	6.88 6.88 1.1		25 30 45	1.07	1.07	i c f	18.92 18.92	0.16 0.16	-23.41 -23.41	0.20 0.20	11.94 11.46 6.59	-6.59 -11.46 -11.94	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 413 10 45	11.94 11.46 11.94	19.07 18.59 19.07	q = 1
10 30 gRd=	6.88 6.88 1.1		25 30 45	1.07	1.07	i c f	18.90 18.90	0.18 0.18	-18.90 -18.90	0.18 0.18	30.65 30.17 29.17	-29.17 -30.17 -30.65	30.66 30.66 30.66	30.69 30.69 30.69	10 45 10 49 10 45	30.65 30.17 30.65	50.96 50.48 50.96	q = 1
4 5 gRd=	6.88 6.88 1.1		25 30 45	1.71	1.82	i c f	15.18 18.16	0.16 0.18	-18.09 -18.16	0.18 0.18	17.36 16.54 12.65	-11.45 -15.34 -16.16	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 177 10 45	17.36 16.54 16.16	26.99 26.18 26.99	q = 1
14 15 gRd=	6.88 6.88 1.1		39 40 25	2.54	2.75	i c f	3.57 3.57	0.18 0.18	-5.73 -5.73	0.23 0.23	7.50 6.81 0.18	-0.18 -6.81 -7.50	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 227 5 25	7.50 6.81 7.50	9.84 9.15 9.84	q = 1

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI					TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO		
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
17 18 gRd=	6.88 6.88 1.1	25 30 45	3.61 3.84 i c f	9.17 0.13 -15.06 0.19 12.17 0.14 -18.01 0.19	16.35 -6.37 14.62 -14.60 6.39 -16.33	27.24 36.54 10 45 16.35 25.92 q = 1												
20 21 gRd=	6.88 6.88 1.1	39 40 25	2.54 2.75 i c f	4.65 0.19 -7.87 0.25 3.57 0.18 -6.80 0.25	8.35 -1.03 7.66 -7.67 1.03 -8.35	18.82 37.86 5 25 8.35 10.40 q = 1												
23 24 gRd=	6.88 6.88 1.1	25 30 45	1.73 1.84 i c f	18.90 0.18 -18.90 0.18 23.51 0.18 -23.51 0.18	20.51 -15.93 19.69 -19.69 15.93 -20.51	27.24 36.54 10 45 20.51 29.95 q = 1												
4 41 gRd=	6.88 6.88 1.1	25 30 45	1.15 1.18 i c f	7.06 0.13 -7.06 0.13 7.06 0.13 -7.06 0.13	5.45 -2.21 0.00 0.00 0.00 0.00	27.24 36.54 10 36 7.49 5.45 q = 1												
6 16 gRd=	6.88 6.88 1.1	25 30 45	1.44 1.54 i c f	11.67 0.15 -11.67 0.15 11.67 0.15 -11.67 0.15	12.02 -8.21 11.33 -11.33 8.21 -12.02	27.24 36.54 10 45 12.02 17.62 q = 1												
5 6 gRd=	6.88 6.88 1.1	25 30 45	1.71 1.82 i c f	15.18 0.16 -18.09 0.18 15.19 0.17 -15.19 0.17	17.01 -11.34 16.20 -14.91 12.63 -15.72	27.24 36.54 10 45 17.01 25.50 q = 1												
6 7 gRd=	6.88 6.88 1.1	25 30 45	0.62 0.62 i c f	9.18 0.14 -9.18 0.14 9.18 0.14 -9.18 0.14	15.50 -14.66 15.22 -15.22 14.66 -15.50	27.24 36.54 10 45 15.50 17.18 q = 1												
15 16 gRd=	6.88 6.88 1.1	39 40 25	2.54 2.75 i c f	3.57 0.18 -5.73 0.23 3.57 0.18 -5.73 0.23	7.51 -0.69 6.82 -6.82 0.69 -7.51	18.82 37.86 5 25 7.51 9.22 q = 1												
18 19 gRd=	6.88 6.88 1.1	25 30 45	3.61 3.84 i c f	9.17 0.13 -15.06 0.19 9.17 0.13 -12.20 0.17	15.51 -4.99 13.78 -12.51 6.27 -14.24	27.24 36.54 10 45 15.51 25.12 q = 1												
19 22 gRd=	6.88 6.88 1.1	25 30 45	1.44 1.54 i c f	11.66 0.14 -16.16 0.19 11.67 0.15 -13.97 0.17	11.92 -6.33 11.23 -10.49 7.07 -11.18	27.24 36.54 10 45 11.92 16.04 q = 1												
19 27 gRd=	6.88 6.88 1.1	25 30 45	1.07 1.07 i c f	9.18 0.14 -9.18 0.14 9.18 0.14 -9.18 0.14	15.79 -14.36 15.31 -15.31 14.36 -15.79	27.24 36.54 10 45 15.79 19.54 q = 1												
21 22 gRd=	6.88 6.88 1.1	39 40 25	2.54 2.75 i c f	3.57 0.18 -5.73 0.23 3.57 0.18 -5.73 0.23	7.51 -0.69 6.82 -6.82 0.69 -7.51	18.82 37.86 5 25 7.51 9.77 q = 1												
24 25 gRd=	6.88 6.88 1.1	25 30 45	1.73 1.84 i c f	18.92 0.16 -23.41 0.20 18.90 0.18 -18.90 0.18	21.74 -15.42 20.91 -18.84 17.49 -19.67	27.24 36.54 10 45 21.74 30.43 q = 1												
25 26 gRd=	6.88 6.88 1.1	25 30 45	0.62 0.62 i c f	9.56 0.14 -9.56 0.14 9.56 0.14 -9.56 0.14	15.92 -15.09 15.64 -15.64 15.09 -15.92	27.24 36.54 10 45 15.92 15.92 q = 1												
14 50 gRd=	6.88 6.88 1.1	25 30 45	0.74 0.76 i c f	7.06 0.13 -7.06 0.13 7.06 0.13 -7.06 0.13	5.28 -4.10 0.00 0.00 0.00 0.00	27.24 36.54 10 45 5.28 5.85 q = 1												
17 51 gRd=	6.88 6.88 1.1	25 30 45	1.34 1.36 i c f	7.06 0.12 -9.38 0.15 7.06 0.13 -7.06 0.13	7.57 -2.95 0.00 0.00 0.00 0.00	27.24 36.54 10 45 7.57 11.37 q = 1												
20 44 gRd=	6.88 6.88 1.1	25 30 45	0.83 0.98 i c f	9.36 0.14 -11.68 0.16 9.36 0.14 -11.68 0.16	11.91 -6.41 0.00 0.00 0.00 0.00	27.24 36.54 10 45 11.91 19.27 q = 1												
16 19 gRd=	6.88 6.88 1.1	25 30 45	1.44 1.54 i c f	11.67 0.15 -13.97 0.17 11.67 0.15 -13.97 0.17	10.40 -6.31 9.71 -10.47 10.40 -6.31 9.71 -10.47	27.24 36.54 10 45 10.40 15.99 q = 1												

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz. Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
	gRd= 1.1		45			f	9.36	0.13	-13.91	0.18	5.55	-11.16	27.24	36.54	10 45	11.16	15.99	1
30 35	6.88 6.88		25 30	1.41	1.49	i c	14.24	0.15	-18.79	0.19	13.90	-9.33	27.24	36.54	10 45	13.90	21.16	q
	gRd= 1.1		45			f	14.24	0.15	-18.79	0.19	0.00	0.00	27.24	36.54	21 197	0.00	0.00	=
											0.00	0.00	27.24	36.54	10 45	0.00	0.00	1
30 38	6.88 6.88		26 30	0.83	0.92	i c	3.49	0.19	-5.64	0.25	5.27	0.47	14.11	37.86	5 25	5.27	7.83	q
	gRd= 1.1		25			f	3.49	0.19	-5.64	0.25	0.00	0.00	14.11	37.86	17 55	0.00	0.00	=
											0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
35 37	6.88 6.88		26 30	0.96	1.13	i c	2.40	0.18	-3.49	0.21	4.30	-1.99	14.11	37.86	5 25	5.49	4.30	q
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	37.86	17 69	0.00	0.00	=
											0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
36 33	6.88 6.88		26 30	0.19	0.19	i c	2.40	0.18	-3.49	0.21	3.16	-2.91	14.11	37.86	5 25	4.85	3.16	q
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	3.12	-3.12	14.11	18.93	10 87	4.80	3.12	=
											2.91	-3.16	14.11	37.86	5 25	4.85	3.16	1
10 17	6.88 6.88		26 30	0.62	0.75	i c	3.07	0.19	-4.48	0.23	2.99	-0.02	14.11	37.86	5 25	3.53	2.99	q
	gRd= 1.1		25			f	3.07	0.20	-3.07	0.20	2.81	-2.81	14.11	11.13	17 385	3.34	2.81	=
											0.02	-2.99	14.11	37.86	5 25	3.17	2.99	1
37 38	6.88 6.88		27 25	0.16	0.16	i c	2.37	0.19	-2.37	0.19	0.51	-0.01	11.76	37.86	5 25	1.87	0.51	q
	gRd= 1.1		25			f	2.37	0.19	-2.37	0.19	0.47	-0.47	11.76	11.13	17 272	1.83	0.47	=
											0.01	-0.51	11.76	37.86	5 25	1.87	0.51	1
38 32	6.88 6.88		26 30	0.83	0.92	i c	3.49	0.19	-5.64	0.25	5.27	0.47	14.11	37.86	5 25	5.27	7.84	q
	gRd= 1.1		25			f	3.49	0.19	-5.64	0.25	5.04	-3.12	14.11	11.13	17 139	5.04	7.61	=
											1.20	-3.35	14.11	37.86	5 25	3.35	5.93	1
37 36	6.88 6.88		26 30	0.96	1.13	i c	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	37.86	5 17	0.00	0.00	q
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	37.86	5 0	0.00	0.00	=
											2.63	-3.52	14.11	37.86	5 17	4.73	3.52	1
35 13	6.88 6.88		25 30	1.41	1.49	i c	14.24	0.15	-18.79	0.19	0.00	0.00	36.46	21.92	10 14	0.00	0.00	q
	gRd= 1.1		45			f	14.24	0.15	-18.79	0.19	0.00	0.00	36.46	24.36	9 0	0.00	0.00	=
											9.44	-13.96	36.46	24.36	9 14	13.96	19.21	1
41 14	6.88 6.88		25 30	1.15	1.18	i c	7.06	0.13	-7.06	0.13	0.00	0.00	27.24	36.54	10 45	0.00	0.00	q
	gRd= 1.1		45			f	7.06	0.13	-7.06	0.13	0.00	0.00	27.24	17.40	21 105	0.00	0.00	=
											3.83	-6.80	27.24	36.54	10 45	7.36	6.80	1
39 43	6.88 6.88		26 30	0.71	0.72	i c	3.49	0.20	-4.57	0.22	3.29	-0.49	14.11	37.86	5 25	3.29	10.28	q
	gRd= 1.1		25			f	2.40	0.18	-4.56	0.24	0.00	0.00	14.11	11.13	17 69	0.00	0.00	=
											0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
43 70	6.88 6.88		27 25	0.59	0.60	i c	2.37	0.19	-3.45	0.22	1.13	-4.05	11.76	37.86	5 23	4.05	11.68	q
	gRd= 1.1		25			f	2.37	0.19	-3.45	0.22	0.00	0.00	11.76	37.86	5 0	0.00	0.00	=
											0.00	0.00	11.76	37.86	5 23	0.00	0.00	1
68 47	6.88 6.88		26 30	0.29	0.30	i c	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	37.86	5 25	0.00	0.00	q
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	18.93	10 17	0.00	0.00	=
											2.32	-1.54	14.11	37.86	5 25	2.32	8.00	1
39 68	6.88 6.88		26 30	0.29	0.30	i c	2.41	0.18	-2.41	0.18	1.50	-2.34	14.11	37.86	5 25	2.34	2.36	q
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	11.13	17 159	0.00	0.00	=
											0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
45 46	6.88 6.88		25 30	1.40	1.50	i c	14.24	0.15	-18.79	0.19	0.00	0.00	27.24	36.54	10 45	0.00	0.00	q
	gRd= 1.1		45			f	14.24	0.15	-18.79	0.19	0.00	0.00	27.24	36.54	10 0	0.00	0.00	=
											18.08	-22.04	27.24	36.54	10 45	22.04	31.45	1
46 10	6.88 6.88		25 30	1.07	1.07	i c	18.92	0.16	-23.41	0.20	18.62	-13.91	27.24	36.54	10 45	18.62	29.89	q
	gRd= 1.1		45			f	18.90	0.18	-18.90	0.18	18.14	-16.31	27.24	18.27	20 181	18.14	29.41	=
											15.73	-16.79	27.24	36.54	10 45	16.79	29.89	1
46 47	6.88 6.88		26 30	0.19	0.19	i c	3.49	0.20	-4.57	0.22	7.64	-7.55	14.11	37.86	5 25	17.26	7.64	q
	gRd= 1.1		25			f	3.49	0.20	-4.57	0.22	7.60	-7.60	14.11	37.86	5 2	17.21	7.60	=
											7.55	-7.64	14.11	37.86	5 25	17.26	7.64	1
44	6.88		25	0.83	0.98	i	11.68	0.16	-9.36	0.14	0.00	0.00	27.24	36.54	10 45	0.00	0.00	q



**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO				VALORI DEL TAGLIO			
Iniz. Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes	con q=1 (t)	Lim ite	
23 gRd=	6.88 1.1		30 45			c f	11.68	0.16	-9.36	0.14	0.00 9.60	0.00 -8.71	27.24 27.24	17.40 36.54	21 47 10 45	0.00 9.60	0.00 18.07	= 1	
26 48 gRd=	6.88 6.88 1.1		26 30 25	0.38	0.46	i c f	2.41	0.18	-2.41	0.18	-0.73 0.00 0.00	-1.80 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 251 5 25	2.18 0.00 0.00	1.80 0.00 0.00	q = 1	
22 25 gRd=	6.88 6.88 1.1		25 30 45	1.44	1.54	i c f	11.66	0.14	-16.16	0.19	15.91 15.22 12.10	-9.19 -12.31 -13.00	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 166 10 45	15.91 15.22 13.00	19.33 18.63 19.33	q = 1	
27 49 gRd=	6.88 6.88 1.1		26 30 25	0.38	0.46	i c f	2.40	0.18	-3.49	0.21	-0.62 0.00 0.00	-2.65 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 320 5 25	2.66 0.00 0.00	2.65 0.00 0.00	q = 1	
48 27 gRd=	6.88 6.88 1.1		26 30 25	0.38	0.46	i c f	2.41	0.18	-2.41	0.18	0.00 0.00 2.64	0.00 0.00 0.61	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 320 5 25	0.00 0.00 2.64	0.00 0.00 2.86	q = 1	
49 7 gRd=	6.88 6.88 1.1		26 30 25	0.38	0.46	i c f	2.41	0.18	-2.41	0.18	0.00 0.00 2.06	0.00 0.00 0.45	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 251 5 25	0.00 0.00 2.16	0.00 0.00 2.06	q = 1	
22 48 gRd=	6.88 6.88 1.1		39 40 25	0.25	0.25	i c f	3.57	0.18	-5.73	0.23	1.18 1.11 0.80	-0.80 -1.11 -1.18	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 99 5 25	7.05 6.99 7.05	1.18 1.11 1.18	q = 1	
16 49 gRd=	6.88 6.88 1.1		39 40 25	0.25	0.25	i c f	3.57	0.18 0.19	-5.73 -4.65	0.23 0.21	0.95 0.89 0.58	-0.58 -0.89 -0.95	18.82 18.82 18.82	37.86 11.83 37.86	5 25 16 99 5 25	7.05 6.99 6.68	0.95 0.89 0.95	q = 1	
39 50 gRd=	6.88 6.88 1.1		1 30 30	0.95	0.95	i c f	4.40	0.17	-7.12	0.22	8.93 8.64 7.86	-7.86 -8.64 -8.93	17.39 17.39 17.39	38.89 11.11 38.89	6 30 21 52 6 30	11.84 11.56 11.84	8.93 8.64 8.93	q = 1	
50 17 gRd=	6.88 6.88 1.1		25 30 45	0.74	0.76	i c f	7.06	0.13 0.12	-7.06 -9.38	0.13 0.15	0.00 0.00 2.61	0.00 0.00 -6.91	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 78 10 45	0.00 0.00 6.91	0.00 0.00 12.77	q = 1	
32 51 gRd=	6.88 6.88 1.1		26 30 25	0.83	0.92	i c f	3.49	0.19	-5.64	0.25	0.00 0.00 1.20	0.00 0.00 -3.35	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 107 5 25	0.00 0.00 3.35	0.00 0.00 6.63	q = 1	
51 20 gRd=	6.88 6.88 1.1		25 30 45	1.34	1.36	i c f	7.06	0.13 0.12	-7.06 -9.38	0.13 0.15	0.00 0.00 2.92	0.00 0.00 -7.62	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 105 10 45	0.00 0.00 7.62	0.00 0.00 8.88	q = 1	
43 41 gRd=	6.88 6.88 1.1		26 30 25	0.71	0.72	i c f	2.41	0.18	-2.41	0.18	0.00 0.00 0.22	0.00 0.00 -3.10	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 207 5 25	0.00 0.00 3.17	0.00 0.00 3.10	q = 1	
61 62 gRd=	6.88 6.88 1.1		34 25 60	0.38	0.38	i c f	12.89	0.13	-12.89	0.13	9.45 9.23 8.78	-8.78 -9.23 -9.45	30.90 30.90 30.90	45.22 23.69 45.22	11 60 21 58 11 60	16.24 16.01 16.24	9.45 9.23 9.45	q = 1	
61 69 gRd=	6.88 6.88 1.1		27 25 25	0.15	0.17	i c f	5.61	0.24	-5.61	0.24	6.03 0.00 0.00	-6.07 0.00 0.00	11.76 11.76 11.76	37.86 37.86 37.86	5 15 5 0 5 15	6.07 0.00 0.00	6.43 0.00 0.00	q = 1	
70 69 gRd=	6.88 6.88 1.1		27 25 25	0.59	0.60	i c f	2.37	0.19	-2.37	0.19	0.00 0.00 2.45	0.00 0.00 -2.21	11.76 11.76 11.76	37.86 11.13 37.86	5 25 17 128 5 25	0.00 0.00 2.71	0.00 0.00 2.48	q = 1	
69 68 gRd=	6.88 6.88 1.1		27 25 25	0.15	0.17	i c f	5.61	0.24	-5.61	0.24	0.00 0.00 6.30	0.00 0.00 -5.81	11.76 11.76 11.76	37.86 11.13 37.86	5 25 17 85 5 25	0.00 0.00 6.30	0.00 0.00 6.58	q = 1	
62 70 gRd=	6.88 6.88 1.1		27 25 25	0.16	0.16	i c f	3.45	0.21	-3.45	0.21	12.82 12.79 12.77	-12.77 -12.79 -12.82	16.13 16.13 16.13	21.20 21.20 21.20	5 15 5 0 5 15	25.82 25.79 25.82	12.82 12.79 12.82	q = 1	

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI			MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO		
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
12 9 gRd=	6.88 6.88 1.1	8 50 25	0.31 0.31 f	0.31 0.31 f	i c f	4.65 4.65 0.19	-6.06 -6.06 0.21	3.10 3.02 1.50	-1.50 -3.02 -3.10	23.52 23.52 23.52	37.86 14.56 37.86	5 13 5	25 463 25	3.10 3.02 3.10	4.86 4.78 4.86	q = 1		
9 2 gRd=	6.88 6.88 1.1	8 50 25	0.31 0.31 f	0.31 0.31 f	i c f	4.65 4.65 0.19	-6.06 -6.06 0.21	3.10 3.02 1.50	-1.50 -3.02 -3.10	23.52 23.52 23.52	37.86 14.56 37.86	5 13 5	25 463 25	3.10 3.02 3.10	4.78 4.70 4.78	q = 1		
8 9 gRd=	10.13 10.13 1.1	48 30 45	4.67 4.99 f	4.99 4.99 f	i c f	26.60 26.70 0.29	-15.36 -24.37 0.15	21.23 18.99 -3.06	3.06 -18.02 -21.23	27.24 27.24 27.24	36.54 19.23 36.54	10 19 10	45 394 64	21.75 20.49 23.70	21.23 18.99 21.23	q = 1		
1 8 gRd=	10.13 10.13 1.1	25 30 45	1.07 1.07 f	1.07 1.07 f	i c f	15.17 15.18 0.15	-20.97 -18.09 0.18	10.59 10.11 5.24	-4.60 -9.48 -9.96	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 413 45	10.59 10.11 9.96	15.89 15.41 15.89	q = 1		
3 45 gRd=	10.13 10.13 1.1	25 30 45	1.67 1.81 f	1.81 1.81 f	i c f	9.17 9.17 0.13	-15.06 -15.06 0.19	15.55 0.00 0.00	-13.96 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 10 10	45 2 45	15.55 0.00 0.00	22.90 0.00 0.00	q = 1		
9 10 gRd=	10.13 10.13 1.1	48 30 45	4.66 4.99 f	4.99 4.99 f	i c f	24.26 24.04 0.28	-22.10 -11.65 0.14	22.53 20.28 1.83	0.79 -17.66 -19.90	27.24 27.24 27.24	36.54 20.30 36.54	10 18 10	45 339 45	22.53 20.28 19.90	23.52 21.28 23.52	q = 1		
8 11 gRd=	10.13 10.13 1.1	25 30 45	1.07 1.07 f	1.07 1.07 f	i c f	15.18 15.17 0.16	-18.09 -20.97 0.20	9.96 9.48 4.60	-5.24 -10.11 -10.59	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 413 45	9.96 10.11 10.59	16.08 15.60 16.08	q = 1		
10 30 gRd=	10.13 10.13 1.1	25 30 45	1.07 1.07 f	1.07 1.07 f	i c f	15.19 12.18 0.17	-15.19 -15.15 0.18	22.40 21.92 20.92	-23.26 -24.26 -24.74	27.24 27.24 27.24	36.54 24.36 36.54	10 15 10	45 49 45	23.26 24.26 24.74	38.19 37.71 38.19	q = 1		
4 5 gRd=	10.13 10.13 1.1	25 30 45	1.71 1.82 f	1.82 1.82 f	i c f	9.36 13.97 0.13	-13.91 -13.97 0.16	13.91 13.09 9.20	-7.32 -11.22 -12.04	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 177 45	13.91 13.09 12.04	18.82 18.01 18.82	q = 1		
14 15 gRd=	10.13 10.13 1.1	39 40 25	2.54 2.75 f	2.75 2.75 f	i c f	4.65 3.57 0.19	-7.87 -6.80 0.25	8.35 7.66 1.03	-1.03 -7.67 -8.35	18.82 18.82 18.82	37.86 11.83 37.86	5 16 5	25 227 25	8.35 7.67 8.35	11.22 10.54 11.22	q = 1		
17 18 gRd=	10.13 10.13 1.1	25 30 45	3.61 3.84 f	3.84 3.84 f	i c f	9.36 9.35 0.14	-11.68 -16.09 0.19	13.80 12.07 3.84	-5.66 -13.89 -15.62	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 177 45	13.80 13.89 15.62	22.44 20.71 22.44	q = 1		
20 21 gRd=	10.13 10.13 1.1	39 40 25	2.54 2.75 f	2.75 2.75 f	i c f	4.65 3.57 0.19	-7.87 -6.80 0.25	8.35 7.66 1.03	-1.03 -7.67 -8.35	18.82 18.82 18.82	37.86 11.83 37.86	5 16 5	25 227 25	8.35 7.67 8.35	10.81 10.12 10.81	q = 1		
23 24 gRd=	10.13 10.13 1.1	25 30 45	1.73 1.84 f	1.84 1.84 f	i c f	9.36 11.67 0.13	-13.91 -13.97 0.17	12.99 12.16 8.22	-7.30 -11.24 -12.06	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 177 45	12.99 12.16 12.06	17.01 16.19 17.01	q = 1		
4 41 gRd=	10.13 10.13 1.1	25 30 45	1.20 1.23 f	1.23 1.23 f	i c f	7.06 7.06 0.13	-7.06 -7.06 0.13	5.27 0.00 0.00	-1.99 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 10 10	36 0 36	7.52 0.00 0.00	5.27 0.00 0.00	q = 1		
6 16 gRd=	10.13 10.13 1.1	25 30 45	1.18 1.28 f	1.28 1.28 f	i c f	9.37 9.36 0.14	-9.37 -11.68 0.16	9.70 9.12 6.56	-7.56 -10.12 -10.70	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 166 45	9.70 10.12 10.70	14.72 14.14 14.72	q = 1		
5 6 gRd=	10.13 10.13 1.1	25 30 45	1.71 1.82 f	1.82 1.82 f	i c f	11.67 11.67 0.15	-13.97 -13.97 0.17	13.63 12.81 9.24	-9.24 -12.81 -13.63	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 158 45	13.63 12.81 13.63	19.29 18.47 19.29	q = 1		
6 7 gRd=	10.13 10.13 1.1	25 30 45	0.62 0.62 f	0.62 0.62 f	i c f	7.06 7.06 0.13	-7.06 -7.06 0.13	6.45 6.17 5.61	-5.61 -6.17 -6.45	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 44 45	12.02 11.74 12.02	6.45 6.17 6.45	q = 1		
15 16 gRd=	10.13 10.13 1.1	39 40 25	2.54 2.75 f	2.75 2.75 f	i c f	3.57 3.57 0.18	-5.73 -6.80 0.25	7.51 6.82 0.69	-1.14 -7.28 -7.96	18.82 18.82 18.82	37.86 11.83 37.86	5 16 5	25 208 25	7.51 7.28 7.96	10.80 10.11 10.80	q = 1		

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI					TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite	
18 19 gRd=	10.13 10.13 1.1	25 30 45	3.61 3.84	i c f	9.36 0.13 -13.91	0.18	15.09 13.36 5.84	-3.83 -11.34 -13.07	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 158 45	15.09 13.36 13.07	21.10 19.37 21.10	q = 1				
19 22 gRd=	10.13 10.13 1.1	25 30 45	1.39 1.49	i c f	9.36 0.13 -13.91	0.18	11.07 10.40 6.40	-5.64 -9.64 -10.31	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 235 45	11.07 10.40 10.31	15.26 14.59 15.26	q = 1				
19 27 gRd=	10.13 10.13 1.1	25 30 45	1.07 1.07	i c f	7.06 0.13 -7.06	0.13	12.31 11.83 10.89	-10.89 -11.83 -12.31	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 44 45	12.31 11.83 12.31	13.24 12.76 13.24	q = 1				
21 22 gRd=	10.13 10.13 1.1	39 40 25	2.54 2.75	i c f	3.57 0.18 -5.73	0.23	7.51 6.82 0.69	-0.69 -6.82 -7.51	18.82 18.82 18.82	37.86 11.83 37.86	5 16 5	25 208 25	7.51 6.82 7.51	10.21 9.52 10.21	q = 1				
24 25 gRd=	10.13 10.13 1.1	25 30 45	1.73 1.84	i c f	11.67 0.15 -13.97	0.17	13.65 12.82 9.22	-9.22 -12.82 -13.65	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 158 45	13.65 12.82 13.65	18.86 18.03 18.86	q = 1				
25 26 gRd=	10.13 10.13 1.1	25 30 45	0.62 0.62	i c f	7.06 0.13 -7.06	0.13	7.12 6.84 6.29	-6.29 -6.84 -7.12	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 44 45	12.02 11.74 12.02	7.12 6.84 7.12	q = 1				
14 50 gRd=	10.13 10.13 1.1	25 30 45	0.73 0.76	i c f	7.06 0.13 -7.06	0.13	5.26 0.00 0.00	-3.52 0.00 0.00	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 97 45	5.26 0.00 0.00	6.39 0.00 0.00	q = 1				
17 51 gRd=	10.13 10.13 1.1	25 30 45	1.30 1.32	i c f	7.06 0.13 -7.06	0.13	6.64 0.00 0.00	-3.13 0.00 0.00	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 60 45	6.64 0.00 0.00	10.49 0.00 0.00	q = 1				
20 44 gRd=	10.13 10.13 1.1	25 30 45	0.82 0.98	i c f	9.36 0.14 -11.68	0.16	10.60 0.00 0.00	-5.75 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 10 10	45 28 45	10.60 0.00 0.00	16.30 0.00 0.00	q = 1				
16 19 gRd=	10.13 10.13 1.1	25 30 45	1.39 1.49	i c f	11.67 0.15 -13.97	0.17	10.31 9.64 5.64	-6.40 -10.40 -11.07	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 235 45	10.31 10.40 11.07	15.29 14.62 15.29	q = 1				
30 35 gRd=	10.13 10.13 1.1	25 30 45	1.40 1.50	i c f	12.18 0.15 -15.15	0.18	11.87 0.00 0.00	-7.37 0.00 0.00	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 197 45	11.87 0.00 0.00	18.92 0.00 0.00	q = 1				
30 38 gRd=	10.13 10.13 1.1	26 30 25	0.84 0.93	i c f	3.49 0.19 -5.64	0.25	4.98 0.00 0.00	0.72 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 54 25	4.98 0.00 0.00	7.20 0.00 0.00	q = 1				
35 37 gRd=	10.13 10.13 1.1	26 30 25	0.96 1.13	i c f	2.41 0.18 -2.41	0.18	4.20 0.00 0.00	-1.95 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 69 25	4.69 0.00 0.00	4.20 0.00 0.00	q = 1				
36 33 gRd=	10.13 10.13 1.1	26 30 25	0.19 0.19	i c f	2.40 0.18 -3.49	0.21	3.09 3.04 2.83	-2.83 -3.04 -3.09	14.11 14.11 14.11	37.86 18.93 37.86	5 10 5	25 87 25	4.85 4.80 4.85	3.09 3.04 3.09	q = 1				
10 17 gRd=	10.13 10.13 1.1	26 30 25	0.62 0.75	i c f	2.40 0.18 -3.49	0.21	2.93 2.74 -0.04	0.14 -2.65 -2.84	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 385 25	3.11 2.93 2.84	2.93 2.74 2.93	q = 1				
37 38 gRd=	10.13 10.13 1.1	27 25 25	0.16 0.16	i c f	2.37 0.19 -2.37	0.19	0.49 0.45 -0.01	0.01 -0.45 -0.49	11.76 11.76 11.76	37.86 11.13 37.86	5 17 5	25 272 25	1.87 1.83 1.87	0.49 0.45 0.49	q = 1				
38 32 gRd=	10.13 10.13 1.1	26 30 25	0.84 0.93	i c f	2.40 0.18 -4.56	0.24	4.98 4.75 0.87	0.72 -2.92 -3.16	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 139 25	4.98 4.75 3.16	7.22 6.99 5.39	q = 1				
37 36	10.13 10.13	26 30	0.96 1.13	i c	2.41 0.18 -2.41	0.18	0.00 0.00	0.00 0.00	14.11 14.11	37.86 37.86	5 5	17 0	0.00 0.00	0.00 0.00	q = 1				

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz. Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	2.53	-3.47	14.11	37.86	5 17	3.98	3.47	1
35 13	10.13 10.13		25 30	1.40	1.50	i c	12.18	0.15	-15.15	0.18	0.00	0.00	32.56	27.77	10 14	0.00	0.00	q =
	gRd= 1.1		45			f	12.18	0.15	-15.15	0.18	7.42	-12.00	32.56	27.77	10 14	12.00	17.41	1
61 62	10.13 10.13		34 25	0.38	0.38	i c	12.89	0.13	-12.89	0.13	7.34	-6.67	30.90	45.22	11 60	16.24	7.34	q =
	gRd= 1.1		60			f	12.89	0.13	-12.89	0.13	6.67	-7.34	30.90	45.22	11 60	16.24	7.34	1
41 14	10.13 10.13		25 30	1.20	1.23	i c	7.06	0.13	-7.06	0.13	0.00	0.00	27.24	36.54	10 45	0.00	0.00	q =
	gRd= 1.1		45			f	7.06	0.13	-7.06	0.13	3.04	-6.20	27.24	36.54	10 45	7.46	6.20	1
39 43	10.13 10.13		26 30	0.66	0.67	i c	2.41	0.18	-2.41	0.18	2.48	-0.35	14.11	37.86	5 25	2.48	6.91	q =
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
43 70	10.13 10.13		27 25	0.55	0.58	i c	2.37	0.19	-2.37	0.19	0.90	-3.25	11.76	37.86	5 23	3.25	8.57	q =
	gRd= 1.1		25			f	2.37	0.19	-2.37	0.19	0.00	0.00	11.76	37.86	5 23	0.00	0.00	1
42 45	10.13 10.13		27 25	0.39	0.47	i c	2.37	0.19	-2.37	0.19	4.67	-4.16	11.76	37.86	5 25	4.67	5.60	q =
	gRd= 1.1		25			f	2.37	0.19	-2.37	0.19	4.56	-4.56	11.76	11.13	17 69	4.56	5.48	=
											4.16	-4.67	11.76	37.86	5 25	4.67	5.60	1
39 47	10.13 10.13		26 30	0.51	0.61	i c	2.41	0.18	-2.41	0.18	2.75	-1.21	14.11	37.86	5 25	2.75	3.21	q =
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	2.60	-2.60	14.11	11.13	17 227	2.60	3.06	=
											1.21	-2.75	14.11	37.86	5 25	2.75	3.21	1
45 46	10.13 10.13		25 30	1.67	1.81	i c	9.17	0.13	-15.06	0.19	0.00	0.00	27.24	36.54	10 45	0.00	0.00	q =
	gRd= 1.1		45			f	9.17	0.13	-15.06	0.19	0.00	0.00	27.24	36.54	10 45	17.11	26.09	1
46 10	10.13 10.13		25 30	1.07	1.07	i c	15.17	0.15	-20.97	0.20	17.33	-12.09	27.24	36.54	10 45	17.33	26.93	q =
	gRd= 1.1		45			f	18.16	0.18	-18.16	0.18	16.85	-14.49	27.24	17.40	21 181	16.85	26.45	=
											14.44	-14.97	27.24	36.54	10 45	14.97	26.93	1
46 47	10.13 10.13		26 30	0.48	0.57	i c	2.41	0.18	-2.41	0.18	2.52	-2.25	14.11	37.86	5 25	10.42	2.52	q =
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	2.38	-2.38	14.11	37.86	5 2	10.28	2.38	=
											2.25	-2.52	14.11	37.86	5 25	10.42	2.52	1
44 23	10.13 10.13		25 30	0.82	0.98	i c	9.38	0.15	-7.06	0.12	0.00	0.00	27.24	36.54	10 45	0.00	0.00	q =
	gRd= 1.1		45			f	9.38	0.15	-7.06	0.12	0.00	0.00	27.24	17.40	21 47	0.00	0.00	=
											8.29	-8.05	27.24	36.54	10 45	8.29	15.75	1
26 48	10.13 10.13		26 30	0.39	0.47	i c	2.40	0.18	-3.49	0.21	-0.31	-2.32	14.11	37.86	5 25	2.40	2.32	q =
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	11.13	17 251	0.00	0.00	=
											0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
22 25	10.13 10.13		25 30	1.18	1.28	i c	11.67	0.15	-13.97	0.17	13.66	-8.54	27.24	36.54	10 45	13.66	15.66	q =
	gRd= 1.1		45			f	13.97	0.17	-11.67	0.15	13.09	-11.10	27.24	17.40	21 166	13.09	15.08	=
											10.52	-11.68	27.24	36.54	10 45	11.68	15.66	1
27 49	10.13 10.13		26 30	0.39	0.46	i c	2.40	0.18	-3.49	0.21	-0.64	-2.59	14.11	37.86	5 25	2.67	2.59	q =
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	11.13	17 320	0.00	0.00	=
											0.00	0.00	14.11	37.86	5 25	0.00	0.00	1
48 27	10.13 10.13		26 30	0.39	0.47	i c	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	37.86	5 25	0.00	0.00	q =
	gRd= 1.1		25			f	2.40	0.18	-3.49	0.21	0.00	0.00	14.11	11.13	17 320	0.00	0.00	=
											2.61	0.49	14.11	37.86	5 25	2.65	2.61	1
49 7	10.13 10.13		26 30	0.39	0.46	i c	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	37.86	5 25	0.00	0.00	q =
	gRd= 1.1		25			f	2.41	0.18	-2.41	0.18	0.00	0.00	14.11	11.13	17 251	0.00	0.00	=
											2.20	0.38	14.11	37.86	5 25	2.20	2.20	1
22 48	10.13 10.13		39 40	0.25	0.25	i c	3.57	0.18	-5.73	0.23	1.27	-0.89	18.82	37.86	5 25	7.05	1.27	q =
	gRd= 1.1		25			f	3.57	0.18	-5.73	0.23	1.20	-1.20	18.82	11.83	16 99	6.99	1.20	=
											0.89	-1.27	18.82	37.86	5 25	7.05	1.27	1
16	10.13		39	0.25	0.25	i	3.57	0.18	-5.73	0.23	1.25	-0.87	18.82	37.86	5 25	7.05	1.25	q

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz. Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
49 gRd=	10.13 1.1		40 25			c f	3.57	0.18	-5.73	0.23	1.18 0.87	-1.18 -1.25	18.82 18.82	11.83 37.86	16 99 5 25	6.99 7.05	1.18 1.25	= 1
39 50 gRd=	10.13 10.13 1.1		1 30 30	0.95	0.95	i c f	2.99	0.15	-4.40	0.19	5.50 5.21 4.43	-4.43 -5.21 -5.50	17.39 17.39 17.39	38.89 11.11 38.89	6 30 21 52 6 30	7.79 7.50 7.79	5.50 5.21 5.50	q = 1
50 17 gRd=	10.13 10.13 1.1		25 30 45	0.73	0.76	i c f	7.06	0.13	-7.06	0.13	0.00 0.00 2.66	0.00 0.00 -6.18	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 78 10 45	0.00 0.00 6.18	0.00 0.00 11.34	q = 1
32 51 gRd=	10.13 10.13 1.1		26 30 25	0.84	0.93	i c f	3.49	0.19	-5.64	0.25	0.00 0.00 0.87	0.00 0.00 -3.16	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 107 5 25	0.00 0.00 3.16	0.00 0.00 6.03	q = 1
51 20 gRd=	10.13 10.13 1.1		25 30 45	1.30	1.32	i c f	7.06	0.12	-9.38	0.15	0.00 0.00 2.14	0.00 0.00 -7.67	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 105 10 45	0.00 0.00 7.67	0.00 0.00 8.88	q = 1
43 41 gRd=	10.13 10.13 1.1		26 30 25	0.66	0.67	i c f	2.41	0.18	-2.41	0.18	0.00 0.00 -0.02	0.00 0.00 -2.83	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 207 5 25	0.00 0.00 2.84	0.00 0.00 2.83	q = 1
12 9 gRd=	10.13 10.13 1.1		8 50 25	0.31	0.31	i c f	4.65	0.19	-6.06	0.21	3.10 3.02 1.50	-1.19 -2.72 -2.80	23.52 23.52 23.52	37.86 14.56 37.86	5 25 13 463 5 25	3.10 3.02 2.80	3.95 3.87 3.95	q = 1
69 42 gRd=	10.13 10.13 1.1		27 25 25	0.55	0.58	i c f	2.37	0.19	-3.45	0.22	0.00 0.00 2.52	0.00 0.00 -1.69	11.76 11.76 11.76	37.86 37.86 37.86	5 25 5 5 5 25	0.00 0.00 2.52	0.00 0.00 5.56	q = 1
70 69 gRd=	10.13 10.13 1.1		27 25 25	0.55	0.58	i c f	2.37	0.19	-2.37	0.19	2.52 2.37 0.90	-1.69 -3.11 -3.25	11.76 11.76 11.76	37.86 11.13 37.86	5 25 17 128 5 25	2.52 3.11 3.25	3.67 4.69 4.83	q = 1
61 69 gRd=	10.13 10.13 1.1		27 25 25	0.16	0.16	i c f	3.45	0.21	-3.45	0.21	8.75 8.73 8.71	-8.71 -8.73 -8.75	12.47 12.47 12.47	34.83 34.83 34.83	5 15 5 0 5 15	25.82 25.79 25.82	8.75 8.73 8.75	q = 1
62 70 gRd=	10.13 10.13 1.1		27 25 25	0.16	0.16	i c f	3.45	0.21	-3.45	0.21	9.32 9.30 9.27	-9.27 -9.30 -9.32	11.76 11.76 11.76	37.86 37.86 37.86	5 15 5 0 5 15	25.82 25.79 25.82	9.32 9.30 9.32	q = 1
9 2 gRd=	10.13 10.13 1.1		8 50 25	0.31	0.31	i c f	4.65	0.19	-4.65	0.19	2.80 2.72 1.19	-1.50 -3.02 -3.10	23.52 23.52 23.52	37.86 14.56 37.86	5 25 13 463 5 25	2.80 3.02 3.10	3.87 3.79 3.87	q = 1
17 18 gRd=	13.88 13.88 1.1		25 30 45	2.35	2.35	i c f	7.06	0.13	-7.06	0.13	7.73 6.67 1.44	-1.44 -6.67 -7.73	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 177 10 45	8.96 7.91 8.96	7.73 6.67 7.73	q = 1
18 19 gRd=	13.88 13.88 1.1		25 30 45	2.35	2.35	i c f	7.06	0.13	-7.06	0.13	9.19 8.13 3.35	-3.35 -8.13 -9.19	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 158 10 45	9.19 8.13 9.19	10.69 9.63 10.69	q = 1
19 27 gRd=	13.88 13.88 1.1		25 30 45	2.36	2.36	i c f	7.06	0.13	-7.06	0.13	4.26 3.20 1.10	-1.10 -3.20 -4.26	27.24 27.24 27.24	36.54 17.40 36.54	10 45 21 44 10 45	13.18 12.12 13.18	4.26 3.20 4.26	q = 1
24 25 gRd=	11.34 11.34 1.1		26 30 25	1.03	1.03	i c f	2.41	0.18	-2.41	0.18	3.16 2.91 0.61	-0.61 -2.91 -3.16	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 198 5 25	3.41 3.15 3.41	3.16 2.91 3.16	q = 1
25 26 gRd=	11.34 11.34 1.1		26 30 25	1.03	1.03	i c f	2.41	0.18	-2.41	0.18	3.20 2.95 1.82	-1.82 -2.95 -3.20	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 84 5 25	4.64 4.38 4.64	3.20 2.95 3.20	q = 1
5 6 gRd=	11.34 11.34 1.1		26 30 25	1.03	1.03	i c f	2.41	0.18	-2.41	0.18	3.41 3.15 0.86	-0.86 -3.15 -3.41	14.11 14.11 14.11	37.86 11.13 37.86	5 25 17 198 5 25	3.41 3.15 3.41	3.60 3.35 3.60	q = 1

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE**

Filo	Quota	Tr	Sez	CARICHI			MOMENTI RESISTENTI				TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO		
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite
6 7 gRd=	11.34 11.34 1.1	26 30 25	1.03 1.03 i c f	2.41 0.18 -2.41	0.18 0.18 0.18	3.49 3.23 2.11	-2.11 -3.23 -3.49	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 84 25	4.64 4.38 4.64	3.49 3.23 3.49	q = 1				
14 15 gRd=	12.50 12.50 1.1	26 30 25	2.02 2.02 i c f	3.49 0.19 -5.64	0.25 0.25 0.25	6.42 5.91 0.83	-0.83 -5.91 -6.42	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 227 25	6.42 5.91 6.42	9.28 8.77 9.28	q = 1				
20 21 gRd=	12.50 12.50 1.1	26 30 25	2.02 2.02 i c f	3.49 0.19 -5.64	0.25 0.25 0.24	5.98 5.48 0.40	-0.41 -5.48 -5.99	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 227 25	5.98 5.48 5.99	8.09 7.58 8.09	q = 1				
15 16 gRd=	12.50 12.50 1.1	26 30 25	2.02 2.02 i c f	3.49 0.19 -5.64	0.25 0.25 0.25	6.49 5.99 1.29	-1.29 -5.99 -6.49	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 208 25	6.49 5.99 6.49	9.09 8.59 9.09	q = 1				
21 22 gRd=	12.50 12.50 1.1	26 30 25	2.02 2.02 i c f	2.40 0.18 -4.56	0.24 0.24 0.24	5.57 5.06 0.37	-0.37 -5.06 -5.57	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 208 25	5.57 5.06 5.57	7.52 7.02 7.52	q = 1				
11 8 gRd=	13.42 13.42 1.1	25 30 45	0.34 0.34 i c f	9.37 0.14 -9.37	0.14 0.14 0.16	4.95 4.80 3.25	-3.76 -5.30 -5.46	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 413 45	4.95 5.30 5.46	7.67 7.51 7.67	q = 1				
8 1 gRd=	13.42 13.42 1.1	25 30 45	0.34 0.34 i c f	9.36 0.14 -9.37	0.14 0.14 0.14	5.46 5.30 3.76	-3.25 -4.80 -4.95	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 413 45	5.46 5.30 4.95	7.55 7.40 7.55	q = 1				
13 30 gRd=	13.42 13.42 1.1	25 30 45	0.34 0.34 i c f	9.38 0.15 -7.06	0.12 0.12 0.18	5.48 5.33 4.42	-6.85 -7.76 -7.91	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 224 45	6.85 7.76 7.91	10.97 10.82 10.97	q = 1				
60 46 gRd=	13.42 13.42 1.1	25 30 45	1.37 1.44 i c f	9.36 0.13 -13.91	0.18 0.19 0.19	0.00 0.00 14.52	0.00 0.00 -6.30	27.24 27.24 27.24	36.54 24.36 36.54	10 15 10	45 81 45	0.00 0.00 14.52	0.00 0.00 19.89	q = 1				
2 9 gRd=	14.96 14.96 1.1	26 30 25	0.19 0.19 i c f	3.49 0.20 -3.49	0.20 0.20 0.20	1.43 1.38 0.47	-0.47 -1.38 -1.43	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 463 25	1.98 1.93 1.98	1.43 1.38 1.43	q = 1				
9 12 gRd=	14.96 14.96 1.1	26 30 25	0.19 0.19 i c f	3.49 0.20 -3.49	0.20 0.20 0.20	1.46 1.41 0.50	-0.50 -1.41 -1.46	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 463 25	1.98 1.93 1.98	1.46 1.41 1.46	q = 1				
61 62 gRd=	13.88 13.88 1.1	34 25 60	0.40 0.40 i c f	12.89 0.13 -12.89	0.13 0.13 0.13	3.29 3.05 2.57	-2.57 -3.05 -3.29	30.90 30.90 30.90	45.22 23.69 45.22	11 21 11	60 58 60	16.26 16.02 16.26	3.29 3.05 3.29	q = 1				
17 58 gRd=	13.28 13.28 1.1	26 30 25	0.67 0.67 i c f	3.49 0.20 -4.57	0.22 0.22 0.20	1.39 1.23 -0.04	0.04 -1.23 -1.39	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 163 25	4.88 4.71 4.32	1.39 1.23 1.39	q = 1				
58 59 gRd=	13.28 13.28 1.1	26 30 25	0.74 0.74 i c f	3.49 0.20 -3.49	0.20 0.20 0.20	1.31 1.13 0.00	0.00 -1.13 -1.31	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 128 25	4.97 4.79 4.97	1.31 1.13 1.31	q = 1				
10 60 gRd=	13.42 13.42 1.1	25 30 45	1.37 1.44 i c f	13.97 0.17 -11.67	0.15 0.15 0.15	10.71 0.00 0.00	-10.12 0.00 0.00	27.24 27.24 27.24	36.54 36.54 36.54	10 10 10	45 11 45	10.71 0.00 0.00	19.26 0.00 0.00	q = 1				
59 61 gRd=	13.28 13.88 1.1	27 25 25	0.57 0.57 i c f	2.37 0.19 -2.37	0.19 0.19 0.21	1.68 1.54 -0.41	0.41 -1.54 -1.68	11.76 11.76 11.76	37.86 11.13 37.86	5 17 5	25 316 25	2.79 2.65 2.79	1.68 1.54 1.68	q = 1				
62 58 gRd=	13.88 13.28 1.1	27 25 25	0.58 0.58 i c f	2.37 0.19 -2.37	0.19 0.19 0.19	1.53 1.38 -0.60	0.60 -1.38 -1.53	11.76 11.76 11.76	37.86 11.13 37.86	5 17 5	25 317 25	2.48 2.34 2.48	1.53 1.38 1.53	q = 1				
66 33 gRd=	13.28 13.28 1.1	26 30 25	0.86 0.86 i c f	2.41 0.18 -2.41	0.18 0.18 0.20	2.44 2.23 -1.49	1.49 -2.23 -2.44	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 408 25	3.38 3.16 3.38	2.44 2.23 2.44	q = 1				

VERIFICHE DI DUTTILITA' ASTE IN C.A. - TRAVI ELEVAZIONE																			
Filo	Quota	Tr	Sez	CARICHI		MOMENTI RESISTENTI					TAGLIO PROGETTO		VERIFICA A TAGLIO			VALORI DEL TAGLIO			
Iniz. Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	g (t/m)	g+s*q (t/m)	Co nc	Mru+ (t*m)	x/d	Mru- (t*m)	x/d	Vmax (t)	Vmin (t)	VRcd (t)	VRsd (t)	Staffe Pas Lu	SovrRes (t)	con q=1 (t)	Lim ite	
51 32 gRd=	13.28 13.28 1.1	26 30 25	0.68 0.68 f	0.68 0.68 f	i c f	5.61 5.61 5.61	0.22 0.22 0.22	-7.38 -7.38 -7.38	0.26 0.26 0.26	-1.67 0.00 0.00	-1.67 0.00 0.00	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 107 25	5.68 0.00 0.00	1.67 0.00 0.00	q = 1	
32 66 gRd=	13.28 13.28 1.1	26 30 25	0.68 0.68 f	0.68 0.68 f	i c f	5.61 5.61 5.61	0.22 0.22 0.22	-7.38 -7.38 -7.38	0.26 0.26 0.26	2.74 2.57 0.32	-1.24 -3.49 -3.66	14.11 14.11 14.11	37.86 18.93 37.86	5 10 5	25 105 25	4.76 5.51 5.68	2.74 3.49 3.66	q = 1	
66 65 gRd=	13.28 13.28 1.1	26 30 25	0.68 0.68 f	0.68 0.68 f	i c f	5.61 5.61 5.61	0.22 0.22 0.22	-7.38 -7.38 -7.38	0.26 0.26 0.26	0.00 0.00 2.95	0.00 0.00 -1.45	14.11 14.11 14.11	37.86 37.86 37.86	5 5 5	22 0 22	0.00 0.00 4.76	0.00 0.00 2.95	q = 1	
23 24 gRd=	11.34 11.34 1.1	26 30 25	1.03 1.03 f	1.03 1.03 f	i c f	2.41 2.41 2.41	0.18 0.18 0.18	-2.41 -2.41 -2.41	0.18 0.18 0.18	3.36 3.10 0.61	-0.61 -3.10 -3.36	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 217 25	3.36 3.10 3.36	3.64 3.38 3.64	q = 1	
4 5 gRd=	11.34 11.34 1.1	26 30 25	1.03 1.03 f	1.03 1.03 f	i c f	2.41 2.41 2.41	0.18 0.18 0.18	-2.41 -2.41 -2.41	0.18 0.18 0.18	3.26 3.00 0.51	-0.51 -3.00 -3.26	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 217 25	3.36 3.10 3.36	3.26 3.00 3.26	q = 1	
67 10 gRd=	13.42 13.42 1.1	25 30 45	3.67 3.91 f	3.91 3.91 f	i c f	7.05 7.05 7.05	0.12 0.12 0.12	-11.66 -11.66 -11.66	0.18 0.18 0.18	0.00 0.00 15.12	0.00 0.00 -12.02	27.24 27.24 27.24	36.54 36.54 36.54	10 10 10	45 29 45	0.00 0.00 16.47	0.00 0.00 15.12	q = 1	
44 51 gRd=	13.28 13.28 1.1	26 30 25	0.94 0.94 f	0.94 0.94 f	i c f	2.41 2.41 2.41	0.18 0.18 0.18	-2.41 -2.41 -2.41	0.18 0.18 0.18	1.71 -1.47 -1.71	1.71 -1.47 -1.71	14.11 14.11 14.11	37.86 11.13 37.86	5 17 5	25 314 25	3.16 2.93 3.16	1.71 1.47 1.71	q = 1	
30 67 gRd=	13.42 13.42 1.1	25 30 45	3.67 3.91 f	3.91 3.91 f	i c f	7.05 7.05 7.05	0.12 0.12 0.12	-11.66 -11.66 -11.66	0.18 0.18 0.18	8.59 0.00 0.00	-16.01 0.00 0.00	31.60 31.60 31.60	29.23 29.23 29.23	10 10 10	10 0 10	18.63 0.00 0.00	16.01 0.00 0.00	q = 1	
46 3 gRd=	13.42 13.42 1.1	25 30 45	0.34 0.34 f	0.34 0.34 f	i c f	7.06 7.06 7.06	0.13 0.13 0.13	-7.06 -7.06 -7.06	0.13 0.13 0.13	8.57 8.42 7.96	-7.96 -8.42 -8.57	27.24 27.24 27.24	36.54 17.40 36.54	10 21 10	45 92 45	8.87 8.72 8.87	8.57 8.42 8.57	q = 1	

VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI																				
Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE			
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x * M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y * M_y$ (t*m)	N (t)	$M_{ruX}$ (t*m)	$M_{ruY}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	$L_i$ m.
1 1 gRd=	3.63 0.00 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	-10.18 5.93 15.00	5.93 -47.00 -5.04	-47.00 4.34 -48.08	-8.60 -52.24 25.39	-52.24 -19.26 -53.32	-19.26 40.04 19.27	40.04 16.69 -40.05	16.69 8.03 16.69	8.03 35.68 8.03	35.68 33.33 35.68	33.33 16 33.33	16 50 6	50 q 174	1
2 2 gRd=	3.63 0.00 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	-6.20 9.32 10.46	9.32 -89.99 -15.61	-89.99 -1.92 -91.07	-20.07 -95.89 27.72	-95.89 18.57 -96.97	18.57 39.23 -39.25	39.23 16.35 -39.25	16.35 7.74 16.35	7.74 24.94 7.74	24.94 13.98 30.62	13.98 16 28.60	16 50 4	50 q 178	1
3 3 gRd=	3.63 0.00 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	-6.90 6.02 7.53	6.02 1.76 -16.60	1.76 1.87 0.68	-14.49 -93.61 25.13	-93.61 -18.56 -94.69	-18.56 39.21 -39.22	39.21 16.34 -39.22	16.34 7.74 16.34	7.74 25.04 7.74	25.04 14.03 29.87	14.03 16 27.90	16 50 5	50 q 174	1
4 4 gRd=	3.63 0.00 1.1	29 30 50	i c f	2.8 1.0 1.0	1.4 1.0 1.0	1.4 1.0 1.0	-3.58 7.54 4.54	7.54 -46.29 -8.74	-46.29 -1.20 -47.37	11.56 -50.58 -9.66	-50.58 27.49 -51.66	27.49 -17.87 -27.55	-17.87 13.67 17.91	13.67 4.18 13.67	4.18 23.16 4.18	23.16 40.76 23.16	40.76 10 40.76	10 50 10	50 q 183	1
5 5 gRd=	3.63 0.00 1.1	28 50 30	i c f	1.0 1.0 1.0	1.4 1.0 1.0	1.4 1.0 1.0	-0.69 -22.27 2.97	-22.27 -25.83 -7.26	-25.83 0.40 -18.45	24.79 -20.02 -25.59	-20.02 20.52 -21.10	20.52 41.19 -20.57	41.19 31.51 -41.30	31.51 2.16 31.51	2.16 33.97 2.16	33.97 19.30 33.97	19.30 12 19.30	12 50 12	50 q 181	1
6 6 gRd=	3.63 0.00 1.1	4 30 60	i c f	2.7 1.0 1.0	2.1 1.0 1.0	2.1 1.0 1.0	-25.99 -6.90 21.33	-6.90 -30.63 7.73	-30.63 -8.48 -31.92	-16.22 -29.50 -9.95	-29.50 48.14 -9.34	48.14 22.94 -48.24	22.94 17.06 -23.02	17.06 24.44 17.06	24.44 17.56 24.44	17.56 37.58 17.56	37.58 13 37.58	13 60 13	60 q 166	1
7 7 gRd=	3.63 0.00 1.1	1 30 30	i c f	2.8 1.0 1.0	1.8 1.0 1.0	1.8 1.0 1.0	2.23 2.46 2.71	2.46 8.46 2.09	8.46 0.69 -19.39	4.76 12.60 -1.32	12.60 12.74 -3.05	12.74 13.98 11.89	13.98 4.56 -12.78	4.56 2.53 -14.00	2.53 17.26 2.53	17.26 17.26 17.26	17.26 14 17.26	14 47 14	47 q 205	1

VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI																					
Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE				
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x \cdot M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y \cdot M_y$ (t*m)	N (t)	$M_{rux}$ (t*m)	$M_{ruy}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	Li m.	
8 8 gRd=	3.63 0.00 1.1	29 30 50	i c f	2.1 1.0	2.8 1.0	32.02 -33.50	1.25 2.52	-62.26 -63.42	-0.97 1.04	-10.52 9.42	-48.65 -49.73	-43.59 23.22	-23.21 11.14 11.14 11.14	33.30 33.30 33.30	20.21 20.21 20.21	35.58 35.58 35.58	11 11 7	50 177 61	q = 1		
9 9 gRd=	3.63 0.00 1.1	28 50 30	i c f	2.2 1.0	2.6 1.0	7.89 -8.20	-2.21 2.24	-110.73 -112.16	1.94 -1.96	-35.79 19.51	-97.05 -98.05	-24.64 24.64	55.29 -55.28	26.05 26.05 26.05	10.73 10.73 10.73	32.60 32.60 32.60	30.86 30.86 30.86	14 14 4	50 201 67	q = 1	
10 10 gRd=	3.63 0.00 1.1	29 30 50	i c f	1.3 1.0	2.8 1.0	24.27 -24.55	-1.38 -1.40	-69.11 -70.19	-0.97 -2.69	13.33 9.70	-41.87 -51.96	-38.83 38.88	21.67 21.68	15.73 15.73 15.73	29.68 29.68 29.68	17.81 17.81 17.81	31.36 31.36 31.36	13 13 7	50 183 55	q = 1	
11 11 gRd=	3.63 0.00 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	10.35 -15.24	4.34 -1.98	-43.56 -44.64	0.95 10.10	-8.35 25.42	-46.26 -63.80	18.50 -18.50	-38.88 -38.90	16.21 16.21 16.21	7.71 7.71 7.71	25.04 25.04 35.47	14.03 14.03 33.13	16 16 6	50 174 64	q = 1	
12 12 gRd=	3.63 0.00 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	6.39 -11.06	4.78 -9.01	-87.58 -88.66	2.97 -1.85	-20.60 29.14	-90.02 -91.10	-18.93 18.93	-38.47 38.49	16.04 16.04 16.04	7.89 7.89 7.89	24.94 24.94 28.80	13.98 13.98 26.90	16 16 3	50 179 59	q = 1	
13 13 gRd=	3.63 0.00 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	7.85 -10.97	9.01 -22.03	-7.78 -8.86	-1.85 -7.36	-14.91 -26.61	-92.39 -13.32	20.26 -20.27	43.08 -43.09	17.96 17.96 17.96	8.44 8.44 8.44	30.96 30.96 30.96	28.92 28.92 28.92	16 16 5	50 174 64	q = 1	
14 14 gRd=	3.63 0.00 1.1	1 30 30	i c f	2.8 1.0	1.5 1.0	-8.15 3.35	-0.76 2.31	-18.08 -18.72	0.79 -1.28	3.86 -3.89	-32.11 -33.84	-15.37 15.38	-14.03 14.04	5.80 5.80 5.80	5.55 5.55 5.55	19.53 11.03 19.53	19.53 11.03 19.53	14 21 11	45 182 61	q = 1	
15 15 gRd=	3.63 0.00 1.1	1 30 30	i c f	1.0 1.0	1.8 1.0	-0.69 1.67	-1.76 -0.68	-34.59 -33.99	0.67 0.68	5.61 -4.23	-33.28 -34.04	12.88 12.89	14.23 -14.24	5.92 5.92 5.92	1.37 1.37 1.37	16.54 11.03 16.54	16.54 11.03 16.54	14 21 11	49 218 71	q = 1	
16 16 gRd=	3.63 0.00 1.1	3 30 50	i c f	2.5 1.0	2.5 1.0	-20.81 16.26	-0.80 -1.15	-40.18 -44.02	-8.04 0.58	-3.72 -5.44	-58.23 -28.98	47.64 -47.66	22.35 -22.35	7.01 7.01 7.01	24.80 24.80 24.80	16.54 14.47 16.54	29.12 25.48 29.12	14 16 8	50 178 60	q = 1	
17 17 gRd=	3.63 0.00 1.1	1 30 30	i c f	2.4 1.0	2.4 1.0	-10.73 -5.92	-0.76 -0.77	-37.99 -38.35	-2.60 0.94	10.04 -5.83	-44.85 -46.91	13.92 -13.93	-14.49 14.50	10.41 10.41 10.41	10.32 10.32 10.32	16.54 11.03 16.54	16.54 11.03 16.54	14 21 8	45 192 51	q = 1	
18 18 gRd=	3.63 0.00 1.1	28 50 30	i c f	1.0 1.0	2.0 1.0	-1.07 -3.46	-1.07 -2.04	-53.25 -53.22	-1.06 1.08	16.49 -15.60	-53.09 -53.79	19.22 -19.24	36.40 -36.50	21.99 21.99 21.99	3.27 3.27 3.27	29.12 22.65 29.12	16.54 12.86 16.54	14 18 9	50 201 67	q = 1	
19 19 gRd=	3.63 0.00 1.1	3 30 50	i c f	2.2 1.0	2.0 1.0	-19.66 17.92	-3.24 -0.91	-49.70 -45.31	-1.07 4.65	-10.36 -6.92	-53.68 -34.48	-33.85 33.89	21.28 -21.29	11.77 11.77 11.77	25.88 25.88 25.88	33.31 15.44 25.73	35.19 27.18 45.29	9 15 9	50 181 57	q = 1	
20 20 gRd=	3.63 0.00 1.1	3 30 50	i c f	2.1 1.0	1.6 1.0	13.44 -11.89	2.70 -2.49	-54.72 -47.00	1.12 1.14	5.22 -6.26	-55.99 -57.07	-26.16 26.18	-15.85 15.88	8.40 8.40 8.40	17.00 17.00 17.00	30.33 11.03 30.33	32.04 19.41 32.04	9 50 9	50 172 66	q = 1	
21 21 gRd=	3.63 0.00 1.1	1 30 30	i c f	1.0 1.0	2.0 1.0	0.71 -1.63	-2.32 -1.05	-35.27 -32.66	-0.69 0.66	-5.82 -4.19	-34.67 -32.78	-13.16 -13.17	13.16 -13.17	6.01 6.01 6.01	1.28 1.28 1.28	16.54 11.03 16.54	16.54 11.03 16.54	14 21 11	49 222 67	q = 1	
22 22 gRd=	3.63 0.00 1.1	3 30 50	i c f	2.3 1.0	1.3 1.0	20.32 -17.29	-1.08 3.33	-53.92 -63.67	-8.02 10.99	3.49 -5.41	-27.86 -28.94	-43.73 43.76	21.11 -21.12	7.03 7.03 7.03	27.08 27.08 27.08	16.54 15.44 16.54	29.12 27.18 29.12	14 15 8	50 181 57	q = 1	
23 23 gRd=	3.63 0.00 1.1	29 30 50	i c f	1.5 1.0	1.4 1.0	11.89 -15.41	8.41 -9.59	-36.12 -37.20	5.96 -15.41	11.24 -9.59	-40.97 -37.20	-33.31 33.35	-22.02 22.06	16.44 16.44 16.44	19.96 19.96 19.96	16.54 16.54 16.54	29.12 29.12 29.12	14 14 13	50 179 59	q = 1	
24 24 gRd=	3.63 0.00 1.1	35 70 30	i c f	1.0 1.0	1.5 1.0	0.68 -3.93	-6.60 -18.18	-32.71 -18.40	0.54 -2.99	27.07 -43.70	-26.97 -21.86	-21.84 21.93	56.05 -56.29	42.91 42.91 42.91	2.42 2.42 2.42	44.00 44.36 44.00	17.45 17.60 17.45	10 10 10	70 148 70	q = 1	
25 25 gRd=	3.63 0.00 1.1	4 30 60	i c f	2.1 1.0	2.0 1.0	15.41 -22.73	-5.79 8.40	-32.18 -30.49	-4.92 11.28	16.13 -9.56	-13.81 -9.91	-51.25 51.39	25.61 -25.69	16.70 16.70 16.70	26.52 26.52 26.52	17.56 17.81 17.56	37.58 38.13 37.58	13 13 13	60 167 61	q = 1	
26 26 gRd=	3.63 0.00 1.1	1 30 30	i c f	2.7 1.0	2.0 1.0	-2.43 -2.94	2.43 2.20	10.80 -22.89	-0.73 2.03	4.46 -2.90	10.92 10.09	-13.49 13.50	13.49 -13.50	4.24 4.24 4.24	2.77 2.77 2.77	17.26 11.03 17.26	17.26 11.03 17.26	14 21 14	45 206 67	q = 1	



VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI																					
Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE				
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x \cdot M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y \cdot M_y$ (t*m)	N (t)	$M_{rux}$ (t*m)	$M_{ruy}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	Li m.	
27 27 gRd=	3.63 0.00 1.1	1 30 30	i c f	2.8 1.0 1.0	1.9 1.0 1.0	-4.12 3.13 -2.06	1.74 -2.06 -2.59	-1.87 2.14 -2.98	0.05 2.14 5.37	3.85 -2.98 5.37	1.63 5.37 12.02	-12.00 12.00 -12.02	12.00 12.00 -12.02	4.36 4.36 4.36	3.92 3.92 3.92	17.26 11.03 17.26	17.26 11.03 17.26	14 21 11	48 202 69	q = 1	
30 30 gRd=	3.63 0.00 1.1	3 30 50	i c f	2.0 1.0 1.0	2.1 1.0 1.0	23.50 -21.36 -2.68	2.80 -2.68 4.25	-8.15 4.25 -1.54	-8.64 -1.54 -7.35	4.78 -7.35 -38.56	-57.94 -38.56 -39.01	38.98 -39.01 -19.63	19.62 -19.63 -19.63	9.09 9.09 9.09	29.79 29.79 29.79	16.96 16.96 16.96	29.85 29.85 29.85	13 13 7	50 177 61	q = 1	
39 39 gRd=	3.63 0.00 1.1	1 30 30	i c f	1.7 1.0 1.0	1.3 1.0 1.0	-3.01 3.33 1.20	-2.09 1.20 -18.90	-15.27 0.87 -3.20	-0.37 0.87 -16.06	3.30 -3.20 -16.06	-15.31 -16.06 -10.58	10.56 10.58 10.58	-10.56 10.58 10.58	4.66 4.66 4.66	4.14 4.14 4.14	18.04 11.03 18.04	18.04 11.03 18.04	14 21 14	46 220 67	q = 1	
46 46 gRd=	3.63 0.00 1.1	3 30 50	i c f	1.7 1.0 1.0	1.7 1.0 1.0	-24.15 22.78 -4.58	0.43 -4.58 -22.92	-21.45 16.95 -7.04	-4.01 16.95 -22.34	3.68 -7.04 -22.34	-22.43 -22.34 36.31	-36.20 36.31 -18.70	18.65 -18.70 -18.70	8.42 8.42 8.42	27.70 27.70 27.70	16.54 16.54 16.54	29.12 29.12 29.12	14 14 14	50 178 60	q = 1	
1 1 gRd=	6.88 3.63 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	-10.09 9.73 -10.19	9.20 -10.19 -37.33	-36.28 -37.33 6.41	-6.73 6.41 -11.80	10.78 -11.80 -46.33	-45.28 -46.33 15.69	-15.65 15.69 25.92	-25.83 25.92 25.92	11.11 11.11 11.11	6.72 6.72 6.72	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	50 180 50	q = 1	
2 2 gRd=	6.88 3.63 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	-5.59 5.22 -7.38	7.92 -7.38 -63.51	-62.46 -63.51 2.29	-1.44 2.29 17.20	-17.32 17.20 -69.70	-68.65 -69.70 -17.65	17.63 -17.65 -29.80	29.78 -29.80 -29.80	12.77 12.77 12.77	6.52 6.52 6.52	19.41 19.41 32.09	11.03 11.03 30.38	21 21 14	50 180 50	q = 1	
3 3 gRd=	6.88 3.63 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	-8.12 8.25 -1.06	2.79 -1.06 -3.48	-2.43 -3.48 -1.54	1.48 -1.54 10.89	-12.71 10.89 -65.13	-64.08 -65.13 16.02	-16.00 16.02 -26.32	26.29 -26.32 -26.32	11.28 11.28 11.28	6.87 6.87 6.87	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	52 178 50	q = 1	
4 4 gRd=	6.88 3.63 1.1	29 30 50	i c f	2.7 2.7 2.7	1.4 2.4 2.4	5.48 -8.65 3.99	-0.61 3.99 -2.53	-9.98 -2.53 -0.49	-1.15 -0.49 -12.11	11.73 -12.11 -24.46	-32.24 -24.46 -26.39	26.32 -26.39 17.14	-17.07 17.14 17.14	13.44 13.44 13.44	5.09 5.09 5.09	16.54 13.62 16.54	29.12 23.98 29.12	14 17 14	50 180 50	q = 1	
5 5 gRd=	6.88 3.63 1.1	28 50 30	i c f	1.0 1.0 1.0	1.4 2.7 2.7	0.49 -1.11 21.07	-10.09 21.07 -17.81	-19.51 -17.81 -0.31	-0.26 -0.31 -22.48	23.58 -22.48 -15.50	-13.16 -15.50 20.07	-20.01 20.07 -40.29	40.19 -40.29 -40.29	31.30 31.30 31.30	1.05 1.05 1.05	31.36 31.36 31.36	17.81 17.81 17.81	13 13 13	50 180 50	q = 1	
6 6 gRd=	6.88 3.63 1.1	4 30 60	i c f	2.1 2.8 2.8	1.9 2.6 2.6	-8.32 -18.63 5.90	-5.83 5.90 -23.67	-22.41 -23.67 -5.11	-3.69 -5.11 19.51	-16.62 19.51 -23.15	-20.40 -23.15 44.68	44.52 44.68 -21.84	21.77 -21.84 -21.84	17.13 17.13 17.13	11.35 11.35 11.35	17.56 17.81 17.56	37.58 38.13 37.58	13 13 13	60 160 60	q = 1	
7 7 gRd=	6.88 3.63 1.1	1 30 30	i c f	2.8 2.7 2.7	2.1 2.7 2.7	3.39 -3.69 2.73	-0.36 2.73 -12.82	-5.61 -12.82 -1.53	0.92 -1.53 7.55	-6.61 7.55 -15.16	-15.10 -15.16 12.40	-12.37 12.40 -13.79	13.78 -13.79 -13.79	7.32 7.32 7.32	1.99 1.99 1.99	17.26 11.03 17.26	17.26 11.03 17.26	14 21 14	46 186 48	q = 1	
8 8 gRd=	6.88 3.63 1.1	29 30 50	i c f	2.0 2.0 2.0	1.3 1.9 1.9	-29.57 -29.44 -7.23	2.74 -7.23 -50.31	-44.09 -50.31 7.39	1.05 7.39 -15.00	10.59 -15.00 -52.14	-52.64 -52.14 42.70	42.64 42.70 23.01	-23.00 23.01 23.01	12.30 12.30 12.30	33.53 33.53 33.53	36.93 20.28 36.93	39.01 35.71 39.01	10 10 10	50 180 50	q = 1	
9 9 gRd=	6.88 3.63 1.1	28 50 30	i c f	2.1 2.3 2.3	1.9 2.6 2.6	-7.33 8.10 11.36	-4.22 11.36 -72.17	-76.10 -72.17 1.39	1.37 1.39 40.01	-27.08 -69.60 24.61	-68.70 -69.60 24.61	-24.61 24.61 55.09	-55.07 55.09 55.09	25.72 25.72 25.72	8.49 8.49 8.49	29.12 27.18 29.12	16.54 15.44 16.54	14 15 14	50 180 50	q = 1	
10 10 gRd=	6.88 3.63 1.1	29 30 50	i c f	2.2 1.6 1.9	1.8 1.9 1.9	-26.65 24.20 6.92	-6.88 6.92 -25.59	-25.94 -25.59 -9.80	11.73 14.46 -40.49	-13.84 -40.49 37.48	-40.55 -40.49 37.48	-37.41 37.48 -21.24	21.19 -21.24 -21.24	14.77 14.77 14.77	29.42 29.42 29.42	31.65 17.67 31.65	33.43 31.11 33.43	13 13 13	50 180 50	q = 1	
11 11 gRd=	6.88 3.63 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	10.16 -9.76 -8.91	7.16 -8.91 -34.53	-33.48 -34.53 -1.93	1.88 -1.93 -13.00	11.02 -13.00 -49.98	-48.93 -49.98 -16.79	16.78 -16.79 30.29	-30.20 30.29 30.29	12.98 12.98 12.98	7.19 7.19 7.19	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	50 180 50	q = 1	
12 12 gRd=	6.88 3.63 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	5.59 -5.09 -4.61	4.81 -4.61 -61.87	-60.82 -61.87 -3.40	3.05 -3.40 19.12	-18.69 -64.81 17.30	-63.76 -64.81 17.30	-17.29 17.30 31.11	-31.10 31.11 31.11	13.33 13.33 13.33	6.37 6.37 6.37	30.78 19.41 30.78	29.14 11.03 29.14	14 21 14	50 180 50	q = 1	
13 13 gRd=	6.88 3.63 1.2	28 50 30	i c f	1.0 1.0 1.0	1.0 1.0 1.0	7.60 -7.28 -0.41	0.75 -0.41 -20.53	-19.48 -20.53 -1.86	1.72 -1.86 12.66	-13.55 12.66 -65.45	-64.40 -65.45 -16.08	16.06 -16.08 -26.37	26.35 -26.37 -26.37	11.30 11.30 11.30	6.89 6.89 6.89	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	50 180 50	q = 1	
14 14 gRd=	6.88 3.63 1.1	1 30 30	i c f	2.8 2.8 2.8	1.4 1.5 1.5	-9.46 9.55 -2.14	2.20 -2.14 -16.06	-15.43 -16.06 2.30	-2.06 2.30 -4.28	4.47 -4.28 -22.43	-22.68 -22.43 -15.21	15.19 -15.21 13.98	-13.98 13.98 13.98	4.78 4.78 4.78	6.61 6.61 6.61	18.74 11.03 18.74	18.74 11.03 18.74	14 21 14	49 185 46	q = 1	
15 15 gRd=	6.88 3.63 1.1	1 30 30	i c f	1.0 1.0 1.0	2.3 2.6 2.6	0.50 0.51 2.16	-2.09 2.16 -25.62	-24.95 -25.62 -0.50	-0.50 -0.50 6.78	-7.65 -25.23 -12.81	-24.82 -25.23 -12.81	-12.81 -14.05 -14.05	14.03 -14.05 -14.05	6.78 6.78 6.78	0.29 0.29 0.29	16.54 11.03 16.54	16.54 11.03 16.54	14 21 14	50 199 51	q = 1	

**VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI**

Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE				
Ini Fin.	Ini. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x \cdot M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y \cdot M_y$ (t*m)	N (t)	$M_{rux}$ (t*m)	$M_{ruy}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	Li m.	
16 16	6.88 3.63	3 30	i c	2.8 f	2.8 2.3	2.8 2.8	-30.99 -20.45	1.84 -0.84	-25.13 -40.58	2.58 -0.81	-5.41 3.78	-43.61 -40.70	-46.46 46.56	21.96 -21.99	4.60 4.60	20.98 20.98	16.54 12.19	29.12 21.45	14 19	50 180	q =
	gRd= 1.1	50	f												4.60	20.98	16.54	29.12	14 14	50 50	1 1
17 17	6.88 3.63	1 30	i c	2.6 f	2.0 2.2	2.0 1.9	10.90 -10.77	3.85 -1.11	-29.73 -27.38	-0.64 0.66	11.94 -11.23	-32.22 -32.94	13.69 -13.70	-14.25 14.26	11.20 11.20	9.97 9.97	16.54 11.58	16.54 11.58	14 20	47 187	q =
	gRd= 1.1	30	f												11.20	9.97	16.54	16.54	14 14	47 47	1 1
18 18	6.88 3.63	28 50	i c	1.0 f	1.0 1.0	1.9 1.5	0.78 -0.80	17.87 -19.58	-38.88 -39.93	-0.74 -0.79	-17.88 -19.87	-37.05 -39.48	-18.75 18.80	-35.07 35.17	24.66 24.66	0.72 0.72	29.12 25.48	16.54 14.47	14 16	50 180	q =
	gRd= 1.1	30	f												24.66	0.72	29.12	16.54	14 14	50 50	1 1
19 19	6.88 3.63	3 30	i c	2.1 f	2.0 2.4	2.0 2.5	-16.86 -16.98	-4.60 -0.75	-35.77 -31.17	0.78 -7.53	-14.23 14.22	-38.99 -38.35	-29.04 29.08	19.73 -19.77	14.14 14.14	20.64 20.64	16.54 14.47	29.12 25.48	14 16	50 180	q =
	gRd= 1.1	50	f												14.14	20.64	16.54	29.12	14 14	50 50	1 1
20 20	6.88 3.63	3 30	i c	2.3 f	2.3 2.2	2.3 2.3	14.98 15.00	2.84 0.48	-39.21 -10.78	-5.12 4.90	5.48 -5.43	-30.72 -31.77	-24.68 24.78	-15.24 15.27	5.00 5.00	16.37 16.37	16.54 11.03	29.12 19.41	14 21	50 180	q =
	gRd= 1.1	50	f												5.00	16.37	16.54	29.12	14 14	50 50	1 1
21 21	6.88 3.63	1 30	i c	1.0 f	2.0 1.0	2.0 2.7	-0.51 0.52	-2.91 3.09	-25.29 -25.97	-0.50 0.50	-7.19 7.66	-24.87 -24.87	12.96 -12.97	12.96 -12.97	7.55 7.55	0.45 0.45	16.54 11.03	16.54 11.03	14 21	49 200	q =
	gRd= 1.1	30	f												7.55	0.45	16.54	16.54	14 14	51 51	1 1
22 22	6.88 3.63	3 30	i c	2.8 f	2.2 2.2	2.2 2.6	33.65 -19.21	0.82 1.12	-29.06 -42.47	2.09 -7.24	-3.89 4.11	-43.15 -44.20	-42.62 42.72	20.95 -20.95	4.85 4.85	23.04 23.04	16.54 13.62	29.12 23.98	14 17	50 180	q =
	gRd= 1.1	50	f												4.85	23.04	16.54	29.12	14 14	50 50	1 1
23 23	6.88 3.63	29 30	i c	1.5 f	1.4 1.6	1.4 2.7	7.99 -8.56	4.26 -4.40	-10.03 -11.08	0.94 2.60	12.42 -13.52	-25.75 -20.35	-27.99 -28.08	-18.88 18.95	14.86 14.86	10.02 10.02	16.54 15.44	29.12 27.18	14 15	50 180	q =
	gRd= 1.1	50	f												14.86	10.02	16.54	29.12	14 14	50 50	1 1
24 24	6.88 3.63	35 70	i c	1.0 f	1.5 1.0	1.5 1.8	-0.57 0.99	-20.24 14.10	-19.84 -21.88	0.35 0.75	38.65 -34.05	-17.31 -18.06	21.18 -21.25	54.18 -54.45	42.68 42.68	0.93 0.93	44.24 44.58	17.55 17.68	11 11	70 140	q =
	gRd= 1.1	30	f												42.68	0.93	44.24	17.55	11 11	70 70	1 1
25 25	6.88 3.63	4 30	i c	2.0 f	1.9 2.6	1.9 2.6	10.38 12.16	-5.99 -6.10	-19.28 -7.04	-5.04 -3.26	18.96 21.83	-13.84 -14.46	-50.05 50.19	24.99 -25.06	19.66 19.66	12.86 12.86	20.69 20.69	44.30 44.30	11 11	60 60	q =
	gRd= 1.1	60	f												19.66	12.86	20.69	44.30	11 11	60 60	1 1
26 26	6.88 3.63	1 30	i c	2.5 f	1.6 2.8	1.6 2.6	-3.56 3.60	-2.79 3.45	-14.01 -15.53	-0.30 1.14	6.34 8.54	6.62 -15.70	13.34 -13.35	13.34 -13.35	7.74 7.74	1.98 1.98	17.26 11.03	17.26 11.03	14 21	46 186	q =
	gRd= 1.1	30	f												7.74	1.98	17.26	17.26	14 14	48 48	1 1
27 27	6.88 3.63	1 30	i c	2.7 f	2.4 2.8	2.4 2.4	-3.55 -3.56	2.30 2.10	-3.07 -20.22	0.10 -0.46	6.32 5.92	-0.39 -22.85	-11.78 11.80	11.78 -11.80	6.80 6.80	2.55 2.55	17.26 11.03	17.26 11.03	14 21	46 186	q =
	gRd= 1.1	30	f												6.80	2.55	17.26	17.26	14 14	48 48	1 1
30 30	6.88 3.63	3 30	i c	1.9 f	2.0 1.5	2.0 1.4	26.78 24.13	1.47 -0.91	-4.54 -45.49	-9.19 -0.99	3.17 -2.64	-38.98 -28.18	37.79 -37.89	19.42 19.42	3.16 3.16	29.73 29.73	17.10 17.10	30.10 30.10	13 13	50 180	q =
	gRd= 1.1	50	f												3.16	29.73	17.10	30.10	13 13	50 50	1 1
39 39	6.88 3.63	1 30	i c	1.5 f	1.3 1.6	1.3 1.3	-2.98 2.97	-0.79 0.85	-11.46 -12.12	-0.45 0.41	4.18 -4.29	-10.28 -10.94	10.30 -10.35	-10.30 10.35	5.67 5.67	3.50 3.50	17.72 11.03	17.72 11.03	14 21	50 194	q =
	gRd= 1.1	30	f												5.67	3.50	17.72	17.72	14 14	51 51	1 1
46 46	6.88 3.63	3 30	i c	2.5 f	1.6 2.3	1.6 2.2	26.46 -24.92	-0.41 -0.43	-20.37 -21.42	-10.54 8.53	2.73 -0.92	-14.05 -15.27	-31.53 31.63	17.43 -17.49	2.03 2.03	24.81 24.81	16.54 16.54	29.12 29.12	14 14	50 50	q =
	gRd= 1.1	50	f												2.03	24.81	16.54	29.12	14 14	50 50	1 1
1 1	10.13 6.88	28 50	i c	1.0 f	1.0 1.0	1.0 1.0	-9.98 9.10	7.38 -6.78	-24.44 -25.49	-6.35 5.91	9.07 -8.41	-27.02 -28.07	-14.59 14.66	-23.68 23.78	10.19 10.19	6.28 6.28	29.12 19.41	16.54 11.03	14 21	50 180	q =
	gRd= 1.2	30	f												10.19	6.28	29.12	16.54	14 14	50 50	1 1
2 2	10.13 6.88	28 50	i c	1.0 f	1.0 1.0	1.0 1.0	-7.49 6.08	8.35 -7.40	-36.27 -37.32	-2.10 2.00	-19.92 17.75	-42.28 -43.33	17.00 -17.03	29.19 -29.22	12.52 12.52	7.30 7.30	19.41 19.41	11.03 11.03	21 21	50 180	q =
	gRd= 1.2	30	f												12.52	7.30	29.12	16.54	14 14	50 50	1 1
3 3	10.13 6.88	28 50	i c	1.0 f	1.0 1.0	1.0 1.0	-7.39 7.13	-4.43 4.50	-5.29 -6.34	-2.03 1.84	-11.80 11.89	-31.42 -32.47	-15.12 15.18	24.45 -24.55	10.52 10.52	6.51 6.51	29.12 19.41	16.54 11.03	14 21	50 180	q =
	gRd= 1.2	30	f												10.52	6.51	30.71	29.08	14 14	50 50	1 1
4 4	10.13 6.88	29 30	i c	1.0 f	1.0 2.0	1.0 2.4	3.30 -4.23	-4.46 5.23	-2.67 -2.31	-1.63 0.39	9.36 -12.00	-14.51 -12.18	24.77 -24.89	-15.44 15.56	12.18 12.18	4.74 4.74	16.54 12.19	29.12 21.45	14 19	51 179	q =
	gRd= 1.1	50	f												12.18	4.74	16.54	29.12	14 14	50 50	1 1

VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI																						
Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE					
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x^* M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y^* M_y$ (t*m)	N (t)	$M_{rux}$ (t*m)	$M_{ruy}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	Li m.		
5 5 gRd=	10.13 6.88 1.1	28 50 30	i c f		1.0 1.0	2.7	1.16 0.69	16.23 9.35	-7.03 -11.83	0.20 0.21	31.33 -24.12	-9.98 -10.67	19.59 -19.64	39.38 -39.48	30.98 30.98 30.98	1.61 1.61 1.61	32.34 32.34 32.34	18.37 18.37 18.37	12 12 12	50 180 50	q = 1	
6 6 gRd=	10.13 6.88 1.1	4 30 60	i c f		1.0 2.4	1.0	8.70 -9.05	-1.42 -2.11	-8.63 -4.81	1.59 2.59	9.31 -15.45	-1.30 -4.56	-35.05 35.22	17.80 -17.94	14.04 14.04 14.04	14.03 14.03 14.03	17.56 14.47 17.56	37.58 30.98 37.58	13 16 13	60 160 60	q = 1	
7 7 gRd=	10.13 6.88 1.1	1 30 30	i c f		2.8 2.8	2.8	4.95 -2.90	0.96 -0.99	-1.06 -1.73	0.14 0.15	9.45 -5.63	1.31 -0.79	-11.95 11.98	13.25 -13.29	6.14 6.14 6.14	2.50 2.50 2.50	17.26 11.03 17.26	17.26 11.03 17.26	14 21 14	53 181 45	q = 1	
8 8 gRd=	10.13 6.88 1.1	29 30 50	i c f		2.2 1.9	1.5	33.83 -26.26	6.19 -5.93	-26.62 -27.55	11.40 -1.63	11.89 -9.89	-29.52 -30.57	41.25 -41.36	-20.54 20.60	11.90 11.90 11.90	32.45 32.45 32.45	19.35 19.35 19.35	34.06 34.06 34.06	9 9 9	51 179 50	q = 1	
9 9 gRd=	10.13 6.88 1.1	28 50 30	i c f		2.5 2.0	2.8	10.74 -6.75	6.17 -5.10	-53.73 -54.78	-0.83 -1.78	-49.87 28.88	-41.26 -44.35	-24.48 24.49	-54.44 54.46	29.08 29.08 29.08	8.89 8.89 8.89	29.12 29.12 29.12	16.54 16.54 16.54	14 14 14	51 179 50	q = 1	
10 10 gRd=	10.13 6.88 1.1	29 30 50	i c f		2.5 1.8	1.3	27.09 -22.75	1.56 -1.70	-19.18 -20.51	0.42 -0.65	-12.08 13.55	-19.85 -20.90	-35.92 36.03	20.04 -20.10	14.87 14.87 14.87	28.27 28.27 28.27	16.05 16.05 16.05	28.26 28.26 28.26	12 12 12	50 180 50	q = 1	
11 11 gRd=	10.13 6.88 1.2	28 50 30	i c f		1.0 1.0	1.0	10.29 -9.23	14.08 -11.08	-24.20 -25.25	6.63 -5.88	14.12 -11.59	-28.46 -29.51	-15.63 15.69	-28.07 28.18	12.08 12.08 12.08	-6.97 -6.97 -6.97	33.44 19.41 33.44	31.66 11.03 31.66	14 21 14	51 179 50	q = 1	
12 12 gRd=	10.13 6.88 1.2	28 50 30	i c f		1.0 1.0	1.0	7.73 -6.27	15.90 -13.58	-42.61 -43.66	2.12 -2.09	-24.26 21.31	-38.26 -39.31	-16.91 16.93	-30.52 30.55	13.09 13.09 13.09	7.25 7.25 7.25	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	51 179 50	q = 1	
13 13 gRd=	10.13 6.88 1.2	28 50 30	i c f		1.0 1.0	1.0	7.64 -7.25	3.68 -1.93	-14.12 -15.17	1.87 -1.79	-16.87 15.37	-37.89 -38.94	-15.19 15.23	24.56 -24.66	10.57 10.57 10.57	6.53 6.53 6.53	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	51 179 50	q = 1	
14 14 gRd=	10.13 6.88 1.1	1 30 30	i c f		2.5 2.8	1.8	-6.22 7.41	0.70 -0.67	-9.03 -9.66	-0.37 0.45	3.71 -3.63	-16.63 -17.26	15.01 -15.02	-13.65 13.68	3.35 3.35 3.35	5.04 5.04 5.04	17.94 11.03 17.94	17.94 11.03 17.94	14 21 14	45 184 51	q = 1	
15 15 gRd=	10.13 6.88 1.1	1 30 30	i c f		1.0 1.0	2.1	0.51 0.32	-1.37 -0.44	-14.85 -16.20	0.35 0.31	-4.76 -6.18	-15.19 -15.64	12.39 -12.42	-13.79 13.81	4.76 4.76 4.76	0.62 0.62 0.62	16.54 11.03 16.54	16.54 11.03 16.54	14 21 14	50 197 53	q = 1	
16 16 gRd=	10.13 6.88 1.1	3 30 50	i c f		2.8 2.8	1.3	-27.69 27.03	1.22 -1.38	-21.56 -22.61	-4.70 -3.50	1.84 2.78	-14.96 -26.42	44.86 -44.97	21.43 -21.46	2.67 2.67 2.67	18.96 18.96 18.96	16.54 11.03 16.54	29.12 19.41 29.12	14 21 14	50 180 50	q = 1	
17 17 gRd=	10.13 6.88 1.1	1 30 30	i c f		2.1 2.2	2.4	11.68 -10.63	0.90 -1.05	-14.34 -14.90	-3.13 2.95	11.64 -11.73	-18.73 -19.36	13.49 -13.50	-14.00 14.01	11.00 11.00 11.00	9.99 9.99 9.99	19.05 11.03 19.05	19.05 11.03 19.05	14 21 14	48 186 46	q = 1	
18 18 gRd=	10.13 6.88 1.1	28 50 30	i c f		1.0 1.0	1.9	0.73 0.51	1.45 -17.53	-22.84 -25.66	0.46 0.50	-25.06 -17.78	-22.92 -25.20	17.99 -18.05	-33.68 33.78	25.52 25.52 25.52	1.09 1.09 1.09	29.12 27.18 29.12	16.54 15.44 16.54	14 15 14	50 180 50	q = 1	
19 19 gRd=	10.13 6.88 1.1	3 30 50	i c f		1.6 2.2	2.5	19.53 -17.39	0.35 -0.58	-17.75 -18.74	-4.49 -8.93	16.28 13.71	-11.50 -24.67	-27.92 28.02	18.83 -18.90	13.56 13.56 13.56	21.98 21.98 21.98	16.54 13.62 16.54	29.12 23.98 29.12	14 17 14	50 180 50	q = 1	
20 20 gRd=	10.13 6.88 1.1	3 30 50	i c f		2.1 1.7	1.5	-8.46 10.02	-1.26 -0.28	-8.65 -13.82	-0.86 0.97	5.38 -5.15	-23.80 -24.85	23.18 -23.28	-14.23 14.31	5.66 5.66 5.66	10.59 10.59 10.59	29.62 11.03 29.62	31.29 19.41 31.29	14 21 14	50 180 50	q = 1	
21 21 gRd=	10.13 6.88 1.1	1 30 30	i c f		1.0 1.0	1.7	-0.66 0.35	3.20 -3.06	-13.97 -14.65	0.31 -0.32	-5.87 6.33	-15.47 -16.15	-12.71 12.73	12.71 -12.73	6.53 6.53 6.53	0.74 0.74 0.74	16.54 11.03 16.54	16.54 11.03 16.54	14 21 14	52 197 51	q = 1	
22 22 gRd=	10.13 6.88 1.1	3 30 50	i c f		2.8 2.8	1.8	32.29 -31.46	-2.41 1.81	-25.56 -26.61	10.60 -10.34	-3.99 3.72	-26.54 -27.59	-40.89 40.99	20.36 -20.42	5.14 5.14 5.14	21.98 21.98 21.98	16.54 12.86 16.54	29.12 22.65 29.12	14 18 14	50 180 50	q = 1	
23 23 aRd=	10.13 6.88 1.1	29 30 50	i c f		1.0 1.3	1.0	7.61 -8.50	5.73 -8.67	1.50 -2.84	6.53 -0.76	9.19 -12.46	-1.79 -10.91	24.28 24.40	-14.96 15.07	11.80 11.80 11.80	12.86 12.86 12.86	16.54 12.19 16.54	29.12 21.45 29.12	14 19 14	50 180 50	q = 1	

VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI																						
Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE					
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x \cdot M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y \cdot M_y$ (t*m)	N (t)	$M_{ru x}$ (t*m)	$M_{ru y}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	Li m.		
24 24 gRd=	10.13 6.88 1.1	28 50 30	i c f	1.0 1.0	1.7 2.6	-1.12 -0.77	11.17 10.73	-6.25 -12.16	-0.19 -0.24	31.23 -23.32	-9.69 -12.20	-19.08 19.14	37.04 -37.14	29.14 29.14 29.14	1.66 1.66 1.66	31.23 31.23 31.23	29.56 29.56 29.56	12 12 12	53 177 50	q = 1		
25 25 gRd=	10.13 6.88 1.1	4 30 60	i c f	1.0 1.9	1.0 2.3	10.05 -12.03	-9.35 7.12	-9.09 -11.28	-9.16 -6.59	9.90 18.13	-7.18 -7.89	-44.06 44.20	21.64 -21.74	17.04 17.04 17.04	17.84 17.84 17.84	17.56 17.81 17.56	37.58 38.13 37.58	13 13 13	60 160 60	q = 1		
26 26 gRd=	10.13 6.88 1.1	1 30 30	i c f	2.8 2.8	2.6 2.7	-4.59 2.88	3.24 -3.65	1.28 0.46	-1.29 0.65	10.13 -6.27	0.88 -1.71	-13.03 13.07	13.03 -13.07	7.14 7.14 7.14	2.24 2.24 2.24	17.26 11.03 17.26	17.26 11.03 17.26	14 21 14	50 184 45	q = 1		
27 27 gRd=	10.13 6.88 1.1	1 30 30	i c f	2.8 2.7	2.4 2.5	-5.27 -4.14	2.18 2.02	-7.76 -7.13	-1.55 -0.60	7.75 5.87	-2.65 -13.45	-11.42 11.46	11.42 -11.46	6.25 6.25 6.25	3.39 3.39 3.39	17.42 11.03 17.42	17.42 11.03 17.42	14 21 14	50 185 46	q = 1		
30 30 gRd=	10.13 6.88 1.1	3 30 50	i c f	1.8 1.9	1.6 1.9	22.01 -22.38	3.70 -3.02	-8.66 -9.71	0.99 6.04	6.02 -4.24	-17.21 -22.56	33.58 -33.69	17.94 -17.99	5.66 5.66 5.66	26.43 26.43 26.43	16.54 15.44 16.54	29.12 27.18 29.12	14 15 14	50 180 50	q = 1		
39 39 gRd=	10.13 6.88 1.1	1 30 30	i c f	1.0 1.7	1.0 1.3	-2.43 3.02	-0.61 2.03	-5.24 -5.46	-0.42 0.44	4.17 -4.63	-4.33 -4.99	9.76 -9.83	9.76 -9.83	6.49 6.49 6.49	3.81 3.81 3.81	17.63 11.03 17.63	17.63 11.03 17.63	14 21 14	54 195 47	q = 1		
46 46 gRd=	10.13 6.88 1.1	3 30 50	i c f	2.1 1.6	2.0 2.1	24.50 22.87	1.25 -1.19	-15.89 -7.90	0.81 1.00	-3.11 -3.46	-14.70 -11.31	-31.04 31.14	-17.14 -17.20	3.72 3.72 3.72	24.43 24.43 24.43	16.54 14.47 16.54	29.12 25.48 29.12	14 16 14	50 180 50	q = 1		
1 1 gRd=	13.42 10.13 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	-8.10 6.52	9.34 -8.45	-11.71 -12.77	-6.52 6.12	11.02 -9.70	-8.89 -9.95	13.01 -13.12	-22.09 22.19	9.37 9.37 9.37	5.54 5.54 5.54	29.12 19.41 31.42	16.54 11.03 29.75	14 21 14	54 180 50	q = 1		
2 2 gRd=	14.96 10.13 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	-2.23 2.84	7.82 -2.23	-20.15 -27.99	0.43 0.95	-13.06 9.23	-15.11 -16.72	14.61 -14.72	23.72 -23.87	6.67 6.67 6.67	2.04 2.04 2.04	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	86 286 59	q = 1		
3 3 gRd=	13.42 10.13 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	-5.72 5.51	-5.72 -1.78	-7.46 -8.52	-0.95 -0.38	-14.04 12.23	-13.61 -12.75	13.10 -13.21	22.16 -22.26	9.41 9.41 9.41	5.58 5.58 5.58	29.12 19.41 30.39	16.54 11.03 28.77	14 21 14	51 183 50	q = 1		
5 5 gRd=	11.34 10.13 1.1	28 50 30	i c f	1.0 1.0	1.0 2.8	0.26 1.50	1.86 -1.86	-2.40 -2.64	0.16 0.06	2.13 6.77	-3.17 -2.84	14.07 14.10	25.49 -25.53	15.47 15.47 15.47	3.44 3.44 3.44	30.69 19.41 30.69	29.06 11.03 29.06	14 21 14	48 0 48	q = 1		
7 7 gRd=	11.34 10.13 1.1	1 30 30	i c f	1.0 2.5	1.0 2.8	1.14 4.99	-0.71 0.27	-4.23 0.66	0.98 -2.42	-0.72 -1.16	-3.90 -3.52	-9.65 9.67	9.65 9.67	2.34 2.34 2.34	11.43 11.43 11.43	17.26 12.86 17.26	17.26 12.86 17.26	14 18 14	45 6 45	q = 1		
8 8 gRd=	13.42 10.13 1.1	29 30 50	i c f	1.0 2.0	1.0 1.5	-14.96 18.94	5.50 -5.20	-9.59 -10.51	-11.91 10.61	6.83 -9.96	-8.76 -9.83	26.05 -26.15	-14.46 14.51	9.10 9.10 9.10	20.22 20.22 20.22	29.84 11.58 29.84	31.52 20.38 31.52	14 20 14	58 176 50	q = 1		
9 9 gRd=	14.96 10.13 1.1	28 50 30	i c f	1.0 2.4	1.0 2.8	-1.99 2.72	1.48 -0.63	-17.32 -19.05	1.54 -1.26	-8.77 17.54	-15.13 -16.75	14.24 -14.36	-23.19 23.36	7.81 7.81 7.81	2.01 2.01 2.01	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	87 277 66	q = 1		
10 10 gRd=	13.42 10.13 1.1	3 30 50	i c f	1.0 1.7	1.0 1.3	-14.46 19.41	-3.36 3.53	-7.76 -8.41	3.62 -3.51	-8.07 9.93	-6.63 -7.69	25.90 -26.00	14.38 -14.43	11.16 11.16 11.16	20.10 20.10 20.10	29.09 11.58 29.09	30.72 20.38 30.72	14 20 14	51 183 50	q = 1		
11 11 gRd=	13.42 10.13 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	8.04 -6.33	4.86 0.24	-11.00 -12.06	-0.94 3.99	8.81 -6.77	-8.12 -8.64	-12.86 12.98	21.97 -22.06	9.32 9.32 9.32	5.48 5.48 5.48	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	57 177 50	q = 1		
12 12 gRd=	14.96 10.13 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	2.07 -2.44	-0.95 4.83	-8.65 -13.45	1.06 -2.12	-9.46 5.96	-11.84 -8.59	-14.79 14.90	-23.97 24.12	6.74 6.74 6.74	1.53 1.53 1.53	31.39 19.41 31.39	29.72 11.03 29.72	14 21 14	101 271 58	q = 1		
13 13 gRd=	13.42 10.13 1.2	28 50 30	i c f	1.0 1.0	1.0 1.0	6.56 -5.99	-3.44 8.08	-6.01 -7.08	1.68 -4.66	-11.80 9.33	-14.19 -13.15	-13.16 13.28	22.22 -22.32	9.43 9.43 9.43	5.61 5.61 5.61	29.12 19.41 30.40	16.54 11.03 28.78	14 21 14	57 177 50	q = 1		
14 14 gRd=	12.50 10.13 1.1	1 30 30	i c f	1.0 2.7	1.0 1.5	4.41 -12.54	-0.62 1.63	-6.32 -6.16	-2.78 3.12	3.74 -7.46	-7.52 -7.94	14.54 -14.57	-13.21 13.23	10.87 10.87 10.87	13.57 13.57 13.57	17.38 13.62 17.38	17.38 13.62 17.38	14 17 14	45 96 45	q = 1		

VERIFICHE DI DUTTILITA' ASTE IN C.A. - PILASTRI																						
Filo	Quota	Tr	Sez	SOVRARESIST.			SOLLECITAZIONI SISMA X			SOLLECITAZIONI SISMA Y			MOM. RESISTENTI		TAGLIO PROG.		TAGLIO RESISTENTE					
Iniz Fin. N.ro	Iniz. Final (m)	at to Nr	Bas Alt cm	Co nc	$\alpha x$	$\alpha y$	$\alpha x \cdot M_x$ (t*m)	$M_y$ (t*m)	N (t)	$M_x$ (t*m)	$\alpha y \cdot M_y$ (t*m)	N (t)	$M_{ruy}$ (t*m)	$M_{ruy}$ (t*m)	$V_x$ (t)	$V_y$ (t)	$V_{Rxd}$ (t)	$V_{Ryd}$ (t)	staffe PasLun	Li m.		
15 15 gRd=	12.50 10.13 1.1	1 30 30	i c f	1.0 1.0 1.0	1.0 1.7	-0.13 0.60	-3.63 -1.36	-6.40 -6.44	-0.12 0.13	6.28 10.38	-6.01 -6.70	11.91 11.94	13.19 -13.24	13.71 13.71 13.71	0.71 0.71 0.71	16.54 14.47 16.54	16.54 14.47 16.54	14 16 14	45 122 45	q = 1		
16 16 gRd=	12.50 10.13 1.1	3 30 50	i c f	1.0 1.0 2.8	1.0 2.2	-10.20 35.57	0.41 -0.82	-8.77 -9.47	-0.23 0.94	3.19 8.46	-6.41 -12.07	43.33 -43.39	20.89 -20.92	11.48 11.48 11.48	31.89 31.89 31.89	33.85 19.64 33.85	35.76 34.57 35.76	10 10 10	50 86 50	q = 1		
17 17 gRd=	13.88 13.28 1.1	1 30 30	i c f	1.0 1.0 1.0	1.0 1.9	-3.83 3.15	1.13 2.26	-2.97 -3.68	-2.88 0.22	1.70 9.97	-3.64 -4.01	11.94 -11.95	-14.11 -14.12	11.68 11.68 11.68	6.52 6.52 6.52	17.62 12.19 17.62	17.62 12.19 17.62	14 19 14	30 0 30	q = 1		
18 18 gRd=	13.88 10.13 1.1	28 50 30	i c f	1.0 1.0 1.0	1.0 2.0	0.24 0.76	-4.79 4.35	-9.01 -10.24	0.15 0.55	-8.16 13.57	-7.67 -8.91	12.71 12.85	-21.84 21.96	12.31 12.31 12.31	0.49 0.49 0.49	29.12 19.41 29.12	16.54 11.03 16.54	14 21 14	61 211 58	q = 1		
19 19 gRd=	13.88 10.13 1.1	3 30 50	i c f	1.0 1.0 2.8	1.0 2.3	-10.02 12.95	2.15 -0.58	-6.31 -9.75	4.21 -2.82	-3.98 8.83	-9.24 -10.45	-21.84 21.96	-14.27 11.95	6.46 6.46 6.46	14.49 14.49 14.49	29.02 11.03 29.02	30.65 19.41 30.65	14 21 14	62 209 50	q = 1		
20 20 gRd=	12.50 10.13 1.1	3 30 50	i c f	1.0 1.0 2.2	1.0 1.7	6.03 -16.56	1.30 -0.28	-3.81 -6.65	-0.78 6.99	3.47 -7.14	-9.48 -10.89	21.86 -21.93	-12.74 12.82	9.44 9.44 9.44	23.77 23.77 23.77	29.06 13.62 29.06	30.70 23.98 30.70	14 17 14	50 83 50	q = 1		
21 21 gRd=	12.50 10.13 1.1	1 30 30	i c f	1.0 1.0 1.0	1.0 2.5	0.13 0.75	-2.92 2.95	-6.50 -6.96	0.13 0.21	-4.70 8.97	-6.34 -6.59	-12.12 -12.16	12.12 -12.16	11.96 11.96 11.96	0.77 0.77 0.77	16.54 12.19 16.54	16.54 12.19 16.54	14 19 14	45 122 45	q = 1		
22 22 gRd=	12.50 10.13 1.1	3 30 50	i c f	1.0 1.0 2.8	1.0 1.9	10.16 -33.50	0.95 2.15	-7.80 -8.50	0.19 -6.63	3.19 6.50	-7.01 -10.18	-39.29 39.35	19.53 -19.57	9.73 9.73 9.73	31.35 31.35 31.35	18.36 18.36 18.36	32.31 32.31 32.31	11 11 11	50 86 50	q = 1		
24 24 gRd=	11.34 10.13 1.1	28 50 30	i c f	1.0 1.0 1.0	1.0 2.8	-0.27 -1.47	2.14 0.05	-2.17 -2.25	-0.27 -0.82	2.14 4.15	-2.17 -2.62	-12.09 -12.13	21.28 -21.32	9.84 9.84 9.84	3.42 3.42 3.42	30.65 19.41 30.65	29.02 11.03 29.02	14 21 14	48 0 48	q = 1		
26 26 gRd=	11.34 10.13 1.1	1 30 30	i c f	1.0 1.0 1.6	1.0 2.8	-1.29 6.02	0.53 -0.89	0.14 -4.46	0.26 2.40	-0.68 -2.59	-4.24 -2.93	-9.65 -9.67	9.65 9.67	2.58 2.58 2.58	11.78 11.78 11.78	17.26 12.86 17.26	17.26 12.86 17.26	14 18 14	45 6 45	q = 1		
27 27 gRd=	13.88 10.13 1.1	1 30 30	i c f	1.0 1.0 2.8	1.0 2.4	-1.34 2.12	0.14 -0.25	-1.80 -2.54	-0.26 0.40	-1.59 3.51	-3.65 -4.39	-9.62 9.70	9.62 -9.70	2.40 2.40 2.40	1.71 1.71 1.71	17.40 11.03 17.40	17.40 11.03 17.40	14 21 14	64 212 54	q = 1		
30 30 gRd=	13.42 10.13 1.1	3 30 50	i c f	1.0 1.0 1.7	1.0 2.0	11.52 14.91	0.74 -1.29	-4.07 -8.07	-0.58 6.91	1.29 -2.82	-6.42 -8.00	21.55 -21.65	-12.39 12.50	1.81 1.81 1.81	16.73 16.73 16.73	16.54 11.03 16.54	29.12 19.41 29.12	14 21 14	51 183 50	q = 1		
46 46 gRd=	13.42 10.13 1.1	3 30 50	i c f	1.0 1.0 1.7	1.0 1.4	-13.52 17.75	0.25 -0.58	-0.76 -2.37	-10.92 9.79	0.34 -0.91	-1.28 -2.35	-26.07 26.17	14.46 -14.52	0.77 0.77 0.77	20.23 20.23 20.23	16.54 11.58 16.54	29.12 20.38 29.12	14 10 14	51 183 50	q = 1		
17 17 gRd=	13.28 10.13 1.1	1 30 30	i c f	1.0 1.0 2.6	2.1 2.4	-2.32 7.11	-0.67 0.14	-6.10 -6.81	0.11 1.69	-7.55 -7.08	-5.55 -6.84	13.24 -13.25	-13.54 13.58	6.70 6.70 6.70	5.06 5.06 5.06	18.00 11.03 18.00	18.00 11.03 18.00	14 21 14	46 191 53	q = 1		

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	omb		Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
1	3.63		28	1	37	-10.3	-6.9	16.7	8.0	35.7	33.3	0.68	25.0	14.0	0.67	16	50	8	26.8	22.6	16.7	8.0	q

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
1	0.00		50	3	41	3.8	8.7	16.7	8.0	35.7	33.3	0.47	25.0	14.0	0.67	16	174	8	26.8	22.6	16.7	8.0	=
2.50			30	5	37	-10.3	-6.9	16.7	8.0	35.7	33.3	0.68	36.4	20.4	0.46	6	64	8	26.8	22.6	16.7	8.0	1
2	3.63		28	1	21	-16.6	-0.7	16.4	7.7	30.6	28.6	0.56	24.9	14.0	0.65	16	50	8	42.0	12.7	16.4	7.7	q
2	0.00		50	3	21	-16.6	-0.7	16.4	7.7	30.6	28.6	0.56	24.9	14.0	0.65	16	178	8	42.0	12.7	16.4	7.7	=
2.49			30	5	21	-16.6	-0.7	16.4	7.7	30.6	28.6	0.56	36.3	20.3	0.45	4	60	8	42.0	12.7	16.4	7.7	1
3	3.63		28	1	21	-13.8	-1.7	16.3	7.7	29.9	27.9	0.61	25.0	14.0	0.65	16	50	8	35.5	12.1	16.3	7.7	q
3	0.00		50	3	21	-13.8	-1.7	16.3	7.7	29.9	27.9	0.61	25.0	14.0	0.65	16	174	8	35.5	12.1	16.3	7.7	=
2.50			30	5	21	-13.8	-1.7	16.3	7.7	29.9	27.9	0.61	36.4	20.4	0.45	5	64	8	35.5	12.1	16.3	7.7	1
4	3.63		29	1	25	6.2	2.0	13.7	4.2	28.8	30.4	0.54	23.2	40.8	0.59	10	50	8	16.0	4.2	13.7	21.0	q
4	0.00		30	3	25	6.2	2.0	13.7	4.2	28.8	30.4	0.54	14.5	25.5	1.00	16	183	8	16.0	4.2	13.7	21.0	=
2.50			50	5	25	6.2	2.0	13.7	4.2	28.8	30.4	0.54	16.5	29.1	0.83	10	55	8	16.0	4.2	13.7	21.0	1
5	3.63		28	1	25	15.1	0.1	31.5	2.2	32.7	31.0	0.96	34.0	19.3	1.00	12	50	8	39.9	2.2	31.5	15.7	q
5	0.00		50	3	25	15.1	0.1	31.5	2.2	32.7	31.0	0.96	34.0	19.3	1.00	12	181	8	39.9	2.2	31.5	15.7	=
2.50			30	5	25	15.1	0.1	31.5	2.2	32.7	31.0	0.96	34.0	19.3	1.00	12	57	8	39.9	2.2	31.5	15.7	1
6	3.63		4	1	37	-5.1	10.7	17.1	24.4	35.0	37.5	0.49	17.6	37.6	0.97	13	60	8	17.1	24.4	17.6	36.8	q
6	0.00		30	3	25	6.5	-3.4	17.1	24.4	35.0	37.5	0.58	17.8	38.1	0.96	13	166	8	17.1	24.4	17.6	36.8	=
2.50			60	5	37	-5.1	10.7	17.1	24.4	35.0	37.5	0.49	17.6	37.6	0.97	13	62	8	17.1	24.4	17.6	36.8	1
7	3.63		1	1	41	1.7	-0.8	4.6	2.5	17.3	17.3	0.31	16.5	16.5	0.28	14	47	8	4.6	2.5	9.7	8.8	q
7	0.00		30	3	25	1.8	-0.6	4.6	2.5	17.3	17.3	0.30	11.0	11.0	0.41	21	205	8	4.6	2.5	9.7	8.8	=
2.50			30	5	41	1.7	-0.8	4.6	2.5	17.3	17.3	0.31	16.5	16.5	0.28	14	66	8	4.6	2.5	9.7	8.8	1
8	3.63		29	1	37	-0.5	-18.2	11.1	33.3	35.4	37.4	0.88	20.2	35.6	1.00	11	50	8	11.1	50.2	17.7	33.3	q

VERIFICHE ASTE IN C.A. - PILASTRI																								
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																								
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li	
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi	
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te	
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)		
8	0.00		30	3	0	0.0	0.0	11.1	33.3	35.4	37.4	0.87	20.2	35.6	1.00	11	177	8	11.1	50.2	17.7	33.3	=	
2.40			50	5	37	-0.5	-18.2	11.1	33.3	35.4	37.4	0.88	20.2	35.6	1.00	7	61	8	11.1	50.2	17.7	33.3	1	
9	3.63		28	1	34	-7.2	3.1	26.1	10.7	32.6	30.9	0.98	28.8	16.3	0.95	14	50	8	26.1	10.7	38.2	17.0	q	
9	0.00		50	3	34	-7.2	3.1	26.1	10.7	32.6	30.9	0.98	28.8	16.3	0.95	14	201	8	26.1	10.7	38.2	17.0	=	
2.47			30	5	34	-7.2	3.1	26.1	10.7	32.6	30.9	0.98	28.8	16.3	0.95	4	67	8	26.1	10.7	38.2	17.0	1	
10	3.63		29	1	37	-0.1	-15.0	15.7	29.7	32.0	33.8	0.86	17.8	31.4	1.00	13	50	8	15.7	40.7	16.6	29.7	q	
10	0.00		30	3	37	-0.1	-15.0	15.7	29.7	32.0	33.8	0.86	17.8	31.4	1.00	13	183	8	15.7	40.7	16.6	29.7	=	
2.50			50	5	37	-0.1	-15.0	15.7	29.7	32.0	33.8	0.86	17.8	31.4	1.00	7	55	8	15.7	40.7	16.6	29.7	1	
11	3.63		28	1	34	-11.7	5.6	16.2	7.7	35.5	33.1	0.63	25.0	14.0	0.65	16	50	8	27.2	22.7	16.2	7.7	q	
11	0.00		50	3	37	2.2	-8.9	16.2	7.7	35.5	33.1	0.46	25.0	14.0	0.65	16	174	8	27.2	22.7	16.2	7.7	=	
2.50			30	5	34	-11.7	5.6	16.2	7.7	35.5	33.1	0.63	36.4	20.4	0.44	6	64	8	27.2	22.7	16.2	7.7	1	
12	3.63		28	1	18	-17.3	-1.7	16.0	7.9	28.8	26.9	0.62	24.9	14.0	0.64	16	50	8	45.2	13.3	16.0	7.9	q	
12	0.00		50	3	18	-17.3	-1.7	16.0	7.9	28.8	26.9	0.62	24.9	14.0	0.64	16	179	8	45.2	13.3	16.0	7.9	=	
2.49			30	5	18	-17.3	-1.7	16.0	7.9	28.8	26.9	0.62	36.3	20.3	0.44	3	59	8	45.2	13.3	16.0	7.9	1	
13	3.63		28	1	30	13.2	-4.4	18.0	8.4	31.0	28.9	0.73	25.0	14.0	0.72	16	50	8	38.3	16.0	18.0	8.4	q	
13	0.00		50	3	30	13.2	-4.4	18.0	8.4	31.0	28.9	0.73	25.0	14.0	0.72	16	174	8	38.3	16.0	18.0	8.4	=	
2.50			30	5	30	13.2	-4.4	18.0	8.4	31.0	28.9	0.73	36.4	20.4	0.49	5	64	8	38.3	16.0	18.0	8.4	1	
14	3.63		1	1	43	1.7	-1.6	5.8	5.6	19.5	19.5	0.38	16.5	16.5	0.35	14	45	8	5.8	5.6	10.7	11.7	q	
14	0.00		30	3	27	2.3	-0.8	5.8	5.6	19.5	19.5	0.34	11.0	11.0	0.53	21	182	8	5.8	5.6	10.7	11.7	=	
2.50			30	5	43	1.7	-1.6	5.8	5.6	19.5	19.5	0.38	16.5	16.5	0.35	11	61	8	5.8	5.6	10.7	11.7	1	
15	3.63		1	1	25	2.2	0.0	5.9	1.4	21.6	21.6	0.28	16.5	16.5	0.36	14	49	8	5.9	1.4	9.3	8.4	q	

VERIFICHE ASTE IN C.A. - PILASTRI																								
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																								
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li	
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi	
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te	
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)		
15	0.00		30	3	25	2.2	0.0	5.9	1.4	21.6	21.6	0.28	11.0	11.0	0.54	21	218	8	5.9	1.4	9.3	8.4	=	
2.50			30	5	25	2.2	0.0	5.9	1.4	21.6	21.6	0.28	16.5	16.5	0.36	11	71	8	5.9	1.4	9.3	8.4	1	
16	3.63		3	1	31	0.7	9.9	7.0	24.8	32.6	34.4	0.74	16.5	29.1	0.85	14	50	8	7.0	24.8	17.1	36.4	q	
16	0.00		30	3	31	0.7	9.9	7.0	24.8	32.6	34.4	0.74	14.5	25.5	0.97	16	178	8	7.0	24.8	17.1	36.4	=	
2.50			50	5	31	0.7	9.9	7.0	24.8	32.6	34.4	0.74	16.5	29.1	0.85	8	60	8	7.0	24.8	17.1	36.4	1	
17	3.63		1	1	43	2.4	-3.0	10.4	10.3	21.3	21.3	0.49	16.5	16.5	0.63	14	45	8	10.4	10.3	11.1	10.6	q	
17	0.00		30	3	30	3.9	0.4	10.4	10.3	21.3	21.3	0.51	11.0	11.0	0.94	21	192	8	10.4	10.3	11.1	10.6	=	
2.50			30	5	43	2.4	-3.0	10.4	10.3	21.3	21.3	0.49	16.5	16.5	0.63	8	51	8	10.4	10.3	11.1	10.6	1	
18	3.63		28	1	30	8.2	0.2	22.0	3.3	37.8	35.8	0.59	29.1	16.5	0.75	14	50	8	22.0	3.3	25.2	13.3	q	
18	0.00		50	3	30	8.2	0.2	22.0	3.3	37.8	35.8	0.59	22.6	12.9	0.97	18	201	8	22.0	3.3	25.2	13.3	=	
2.50			30	5	30	8.2	0.2	22.0	3.3	37.8	35.8	0.59	29.1	16.5	0.75	9	67	8	22.0	3.3	25.2	13.3	1	
19	3.63		3	1	40	-0.1	10.4	11.8	25.9	33.3	35.2	0.74	25.7	45.3	0.57	9	50	8	11.8	28.3	16.3	25.9	q	
19	0.00		30	3	40	-0.1	10.4	11.8	25.9	33.3	35.2	0.35	15.4	27.2	0.97	15	181	8	11.8	28.3	16.3	25.9	=	
2.50			50	5	40	-0.1	10.4	11.8	25.9	33.3	35.2	0.74	16.5	29.1	0.89	9	57	8	11.8	28.3	16.3	25.9	1	
20	3.63		3	1	37	1.8	-6.5	8.4	17.0	30.3	32.0	0.59	25.7	45.3	0.38	9	50	8	8.4	17.0	12.1	20.0	q	
20	0.00		30	3	36	1.4	-6.8	8.4	17.0	30.3	32.0	0.58	11.0	19.4	0.88	21	172	8	8.4	17.0	12.1	20.0	=	
2.50			50	5	37	1.8	-6.5	8.4	17.0	30.3	32.0	0.59	16.5	29.1	0.58	9	66	8	8.4	17.0	12.1	20.0	1	
21	3.63		1	1	30	2.2	0.1	6.0	1.3	21.5	21.5	0.28	16.5	16.5	0.36	14	49	8	6.0	1.3	8.6	8.6	q	
21	0.00		30	3	30	2.2	0.1	6.0	1.3	21.5	21.5	0.28	11.0	11.0	0.54	21	222	8	6.0	1.3	8.6	8.6	=	
2.50			30	5	30	2.2	0.1	6.0	1.3	21.5	21.5	0.28	16.5	16.5	0.36	11	67	8	6.0	1.3	8.6	8.6	1	
22	3.63		3	1	34	-1.6	-10.4	7.0	27.1	32.6	34.4	0.83	16.5	29.1	0.93	14	50	8	7.0	27.1	16.1	33.4	q	



VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
22	0.00		30	3	34	-1.6	-10.4	7.0	27.1	32.6	34.4	0.83	15.4	27.2	1.00	15	181	8	7.0	27.1	16.1	33.4	=
2.50			50	5	34	-1.6	-10.4	7.0	27.1	32.6	34.4	0.83	16.5	29.1	0.93	8	57	8	7.0	27.1	16.1	33.4	1
23	3.63		29	1	46	6.2	-8.2	16.4	20.0	28.8	30.4	0.57	16.5	29.1	0.99	14	50	8	16.4	20.0	16.8	25.5	q
23	0.00		30	3	46	6.2	-8.2	16.4	20.0	28.8	30.4	0.47	16.5	29.1	1.00	14	179	8	16.4	20.0	16.8	25.5	=
2.50			50	5	46	6.2	-8.2	16.4	20.0	28.8	30.4	0.57	16.5	29.1	0.99	13	59	8	16.4	20.0	16.8	25.5	1
24	3.63		35	1	46	22.0	-1.1	42.9	2.4	46.0	42.6	0.96	44.0	17.5	0.98	10	70	8	59.0	2.4	42.9	16.7	q
24	0.00		70	3	46	22.0	-1.1	42.9	2.4	46.0	42.6	0.96	44.4	17.6	0.97	10	148	8	59.0	2.4	42.9	16.7	=
1.90			30	5	46	22.0	-1.1	42.9	2.4	46.0	42.6	0.96	44.0	17.5	0.98	10	70	8	59.0	2.4	42.9	16.7	1
25	3.63		4	1	34	-5.6	-11.3	16.7	26.5	35.3	37.8	0.47	17.6	37.6	0.95	13	60	8	16.7	26.5	19.6	39.2	q
25	0.00		30	3	46	6.3	6.0	16.7	26.5	35.3	37.8	0.63	17.8	38.1	0.94	13	167	8	16.7	26.5	19.6	39.2	=
2.50			60	5	34	-5.6	-11.3	16.7	26.5	35.3	37.8	0.47	17.6	37.6	0.95	13	61	8	16.7	26.5	19.6	39.2	1
26	3.63		1	1	46	1.7	0.9	4.2	2.8	17.3	17.3	0.30	16.5	16.5	0.26	14	45	8	4.2	2.8	9.3	9.3	q
26	0.00		30	3	46	1.7	0.9	4.2	2.8	17.3	17.3	0.30	11.0	11.0	0.38	21	206	8	4.2	2.8	9.3	9.3	=
2.50			30	5	46	1.7	0.9	4.2	2.8	17.3	17.3	0.30	16.5	16.5	0.26	14	67	8	4.2	2.8	9.3	9.3	1
27	3.63		1	1	30	1.7	1.0	4.4	3.9	17.3	17.3	0.31	16.5	16.5	0.26	14	48	8	4.4	3.9	8.3	8.3	q
27	0.00		30	3	30	1.7	1.0	4.4	3.9	17.3	17.3	0.31	11.0	11.0	0.40	21	202	8	4.4	3.9	8.3	8.3	=
2.50			30	5	30	1.7	1.0	4.4	3.9	17.3	17.3	0.31	16.5	16.5	0.26	11	69	8	4.4	3.9	8.3	8.3	1
30	3.63		3	1	37	1.6	-13.2	9.1	29.8	37.2	39.3	0.80	17.0	29.9	1.00	13	50	8	9.1	35.6	15.0	29.8	q
30	0.00		30	3	37	1.6	-13.2	9.1	29.8	37.2	39.3	0.80	17.0	29.9	1.00	13	177	8	9.1	35.6	15.0	29.8	=
2.38			50	5	37	1.6	-13.2	9.1	29.8	37.2	39.3	0.80	17.0	29.9	1.00	7	61	8	9.1	35.6	15.0	29.8	1
39	3.63		1	1	31	-1.4	1.3	4.7	4.1	18.0	18.0	0.33	16.5	16.5	0.28	14	46	8	4.7	4.1	7.0	7.0	q

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
39	0.00		30	3	27	1.7	0.4	4.7	4.1	18.0	18.0	0.28	11.0	11.0	0.42	21	220	8	4.7	4.1	7.0	7.0	=
2.50			30	5	31	-1.4	1.3	4.7	4.1	18.0	18.0	0.33	16.5	16.5	0.28	14	67	8	4.7	4.1	7.0	7.0	1
46	3.63		3	1	41	2.1	13.6	8.4	27.7	31.6	33.4	0.89	16.5	29.1	0.95	14	50	8	8.4	36.5	14.3	27.7	q
46	0.00		30	3	41	2.1	13.6	8.4	27.7	31.6	33.4	0.89	16.5	29.1	0.95	14	178	8	8.4	36.5	14.3	27.7	=
2.50			50	5	41	2.1	13.6	8.4	27.7	31.6	33.4	0.89	16.5	29.1	0.95	14	60	8	8.4	36.5	14.3	27.7	1
1	6.88		28	1	41	6.9	7.1	11.1	6.7	35.1	33.2	0.40	29.1	16.5	0.41	14	50	8	16.9	17.9	11.1	6.7	q
1	3.63		50	3	41	6.9	7.1	11.1	6.7	35.1	33.2	0.40	19.4	11.0	0.61	21	180	8	16.9	17.9	11.1	6.7	=
2.50			30	5	41	6.9	7.1	11.1	6.7	35.1	33.2	0.40	29.1	16.5	0.41	14	50	8	16.9	17.9	11.1	6.7	1
2	6.88		28	1	21	-12.3	1.3	12.8	6.5	32.1	30.4	0.44	19.4	11.0	0.66	21	50	8	30.2	6.5	12.8	7.6	q
2	3.63		50	3	21	-12.3	1.3	12.8	6.5	32.1	30.4	0.44	19.4	11.0	0.66	21	180	8	30.2	6.5	12.8	7.6	=
2.50			30	5	21	-12.3	1.3	12.8	6.5	32.1	30.4	0.44	29.1	16.5	0.44	14	50	8	30.2	6.5	12.8	7.6	1
3	6.88		28	1	41	1.4	5.8	11.3	6.9	30.5	28.9	0.28	29.1	16.5	0.41	14	52	8	18.3	13.4	11.3	6.9	q
3	3.63		50	3	41	1.4	5.8	11.3	6.9	30.5	28.9	0.28	19.4	11.0	0.62	21	178	8	18.3	13.4	11.3	6.9	=
2.50			30	5	41	1.4	5.8	11.3	6.9	30.5	28.9	0.28	29.1	16.5	0.41	14	50	8	18.3	13.4	11.3	6.9	1
4	6.88		29	1	25	6.1	0.8	13.4	5.1	28.8	30.4	0.49	16.5	29.1	0.81	14	50	8	15.4	5.1	13.4	20.7	q
4	3.63		30	3	25	6.1	0.8	13.4	5.1	28.8	30.4	0.41	13.6	24.0	1.00	17	180	8	15.4	5.1	13.4	20.7	=
2.50			50	5	25	6.1	0.8	13.4	5.1	28.8	30.4	0.49	16.5	29.1	0.81	14	50	8	15.4	5.1	13.4	20.7	1
5	6.88		28	1	25	11.6	0.1	31.3	1.0	31.9	30.2	0.98	31.4	17.8	1.00	13	50	8	31.3	1.0	31.6	15.7	q
5	3.63		50	3	25	11.6	0.1	31.3	1.0	31.9	30.2	0.98	31.4	17.8	1.00	13	180	8	31.3	1.0	31.6	15.7	=
2.50			30	5	25	11.6	0.1	31.3	1.0	31.9	30.2	0.98	31.4	17.8	1.00	13	50	8	31.3	1.0	31.6	15.7	1
6	6.88		4	1	25	6.8	1.2	17.1	11.3	34.9	37.3	0.52	17.6	37.6	0.98	13	60	8	18.5	11.3	17.1	35.0	q

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
6	3.63		30	3	25	6.8	1.2	17.1	11.3	34.9	37.3	0.52	17.8	38.1	0.96	13	160	8	18.5	11.3	17.1	35.0	=
2.50			60	5	25	6.8	1.2	17.1	11.3	34.9	37.3	0.52	17.6	37.6	0.98	13	60	8	18.5	11.3	17.1	35.0	1
7	6.88		1	1	21	-2.3	-0.8	7.3	2.0	17.3	17.3	0.47	16.5	16.5	0.44	14	46	8	7.3	2.0	10.8	9.7	q
7	3.63		30	3	25	2.8	-0.1	7.3	2.0	17.3	17.3	0.43	11.0	11.0	0.66	21	186	8	7.3	2.0	10.8	9.7	=
2.50			30	5	21	-2.3	-0.8	7.3	2.0	17.3	17.3	0.47	16.5	16.5	0.44	14	48	8	7.3	2.0	10.8	9.7	1
8	6.88		29	1	37	3.0	-12.9	12.3	33.5	36.9	39.0	0.94	20.3	35.7	0.94	10	50	8	12.3	35.7	18.1	33.5	q
8	3.63		30	3	37	3.0	-12.9	12.3	33.5	36.9	39.0	0.33	20.3	35.7	0.97	10	180	8	12.3	35.7	18.1	33.5	=
2.19			50	5	37	3.0	-12.9	12.3	33.5	36.9	39.0	0.94	20.3	35.7	0.94	10	50	8	12.3	35.7	18.1	33.5	1
9	6.88		28	1	18	-10.8	0.1	25.7	8.5	32.6	30.8	0.79	29.1	16.5	0.88	14	50	8	25.7	8.5	43.3	19.3	q
9	3.63		50	3	18	-10.8	0.1	25.7	8.5	32.6	30.8	0.79	27.2	15.4	0.95	15	180	8	25.7	8.5	43.3	19.3	=
2.50			30	5	18	-10.8	0.1	25.7	8.5	32.6	30.8	0.79	29.1	16.5	0.88	14	50	8	25.7	8.5	43.3	19.3	1
10	6.88		29	1	41	-2.5	13.2	14.8	29.4	31.6	33.4	0.96	17.7	31.1	0.94	13	50	8	14.8	36.2	16.7	29.4	q
10	3.63		30	3	41	-2.5	13.2	14.8	29.4	31.6	33.4	0.47	17.7	31.1	0.96	13	180	8	14.8	36.2	16.7	29.4	=
2.48			50	5	41	-2.5	13.2	14.8	29.4	31.6	33.4	0.96	17.7	31.1	0.94	13	50	8	14.8	36.2	16.7	29.4	1
11	6.88		28	1	37	5.7	-7.1	13.0	7.2	34.9	33.0	0.37	29.1	16.5	0.44	14	50	8	18.1	18.0	13.0	7.2	q
11	3.63		50	3	37	5.7	-7.1	13.0	7.2	34.9	33.0	0.37	19.4	11.0	0.67	21	180	8	18.1	18.0	13.0	7.2	=
2.50			30	5	37	5.7	-7.1	13.0	7.2	34.9	33.0	0.37	29.1	16.5	0.44	14	50	8	18.1	18.0	13.0	7.2	1
12	6.88		28	1	18	-13.5	-2.3	13.3	6.4	30.8	29.1	0.51	29.1	16.5	0.46	14	50	8	34.0	6.4	13.3	7.4	q
12	3.63		50	3	18	-13.5	-2.3	13.3	6.4	30.8	29.1	0.51	19.4	11.0	0.69	21	180	8	34.0	6.4	13.3	7.4	=
2.50			30	5	18	-13.5	-2.3	13.3	6.4	30.8	29.1	0.51	29.1	16.5	0.46	14	50	8	34.0	6.4	13.3	7.4	1
13	6.88		28	1	18	-9.4	-1.3	11.3	6.9	31.6	29.9	0.23	29.1	16.5	0.42	14	50	8	21.6	12.3	11.3	6.9	q

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
13	3.63		50	3	18	-9.4	-1.3	11.3	6.9	31.6	29.9	0.23	19.4	11.0	0.63	21	180	8	21.6	12.3	11.3	6.9	=
2.50			30	5	18	-9.4	-1.3	11.3	6.9	31.6	29.9	0.23	29.1	16.5	0.42	14	50	8	21.6	12.3	11.3	6.9	1
14	6.88		1	1	39	1.6	2.4	4.8	6.6	18.7	18.7	0.44	16.5	16.5	0.40	14	49	8	4.8	6.6	11.0	11.9	q
14	3.63		30	3	40	1.5	2.5	4.8	6.6	18.7	18.7	0.44	11.0	11.0	0.60	21	185	8	4.8	6.6	11.0	11.9	=
2.50			30	5	39	1.6	2.4	4.8	6.6	18.7	18.7	0.44	16.5	16.5	0.40	14	46	8	4.8	6.6	11.0	11.9	1
15	6.88		1	1	21	-2.5	-0.1	6.8	0.3	20.5	20.5	0.34	16.5	16.5	0.41	14	50	8	6.8	0.3	10.3	9.4	q
15	3.63		30	3	21	-2.5	-0.1	6.8	0.3	20.5	20.5	0.34	11.0	11.0	0.62	21	199	8	6.8	0.3	10.3	9.4	=
2.50			30	5	21	-2.5	-0.1	6.8	0.3	20.5	20.5	0.34	16.5	16.5	0.41	14	51	8	6.8	0.3	10.3	9.4	1
16	6.88		3	1	40	0.0	8.0	4.6	21.0	31.6	33.4	0.63	16.5	29.1	0.72	14	50	8	4.6	21.0	17.3	36.5	q
16	3.63		30	3	40	0.0	8.0	4.6	21.0	31.6	33.4	0.63	12.2	21.5	0.98	19	180	8	4.6	21.0	17.3	36.5	=
2.50			50	5	40	0.0	8.0	4.6	21.0	31.6	33.4	0.63	16.5	29.1	0.72	14	50	8	4.6	21.0	17.3	36.5	1
17	6.88		1	1	43	2.8	-3.0	11.2	10.0	20.1	20.1	0.56	16.5	16.5	0.68	14	47	8	11.3	10.0	11.2	10.8	q
17	3.63		30	3	30	4.3	0.3	11.2	10.0	20.1	20.1	0.57	11.6	11.6	0.97	20	187	8	11.3	10.0	11.2	10.8	=
2.50			30	5	43	2.8	-3.0	11.2	10.0	20.1	20.1	0.56	16.5	16.5	0.68	14	47	8	11.3	10.0	11.2	10.8	1
18	6.88		28	1	30	9.0	-0.1	24.7	0.7	35.7	33.8	0.69	29.1	16.5	0.85	14	50	8	24.7	0.7	27.6	14.8	q
18	3.63		50	3	30	9.0	-0.1	24.7	0.7	35.7	33.8	0.69	25.5	14.5	0.97	16	180	8	24.7	0.7	27.6	14.8	=
2.50			30	5	30	9.0	-0.1	24.7	0.7	35.7	33.8	0.69	29.1	16.5	0.85	14	50	8	24.7	0.7	27.6	14.8	1
19	6.88		3	1	18	-5.2	-2.1	14.1	20.6	31.8	33.6	0.51	16.5	29.1	0.86	14	50	8	14.1	20.6	15.5	22.8	q
19	3.63		30	3	18	-5.2	-2.1	14.1	20.6	31.8	33.6	0.51	14.5	25.5	0.98	16	180	8	14.1	20.6	15.5	22.8	=
2.50			50	5	18	-5.2	-2.1	14.1	20.6	31.8	33.6	0.51	16.5	29.1	0.86	14	50	8	14.1	20.6	15.5	22.8	1
20	6.88		3	1	37	1.2	-5.9	5.0	16.4	30.1	31.8	0.55	16.5	29.1	0.56	14	50	8	5.0	16.4	12.0	19.4	q

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
20	3.63		30	3	41	0.3	5.9	5.0	16.4	30.1	31.8	0.52	11.0	19.4	0.84	21	180	8	5.0	16.4	12.0	19.4	=
2.50			50	5	37	1.2	-5.9	5.0	16.4	30.1	31.8	0.55	16.5	29.1	0.56	14	50	8	5.0	16.4	12.0	19.4	1
21	6.88		1	1	18	-2.8	0.3	7.6	0.5	20.4	20.4	0.38	16.5	16.5	0.46	14	49	8	7.6	0.5	9.5	9.5	q
21	3.63		30	3	18	-2.8	0.3	7.6	0.5	20.4	20.4	0.38	11.0	11.0	0.69	21	200	8	7.6	0.5	9.5	9.5	=
2.50			30	5	18	-2.8	0.3	7.6	0.5	20.4	20.4	0.38	16.5	16.5	0.46	14	51	8	7.6	0.5	9.5	9.5	1
22	6.88		3	1	36	0.6	-8.7	4.9	23.0	31.5	33.3	0.71	16.5	29.1	0.79	14	50	8	4.9	23.0	16.5	33.5	q
22	3.63		30	3	36	0.6	-8.7	4.9	23.0	31.5	33.3	0.71	13.6	24.0	0.96	17	180	8	4.9	23.0	16.5	33.5	=
2.50			50	5	36	0.6	-8.7	4.9	23.0	31.5	33.3	0.71	16.5	29.1	0.79	14	50	8	4.9	23.0	16.5	33.5	1
23	6.88		29	1	46	6.8	-3.3	14.9	10.0	28.8	30.4	0.62	16.5	29.1	0.90	14	50	8	17.6	10.0	14.9	22.0	q
23	3.63		30	3	46	6.8	-3.3	14.9	10.0	28.8	30.4	0.61	15.4	27.2	1.00	15	180	8	17.6	10.0	14.9	22.0	=
2.50			50	5	46	6.8	-3.3	14.9	10.0	28.8	30.4	0.62	16.5	29.1	0.90	14	50	8	17.6	10.0	14.9	22.0	1
24	6.88		35	1	46	18.1	0.0	42.7	0.9	45.0	41.7	0.95	44.2	17.5	0.96	11	70	8	49.6	0.9	42.7	16.7	q
24	3.63		70	3	46	18.1	0.0	42.7	0.9	45.0	41.7	0.95	44.6	17.7	0.96	11	140	8	49.6	0.9	42.7	16.7	=
2.10			30	5	46	18.1	0.0	42.7	0.9	45.0	41.7	0.95	44.2	17.5	0.96	11	70	8	49.6	0.9	42.7	16.7	1
25	6.88		4	1	46	7.6	4.7	19.7	12.9	35.1	37.5	0.69	20.7	44.3	0.95	11	60	8	20.8	12.9	19.7	39.4	q
25	3.63		30	3	46	7.6	4.7	19.7	12.9	35.1	37.5	0.68	21.1	45.1	1.00	11	160	8	20.8	12.9	19.7	39.4	=
2.50			60	5	46	7.6	4.7	19.7	12.9	35.1	37.5	0.69	20.7	44.3	0.95	11	60	8	20.8	12.9	19.7	39.4	1
26	6.88		1	1	34	-2.5	0.9	7.7	2.0	17.3	17.3	0.50	16.5	16.5	0.47	14	46	8	7.7	2.0	10.5	10.5	q
26	3.63		30	3	46	2.9	0.1	7.7	2.0	17.3	17.3	0.45	11.0	11.0	0.70	21	186	8	7.7	2.0	10.5	10.5	=
2.50			30	5	34	-2.5	0.9	7.7	2.0	17.3	17.3	0.50	16.5	16.5	0.47	14	48	8	7.7	2.0	10.5	10.5	1
27	6.88		1	1	30	2.5	0.6	6.8	2.6	17.3	17.3	0.43	16.5	16.5	0.41	14	46	8	6.8	2.6	9.3	9.3	q

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
27	3.63	30	3	30		2.5	0.6	6.8	2.6	17.3	17.3	0.43	11.0	11.0	0.62	21	186	8	6.8	2.6	9.3	9.3	=
2.50		30	5	30		2.5	0.6	6.8	2.6	17.3	17.3	0.43	16.5	16.5	0.41	14	48	8	6.8	2.6	9.3	9.3	1
30	6.88	3	1	37		1.1	-12.1	3.2	29.7	35.8	37.9	0.77	17.1	30.1	1.00	13	50	8	3.2	32.8	15.3	29.7	q
30	3.63	30	3	37		1.1	-12.1	3.2	29.7	35.8	37.9	0.77	17.1	30.1	1.00	13	180	8	3.2	32.8	15.3	29.7	=
2.40		50	5	37		1.1	-12.1	3.2	29.7	35.8	37.9	0.77	17.1	30.1	1.00	13	50	8	3.2	32.8	15.3	29.7	1
39	6.88	1	1	43		2.0	-0.7	5.7	3.5	17.7	17.7	0.36	16.5	16.5	0.34	14	50	8	5.7	3.5	7.7	7.7	q
39	3.63	30	3	27		2.2	0.3	5.7	3.5	17.7	17.7	0.34	11.0	11.0	0.51	21	194	8	5.7	3.5	7.7	7.7	=
2.50		30	5	43		2.0	-0.7	5.7	3.5	17.7	17.7	0.36	16.5	16.5	0.34	14	51	8	5.7	3.5	7.7	7.7	1
46	6.88	3	1	37		-0.4	-11.5	2.0	24.8	30.7	32.4	0.78	16.5	29.1	0.85	14	50	8	2.0	31.5	13.7	24.8	q
46	3.63	30	3	37		-0.4	-11.5	2.0	24.8	30.7	32.4	0.78	14.5	25.5	0.97	16	180	8	2.0	31.5	13.7	24.8	=
2.50		50	5	37		-0.4	-11.5	2.0	24.8	30.7	32.4	0.78	16.5	29.1	0.85	14	50	8	2.0	31.5	13.7	24.8	1
1	10.13	28	1	41		5.1	6.8	10.2	6.3	33.8	32.0	0.34	29.1	16.5	0.38	14	50	8	14.4	17.0	10.2	6.3	q
1	6.88	50	3	41		5.1	6.8	10.2	6.3	33.8	32.0	0.34	19.4	11.0	0.57	21	180	8	14.4	17.0	10.2	6.3	=
2.50		30	5	41		5.1	6.8	10.2	6.3	33.8	32.0	0.34	29.1	16.5	0.38	14	50	8	14.4	17.0	10.2	6.3	1
2	10.13	28	1	21		-13.5	1.5	12.5	7.3	35.0	33.1	0.22	19.4	11.0	0.66	21	50	8	32.9	8.6	12.5	7.3	q
2	6.88	50	3	21		-13.5	1.5	12.5	7.3	35.0	33.1	0.22	19.4	11.0	0.66	21	180	8	32.9	8.6	12.5	7.3	=
2.50		30	5	21		-13.5	1.5	12.5	7.3	35.0	33.1	0.22	29.1	16.5	0.44	14	50	8	32.9	8.6	12.5	7.3	1
3	10.13	28	1	31		-6.8	4.1	10.5	6.5	30.7	29.1	0.22	29.1	16.5	0.39	14	50	8	18.8	11.4	10.5	6.5	q
3	6.88	50	3	41		-3.2	5.2	10.5	6.5	30.7	29.1	0.33	19.4	11.0	0.59	21	180	8	18.8	11.4	10.5	6.5	=
2.50		30	5	31		-6.8	4.1	10.5	6.5	30.7	29.1	0.49	29.1	16.5	0.36	14	50	8	18.8	11.4	10.5	6.5	1
4	10.13	29	1	25		6.3	1.0	12.2	4.7	28.8	30.4	0.46	16.5	29.1	0.74	14	51	8	16.2	4.7	12.2	19.5	q

VERIFICHE ASTE IN C.A. - PILASTRI																								
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																								
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li	
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi	
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te	
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)		
4	6.88	30	3	25		6.3	1.0	12.2	4.7	28.8	30.4	0.46	12.2	21.5	1.00	19	179	8	16.2	4.7	12.2	19.5	=	
2.50		50	5	25		6.3	1.0	12.2	4.7	28.8	30.4	0.46	16.5	29.1	0.74	14	50	8	16.2	4.7	12.2	19.5	1	
5	10.13	28	1	25		12.4	-0.3	31.0	1.6	33.1	31.3	0.95	32.3	18.4	0.96	12	50	8	32.9	1.6	31.0	15.4	q	
5	6.88	50	3	25		12.4	-0.3	31.0	1.6	33.1	31.3	0.95	32.3	18.4	0.96	12	180	8	32.9	1.6	31.0	15.4	=	
2.38		30	5	25		12.4	-0.3	31.0	1.6	33.1	31.3	0.95	32.3	18.4	0.96	12	50	8	32.9	1.6	31.0	15.4	1	
6	10.13	4	1	25		6.5	-3.1	14.0	14.0	34.7	37.1	0.49	17.6	37.6	0.80	13	60	8	17.4	14.0	14.0	27.6	q	
6	6.88	30	3	25		6.5	-3.1	14.0	14.0	34.7	37.1	0.49	14.5	31.0	0.97	16	160	8	17.4	14.0	14.0	27.6	=	
2.50		60	5	25		6.5	-3.1	14.0	14.0	34.7	37.1	0.49	17.6	37.6	0.80	13	60	8	17.4	14.0	14.0	27.6	1	
7	10.13	1	1	41		2.0	-0.9	6.1	2.5	17.3	17.3	0.41	16.5	16.5	0.37	14	53	8	6.1	2.5	10.4	9.4	q	
7	6.88	30	3	25		2.4	-0.1	6.1	2.5	17.3	17.3	0.36	11.0	11.0	0.56	21	181	8	6.1	2.5	10.4	9.4	=	
2.50		30	5	41		2.0	-0.9	6.1	2.5	17.3	17.3	0.41	16.5	16.5	0.37	14	45	8	6.1	2.5	10.4	9.4	1	
8	10.13	29	1	46		4.4	-12.9	11.9	32.5	38.5	40.6	0.31	19.3	34.1	0.96	9	51	8	11.9	35.4	16.2	32.5	q	
8	6.88	30	3	46		4.4	-12.9	11.9	32.5	38.5	40.6	0.31	19.3	34.1	0.96	9	179	8	11.9	35.4	16.2	32.5	=	
1.88		50	5	46		4.4	-12.9	11.9	32.5	38.5	40.6	0.31	19.3	34.1	0.96	9	50	8	11.9	35.4	16.2	32.5	1	
9	10.13	28	1	18		-12.0	0.2	29.1	8.9	36.3	34.4	0.81	29.1	16.5	1.00	14	51	8	29.1	8.9	42.8	19.2	q	
9	6.88	50	3	18		-12.0	0.2	29.1	8.9	36.3	34.4	0.81	29.1	16.5	1.00	14	179	8	29.1	8.9	42.8	19.2	=	
2.50		30	5	18		-12.0	0.2	29.1	8.9	36.3	34.4	0.81	29.1	16.5	1.00	14	50	8	29.1	8.9	42.8	19.2	1	
10	10.13	29	1	34		-5.0	9.1	14.9	28.3	35.7	37.7	0.89	16.1	28.3	1.00	12	50	8	14.9	31.4	15.8	28.3	q	
10	6.88	30	3	18		-6.6	-0.4	14.9	28.3	35.7	37.7	0.75	16.1	28.3	1.00	12	180	8	14.9	31.4	15.8	28.3	=	
2.08		50	5	34		-5.0	9.1	14.9	28.3	35.7	37.7	0.89	16.1	28.3	1.00	12	50	8	14.9	31.4	15.8	28.3	1	
11	10.13	28	1	46		9.0	-7.0	12.1	-7.0	33.4	31.7	0.57	29.1	16.5	0.42	14	51	8	22.2	17.3	12.1	7.0	q	

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
11	6.88		50	3	46	9.0	-7.0	12.1	-7.0	33.4	31.7	0.57	19.4	11.0	0.63	21	179	8	22.2	17.3	12.1	7.0	=
2.50			30	5	46	9.0	-7.0	12.1	-7.0	33.4	31.7	0.58	29.1	16.5	0.42	14	50	8	22.2	17.3	12.1	7.0	1
12	10.13		28	1	18	-16.3	-1.5	13.1	7.3	35.1	33.2	0.42	29.1	16.5	0.45	14	51	8	41.5	8.9	13.1	7.3	q
12	6.88		50	3	18	-16.3	-1.5	13.1	7.3	35.1	33.2	0.42	19.4	11.0	0.67	21	179	8	41.5	8.9	13.1	7.3	=
2.50			30	5	18	-16.3	-1.5	13.1	7.3	35.1	33.2	0.42	29.1	16.5	0.45	14	50	8	41.5	8.9	13.1	7.3	1
13	10.13		28	1	18	-11.5	-1.3	10.6	6.5	31.4	29.7	0.22	29.1	16.5	0.39	14	51	8	28.1	12.0	10.6	6.5	q
13	6.88		50	3	18	-11.5	-1.3	10.6	6.5	31.4	29.7	0.22	19.4	11.0	0.59	21	179	8	28.1	12.0	10.6	6.5	=
2.50			30	5	18	-11.5	-1.3	10.6	6.5	31.4	29.7	0.22	29.1	16.5	0.39	14	50	8	28.1	12.0	10.6	6.5	1
14	10.13		1	1	43	1.3	-1.4	3.3	5.0	17.9	17.9	0.35	16.5	16.5	0.30	14	45	8	3.3	5.0	10.7	11.8	q
14	6.88		30	3	40	0.5	1.8	3.3	5.0	17.9	17.9	0.31	11.0	11.0	0.46	21	184	8	3.3	5.0	10.7	11.8	=
2.50			30	5	43	1.3	-1.4	3.3	5.0	17.9	17.9	0.35	16.5	16.5	0.30	14	51	8	3.3	5.0	10.7	11.8	1
15	10.13		1	1	27	1.7	0.1	4.8	0.6	19.3	19.3	0.25	16.5	16.5	0.29	14	50	8	4.8	0.6	10.1	9.1	q
15	6.88		30	3	27	1.7	0.1	4.8	0.6	19.3	19.3	0.25	11.0	11.0	0.43	21	197	8	4.8	0.6	10.1	9.1	=
2.50			30	5	27	1.7	0.1	4.8	0.6	19.3	19.3	0.25	16.5	16.5	0.29	14	53	8	4.8	0.6	10.1	9.1	1
16	10.13		3	1	46	0.9	7.1	2.7	19.0	30.6	32.3	0.62	16.5	29.1	0.65	14	50	8	2.7	19.0	16.9	35.3	q
16	6.88		30	3	46	0.9	7.1	2.7	19.0	30.6	32.3	0.62	11.0	19.4	0.98	21	180	8	2.7	19.0	16.9	35.3	=
2.50			50	5	46	0.9	7.1	2.7	19.0	30.6	32.3	0.62	16.5	29.1	0.65	14	50	8	2.7	19.0	16.9	35.3	1
17	10.13		1	1	24	3.4	2.2	11.0	10.0	19.1	19.1	0.69	16.5	16.5	0.67	14	48	8	11.1	10.0	11.0	10.6	q
17	6.88		30	3	30	4.2	0.4	11.0	10.0	19.1	19.1	0.60	11.0	11.0	1.00	21	186	8	11.1	10.0	11.0	10.6	=
2.50			30	5	24	3.4	2.2	11.0	10.0	19.1	19.1	0.69	16.5	16.5	0.67	14	46	8	11.1	10.0	11.0	10.6	1
18	10.13		28	1	30	9.3	0.2	25.5	1.1	33.6	31.8	0.76	29.1	16.5	0.88	14	50	8	25.5	1.1	26.5	14.2	q



VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
18	6.88		50	3	30	9.3	0.2	25.5	1.1	33.6	31.8	0.76	27.2	15.4	0.94	15	180	8	25.5	1.1	26.5	14.2	=
2.50			30	5	30	9.3	0.2	25.5	1.1	33.6	31.8	0.76	29.1	16.5	0.88	14	50	8	25.5	1.1	26.5	14.2	1
19	10.13		3	1	20	-4.0	-6.7	13.6	22.0	30.3	32.0	0.45	16.5	29.1	0.82	14	50	8	13.6	23.4	14.8	22.0	q
19	6.88		30	3	18	-5.0	-3.1	13.6	22.0	30.3	32.0	0.54	13.6	24.0	1.00	17	180	8	13.6	23.4	14.8	22.0	=
2.50			50	5	20	-4.0	-6.7	13.6	22.0	30.3	32.0	0.45	16.5	29.1	0.82	14	50	8	13.6	23.4	14.8	22.0	1
20	10.13		3	1	37	1.7	-3.6	5.7	10.6	29.6	31.3	0.40	16.5	29.1	0.36	14	50	8	5.7	10.6	11.2	18.3	q
20	6.88		30	3	46	2.5	-2.7	5.7	10.6	29.6	31.3	0.42	11.0	19.4	0.55	21	180	8	5.7	10.6	11.2	18.3	=
2.50			50	5	37	1.7	-3.6	5.7	10.6	29.6	31.3	0.40	16.5	29.1	0.36	14	50	8	5.7	10.6	11.2	18.3	1
21	10.13		1	1	18	-2.4	-0.1	6.5	0.7	19.2	19.2	0.34	16.5	16.5	0.39	14	52	8	6.5	0.7	9.3	9.3	q
21	6.88		30	3	18	-2.4	-0.1	6.5	0.7	19.2	19.2	0.34	11.0	11.0	0.59	21	197	8	6.5	0.7	9.3	9.3	=
2.50			30	5	18	-2.4	-0.1	6.5	0.7	19.2	19.2	0.34	16.5	16.5	0.39	14	51	8	6.5	0.7	9.3	9.3	1
22	10.13		3	1	34	-1.5	-8.2	5.1	22.0	30.6	32.3	0.73	16.5	29.1	0.75	14	50	8	5.1	22.0	16.0	32.2	q
22	6.88		30	3	34	-1.5	-8.2	5.1	22.0	30.6	32.3	0.73	12.9	22.6	0.97	18	180	8	5.1	22.0	16.0	32.2	=
2.50			50	5	34	-1.5	-8.2	5.1	22.0	30.6	32.3	0.73	16.5	29.1	0.75	14	50	8	5.1	22.0	16.0	32.2	1
23	10.13		29	1	46	6.4	-4.3	11.8	12.9	28.8	30.4	0.55	16.5	29.1	0.71	14	50	8	16.6	12.9	11.8	19.1	q
23	6.88		30	3	46	6.4	-4.3	11.8	12.9	28.8	30.4	0.52	12.2	21.5	0.98	19	180	8	16.6	12.9	11.8	19.1	=
2.50			50	5	46	6.4	-4.3	11.8	12.9	28.8	30.4	0.55	16.5	29.1	0.71	14	50	8	16.6	12.9	11.8	19.1	1
24	10.13		28	1	46	11.9	0.5	29.1	1.7	31.2	29.6	0.95	31.3	17.8	0.93	12	53	8	32.4	1.7	29.1	15.0	q
24	6.88		50	3	46	11.9	0.5	29.1	1.7	31.2	29.6	0.95	31.3	17.8	0.93	12	177	8	32.4	1.7	29.1	15.0	=
2.30			30	5	46	11.9	0.5	29.1	1.7	31.2	29.6	0.95	31.3	17.8	0.93	12	50	8	32.4	1.7	29.1	15.0	1
25	10.13		4	1	30	7.0	5.8	17.0	17.8	34.8	37.3	0.64	17.6	37.6	0.97	13	60	8	19.1	17.8	17.0	34.7	q

VERIFICHE ASTE IN C.A. - PILASTRI																								
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																								
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li	
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi	
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te	
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)		
25	6.88		30	3	30	7.0	5.8	17.0	17.8	34.8	37.3	0.64	17.8	38.1	0.96	13	160	8	19.1	17.8	17.0	34.7	=	
2.50			60	5	30	7.0	5.8	17.0	17.8	34.8	37.3	0.64	17.6	37.6	0.97	13	60	8	19.1	17.8	17.0	34.7	1	
26	10.13		1	1	46	2.7	0.9	7.1	2.2	17.3	17.3	0.47	16.5	16.5	0.43	14	50	8	7.1	2.2	10.3	10.3	q	
26	6.88		30	3	30	2.7	0.8	7.1	2.2	17.3	17.3	0.46	11.0	11.0	0.65	21	184	8	7.1	2.2	10.3	10.3	=	
2.50			30	5	46	2.7	0.9	7.1	2.2	17.3	17.3	0.47	16.5	16.5	0.43	14	45	8	7.1	2.2	10.3	10.3	1	
27	10.13		1	1	30	2.3	1.0	6.3	3.4	17.4	17.4	0.42	16.5	16.5	0.38	14	50	8	6.3	3.4	9.0	9.0	q	
27	6.88		30	3	30	2.3	1.0	6.3	3.4	17.4	17.4	0.42	11.0	11.0	0.57	21	185	8	6.3	3.4	9.0	9.0	=	
2.50			30	5	30	2.3	1.0	6.3	3.4	17.4	17.4	0.42	16.5	16.5	0.38	14	46	8	6.3	3.4	9.0	9.0	1	
30	10.13		3	1	37	1.6	-10.2	5.7	26.4	29.5	31.2	0.90	16.5	29.1	0.91	14	50	8	5.7	27.8	14.1	26.4	q	
30	6.88		30	3	37	1.6	-10.2	5.7	26.4	29.5	31.2	0.87	15.4	27.2	1.00	15	180	8	5.7	27.8	14.1	26.4	=	
2.50			50	5	37	1.6	-10.2	5.7	26.4	29.5	31.2	0.90	16.5	29.1	0.91	14	50	8	5.7	27.8	14.1	26.4	1	
39	10.13		1	1	43	2.3	-0.8	6.5	3.8	17.6	17.6	0.41	16.5	16.5	0.39	14	54	8	6.5	3.8	7.3	7.3	q	
39	6.88		30	3	27	2.6	0.3	6.5	3.8	17.6	17.6	0.38	11.0	11.0	0.59	21	195	8	6.5	3.8	7.3	7.3	=	
2.50			30	5	43	2.3	-0.8	6.5	3.8	17.6	17.6	0.41	16.5	16.5	0.39	14	47	8	6.5	3.8	7.3	7.3	1	
46	10.13		3	1	37	0.1	-10.2	3.7	24.4	29.7	31.4	0.78	16.5	29.1	0.84	14	50	8	3.7	28.2	13.5	24.4	q	
46	6.88		30	3	37	0.1	-10.2	3.7	24.4	29.7	31.4	0.78	14.5	25.5	0.96	16	180	8	3.7	28.2	13.5	24.4	=	
2.50			50	5	37	0.1	-10.2	3.7	24.4	29.7	31.4	0.78	16.5	29.1	0.84	14	50	8	3.7	28.2	13.5	24.4	1	
1	13.42		28	1	25	7.3	4.4	9.4	5.5	31.4	29.7	0.19	29.1	16.5	0.34	14	54	8	16.2	13.0	9.4	5.5	q	
1	10.13		50	3	41	6.3	5.1	9.4	5.5	31.4	29.7	0.19	19.4	11.0	0.50	21	180	8	16.2	13.0	9.4	5.5	=	
2.50			30	5	25	7.3	4.4	9.4	5.5	31.4	29.7	0.45	29.1	16.5	0.32	14	50	8	16.2	13.0	9.4	5.5	1	
2	14.96		28	1	21	-5.2	0.1	6.7	2.0	31.3	29.6	0.22	29.1	16.5	0.23	14	86	8	12.4	2.0	6.7	4.1	q	

VERIFICHE ASTE IN C.A. - PILASTRI																								
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																								
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li	
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi	
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te	
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)		
2	10.13		50	3	21	-5.2	0.1	6.7	2.0	31.3	29.6	0.22	19.4	11.0	0.34	21	286	8	12.4	2.0	6.7	4.1	=	
2.50			30	5	21	-5.2	0.1	6.7	2.0	31.3	29.6	0.22	29.1	16.5	0.23	14	59	8	12.4	2.0	6.7	4.1	1	
3	13.42		28	1	31	-7.6	3.1	9.4	5.6	30.4	28.8	0.19	29.1	16.5	0.34	14	51	8	20.0	8.4	9.4	5.6	q	
3	10.13		50	3	15	-9.2	0.8	9.4	5.6	30.4	28.8	0.19	19.4	11.0	0.51	21	183	8	20.0	8.4	9.4	5.6	=	
2.50			30	5	31	-7.6	3.1	9.4	5.6	30.4	28.8	0.41	29.1	16.5	0.32	14	50	8	20.0	8.4	9.4	5.6	1	
5	11.34		28	1	21	-5.7	-0.6	15.5	3.4	30.7	29.1	0.94	29.1	16.5	0.74	14	48	8	15.5	3.4	58.5	32.3	q	
5	10.13		50	3	0	0.0	0.0	15.5	3.4	30.7	29.1	0.50	19.4	11.0	0.80	21	0	8	15.5	3.4	58.5	32.3	=	
2.50			30	5	21	-5.7	-0.6	15.5	3.4	30.7	29.1	0.94	29.1	16.5	0.74	14	48	8	15.5	3.4	58.5	32.3	1	
7	11.34		1	1	20	-0.6	-3.8	2.3	11.4	17.3	17.3	0.87	16.5	16.5	0.78	14	45	8	2.3	11.4	22.1	22.1	q	
7	10.13		30	3	20	-0.6	-3.8	2.3	11.4	17.3	17.3	0.87	12.9	12.9	1.00	18	6	8	2.3	11.4	22.1	22.1	=	
2.50			30	5	20	-0.6	-3.8	2.3	11.4	17.3	17.3	0.87	16.5	16.5	0.78	14	45	8	2.3	11.4	22.1	22.1	1	
8	13.42		29	1	41	3.9	8.9	9.1	20.2	29.8	31.5	0.77	16.5	29.1	0.69	14	58	8	9.1	24.2	11.2	20.2	q	
8	10.13		30	3	41	3.9	8.9	9.1	20.2	29.8	31.5	0.77	11.6	20.4	0.99	20	176	8	9.1	24.2	11.2	20.2	=	
2.50			50	5	41	3.9	8.9	9.1	20.2	29.8	31.5	0.77	16.5	29.1	0.69	14	50	8	9.1	24.2	11.2	20.2	1	
9	14.96		28	1	21	-3.5	-0.6	7.8	2.0	32.3	30.6	0.26	29.1	16.5	0.27	14	87	8	7.8	2.0	11.9	7.3	q	
9	10.13		50	3	21	-3.5	-0.6	7.8	2.0	32.3	30.6	0.26	19.4	11.0	0.40	21	277	8	7.8	2.0	11.9	7.3	=	
2.50			30	5	21	-3.5	-0.6	7.8	2.0	32.3	30.6	0.26	29.1	16.5	0.27	14	66	8	7.8	2.0	11.9	7.3	1	
10	13.42		3	1	41	-2.3	9.5	11.2	20.1	29.1	30.7	0.73	16.5	29.1	0.69	14	51	8	11.6	25.6	11.2	20.1	q	
10	10.13		30	3	15	-5.5	-2.5	11.2	20.1	29.1	30.7	0.65	11.6	20.4	0.99	20	183	8	11.6	25.6	11.2	20.1	=	
2.50			50	5	41	-2.3	9.5	11.2	20.1	29.1	30.7	0.73	16.5	29.1	0.69	14	50	8	11.6	25.6	11.2	20.1	1	
11	13.42		28	1	37	2.8	-5.1	9.3	5.5	31.5	29.8	0.27	29.1	16.5	0.33	14	57	8	9.9	13.0	9.3	5.5	q	

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
11	10.13		50	3	37	2.8	-5.1	9.3	5.5	31.5	29.8	0.27	19.4	11.0	0.50	21	177	8	9.9	13.0	9.3	5.5	=
2.50			30	5	37	2.8	-5.1	9.3	5.5	31.5	29.8	0.27	29.1	16.5	0.33	14	50	8	9.9	13.0	9.3	5.5	1
12	14.96		28	1	16	-3.5	-0.8	6.7	1.5	31.4	29.7	0.24	29.1	16.5	0.23	14	101	8	8.0	1.5	6.7	4.2	q
12	10.13		50	3	18	-3.5	-0.8	6.7	1.5	31.4	29.7	0.24	19.4	11.0	0.35	21	271	8	8.0	1.5	6.7	4.2	=
2.50			30	5	16	-3.5	-0.8	6.7	1.5	31.4	29.7	0.24	29.1	16.5	0.23	14	58	8	8.0	1.5	6.7	4.2	1
13	13.42		28	1	21	-7.1	-3.3	9.4	5.6	30.4	28.8	0.19	29.1	16.5	0.34	14	57	8	15.0	10.4	9.4	5.6	q
13	10.13		50	3	37	-5.4	-4.4	9.4	5.6	30.4	28.8	0.19	19.4	11.0	0.51	21	177	8	15.0	10.4	9.4	5.6	=
2.50			30	5	21	-7.1	-3.3	9.4	5.6	30.4	28.8	0.43	29.1	16.5	0.32	14	50	8	15.0	10.4	9.4	5.6	1
14	12.50		1	1	41	3.5	4.8	10.9	13.6	17.4	17.4	0.98	16.5	16.5	0.82	14	45	8	10.9	13.6	15.6	17.2	q
14	10.13		30	3	41	3.5	4.8	10.9	13.6	17.4	17.4	0.98	13.6	13.6	1.00	17	96	8	10.9	13.6	15.6	17.2	=
2.50			30	5	41	3.5	4.8	10.9	13.6	17.4	17.4	0.98	16.5	16.5	0.82	14	45	8	10.9	13.6	15.6	17.2	1
15	12.50		1	1	25	5.9	0.0	13.7	0.7	18.1	18.1	0.76	16.5	16.5	0.83	14	45	8	16.2	0.7	13.7	12.4	q
15	10.13		30	3	25	5.9	0.0	13.7	0.7	18.1	18.1	0.76	14.5	14.5	0.95	16	122	8	16.2	0.7	13.7	12.4	=
2.50			30	5	25	5.9	0.0	13.7	0.7	18.1	18.1	0.76	16.5	16.5	0.83	14	45	8	16.2	0.7	13.7	12.4	1
16	12.50		3	1	40	2.7	10.5	11.5	31.9	33.9	35.8	0.97	19.6	34.6	0.92	10	50	8	11.5	31.9	24.7	51.1	q
16	10.13		30	3	31	0.6	12.4	11.5	31.9	33.9	35.8	0.34	19.6	34.6	0.99	10	86	8	11.5	31.9	24.7	51.1	=
2.12			50	5	40	2.7	10.5	11.5	31.9	33.9	35.8	0.97	19.6	34.6	0.92	10	50	8	11.5	31.9	24.7	51.1	1
17	13.88		1	1	27	-6.2	2.1	11.7	6.5	17.6	17.6	0.97	16.5	16.5	0.80	14	30	8	11.7	6.5	51.7	43.8	q
17	13.28		30	3	0	0.0	0.0	11.7	6.5	17.6	17.6	0.66	12.2	12.2	0.96	19	0	8	11.7	6.5	51.7	43.8	=
2.50			30	5	27	-6.2	2.1	11.7	6.5	17.6	17.6	0.97	16.5	16.5	0.80	14	30	8	11.7	6.5	51.7	43.8	1
18	13.88		28	1	21	-4.5	0.1	12.3	0.5	31.4	29.8	0.39	29.1	16.5	0.42	14	61	8	12.3	0.5	14.6	8.5	q

VERIFICHE ASTE IN C.A. - PILASTRI																								
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																								
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li	
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi	
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te	
Ctgθ		t	cm	c	az	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)		
18	10.13		50	3	21	-4.5	0.1	12.3	0.5	31.4	29.8	0.39	19.4	11.0	0.63	21	211	8	12.3	0.5	14.6	8.5	=	
2.50			30	5	21	-4.5	0.1	12.3	0.5	31.4	29.8	0.39	29.1	16.5	0.42	14	58	8	12.3	0.5	14.6	8.5	1	
19	13.88		3	1	36	-1.5	-5.2	6.5	14.5	29.0	30.7	0.52	16.5	29.1	0.50	14	62	8	6.5	14.5	9.0	15.0	q	
19	10.13		30	3	40	1.3	5.3	6.5	14.5	29.0	30.7	0.52	11.0	19.4	0.75	21	209	8	6.5	14.5	9.0	15.0	=	
2.50			50	5	36	-1.5	-5.2	6.5	14.5	29.0	30.7	0.52	16.5	29.1	0.50	14	50	8	6.5	14.5	9.0	15.0	1	
20	12.50		3	1	37	1.4	-8.6	9.4	23.8	29.1	30.7	0.82	16.5	29.1	0.82	14	50	8	9.4	23.8	15.4	26.4	q	
20	10.13		30	3	37	1.4	-8.6	9.4	23.8	29.1	30.7	0.82	13.6	24.0	0.99	17	83	8	9.4	23.8	15.4	26.4	=	
2.50			50	5	37	1.4	-8.6	9.4	23.8	29.1	30.7	0.82	16.5	29.1	0.82	14	50	8	9.4	23.8	15.4	26.4	1	
21	12.50		1	1	18	-4.4	0.2	12.0	0.8	18.0	18.0	0.68	16.5	16.5	0.72	14	45	8	12.0	0.8	12.6	12.6	q	
21	10.13		30	3	18	-4.4	0.2	12.0	0.8	18.0	18.0	0.68	12.2	12.2	0.98	19	122	8	12.0	0.8	12.6	12.6	=	
2.50			30	5	18	-4.4	0.2	12.0	0.8	18.0	18.0	0.68	16.5	16.5	0.72	14	45	8	12.0	0.8	12.6	12.6	1	
22	12.50		3	1	36	-1.9	-11.9	9.7	31.3	33.1	35.0	0.95	18.4	32.3	0.97	11	50	8	9.7	31.3	23.1	46.4	q	
22	10.13		30	3	36	-1.9	-11.9	9.7	31.3	33.1	35.0	0.95	18.4	32.3	0.97	11	86	8	9.7	31.3	23.1	46.4	=	
2.18			50	5	36	-1.9	-11.9	9.7	31.3	33.1	35.0	0.95	18.4	32.3	0.97	11	50	8	9.7	31.3	23.1	46.4	1	
24	11.34		28	1	34	-3.4	1.0	9.8	3.4	30.7	29.0	0.61	29.1	16.5	0.47	14	48	8	9.8	3.4	48.8	27.8	q	
24	10.13		50	3	0	0.0	0.0	9.8	3.4	30.7	29.0	0.32	19.4	11.0	0.51	21	0	8	9.8	3.4	48.8	27.8	=	
2.50			30	5	34	-3.4	1.0	9.8	3.4	30.7	29.0	0.61	29.1	16.5	0.47	14	48	8	9.8	3.4	48.8	27.8	1	
26	11.34		1	1	15	0.5	3.8	2.6	11.8	17.3	17.3	0.88	16.5	16.5	0.80	14	45	8	2.6	11.8	22.1	22.1	q	
26	10.13		30	3	40	0.5	4.5	2.6	11.8	17.3	17.3	0.81	12.9	12.9	0.98	18	6	8	2.6	11.8	22.1	22.1	=	
2.50			30	5	15	0.5	3.8	2.6	11.8	17.3	17.3	0.88	16.5	16.5	0.80	14	45	8	2.6	11.8	22.1	22.1	1	
27	13.88		1	1	15	-0.6	0.5	2.4	1.7	17.4	17.4	0.16	16.5	16.5	0.14	14	64	8	2.4	1.7	6.4	6.4	q	

VERIFICHE ASTE IN C.A. - PILASTRI																							
RIEPILOGO VERIFICHE A TAGLIO PILASTRI																							
Filo	Quota	T	Sez	C	Co	Tagli		Tagli		Tagli Resistenti			Tagli Resistenti			Staffe			Tagli con		Tagli Sovra		Li
Iniz	Iniz.	r	Bas	o	mb	Analisi		Progetto		Calcestruzzo			Staffe						q = 1		Resistenza		mi
Fin.	Final	a	Alt	n	in	Vx	Vy	Vx	Vy	V Rxd	V Ryd	Coef	V Rxd	V Ryd	Coef	Pas	Lun	Fi	Vx	Vy	Vx	Vy	te
Ctgθ		t	cm	cm	cm	(t)	(t)	(t)	(t)	(t)	(t)		(t)	(t)		cm	cm	mm	(t)	(t)	(t)	(t)	
27	10.13	30	3	21		-0.9	0.2	2.4	1.7	17.4	17.4	0.15	11.0	11.0	0.22	21	212	8	2.4	1.7	6.4	6.4	=
2.50		30	5	15		-0.6	0.5	2.4	1.7	17.4	17.4	0.16	16.5	16.5	0.14	14	54	8	2.4	1.7	6.4	6.4	1
30	13.42	3	1	37		0.5	-7.6	1.8	16.7	29.3	30.9	0.56	16.5	29.1	0.57	14	51	8	1.8	20.8	9.6	16.7	q
30	10.13	30	3	37		0.5	-7.6	1.8	16.7	29.3	30.9	0.56	11.0	19.4	0.86	21	183	8	1.8	20.8	9.6	16.7	=
2.50		50	5	37		0.5	-7.6	1.8	16.7	29.3	30.9	0.56	16.5	29.1	0.57	14	50	8	1.8	20.8	9.6	16.7	1
46	13.42	3	1	41		0.3	8.8	0.8	20.2	28.9	30.5	0.67	16.5	29.1	0.69	14	51	8	0.8	23.8	11.2	20.2	q
46	10.13	30	3	41		0.3	8.8	0.8	20.2	28.9	30.5	0.67	11.6	20.4	0.99	20	183	8	0.8	23.8	11.2	20.2	=
2.50		50	5	41		0.3	8.8	0.8	20.2	28.9	30.5	0.67	16.5	29.1	0.69	14	50	8	0.8	23.8	11.2	20.2	1
17	13.28	1	1	21		-2.0	-1.1	6.7	5.1	18.0	18.0	0.44	16.5	16.5	0.40	14	46	8	6.7	5.1	10.3	10.0	q
17	10.13	30	3	15		-2.5	-0.2	6.7	5.1	18.0	18.0	0.38	11.0	11.0	0.61	21	191	8	6.7	5.1	10.3	10.0	=
2.50		30	5	21		-2.0	-1.1	6.7	5.1	18.0	18.0	0.44	16.5	16.5	0.40	14	53	8	6.7	5.1	10.3	10.0	1

VERIFICHE DUTTILITA'												
VERIFICHE DUTTILITA' PILASTRI ED ELEMENTI SECONDARI												
filo	Pilas.	Quota	Alfa	Omega	Alfa*	Miu fi	Ni d	Eps syd	bc/b0	secondo	Stato della	
		Nodo			Omega					membro	verifica	
		Infer.								[7.4.29]		
1	61	0.00	0.56	0.31	0.171	7.08	0.354	0.0019	1.29	0.146	OK	
2	62	0.00	0.60	0.46	0.276	7.08	0.591	0.0019	1.29	0.267	OK	
3	63	0.00	0.58	0.37	0.213	7.08	0.448	0.0019	1.29	0.194	OK	
4	403	10.13	0.43	0.12	0.052	7.08	0.011	0.0019	1.19	-0.030	OK	
4	64	0.00	0.50	0.17	0.086	7.08	0.244	0.0019	1.19	0.080	OK	
5	65	0.00	0.46	0.14	0.066	7.08	0.145	0.0019	1.19	0.033	OK	
6	405	10.13	0.40	0.11	0.046	7.08	0.005	0.0019	1.19	-0.033	OK	
6	66	0.00	0.41	0.12	0.050	7.08	0.140	0.0019	1.19	0.031	OK	
7	67	0.00	0.43	0.16	0.068	7.08	0.185	0.0019	1.19	0.052	OK	
8	68	0.00	0.56	0.25	0.136	7.08	0.356	0.0019	1.19	0.133	OK	
9	69	0.00	0.62	0.43	0.265	7.08	0.575	0.0019	1.19	0.236	OK	
10	70	0.00	0.56	0.25	0.136	7.08	0.332	0.0019	1.19	0.121	OK	
11	71	0.00	0.56	0.31	0.171	7.08	0.361	0.0019	1.29	0.150	OK	
12	72	0.00	0.62	0.61	0.382	7.08	0.615	0.0019	1.29	0.280	OK	
13	73	0.00	0.58	0.37	0.213	7.08	0.463	0.0019	1.29	0.202	OK	
14	74	0.00	0.51	0.20	0.102	7.08	0.267	0.0019	1.19	0.091	OK	
15	75	0.00	0.51	0.20	0.102	7.08	0.279	0.0019	1.19	0.096	OK	
16	76	0.00	0.54	0.21	0.115	7.08	0.304	0.0019	1.19	0.108	OK	
17	77	0.00	0.59	0.28	0.162	7.08	0.370	0.0019	1.19	0.139	OK	
18	78	0.00	0.52	0.19	0.099	7.08	0.257	0.0019	1.19	0.086	OK	
19	79	0.00	0.52	0.19	0.099	7.08	0.259	0.0019	1.19	0.087	OK	
20	80	0.00	0.52	0.19	0.099	7.08	0.280	0.0019	1.19	0.097	OK	
21	81	0.00	0.51	0.20	0.102	7.08	0.284	0.0019	1.19	0.099	OK	

VERIFICHE DUTTILITA'											
VERIFICHE DUTTILITA' PILASTRI ED ELEMENTI SECONDARI											
filo	Pilas.	Quota Nodo Infer.	Alfa	Omega	Alfa* Omega	Miu fi	Ni d	Eps syd	bc/b0	secondo membro [7.4.29]	Stato della verifica
22	82	0.00	0.54	0.21	0.115	7.08	0.308	0.0019	1.19	0.110	OK
23	422	10.13	0.43	0.12	0.052	7.08	0.004	0.0019	1.19	-0.033	OK
23	83	0.00	0.45	0.13	0.059	7.08	0.199	0.0019	1.19	0.059	OK
24	84	0.00	0.42	0.15	0.064	7.08	0.116	0.0019	1.19	0.019	OK
25	424	10.13	0.40	0.11	0.046	7.08	0.007	0.0019	1.19	-0.032	OK
25	85	0.00	0.41	0.12	0.050	7.08	0.132	0.0019	1.19	0.027	OK
26	86	0.00	0.43	0.16	0.068	7.08	0.181	0.0019	1.19	0.050	OK
27	87	0.00	0.51	0.20	0.102	7.08	0.287	0.0019	1.19	0.100	OK
30	88	0.00	0.56	0.25	0.136	7.08	0.323	0.0019	1.19	0.117	OK
39	89	0.00	0.43	0.16	0.068	7.08	0.151	0.0019	1.19	0.036	OK
46	90	0.00	0.43	0.12	0.052	7.08	0.137	0.0019	1.19	0.030	OK

VERIFICHE DI DUTTILITA' ASTE IN C.A. - GERARCHIA TRAVE/COLONNA														
VERIFICHE AGGIUNTIVE PER LA GERARCHIA TRAVE/COLONNA DI TELAI IN CLS SISMORESISTENTI														
Nodo3d	Filo	Quota (m)	PilInf Num3d	PilSup Num3d	TravX+ Num3d	TravX- Num3d	TravY+ Num3d	TravY- Num3d	ΣMxc,pl,Rd kg*m	gΣMxb,pl,Rd kg*m	ΣMyc,pl,Rd kg*m	gΣMyb,pl,Rd kg*m	Flag	Verifica
450	1	3.63	61	174									OK	
451	2	3.63	62	175									OK	
452	3	3.63	63	176									OK	
453	4	3.63	64	177	106		111		44287	9184	26119	23519	OK	
454	5	3.63	65	178	113	106					79260	47127	OK	
455	6	3.63	66	179	114	113	112		86403	19690	41467	35458	OK	
456	7	3.63	67	180		114	150		22094	3127	22858	11940	OK	
457	8	3.63	68	181	97		104	99	84080	60902	45616	41022	OK	
458	9	3.63	69	182	102	97	172	173	49094	15752	109374	75680	OK	
459	10	3.63	70	183	130	102	105	143	72182	47216	40291	39171	OK	
460	11	3.63	71	184									OK	
461	12	3.63	72	185									OK	
462	13	3.63	73	186									OK	
463	14	3.63	74	187	107		122	136	29709	18369	26960	7444	OK	
464	15	3.63	75	188	115	107					28218	12083	OK	
465	16	3.63	76	189		115	125	112	89298	35524	42714	7444	OK	
466	17	3.63	77	190	108	130	123	154	27184	21371	28257	21206	OK	
467	18	3.63	78	191	116	108					71264	36071	OK	
468	19	3.63	79	192	118	116	117	125	60700	35524	38971	24369	OK	
469	20	3.63	80	193	109		124	156	44192	27254	25651	10237	OK	
470	21	3.63	81	194	119	109					25998	13473	OK	
471	22	3.63	82	195		119	147	117	81402	39245	40541	7444	OK	
472	23	3.63	83	196	110			145	52135	18079	31027	24566	OK	
473	24	3.63	84	197	120	110					105689	60998	OK	
474	25	3.63	85	198	121	120		147	96505	23519	48083	36995	OK	
475	26	3.63	86	199		121		146	23023	3127	23023	12428	OK	
476	27	3.63	87	200		118	149	148	19614	7656	19614	9184	OK	
477	30	3.63	88	201	127		126	105	66248	47146	34211	7329	OK	
478	39	3.63	89	202		140		137	19429	5936	19429	4534	OK	
479	46	3.63	90	203	144		143	141	66246	47146	35253	4534	OK	
510	1	6.88	174	287									OK	
511	2	6.88	175	288									OK	
512	3	6.88	176	289									OK	
513	4	6.88	177	290	219		224		45741	9184	27305	23519	OK	
514	5	6.88	178	291	226	219					78288	47127	OK	
515	6	6.88	179	292	227	226	225		75625	15175	37034	31682	OK	
516	7	6.88	180	293		227	262		22720	3127	24087	11940	OK	
517	8	6.88	181	294	210		217	212	82253	55029	42841	35483	OK	
518	9	6.88	182	295	215	210	285	286	48946	13914	108029	62806	OK	
519	10	6.88	183	296	243	215	218	255	71358	49133	39842	27268	OK	
520	11	6.88	184	297									OK	
521	12	6.88	185	298									OK	
522	13	6.88	186	299									OK	
523	14	6.88	187	300	220		235	248	28950	18369	26355	7444	OK	
524	15	6.88	188	301	228	220					27783	12083	OK	
525	16	6.88	189	302		228	238	225	87842	33336	42219	7444	OK	
526	17	6.88	190	303	221	243	236	266	26915	21371	27926	23567	OK	
527	18	6.88	191	304	229	221					68467	35399	OK	
528	19	6.88	192	305	231	229	230	238	54465	33237	36031	27797	OK	
529	20	6.88	193	306	222		237	268	43376	24370	25082	10237	OK	
530	21	6.88	194	307	232						25574	13473	OK	
531	22	6.88	195	308		232	259	230	79978	36174	39825	7444	OK	

VERIFICHE DI DUTTILITA' ASTE IN C.A. - GERARCHIA TRAVE/COLONNA													
VERIFICHE AGGIUNTIVE PER LA GERARCHIA TRAVE/COLONNA DI TELAI IN CLS SISMORESISTENTI													
Nodo3d	Filo	Quota (m)	PilInf Num3d	PilSup Num3d	TravX+ Num3d	TravX- Num3d	TravY+ Num3d	TravY- Num3d	ΣMxc,pl,Rd kg*m	gΣMxb,pl,Rd kg*m	ΣMyc,pl,Rd kg*m	gΣMyb,pl,Rd kg*m	Flag Verifica
532	23	6.88	196	309	223			257	47241	15185	28330	24566	OK
533	24	6.88	197	310	233	223					88583	60998	OK
534	25	6.88	198	311	234	233		259	91285	21088	44901	36995	OK
535	26	6.88	199	312		234		258	24082	3127	24082	12428	OK
536	27	6.88	200	313		231	261	260	20407	7656	20407	11940	OK
537	30	6.88	201	314	240		239	218	65631	48987	34268	7329	OK
538	39	6.88	202	315		252		249	19102	5936	19102	3127	OK
539	46	6.88	203	316	256		255	253	60697	49018	33480	5936	OK
570	1	10.13	287	400									OK
571	2	10.13	288	401									OK
572	3	10.13	289	402									OK
574	5	10.13	291	404	339	332					64181	36321	OK
576	7	10.13	293	406		340	376		20595	3127	21428	9184	OK
577	8	10.13	294	407	323		330	325	66508	43252	34602	34580	OK
578	9	10.13	295	408	328	323	384	399	37653	12080	75505	63447	OK
579	10	10.13	296	409	356	328	331	369	60731	43350	33759	35789	Elastico
580	11	10.13	297	410									OK
581	12	10.13	298	411									OK
582	13	10.13	299	412									OK
583	14	10.13	300	413	333		348	362	27994	18369	25813	10237	OK
584	15	10.13	301	414	341	333					26943	13473	OK
585	16	10.13	302	415		341	351	338	86424	30350	41702	8834	OK
586	17	10.13	303	509	334	356	349	380	26615	18369	27399	18312	OK
587	18	10.13	304	417	342	334					55159	33079	OK
588	19	10.13	305	418	344	342	343	351	47813	30245	29302	21368	OK
589	20	10.13	306	419	335		350	382	42579	24370	24219	10237	OK
590	21	10.13	307	420	345	335					24709	13473	OK
591	22	10.13	308	421		345	373	343	78655	33327	39115	7444	OK
593	24	10.13	310	423	346	336					57483	33327	OK
595	26	10.13	312	425		347		372	21415	4534	21415	9184	OK
596	27	10.13	313	426		344	375	374	19738	7656	19738	9184	OK
597	30	10.13	314	427	353		352	331	53171	35524	29068	7329	OK
599	46	10.13	316	428	370		369	367	55182	39300	30405	3127	OK
715	17	13.28	509	416		486					27470	5936	OK

## 2.9 Risultati dell'analisi modale

Di seguito si riportano le caratteristiche che identificano il comportamento dinamico della struttura:

PULSAZIONI E MODI DI VIBRAZIONE													
Modo N.ro	Pulsazione (rad/sec)	Periodo (sec)	Smorz Mod(%)	Sd/g SLO	Sd/g SLD	Sd/g SLV X	Sd/g SLV Y	Sd/g SLC X	Sd/g SLC Y	Piano N.ro	X (m)	Y (m)	Rot (rad)
1	11.141	0.56398	5.0		0.191	0.193	0.193			1	-0.01086	0.016697	-0.00654
										2	-0.02330	0.035181	-0.01404
										3	-0.03263	0.051900	-0.02072
										4	-0.04593	0.063517	-0.02437
2	13.292	0.47269	5.0		0.228	0.230	0.230			1	0.010599	-0.003151	0.000033
										2	0.021941	-0.006068	0.000026
										3	0.032744	-0.008421	-0.000026
										4	0.043097	-0.013982	0.000173
3	14.971	0.41970	5.0		0.241	0.236	0.236			1	0.007803	-0.007423	0.001148
										2	0.016016	-0.016540	0.002430
										3	0.023332	-0.024886	0.003622
										4	0.030383	-0.027240	0.004283
4	47.613	0.13197	5.0		0.224	0.239	0.239			1	-0.005849	0.044387	-0.002449
										2	-0.004826	0.041851	-0.002319
										3	0.003528	-0.016652	0.000858
										4	0.008931	-0.033337	0.005715
5	57.534	0.10921	5.0		0.202	0.243	0.243			1	-0.028045	0.022721	-0.001430
										2	-0.028167	0.017126	-0.001054
										3	0.004504	-0.014325	0.000981
										4	0.060355	0.004000	-0.000765
6	67.527	0.09305	5.0		0.186	0.245	0.245			1	-0.017644	-0.004063	-0.001457
										2	-0.016187	0.001587	-0.001860
										3	0.005521	0.010798	-0.000552
										4	0.022830	-0.042021	0.006119
7	76.315	0.08233	5.0		0.176	0.247	0.247			1	0.005302	0.026336	-0.002517
										2	0.005541	0.002175	-0.001087
										3	-0.005144	-0.026925	0.001886



PULSAZIONI E MODI DI VIBRAZIONE													
Modo N.ro	Pulsazione (rad/sec)	Periodo (sec)	Smorz Mod(%)	Sd/g SLO	Sd/g SLD	Sd/g SLV X	Sd/g SLV Y	Sd/g SLC X	Sd/g SLC Y	Piano N.ro	X (m)	Y (m)	Rot (rad)
8	108.288	0.05802	5.0		0.153	0.251	0.251			4	-0.08976	0.096649	-0.004377
										1	0.032374	-0.051115	0.002796
										2	-0.008260	0.029182	-0.002046
										3	-0.020300	0.008769	-0.000334
9	120.160	0.05229	5.0		0.148	0.251	0.251			4	0.049184	-0.050860	0.002809
										1	-0.019318	-0.017839	-0.000762
										2	0.001992	0.019085	-0.001125
										3	0.019104	-0.012174	0.002357
10	128.302	0.04897	5.0		0.144	0.252	0.252			4	-0.037362	0.014128	-0.003585
										1	-0.001431	0.028717	-0.002725
										2	0.008969	-0.038890	0.002277
										3	-0.011233	0.031116	-0.000765
11	158.443	0.03966	5.0		0.135	0.253	0.253			4	0.024148	-0.060434	0.001641
										1	-0.030541	0.005865	-0.000861
										2	0.038462	-0.010913	0.001603
										3	-0.024517	0.009425	-0.001309
12	202.385	0.03105	5.0		0.127	0.255	0.255			4	0.025574	-0.016065	0.001739
										1	-0.002589	0.004453	0.001746
										2	-0.000099	-0.003143	-0.002228
										3	-0.000134	0.004939	0.000832
										4	0.000796	-0.010076	-0.000190

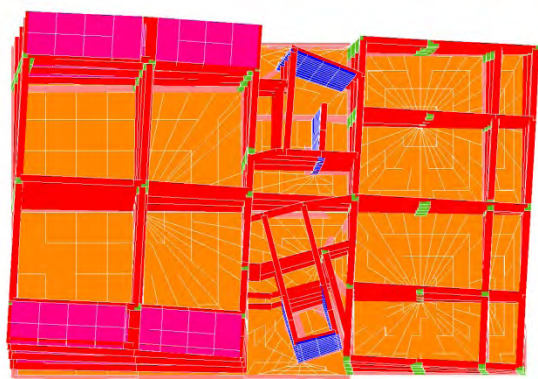
FATTORI E FORZE DI PIANO MODALI S.L.V.									
SISMA DIREZIONE: 0°									
		Massa eccitata (t): 1378.01			Massa totale (t): 1378.01			Rapporto:1	
Modo N.ro	Fattore Modale	Fmod/Fmax (%)	Massa Mod Eff. (t)	Mmod/Mtot %	Piano N.ro	FX (t)	FY (t)	Mt (t*m)	Mom.Ecc. 5% (t*m)
1	7.861	23.90	61.80	4.48	1	1.48	5.53	-39.99	22.54
					2	3.47	13.13	-100.82	46.35
					3	5.69	19.90	-158.28	72.31
					4	1.26	5.36	-29.59	23.82
2	32.897	100.00	1082.22	78.54	1	30.82	-8.23	15.95	
					2	69.94	-18.59	18.33	
					3	111.83	-29.61	-45.44	
					4	36.29	-10.04	18.37	
3	4.127	12.55	17.04	1.24	1	0.57	2.09	24.30	
					2	1.09	3.71	51.29	
					3	1.32	6.46	92.91	
					4	1.04	3.27	27.64	
4	3.591	10.92	12.89	0.94	1	2.55	5.66	-70.04	
					2	2.89	6.38	-75.54	
					3	-0.50	-2.80	31.31	
					4	-1.86	-2.68	36.49	
5	10.555	32.08	111.41	8.08	1	20.24	-6.65	105.92	
					2	24.30	-6.58	77.56	
					3	1.16	4.13	-91.72	
					4	-18.65	1.79	11.43	
6	3.233	9.83	10.45	0.76	1	2.99	6.34	14.25	
					2	2.00	6.03	19.38	
					3	-3.07	-1.70	21.59	
					4	0.64	-3.53	-32.19	
7	6.704	20.38	44.95	3.26	1	12.37	-1.28	-111.12	
					2	8.09	-6.48	-33.24	
					3	-11.70	-4.67	123.49	
					4	2.34	7.25	-55.97	
8	3.677	11.18	13.52	0.98	1	6.14	-7.08	83.01	
					2	1.17	3.01	-60.94	
					3	-7.63	2.12	-7.32	
					4	3.71	-1.42	19.58	
9	2.054	6.25	4.22	0.31	1	3.06	5.33	-3.47	
					2	-1.79	-1.59	21.82	
					3	-1.36	-3.16	-28.63	
					4	1.16	1.96	12.00	
10	2.485	7.56	6.18	0.45	1	3.31	-0.48	-45.06	
					2	-0.95	-3.98	51.50	
					3	-1.95	6.40	-30.15	
					4	1.15	-2.75	9.15	
11	3.303	10.04	10.91	0.79	1	8.45	1.25	13.18	
					2	-10.52	-2.10	-22.63	
					3	6.46	1.85	22.91	
					4	-1.62	-0.67	-10.04	
12	1.559	4.74	2.43	0.18	1	1.89	-3.74	-9.96	

FATTORI E FORZE DI PIANO MODALI S.L.V.									
SISMA DIREZIONE: 0°									
Massa eccitata (t): 1378.01					Massa totale (t): 1378.01		Rapporto:1		
Modo N.ro	Fattore Modale	Fmod/Fmax (%)	Massa Mod Eff. (t)	Mmod/Mtot %	Piano N.ro	FX (t)	FY (t)	Mt (t*m)	Mom.Ecc. 5% (t*m)
					2	-2.05	4.47	11.07	
					3	0.86	-2.51	-4.67	
					4	-0.08	0.57	0.17	

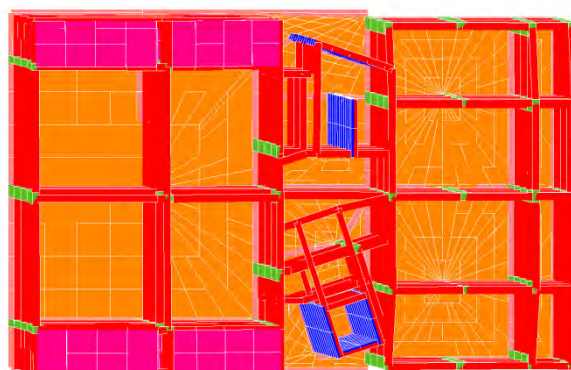
FATTORI E FORZE DI PIANO MODALI S.L.V.									
SISMA DIREZIONE: 90°									
Massa eccitata (t): 1378.01					Massa totale (t): 1378.01		Rapporto:99		
Modo N.ro	Fattore Modale	Fmod/Fmax (%)	Massa Mod Eff. (t)	Mmod/Mtot %	Piano N.ro	FX (t)	FY (t)	Mt (t*m)	Mom.Ecc. 5% (t*m)
1	28.990	100.00	840.40	60.99	1	5.47	20.40	-147.45	34.49
					2	12.80	48.42	-371.79	70.90
					3	21.00	73.38	-583.69	110.62
					4	4.66	19.78	-109.10	36.44
2	8.787	30.31	77.21	5.60	1	-8.23	2.20	-4.26	
					2	-18.68	4.97	-4.90	
					3	-29.87	7.91	12.14	
					4	-9.69	2.68	-4.91	
3	15.947	55.01	254.30	18.45	1	2.21	8.08	93.91	
					2	4.21	14.33	198.17	
					3	5.09	24.95	358.97	
					4	4.02	12.64	106.79	
4	7.621	26.29	58.07	4.21	1	5.41	12.00	-148.63	
					2	6.14	13.53	-160.32	
					3	-1.06	-5.95	66.44	
					4	-3.94	-5.69	77.44	
5	2.855	9.85	8.15	0.59	1	-5.47	1.80	-28.65	
					2	-6.57	1.78	-20.98	
					3	-0.31	-1.12	24.81	
					4	5.04	-0.48	-3.09	
6	9.019	31.11	81.34	5.90	1	8.35	17.69	39.75	
					2	5.58	16.83	54.06	
					3	-8.56	-4.73	60.22	
					4	1.79	-9.84	-89.80	
7	3.135	10.81	9.83	0.71	1	-5.78	0.60	51.96	
					2	-3.78	3.03	15.54	
					3	5.47	2.18	-57.74	
					4	-1.09	-3.39	26.17	
8	3.666	12.64	13.44	0.98	1	-6.12	7.06	-82.76	
					2	-1.17	-3.00	60.76	
					3	7.61	-2.11	7.30	
					4	-3.70	1.42	-19.52	
9	4.917	16.96	24.18	1.75	1	7.32	12.77	-8.31	
					2	-4.29	-3.81	52.22	
					3	-3.27	-7.57	-68.52	
					4	2.78	4.70	28.72	
10	1.285	4.43	1.65	0.12	1	-1.71	0.25	23.29	
					2	0.49	2.06	-26.62	
					3	1.01	-3.31	15.59	
					4	-0.59	1.42	-4.73	
11	0.394	1.36	0.16	0.01	1	1.01	0.15	1.57	
					2	-1.26	-0.25	-2.70	
					3	0.77	0.22	2.74	
					4	-0.19	-0.08	-1.20	
12	3.047	10.51	9.29	0.67	1	-3.69	7.31	19.46	
					2	4.01	-8.74	-21.63	
					3	-1.68	4.90	9.13	
					4	0.15	-1.11	-0.33	

Modo n.1

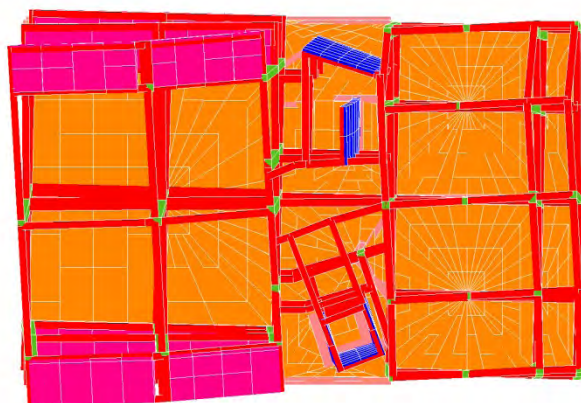
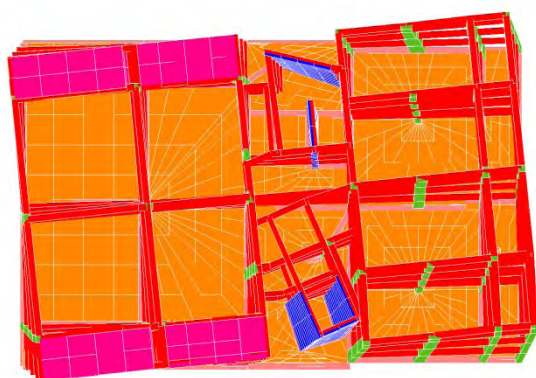
Modo n.2



Modo n.3

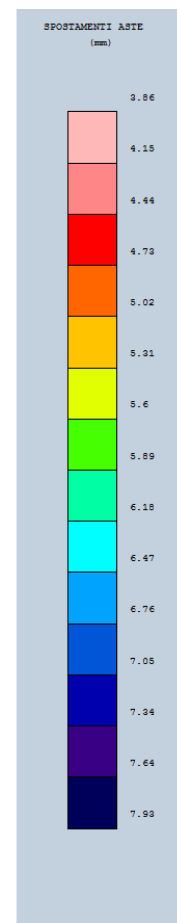
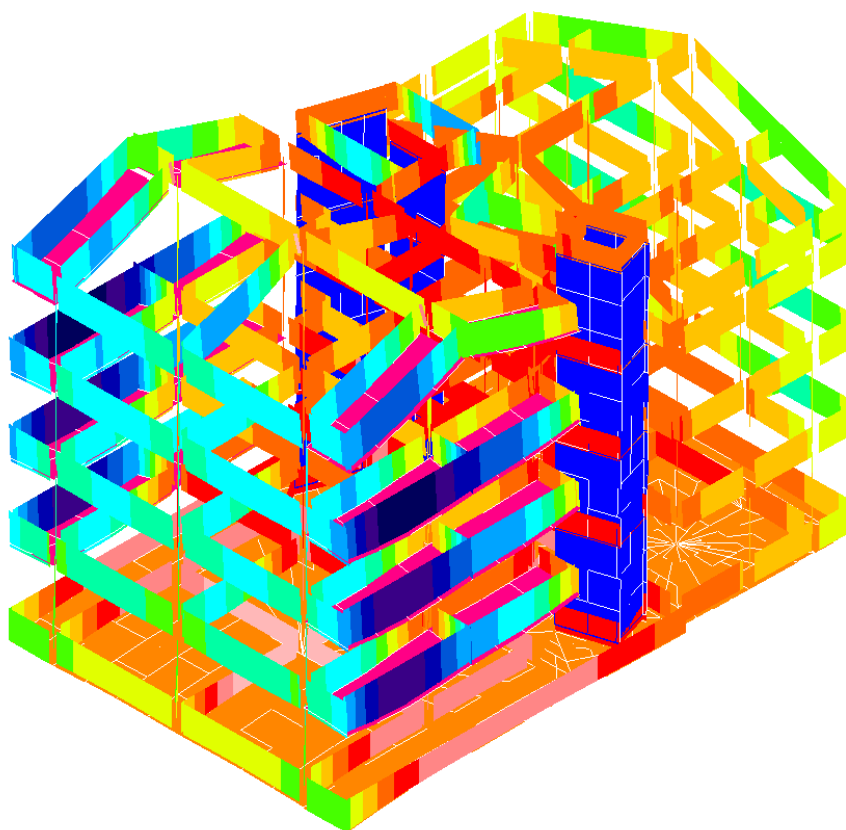


Modo n.4

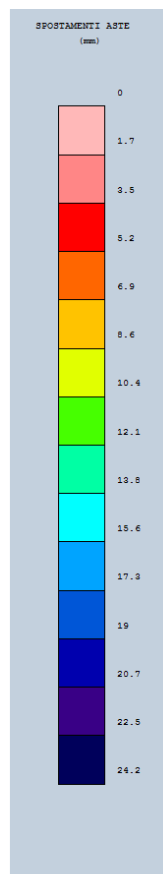
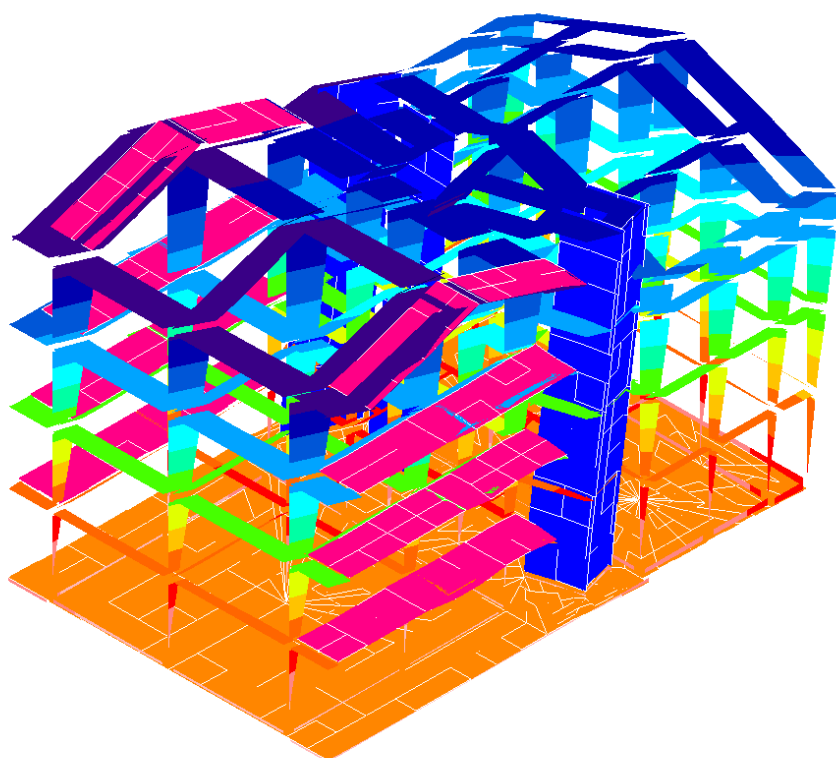


## **2.10 Deformate e sollecitazioni per condizioni di carico inviluppo delle sollecitazioni maggiormente significative**

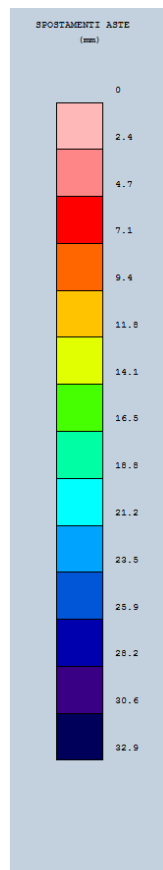
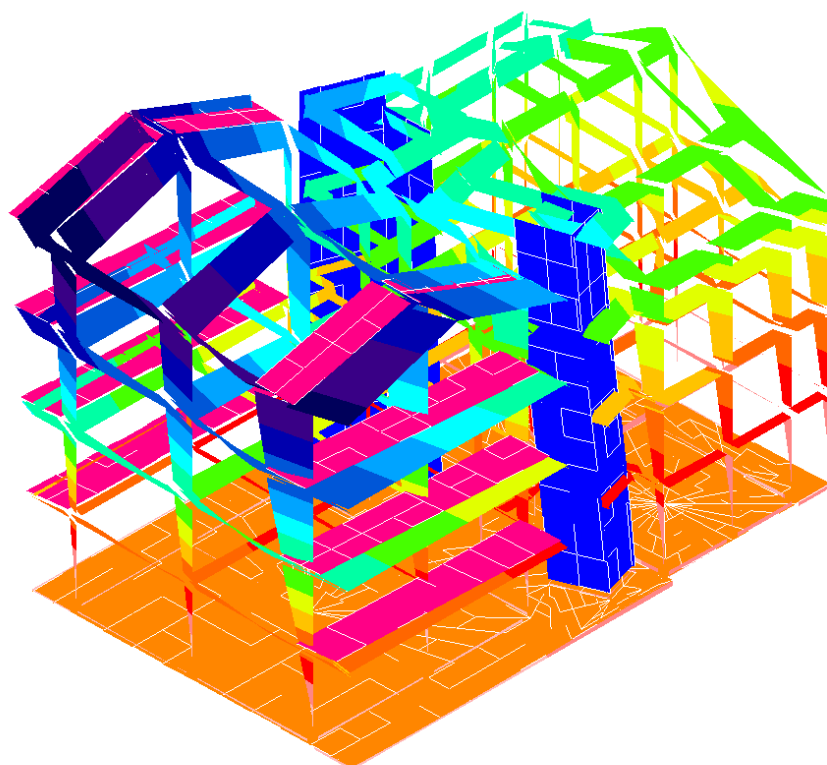
### **Deformata - Condizione Statica**



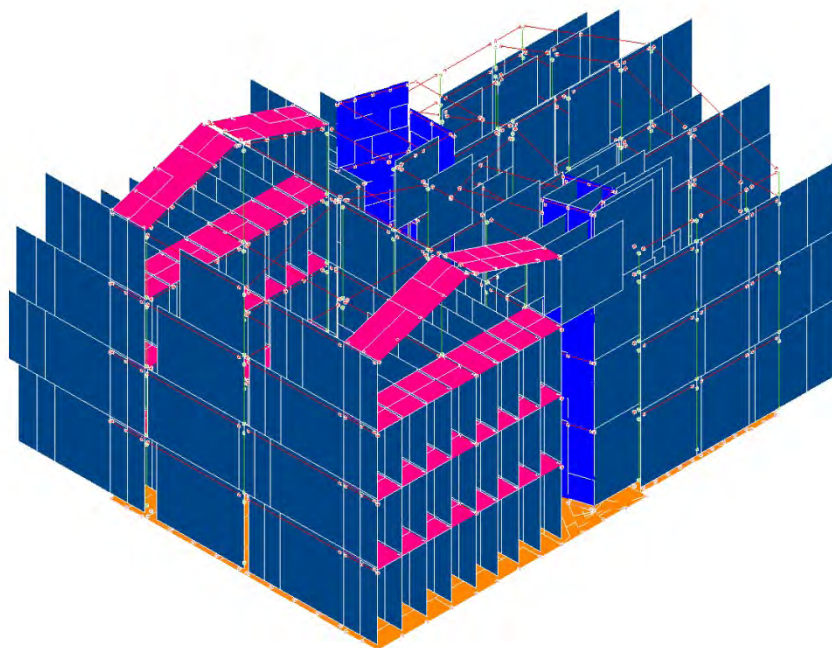
**Deformata - Condizione Sismica Dir1**



**Deformata - Condizione Sismica Dir2**



Di seguito si riportano le considerazioni svolte per la verifica allo SLD della struttura:



SPOSTAMENTI SISMICI RELATIVI													
IDENTIFICATIVO					INVILUPPO S.L.D.				INVILUPPO S.L.O.				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sis ma N.ro	Com bin N.ro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sis ma N.ro	Com bin N.ro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
1	0.00	3.63	5	450	2	37	10.383	18.150					VERIFICATO
1	3.63	6.88	450	510	2	37	11.383	16.250					VERIFICATO
1	6.88	10.13	510	570	2	37	10.312	16.250					VERIFICATO
1	10.13	13.42	570	630	2	41	7.967	16.450					VERIFICATO
2	0.00	3.63	6	451	2	37	8.249	18.150					VERIFICATO
2	3.63	6.88	451	511	2	37	8.973	16.250					VERIFICATO
2	6.88	10.13	511	571	2	37	8.176	16.250					VERIFICATO
3	0.00	3.63	7	452	2	37	6.821	18.150					VERIFICATO
3	3.63	6.88	452	512	2	37	7.314	16.250					VERIFICATO
3	6.88	10.13	512	572	2	37	6.729	16.250					VERIFICATO
3	10.13	13.42	572	632	1	21	6.391	16.450					VERIFICATO
4	0.00	3.63	19	453	1	21	6.614	18.150					VERIFICATO
4	3.63	6.88	453	513	1	21	7.043	16.250					VERIFICATO
4	6.88	10.13	513	573	1	21	6.617	16.250					VERIFICATO
5	0.00	3.63	20	454	1	21	6.461	18.150					VERIFICATO
5	3.63	6.88	454	514	1	21	6.890	16.250					VERIFICATO
5	6.88	10.13	514	574	1	21	6.503	16.250					VERIFICATO
6	0.00	3.63	21	455	1	21	6.374	18.150					VERIFICATO
6	3.63	6.88	455	515	1	21	6.811	16.250					VERIFICATO
6	6.88	10.13	515	575	1	21	6.452	16.250					VERIFICATO
7	0.00	3.63	24	456	1	21	6.345	18.150					VERIFICATO
7	3.63	6.88	456	516	1	21	6.791	16.250					VERIFICATO
7	6.88	10.13	516	576	1	21	6.444	16.250					VERIFICATO
8	0.00	3.63	4	457	2	37	9.546	18.150					VERIFICATO
8	3.63	6.88	457	517	2	37	10.535	16.250					VERIFICATO
8	6.88	10.13	517	577	2	37	9.526	16.250					VERIFICATO
8	10.13	13.42	577	637	2	41	7.027	16.450					VERIFICATO
9	0.00	3.63	12	458	2	41	7.171	18.150					VERIFICATO
9	3.63	6.88	458	518	2	41	7.880	16.250					VERIFICATO
10	0.00	3.63	9	459	2	41	5.553	18.150					VERIFICATO
10	3.63	6.88	459	519	2	41	5.968	16.250					VERIFICATO
10	6.88	10.13	519	579	2	34	5.545	16.250					VERIFICATO
10	10.13	13.42	579	639	1	21	4.908	16.450					VERIFICATO

**SPOSTAMENTI SISMICI RELATIVI**

IDENTIFICATIVO					INVILUPPO S.L.D.				INVILUPPO S.L.O.				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
11	0.00	3.63	1	460	2	37	9.833	18.150					VERIFICATO
11	3.63	6.88	460	520	2	37	10.888	16.250					VERIFICATO
11	6.88	10.13	520	580	2	37	9.850	16.250					VERIFICATO
11	10.13	13.42	580	640	2	41	7.077	16.450					VERIFICATO
12	0.00	3.63	2	461	2	34	7.804	18.150					VERIFICATO
12	3.63	6.88	461	521	2	34	8.775	16.250					VERIFICATO
12	6.88	10.13	521	581	2	34	8.180	16.250					VERIFICATO
13	0.00	3.63	3	462	2	34	6.800	18.150					VERIFICATO
13	3.63	6.88	462	522	2	34	7.595	16.250					VERIFICATO
13	6.88	10.13	522	582	2	34	7.144	16.250					VERIFICATO
13	10.13	13.42	582	642	2	41	4.724	16.450					VERIFICATO
14	0.00	3.63	18	463	1	21	6.022	18.150					VERIFICATO
14	3.63	6.88	463	523	1	21	6.449	16.250					VERIFICATO
14	6.88	10.13	523	583	1	15	5.483	16.250					VERIFICATO
14	10.13	12.50	583	643	1	21	5.775	11.850					VERIFICATO
15	0.00	3.63	272	464	1	21	5.854	18.150					VERIFICATO
15	3.63	6.88	464	524	1	21	6.281	16.250					VERIFICATO
15	6.88	10.13	524	584	1	15	5.473	16.250					VERIFICATO
15	10.13	12.50	584	644	1	21	5.599	11.850					VERIFICATO
16	0.00	3.63	22	465	1	20	5.763	18.150					VERIFICATO
16	3.63	6.88	465	525	1	20	6.249	16.250					VERIFICATO
16	6.88	10.13	525	585	1	15	5.462	16.250					VERIFICATO
16	10.13	12.50	585	645	1	21	5.477	11.850					VERIFICATO
17	0.00	3.63	17	466	1	18	5.159	18.150					VERIFICATO
17	3.63	6.88	466	526	1	18	5.643	16.250					VERIFICATO
17	6.88	10.13	526	586	1	18	5.498	16.250					VERIFICATO
17	10.13	13.88	586	646	1	15	4.624	18.750					VERIFICATO
18	0.00	3.63	30	467	1	18	5.181	18.150					VERIFICATO
18	3.63	6.88	467	527	1	18	5.682	16.250					VERIFICATO
18	6.88	10.13	527	587	1	18	5.548	16.250					VERIFICATO
18	10.13	13.88	587	647	1	15	4.598	18.750					VERIFICATO
19	0.00	3.63	25	468	1	18	5.200	18.150					VERIFICATO
19	3.63	6.88	468	528	1	18	5.717	16.250					VERIFICATO
19	6.88	10.13	528	588	1	18	5.597	16.250					VERIFICATO
19	10.13	13.88	588	648	1	15	4.591	18.750					VERIFICATO
20	0.00	3.63	15	469	1	18	5.714	18.150					VERIFICATO
20	3.63	6.88	469	529	1	18	6.411	16.250					VERIFICATO
20	6.88	10.13	529	589	1	18	6.293	16.250					VERIFICATO
20	10.13	12.50	589	649	1	18	4.336	11.850					VERIFICATO
21	0.00	3.63	131	470	1	18	5.734	18.150					VERIFICATO
21	3.63	6.88	470	530	1	18	6.445	16.250					VERIFICATO
21	6.88	10.13	530	590	1	18	6.336	16.250					VERIFICATO
21	10.13	12.50	590	650	1	18	4.327	11.850					VERIFICATO
22	0.00	3.63	26	471	1	18	5.751	18.150					VERIFICATO
22	3.63	6.88	471	531	1	18	6.476	16.250					VERIFICATO
22	6.88	10.13	531	591	1	18	6.379	16.250					VERIFICATO
22	10.13	12.50	591	651	1	18	4.320	11.850					VERIFICATO
23	0.00	3.63	13	472	2	34	6.701	18.150					VERIFICATO
23	3.63	6.88	472	532	2	34	7.519	16.250					VERIFICATO
23	6.88	10.13	532	592	2	34	7.117	16.250					VERIFICATO
24	0.00	3.63	23	473	2	34	6.471	18.150					VERIFICATO
24	3.63	6.88	473	533	2	34	7.269	16.250					VERIFICATO
24	6.88	10.13	533	593	1	18	7.075	16.250					VERIFICATO
25	0.00	3.63	27	474	2	34	6.376	18.150					VERIFICATO
25	3.63	6.88	474	534	1	18	7.222	16.250					VERIFICATO
25	6.88	10.13	534	594	1	18	7.114	16.250					VERIFICATO
26	0.00	3.63	28	475	2	34	6.368	18.150					VERIFICATO
26	3.63	6.88	475	535	1	18	7.235	16.250					VERIFICATO
26	6.88	10.13	535	595	1	18	7.135	16.250					VERIFICATO
27	0.00	3.63	29	476	1	18	5.209	18.150					VERIFICATO
27	3.63	6.88	476	536	1	18	5.735	16.250					VERIFICATO
27	6.88	10.13	536	596	1	18	5.623	16.250					VERIFICATO



**SPOSTAMENTI SISMICI RELATIVI**

IDENTIFICATIVO					INVILUPPO S.L.D.				INVILUPPO S.L.O.				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
27	10.13	13.88	596	656	1	15	4.593	18.750					VERIFICATO
28	0.00	3.63	49	947	2	34	6.693	18.150					VERIFICATO
28	3.63	6.88	947	1026	2	34	7.486	16.250					VERIFICATO
28	6.88	10.13	1026	673	2	34	7.066	16.250					VERIFICATO
29	0.00	3.63	50	948	2	34	6.508	18.150					VERIFICATO
29	3.63	6.88	948	1027	2	34	7.271	16.250					VERIFICATO
29	6.88	10.13	1027	674	2	34	6.873	16.250					VERIFICATO
30	0.00	3.63	10	477	2	34	5.758	18.150					VERIFICATO
30	3.63	6.88	477	537	2	34	6.335	16.250					VERIFICATO
30	6.88	10.13	537	597	2	34	5.953	16.250					VERIFICATO
30	10.13	13.42	597	657	1	21	4.756	16.450					VERIFICATO
31	0.00	3.63	38	480	2	34	5.854	18.150					VERIFICATO
31	3.63	6.88	480	540	2	34	6.484	16.250					VERIFICATO
31	6.88	10.13	540	600	1	18	6.315	16.250					VERIFICATO
32	0.00	3.63	39	481	1	18	5.312	18.150					VERIFICATO
32	3.63	6.88	481	541	1	18	5.893	16.250					VERIFICATO
32	6.88	10.13	541	601	1	18	5.773	16.250					VERIFICATO
33	0.00	3.63	37	482	2	34	6.883	18.150					VERIFICATO
33	3.63	6.88	482	542	2	34	7.707	16.250					VERIFICATO
33	6.88	10.13	542	602	2	34	7.266	16.250					VERIFICATO
34	0.00	3.63	36	483	2	34	6.160	18.150					VERIFICATO
34	3.63	6.88	483	543	2	34	6.866	16.250					VERIFICATO
34	6.88	10.13	543	603	1	18	6.650	16.250					VERIFICATO
35	0.00	3.63	41	493	2	34	6.667	18.150					VERIFICATO
35	3.63	6.88	493	553	2	34	7.436	16.250					VERIFICATO
35	6.88	10.13	553	613	2	34	6.995	16.250					VERIFICATO
36	3.63	6.88	496	556	2	34	7.136	16.250					VERIFICATO
36	6.88	10.13	556	616	2	34	6.733	16.250					VERIFICATO
37	3.63	6.88	495	555	2	34	7.197	16.250					VERIFICATO
37	6.88	10.13	555	615	2	34	6.786	16.250					VERIFICATO
38	3.63	6.88	494	554	2	34	6.051	16.250					VERIFICATO
38	6.88	10.13	554	614	1	18	5.786	16.250					VERIFICATO
39	0.00	3.63	42	478	1	15	5.241	18.150					VERIFICATO
39	3.63	6.88	478	538	1	15	5.626	16.250					VERIFICATO
39	6.88	10.13	538	598	1	15	5.401	16.250					VERIFICATO
40	0.00	3.63	51	949	2	34	6.331	18.150					VERIFICATO
40	3.63	6.88	949	1028	2	34	7.065	16.250					VERIFICATO
40	6.88	10.13	1028	675	1	18	6.700	16.250					VERIFICATO
41	3.63	6.88	489	549	1	21	6.831	16.250					VERIFICATO
41	6.88	10.13	549	609	1	21	6.449	16.250					VERIFICATO
42	3.63	10.13	499	619	1	21	13.250	32.500					VERIFICATO
43	3.63	6.88	497	557	1	15	5.723	16.250					VERIFICATO
43	6.88	10.13	557	617	1	15	5.462	16.250					VERIFICATO
44	0.00	3.63	14	492	2	34	6.080	18.150					VERIFICATO
44	3.63	6.88	492	552	2	34	6.773	16.250					VERIFICATO
44	6.88	10.13	552	612	1	18	6.627	16.250					VERIFICATO
45	3.63	6.88	488	548	2	37	7.070	16.250					VERIFICATO
45	6.88	10.13	548	608	1	21	6.530	16.250					VERIFICATO
46	0.00	3.63	8	479	2	41	5.525	18.150					VERIFICATO
46	3.63	6.88	479	539	2	41	5.931	16.250					VERIFICATO
46	6.88	10.13	539	599	1	21	5.582	16.250					VERIFICATO
46	10.13	13.42	599	658	1	21	6.010	16.450					VERIFICATO
47	3.63	6.88	500	560	1	21	5.810	16.250					VERIFICATO
47	6.88	10.13	560	620	1	21	5.517	16.250					VERIFICATO
48	3.63	6.88	501	561	1	18	6.492	16.250					VERIFICATO
48	6.88	10.13	561	621	1	18	6.402	16.250					VERIFICATO
48	10.13	12.48	621	692	1	18	4.317	11.750					VERIFICATO
49	3.63	6.88	502	562	1	20	6.331	16.250					VERIFICATO
49	6.88	10.13	562	622	1	15	5.454	16.250					VERIFICATO
49	10.13	12.48	622	691	1	21	5.425	11.750					VERIFICATO
50	3.63	6.88	490	550	1	15	5.594	16.250					VERIFICATO
50	6.88	10.13	550	610	1	15	5.384	16.250					VERIFICATO



**SPOSTAMENTI SISMICI RELATIVI**

IDENTIFICATIVO					INVILUPPO S.L.D.				INVILUPPO S.L.O.				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
51	0.00	3.63	16	491	1	18	5.322	18.150					VERIFICATO
51	3.63	6.88	491	551	1	18	5.909	16.250					VERIFICATO
51	6.88	10.13	551	611	1	18	5.793	16.250					VERIFICATO
52	0.00	3.63	35	505	2	37	10.699	18.150					VERIFICATO
52	3.63	6.88	505	563	2	37	11.720	16.250					VERIFICATO
52	6.88	10.13	563	623	2	37	10.607	16.250					VERIFICATO
52	10.13	13.42	623	698	2	41	8.213	16.450					VERIFICATO
53	0.00	3.63	40	503	2	37	8.644	18.150					VERIFICATO
53	3.63	6.88	503	564	2	37	9.397	16.250					VERIFICATO
53	6.88	10.13	564	624	2	37	8.546	16.250					VERIFICATO
54	0.00	3.63	47	504	2	37	7.295	18.150					VERIFICATO
54	3.63	6.88	504	565	2	37	7.830	16.250					VERIFICATO
54	6.88	10.13	565	625	2	37	7.175	16.250					VERIFICATO
54	10.13	13.42	625	697	1	21	6.718	16.450					VERIFICATO
55	0.00	3.63	43	506	2	37	10.052	18.150					VERIFICATO
55	3.63	6.88	506	566	2	37	11.144	16.250					VERIFICATO
55	6.88	10.13	566	626	2	34	10.310	16.250					VERIFICATO
55	10.13	13.42	626	702	2	41	7.143	16.450					VERIFICATO
56	0.00	3.63	44	508	2	34	8.354	18.150					VERIFICATO
56	3.63	6.88	508	568	2	34	9.429	16.250					VERIFICATO
56	6.88	10.13	568	628	2	34	8.798	16.250					VERIFICATO
57	0.00	3.63	45	507	2	34	7.424	18.150					VERIFICATO
57	3.63	6.88	507	567	2	34	8.342	16.250					VERIFICATO
57	6.88	10.13	567	627	2	34	7.843	16.250					VERIFICATO
57	10.13	13.42	627	701	2	41	4.822	16.450					VERIFICATO
61	0.00	3.63	31	484	1	21	6.347	18.150					VERIFICATO
61	3.63	6.88	484	544	1	21	6.781	16.250					VERIFICATO
61	6.88	10.13	544	604	1	21	6.405	16.250					VERIFICATO
61	10.13	13.88	604	659	1	21	6.083	18.750					VERIFICATO
62	0.00	3.63	32	487	1	21	6.117	18.150					VERIFICATO
62	3.63	6.88	487	547	1	21	6.545	16.250					VERIFICATO
62	6.88	10.13	547	607	1	15	5.491	16.250					VERIFICATO
62	10.13	13.88	607	662	1	21	5.866	18.750					VERIFICATO
63	0.00	3.63	33	486	1	21	6.460	18.150					VERIFICATO
63	3.63	6.88	486	546	1	21	6.887	16.250					VERIFICATO
63	6.88	10.13	546	606	1	21	6.493	16.250					VERIFICATO
63	10.13	13.88	606	661	1	21	6.199	18.750					VERIFICATO
64	0.00	3.63	34	485	1	21	6.685	18.150					VERIFICATO
64	3.63	6.88	485	545	1	21	7.119	16.250					VERIFICATO
64	6.88	10.13	545	605	1	21	6.675	16.250					VERIFICATO
64	10.13	13.88	605	660	1	21	6.409	18.750					VERIFICATO
69	3.63	6.88	509	569	1	21	6.741	16.250					VERIFICATO
69	6.88	10.13	569	629	1	21	6.374	16.250					VERIFICATO
70	3.63	6.88	498	558	1	15	5.739	16.250					VERIFICATO
70	6.88	10.13	558	618	1	15	5.472	16.250					VERIFICATO
126	0.00	3.63	99	936	1	18	5.520	18.150					VERIFICATO
126	3.63	6.88	936	1015	1	18	6.161	16.250					VERIFICATO
126	6.88	10.13	1015	663	1	18	6.041	16.250					VERIFICATO
469	0.00	3.63	444	966	1	21	6.281	18.150					VERIFICATO
469	3.63	6.88	966	1045	1	21	6.708	16.250					VERIFICATO
469	6.88	10.13	1045	1120	1	21	6.350	16.250					VERIFICATO
469	10.13	13.88	1120	1176	1	21	6.029	18.750					VERIFICATO
473	0.00	3.63	448	956	1	21	6.510	18.150					VERIFICATO
473	3.63	6.88	956	1035	1	21	6.942	16.250					VERIFICATO
473	6.88	10.13	1035	1110	1	21	6.533	16.250					VERIFICATO
473	10.13	13.88	1110	1169	1	21	6.243	18.750					VERIFICATO
474	0.00	3.63	449	961	1	21	6.570	18.150					VERIFICATO
474	3.63	6.88	961	1040	1	21	7.000	16.250					VERIFICATO
474	6.88	10.13	1040	1115	1	21	6.581	16.250					VERIFICATO
474	10.13	13.88	1115	1179	1	21	6.303	18.750					VERIFICATO
475	0.00	3.63	716	997	2	34	8.171	18.150					VERIFICATO
475	3.63	6.88	997	1055	2	34	9.199	16.250					VERIFICATO

**SPOSTAMENTI SISMICI RELATIVI**

I D E N T I F I C A T I V O					I N V I L U P P O S . L . D .				I N V I L U P P O S . L . O .				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
475	6.88	10.13	1055	1130	2	34	8.556	16.250					VERIFICATO
476	0.00	3.63	717	994	2	37	8.670	18.150					VERIFICATO
476	3.63	6.88	994	1052	2	34	9.643	16.250					VERIFICATO
476	6.88	10.13	1052	1127	2	34	8.951	16.250					VERIFICATO
477	0.00	3.63	718	991	2	37	9.248	18.150					VERIFICATO
477	3.63	6.88	991	1049	2	37	10.235	16.250					VERIFICATO
477	6.88	10.13	1049	1124	2	34	9.362	16.250					VERIFICATO
511	0.00	3.63	752	970	2	37	8.760	18.150					VERIFICATO
511	3.63	6.88	970	1074	2	37	9.552	16.250					VERIFICATO
511	6.88	10.13	1074	1149	2	37	8.688	16.250					VERIFICATO
512	0.00	3.63	753	973	2	37	9.288	18.150					VERIFICATO
512	3.63	6.88	973	1071	2	37	10.148	16.250					VERIFICATO
512	6.88	10.13	1071	1146	2	37	9.217	16.250					VERIFICATO
513	0.00	3.63	754	976	2	37	9.830	18.150					VERIFICATO
513	3.63	6.88	976	1068	2	37	10.759	16.250					VERIFICATO
513	6.88	10.13	1068	1143	2	37	9.758	16.250					VERIFICATO
514	0.00	3.63	755	967	2	37	8.436	18.150					VERIFICATO
514	3.63	6.88	967	1077	2	37	9.173	16.250					VERIFICATO
514	6.88	10.13	1077	1152	2	37	8.350	16.250					VERIFICATO
515	0.00	3.63	756	969	2	37	8.937	18.150					VERIFICATO
515	3.63	6.88	969	1075	2	37	9.740	16.250					VERIFICATO
515	6.88	10.13	1075	1150	2	37	8.853	16.250					VERIFICATO
516	0.00	3.63	757	972	2	37	9.455	18.150					VERIFICATO
516	3.63	6.88	972	1072	2	37	10.326	16.250					VERIFICATO
516	6.88	10.13	1072	1147	2	37	9.372	16.250					VERIFICATO
517	0.00	3.63	758	975	2	37	9.987	18.150					VERIFICATO
517	3.63	6.88	975	1069	2	37	10.927	16.250					VERIFICATO
517	6.88	10.13	1069	1144	2	37	9.905	16.250					VERIFICATO
518	0.00	3.63	759	977	2	37	10.532	18.150					VERIFICATO
518	3.63	6.88	977	1067	2	37	11.541	16.250					VERIFICATO
518	6.88	10.13	1067	1142	2	37	10.450	16.250					VERIFICATO
518	10.13	13.42	1142	1202	2	41	8.086	16.450					VERIFICATO
519	0.00	3.63	760	968	2	37	9.133	18.150					VERIFICATO
519	3.63	6.88	968	1076	2	37	9.951	16.250					VERIFICATO
519	6.88	10.13	1076	1151	2	37	9.037	16.250					VERIFICATO
520	0.00	3.63	761	971	2	37	9.641	18.150					VERIFICATO
520	3.63	6.88	971	1073	2	37	10.525	16.250					VERIFICATO
520	6.88	10.13	1073	1148	2	37	9.546	16.250					VERIFICATO
521	0.00	3.63	762	974	2	37	10.163	18.150					VERIFICATO
521	3.63	6.88	974	1070	2	37	11.116	16.250					VERIFICATO
521	6.88	10.13	1070	1145	2	37	10.070	16.250					VERIFICATO
522	0.00	3.63	763	995	2	46	8.702	18.150					VERIFICATO
522	3.63	6.88	995	1053	2	34	9.825	16.250					VERIFICATO
522	6.88	10.13	1053	1128	2	34	9.148	16.250					VERIFICATO
523	0.00	3.63	764	992	2	46	9.083	18.150					VERIFICATO
523	3.63	6.88	992	1050	2	34	10.242	16.250					VERIFICATO
523	6.88	10.13	1050	1125	2	34	9.518	16.250					VERIFICATO
524	0.00	3.63	765	989	2	46	9.483	18.150					VERIFICATO
524	3.63	6.88	989	1047	2	34	10.678	16.250					VERIFICATO
524	6.88	10.13	1047	1122	2	34	9.906	16.250					VERIFICATO
525	0.00	3.63	766	998	2	34	8.073	18.150					VERIFICATO
525	3.63	6.88	998	1056	2	34	9.095	16.250					VERIFICATO
525	6.88	10.13	1056	1131	2	34	8.483	16.250					VERIFICATO
526	0.00	3.63	767	996	2	34	8.428	18.150					VERIFICATO
526	3.63	6.88	996	1054	2	34	9.504	16.250					VERIFICATO
526	6.88	10.13	1054	1129	2	34	8.846	16.250					VERIFICATO
527	0.00	3.63	768	993	2	46	8.816	18.150					VERIFICATO
527	3.63	6.88	993	1051	2	34	9.935	16.250					VERIFICATO
527	6.88	10.13	1051	1126	2	34	9.228	16.250					VERIFICATO
528	0.00	3.63	769	990	2	37	9.356	18.150					VERIFICATO
528	3.63	6.88	990	1048	2	34	10.384	16.250					VERIFICATO
528	6.88	10.13	1048	1123	2	34	9.628	16.250					VERIFICATO

**SPOSTAMENTI SISMICI RELATIVI**

I D E N T I F I C A T I V O					I N V I L U P P O S . L . D .				I N V I L U P P O S . L . O .				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sis ma Nro	Com bin Nro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
529	0.00	3.63	770	988	2	37	9.936	18.150					VERIFICATO
529	3.63	6.88	988	1046	2	37	11.008	16.250					VERIFICATO
529	6.88	10.13	1046	1121	2	34	10.043	16.250					VERIFICATO
529	10.13	13.42	1121	1180	2	41	7.106	16.450					VERIFICATO
530	0.00	3.63	771	1007	2	34	7.018	18.150					VERIFICATO
530	3.63	6.88	1007	1065	2	34	7.847	16.250					VERIFICATO
530	6.88	10.13	1065	1140	2	34	7.365	16.250					VERIFICATO
531	0.00	3.63	772	1004	2	34	7.255	18.150					VERIFICATO
531	3.63	6.88	1004	1062	2	34	8.120	16.250					VERIFICATO
531	6.88	10.13	1062	1137	2	34	7.605	16.250					VERIFICATO
532	0.00	3.63	773	1001	2	34	7.507	18.150					VERIFICATO
532	3.63	6.88	1001	1059	2	34	8.428	16.250					VERIFICATO
532	6.88	10.13	1059	1134	2	34	7.873	16.250					VERIFICATO
582	0.00	3.63	823	985	2	37	7.829	18.150					VERIFICATO
582	3.63	6.88	985	1078	2	37	8.489	16.250					VERIFICATO
582	6.88	10.13	1078	1153	2	37	7.749	16.250					VERIFICATO
583	0.00	3.63	824	986	2	37	7.475	18.150					VERIFICATO
583	3.63	6.88	986	1081	2	37	8.058	16.250					VERIFICATO
583	6.88	10.13	1081	1156	2	37	7.376	16.250					VERIFICATO
584	0.00	3.63	825	987	2	37	7.138	18.150					VERIFICATO
584	3.63	6.88	987	1084	2	37	7.675	16.250					VERIFICATO
584	6.88	10.13	1084	1159	2	37	7.042	16.250					VERIFICATO
594	0.00	3.63	835	1000	2	34	7.786	18.150					VERIFICATO
594	3.63	6.88	1000	1058	2	34	8.761	16.250					VERIFICATO
594	6.88	10.13	1058	1133	2	34	8.187	16.250					VERIFICATO
595	0.00	3.63	836	1003	2	34	7.543	18.150					VERIFICATO
595	3.63	6.88	1003	1061	2	34	8.465	16.250					VERIFICATO
595	6.88	10.13	1061	1136	2	34	7.929	16.250					VERIFICATO
596	0.00	3.63	837	1006	2	34	7.316	18.150					VERIFICATO
596	3.63	6.88	1006	1064	2	34	8.203	16.250					VERIFICATO
596	6.88	10.13	1064	1139	2	34	7.699	16.250					VERIFICATO
597	0.00	3.63	838	1008	2	34	7.106	18.150					VERIFICATO
597	3.63	6.88	1008	1066	2	34	7.962	16.250					VERIFICATO
597	6.88	10.13	1066	1141	2	34	7.488	16.250					VERIFICATO
597	10.13	13.42	1141	1201	2	41	4.768	16.450					VERIFICATO
598	0.00	3.63	839	999	2	34	8.077	18.150					VERIFICATO
598	3.63	6.88	999	1057	2	34	9.107	16.250					VERIFICATO
598	6.88	10.13	1057	1132	2	34	8.513	16.250					VERIFICATO
599	0.00	3.63	840	1002	2	34	7.843	18.150					VERIFICATO
599	3.63	6.88	1002	1060	2	34	8.823	16.250					VERIFICATO
599	6.88	10.13	1060	1135	2	34	8.265	16.250					VERIFICATO
600	0.00	3.63	841	1005	2	34	7.625	18.150					VERIFICATO
600	3.63	6.88	1005	1063	2	34	8.572	16.250					VERIFICATO
600	6.88	10.13	1063	1138	2	34	8.045	16.250					VERIFICATO
663	0.00	3.63	904	984	2	37	7.047	18.150					VERIFICATO
663	3.63	6.88	984	1087	2	37	7.560	16.250					VERIFICATO
663	6.88	10.13	1087	1162	2	37	6.940	16.250					VERIFICATO
663	10.13	13.42	1162	1223	1	21	6.553	16.450					VERIFICATO
683	0.00	3.63	924	983	2	37	7.354	18.150					VERIFICATO
683	3.63	6.88	983	1085	2	37	7.909	16.250					VERIFICATO
683	6.88	10.13	1085	1160	2	37	7.244	16.250					VERIFICATO
684	0.00	3.63	925	982	2	37	7.681	18.150					VERIFICATO
684	3.63	6.88	982	1082	2	37	8.281	16.250					VERIFICATO
684	6.88	10.13	1082	1157	2	37	7.569	16.250					VERIFICATO
685	0.00	3.63	926	981	2	37	8.026	18.150					VERIFICATO
685	3.63	6.88	981	1079	2	37	8.701	16.250					VERIFICATO
685	6.88	10.13	1079	1154	2	37	7.933	16.250					VERIFICATO
686	0.00	3.63	927	980	2	37	7.592	18.150					VERIFICATO
686	3.63	6.88	980	1086	2	37	8.168	16.250					VERIFICATO
686	6.88	10.13	1086	1161	2	37	7.469	16.250					VERIFICATO
687	0.00	3.63	928	979	2	37	7.909	18.150					VERIFICATO
687	3.63	6.88	979	1083	2	37	8.529	16.250					VERIFICATO

SPOSTAMENTI SISMICI RELATIVI													
IDENTIFICATIVO					INVILUPPO S.L.D.				INVILUPPO S.L.O.				Stringa di Controllo Verifica
Filo N.ro	Quota inf. (m)	Quota sup. (m)	Nodo inf. N.ro	Nodo sup. N.ro	Sisma N.ro	Combin. N.ro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	Sisma N.ro	Combin. N.ro	Spostam. Calcolo (mm)	Spostam. Limite (mm)	
687	6.88	10.13	1083	1158	2	37	7.784	16.250					VERIFICATO
688	0.00	3.63	929	978	2	37	8.244	18.150					VERIFICATO
688	3.63	6.88	978	1080	2	37	8.936	16.250					VERIFICATO
688	6.88	10.13	1080	1155	2	37	8.138	16.250					VERIFICATO

Di seguito si riportano anche le verifiche condotte in termini di spostamenti allo SLV per dimensionare il giunto sismico fra i due corpi, divisi da uno spazio di 15 cm:

SPOSTAMENTI S.L.V. PER GIUNTI SISMICI (NTC 7.3.3.3)											
Sisma Direzione X $\mu_d=2.76$ - Direzione Y $\mu_d=2.76$											
IDENTIFICATIVO			SPOSTAMENTI S.L.U.			IDENTIFICATIVO			SPOSTAMENTI S.L.U.		
Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)	Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)
1	3.63	450	15.46	26.34	28.55	2	3.63	451	15.46	19.87	22.72
3	3.63	452	15.46	15.22	18.79	4	3.63	453	16.36	12.05	18.08
5	3.63	454	16.36	11.59	17.66	6	3.63	455	16.36	11.90	17.42
7	3.63	456	16.36	12.42	17.34	8	3.63	457	14.03	26.34	26.39
9	3.63	458	14.03	19.87	19.93	10	3.63	459	14.03	15.22	15.30
11	3.63	460	16.52	26.34	27.20	12	3.63	461	16.52	19.87	21.64
13	3.63	462	16.52	15.22	18.75	14	3.63	463	14.63	12.05	16.53
15	3.63	464	14.63	11.59	16.07	16	3.63	465	14.63	11.90	15.88
17	3.63	466	14.03	12.05	14.16	18	3.63	467	14.03	11.59	14.24
19	3.63	468	14.03	11.90	14.32	20	3.63	469	15.67	12.05	15.79
21	3.63	470	15.67	11.59	15.86	22	3.63	471	15.67	11.90	15.93
23	3.63	472	17.39	12.05	18.43	24	3.63	473	17.39	11.59	17.75
25	3.63	474	17.39	11.90	17.63	26	3.63	475	17.39	12.42	17.66
27	3.63	476	14.03	12.42	14.35	30	3.63	477	14.60	15.22	15.81
39	3.63	478	14.21	12.49	14.31	46	3.63	479	14.41	15.22	15.23
31	3.63	480	15.76	12.66	16.04	32	3.63	481	14.53	12.66	14.61
33	3.63	482	17.04	14.01	18.97	34	3.63	483	16.51	12.15	16.90
61	3.63	484	14.94	13.67	17.41	64	3.63	485	16.13	13.11	18.29
63	3.63	486	15.82	12.18	17.68	62	3.63	487	14.67	12.39	16.79
45	3.63	488	14.89	15.22	18.20	41	3.63	489	15.75	12.05	17.53
50	3.63	490	14.13	12.05	14.21	51	3.63	491	14.53	12.05	14.65
44	3.63	492	16.44	12.05	16.67	35	3.63	493	16.29	15.22	18.38
38	3.63	494	14.60	14.18	15.11	37	3.63	495	16.29	14.18	17.78
36	3.63	496	16.29	13.90	17.62	43	3.63	497	14.51	12.28	14.60
70	3.63	498	14.55	12.43	14.65	42	3.63	499	14.89	14.18	17.51
47	3.63	500	14.41	14.63	14.89	48	3.63	501	15.67	12.42	15.96
49	3.63	502	14.63	12.42	16.04	53	3.63	503	16.53	19.87	23.75
54	3.63	504	16.53	15.23	20.03	52	3.63	505	16.53	26.34	29.38
55	3.63	506	17.57	26.34	27.80	57	3.63	507	17.57	15.22	20.51
56	3.63	508	17.57	19.87	23.18	69	3.63	509	14.80	13.74	17.31
1	6.88	510	31.95	55.45	59.93	2	6.88	511	31.95	41.66	47.47
3	6.88	512	31.95	31.61	38.94	4	6.88	513	33.78	24.72	37.38
5	6.88	514	33.78	23.76	36.52	6	6.88	515	33.78	24.50	36.06
7	6.88	516	33.78	25.70	35.92	8	6.88	517	29.37	55.45	55.55
9	6.88	518	29.37	41.66	41.80	10	6.88	519	29.37	31.61	31.79
11	6.88	520	35.11	55.45	57.36	12	6.88	521	35.11	41.66	45.91
13	6.88	522	35.11	31.61	39.68	14	6.88	523	30.27	24.72	34.25
15	6.88	524	30.27	23.76	33.31	16	6.88	525	30.27	24.50	33.06
17	6.88	526	29.37	24.72	29.66	18	6.88	527	29.37	23.76	29.86
19	6.88	528	29.37	24.50	30.05	20	6.88	529	33.21	24.72	33.46
21	6.88	530	33.21	23.76	33.65	22	6.88	531	33.21	24.50	33.81
23	6.88	532	37.07	24.72	39.10	24	6.88	533	37.07	23.76	37.70
25	6.88	534	37.07	24.50	37.61	26	6.88	535	37.07	25.70	37.68
27	6.88	536	29.37	25.70	30.15	30	6.88	537	30.81	31.61	33.24
39	6.88	538	29.50	25.76	29.72	46	6.88	539	29.85	31.61	31.63
31	6.88	540	33.42	26.12	33.84	32	6.88	541	30.64	26.12	30.83
33	6.88	542	36.29	29.00	40.20	34	6.88	543	35.08	24.93	35.75
61	6.88	544	30.91	28.28	36.04	64	6.88	545	33.32	27.10	37.82
63	6.88	546	32.69	25.00	36.57	62	6.88	547	30.35	25.46	34.78
45	6.88	548	30.79	31.60	37.70	41	6.88	549	32.54	24.72	36.27
50	6.88	550	29.35	24.72	29.53	51	6.88	551	30.64	24.72	30.91
44	6.88	552	34.94	24.72	35.26	35	6.88	553	34.60	31.61	38.87

SPOSTAMENTI S.L.V. PER GIUNTI SISMICI (NTC 7.3.3.3)											
Sisma Direzione X $\mu d=2.76$ - Direzione Y $\mu d=2.76$											
IDENTIFICATIVO			SPOSTAMENTI S.L.U.			IDENTIFICATIVO			SPOSTAMENTI S.L.U.		
Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)	Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)
38	6.88	554	30.80	29.38	31.73	37	6.88	555	34.60	29.38	37.59
36	6.88	556	34.60	28.78	37.26	43	6.88	557	30.05	25.21	30.25
70	6.88	558	30.13	25.58	30.34	68	6.88	559	29.76	29.18	30.44
47	6.88	560	29.85	30.35	30.89	48	6.88	561	33.21	25.70	33.90
49	6.88	562	30.27	25.70	33.45	52	6.88	563	34.13	55.45	61.66
53	6.88	564	34.13	41.66	49.63	54	6.88	565	34.13	31.62	41.56
55	6.88	566	37.45	55.45	58.67	57	6.88	567	37.45	31.61	43.53
56	6.88	568	37.45	41.66	49.27	69	6.88	569	30.62	28.44	35.84
1	10.13	570	47.44	81.74	88.34	2	10.13	571	47.44	61.47	70.00
3	10.13	572	47.44	46.69	57.46	4	10.13	573	50.01	36.64	55.51
5	10.13	574	50.01	35.38	54.32	6	10.13	575	50.01	36.64	53.69
7	10.13	576	50.01	38.49	53.52	8	10.13	577	44.29	81.74	81.90
9	10.13	578	44.19	61.42	61.63	10	10.13	579	44.29	46.69	46.96
11	10.13	580	53.32	81.74	84.62	12	10.13	581	53.32	61.47	68.49
13	10.13	582	53.32	46.69	59.33	14	10.13	583	45.10	36.64	45.41
15	10.13	584	45.10	35.38	45.30	16	10.13	585	45.10	36.64	45.20
17	10.13	586	44.29	36.64	44.76	18	10.13	587	44.29	35.38	45.11
19	10.13	588	44.29	36.64	45.45	20	10.13	589	50.38	36.64	50.79
21	10.13	590	50.38	35.38	51.11	22	10.13	591	50.38	36.64	51.40
23	10.13	592	56.33	36.64	58.63	24	10.13	593	56.33	35.38	56.98
25	10.13	594	56.33	36.64	57.24	26	10.13	595	56.33	38.49	57.38
27	10.13	596	44.29	38.49	45.62	30	10.13	597	46.66	46.69	49.60
39	10.13	598	44.15	38.16	44.51	46	10.13	599	44.60	46.69	46.72
31	10.13	600	50.71	38.69	50.98	32	10.13	601	46.40	38.69	46.70
33	10.13	602	55.13	42.89	60.17	34	10.13	603	53.28	36.92	53.63
61	10.13	604	45.99	41.83	53.63	64	10.13	605	49.36	40.11	56.12
63	10.13	606	48.48	37.02	54.37	62	10.13	607	45.21	37.70	51.87
45	10.13	608	45.82	46.67	55.67	41	10.13	609	48.27	36.64	53.95
50	10.13	610	43.97	36.64	44.28	51	10.13	611	46.40	36.64	46.85
44	10.13	612	53.05	36.64	53.44	35	10.13	613	52.53	46.69	58.11
38	10.13	614	46.65	43.43	47.38	37	10.13	615	52.53	43.43	56.24
36	10.13	616	52.53	42.56	55.75	43	10.13	617	44.86	37.32	45.19
70	10.13	618	44.95	37.90	45.31	42	10.13	619	45.82	43.44	53.93
47	10.13	620	44.60	44.85	46.08	48	10.13	621	50.38	38.49	51.55
49	10.13	622	45.10	38.49	45.14	52	10.13	623	50.51	81.74	90.86
53	10.13	624	50.51	61.47	73.15	54	10.13	625	50.51	46.70	61.27
55	10.13	626	56.93	81.74	86.78	57	10.13	627	56.93	46.69	65.11
56	10.13	628	56.93	61.47	73.55	69	10.13	629	45.58	42.07	53.35
1	13.42	630	62.47	100.74	109.98	2	14.96	631	62.44	80.48	91.63
3	13.42	632	62.47	59.30	73.91	4	11.34	633	53.70	43.71	61.16
5	11.34	634	53.65	40.71	58.96	6	11.34	635	53.75	43.24	58.06
7	11.34	636	53.77	44.96	58.19	8	13.42	637	56.18	100.74	100.88
9	14.96	638	56.46	80.44	80.61	10	13.42	639	56.18	59.30	59.53
11	13.42	640	64.76	100.74	103.53	12	14.96	641	64.59	80.44	84.11
13	13.42	642	64.76	59.30	71.27	14	12.50	643	59.26	46.99	66.96
15	12.50	644	59.26	45.05	65.12	16	12.50	645	59.26	45.83	64.01
17	13.88	646	56.18	46.99	56.79	18	13.88	647	56.18	45.05	57.10
19	13.88	648	56.18	45.83	57.37	20	12.50	649	61.71	46.99	62.26
21	12.50	650	61.71	45.05	62.54	22	12.50	651	61.71	45.83	62.79
23	11.34	652	60.46	42.66	63.76	24	11.34	653	60.43	40.70	61.20
25	11.34	654	60.50	43.65	61.65	26	11.34	655	60.51	45.07	61.65
27	13.88	656	56.18	47.52	57.49	30	13.42	657	57.89	59.30	60.59
46	13.42	658	58.19	59.30	60.88	61	13.88	659	60.49	53.49	70.34
64	13.88	660	65.04	51.41	73.72	63	13.88	661	63.87	47.49	71.39
62	13.88	662	59.41	48.49	67.96	126	10.13	663	48.53	38.69	48.81
126	11.18	664	52.69	42.70	53.02	32	11.18	665	50.21	42.70	50.55
126	12.23	666	56.50	46.72	56.88	32	12.23	667	54.13	46.72	54.52
31	13.28	668	62.71	50.74	63.12	126	13.28	669	60.08	50.74	60.50
31	11.18	670	55.14	42.71	55.46	31	12.23	671	59.04	46.72	59.40
32	13.28	672	57.57	50.73	58.01	28	10.13	673	54.67	41.02	58.44
29	10.13	674	54.20	39.23	56.77	40	10.13	675	53.74	37.60	55.15
28	11.18	676	60.61	45.02	64.44	29	11.18	677	60.13	43.17	62.71
40	11.18	678	59.65	41.41	61.04	34	11.18	679	59.17	40.72	59.57
28	12.23	680	66.55	48.95	70.39	29	12.23	681	66.04	47.05	68.60
40	12.23	682	65.55	45.26	66.90	34	12.23	683	65.07	44.47	65.51
33	13.28	684	73.01	54.80	78.17	28	13.28	685	72.45	52.75	76.22
29	13.28	686	71.94	50.86	74.43	40	13.28	687	71.45	49.07	72.73
33	11.18	688	61.08	46.96	66.22	33	12.23	689	67.07	50.98	72.28
34	13.28	690	70.96	48.19	71.45	49	12.48	691	59.25	47.52	64.36
48	12.48	692	61.71	47.52	62.90	75	15.10	693	56.62	82.54	82.70
60	13.42	694	56.58	59.32	59.80	76	15.10	695	64.66	82.56	85.92

SPOSTAMENTI S.L.V. PER GIUNTI SISMICI (NTC 7.3.3.3)											
Sisma Direzione X $\mu d=2.76$ - Direzione Y $\mu d=2.76$											
IDENTIFICATIVO			SPOSTAMENTI S.L.U.			IDENTIFICATIVO			SPOSTAMENTI S.L.U.		
Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)	Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)
77	15.10	696	62.51	82.63	93.52	54	13.42	697	66.58	59.32	78.64
52	13.42	698	66.58	100.74	113.21	53	14.96	699	66.73	80.47	95.51
78	15.10	700	66.68	82.60	97.27	57	13.42	701	68.52	59.30	77.70
55	13.42	702	68.52	100.74	105.60	56	14.96	703	68.51	80.42	89.65
79	15.10	704	68.46	82.53	90.91	58	13.28	705	55.74	51.33	56.29
59	13.28	706	56.47	56.98	58.97	66	13.28	707	57.86	54.44	58.16
51	13.28	709	57.57	48.72	58.20	65	13.28	711	57.86	55.71	58.32
67	13.42	712	57.45	59.35	59.97	44	13.28	713	64.81	48.72	65.36
17	13.28	715	55.72	46.39	56.30	31	1.21	930	3.29	3.49	3.70
126	1.21	931	3.20	3.34	3.43	32	1.21	932	2.94	3.48	3.50
31	2.42	933	9.03	7.79	9.39	126	2.42	934	8.82	7.74	8.87
32	2.42	935	8.65	7.79	8.71	126	3.63	936	15.13	12.66	15.22
33	1.21	937	4.30	3.07	4.58	28	1.21	938	4.18	3.04	4.41
29	1.21	939	4.20	3.00	4.40	40	1.21	940	4.23	2.95	4.40
34	1.21	941	4.37	2.88	4.55	33	2.42	942	10.31	8.00	10.94
28	2.42	943	10.16	7.70	10.62	29	2.42	944	10.06	7.44	10.31
40	2.42	945	10.04	7.29	10.16	34	2.42	946	10.04	7.13	10.18
28	3.63	947	16.91	13.41	18.43	29	3.63	948	16.77	12.83	17.90
40	3.63	949	16.64	12.37	17.39	61	1.21	950	4.00	4.13	4.94
473	1.21	951	4.37	3.94	5.06	64	1.21	952	4.74	3.93	5.36
61	2.42	953	9.29	8.78	10.92	473	2.42	954	9.75	8.50	11.21
64	2.42	955	10.16	8.32	11.51	473	3.63	956	15.52	13.39	17.83
474	1.21	957	4.68	3.78	5.28	63	1.21	958	4.76	3.69	5.33
474	2.42	959	10.10	7.96	11.37	63	2.42	960	10.09	7.77	11.27
474	3.63	961	15.98	12.46	17.98	469	1.21	962	4.33	3.66	4.95
62	1.21	963	3.96	3.74	4.68	469	2.42	964	9.61	7.83	10.87
62	2.42	965	9.14	7.94	9.19	469	3.63	966	15.23	12.28	17.22
514	3.63	967	15.99	19.87	23.21	519	3.63	968	16.53	21.46	25.10
515	3.63	969	15.99	21.46	24.58	511	3.63	970	15.46	21.46	24.12
520	3.63	971	16.53	23.07	26.49	516	3.63	972	15.99	23.07	26.00
512	3.63	973	15.46	23.07	25.56	521	3.63	974	16.53	24.70	27.92
517	3.63	975	15.99	24.70	27.45	513	3.63	976	15.46	24.70	27.04
518	3.63	977	15.99	26.34	28.94	688	3.63	978	16.53	18.54	22.65
687	3.63	979	16.53	17.40	21.73	686	3.63	980	16.53	16.29	20.85
685	3.63	981	15.99	18.54	22.08	684	3.63	982	15.99	17.40	21.13
683	3.63	983	15.99	16.29	20.23	663	3.63	984	15.99	15.22	19.38
582	3.63	985	15.46	18.54	21.57	583	3.63	986	15.46	17.40	20.59
584	3.63	987	15.46	16.29	19.66	529	3.63	988	17.04	26.34	27.48
524	3.63	989	17.57	24.70	26.27	528	3.63	990	17.04	24.70	25.91
477	3.63	991	16.52	24.70	25.61	523	3.63	992	17.57	23.07	25.19
527	3.63	993	17.04	23.07	24.47	476	3.63	994	16.52	23.07	24.04
522	3.63	995	17.57	21.46	24.16	526	3.63	996	17.04	21.46	23.40
475	3.63	997	16.52	21.46	22.68	525	3.63	998	17.04	19.87	22.39
598	3.63	999	17.57	18.54	22.39	594	3.63	1000	17.04	18.54	21.57
532	3.63	1001	16.52	18.54	20.79	599	3.63	1002	17.57	17.40	21.72
595	3.63	1003	17.04	17.40	20.87	531	3.63	1004	16.52	17.40	20.06
600	3.63	1005	17.57	16.29	21.09	596	3.63	1006	17.04	16.29	20.22
530	3.63	1007	16.52	16.29	19.38	597	3.63	1008	17.04	15.22	19.62
31	4.71	1009	21.70	17.12	21.99	126	4.71	1010	20.74	17.10	20.86
32	4.71	1011	19.69	17.11	19.81	31	5.80	1012	27.52	21.63	27.89
126	5.80	1013	26.43	21.63	26.57	32	5.80	1014	25.50	21.63	25.65
126	6.88	1015	32.01	26.12	32.19	33	4.71	1016	23.38	19.20	26.17
28	4.71	1017	23.16	18.38	25.40	29	4.71	1018	22.97	17.59	24.67
40	4.71	1019	22.79	16.86	23.98	34	4.71	1020	22.65	16.56	23.33
33	5.80	1021	29.84	24.25	33.32	28	5.80	1022	29.56	23.15	32.30
29	5.80	1023	29.30	22.12	31.34	40	5.80	1024	29.06	21.19	30.44
34	5.80	1025	28.84	20.80	29.58	28	6.88	1026	35.98	27.72	39.03
29	6.88	1027	35.68	26.49	37.90	40	6.88	1028	35.38	25.40	36.80
61	4.71	1029	20.14	18.45	23.50	473	4.71	1030	20.93	18.05	24.05
64	4.71	1031	21.72	17.70	24.64	61	5.80	1032	25.54	23.41	29.78
473	5.80	1033	26.51	22.89	30.47	64	5.80	1034	27.50	22.39	31.21
473	6.88	1035	32.08	27.68	36.89	474	4.71	1036	21.52	16.81	24.24
63	4.71	1037	21.35	16.40	23.88	474	5.80	1038	27.25	21.26	30.70
63	5.80	1039	27.00	20.70	30.21	474	6.88	1040	33.00	25.70	37.18
469	4.71	1041	20.54	16.52	23.23	62	4.71	1042	19.76	16.68	22.64
469	5.80	1043	26.02	20.89	29.44	62	5.80	1044	25.08	21.09	28.73
469	6.88	1045	31.48	25.22	35.63	529	6.88	1046	36.28	55.45	57.97
524	6.88	1047	37.45	51.95	55.87	528	6.88	1048	36.28	51.95	54.63
477	6.88	1049	35.11	51.95	53.98	523	6.88	1050	37.45	48.48	53.57
527	6.88	1051	36.28	48.48	52.00	476	6.88	1052	35.11	48.48	50.65
522	6.88	1053	37.45	45.05	51.37	526	6.88	1054	36.28	45.05	49.72

SPOSTAMENTI S.L.V. PER GIUNTI SISMICI (NTC 7.3.3.3)											
Sisma Direzione X $\mu d=2.76$ - Direzione Y $\mu d=2.76$											
IDENTIFICATIVO			SPOSTAMENTI S.L.U.			IDENTIFICATIVO			SPOSTAMENTI S.L.U.		
Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)	Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)
475	6.88	1055	35.11	45.05	48.15	525	6.88	1056	36.28	41.66	47.55
598	6.88	1057	37.45	38.78	47.56	594	6.88	1058	36.28	38.78	45.78
532	6.88	1059	35.11	38.78	44.08	599	6.88	1060	37.45	36.27	46.10
595	6.88	1061	36.28	36.27	44.26	531	6.88	1062	35.11	36.27	42.49
600	6.88	1063	37.45	33.90	44.76	596	6.88	1064	36.28	33.90	42.86
530	6.88	1065	35.11	33.90	41.03	597	6.88	1066	36.28	31.61	41.57
518	6.88	1067	33.02	55.45	60.75	513	6.88	1068	31.95	51.95	56.71
517	6.88	1069	33.02	51.95	57.57	521	6.88	1070	34.13	51.95	58.53
512	6.88	1071	31.95	48.48	53.55	516	6.88	1072	33.02	48.48	54.46
520	6.88	1073	34.13	48.48	55.48	511	6.88	1074	31.95	45.05	50.47
515	6.88	1075	33.02	45.05	51.43	519	6.88	1076	34.13	45.05	52.51
514	6.88	1077	33.02	41.66	48.49	582	6.88	1078	31.95	38.78	44.96
685	6.88	1079	33.02	38.79	46.04	688	6.88	1080	34.13	38.79	47.24
583	6.88	1081	31.95	36.27	42.81	684	6.88	1082	33.02	36.28	43.95
687	6.88	1083	34.13	36.28	45.20	584	6.88	1084	31.95	33.90	40.82
683	6.88	1085	33.02	33.90	42.01	686	6.88	1086	34.13	33.91	43.32
663	6.88	1087	33.02	31.61	40.18	31	7.96	1088	39.46	30.37	39.79
126	7.96	1089	37.71	30.39	37.92	32	7.96	1090	35.88	30.37	36.10
31	9.05	1091	45.36	34.55	45.60	126	9.05	1092	43.43	34.56	43.68
32	9.05	1093	41.70	34.55	41.96	33	7.96	1094	42.56	33.70	46.89
28	7.96	1095	42.22	32.22	45.56	29	7.96	1096	41.87	30.80	44.24
40	7.96	1097	41.51	29.54	42.97	34	7.96	1098	41.15	29.00	41.73
33	9.05	1099	48.90	38.42	53.68	28	9.05	1100	48.47	36.70	52.08
29	9.05	1101	48.05	35.06	50.55	40	9.05	1102	47.63	33.60	49.08
34	9.05	1103	47.21	32.99	47.67	61	7.96	1104	36.09	32.95	42.08
473	7.96	1105	37.42	32.31	43.05	64	7.96	1106	38.80	31.64	44.08
61	9.05	1107	41.08	37.57	47.93	473	9.05	1108	42.62	36.81	49.06
64	9.05	1109	44.17	36.00	50.21	473	10.13	1110	47.63	40.96	54.82
474	7.96	1111	38.45	30.02	43.38	63	7.96	1112	38.09	29.20	42.69
474	9.05	1113	43.78	34.18	49.42	63	9.05	1114	43.36	33.24	48.64
474	10.13	1115	48.92	38.08	55.22	469	7.96	1116	36.75	29.45	41.65
62	7.96	1117	35.47	29.68	40.67	469	9.05	1118	41.86	33.54	47.49
62	9.05	1119	40.39	33.83	46.36	469	10.13	1120	46.79	37.34	53.06
529	10.13	1121	55.12	81.74	85.54	524	10.13	1122	56.93	76.60	83.26
528	10.13	1123	55.12	76.60	80.98	477	10.13	1124	53.32	76.60	79.66
523	10.13	1125	56.93	71.49	79.87	527	10.13	1126	55.12	71.49	77.49
476	10.13	1127	53.32	71.49	75.23	522	10.13	1128	56.93	66.45	76.62
526	10.13	1129	55.12	66.45	74.14	475	10.13	1130	53.32	66.45	71.78
525	10.13	1131	55.12	61.47	70.96	598	10.13	1132	56.93	57.23	71.04
594	10.13	1133	55.12	57.23	68.36	532	10.13	1134	53.32	57.23	65.79
599	10.13	1135	56.93	53.52	68.88	595	10.13	1136	55.12	53.52	66.11
531	10.13	1137	53.32	53.52	63.44	600	10.13	1138	56.93	50.04	66.91
596	10.13	1139	55.12	50.04	64.06	530	10.13	1140	53.32	50.04	61.31
597	10.13	1141	55.12	46.69	62.18	518	10.13	1142	48.95	81.74	89.52
513	10.13	1143	47.44	76.60	83.60	517	10.13	1144	48.95	76.60	84.85
521	10.13	1145	50.51	76.60	86.25	512	10.13	1146	47.44	71.49	78.95
516	10.13	1147	48.95	71.49	80.27	520	10.13	1148	50.51	71.49	81.76
511	10.13	1149	47.44	66.45	74.41	515	10.13	1150	48.95	66.45	75.81
519	10.13	1151	50.51	66.45	77.38	514	10.13	1152	48.95	61.47	71.49
582	10.13	1153	47.44	57.23	66.32	685	10.13	1154	48.95	57.24	67.89
688	10.13	1155	50.51	57.24	69.63	583	10.13	1156	47.44	53.52	63.14
684	10.13	1157	48.95	53.52	64.78	687	10.13	1158	50.51	53.53	66.62
584	10.13	1159	47.44	50.04	60.22	683	10.13	1160	48.95	50.04	61.94
686	10.13	1161	50.51	50.05	63.86	663	10.13	1162	48.95	46.69	59.27
61	11.38	1163	51.06	45.94	59.46	473	11.38	1164	52.86	45.07	60.78
64	11.38	1165	54.75	44.13	62.19	61	12.63	1166	55.62	49.84	64.81
473	12.63	1167	57.77	48.84	66.39	64	12.63	1168	59.94	47.85	68.02
473	13.88	1169	62.72	52.44	71.97	63	11.38	1170	53.76	40.74	60.26
469	11.38	1171	51.94	41.10	58.85	62	11.38	1172	50.22	41.47	57.54
63	12.63	1173	58.86	44.19	65.89	469	12.63	1174	56.74	44.56	64.25
62	12.63	1175	54.67	45.08	62.67	469	13.88	1176	61.58	47.88	69.61
474	11.38	1177	54.26	41.95	61.22	474	12.63	1178	59.40	45.51	66.93
474	13.88	1179	64.45	48.95	72.54	529	13.42	1180	66.63	100.74	104.49
689	13.84	1181	68.78	96.02	101.11	690	13.84	1182	66.99	96.03	99.96
691	13.84	1183	65.24	96.04	98.96	692	14.26	1184	68.79	91.41	97.03
693	14.26	1185	66.94	91.42	95.53	694	14.26	1186	65.14	91.42	94.48
695	14.68	1187	68.63	86.91	93.92	696	14.68	1188	66.71	86.91	91.22
697	14.68	1189	64.83	86.92	90.12	698	15.10	1190	66.54	82.53	88.12
525	14.96	1191	66.53	80.43	86.82	598	14.57	1192	68.59	74.60	86.25
594	14.57	1193	66.59	74.60	83.27	532	14.57	1194	64.61	74.60	80.44
599	14.19	1195	68.67	69.32	83.24	595	14.19	1196	66.77	69.32	80.19

SPOSTAMENTI S.L.V. PER GIUNTI SISMICI (NTC 7.3.3.3)											
Sisma Direzione X $\mu d=2.76$ - Direzione Y $\mu d=2.76$											
IDENTIFICATIVO			SPOSTAMENTI S.L.U.			IDENTIFICATIVO			SPOSTAMENTI S.L.U.		
Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)	Filo N.ro	Quota (m)	Nodo3D N.ro	SpMax X (mm)	SpMax Y (mm)	SpMax R (mm)
531	14.19	1197	64.91	69.32	77.28	600	13.81	1198	68.67	64.21	80.40
596	13.81	1199	66.86	64.20	77.27	530	13.81	1200	65.10	64.20	74.28
597	13.42	1201	66.63	59.30	74.43	518	13.42	1202	64.50	100.74	111.51
699	13.84	1203	63.21	96.03	105.88	700	13.84	1204	65.06	96.04	107.43
701	13.84	1205	66.99	96.05	109.15	702	14.26	1206	63.11	91.46	101.68
703	14.26	1207	65.04	91.46	103.31	704	14.26	1208	67.05	91.46	105.13
705	14.68	1209	62.70	86.99	97.50	706	14.68	1210	64.76	86.99	99.23
707	14.68	1211	66.88	86.99	101.15	708	15.10	1212	64.55	82.61	95.29
514	14.96	1213	64.55	80.47	93.47	582	14.57	1214	62.50	74.62	86.60
685	14.57	1215	64.63	74.62	88.56	688	14.57	1216	66.83	74.63	90.74
583	14.19	1217	62.87	69.37	82.31	684	14.19	1218	64.85	69.37	84.32
687	14.19	1219	66.92	69.37	86.56	584	13.81	1220	63.07	64.27	78.17
683	13.81	1221	64.92	64.26	80.25	686	13.81	1222	66.88	64.26	82.54
663	13.42	1223	64.50	59.31	76.17						

## 2.11 Reazioni vincolari

Di seguito si riportano le reazioni vincolari delle combinazioni ritenute più significative:

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
1	-4.318	2.201				0.209
2	-2.525	3.729				-0.011
3	-1.483	2.048				-0.216
4	-1.232	0.105				-0.010
5	-4.890	-2.091				-0.221
6	-3.648	-3.615				-0.011
7	-2.802	-1.865				0.175
8	0.287	-0.896				0.019
9	-1.438	0.680				-0.010
10	0.871	0.712				-0.097
11	0.000	0.000				0.000
12	-2.492	0.048				-0.009
13	0.876	2.088				0.078
14	0.000	0.000				0.000
15	0.693	1.409				-0.010
16	0.000	0.000				0.000
17	0.342	0.356				-0.004



REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
18	0.603	-0.374				-0.004
19	1.258	-1.186				-0.136
20	2.053	-0.875				-0.010
21	1.014	-4.256				-0.165
22	0.974	-1.967				-0.107
23	2.472	1.198				-0.016
24	0.468	-0.060				-0.004
25	0.815	-0.387				-0.010
26	0.892	1.290				0.079
27	0.856	3.807				0.116
28	0.438	-0.005				-0.004
29	0.486	-0.082				-0.004
30	0.977	-0.007				-0.009
31	1.977	-6.294				-0.029
32	2.688	-8.388				-0.011
33	2.441	-7.868				0.058
34	1.035	1.052				-0.012
35	0.000	0.000				0.000
36	-9.363	3.049				-0.090
37	6.269	-2.379				0.015
38	0.149	7.686				0.044
39	-0.154	13.158				0.011
40	0.000	0.000				0.000
41	0.000	0.000				0.000
42	0.123	-0.222				-0.039
43	0.000	0.000				0.000
44	0.000	0.000				0.000
45	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
46	0.000	0.000				0.000
47	0.000	0.000				0.000
48	0.000	0.000				0.000
49	1.989	-0.339				-0.018
50	1.547	0.011				-0.012
51	-0.072	0.662				0.003
52	0.000	0.000				0.000
53	0.000	0.000				0.000
54	0.000	0.000				0.000
55	0.000	0.000				0.000
56	0.000	0.000				0.000
57	0.000	0.000				0.000
58	0.000	0.000				0.000
59	0.000	0.000				0.000
60	0.000	0.000				0.000
61	0.000	0.000				0.000
62	0.000	0.000				0.000
63	0.000	0.000				0.000
64	0.000	0.000				0.000
65	0.000	0.000				0.000
66	0.000	0.000				0.000
67	0.000	0.000				0.000
68	0.000	0.000				0.000
69	0.000	0.000				0.000
70	0.000	0.000				0.000
71	0.000	0.000				0.000
72	0.000	0.000				0.000
73	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
74	0.000	0.000				0.000
75	0.000	0.000				0.000
76	0.000	0.000				0.000
77	0.000	0.000				0.000
78	0.000	0.000				0.000
79	0.000	0.000				0.000
80	0.000	0.000				0.000
81	0.000	0.000				0.000
82	0.000	0.000				0.000
83	0.000	0.000				0.000
84	0.000	0.000				0.000
85	0.000	0.000				0.000
86	0.000	0.000				0.000
87	0.000	0.000				0.000
88	0.000	0.000				0.000
89	0.000	0.000				0.000
90	0.000	0.000				0.000
91	0.000	0.000				0.000
92	0.000	0.000				0.000
93	0.000	0.000				0.000
94	0.000	0.000				0.000
95	0.000	0.000				0.000
96	0.000	0.000				0.000
97	0.000	0.000				0.000
98	0.000	0.000				0.000
99	0.098	-2.345				-0.003
100	0.000	0.000				0.000
101	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
102	0.000	0.000				0.000
103	0.000	0.000				0.000
104	0.000	0.000				0.000
105	0.000	0.000				0.000
106	0.000	0.000				0.000
107	0.000	0.000				0.000
108	0.000	0.000				0.000
109	0.000	0.000				0.000
110	0.000	0.000				0.000
111	0.000	0.000				0.000
112	0.000	0.000				0.000
113	0.000	0.000				0.000
114	0.000	0.000				0.000
115	0.000	0.000				0.000
116	0.000	0.000				0.000
117	0.000	0.000				0.000
118	0.000	0.000				0.000
119	0.000	0.000				0.000
120	0.000	0.000				0.000
121	0.000	0.000				0.000
122	0.000	0.000				0.000
123	0.000	0.000				0.000
124	0.000	0.000				0.000
125	0.000	0.000				0.000
126	0.000	0.000				0.000
127	0.000	0.000				0.000
128	0.000	0.000				0.000
129	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
130	0.000	0.000				0.000
131	0.112	0.034				-0.003
132	0.000	0.000				0.000
133	0.000	0.000				0.000
134	0.000	0.000				0.000
135	0.000	0.000				0.000
136	0.000	0.000				0.000
137	0.000	0.000				0.000
138	0.000	0.000				0.000
139	0.000	0.000				0.000
140	0.000	0.000				0.000
141	0.000	0.000				0.000
142	0.000	0.000				0.000
143	0.000	0.000				0.000
144	0.000	0.000				0.000
145	0.000	0.000				0.000
146	0.000	0.000				0.000
147	0.000	0.000				0.000
148	0.000	0.000				0.000
149	0.000	0.000				0.000
150	0.000	0.000				0.000
151	0.000	0.000				0.000
152	0.000	0.000				0.000
153	0.000	0.000				0.000
154	0.000	0.000				0.000
155	0.000	0.000				0.000
156	0.000	0.000				0.000
157	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
158	0.000	0.000				0.000
159	0.000	0.000				0.000
160	0.000	0.000				0.000
161	0.000	0.000				0.000
162	0.000	0.000				0.000
163	0.000	0.000				0.000
164	0.000	0.000				0.000
165	0.000	0.000				0.000
166	0.000	0.000				0.000
167	0.000	0.000				0.000
168	0.000	0.000				0.000
169	0.000	0.000				0.000
170	0.000	0.000				0.000
171	0.000	0.000				0.000
172	0.000	0.000				0.000
173	0.000	0.000				0.000
174	0.000	0.000				0.000
175	0.000	0.000				0.000
176	0.000	0.000				0.000
177	0.000	0.000				0.000
178	0.000	0.000				0.000
179	0.000	0.000				0.000
180	0.000	0.000				0.000
181	0.000	0.000				0.000
182	0.000	0.000				0.000
183	0.000	0.000				0.000
184	0.000	0.000				0.000
185	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
186	0.000	0.000				0.000
187	0.000	0.000				0.000
188	0.000	0.000				0.000
189	0.000	0.000				0.000
190	0.000	0.000				0.000
191	0.000	0.000				0.000
192	0.000	0.000				0.000
193	0.000	0.000				0.000
194	0.000	0.000				0.000
195	0.000	0.000				0.000
196	0.000	0.000				0.000
197	0.000	0.000				0.000
198	0.000	0.000				0.000
199	0.000	0.000				0.000
200	0.000	0.000				0.000
201	0.000	0.000				0.000
202	0.000	0.000				0.000
203	0.000	0.000				0.000
204	0.000	0.000				0.000
205	0.000	0.000				0.000
206	0.000	0.000				0.000
207	0.000	0.000				0.000
208	0.000	0.000				0.000
209	0.000	0.000				0.000
210	0.000	0.000				0.000
211	0.000	0.000				0.000
212	0.000	0.000				0.000
213	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
214	0.000	0.000				0.000
215	0.000	0.000				0.000
216	0.000	0.000				0.000
217	0.000	0.000				0.000
218	0.000	0.000				0.000
219	0.000	0.000				0.000
220	0.000	0.000				0.000
221	0.000	0.000				0.000
222	0.000	0.000				0.000
223	0.000	0.000				0.000
224	0.000	0.000				0.000
225	0.000	0.000				0.000
226	0.000	0.000				0.000
227	0.000	0.000				0.000
228	0.000	0.000				0.000
229	0.000	0.000				0.000
230	0.000	0.000				0.000
231	0.000	0.000				0.000
232	0.000	0.000				0.000
233	0.000	0.000				0.000
234	0.000	0.000				0.000
235	0.000	0.000				0.000
236	0.000	0.000				0.000
237	0.000	0.000				0.000
238	0.000	0.000				0.000
239	0.000	0.000				0.000
240	0.000	0.000				0.000
241	0.000	0.000				0.000



REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
242	0.000	0.000				0.000
243	0.000	0.000				0.000
244	0.000	0.000				0.000
245	0.000	0.000				0.000
246	0.000	0.000				0.000
247	0.000	0.000				0.000
248	0.000	0.000				0.000
249	0.000	0.000				0.000
250	0.000	0.000				0.000
251	0.000	0.000				0.000
252	0.000	0.000				0.000
253	0.000	0.000				0.000
254	0.000	0.000				0.000
255	0.000	0.000				0.000
256	0.000	0.000				0.000
257	0.000	0.000				0.000
258	0.000	0.000				0.000
259	0.000	0.000				0.000
260	0.000	0.000				0.000
261	0.000	0.000				0.000
262	0.000	0.000				0.000
263	0.000	0.000				0.000
264	0.000	0.000				0.000
265	0.000	0.000				0.000
266	0.000	0.000				0.000
267	0.000	0.000				0.000
268	0.000	0.000				0.000
269	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
270	0.000	0.000				0.000
271	0.000	0.000				0.000
272	0.200	-0.148				-0.003
273	0.000	0.000				0.000
274	0.000	0.000				0.000
275	0.000	0.000				0.000
276	0.000	0.000				0.000
277	0.000	0.000				0.000
278	0.000	0.000				0.000
279	0.000	0.000				0.000
280	0.000	0.000				0.000
281	0.000	0.000				0.000
282	0.000	0.000				0.000
283	0.000	0.000				0.000
284	0.000	0.000				0.000
285	0.000	0.000				0.000
286	0.000	0.000				0.000
287	0.000	0.000				0.000
288	0.000	0.000				0.000
289	0.000	0.000				0.000
290	0.000	0.000				0.000
291	0.000	0.000				0.000
292	0.000	0.000				0.000
293	0.000	0.000				0.000
294	0.000	0.000				0.000
295	0.000	0.000				0.000
296	0.000	0.000				0.000
297	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
298	0.000	0.000				0.000
299	0.000	0.000				0.000
300	0.000	0.000				0.000
301	0.000	0.000				0.000
302	0.000	0.000				0.000
303	0.000	0.000				0.000
304	0.000	0.000				0.000
305	0.000	0.000				0.000
306	0.000	0.000				0.000
307	0.000	0.000				0.000
308	0.000	0.000				0.000
309	0.000	0.000				0.000
310	0.000	0.000				0.000
311	0.000	0.000				0.000
312	0.000	0.000				0.000
313	0.000	0.000				0.000
314	0.000	0.000				0.000
315	0.000	0.000				0.000
316	0.000	0.000				0.000
317	0.000	0.000				0.000
318	0.000	0.000				0.000
319	0.000	0.000				0.000
320	0.000	0.000				0.000
321	0.000	0.000				0.000
322	0.000	0.000				0.000
323	0.000	0.000				0.000
324	0.000	0.000				0.000
325	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
326	0.000	0.000				0.000
327	0.000	0.000				0.000
328	0.000	0.000				0.000
329	0.000	0.000				0.000
330	0.000	0.000				0.000
331	0.000	0.000				0.000
332	0.000	0.000				0.000
333	0.000	0.000				0.000
334	0.000	0.000				0.000
335	0.000	0.000				0.000
336	0.000	0.000				0.000
337	0.000	0.000				0.000
338	0.000	0.000				0.000
339	0.000	0.000				0.000
340	0.000	0.000				0.000
341	0.000	0.000				0.000
342	0.000	0.000				0.000
343	0.000	0.000				0.000
344	0.000	0.000				0.000
345	0.000	0.000				0.000
346	0.000	0.000				0.000
347	0.000	0.000				0.000
348	0.000	0.000				0.000
349	0.000	0.000				0.000
350	0.000	0.000				0.000
351	0.000	0.000				0.000
352	0.000	0.000				0.000
353	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
354	0.000	0.000				0.000
355	0.000	0.000				0.000
356	0.000	0.000				0.000
357	0.000	0.000				0.000
358	0.000	0.000				0.000
359	0.000	0.000				0.000
360	0.000	0.000				0.000
361	0.000	0.000				0.000
362	0.000	0.000				0.000
363	0.000	0.000				0.000
364	0.000	0.000				0.000
365	0.000	0.000				0.000
366	0.000	0.000				0.000
367	0.000	0.000				0.000
368	0.000	0.000				0.000
369	0.000	0.000				0.000
370	0.000	0.000				0.000
371	0.000	0.000				0.000
372	0.000	0.000				0.000
373	0.000	0.000				0.000
374	0.000	0.000				0.000
375	0.000	0.000				0.000
376	0.000	0.000				0.000
377	0.000	0.000				0.000
378	0.000	0.000				0.000
379	0.000	0.000				0.000
380	0.000	0.000				0.000
381	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
382	0.000	0.000				0.000
383	0.000	0.000				0.000
384	0.000	0.000				0.000
385	0.000	0.000				0.000
386	0.000	0.000				0.000
387	0.000	0.000				0.000
388	0.000	0.000				0.000
389	0.000	0.000				0.000
390	0.000	0.000				0.000
391	0.000	0.000				0.000
392	0.000	0.000				0.000
393	0.000	0.000				0.000
394	0.000	0.000				0.000
395	0.000	0.000				0.000
396	0.000	0.000				0.000
397	0.000	0.000				0.000
398	0.000	0.000				0.000
399	0.000	0.000				0.000
400	0.000	0.000				0.000
401	0.000	0.000				0.000
402	0.000	0.000				0.000
403	0.000	0.000				0.000
404	0.000	0.000				0.000
405	0.000	0.000				0.000
406	0.000	0.000				0.000
407	0.000	0.000				0.000
408	0.000	0.000				0.000
409	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
410	0.000	0.000				0.000
411	0.000	0.000				0.000
412	0.000	0.000				0.000
413	0.000	0.000				0.000
414	0.000	0.000				0.000
415	0.000	0.000				0.000
416	0.000	0.000				0.000
417	0.000	0.000				0.000
418	0.000	0.000				0.000
419	0.000	0.000				0.000
420	0.000	0.000				0.000
421	0.000	0.000				0.000
422	0.000	0.000				0.000
423	0.000	0.000				0.000
424	0.000	0.000				0.000
425	0.000	0.000				0.000
426	0.000	0.000				0.000
427	0.000	0.000				0.000
428	0.000	0.000				0.000
429	0.000	0.000				0.000
430	0.000	0.000				0.000
431	0.000	0.000				0.000
432	0.000	0.000				0.000
433	0.000	0.000				0.000
434	0.000	0.000				0.000
435	0.000	0.000				0.000
436	0.000	0.000				0.000
437	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
438	0.000	0.000				0.000
439	0.000	0.000				0.000
440	0.000	0.000				0.000
441	0.000	0.000				0.000
442	0.000	0.000				0.000
443	0.000	0.000				0.000
444	-0.363	0.201				-0.011
445	0.000	0.000				0.000
446	0.000	0.000				0.000
447	0.000	0.000				0.000
448	-0.440	0.403				-0.016
449	0.219	-0.279				0.023
716	0.000	0.000				0.000
717	0.000	0.000				0.000
718	0.000	0.000				0.000
719	0.000	0.000				0.000
720	0.000	0.000				0.000
721	0.000	0.000				0.000
722	0.000	0.000				0.000
723	0.000	0.000				0.000
724	0.000	0.000				0.000
725	0.000	0.000				0.000
726	0.000	0.000				0.000
727	0.000	0.000				0.000
728	0.000	0.000				0.000
729	0.000	0.000				0.000
730	0.000	0.000				0.000
731	0.000	0.000				0.000



REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
732	0.000	0.000				0.000
733	0.000	0.000				0.000
734	0.000	0.000				0.000
735	0.000	0.000				0.000
736	0.000	0.000				0.000
737	0.000	0.000				0.000
738	0.000	0.000				0.000
739	0.000	0.000				0.000
740	0.000	0.000				0.000
741	0.000	0.000				0.000
742	0.000	0.000				0.000
743	0.000	0.000				0.000
744	0.000	0.000				0.000
745	0.000	0.000				0.000
746	0.000	0.000				0.000
747	0.000	0.000				0.000
748	0.000	0.000				0.000
749	0.000	0.000				0.000
750	0.000	0.000				0.000
751	0.000	0.000				0.000
752	0.000	0.000				0.000
753	0.000	0.000				0.000
754	0.000	0.000				0.000
755	0.000	0.000				0.000
756	0.000	0.000				0.000
757	0.000	0.000				0.000
758	0.000	0.000				0.000
759	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
760	0.000	0.000				0.000
761	0.000	0.000				0.000
762	0.000	0.000				0.000
763	0.000	0.000				0.000
764	0.000	0.000				0.000
765	0.000	0.000				0.000
766	0.000	0.000				0.000
767	0.000	0.000				0.000
768	0.000	0.000				0.000
769	0.000	0.000				0.000
770	0.000	0.000				0.000
771	0.000	0.000				0.000
772	0.000	0.000				0.000
773	0.000	0.000				0.000
774	0.000	0.000				0.000
775	0.000	0.000				0.000
776	0.000	0.000				0.000
777	0.000	0.000				0.000
778	0.000	0.000				0.000
779	0.000	0.000				0.000
780	0.000	0.000				0.000
781	0.000	0.000				0.000
782	0.000	0.000				0.000
783	0.000	0.000				0.000
784	0.000	0.000				0.000
785	0.000	0.000				0.000
786	0.000	0.000				0.000
787	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
788	0.000	0.000				0.000
789	0.000	0.000				0.000
790	0.000	0.000				0.000
791	0.000	0.000				0.000
792	0.000	0.000				0.000
793	0.000	0.000				0.000
794	0.000	0.000				0.000
795	0.000	0.000				0.000
796	0.000	0.000				0.000
797	0.000	0.000				0.000
798	0.000	0.000				0.000
799	0.000	0.000				0.000
800	0.000	0.000				0.000
801	0.000	0.000				0.000
802	0.000	0.000				0.000
803	0.000	0.000				0.000
804	0.000	0.000				0.000
805	0.000	0.000				0.000
806	0.000	0.000				0.000
807	0.000	0.000				0.000
808	0.000	0.000				0.000
809	0.000	0.000				0.000
810	0.000	0.000				0.000
811	0.000	0.000				0.000
812	0.000	0.000				0.000
813	0.000	0.000				0.000
814	0.000	0.000				0.000
815	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
816	0.000	0.000				0.000
817	0.000	0.000				0.000
818	0.000	0.000				0.000
819	0.000	0.000				0.000
820	0.000	0.000				0.000
821	0.000	0.000				0.000
822	0.000	0.000				0.000
823	0.000	0.000				0.000
824	0.000	0.000				0.000
825	0.000	0.000				0.000
826	0.000	0.000				0.000
827	0.000	0.000				0.000
828	0.000	0.000				0.000
829	0.000	0.000				0.000
830	0.000	0.000				0.000
831	0.000	0.000				0.000
832	0.000	0.000				0.000
833	0.000	0.000				0.000
834	0.000	0.000				0.000
835	0.000	0.000				0.000
836	0.000	0.000				0.000
837	0.000	0.000				0.000
838	0.000	0.000				0.000
839	0.000	0.000				0.000
840	0.000	0.000				0.000
841	0.000	0.000				0.000
842	0.000	0.000				0.000
843	0.000	0.000				0.000

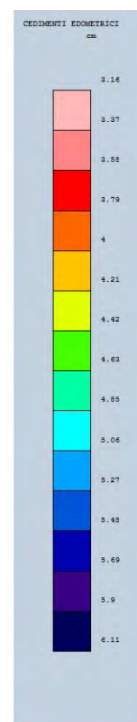
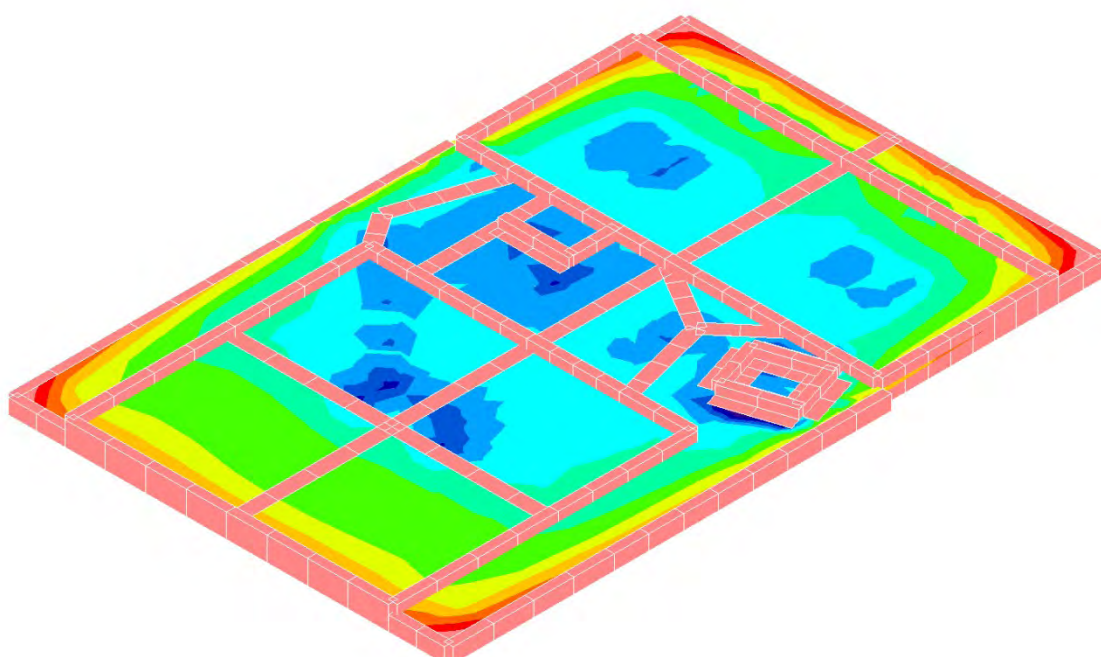
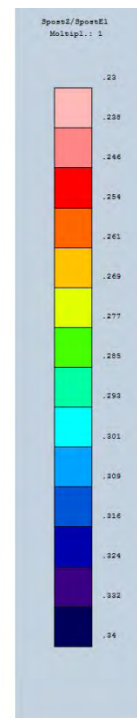
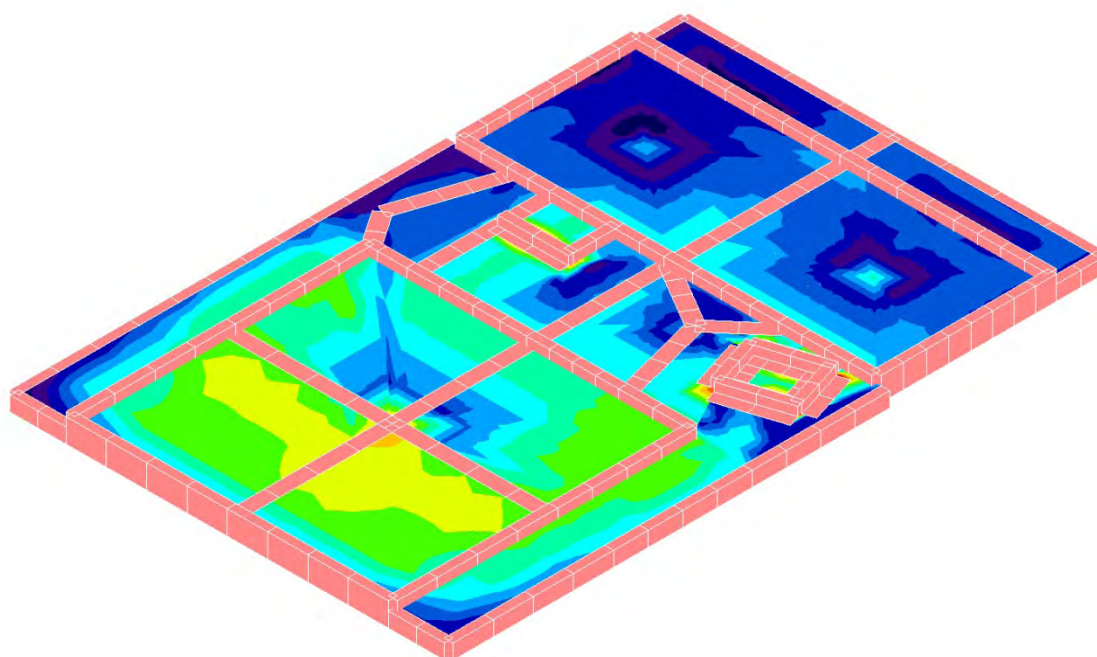
REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
844	0.000	0.000				0.000
845	0.000	0.000				0.000
846	0.000	0.000				0.000
847	0.000	0.000				0.000
848	0.000	0.000				0.000
849	0.000	0.000				0.000
850	0.000	0.000				0.000
851	0.000	0.000				0.000
852	0.000	0.000				0.000
853	0.000	0.000				0.000
854	0.000	0.000				0.000
855	0.000	0.000				0.000
856	0.000	0.000				0.000
857	0.000	0.000				0.000
858	0.000	0.000				0.000
859	0.000	0.000				0.000
860	0.000	0.000				0.000
861	0.000	0.000				0.000
862	0.000	0.000				0.000
863	0.000	0.000				0.000
864	0.000	0.000				0.000
865	0.000	0.000				0.000
866	0.000	0.000				0.000
867	0.000	0.000				0.000
868	0.000	0.000				0.000
869	0.000	0.000				0.000
870	0.000	0.000				0.000
871	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
872	0.000	0.000				0.000
873	0.000	0.000				0.000
874	0.000	0.000				0.000
875	0.000	0.000				0.000
876	0.000	0.000				0.000
877	0.000	0.000				0.000
878	0.000	0.000				0.000
879	0.000	0.000				0.000
880	0.000	0.000				0.000
881	0.000	0.000				0.000
882	0.000	0.000				0.000
883	0.000	0.000				0.000
884	0.000	0.000				0.000
885	0.000	0.000				0.000
886	0.000	0.000				0.000
887	0.000	0.000				0.000
888	0.000	0.000				0.000
889	0.000	0.000				0.000
890	0.000	0.000				0.000
891	0.000	0.000				0.000
892	0.000	0.000				0.000
893	0.000	0.000				0.000
894	0.000	0.000				0.000
895	0.000	0.000				0.000
896	0.000	0.000				0.000
897	0.000	0.000				0.000
898	0.000	0.000				0.000
899	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
900	0.000	0.000				0.000
901	0.000	0.000				0.000
902	0.000	0.000				0.000
903	0.000	0.000				0.000
904	0.000	0.000				0.000
905	0.000	0.000				0.000
906	0.000	0.000				0.000
907	0.000	0.000				0.000
908	0.000	0.000				0.000
909	0.000	0.000				0.000
910	0.000	0.000				0.000
911	0.000	0.000				0.000
912	0.000	0.000				0.000
913	0.000	0.000				0.000
914	0.000	0.000				0.000
915	0.000	0.000				0.000
916	0.000	0.000				0.000
917	0.000	0.000				0.000
918	0.000	0.000				0.000
919	0.000	0.000				0.000
920	0.000	0.000				0.000
921	0.000	0.000				0.000
922	0.000	0.000				0.000
923	0.000	0.000				0.000
924	0.000	0.000				0.000
925	0.000	0.000				0.000
926	0.000	0.000				0.000
927	0.000	0.000				0.000

REAZIONI VINCOLARI COMBINAZIONE 1- S.L.V.						
Nodo	Fx	Fy	Fz	Mx	My	Mz
3D	(t)	(t)	(t)	(t*m)	(t*m)	(t*m)
928	0.000	0.000				0.000
929	0.000	0.000				0.000

Di seguito si riportano le verifiche geotecniche dell'edificio di nuova costruzione:





CARICO LIMITE TRAVI WINKLER - S.L.U.														
IDENTIFIICATIVO					DRENATE		NON DRENATE		RISULTATI					
Trave N.ro	Asta3d N.ro	Comb N.ro	Bx' m	By' m	GamEf kg/mc	QLimV (t)	GamEf kg/mc	QLimV (t)	N (t)	Coeff. Sicur.	Minimo CoeSic	N/Ar kg/cmq	QLim/Ar kg/cmq	Status Verifica
1	36	A1/1	1.50	2.25	2000	156.7			27.7	5.66				OK
		A1/2	1.50	2.25	2000	156.7			26.7	5.88				OK
		A1/3	1.49	2.25	2000	153.1			27.8	5.51				OK
		A1/4	1.49	2.24	2000	152.9			26.8	5.71				OK
		A1/5	1.49	2.24	2000	150.4			26.6	5.65				OK
		A1/6	1.50	2.24	2000	152.3			26.6	5.73				OK
		A1/7	1.50	2.24	2000	152.1			25.6	5.95				OK
		A1/8	1.49	2.23	2000	148.3			24.6	6.03				OK
		A1/9	1.50	2.25	2000	153.9			27.6	5.59				OK
		A1/10	1.50	2.25	2000	153.8			26.5	5.79				OK
		A1/11	1.50	2.25	2000	151.4			26.2	5.77				OK
		A1/12	1.50	2.23	2000	152.1			28.8	5.29				OK
		A1/13	1.50	2.23	2000	151.8			27.8	5.47				OK
		A1/14	1.50	2.22	2000	148.3			28.3	5.25				OK
		X+	A1/15	1.46	2.09	2000	96.4		21.9	4.41				OK
		X-	A1/30	1.46	2.00	2000	93.2		16.4	5.67				OK
Y+	A1/31	1.45	1.71	2000	86.0		15.7	5.47				OK		
Y-	A1/46	1.48	1.86	2000	94.8		22.7	4.18	4.18	0.83	3.45	OK		
2	38	A1/1	1.50	2.25	2000	157.2			27.4	5.74				OK
		A1/2	1.50	2.25	2000	157.1			26.4	5.96				OK
		A1/3	1.49	2.25	2000	153.6			26.9	5.70				OK
		A1/4	1.49	2.25	2000	153.3			25.9	5.92				OK
		A1/5	1.49	2.25	2000	150.8			25.4	5.94				OK
		A1/6	1.50	2.23	2000	151.9			26.1	5.83				OK
		A1/7	1.50	2.23	2000	151.6			25.0	6.05				OK
		A1/8	1.50	2.22	2000	147.8			24.0	6.17				OK
		A1/9	1.50	2.25	2000	154.1			27.9	5.53				OK
		A1/10	1.50	2.25	2000	154.0			26.8	5.74				OK
		A1/11	1.50	2.25	2000	151.5			26.9	5.63				OK
		A1/12	1.50	2.23	2000	152.3			28.7	5.31				OK
		A1/13	1.50	2.23	2000	152.0			27.7	5.50				OK
		A1/14	1.50	2.22	2000	148.6			28.3	5.25				OK
		X+	A1/18	1.45	1.68	2000	79.6		15.8	5.03				OK
		X-	A1/27	1.46	1.84	2000	87.1		22.2	3.92				OK
Y+	A1/31	1.50	0.82	2000	37.9		12.1	3.14	3.14	0.98	3.09	OK		
Y-	A1/43	1.49	1.57	2000	83.0		25.4	3.26				OK		
3	41	A1/1	1.35	2.36	2000	142.6			27.5	5.20				OK
		A1/2	1.35	2.36	2000	142.6			26.4	5.40				OK
		A1/3	1.35	2.36	2000	139.6			27.4	5.09				OK
		A1/4	1.35	2.36	2000	139.4			26.4	5.28				OK
		A1/5	1.35	2.36	2000	137.3			26.1	5.25				OK
		A1/6	1.35	2.35	2000	138.5			27.9	4.97				OK
		A1/7	1.35	2.35	2000	138.3			26.8	5.15				OK
		A1/8	1.35	2.34	2000	135.4			26.9	5.04				OK
		A1/9	1.35	2.36	2000	140.1			27.5	5.10				OK
		A1/10	1.35	2.36	2000	139.9			26.4	5.30				OK
		A1/11	1.35	2.37	2000	138.1			26.2	5.28				OK
		A1/12	1.35	2.38	2000	140.1			27.0	5.18				OK
		A1/13	1.35	2.38	2000	139.9			26.0	5.39				OK
		A1/14	1.35	2.37	2000	136.8			25.4	5.38				OK
		X+	A1/18	1.33	2.11	2000	86.4		18.3	4.71				OK
		X-	A1/27	1.33	2.15	2000	88.6		19.2	4.62				OK
Y+	A1/34	1.34	2.11	2000	94.3		20.9	4.51	4.51	0.74	3.33	OK		
Y-	A1/43	1.35	2.08	2000	93.4		16.6	5.63				OK		

PORTANZA GLOBALE PIASTRE - MOLTIPLICATORI DI COLLASSO - SLU										
DRENATE					NON DRENATE				RISULTATI	
Comb	Risult	Resist	Moltip.	%PI.	Risult	Resist	Moltip.	%PI.	Moltip.	STATUS
N.ro	(t)	(t)	Collasso	Moll	(t)	(t)	Collasso	Moll	Minimo	(m)
A1 / 1	2909	2909	1.000	0					1.000	OK

PORTANZA GLOBALE PIASTRE - MOLTIPLICATORI DI COLLASSO - SLU										
	DRENATE				NON DRENATE				RISULTATI	
Comb	Risult	Resist	Moltip.	%Pl.	Risult	Resist	Moltip.	%Pl.	Moltip.	STATUS
N.ro	(t)	(t)	Collasso	Moll	(t)	(t)	Collasso	Moll	Minimo	(m)
A1 / 2	2773	2773	1.000	0						OK
A1 / 3	2909	2909	1.000	0						OK
A1 / 4	2773	2773	1.000	0						OK
A1 / 5	2746	2746	1.000	0						OK
A1 / 6	2909	2909	1.000	0						OK
A1 / 7	2773	2773	1.000	0						OK
A1 / 8	2746	2746	1.000	0						OK
A1 / 9	2908	2908	1.000	0						OK
A1 / 10	2773	2773	1.000	0						OK
A1 / 11	2745	2745	1.000	0						OK
A1 / 12	2908	2908	1.000	0						OK
A1 / 13	2773	2773	1.000	0						OK
A1 / 14	2745	2745	1.000	0						OK
A1 / 15	1931	1931	1.000	0						OK
A1 / 16	1932	1932	1.000	0						OK
A1 / 17	1932	1932	1.000	0						OK
A1 / 18	1932	1932	1.000	0						OK
A1 / 19	1936	1936	1.000	0						OK
A1 / 20	1936	1936	1.000	0						OK
A1 / 21	1936	1936	1.000	0						OK
A1 / 22	1936	1936	1.000	0						OK
A1 / 23	1929	1929	1.000	0						OK
A1 / 24	1928	1928	1.000	0						OK
A1 / 25	1929	1929	1.000	0						OK
A1 / 26	1929	1929	1.000	0						OK
A1 / 27	1933	1933	1.000	0						OK

PORTANZA GLOBALE PIASTRE - MOLTIPLICATORI DI COLLASSO - SLU										
	DRENATE				NON DRENATE				RISULTATI	
Comb	Risult	Resist	Moltip.	%PI.	Risult	Resist	Moltip.	%PI.	Moltip.	STATUS
N.ro	(t)	(t)	Collasso	Moll	(t)	(t)	Collasso	Moll	Minimo	(m)
A1 / 28	1933	1933	1.000	0						OK
A1 / 29	1933	1933	1.000	0						OK
A1 / 30	1933	1933	1.000	0						OK
A1 / 31	1925	1925	1.000	0						OK
A1 / 32	1925	1925	1.000	0						OK
A1 / 33	1925	1925	1.000	0						OK
A1 / 34	1925	1925	1.000	0						OK
A1 / 35	1941	1941	1.000	0						OK
A1 / 36	1941	1941	1.000	0						OK
A1 / 37	1941	1941	1.000	0						OK
A1 / 38	1941	1941	1.000	0						OK
A1 / 39	1924	1924	1.000	0						OK
A1 / 40	1924	1924	1.000	0						OK
A1 / 41	1924	1924	1.000	0						OK
A1 / 42	1924	1924	1.000	0						OK
A1 / 43	1940	1940	1.000	0						OK
A1 / 44	1940	1940	1.000	0						OK
A1 / 45	1940	1940	1.000	0						OK
A1 / 46	1940	1940	1.000	0						OK

PORTANZA GLOBALE PIASTRE - ABBASSAMENTI COMBINAZ.: A1/1														
	DRENATE		NON DRENATE			DRENATE		NON DRENATE			DRENATE		NON DRENATE	
Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI
1	-0.938	ELAST.			2	-0.887	ELAST.			3	-0.867	ELAST.		
4	-0.916	ELAST.			5	-0.925	ELAST.			6	-0.877	ELAST.		
7	-0.849	ELAST.			8	-0.848	ELAST.			9	-0.850	ELAST.		
10	-0.855	ELAST.			11	-0.864	ELAST.			12	-0.863	ELAST.		
13	-0.870	ELAST.			14	-0.867	ELAST.			15	-0.864	ELAST.		
16	-0.858	ELAST.			17	-0.856	ELAST.			18	-0.849	ELAST.		
19	-0.849	ELAST.			20	-0.871	ELAST.			21	-0.886	ELAST.		
22	-0.887	ELAST.			23	-0.889	ELAST.			24	-0.887	ELAST.		
25	-0.887	ELAST.			26	-0.902	ELAST.			27	-0.909	ELAST.		
28	-0.913	ELAST.			29	-0.889	ELAST.			30	-0.871	ELAST.		
31	-0.848	ELAST.			32	-0.848	ELAST.			33	-0.848	ELAST.		
34	-0.848	ELAST.			35	-0.920	ELAST.			36	-0.867	ELAST.		
37	-0.868	ELAST.			38	-0.863	ELAST.			39	-0.859	ELAST.		

**PORTANZA GLOBALE PIASTRE - ABBASSAMENTI COMBINAZ.: A1/1**

		DRENATE		NON DRENATE				DRENATE		NON DRENATE				DRENATE		NON DRENATE	
Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI
40	-0.864	ELAST.			41	-0.866	ELAST.			42	-0.850	ELAST.					
43	-0.946	ELAST.			44	-0.905	ELAST.			45	-0.872	ELAST.					
46	-0.869	ELAST.			47	-0.845	ELAST.			48	-0.850	ELAST.					
49	-0.868	ELAST.			50	-0.868	ELAST.			51	-0.867	ELAST.					
52	-0.868	ELAST.			53	-0.868	ELAST.			54	-0.868	ELAST.					
55	-0.868	ELAST.			56	-0.868	ELAST.			57	-0.869	ELAST.					
58	-0.869	ELAST.			59	-0.869	ELAST.			60	-0.869	ELAST.					
61	-0.869	ELAST.			62	-0.869	ELAST.			63	-0.869	ELAST.					
64	-0.869	ELAST.			65	-0.869	ELAST.			66	-0.869	ELAST.					
67	-0.864	ELAST.			68	-0.864	ELAST.			69	-0.863	ELAST.					
70	-0.865	ELAST.			71	-0.865	ELAST.			72	-0.864	ELAST.					
73	-0.864	ELAST.			74	-0.864	ELAST.			75	-0.867	ELAST.					
76	-0.866	ELAST.			77	-0.865	ELAST.			78	-0.865	ELAST.					
79	-0.865	ELAST.			80	-0.868	ELAST.			81	-0.867	ELAST.					
82	-0.867	ELAST.			83	-0.866	ELAST.			84	-0.866	ELAST.					
85	-0.869	ELAST.			86	-0.869	ELAST.			87	-0.869	ELAST.					
88	-0.869	ELAST.			89	-0.867	ELAST.			90	-0.868	ELAST.					
91	-0.868	ELAST.			92	-0.863	ELAST.			93	-0.865	ELAST.					
94	-0.866	ELAST.			95	-0.867	ELAST.			96	-0.859	ELAST.					
97	-0.861	ELAST.			98	-0.861	ELAST.			99	-0.861	ELAST.					
100	-0.857	ELAST.			101	-0.857	ELAST.			102	-0.858	ELAST.					
103	-0.860	ELAST.			104	-0.861	ELAST.			105	-0.861	ELAST.					
106	-0.861	ELAST.			107	-0.852	ELAST.			108	-0.854	ELAST.					
109	-0.852	ELAST.			110	-0.855	ELAST.			111	-0.854	ELAST.					
112	-0.857	ELAST.			113	-0.856	ELAST.			114	-0.852	ELAST.					
115	-0.853	ELAST.			116	-0.854	ELAST.			117	-0.853	ELAST.					
118	-0.854	ELAST.			119	-0.855	ELAST.			120	-0.856	ELAST.					
121	-0.855	ELAST.			122	-0.856	ELAST.			123	-0.856	ELAST.					
124	-0.857	ELAST.			125	-0.857	ELAST.			126	-0.858	ELAST.					
127	-0.858	ELAST.			128	-0.858	ELAST.			129	-0.857	ELAST.					
130	-0.858	ELAST.			131	-0.883	ELAST.			132	-0.872	ELAST.					
133	-0.871	ELAST.			134	-0.870	ELAST.			135	-0.877	ELAST.					
136	-0.876	ELAST.			137	-0.874	ELAST.			138	-0.881	ELAST.					
139	-0.880	ELAST.			140	-0.879	ELAST.			141	-0.868	ELAST.					
142	-0.867	ELAST.			143	-0.873	ELAST.			144	-0.871	ELAST.					
145	-0.878	ELAST.			146	-0.877	ELAST.			147	-0.864	ELAST.					
148	-0.861	ELAST.			149	-0.869	ELAST.			150	-0.866	ELAST.					
151	-0.875	ELAST.			152	-0.874	ELAST.			153	-0.859	ELAST.					
154	-0.858	ELAST.			155	-0.864	ELAST.			156	-0.862	ELAST.					
157	-0.872	ELAST.			158	-0.871	ELAST.			159	-0.858	ELAST.					
160	-0.861	ELAST.			161	-0.865	ELAST.			162	-0.859	ELAST.					
163	-0.862	ELAST.			164	-0.865	ELAST.			165	-0.869	ELAST.					
166	-0.864	ELAST.			167	-0.866	ELAST.			168	-0.869	ELAST.					
169	-0.871	ELAST.			170	-0.872	ELAST.			171	-0.874	ELAST.					
172	-0.875	ELAST.			173	-0.877	ELAST.			174	-0.876	ELAST.					
175	-0.881	ELAST.			176	-0.885	ELAST.			177	-0.873	ELAST.					
178	-0.877	ELAST.			179	-0.881	ELAST.			180	-0.884	ELAST.					
181	-0.874	ELAST.			182	-0.877	ELAST.			183	-0.879	ELAST.					
184	-0.882	ELAST.			185	-0.878	ELAST.			186	-0.879	ELAST.					
187	-0.881	ELAST.			188	-0.882	ELAST.			189	-0.888	ELAST.					
190	-0.892	ELAST.			191	-0.897	ELAST.			192	-0.887	ELAST.					
193	-0.890	ELAST.			194	-0.894	ELAST.			195	-0.898	ELAST.					
196	-0.885	ELAST.			197	-0.888	ELAST.			198	-0.891	ELAST.					
199	-0.894	ELAST.			200	-0.884	ELAST.			201	-0.885	ELAST.					
202	-0.887	ELAST.			203	-0.889	ELAST.			204	-0.906	ELAST.					
205	-0.909	ELAST.			206	-0.910	ELAST.			207	-0.902	ELAST.					
208	-0.905	ELAST.			209	-0.907	ELAST.			210	-0.908	ELAST.					
211	-0.897	ELAST.			212	-0.899	ELAST.			213	-0.901	ELAST.					
214	-0.903	ELAST.			215	-0.890	ELAST.			216	-0.892	ELAST.					
217	-0.893	ELAST.			218	-0.894	ELAST.			219	-0.907	ELAST.					
220	-0.902	ELAST.			221	-0.896	ELAST.			222	-0.906	ELAST.					
223	-0.902	ELAST.			224	-0.898	ELAST.			225	-0.893	ELAST.					
226	-0.901	ELAST.			227	-0.898	ELAST.			228	-0.895	ELAST.					
229	-0.892	ELAST.			230	-0.893	ELAST.			231	-0.891	ELAST.					
232	-0.890	ELAST.			233	-0.888	ELAST.			234	-0.911	ELAST.					
235	-0.913	ELAST.			236	-0.911	ELAST.			237	-0.911	ELAST.					
238	-0.910	ELAST.			239	-0.907	ELAST.			240	-0.907	ELAST.					
241	-0.888	ELAST.			242	-0.890	ELAST.			243	-0.891	ELAST.					
244	-0.893	ELAST.			245	-0.895	ELAST.			246	-0.898	ELAST.					
247	-0.899	ELAST.			248	-0.896	ELAST.			249	-0.907	ELAST.					
250	-0.913	ELAST.			251	-0.898	ELAST.			252	-0.906	ELAST.					
253	-0.911	ELAST.			254	-0.900	ELAST.			255	-0.905	ELAST.					
256	-0.908	ELAST.			257	-0.901	ELAST.			258	-0.904	ELAST.					
259	-0.906	ELAST.			260	-0.869	ELAST.			261	-0.864	ELAST.					
262	-0.861	ELAST.			263	-0.858	ELAST.			264	-0.868	ELAST.					
265	-0.865	ELAST.			266	-0.862	ELAST.			267	-0.860	ELAST.					

**PORTANZA GLOBALE PIASTRE - ABBASSAMENTI COMBINAZ.: A1/1**

		DRENATE		NON DRENATE				DRENATE		NON DRENATE				DRENATE		NON DRENATE	
Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI
268	-0.867	ELAST.			269	-0.865	ELAST.			270	-0.864	ELAST.			271	-0.862	ELAST.
271	-0.862	ELAST.			272	-0.866	ELAST.			273	-0.873	ELAST.			274	-0.872	ELAST.
274	-0.872	ELAST.			275	-0.869	ELAST.			276	-0.855	ELAST.			277	-0.853	ELAST.
277	-0.853	ELAST.			278	-0.851	ELAST.			279	-0.856	ELAST.			280	-0.854	ELAST.
280	-0.854	ELAST.			281	-0.852	ELAST.			282	-0.851	ELAST.			283	-0.858	ELAST.
283	-0.858	ELAST.			284	-0.857	ELAST.			285	-0.855	ELAST.			286	-0.854	ELAST.
286	-0.854	ELAST.			287	-0.861	ELAST.			288	-0.861	ELAST.			289	-0.860	ELAST.
289	-0.860	ELAST.			290	-0.860	ELAST.			291	-0.848	ELAST.			292	-0.848	ELAST.
292	-0.848	ELAST.			293	-0.848	ELAST.			294	-0.850	ELAST.			295	-0.849	ELAST.
295	-0.849	ELAST.			296	-0.849	ELAST.			297	-0.849	ELAST.			298	-0.854	ELAST.
298	-0.854	ELAST.			299	-0.853	ELAST.			300	-0.853	ELAST.			301	-0.852	ELAST.
301	-0.852	ELAST.			302	-0.859	ELAST.			303	-0.859	ELAST.			304	-0.858	ELAST.
304	-0.858	ELAST.			305	-0.858	ELAST.			306	-0.852	ELAST.			307	-0.858	ELAST.
307	-0.858	ELAST.			308	-0.864	ELAST.			309	-0.853	ELAST.			310	-0.857	ELAST.
310	-0.857	ELAST.			311	-0.862	ELAST.			312	-0.867	ELAST.			313	-0.855	ELAST.
313	-0.855	ELAST.			314	-0.858	ELAST.			315	-0.862	ELAST.			316	-0.865	ELAST.
316	-0.865	ELAST.			317	-0.860	ELAST.			318	-0.862	ELAST.			319	-0.863	ELAST.
319	-0.863	ELAST.			320	-0.865	ELAST.			321	-0.877	ELAST.			322	-0.881	ELAST.
322	-0.881	ELAST.			323	-0.884	ELAST.			324	-0.872	ELAST.			325	-0.876	ELAST.
325	-0.876	ELAST.			326	-0.880	ELAST.			327	-0.883	ELAST.			328	-0.869	ELAST.
328	-0.869	ELAST.			329	-0.872	ELAST.			330	-0.875	ELAST.			331	-0.879	ELAST.
331	-0.879	ELAST.			332	-0.867	ELAST.			333	-0.869	ELAST.			334	-0.871	ELAST.
334	-0.871	ELAST.			335	-0.872	ELAST.			336	-0.885	ELAST.			337	-0.886	ELAST.
337	-0.886	ELAST.			338	-0.886	ELAST.			339	-0.883	ELAST.			340	-0.884	ELAST.
340	-0.884	ELAST.			341	-0.884	ELAST.			342	-0.885	ELAST.			343	-0.879	ELAST.
343	-0.879	ELAST.			344	-0.879	ELAST.			345	-0.879	ELAST.			346	-0.880	ELAST.
346	-0.880	ELAST.			347	-0.873	ELAST.			348	-0.873	ELAST.			349	-0.873	ELAST.
349	-0.873	ELAST.			350	-0.873	ELAST.			351	-0.887	ELAST.			352	-0.888	ELAST.
352	-0.888	ELAST.			353	-0.888	ELAST.			354	-0.885	ELAST.			355	-0.886	ELAST.
355	-0.886	ELAST.			356	-0.886	ELAST.			357	-0.887	ELAST.			358	-0.880	ELAST.
358	-0.880	ELAST.			359	-0.881	ELAST.			360	-0.882	ELAST.			361	-0.883	ELAST.
361	-0.883	ELAST.			362	-0.874	ELAST.			363	-0.874	ELAST.			364	-0.875	ELAST.
364	-0.875	ELAST.			365	-0.875	ELAST.			366	-0.884	ELAST.			367	-0.881	ELAST.
367	-0.881	ELAST.			368	-0.877	ELAST.			369	-0.880	ELAST.			370	-0.877	ELAST.
370	-0.877	ELAST.			371	-0.875	ELAST.			372	-0.874	ELAST.			373	-0.872	ELAST.
373	-0.872	ELAST.			374	-0.870	ELAST.			375	-0.889	ELAST.			376	-0.888	ELAST.
376	-0.888	ELAST.			377	-0.888	ELAST.			378	-0.888	ELAST.			379	-0.888	ELAST.
379	-0.888	ELAST.			380	-0.888	ELAST.			381	-0.886	ELAST.			382	-0.886	ELAST.
382	-0.886	ELAST.			383	-0.887	ELAST.			384	-0.886	ELAST.			385	-0.887	ELAST.
385	-0.887	ELAST.			386	-0.887	ELAST.			387	-0.887	ELAST.			388	-0.888	ELAST.
388	-0.888	ELAST.			389	-0.889	ELAST.			390	-0.889	ELAST.			391	-0.888	ELAST.
391	-0.888	ELAST.			392	-0.888	ELAST.			393	-0.889	ELAST.			394	-0.887	ELAST.
394	-0.887	ELAST.			395	-0.888	ELAST.			396	-0.888	ELAST.			397	-0.887	ELAST.
397	-0.887	ELAST.			398	-0.887	ELAST.			399	-0.888	ELAST.			400	-0.849	ELAST.
400	-0.849	ELAST.			401	-0.850	ELAST.			402	-0.852	ELAST.			403	-0.854	ELAST.
403	-0.854	ELAST.			404	-0.855	ELAST.			405	-0.850	ELAST.			406	-0.850	ELAST.
406	-0.850	ELAST.			407	-0.852	ELAST.			408	-0.853	ELAST.			409	-0.853	ELAST.
409	-0.853	ELAST.			410	-0.850	ELAST.			411	-0.851	ELAST.			412	-0.851	ELAST.
412	-0.851	ELAST.			413	-0.851	ELAST.			414	-0.852	ELAST.			415	-0.853	ELAST.
415	-0.853	ELAST.			416	-0.852	ELAST.			417	-0.851	ELAST.			418	-0.851	ELAST.
418	-0.851	ELAST.			419	-0.852	ELAST.			420	-0.851	ELAST.			421	-0.851	ELAST.
421	-0.851	ELAST.			422	-0.850	ELAST.			423	-0.851	ELAST.			424	-0.850	ELAST.
424	-0.850	ELAST.			425	-0.850	ELAST.			426	-0.850	ELAST.			427	-0.849	ELAST.
427	-0.849	ELAST.			428	-0.848	ELAST.			429	-0.848	ELAST.			430	-0.850	ELAST.
430	-0.850	ELAST.			431	-0.849	ELAST.			432	-0.848	ELAST.			433	-0.848	ELAST.
433	-0.848	ELAST.			434	-0.849	ELAST.			435	-0.849	ELAST.			436	-0.848	ELAST.
436	-0.848	ELAST.			437	-0.848	ELAST.			438	-0.849	ELAST.			439	-0.849	ELAST.
439	-0.849	ELAST.			440	-0.849	ELAST.			441	-0.849	ELAST.			442	-0.849	ELAST.
442	-0.849	ELAST.			443	-0.848	ELAST.			444	-0.848	ELAST.			445	-0.848	ELAST.
445	-0.848	ELAST.			446	-0.848	ELAST.			447	-0.848	ELAST.			448	-0.848	ELAST.
448	-0.848	ELAST.			449	-0.848	ELAST.			716	-0.900	ELAST.			717	-0.917	ELAST.
717	-0.917	ELAST.			718	-0.932	ELAST.			719	-0.879	ELAST.			720	-0.888	ELAST.
720	-0.888	ELAST.			721	-0.906	ELAST.			722	-0.925	ELAST.			723	-0.931	ELAST.
723	-0.931	ELAST.			724	-0.872	ELAST.			725	-0.881	ELAST.			726	-0.900	ELAST.
726	-0.900	ELAST.			727	-0.919	ELAST.			728	-0.925	ELAST.			729	-0.868	ELAST.
729	-0.868	ELAST.			730	-0.877	ELAST.			731	-0.896	ELAST.			732	-0.913	ELAST.
732	-0.913	ELAST.			733	-0.920	ELAST.			734	-0.873	ELAST.			735	-0.889	ELAST.
735	-0.889	ELAST.			736	-0.906	ELAST.			737	-0.862	ELAST.			738	-0.871	ELAST.
738	-0.871	ELAST.			739	-0.888	ELAST.			740	-0.906	ELAST.			741	-0.917	ELAST.
741	-0.917	ELAST.			742	-0.868	ELAST.			743	-0.879	ELAST.			744	-0.896	ELAST.
744	-0.896	ELAST.			745	-0.913	ELAST.			746	-0.923	ELAST.			747	-0.875	ELAST.
747	-0.875	ELAST.			748	-0.889	ELAST.			749	-0.906	ELAST.			750	-0.920	ELAST.
750	-0.920	ELAST.			751	-0.927	ELAST.			752	-0.889	ELAST.			753	-0.904	ELAST.
753	-0.904	ELAST.			754	-0.918	ELAST.			755	-0.870	ELAST.			756	-0.883	ELAST.
756	-0.883	ELAST.			757	-0.898	ELAST.			758	-0.914	ELAST.			759	-0.922	ELAST.
759	-0.922	ELAST.			760	-0.876	ELAST.			761	-0.891	ELAST.					

**PORTANZA GLOBALE PIASTRE - ABBASSAMENTI COMBINAZ.: A1/1**

DRENATE			NON DRENATE		DRENATE			NON DRENATE		DRENATE			NON DRENATE	
Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI	Nodo3d N.ro	SpostZ (cm)	SpostZ/ SpostEI	SpostZ (cm)	SpostZ/ SpostEI
762	-0.908	ELAST.			763	-0.920	ELAST.			764	-0.935	ELAST.		
765	-0.945	ELAST.			766	-0.896	ELAST.			767	-0.910	ELAST.		
768	-0.927	ELAST.			769	-0.939	ELAST.			770	-0.942	ELAST.		
771	-0.869	ELAST.			772	-0.874	ELAST.			773	-0.881	ELAST.		
774	-0.863	ELAST.			775	-0.866	ELAST.			776	-0.871	ELAST.		
777	-0.876	ELAST.			778	-0.861	ELAST.			779	-0.864	ELAST.		
780	-0.868	ELAST.			781	-0.871	ELAST.			782	-0.863	ELAST.		
783	-0.864	ELAST.			784	-0.866	ELAST.			785	-0.867	ELAST.		
786	-0.862	ELAST.			787	-0.860	ELAST.			788	-0.862	ELAST.		
789	-0.859	ELAST.			790	-0.858	ELAST.			791	-0.862	ELAST.		
792	-0.853	ELAST.			793	-0.856	ELAST.			794	-0.855	ELAST.		
795	-0.857	ELAST.			796	-0.860	ELAST.			797	-0.861	ELAST.		
798	-0.850	ELAST.			799	-0.851	ELAST.			800	-0.853	ELAST.		
801	-0.854	ELAST.			802	-0.859	ELAST.			803	-0.859	ELAST.		
804	-0.848	ELAST.			805	-0.848	ELAST.			806	-0.848	ELAST.		
807	-0.849	ELAST.			808	-0.851	ELAST.			809	-0.851	ELAST.		
810	-0.851	ELAST.			811	-0.852	ELAST.			812	-0.856	ELAST.		
813	-0.857	ELAST.			814	-0.857	ELAST.			815	-0.858	ELAST.		
816	-0.848	ELAST.			817	-0.852	ELAST.			818	-0.850	ELAST.		
819	-0.853	ELAST.			820	-0.851	ELAST.			821	-0.856	ELAST.		
822	-0.856	ELAST.			823	-0.867	ELAST.			824	-0.858	ELAST.		
825	-0.852	ELAST.			826	-0.869	ELAST.			827	-0.863	ELAST.		
828	-0.857	ELAST.			829	-0.864	ELAST.			830	-0.860	ELAST.		
831	-0.856	ELAST.			832	-0.861	ELAST.			833	-0.859	ELAST.		
834	-0.858	ELAST.			835	-0.887	ELAST.			836	-0.879	ELAST.		
837	-0.873	ELAST.			838	-0.869	ELAST.			839	-0.894	ELAST.		
840	-0.885	ELAST.			841	-0.878	ELAST.			842	-0.868	ELAST.		
843	-0.869	ELAST.			844	-0.869	ELAST.			845	-0.868	ELAST.		
846	-0.868	ELAST.			847	-0.869	ELAST.			848	-0.869	ELAST.		
849	-0.869	ELAST.			850	-0.869	ELAST.			851	-0.869	ELAST.		
852	-0.869	ELAST.			853	-0.869	ELAST.			854	-0.870	ELAST.		
855	-0.870	ELAST.			856	-0.870	ELAST.			857	-0.870	ELAST.		
858	-0.870	ELAST.			859	-0.882	ELAST.			860	-0.876	ELAST.		
861	-0.871	ELAST.			862	-0.887	ELAST.			863	-0.882	ELAST.		
864	-0.877	ELAST.			865	-0.888	ELAST.			866	-0.885	ELAST.		
867	-0.881	ELAST.			868	-0.887	ELAST.			869	-0.885	ELAST.		
870	-0.883	ELAST.			871	-0.848	ELAST.			872	-0.848	ELAST.		
873	-0.849	ELAST.			874	-0.849	ELAST.			875	-0.849	ELAST.		
876	-0.849	ELAST.			877	-0.850	ELAST.			878	-0.850	ELAST.		
879	-0.848	ELAST.			880	-0.848	ELAST.			881	-0.849	ELAST.		
882	-0.849	ELAST.			883	-0.848	ELAST.			884	-0.848	ELAST.		
885	-0.846	ELAST.			886	-0.848	ELAST.			887	-0.849	ELAST.		
888	-0.846	ELAST.			889	-0.847	ELAST.			890	-0.848	ELAST.		
891	-0.848	ELAST.			892	-0.849	ELAST.			893	-0.846	ELAST.		
894	-0.847	ELAST.			895	-0.848	ELAST.			896	-0.848	ELAST.		
897	-0.849	ELAST.			898	-0.847	ELAST.			899	-0.847	ELAST.		
900	-0.848	ELAST.			901	-0.848	ELAST.			902	-0.848	ELAST.		
903	-0.848	ELAST.			904	-0.847	ELAST.			905	-0.849	ELAST.		
906	-0.847	ELAST.			907	-0.846	ELAST.			908	-0.848	ELAST.		
909	-0.847	ELAST.			910	-0.848	ELAST.			911	-0.848	ELAST.		
912	-0.848	ELAST.			913	-0.848	ELAST.			914	-0.848	ELAST.		
915	-0.847	ELAST.			916	-0.846	ELAST.			917	-0.848	ELAST.		
918	-0.847	ELAST.			919	-0.847	ELAST.			920	-0.848	ELAST.		
921	-0.848	ELAST.			922	-0.847	ELAST.			923	-0.847	ELAST.		
924	-0.849	ELAST.			925	-0.853	ELAST.			926	-0.861	ELAST.		
927	-0.846	ELAST.			928	-0.849	ELAST.			929	-0.855	ELAST.		

**PORTANZA GLOBALE PIASTRE - MOLTIPLICATORI DI COLLASSO - SLD**

PORTANZA GLOBALE PIASTRE - MOULINERATORI DI COLLASSO - SED										
	DRENATE				NON DRENATE				RISULTATI	
Comb	Risult	Resist	Moltip.	%PI.	Risult	Resist	Moltip.	%PI.	Moltip.	STATUS
N.ro	(t)	(t)	Collasso	Moll	(t)	(t)	Collasso	Moll	Minimo	(m)
A1 / 1	2909	2909	1.000	0					1.000	OK
A1 / 2	2773	2773	1.000	0						OK
A1 / 3	2909	2909	1.000	0						OK

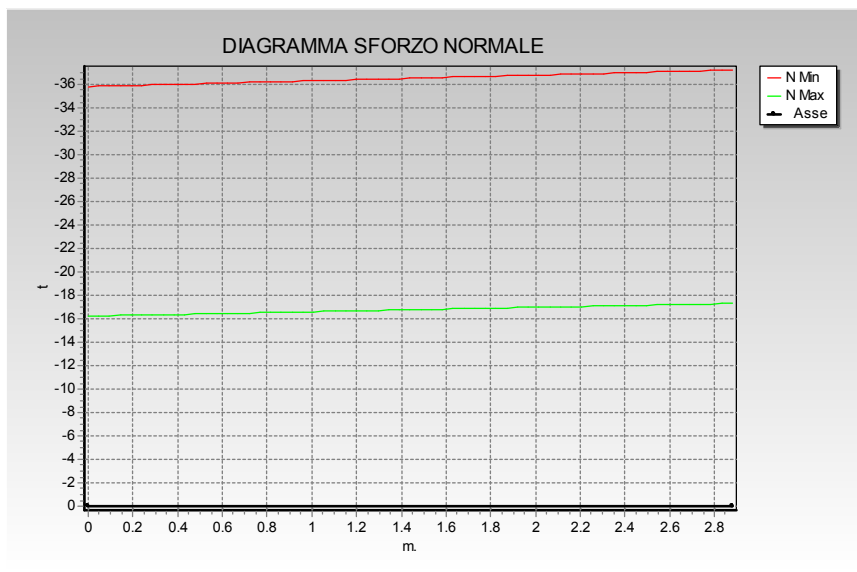
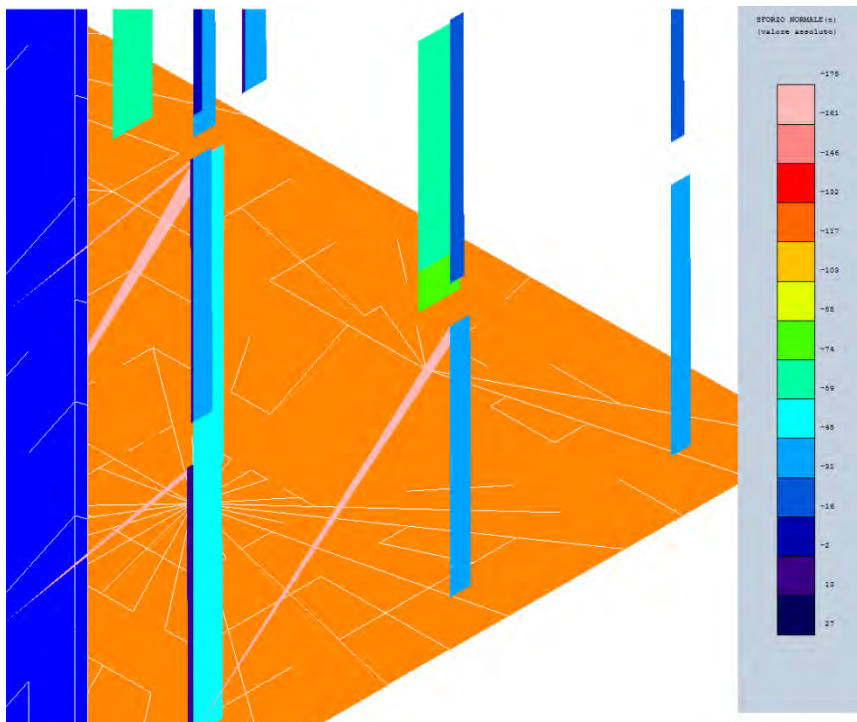
PORTANZA GLOBALE PIASTRE - MOLTIPLICATORI DI COLLASSO - SLD										
	DRENATE				NON DRENATE				RISULTATI	
Comb	Risult	Resist	Moltip.	%Pl.	Risult	Resist	Moltip.	%Pl.	Moltip.	STATUS
N.ro	(t)	(t)	Collasso	Moll	(t)	(t)	Collasso	Moll	Minimo	(m)
A1 / 4	2773	2773	1.000	0						OK
A1 / 5	2746	2746	1.000	0						OK
A1 / 6	2909	2909	1.000	0						OK
A1 / 7	2773	2773	1.000	0						OK
A1 / 8	2746	2746	1.000	0						OK
A1 / 9	2908	2908	1.000	0						OK
A1 / 10	2773	2773	1.000	0						OK
A1 / 11	2745	2745	1.000	0						OK
A1 / 12	2908	2908	1.000	0						OK
A1 / 13	2773	2773	1.000	0						OK
A1 / 14	2745	2745	1.000	0						OK
A1 / 15	1932	1932	1.000	0						OK
A1 / 16	1932	1932	1.000	0						OK
A1 / 17	1932	1932	1.000	0						OK
A1 / 18	1932	1932	1.000	0						OK
A1 / 19	1934	1934	1.000	0						OK
A1 / 20	1934	1934	1.000	0						OK
A1 / 21	1934	1934	1.000	0						OK
A1 / 22	1934	1934	1.000	0						OK
A1 / 23	1931	1931	1.000	0						OK
A1 / 24	1931	1931	1.000	0						OK
A1 / 25	1931	1931	1.000	0						OK
A1 / 26	1931	1931	1.000	0						OK
A1 / 27	1933	1933	1.000	0						OK
A1 / 28	1933	1933	1.000	0						OK
A1 / 29	1933	1933	1.000	0						OK

PORTANZA GLOBALE PIASTRE - MOLTIPLICATORI DI COLLASSO - SLD										
	DRENATE				NON DRENATE				RISULTATI	
Comb	Risult	Resist	Moltip.	%Pl.	Risult	Resist	Moltip.	%Pl.	Moltip.	STATUS
N.ro	(t)	(t)	Collasso	Moll	(t)	(t)	Collasso	Moll	Minimo	(m)
A1 / 30	1933	1933	1.000	0						OK
A1 / 31	1930	1930	1.000	0						OK
A1 / 32	1930	1930	1.000	0						OK
A1 / 33	1930	1930	1.000	0						OK
A1 / 34	1930	1930	1.000	0						OK
A1 / 35	1936	1936	1.000	0						OK
A1 / 36	1936	1936	1.000	0						OK
A1 / 37	1935	1935	1.000	0						OK
A1 / 38	1936	1936	1.000	0						OK
A1 / 39	1929	1929	1.000	0						OK
A1 / 40	1929	1929	1.000	0						OK
A1 / 41	1929	1929	1.000	0						OK
A1 / 42	1929	1929	1.000	0						OK
A1 / 43	1935	1935	1.000	0						OK
A1 / 44	1935	1935	1.000	0						OK
A1 / 45	1935	1935	1.000	0						OK
A1 / 46	1935	1935	1.000	0						OK



## 2.12 Giudizio motivato di accettabilità dei risultati

Si allega dimostrazione dei controlli eseguiti:



È stato eseguito il controllo dei risultati verificando che nella combinazione SLU-Carichi statici i valori coincidessero con quelli ottenuti attraverso semplici calcoli.

L'incidenza dei solai è stata considerata nel seguente modo:

$$P_{\text{Solaio}} = (365+330) \times 1.3 + 200 \times 1.5 = 1210 \text{ kg/mq}$$

$$P_{\text{Copertura}} = (365+155) \times 1.3 + 120 \times 1.5 = 860 \text{ kg/mq}$$

L'area d'incidenza per il pilastro centrale in questione è pari a:  $2.80 \times 1.45 = 4.1 \text{ mq}$

Quindi:

$$P_{\text{tot}} = 14900 + 3600 \text{ kg} = 18500 \text{ kg}$$

Allo stesso modo è stato valutato il carico derivante dal pilastro e dalle travi in c.a.:

$$P_{\text{Pilastro}} = 0.5 \times 0.3 \times 12 \times 2500 = 4500 \text{ kg} \times 1.3 = 5850 \text{ kg}$$

$$P_{\text{Travi}} = 4 \times (0.45 \times 0.3 \times 3.1 \times 2500) = 4400 \text{ kg} \times 1.3 = 5720 \text{ kg}$$

$$\text{Inoltre è stata considerata l'incidenza dei tamponamenti presenti pari a: } 2.8 \times 12 \times 0.3 \times 800 = 8064 \text{ kg}$$

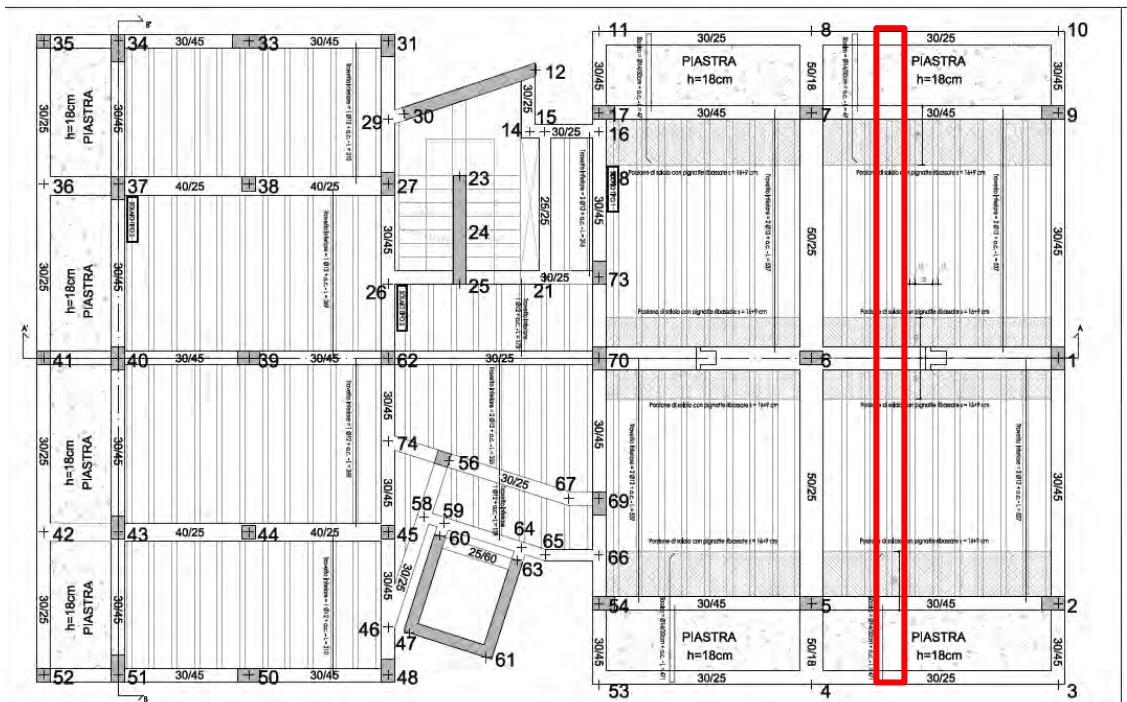
Quindi riassumendo lo sforzo normale ottenuto dal controllo eseguito corrisponde a:

$$N_{\text{tot}} = 38100 \text{ kg}$$

Il valore è paragonabile a quanto riportato nel programma di calcolo  $N = 38600 \text{ kg}$  perchè compreso nella percentuale di errore ammissibile, viste le approssimazioni considerate.

## 2.13 Verifiche agli stati limite ultimi - Impalcati

Di seguito si riportano le verifiche degli impalcati in laterocemento evidenziati, realizzati con spessore  $s = 20+5$ , denominato SOLAIO TIPO 1:



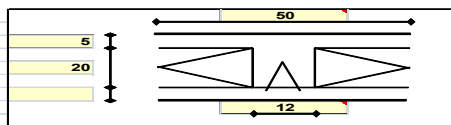
**Geometria**  
Misure in centimetri

**Tipo di solaio**  
Con blocchi in LATERIZIO

**Controllo limiti geometrici**  
Luce massima consigliata (snellezza 25) (m)  
Larghezza dei blocchi calcolata (cm)  
Larghezza max dei blocchi in laterizio (cm)  
Larghezza min. nervature per blocchi in laterizio (cm)  
Interasse max nervature per blocchi in laterizio (cm)

**Luci e carichi**

Luci (m)  
Peso proprio solaio calcolato (daN/mq.)  
Peso proprio solaio adottato (daN/mq.)  
Sov. perm. compiutamente definiti (daN/mq.)  
Sov. variabili (daN/mq.)  
Carichi totali (daN/m)



L max	6.25
Largh.	38
Largh.	52
b min	8
i max	75

L	5.58	5.58
p.p. calc	325	325
p.p.	365	365
g1	330	330
g2	0	0
q	200	200
tot	895	895

**Momento d'incastro negativo alle due estremità**

x sx	36	36
Mg1 sx	-301	-301
Mg2 sx	-0	-0
Mq sx	-86	-86
Mtot sx	-387	-387

**Categoria del carico variabile**  
Cat. A Residenziale

ψ0	0.7
ψ1	0.5
ψ2	0.3

**Ridistribuzione momenti comb. ultima**

Ridistribuzione desiderata  
Rapporti fra le luci delle campate  
Ridistribuzione applicata

1-3	15%	1.00	1.00	1.00
	15%	1.00	1.00	1.00

**Coefficienti parziali sulle azioni**

DEFAULT NTC '08

γg1	1.0	1.3
γg2	0.0	1.5
γq	0.0	1.5

**Interasse nervature (m)**

i	0.50
---	------

**1: COMBINAZIONE ULTIMA**

**Momenti Max - per nervatura**

**Momenti Max + per nervatura**

**Tagli dx Max per nervatura**

**Tagli sx Max per nervatura**

**Reazioni Max per nervatura**

**Reazioni Max per fascia di un metro**

-442	-1770	-442
1478	1492	1492
1478	1959	1959
2956	3917	1478
2956	7835	2956

**2: COMBINAZIONE RARA**

**Momenti Max - per nervatura**

**Momenti Max + per nervatura**

**Tagli dx Max per nervatura**

**Tagli sx Max per nervatura**

**Reazioni Max per nervatura**

**Reazioni Max per fascia di un metro**

-387	-1548	-387
1071	899	899
1071	1457	1457
2143	2913	1071
2143	5826	2143

**3: COMBINAZIONE QUASI PERMANENTE**

**Momenti Max - per nervatura**

**Momenti Max + per nervatura**

**Tagli dx Max per nervatura**

**Tagli sx Max per nervatura**

**Reazioni Max per nervatura**

**Reazioni Max per fascia di un metro**

-326	-1306	-326
887	717	717
887	1229	1229
1774	2458	887
1774	4915	1774

**4: COMBINAZIONE FREQUENTE**

**Momenti Max - per nervatura**

**Momenti Max + per nervatura**

**Tagli dx Max per nervatura**

**Tagli sx Max per nervatura**

**Reazioni Max per nervatura**

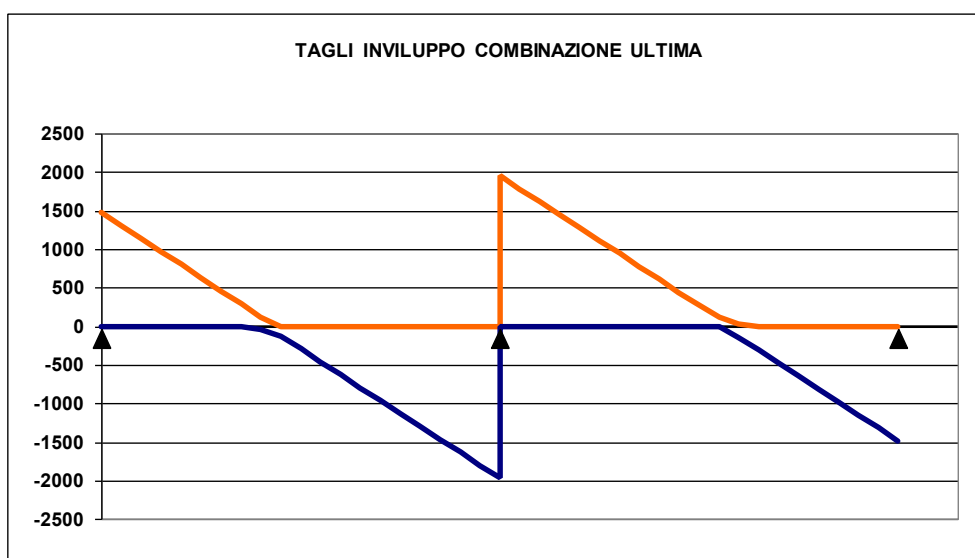
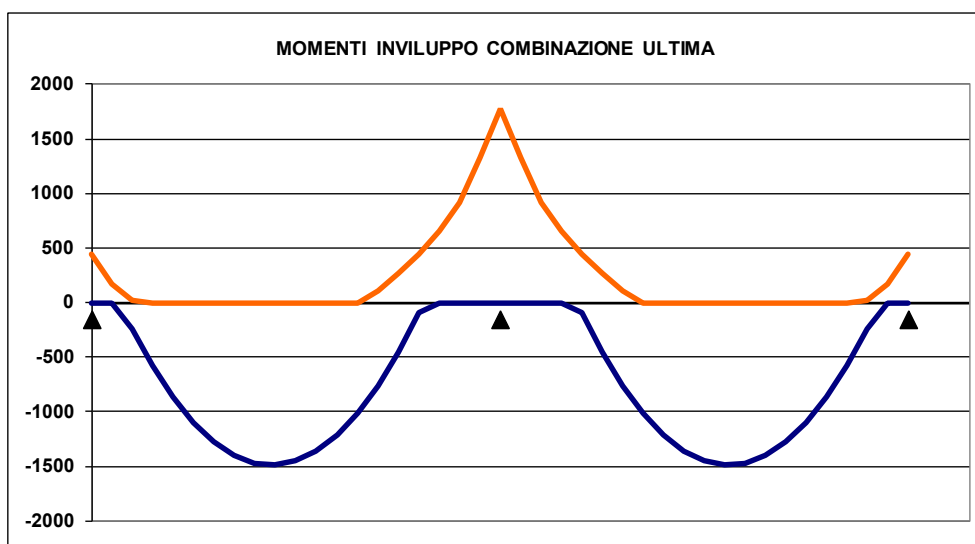
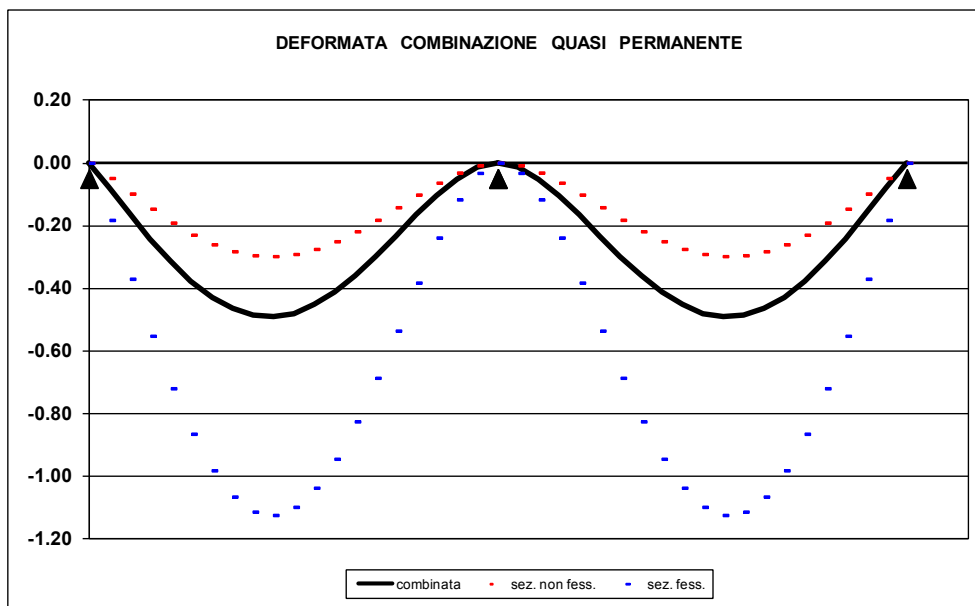
**Reazioni Max per fascia di un metro**

-344	-1375	-344
940	769	769
940	1294	1294
1879	2588	940
1879	5175	1879

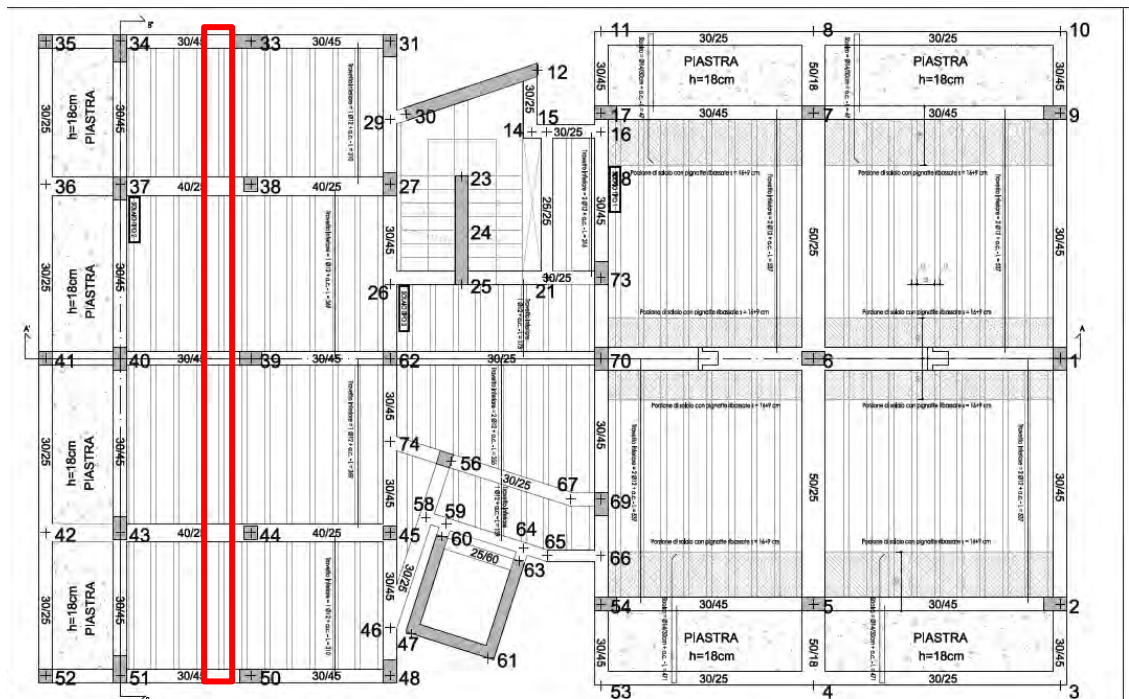
Interasse nervature (m)		i	0.50		
<b>1: COMBINAZIONE ULTIMA</b>					
Momenti Max - per nervatura		-442	-1770	-442	
Momenti Max + per nervatura		1492	1492		
Tagli dx Max per nervatura		1478	1959	1478	
Tagli sx Max per nervatura					
Reazioni Max per nervatura		1478	3917	1478	
Reazioni Max per fascia di un metro		2956	7835	2956	
<b>2: COMBINAZIONE RARA</b>					
Momenti Max - per nervatura		-387	-1548	-387	
Momenti Max + per nervatura		899	899		
Tagli dx Max per nervatura		1071	1457	1071	
Tagli sx Max per nervatura					
Reazioni Max per nervatura		1071	2913	1071	
Reazioni Max per fascia di un metro		2143	5826	2143	
<b>3: COMBINAZIONE QUASI PERMANENTE</b>					
Momenti Max - per nervatura		-326	-1306	-326	
Momenti Max + per nervatura		717	717		
Tagli dx Max per nervatura		887	1229	887	
Tagli sx Max per nervatura					
Reazioni Max per nervatura		887	2458	887	
Reazioni Max per fascia di un metro		1774	4915	1774	
<b>4: COMBINAZIONE FREQUENTE</b>					
Momenti Max - per nervatura		-344	-1375	-344	
Momenti Max + per nervatura		769	769		
Tagli dx Max per nervatura		940	1294	940	
Tagli sx Max per nervatura					
Reazioni Max per nervatura		940	2588	940	
Reazioni Max per fascia di un metro		1879	5175	1879	
← 309					
<b>Materiali</b>					
Calcestruzzo	Classe	C25/30			
Acciaio	Tipo	B450C			
<b>Dati geometrici</b>					
Diametro delle barre longitudinali superiori (mm)	φ	12	12	12	
Diametro delle barre longitudinali inferiori (mm)	φ	12	12	12	
<b>Armatura costante superiore</b>					
g) rete ø6/20"x20" collaborante ovunque	φ6	2.5	2.5		2.00
	CampSup	0.71	0.71		
	φ6	2.5	2.5	2.5	2.00
	AppSup	0.71	0.71	0.71	
<b>Armatura costante inferiore</b>					
a) nessuna	-	-	-		2.00
	CampInf	-	-		
	-	-	-	-	2.00
	AppInf	-	-	-	
Ricoprimento di calcestruzzo sulle barre (cm)	c	2.0	2.0	2.0	
Copriferro di calcolo (cm)	h'	2.6	2.6	2.6	
Spessore solaio (cm)	H	25	25	25	
Larghezza nervature (cm)	b	12	12	12	
Altezza utile (cm)	d	22.4	22.4	22.4	
← 352					
<b>Armatura appoggi</b>					
g) rete ø6/20"x20" collaborante ovunque	2.5ø6	2.5ø6	2.5ø6		
	0ø12	2ø12	0ø12		
	1ø12	1ø12	1ø12		
a) nessuna	0ø0	0ø0	0ø0		
Momento sollecitante (daN*m)	Med	442	1770	442	
Momento resistente (daN*m)	Mrd	588	2323	588	
indice di verifica	f	1.33	1.31	1.33	
Asse neutro (cm)	xc	3	6	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-129.2	-141.1	-129.2	
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	ε <sub>c</sub>	-0.142%	-0.328%	-0.142%	
Campo di rottura	n	2	2	2	
Ridistribuzione massima consentita	1-δ	30%	25%	30%	
Controllo redistribuzione	1-δ	si	si	si	
<b>Armatura campate</b>					
g) rete ø6/20"x20" collaborante ovunque	2.5ø6	2.5ø6			
	0ø12	0ø12			
	2ø12	2ø12			
a) nessuna	0ø0	0ø0			
Momento sollecitante (daN*m)	Med	1492	1492		
Momento resistente (daN*m)	Mrd	1902	1902		
indice di verifica	f	1.27	1.27		
Asse neutro (cm)	xc	3	3		
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913		
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-122.2	-122.2		
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%		
Deformazione calcestruzzo	ε <sub>c</sub>	-0.127%	-0.127%		
Campo di rottura	n	2	2		

<b>Armatura minima sugli appoggi alle due estremità</b>				
a) nessuna				
<b>Armatura minima in campata</b>				
a) nessuna				
<b>415</b>				
controllo armatura minima scelta: nessuna    sì    n.    sì				
<b>Armatura appoggi</b>	$\phi$	n.	n.	c
	$\phi 6$	2.5	2.5	2.5
	sup. $\phi 12$	-	2	2.0
	inf. $\phi 12$	1	1	2.0
CLIK PER PROCEDERE				
<b>1: VERIFICHE IN COMBINAZIONE ULTIMA</b>				
Momento sollecitante (daN*m)	Med	442	1770	442
Momento resistente (daN*m)	Mrd	595	2340	595
indice di verifica	f	1.35	1.32	1.35
Asse neutro (cm)	xc	3	6	3
Sforzo acciaio (daN/cm <sup>2</sup> )	$\sigma_s$	3913	3913	3913
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	$\sigma_c$	-125.3	-141.1	-125.3
Deformazione acciaio	$\epsilon_s$	1.000%	1.000%	1.000%
Deformazione calcestruzzo	$\epsilon_c$	-0.133%	-0.324%	-0.133%
Campo di rottura	n.	2	2	2
Ridistribuzione massima consentita	1- $\delta$	30%	25%	30%
<b>Controllo ridistribuzione</b>	1- $\delta$	sì	sì	sì
<b>2: VERIFICHE IN COMBINAZIONE RARA</b>				
$\sigma_s$ limite		3600	3600	3600
$\sigma_s$		2628	2667	2628
<b>indice di verifica lato acciaio</b>	f	1.37	1.35	1.37
$\sigma_c$ limite		149.4	149.4	149.4
$\sigma_c$		49.0	119.4	49.0
<b>indice di verifica lato cls</b>	f	3.05	1.25	3.05
<b>3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE</b>				
$\sigma_c$ limite		112.1	112.1	112.1
$\sigma_c$		41.4	100.7	41.4
<b>indice di verifica lato cls</b>	f	2.71	1.11	2.71
<b>473</b>				
<b>Armatura campate</b>				
	$\phi$	n.	n.	c
	$\phi 6$	2.5	2.5	2.0
	sup. $\phi 12$	-	-	2.0
	inf. $\phi 12$	2	2	2.0
controllo armatura minima scelta: nessuna    sì    sì				
<b>1: VERIFICHE IN COMBINAZIONE ULTIMA</b>				
Momento sollecitante (daN*m)	Med	1492	1492	
Momento resistente (daN*m)	Mrd	1902	1902	
indice di verifica	f	1.27	1.27	
Asse neutro (cm)	xc	3	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	$\sigma_s$	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	$\sigma_c$	-122.2	-122.2	
Deformazione acciaio	$\epsilon_s$	1.000%	1.000%	
Deformazione calcestruzzo	$\epsilon_c$	-0.127%	-0.127%	
Campo di rottura	n.	2	2	
<b>2: VERIFICHE IN COMBINAZIONE RARA</b>				
y		4.78	4.78	
Jci		12414	12414	
$\sigma_s$ limite		3600	3600	
$\sigma_s$		1915	1915	
<b>indice di verifica lato acciaio</b>	f	1.88	1.88	
$\sigma_c$ limite		149.4	149.4	
$\sigma_c$		34.6	34.6	
<b>indice di verifica lato cls</b>	f	4.31	4.31	
<b>3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE</b>				
y		4.78	4.78	
Jci		12414	12414	
$\sigma_c$ limite		112.1	112.1	
$\sigma_c$		27.6	27.6	
<b>indice di verifica lato cls</b>	f	4.06	4.06	
$\sigma_s$		1526	1526	
<b>4: VERIFICHE IN COMBINAZIONE FREQUENTE</b>				
$\sigma_s$		1637	1637	

<b>Verifiche a taglio</b>				
<b>1: con fasce piene</b>				
Tagli resistenti sx (daN)	VRd	1273	1273	
fascia piena (dall'asse dell'appoggio)	d1	36 cm	114 cm	
Tagli resistenti dx (daN)	VRd	1273	1273	
fascia piena (dall'asse dell'appoggio)	d2	114 cm	36 cm	
<b>2: con fasce piene e barre longitudinali tese</b>				
	$\phi$	n.	n.	n.
sup. $\phi 6$	2.5	2.5	2.5	
sup. $\phi 12$	-	2	-	
inf. $\phi 12$	1	1	1	
-	-	-	-	
Tagli resistenti sx (daN)	VRd	1372	1893	
fascia piena (dall'asse dell'appoggio)	d1	19 cm	11 cm	
Tagli resistenti dx (daN)	VRd	1893	1372	
fascia piena (dall'asse dell'appoggio)	d2	11 cm	19 cm	
<b>← 566</b>				
<b>Verifiche di fessurazione</b>				
CONDIZ. AMBIENTALI ORDINARIE				
<b>Appoggi</b>				
diametro armature superiori	$\phi$	6	12	6
combinazione frequente	$\sigma_s$	2335	2369	2335
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.66	1.74	3.66
combinazione quasi permanente	$\sigma_s$	2217	2250	2217
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	3.35	1.61	3.35
<b>Campate</b>				
diametro armature inferiori	$\phi$	12	12	
combinazione frequente	$\sigma_s$	1637	1637	
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.27	3.27	
combinazione quasi permanente	$\sigma_s$	1526	1526	
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.67	
<b>Verifiche di snellezza</b>				
$\rho$		0.46%	0.46%	
$\rho'$		0.14%	0.14%	
$\lambda$ limite tab		26	26	
K		1.3	1.3	
$\lambda$ limite calc		29.6	29.6	
$\lambda$ limite		23.7	23.7	
$\lambda$		22.3	22.3	
indice di verifica	f	1.06	1.06	
<b>Verifiche di deformabilità</b>				
PER L'INTEGRITA' DEI DIVISORI				
Coefficiente di viscosità (11.2.10.7)	$\phi(\text{inf})$	1.7	1.7	
Freccia massima sez. non-fessurata (cm)	f max	0.30	0.30	
Freccia massima sez. fessurata (cm)	f max	1.12	1.12	
Freccia massima combinata (cm)	f max	0.49	0.49	
Freccia limite (cm)	f lim	1.12	1.12	
indice di verifica	f	2.27	2.27	



Di seguito si riportano le verifiche degli impalcati in laterocemento evidenziati, realizzati con spessore  $s = 20+5$ , denominato SOLAIO TIPO 2:

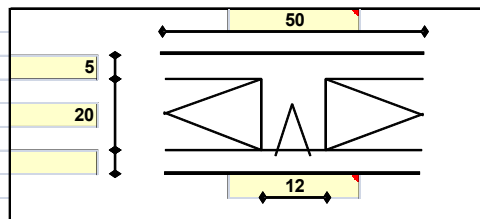


#### Geometria

Misure in centimetri

#### Tipo di solaio

Con blocchi in LATERIZIO



#### Controllo limiti geometrici

Luce massima consigliata (snellezza 25) (m)  
Larghezza dei blocchi calcolata (cm)  
Larghezza max dei blocchi in laterizio (cm)  
Larghezza min. nervature per blocchi in laterizio (cm)  
Interasse max nervature per blocchi in laterizio (cm)

L max	6.25
Largh.	38
Largh.	
b min	
i max	

#### Luci e carichi

Luci (m)  
Peso proprio solaio calcolato (daN/mq.)  
Peso proprio solaio adottato (daN/mq.)  
Sovr. perm. compiutamente definiti (daN/mq.)  
Sovr. perm. non-compiutamente definiti (daN/mq.)  
Sovr. variabili (daN/mq.)  
Carichi totali (daN/m)

L	3.15	3.85	3.85	3.15
p.p. calc	325	325	325	325
p.p. ADOTTA	365	365	365	365
g1	330	330	330	330
g2	0	0	0	0
q	200	200	200	200
tot	895	895	895	895

#### Momento d'incastro negativo alle due estremità

x sx	72				72	x dx
Mg1 sx	-48				-48	Mg1 dx
Mg2 sx	-0				-0	Mg2 dx
Mq sx	-14				-14	Mq dx
Mtot sx	-62				-62	Mtot dx

#### Categoria del carico variabile

Cat. A Residenziale	$\psi_0$	0.7
	$\psi_1$	0.5
	$\psi_2$	0.3

#### Ridistribuzione momenti comb. ultima

Ridistribuzione desiderata	1-8	15%				
Rapporti fra le luci delle campate		1.00	0.82	1.00	1.22	1.00
Ridistribuzione applicata		15%	15%	15%	15%	15%

#### Coefficienti parziali sulle azioni

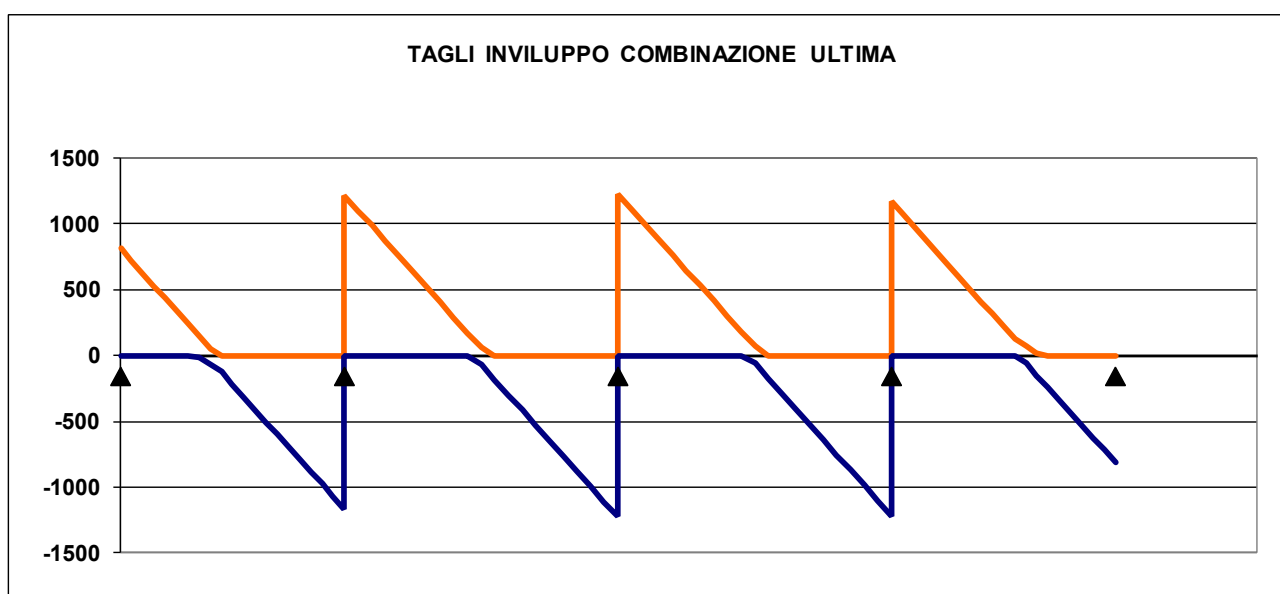
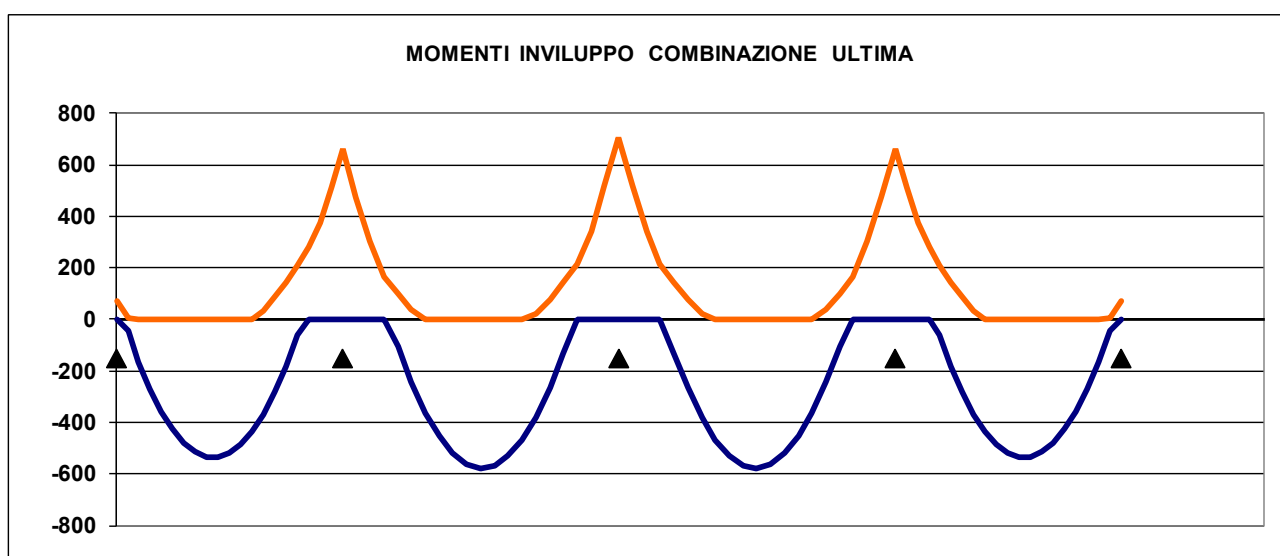
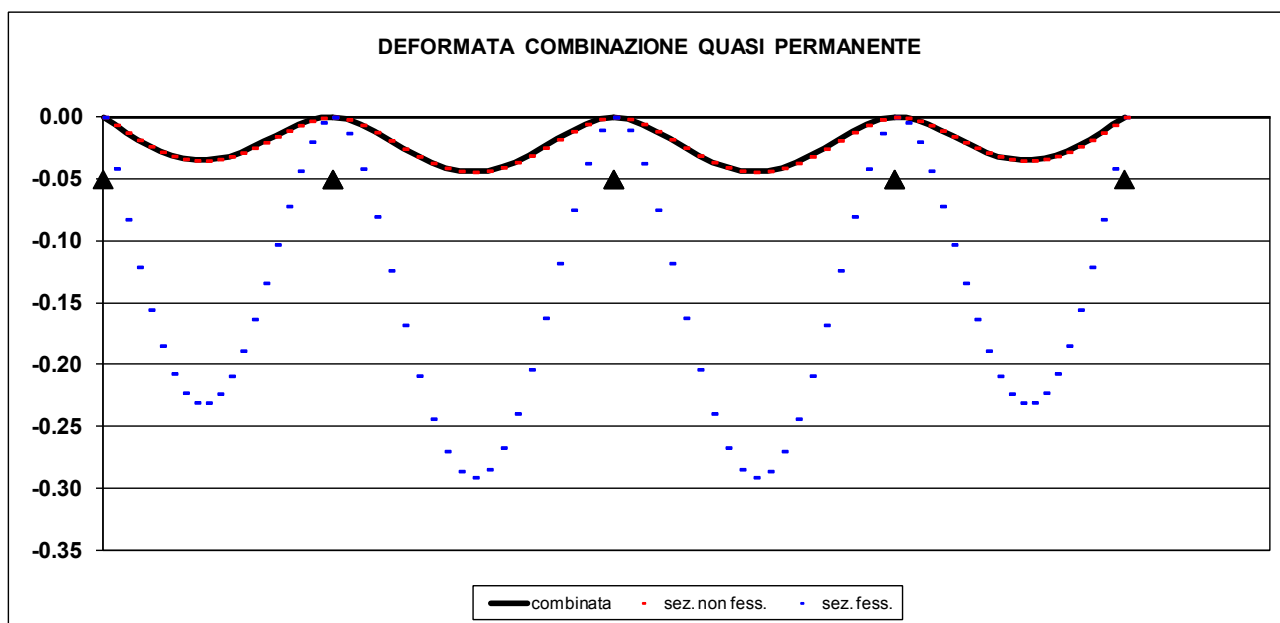
DEFAULT NTC '08	$\gamma_{g1}$	1.0	1.3			
	$\gamma_{g2}$	0.0	1.5		NTC '08	
	$\gamma_q$	0.0	1.5			



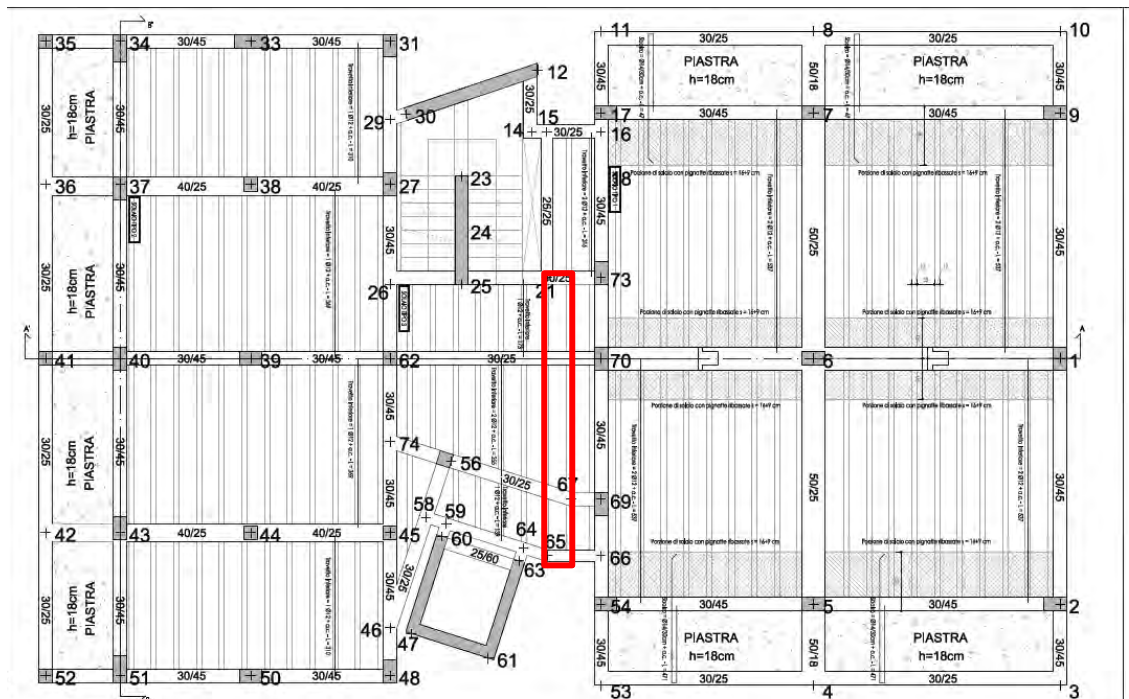
Interasse nervature (m)		i 0.50				
1: COMBINAZIONE ULTIMA						
Momenti Max - per nervatura		-70	-661	-706	-661	-70
Momenti Max + per nervatura		539	577	577	539	
Tagli dx Max per nervatura		813	1216	1227	1168	813
Tagli sx Max per nervatura			1168	1227	1216	
Reazioni Max per nervatura		813	2384	2453	2384	813
Reazioni Max per fascia di un metro		1626	4769	4907	4769	1626
2: COMBINAZIONE RARA						
Momenti Max - per nervatura		-62	-559	-591	-559	-62
Momenti Max + per nervatura		318	329	329	318	
Tagli dx Max per nervatura		581	881	891	863	581
Tagli sx Max per nervatura			863	891	881	
Reazioni Max per nervatura		581	1744	1782	1744	581
Reazioni Max per fascia di un metro		1161	3488	3564	3488	1161
3: COMBINAZIONE QUASI PERMANENTE						
Momenti Max - per nervatura		-52	-460	-482	-460	-52
Momenti Max + per nervatura		248	251	251	248	
Tagli dx Max per nervatura		475	730	739	724	475
Tagli sx Max per nervatura			724	739	730	
Reazioni Max per nervatura		475	1454	1477	1454	475
Reazioni Max per fascia di un metro		950	2907	2955	2907	950
4: COMBINAZIONE FREQUENTE						
Momenti Max - per nervatura		-55	-488	-513	-488	-55
Momenti Max + per nervatura		268	273	273	268	
Tagli dx Max per nervatura		505	773	782	764	505
Tagli sx Max per nervatura			764	782	773	
Reazioni Max per nervatura		505	1537	1564	1537	505
Reazioni Max per fascia di un metro		1010	3073	3129	3073	1010
← 309						
Materiali						
Calcestruzzo	Classe	C25/30				
Acciaio	Tipo	B450C				
Dati geometrici						
Diametro delle barre longitudinali superiori (mm)	φ	12	12	12	12	12
Diametro delle barre longitudinali inferiori (mm)	φ	12	12	12	12	12
Armatura costante superiore		φ	n.	n.	n.	c
c) rete ø6/20"x20" collaborante solo in campata	ø6	2.5	2.5	2.5	2.5	2.00
	CampSup	0.71	0.71	0.71	0.71	
	-	-	-	-	-	2.00
	AppSup	-	-	-	-	
Armatura costante inferiore						
a) nessuna	-	-	-	-	-	2.00
	CampInf	-	-	-	-	
	-	-	-	-	-	2.00
	AppInf	-	-	-	-	
Ricoprimento di calcestruzzo sulle barre (cm)	c	2.0	2.0	2.0	2.0	2.0
Copriferro di calcolo (cm)	h'	2.6	2.6	2.6	2.6	2.6
Spessore solaio (cm)	H	25	25	25	25	25
Larghezza nervature (cm)	b	12	12	12	12	12
Altezza utile (cm)	d	22.4	22.4	22.4	22.4	22.4
← 352						
c) rete ø6/20"x20" collaborante solo in campata						
Armatura appoggi		0ø0 1ø12	0ø0 1ø12	0ø0 1ø12	0ø0 1ø12	0ø0 1ø12
a) nessuna		1ø12 0ø0	1ø12 0ø0	1ø12 0ø0	1ø12 0ø0	1ø12 0ø0
Momento sollecitante (daN*m)	Med	70	661	706	661	70
Momento resistente (daN*m)	Mrd	924	924	924	924	924
indice di verifica	f	13.11	1.40	1.31	1.40	13.11
Asse neutro (cm)	xc	3	3	3	3	3
Sforzo acciaio (daN/cm <sup>q.</sup> )	σ <sub>s</sub>	3913	3913	3913	3913	3913
Sforzo calcestruzzo (daN/cm <sup>q.</sup> )	σ <sub>c</sub>	-138.9	-138.9	-138.9	-138.9	-138.9
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	1.000%	1.000%
Deformazione calcestruzzo	ε <sub>c</sub>	-0.175%	-0.175%	-0.175%	-0.175%	-0.175%
Campo di rottura	n	2	2	2	2	2
Ridistribuzione massima consentita	1-δ	30%	30%	30%	30%	30%
Controllo ridistribuzione	1-δ	si	si	si	si	si
c) rete ø6/20"x20" collaborante solo in campata						
Armatura campate		2.5ø6 0ø12	2.5ø6 0ø12	2.5ø6 0ø12	2.5ø6 0ø12	
a) nessuna		1ø12 0ø0	1ø12 0ø0	1ø12 0ø0	1ø12 0ø0	
Momento sollecitante (daN*m)	Med	539	577	577	539	
Momento resistente (daN*m)	Mrd	972	972	972	972	
indice di verifica	f	1.80	1.69	1.69	1.80	
Asse neutro (cm)	xc	2	2	2	2	
Sforzo acciaio (daN/cm <sup>q.</sup> )	σ <sub>s</sub>	3913	3913	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>q.</sup> )	σ <sub>c</sub>	-98.4	-98.4	-98.4	-98.4	
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	ε <sub>c</sub>	-0.090%	-0.090%	-0.090%	-0.090%	
Campo di rottura	n	2	2	2	2	

Armatura minima sugli appoggi alle due estremità							
a) nessuna							
Armatura minima in campata							
a) nessuna							
← 415							
controllo armatura minima scelta: nessuna si							
Armatura appoggi	φ	n.	n.	n.	n.	n.	c
	-	-	-	-	-	-	2.0
	sup. ø12	1	1	1	1	1	2.0
	inf. ø12	1	1	1	1	1	2.0
	-	-	-	-	-	-	2.0
CLIK PER PROCEDERE							
1: VERIFICHE IN COMBINAZIONE ULTIMA							
Momento sollecitante (daN*m)	Med	70	661	706	661	70	
Momento resistente (daN*m)	Mrd	924	924	924	924	924	
indice di verifica	f	13.11	1.40	1.31	1.40	13.11	
Asse neutro (cm)	xc	3	3	3	3	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	σs	3913	3913	3913	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σc	-138.9	-138.9	-138.9	-138.9	-138.9	
Deformazione acciaio	εs	1.000%	1.000%	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	εc	-0.175%	-0.175%	-0.175%	-0.175%	-0.175%	
Campo di rottura	n.	2	2	2	2	2	
Ridistribuzione massima consentita	1-δ	30%	30%	30%	30%	30%	
Controllo ridistribuzione	1-δ	si	si	si	si	si	
2: VERIFICHE IN COMBINAZIONE RARA							
σs limite		3600	3600	3600	3600	3600	
σs		269	2442	2579	2442	269	
indice di verifica lato acciaio	f	13.37	1.47	1.40	1.47	13.37	
σc limite		149.4	149.4	149.4	149.4	149.4	
σc		6.6	60.1	63.5	60.1	6.6	
indice di verifica lato cls	f	22.54	2.49	2.35	2.49	22.54	
3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE							
σc limite		112.1	112.1	112.1	112.1	112.1	
σc		5.6	49.5	51.8	49.5	5.6	
indice di verifica lato cls	f	20.04	2.27	2.16	2.27	20.04	
← 473							
Armatura campate							
	φ	n.	n.	n.	n.		c
	ø6	2.5	2.5	2.5	2.5		2.0
	sup. ø12	-	-	-	-		2.0
	inf. ø12	1	1	1	1		2.0
	-	-	-	-	-		2.0
controllo armatura minima scelta: nessuna si							
1: VERIFICHE IN COMBINAZIONE ULTIMA							
Momento sollecitante (daN*m)	Med	539	577	577	539		
Momento resistente (daN*m)	Mrd	972	972	972	972		
indice di verifica	f	1.80	1.69	1.69	1.80		
Asse neutro (cm)	xc	2	2	2	2		
Sforzo acciaio (daN/cm <sup>2</sup> )	σs	3913	3913	3913	3913		
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σc	-98.4	-98.4	-98.4	-98.4		
Deformazione acciaio	εs	1.000%	1.000%	1.000%	1.000%		
Deformazione calcestruzzo	εc	-0.090%	-0.090%	-0.090%	-0.090%		
Campo di rottura	n.	2	2	2	2		
2: VERIFICHE IN COMBINAZIONE RARA							
y		3.51	3.51	3.51	3.51		
Jci		6787	6787	6787	6787		
σs limite		3600	3600	3600	3600		
σs		1327	1375	1375	1326		
indice di verifica lato acciaio	f	2.71	2.62	2.62	2.71		
σc limite		149.4	149.4	149.4	149.4		
σc		16.4	17.0	17.0	16.4		
indice di verifica lato cls	f	9.10	8.78	8.78	9.10		
3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE							
y		3.51	3.51	3.51	3.51		
Jci		6787	6787	6787	6787		
σc limite		112.1	112.1	112.1	112.1		
σc		12.8	13.0	13.0	12.8		
indice di verifica lato cls	f	8.74	8.64	8.64	8.74		
σs		1035	1048	1048	1035		
4: VERIFICHE IN COMBINAZIONE FREQUENTE							
σs		1119	1142	1142	1119		

<b>Verifiche a taglio</b>					
<b>1: con fasce piene</b>					
Tagli resistenti sx (daN)	VRd	1273	1273	1273	1273
fascia piena (dall'asse dell'appoggio)	d1	-	-	-	-
Tagli resistenti dx (daN)	VRd	1273	1273	1273	1273
fascia piena (dall'asse dell'appoggio)	d2	-	-	-	-
<b>2: con fasce piene e barre longitudinali tese</b>					
$\phi$	n.	n.	n.	n.	n.
sup.	$\phi 12$	1	1	1	1
inf.	$\phi 12$	1	1	1	1
Tagli resistenti sx (daN)	VRd	1372	1372	1372	1372
fascia piena (dall'asse dell'appoggio)	d1	-	-	-	-
Tagli resistenti dx (daN)	VRd	1372	1372	1372	1372
fascia piena (dall'asse dell'appoggio)	d2	-	-	-	-
<b>← 566</b>					
<b>Verifiche di fessurazione</b>					
CONDIZ. AMBIENTALI ORDINARIE					
<b>Appoggi</b>					
diametro armature superiori	$\phi$	12	12	12	12
combinazione frequente	$\sigma_s$	239	2133	2239	2133
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.33	2.34	2.07	2.34
combinazione quasi permanente	$\sigma_s$	227	2009	2103	2009
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.07	1.89	2.07
<b>Campate</b>					
diametro armature inferiori	$\phi$	12	12	12	12
combinazione frequente	$\sigma_s$	1119	1142	1142	1119
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.33	3.33	3.33	3.33
combinazione quasi permanente	$\sigma_s$	1035	1048	1048	1035
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.67	2.67	2.67
<b>Verifiche di snellezza</b>					
$\rho$		0.23%	0.23%	0.23%	0.23%
$\rho'$		0.14%	0.14%	0.14%	0.14%
$\lambda$ limite tab		26	30	30	26
K		1.3	1.5	1.5	1.3
$\lambda$ limite calc		50.1	54.0	54.0	50.1
$\lambda$ limite		40.1	43.2	43.2	40.1
$\lambda$		12.6	15.4	15.4	12.6
indice di verifica	f	3.18	2.81	2.81	3.18
<b>Verifiche di deformabilità</b>					
PER L'INTEGRITA' DEI DIVISORI					
Coefficiente di viscosità (11.2.10.7)	$\phi(\text{inf})$	1.8	1.8	1.8	1.8
Freccia massima sez. non-fessurata (cm)	f max	0.04	0.04	0.04	0.04
Freccia massima sez. fessurata (cm)	f max	0.23	0.29	0.29	0.23
Freccia massima combinata (cm)	f max	0.04	0.04	0.04	0.04
Freccia limite (cm)	f lim	0.63	0.77	0.77	0.63
indice di verifica	f	17.94	17.39	17.39	17.94



Di seguito si riportano le verifiche degli impalcati in laterocemento evidenziati, realizzati con spessore  $s = 20+5$ , denominato SOLAIO TIPO 3:

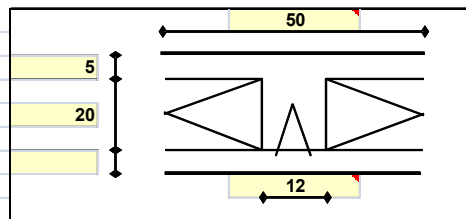


#### Geometria

Misure in centimetri

#### Tipo di solaio

Con blocchi in LATERIZIO



#### Controllo limiti geometrici

Luce massima consigliata (snellezza 25) (m)  
Larghezza dei blocchi calcolata (cm)  
Larghezza max dei blocchi in laterizio (cm)  
Larghezza min. nervature per blocchi in laterizio (cm)  
Interasse max nervature per blocchi in laterizio (cm)

L max	6.25
Largh.	38
Largh.	52
b min	8
i max	75

#### Luci e carichi

Luci (m)  
Peso proprio solaio calcolato (daN/mq.)  
Peso proprio solaio adottato (daN/mq.)  
Sov. perm. compiutamente definiti (daN/mq.)  
Sov. perm. non-compiutamente definiti (daN/mq.)  
Sov. variabili (daN/mq.)  
Carichi totali (daN/m)

ADOTTA  
→

L	1.95	4.45
p.p. calc	325	325
p.p.	365	365
g1	155	155
g2	0	0
q	400	400
tot	920	920

#### Momento d'incastro negativo alle due estremità

x sx	36	36	x dx
Mg1 sx	-27	-143	Mg1 dx
Mg2 sx	-0	-0	Mg2 dx
Mq sx	-21	-110	Mq dx
Mtot sx	-49	-253	Mtot dx

#### Categoria del carico variabile

Cat. B Uffici

$\psi_0$	0.7
$\psi_1$	0.5
$\psi_2$	0.3

#### Ridistribuzione momenti comb. ultima

Ridistribuzione desiderata  
Rapporti fra le luci delle campate  
Ridistribuzione applicata

1-8	15%		
	1.00	0.44	1.00
	15%	0%	15%

#### Coefficienti parziali sulle azioni

DEFAULT NTC '08

$\gamma_{g1}$	1.0	1.3
$\gamma_{g2}$	0.0	1.5
$\gamma_q$	0.0	1.5

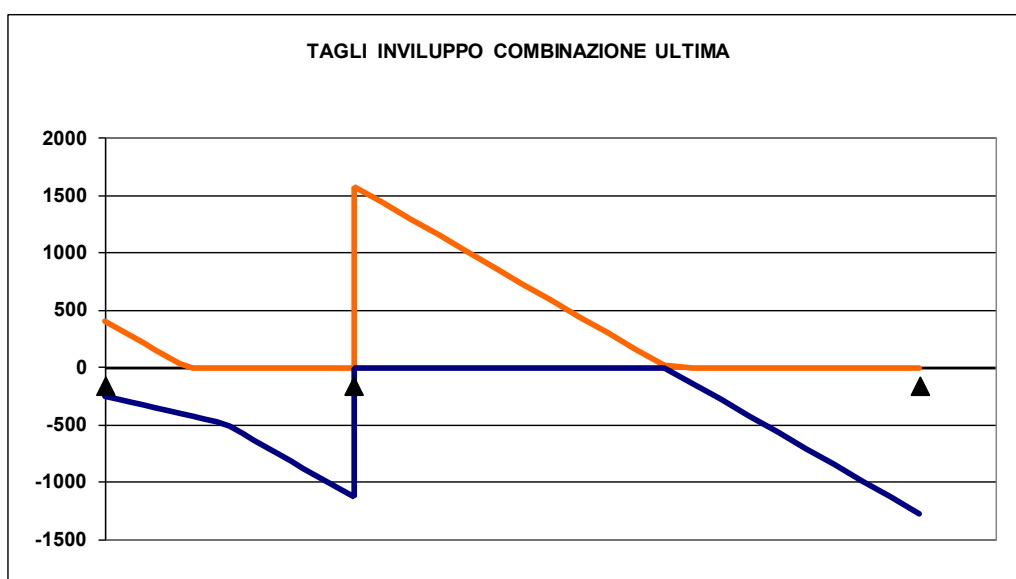
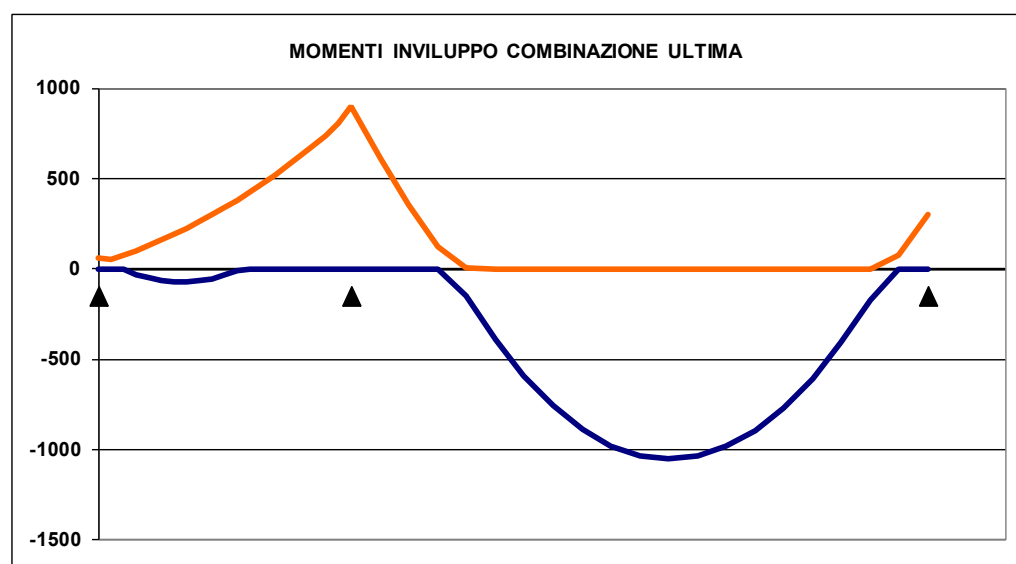
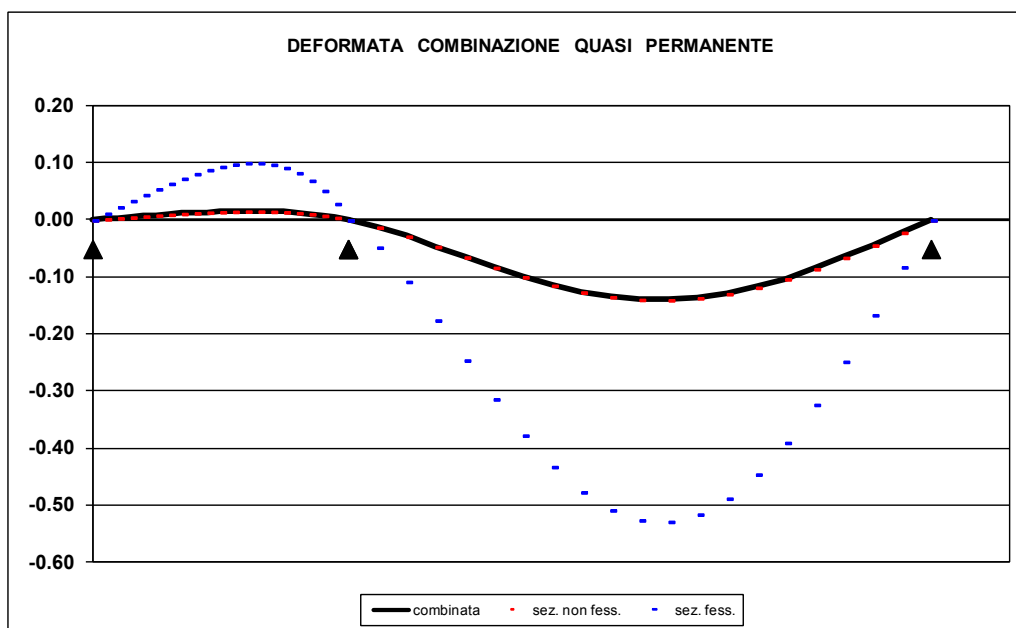
NTC '08

Interasse nervature (m)	i	0.50			
<b>1: COMBINAZIONE ULTIMA</b>					
Momenti Max - per nervatura		-57	-1058	-298	
Momenti Max + per nervatura		108	1054		
Tagli dx Max per nervatura		411	1578		
Tagli sx Max per nervatura			1130	1272	
Reazioni Max per nervatura		411	2709	1272	
Reazioni Max per fascia di un metro		821	5417	2543	
<b>2: COMBINAZIONE RARA</b>					
Momenti Max - per nervatura		-49	-763	-253	
Momenti Max + per nervatura		48	656		
Tagli dx Max per nervatura		239	1138		
Tagli sx Max per nervatura			815	915	
Reazioni Max per nervatura		239	1953	915	
Reazioni Max per fascia di un metro		478	3906	1829	
<b>3: COMBINAZIONE QUASI PERMANENTE</b>					
Momenti Max - per nervatura		-34	-531	-176	
Momenti Max + per nervatura		-2	452		
Tagli dx Max per nervatura		104	792		
Tagli sx Max per nervatura			567	634	
Reazioni Max per nervatura		104	1359	634	
Reazioni Max per fascia di un metro		208	2717	1268	
<b>4: COMBINAZIONE FREQUENTE</b>					
Momenti Max - per nervatura		-38	-597	-198	
Momenti Max + per nervatura		13	510		
Tagli dx Max per nervatura		143	891		
Tagli sx Max per nervatura			638	714	
Reazioni Max per nervatura		143	1528	714	
Reazioni Max per fascia di un metro		286	3057	1428	
		← 309			
<b>Materiali</b>					
Calcestruzzo	Classe	C25/30			
Acciaio	Tipo	B450C			
<b>Dati geometrici</b>					
Diametro delle barre longitudinali superiori (mm)	φ	12	12	12	
Diametro delle barre longitudinali inferiori (mm)	φ	12	12	12	
<b>Armatura costante superiore</b>					
g) rete ø6/20"x20" collaborante ovunque	φ	n.	n.	n.	c
	ø6	2.5	2.5		2.00
	CampSup	0.71	0.71		
	ø6	2.5	2.5	2.5	2.00
	AppSup	0.71	0.71	0.71	
<b>Armatura costante inferiore</b>					
a) nessuna	-	-	-		2.00
	CampInf	-	-		
	-	-	-	-	2.00
	AppInf	-	-	-	
Ricoprimento di calcestruzzo sulle barre (cm)	c	2.0	2.0	2.0	
Copriferro di calcolo (cm)	h'	2.6	2.6	2.6	
Spessore solaio (cm)	H	25	25	25	
Larghezza nervature (cm)	b	12	12	12	
Altezza utile (cm)	d	22.4	22.4	22.4	
	← 352				
<b>Armatura appoggi</b>					
g) rete ø6/20"x20" collaborante ovunque	2.5ø6	2.5ø6	2.5ø6		
	0ø12	1ø12	0ø12		
	1ø12	1ø12	1ø12		
a) nessuna	0ø0	0ø0	0ø0		
Momento sollecitante (daN*m)	Med	57	1058	298	
Momento resistente (daN*m)	Mrd	588	1473	588	
indice di verifica	f	10.27	1.39	1.97	
Asse neutro (cm)	xc	3	4	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-129.2	-141.1	-129.2	
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	ε <sub>c</sub>	-0.142%	-0.232%	-0.142%	
Campo di rottura	n.	2	2	2	
Ridistribuzione massima consentita	1-δ	30%	0%	30%	
Controllo redistribuzione	1-δ	si	si	si	
<b>Armatura campate</b>					
g) rete ø6/20"x20" collaborante ovunque	2.5ø6	2.5ø6			
	0ø12	0ø12			
	1ø12	2ø12			
a) nessuna	0ø0	0ø0			
Momento sollecitante (daN*m)	Med	108	1054		
Momento resistente (daN*m)	Mrd	972	1902		
indice di verifica	f	9.03	1.81		
Asse neutro (cm)	xc	2	3		
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913		
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-98.4	-122.2		
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%		
Deformazione calcestruzzo	ε <sub>c</sub>	-0.090%	-0.127%		
Campo di rottura	n.	2	2		

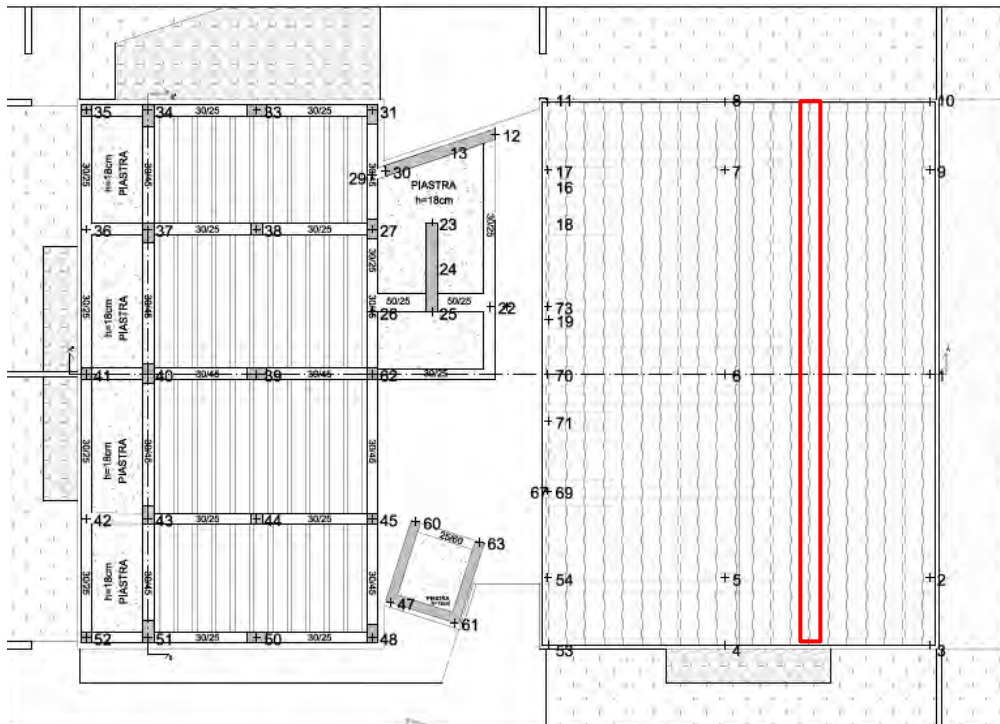
<b>Armatura minima sugli appoggi alle due estremità</b>				
a) nessuna				
<b>Armatura minima in campata</b>				
a) nessuna				
<b>← 415</b>				
controllo armatura minima scelta: nessuna    sì    n.    sì    c				
<b>Armatura appoggi</b>				
	φ	n.	n.	c
	ø6	2.5	2.5	2.0
sup.	ø12	-	1	2.0
<b>CLIK PER PROCEDERE</b>				
inf.	ø12	1	1	2.0
	-	-	-	2.0
<b>1: VERIFICHE IN COMBINAZIONE ULTIMA</b>				
Momento sollecitante (daN*m)	Med	57	1058	298
Momento resistente (daN*m)	Mrd	595	1482	595
indice di verifica	f	10.39	1.40	2.00
Asse neutro (cm)	xc	3	4	3
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	3913
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-125.3	-141.1	-125.3
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%
Deformazione calcestruzzo	ε <sub>c</sub>	-0.133%	-0.228%	-0.133%
Campo di rottura	n.	2	2	2
Ridistribuzione massima consentita	1-δ	30%	0%	30%
Controllo redistribuzione	1-δ	si	si	si
<b>2: VERIFICHE IN COMBINAZIONE RARA</b>				
σ <sub>s</sub> limite		3600	3600	3600
σ <sub>s</sub>		330	2077	1718
indice di verifica lato acciaio	f	10.91	1.73	2.10
σ <sub>c</sub> limite		149.4	149.4	149.4
σ <sub>c</sub>		6.2	68.5	32.1
indice di verifica lato cls	f	24.27	2.18	4.66
<b>3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE</b>				
σ <sub>c</sub> limite		112.1	112.1	112.1
σ <sub>c</sub>		4.3	47.6	22.3
indice di verifica lato cls	f	26.16	2.35	5.02
<b>← 473</b>				
<b>Armatura campate</b>				
	φ	n.	n.	c
	ø6	2.5	2.5	2.0
sup.	ø12	-	-	2.0
inf.	ø12	1	2	2.0
	-	-	-	2.0
controllo armatura minima scelta: nessuna    sì    sì				
<b>1: VERIFICHE IN COMBINAZIONE ULTIMA</b>				
Momento sollecitante (daN*m)	Med	108	1054	
Momento resistente (daN*m)	Mrd	972	1902	
indice di verifica	f	9.03	1.81	
Asse neutro (cm)	xc	2	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-98.4	-122.2	
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	
Deformazione calcestruzzo	ε <sub>c</sub>	-0.090%	-0.127%	
Campo di rottura	n.	2	2	
<b>2: VERIFICHE IN COMBINAZIONE RARA</b>				
y		3.51	4.78	
Jci		6787	12414	
σ <sub>s</sub> limite		3600	3600	
σ <sub>s</sub>		202	1398	
indice di verifica lato acciaio	f	17.84	2.58	
σ <sub>c</sub> limite		149.4	149.4	
σ <sub>c</sub>		2.5	25.3	
indice di verifica lato cls	f	59.82	5.91	
<b>3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE</b>				
y		3.51	4.78	
Jci		6787	12414	
σ <sub>c</sub> limite		112.1	112.1	
σ <sub>c</sub>		0.1	17.4	
indice di verifica lato cls	f	1188.47	6.44	
σ <sub>s</sub>		8	963	
<b>4: VERIFICHE IN COMBINAZIONE FREQUENTE</b>				
σ <sub>s</sub>		52	1087	

<b>Verifiche a taglio</b>				
	fck	249	249	
	b	120	120	
	d (mm)	224	224	
	k calc	1.94	1.94	
	k	1.94	1.94	
	v min	0.47	0.47	
	$\rho_1$ calc	0.0042	0.0068	
	$\rho_1$	0.0042	0.0068	
	VRd1	1372	1614	
	VRd2	1273	1273	
	$\rho_1$ calc	0.0068	0.0042	
	$\rho_1$	0.0068	0.0042	
	VRd1	1614	1372	
	VRd2	1273	1273	
<b>1: con fasce piene</b>				
Tagli resistenti sx (daN)	VRd	1273	1273	
fascia piena (dall'asse dell'appoggio)	d1	-	48 cm	
Tagli resistenti dx (daN)	VRd	1273	1273	
fascia piena (dall'asse dell'appoggio)	d2	-	-	
<b>2: con fasce piene e barre longitudinali tese</b>				
	$\phi$	n.	n.	n.
	$\phi 6$	2.5	2.5	2.5
sup.	$\phi 12$	-	1	-
	$\phi 12$	1	1	1
	-	-	-	-
Tagli resistenti sx (daN)	VRd	1372	1614	
fascia piena (dall'asse dell'appoggio)	d1	-	-	
Tagli resistenti dx (daN)	VRd	1614	1372	
fascia piena (dall'asse dell'appoggio)	d2	-	-	
<b>← 566</b>				
<b>Verifiche di fessurazione</b>				
CONDIZ. AMBIENTALI ORDINARIE				
<b>Appoggi</b>				
diametro armature superiori	$\phi$	6	12	6
combinazione frequente	$\sigma_s$	258	1626	1345
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	6.67	3.29	6.67
combinazione quasi permanente	$\sigma_s$	230	1445	1195
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	5.33	2.67	5.33
<b>Campate</b>				
diametro armature inferiori	$\phi$	12	12	
combinazione frequente	$\sigma_s$	52	1087	
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.33	3.33	
combinazione quasi permanente	$\sigma_s$	8	963	
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.67	
<b>Verifiche di snellezza</b>				
	$\rho$	0.23%	0.46%	
	$\rho'$	0.14%	0.14%	
$\lambda$ limite tab		26	26	
K		1.3	1.3	
$\lambda$ limite calc		250.8	42.0	
$\lambda$ limite		200.6	33.6	
$\lambda$		7.8	17.8	
indice di verifica	f	25.72	1.89	
<b>Verifiche di deformabilità</b>				
PER L'INTEGRITA' DEI DIVISORI				
Coefficiente di viscosità (11.2.10.7)	$\phi(\text{inf})$	1.7	1.7	
Freccia massima sez. non-fessurata (cm)	f max	0.00	0.14	
Freccia massima sez. fessurata (cm)	f max	0.00	0.53	
Freccia massima combinata (cm)	f max	0.00	0.14	
Freccia limite (cm)	f lim	0.39	0.89	
indice di verifica	f	-	6.36	





Di seguito si riportano le verifiche degli impalcati in laterocemento evidenziati, realizzati con spessore  $s = 20+5$ , denominato SOLAIO TIPO 1, al piano di copertura:

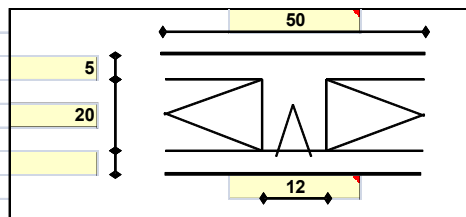


#### Geometria

Misure in centimetri

#### Tipo di solaio

Con blocchi in LATERIZIO



#### Controllo limiti geometrici

Luce massima consigliata (snellezza 25) (m)  
Larghezza dei blocchi calcolata (cm)  
Larghezza max dei blocchi in laterizio (cm)  
Larghezza min. nervature per blocchi in laterizio (cm)  
Interasse max nervature per blocchi in laterizio (cm)

L max  
Largh.  
Largh.  
b min  
i max

6.25  
38  
52  
8  
75

#### Luci e carichi

Luci (m)  
Peso proprio solaio calcolato (daN/mq.)  
Peso proprio solaio adottato (daN/mq.)  
Sovr. perm. compiutamente definiti (daN/mq.)  
Sovr. perm. non-compiutamente definiti (daN/mq.)  
Sovr. variabili (daN/mq.)  
Carichi totali (daN/m)

L  
p.p. calc  
p.p.  
g1  
g2  
q  
tot

5.58  
325  
365  
155  
0  
120  
640

#### Momento d'incastro negativo alle due estremità

x sx  
Mg1 sx  
Mg2 sx  
Mq sx  
Mtot sx

36  
-225  
-0  
-52  
-277

x dx  
Mg1 dx  
Mg2 dx  
Mq dx  
Mtot dx

#### Categoria del carico variabile

Cat. L Neve fino a 1000 m

$\psi_0$   
 $\psi_1$   
 $\psi_2$

0.5  
0.2  
0.0

#### Ridistribuzione momenti comb. ultima

Ridistribuzione desiderata  
Rapporti fra le luci delle campate  
Ridistribuzione applicata

1-8  
1.00  
15%

15%  
1.00  
15%

#### Coefficienti parziali sulle azioni

DEFAULT NTC '08

$\gamma_1$   
 $\gamma_2$   
 $\gamma_q$

1.0  
0.0  
0.0

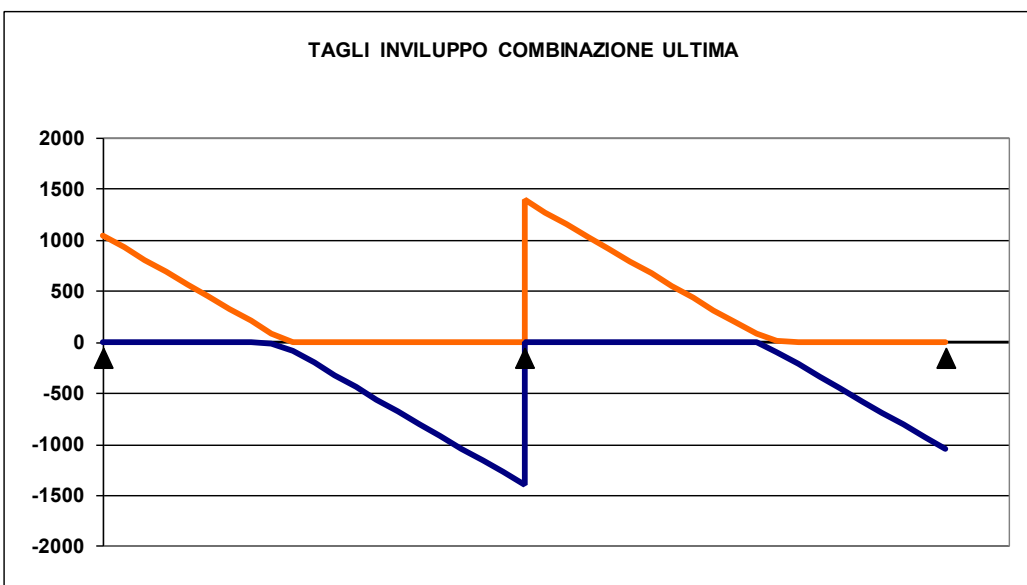
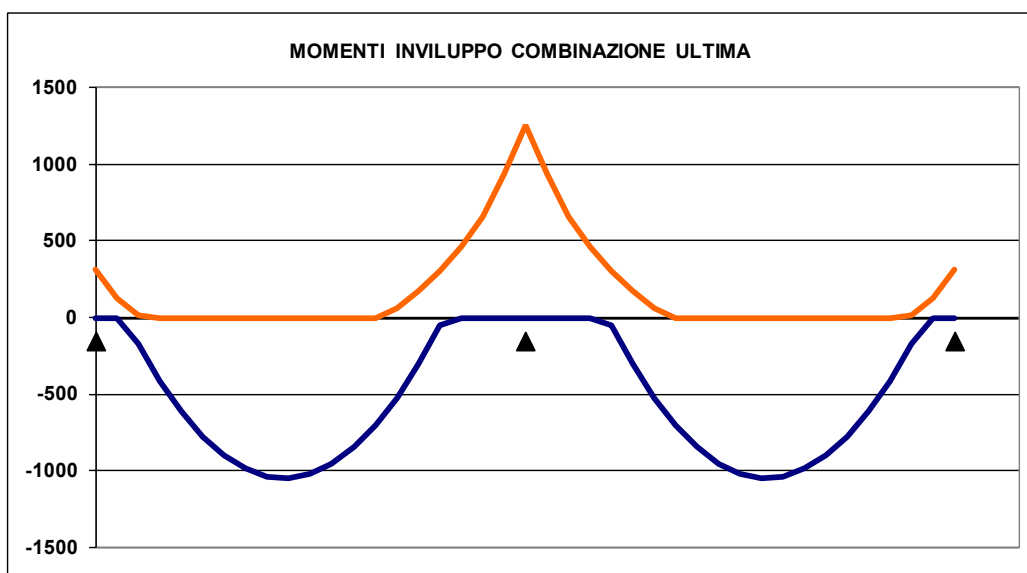
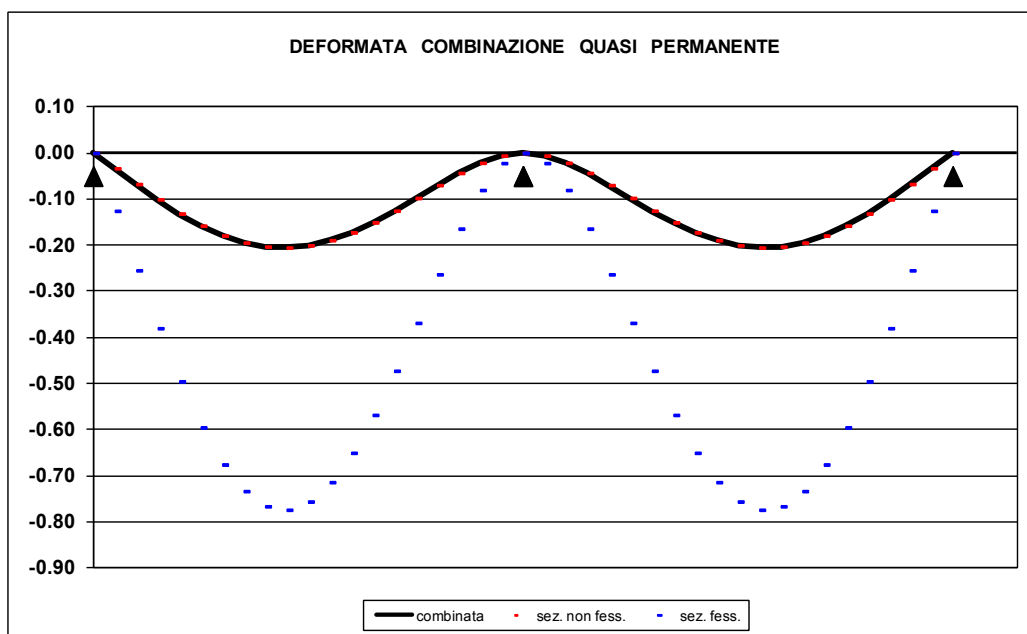
1.3  
1.5  
1.5

NTC '08

Interasse nervature (m)	i	0.50			
<b>1: COMBINAZIONE ULTIMA</b>					
Momenti Max - per nervatura		-315	-1259	-315	
Momenti Max + per nervatura		1050	1050		
Tagli dx Max per nervatura		1047	1393		
Tagli sx Max per nervatura			1393	1047	
Reazioni Max per nervatura		1047	2786	1047	
Reazioni Max per fascia di un metro		2094	5573	2094	
<b>2: COMBINAZIONE RARA</b>					
Momenti Max - per nervatura		-277	-1107	-277	
Momenti Max + per nervatura		634	634		
Tagli dx Max per nervatura		763	1042		
Tagli sx Max per nervatura			1042	763	
Reazioni Max per nervatura		763	2083	763	
Reazioni Max per fascia di un metro		1525	4166	1525	
<b>3: COMBINAZIONE QUASI PERMANENTE</b>					
Momenti Max - per nervatura		-225	-899	-225	
Momenti Max + per nervatura		478	478		
Tagli dx Max per nervatura		605	846		
Tagli sx Max per nervatura			846	605	
Reazioni Max per nervatura		605	1693	605	
Reazioni Max per fascia di un metro		1209	3385	1209	
<b>4: COMBINAZIONE FREQUENTE</b>					
Momenti Max - per nervatura		-235	-941	-235	
Momenti Max + per nervatura		509	509		
Tagli dx Max per nervatura		636	885		
Tagli sx Max per nervatura			885	636	
Reazioni Max per nervatura		636	1771	636	
Reazioni Max per fascia di un metro		1272	3541	1272	
		← 309			
<b>Materiali</b>					
Calcestruzzo	Classe	C25/30			
Acciaio	Tipo	B450C			
<b>Dati geometrici</b>					
Diametro delle barre longitudinali superiori (mm)	φ	12	12	12	
Diametro delle barre longitudinali inferiori (mm)	φ	12	12	12	
<b>Armatura costante superiore</b>					
g) rete ø6/20"x20" collaborante ovunque	φ	n.	n.	n.	c
	ø6	2.5	2.5		2.00
	CampSup	0.71	0.71		
	ø6	2.5	2.5	2.5	2.00
	AppSup	0.71	0.71	0.71	
<b>Armatura costante inferiore</b>					
a) nessuna	-	-	-		2.00
	CampInf	-	-		
	-	-	-	-	2.00
	AppInf	-	-	-	
Ricoprimento di calcestruzzo sulle barre (cm)	c	2.0	2.0	2.0	
Copriferro di calcolo (cm)	h'	2.6	2.6	2.6	
Spessore solaio (cm)	H	25	25	25	
Larghezza nervature (cm)	b	12	12	12	
Altezza utile (cm)	d	22.4	22.4	22.4	
	← 352				
<b>Armatura appoggi</b>					
g) rete ø6/20"x20" collaborante ovunque	2.5ø6	2.5ø6	2.5ø6		
	0ø12	1ø12	0ø12		
	1ø12	1ø12	1ø12		
a) nessuna	0ø0	0ø0	0ø0		
Momento sollecitante (daN*m)	Med	315	1259	315	
Momento resistente (daN*m)	Mrd	588	1473	588	
indice di verifica	f	1.87	1.17	1.87	
Asse neutro (cm)	x <sub>c</sub>	3	4	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-129.2	-141.1	-129.2	
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	ε <sub>c</sub>	-0.142%	-0.232%	-0.142%	
Campo di rottura	n.	2	2	2	
Ridistribuzione massima consentita	1-δ	30%	30%	30%	
Controllo ridistribuzione	1-δ	si	si	si	
<b>Armatura campate</b>					
g) rete ø6/20"x20" collaborante ovunque	2.5ø6	2.5ø6			
	0ø12	0ø12			
	2ø12	2ø12			
a) nessuna	0ø0	0ø0			
Momento sollecitante (daN*m)	Med	1050	1050		
Momento resistente (daN*m)	Mrd	1902	1902		
indice di verifica	f	1.81	1.81		
Asse neutro (cm)	x <sub>c</sub>	3	3		
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913		
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-122.2	-122.2		
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%		
Deformazione calcestruzzo	ε <sub>c</sub>	-0.127%	-0.127%		
Campo di rottura	n.	2	2		

<b>Armatura minima sugli appoggi alle due estremità</b>				
a) nessuna				
<b>Armatura minima in campata</b>				
a) nessuna				
<b>← 415</b>				
controllo armatura minima scelta: nessuna sì n. n. sì c				
<b>Armatura appoggi</b>				
	$\phi$	n.	n.	n. c
	$\phi 6$	2.5	2.5	2.5 2.0
sup.	$\phi 12$	-	1	- 2.0
<b>CLIK PER PROCEDERE</b>				
inf.	$\phi 12$	1	1	1 2.0
	-	-	-	- 2.0
<b>1: VERIFICHE IN COMBINAZIONE ULTIMA</b>				
Momento sollecitante (daN*m)	Med	315	1259	315
Momento resistente (daN*m)	Mrd	595	1482	595
indice di verifica	f	1.89	1.18	1.89
Asse neutro (cm)	xc	3	4	3
Sforzo acciaio (daN/cm <sup>2</sup> )	$\sigma_s$	3913	3913	3913
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	$\sigma_c$	-125.3	-141.1	-125.3
Deformazione acciaio	$\epsilon_s$	1.000%	1.000%	1.000%
Deformazione calcestruzzo	$\epsilon_c$	-0.133%	-0.228%	-0.133%
Campo di rottura	n.	2	2	2
Ridistribuzione massima consentita	1- $\delta$	30%	30%	30%
<b>Controllo redistribuzione</b>	1- $\delta$	sì	sì	sì
<b>2: VERIFICHE IN COMBINAZIONE RARA</b>				
$\sigma_s$ limite		3600	3600	3600
$\sigma_s$		1879	3014	1879
<b>indice di verifica lato acciaio</b>	f	1.92	1.19	1.92
$\sigma_c$ limite		149.4	149.4	149.4
$\sigma_c$		35.1	99.4	35.1
<b>indice di verifica lato cls</b>	f	4.26	1.50	4.26
<b>3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE</b>				
$\sigma_c$ limite		112.1	112.1	112.1
$\sigma_c$		28.5	80.8	28.5
<b>indice di verifica lato cls</b>	f	3.93	1.39	3.93
<b>← 473</b>				
<b>Armatura campate</b>				
	$\phi$	n.	n.	c
	$\phi 6$	2.5	2.5	2.0
sup.	$\phi 12$	-	-	2.0
inf.	$\phi 12$	2	2	2.0
	-	-	-	2.0
controllo armatura minima scelta: nessuna sì sì				
<b>1: VERIFICHE IN COMBINAZIONE ULTIMA</b>				
Momento sollecitante (daN*m)	Med	1050	1050	
Momento resistente (daN*m)	Mrd	1902	1902	
<b>indice di verifica</b>	f	1.81	1.81	
Asse neutro (cm)	xc	3	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	$\sigma_s$	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	$\sigma_c$	-122.2	-122.2	
Deformazione acciaio	$\epsilon_s$	1.000%	1.000%	
Deformazione calcestruzzo	$\epsilon_c$	-0.127%	-0.127%	
Campo di rottura	n.	2	2	
<b>2: VERIFICHE IN COMBINAZIONE RARA</b>				
y		4.78	4.78	
Jci		12414	12414	
$\sigma_s$ limite		3600	3600	
$\sigma_s$		1350	1350	
<b>indice di verifica lato acciaio</b>	f	2.67	2.67	
$\sigma_c$ limite		149.4	149.4	
$\sigma_c$		24.4	24.4	
<b>indice di verifica lato cls</b>	f	6.12	6.12	
<b>3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE</b>				
y		4.78	4.78	
Jci		12414	12414	
$\sigma_c$ limite		112.1	112.1	
$\sigma_c$		18.4	18.4	
<b>indice di verifica lato cls</b>	f	6.09	6.09	
$\sigma_s$		1017	1017	
<b>4: VERIFICHE IN COMBINAZIONE FREQUENTE</b>				
$\sigma_s$		1084	1084	

<b>Verifiche a taglio</b>				
<b>1: con fasce piene</b>				
Tagli resistenti sx (daN)	VRd	1273	1273	
fascia piena (dall'asse dell'appoggio)	d1	-	28 cm	
Tagli resistenti dx (daN)	VRd	1273	1273	
fascia piena (dall'asse dell'appoggio)	d2	28 cm	-	
<b>2: con fasce piene e barre longitudinali tese</b>				
	$\phi$	n.	n.	n.
	$\phi 6$	2.5	2.5	2.5
sup.	$\phi 12$	-	1	-
	$\phi 12$	1	1	1
inf.	-	-	-	-
Tagli resistenti sx (daN)	VRd	1372	1614	
fascia piena (dall'asse dell'appoggio)	d1	-	-	
Tagli resistenti dx (daN)	VRd	1614	1372	
fascia piena (dall'asse dell'appoggio)	d2	-	-	
<b>← 566</b>				
<b>Verifiche di fessurazione</b>				
CONDIZ. AMBIENTALI ORDINARIE				
<b>Appoggi</b>				
diametro armature superiori	$\phi$	6	12	6
combinazione frequente	$\sigma_s$	1598	2562	1598
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	6.67	1.53	6.67
combinazione quasi permanente	$\sigma_s$	1527	2449	1527
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	5.33	1.29	5.33
<b>Campate</b>				
diametro armature inferiori	$\phi$	12	12	
combinazione frequente	$\sigma_s$	1084	1084	
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.33	3.33	
combinazione quasi permanente	$\sigma_s$	1017	1017	
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.67	
<b>Verifiche di snellezza</b>				
	$\rho$	0.46%	0.46%	
	$\rho'$	0.14%	0.14%	
$\lambda$ limite tab		26	26	
K		1.3	1.3	
$\lambda$ limite calc		42.1	42.1	
$\lambda$ limite		33.7	33.7	
$\lambda$		22.3	22.3	
indice di verifica	f	1.51	1.51	
<b>Verifiche di deformabilità</b>				
PER L'INTEGRITA' DEI DIVISORI				
Coefficiente di viscosità (11.2.10.7)	$\phi(\text{inf})$	1.7	1.7	
Freccia massima sez. non-fessurata (cm)	f max	0.21	0.21	
Freccia massima sez. fessurata (cm)	f max	0.77	0.77	
Freccia massima combinata (cm)	f max	0.21	0.21	
Freccia limite (cm)	f lim	1.12	1.12	
indice di verifica	f	5.43	5.43	



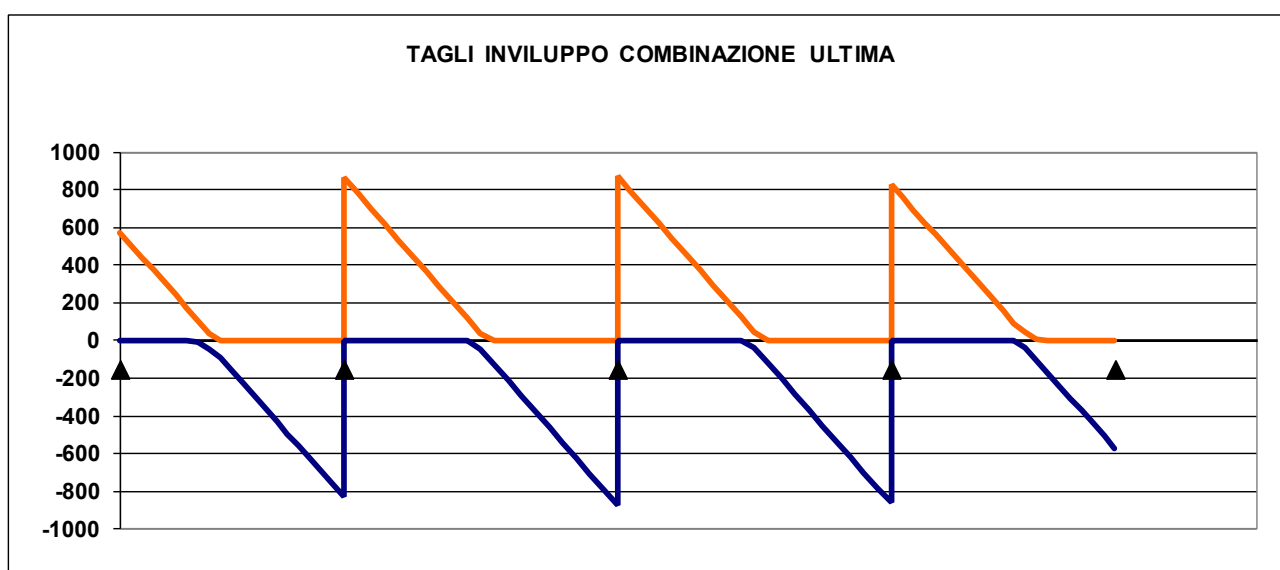
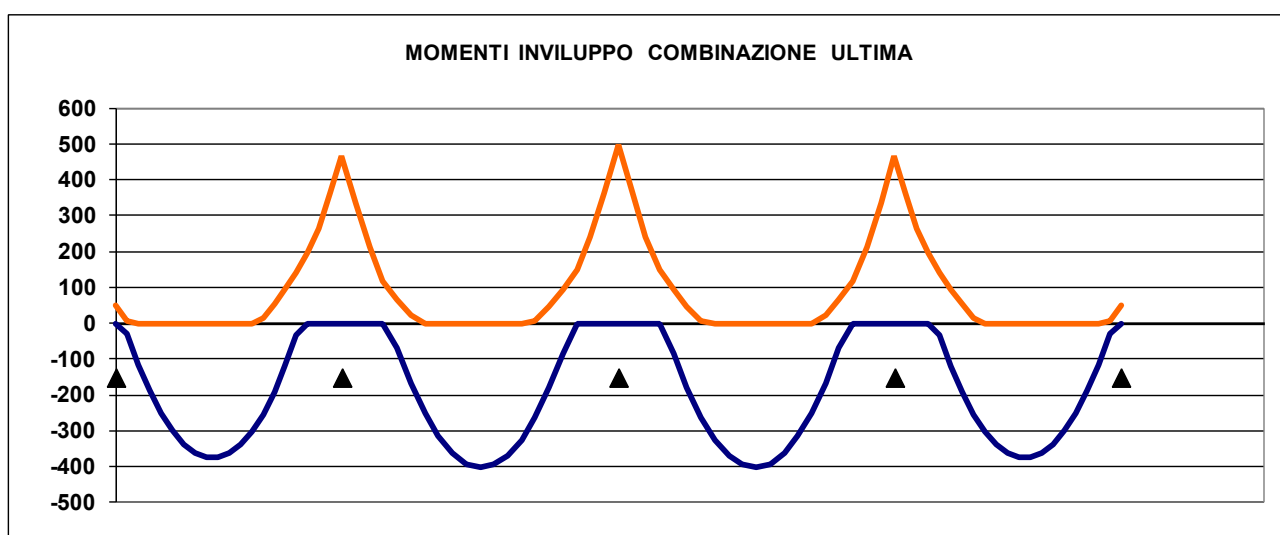
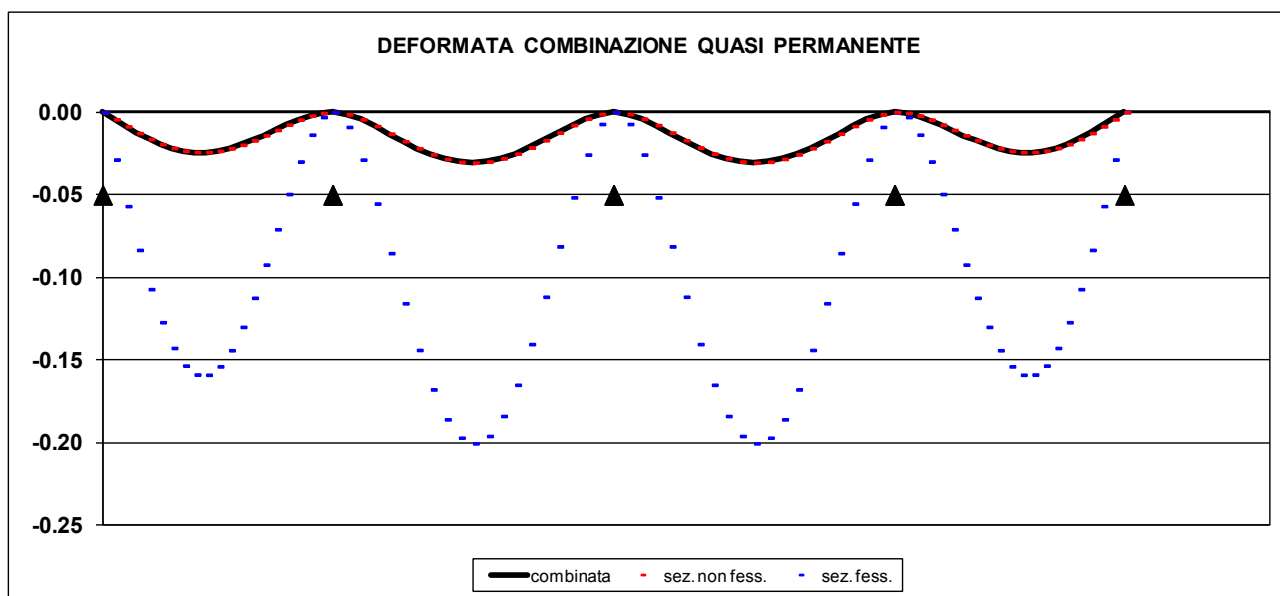
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Interasse nervature (m)		i 0.50				
1: COMBINAZIONE ULTIMA						
Momenti Max - per nervatura		-50				
Momenti Max + per nervatura		378 403 403 378				
Tagli dx Max per nervatura		575 862 869 830 575				
Tagli sx Max per nervatura		830 869 862				
Reazioni Max per nervatura		575 1692 1739 1692 575				
Reazioni Max per fascia di un metro		1149 3384 3478 3384 1149				
2: COMBINAZIONE RARA						
Momenti Max - per nervatura		-44				
Momenti Max + per nervatura		223 230 230 223				
Tagli dx Max per nervatura		412 627 634 616 412				
Tagli sx Max per nervatura		616 634 627				
Reazioni Max per nervatura		412 1244 1269 1244 412				
Reazioni Max per fascia di un metro		824 2487 2538 2487 824				
3: COMBINAZIONE QUASI PERMANENTE						
Momenti Max - per nervatura		-36				
Momenti Max + per nervatura		163 163 163 163				
Tagli dx Max per nervatura		322 497 504 497 322				
Tagli sx Max per nervatura		497 504 497				
Reazioni Max per nervatura		322 994 1008 994 322				
Reazioni Max per fascia di un metro		643 1989 2015 1989 643				
4: COMBINAZIONE FREQUENTE						
Momenti Max - per nervatura		-37				
Momenti Max + per nervatura		175 176 176 175				
Tagli dx Max per nervatura		340 523 530 521 340				
Tagli sx Max per nervatura		521 530 523				
Reazioni Max per nervatura		340 1044 1060 1044 340				
Reazioni Max per fascia di un metro		679 2089 2120 2089 679				
← 309						
Materiali						
Calcestruzzo	Classe	C25/30				
Acciaio	Tipo	B450C				
Dati geometrici						
Diametro delle barre longitudinali superiori (mm)	φ	12				
Diametro delle barre longitudinali inferiori (mm)	φ	12				
Armatura costante superiore						
φ	n.	n.				
c) rete ø6/20"x20" collaborante solo in campata	ø6	2.5				
	CampSup	0.71				
	-	-				
	AppSup	-				
Armatura costante inferiore						
a) nessuna	-	-				
	CampInf	-				
	-	-				
	AppInf	-				
Ricoprimento di calcestruzzo sulle barre (cm)	c	2.0				
Copriferro di calcolo (cm)	h'	2.6				
Spessore solaio (cm)	H	25				
Larghezza nervature (cm)	b	12				
Altezza utile (cm)	d	22.4				
← 352						
c) rete ø6/20"x20" collaborante solo in campata						
Armatura appoggi		0ø0	0ø0	0ø0	0ø0	0ø0
		1ø12	1ø12	1ø12	1ø12	1ø12
		1ø12	1ø12	1ø12	1ø12	1ø12
a) nessuna		0ø0	0ø0	0ø0	0ø0	0ø0
Momento sollecitante (daN*m)	Med	50	468	499	468	50
Momento resistente (daN*m)	Mrd	924	924	924	924	924
indice di verifica	f	18.43	1.97	1.85	1.97	18.43
Asse neutro (cm)	x.c	3	3	3	3	3
Sforzo acciaio (daN/cm.q.)	σ.s	3913	3913	3913	3913	3913
Sforzo calcestruzzo (daN/cm.q.)	σ.c	-138.9	-138.9	-138.9	-138.9	-138.9
Deformazione acciaio	ε.s	1.000%	1.000%	1.000%	1.000%	1.000%
Deformazione calcestruzzo	ε.c	-0.175%	-0.175%	-0.175%	-0.175%	-0.175%
Campo di rottura	n.	2	2	2	2	2
Ridistribuzione massima consentita	1-δ	30%	30%	30%	30%	30%
Controllo ridistribuzione	1-δ	si	si	si	si	si
c) rete ø6/20"x20" collaborante solo in campata						
Armatura campate		2.5ø6	2.5ø6	2.5ø6	2.5ø6	
		0ø12	0ø12	0ø12	0ø12	
		1ø12	1ø12	1ø12	1ø12	
a) nessuna		0ø0	0ø0	0ø0	0ø0	
Momento sollecitante (daN*m)	Med	378	403	403	378	
Momento resistente (daN*m)	Mrd	972	972	972	972	
indice di verifica	f	2.58	2.41	2.41	2.58	
Asse neutro (cm)	x.c	2	2	2	2	
Sforzo acciaio (daN/cm.q.)	σ.s	3913	3913	3913	3913	
Sforzo calcestruzzo (daN/cm.q.)	σ.c	-98.4	-98.4	-98.4	-98.4	
Deformazione acciaio	ε.s	1.000%	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	ε.c	-0.090%	-0.090%	-0.090%	-0.090%	
Campo di rottura	n.	2	2	2	2	



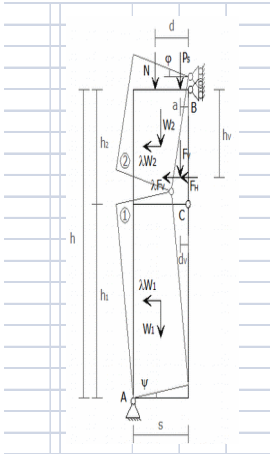
Armatura minima sugli appoggi alle due estremità							
a) nessuna							
Armatura minima in campata							
a) nessuna							
← 415							
controllo armatura minima scelta:		nessuna	si				si
Armatura appoggi		φ	n.	n.	n.	n.	n.
		-	-	-	-	-	-
sup.		ø12	1	1	1	1	1
		-	-	-	-	-	-
inf.		ø12	1	1	1	1	1
		-	-	-	-	-	-
c							
2.0							
2.0							
2.0							
2.0							
1: VERIFICHE IN COMBINAZIONE ULTIMA							
Momento sollecitante (daN*m)	Med	50	468	499	468	50	
Momento resistente (daN*m)	Mrd	924	924	924	924	924	
indice di verifica	f	18.43	1.97	1.85	1.97	18.43	
Asse neutro (cm)	x <sub>c</sub>	3	3	3	3	3	
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	3913	3913	3913	
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-138.9	-138.9	-138.9	-138.9	-138.9	
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	1.000%	1.000%	
Deformazione calcestruzzo	ε <sub>c</sub>	-0.175%	-0.175%	-0.175%	-0.175%	-0.175%	
Campo di rottura	n.	2	2	2	2	2	
Ridistribuzione massima consentita	1-δ	30%	30%	30%	30%	30%	
Controllo ridistribuzione	1-δ	si	si	si	si	si	
2: VERIFICHE IN COMBINAZIONE RARA							
σ <sub>s</sub> limite		3600	3600	3600	3600	3600	
σ <sub>s</sub>		193	1735	1829	1735	193	
indice di verifica lato acciaio	f	18.70	2.07	1.97	2.07	18.70	
σ <sub>c</sub> limite		149.4	149.4	149.4	149.4	149.4	
σ <sub>c</sub>		4.7	42.7	45.0	42.7	4.7	
indice di verifica lato cls	f	31.51	3.50	3.32	3.50	31.51	
3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE							
σ <sub>c</sub> limite		112.1	112.1	112.1	112.1	112.1	
σ <sub>c</sub>		3.9	33.6	35.0	33.6	3.9	
indice di verifica lato cls	f	29.09	3.34	3.20	3.34	29.09	
← 473							
Armatura campate							
		φ	n.	n.	n.	n.	c
		ø6	2.5	2.5	2.5	2.5	2.0
sup.		ø12	-	-	-	-	2.0
inf.		ø12	1	1	1	1	2.0
		-	-	-	-	-	2.0
controllo armatura minima scelta:		nessuna	si	si	si	si	
1: VERIFICHE IN COMBINAZIONE ULTIMA							
Momento sollecitante (daN*m)	Med	378	403	403	378		
Momento resistente (daN*m)	Mrd	972	972	972	972		
indice di verifica	f	2.58	2.41	2.41	2.58		
Asse neutro (cm)	x <sub>c</sub>	2	2	2	2		
Sforzo acciaio (daN/cm <sup>2</sup> )	σ <sub>s</sub>	3913	3913	3913	3913		
Sforzo calcestruzzo (daN/cm <sup>2</sup> )	σ <sub>c</sub>	-98.4	-98.4	-98.4	-98.4		
Deformazione acciaio	ε <sub>s</sub>	1.000%	1.000%	1.000%	1.000%		
Deformazione calcestruzzo	ε <sub>c</sub>	-0.090%	-0.090%	-0.090%	-0.090%		
Campo di rottura	n.	2	2	2	2		
2: VERIFICHE IN COMBINAZIONE RARA							
y		3.51	3.51	3.51	3.51		
J <sub>ci</sub>		6787	6787	6787	6787		
σ <sub>s</sub> limite		3600	3600	3600	3600		
σ <sub>s</sub>		931	960	960	931		
indice di verifica lato acciaio	f	3.87	3.75	3.75	3.87		
σ <sub>c</sub> limite		149.4	149.4	149.4	149.4		
σ <sub>c</sub>		11.5	11.9	11.9	11.5		
indice di verifica lato cls	f	12.97	12.58	12.58	12.97		
3: VERIFICHE IN COMBINAZIONE QUASI PERMANENTE							
y		3.51	3.51	3.51	3.51		
J <sub>ci</sub>		6787	6787	6787	6787		
σ <sub>c</sub> limite		112.1	112.1	112.1	112.1		
σ <sub>c</sub>		8.4	8.4	8.4	8.4		
indice di verifica lato cls	f	13.29	13.32	13.32	13.29		
σ <sub>s</sub>		681	680	680	681		
4: VERIFICHE IN COMBINAZIONE FREQUENTE							
σ <sub>s</sub>		731	736	736	731		

<b>Verifiche a taglio</b>					
<b>1: con fasce piene</b>					
Tagli resistenti sx (daN)	VRd	1273	1273	1273	1273
fascia piena (dall'asse dell'appoggio)	d1	-	-	-	-
Tagli resistenti dx (daN)	VRd	1273	1273	1273	1273
fascia piena (dall'asse dell'appoggio)	d2	-	-	-	-
<b>2: con fasce piene e barre longitudinali tese</b>					
$\phi$	n.	n.	n.	n.	n.
sup.	$\phi 12$	1	1	1	1
inf.	$\phi 12$	1	1	1	1
Tagli resistenti sx (daN)	VRd	1372	1372	1372	1372
fascia piena (dall'asse dell'appoggio)	d1	-	-	-	-
Tagli resistenti dx (daN)	VRd	1372	1372	1372	1372
fascia piena (dall'asse dell'appoggio)	d2	-	-	-	-
<b>← 566</b>					
<b>Verifiche di fessurazione</b>					
CONDIZ. AMBIENTALI ORDINARIE					
<b>Appoggi</b>					
diametro armature superiori	$\phi$	12	12	12	12
combinazione frequente	$\sigma_s$	164	1439	1503	1439
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.33	3.33	3.33	3.33
combinazione quasi permanente	$\sigma_s$	156	1364	1421	1364
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.67	2.67	2.67
<b>Campate</b>					
diametro armature inferiori	$\phi$	12	12	12	12
combinazione frequente	$\sigma_s$	731	736	736	731
comb. frequente CONDIZ. AMBIENTALI ORDINARIE	f	3.33	3.33	3.33	3.33
combinazione quasi permanente	$\sigma_s$	681	680	680	681
comb. quasi perm. CONDIZ. AMBIENTALI ORDINARIE	f	2.67	2.67	2.67	2.67
<b>Verifiche di snellezza</b>					
$\rho$		0.23%	0.23%	0.23%	0.23%
$\rho'$		0.14%	0.14%	0.14%	0.14%
$\lambda$ limite tab		26	30	30	26
K		1.3	1.5	1.5	1.3
$\lambda$ limite calc		71.5	77.3	77.3	71.5
$\lambda$ limite		57.2	61.9	61.9	57.2
$\lambda$		12.6	15.4	15.4	12.6
indice di verifica	f	4.54	4.02	4.02	4.54
<b>Verifiche di deformabilità</b>					
PER L'INTEGRITA' DEI DIVISORI					
Coefficiente di viscosità (11.2.10.7)	$\phi(\text{inf})$	1.8	1.8	1.8	1.8
Freccia massima sez. non-fessurata (cm)	f max	0.02	0.03	0.03	0.02
Freccia massima sez. fessurata (cm)	f max	0.16	0.20	0.20	0.16
Freccia massima combinata (cm)	f max	0.02	0.03	0.03	0.02
Freccia limite (cm)	f lim	0.63	0.77	0.77	0.63
indice di verifica	f	26.05	25.24	25.24	26.05



### 1.14 Verifiche elementi secondari

Di seguito si riportano le verifiche di resistenza e stabilità condotte sulle pareti di tamponamento del fabbricato:



#### Caratteristiche pannello murario

Z <sub>PIANO</sub>	675	cm			
H <sub>PARETE</sub>	252	cm	Ares	3000	cmq
B	100	cm	J	225000	cm4
s	30	cm	g	9.81	m/sec2
fk	72	kg/cm <sup>2</sup>	fd	36	kg/cm <sup>2</sup>
gamma	880	kg/mc			
E	72000	kg/cm <sup>2</sup>			

#### Azione sismica

alpha	0.182	-	Sa	0.52	NTC08
S	1.43	-			
Z	801	cm	Sa	0.447	NTC18
H	1320	cm			
Ta	0.016	sec	ta/T1	0.03	
T1	0.50	sec			
Wa	665.28	kg			
qa	2	-			
Fsismica	149	kg			

$$S_a(T_a) = \begin{cases} \alpha S \left(1 + \frac{z}{H}\right) \left[ \frac{a_p}{1 + (a_p - 1) \left(1 - \frac{T_a}{aT_1}\right)^2} \right] \geq \alpha S & \text{per } T_a < aT_1 \\ \alpha S \left(1 + \frac{z}{H}\right) a_p & \text{per } aT_1 \leq T_a < bT_1 \\ \alpha S \left(1 + \frac{z}{H}\right) \left[ \frac{a_p}{1 + (a_p - 1) \left(1 - \frac{T_a}{bT_1}\right)^2} \right] \geq \alpha S & \text{per } T_a \geq bT_1 \end{cases}$$

#### Schema 1

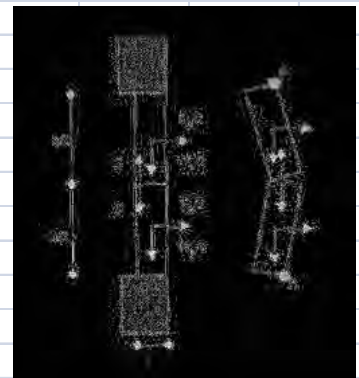
Med	94	kgm	sigma 0	0.22176	kg/cm <sup>2</sup>
Mrd	99	kgm			
	1.06				

#### Schema 2

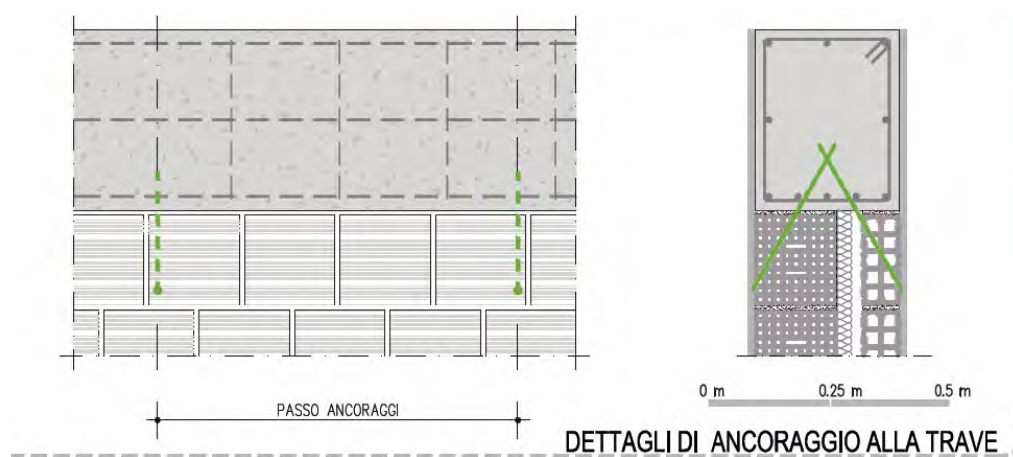
Med	47	kgm	sigma 0	0.11088	kg/cm <sup>2</sup>
Mrd	50	kgm			
	1.06				

#### Schema 3

Med	97	kgm			
Mrd	100	kgm			
	1.03				

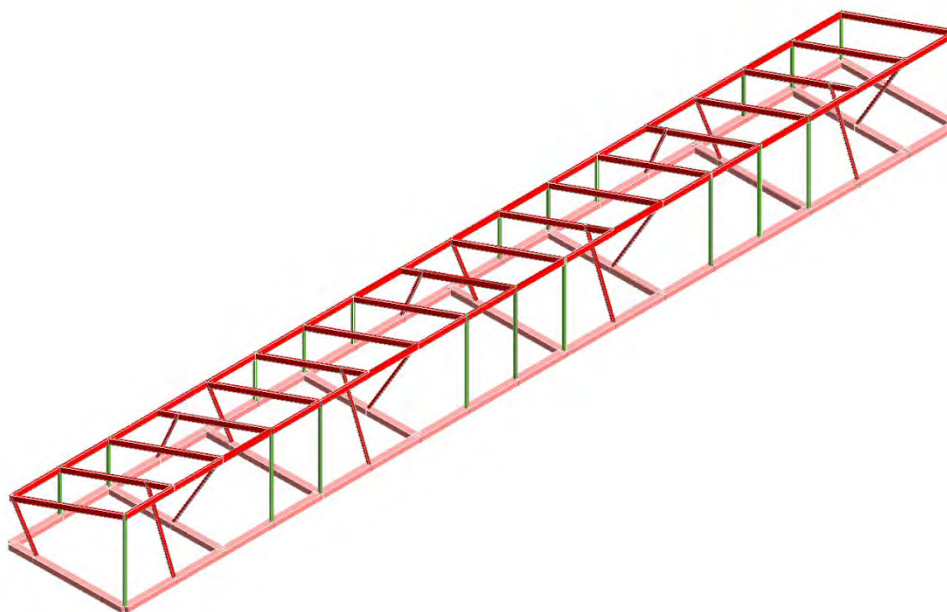


In riferimento alle verifiche condotte sui nuovi tamponamenti si comunica che si intende eseguire un collegamento in testa e al piede della parete come quello rappresentato nel disegno seguente con ferri diametro 6 mm ad un passo di 50 cm gli uni dagli altri, senza l'utilizzo di ulteriori rinforzi:



## 2.14 Pensilina esterna in acciaio

Di seguito si riportano le verifiche condotte sulla pensilina in acciaio:



COORDINATE E TIPOLOGIA FILI FISSI

Filo N.ro	Ascissa m	Ordinata m		Filo N.ro	Ascissa m	Ordinata m
1	0.00	0.00		2	0.00	4.35
3	0.00	5.60		4	2.45	0.00
5	4.90	0.00		6	2.45	5.60
7	4.90	5.60		8	7.35	0.00
9	7.35	5.60		10	9.80	0.00
11	9.80	5.60		12	12.25	0.00
13	12.25	5.60		14	14.70	0.00
15	14.70	5.60		16	17.15	0.00
17	17.15	5.60		18	19.60	0.00
19	19.60	5.60		20	22.05	0.00
21	22.05	5.60		22	24.50	0.00
23	24.50	5.60		24	26.95	0.00
25	26.95	5.60		26	29.40	0.00
27	29.40	5.60		28	31.85	0.00

COORDINATE E TIPOLOGIA FILI FISSI							
Filo	Ascissa	Ordinata		Filo	Ascissa	Ordinata	
N.ro	m	m		N.ro	m	m	
29	31.85	5.60		30	34.30	0.00	
31	34.30	5.60		32	36.75	0.00	
33	36.75	5.60		34	39.20	0.00	
35	39.20	5.60		36	41.65	0.00	
37	41.65	5.60		38	2.45	1.35	
39	4.90	2.40		40	7.35	4.55	
41	9.80	4.35		42	12.25	1.35	
43	14.70	2.40		44	19.60	4.55	
45	22.05	4.35		46	24.50	1.35	
47	26.95	2.40		48	31.85	4.55	
49	34.30	4.35		50	36.75	1.35	
51	39.20	2.40					

QUOTE PIANI SISMICI ED INTERPIANI									
Quota	Altezza	Tipologia	IrregTamp		Quota	Altezza	Tipologia	IrregTamp	
N.ro	m		XY	Alt.	N.ro	m		XY	Alt.
0	0.00	Piano Terra			1	3.95	Piano Deform.	NO	NO

PILASTRI IN ACCIAIO QUOTA 3.95 m							
Filo	Sez.	Tipologia	Ang.	dx	dy	Crit.	Tipo Elemento
N.ro	N.ro		(Grd)	(cm)	(cm)	N.ro	ai fini sismici
1	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
6	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
7	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
8	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
10	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
13	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
15	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.
16	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.

PILASTRI IN ACCIAIO QUOTA 3.95 m								
Filo	Sez.	Tipologia	Ang.	dx	dy	Crit.	Tipo Elemento	
N.ro	N.ro		(Grd)	(cm)	(cm)	N.ro	ai fini sismici	
17	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
18	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
20	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
23	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
25	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
26	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
27	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
28	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
30	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
33	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
35	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
36	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	
37	932	T.Q.100*100*5	0.00	0.00	0.00	101	SismoResist.	

TRAVI IN C.A. ALLA QUOTA 0 m																											
		DATI GENERALI					QUOTE		SCOSTAMENTI						CARICHI												
Trav N.ro	Sez. N.ro	Tipo Elem. x il sisma	Ang Grd	Fil in.	Fil fin	Q in. (m)	Q.fin (m)	Dxi cm	Dyi cm	Dzi cm	Dxf cm	Dyf cm	Dzf cm	Pann. kg/m	Tamp. kg/m	Ball. kg/m	Espl. kg/m	Tot. kg/m	Torc. kg	Orizz. kg/m	Assial kg/m	Ali %	Cr Nr	Cit Geo			
1	25	Tel.SismoRes	0	3	6	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
2	25	Tel.SismoRes	0	1	4	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
3	25	Tel.SismoRes	0	3	2	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
4	25	Tel.SismoRes	0	37	36	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
5	25	Tel.SismoRes	0	34	51	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
6	25	Tel.SismoRes	0	30	49	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
7	25	Tel.SismoRes	0	24	47	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
8	25	Tel.SismoRes	0	20	45	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
9	25	Tel.SismoRes	0	14	43	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
10	25	Tel.SismoRes	0	10	41	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
11	25	Tel.SismoRes	0	5	39	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
12	25	Tel.SismoRes	0	6	7	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
13	25	Tel.SismoRes	0	7	9	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
14	25	Tel.SismoRes	0	9	11	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
15	25	Tel.SismoRes	0	11	13	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
16	25	Tel.SismoRes	0	13	15	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
17	25	Tel.SismoRes	0	15	17	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
18	25	Tel.SismoRes	0	17	19	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			



TRAVI IN C.A. ALLA QUOTA 0 m																											
		DATI GENERALI					QUOTE		SCOSTAMENTI						CARICHI												
Trav N.ro	Sez. N.ro	Tipo Elem. x il sisma	Ang Grd	Fil in.	Fil fin	Q in. (m)	Q.fin (m)	Dxi cm	Dyi cm	Dzi cm	Dxf cm	Dyf cm	Dzf cm	Pann. kg/m	Tamp. kg/m	Ball. kg/m	Espl. kg/m	Tot. kg/m	Torc. kg	Orizz. kg/m	Assial kg/m	Ali %	Cr Nr	Cit Geo			
19	25	Tel.SismoRes	0	19	21	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
20	25	Tel.SismoRes	0	21	23	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
21	25	Tel.SismoRes	0	23	25	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
22	25	Tel.SismoRes	0	25	27	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
23	25	Tel.SismoRes	0	27	29	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
24	25	Tel.SismoRes	0	29	31	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
25	25	Tel.SismoRes	0	31	33	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
26	25	Tel.SismoRes	0	33	35	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
27	25	Tel.SismoRes	0	35	37	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
28	25	Tel.SismoRes	0	4	5	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
29	25	Tel.SismoRes	0	5	8	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
30	25	Tel.SismoRes	0	8	10	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
31	25	Tel.SismoRes	0	10	12	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
32	25	Tel.SismoRes	0	12	14	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
33	25	Tel.SismoRes	0	14	16	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
34	25	Tel.SismoRes	0	16	18	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
35	25	Tel.SismoRes	0	18	20	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
36	25	Tel.SismoRes	0	20	22	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
37	25	Tel.SismoRes	0	22	24	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
38	25	Tel.SismoRes	0	24	26	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
39	25	Tel.SismoRes	0	26	28	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
40	25	Tel.SismoRes	0	28	30	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
41	25	Tel.SismoRes	0	30	32	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
42	25	Tel.SismoRes	0	32	34	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
43	25	Tel.SismoRes	0	34	36	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
44	25	Tel.SismoRes	0	2	1	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
45	25	Tel.SismoRes	0	51	35	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
46	25	Tel.SismoRes	0	49	31	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
47	25	Tel.SismoRes	0	47	25	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
48	25	Tel.SismoRes	0	45	21	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
49	25	Tel.SismoRes	0	43	15	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
50	25	Tel.SismoRes	0	41	11	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
51	25	Tel.SismoRes	0	39	7	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			

TRAVI IN ACCIAIO/LEGNO ALLA QUOTA 3.95 m																								
		DATI GENERALI				QUOTE		SCOSTAMENTI						CARICHI										
Trav N.ro	Sez. N.ro	Tipo Elemento fini sismici	Ang Grd	Fil in.	Fil fin	Q in. (m)	Q fin (m)	Dxi cm	Dyi cm	Dzi cm	Dxf cm	Dyf cm	Dzf cm	Pann	Tamp	Ball kg / m	Esp	Tot.	Torc kg	Orizz kg / m	Assia kg / m	Ali %	Crit N.ro	
1	932	Tel.SismoRes.	0	51	34	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	
2	932	Tel.SismoRes.	0	32	50	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	
3	932	Tel.SismoRes.	0	49	31	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	
4	932	Tel.SismoRes.	0	29	48	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	
5	932	Tel.SismoRes.	0	47	24	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	
6	932	Tel.SismoRes.	0	22	46	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	

**TRAVI IN ACCIAIO/LEGNO ALLA QUOTA 3.95 m**

		DATI GENERALI				QUOTE		SCOSTAMENTI						CARICHI											
Trav N.ro	Sez. N.ro	Tipo Elemento fini sismici	Ang Grd	Fil in.	Fil fin	Q in. (m)	Q fin (m)	Dxi cm	Dyi cm	Dzi cm	Dxf cm	Dyf cm	Dzf cm	Pann	Tamp	Ball kg / m	Esp	Tot.	Torc kg	Orizz kg / m	Assia	Ali %	Crit N.ro		
7	932	Tel.SismoRes.	0	45	21	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
8	932	Tel.SismoRes.	0	19	44	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
9	932	Tel.SismoRes.	0	43	14	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
10	932	Tel.SismoRes.	0	12	42	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
11	932	Tel.SismoRes.	0	41	11	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
12	932	Tel.SismoRes.	0	9	40	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
13	932	Tel.SismoRes.	0	39	5	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
14	932	Tel.SismoRes.	0	4	38	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
15	932	Tel.SismoRes.	0	2	3	0.00	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
16	1084	Tel.SismoRes.	0	1	4	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
17	1084	Tel.SismoRes.	0	3	6	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
18	1084	Tel.SismoRes.	0	36	37	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
19	1084	Tel.SismoRes.	0	34	35	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
20	1084	Tel.SismoRes.	0	32	50	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
21	1084	Tel.SismoRes.	0	50	33	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
22	1084	Tel.SismoRes.	0	30	31	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
23	1084	Tel.SismoRes.	0	28	48	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
24	1084	Tel.SismoRes.	0	26	27	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
25	1084	Tel.SismoRes.	0	24	25	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
26	1084	Tel.SismoRes.	0	22	46	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
27	1084	Tel.SismoRes.	0	20	21	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
28	1084	Tel.SismoRes.	0	48	29	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
29	1084	Tel.SismoRes.	0	46	23	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
30	1084	Tel.SismoRes.	0	18	44	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
31	1084	Tel.SismoRes.	0	16	17	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
32	1084	Tel.SismoRes.	0	14	15	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
33	1084	Tel.SismoRes.	0	12	42	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
34	1084	Tel.SismoRes.	0	10	11	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
35	1084	Tel.SismoRes.	0	8	40	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
36	1084	Tel.SismoRes.	0	5	7	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
37	1084	Tel.SismoRes.	0	4	38	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
38	1084	Tel.SismoRes.	0	1	3	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
39	1084	Tel.SismoRes.	0	44	19	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
40	1084	Tel.SismoRes.	0	42	13	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
41	1084	Tel.SismoRes.	0	40	9	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
42	1084	Tel.SismoRes.	0	38	6	3.95	3.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101		
43	1084	Tel.SismoRes.	0	4	5	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
44	1084	Tel.SismoRes.	0	5	8	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
45	1084	Tel.SismoRes.	0	8	10	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
46	1084	Tel.SismoRes.	0	10	12	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
47	1084	Tel.SismoRes.	0	12	14	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
48	1084	Tel.SismoRes.	0	14	16	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
49	1084	Tel.SismoRes.	0	16	18	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
50	1084	Tel.SismoRes.	0	18	20	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
51	1084	Tel.SismoRes.	0	20	22	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
52	1084	Tel.SismoRes.	0	22	24	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
53	1084	Tel.SismoRes.	0	24	26	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
54	1084	Tel.SismoRes.	0	26	28	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
55	1084	Tel.SismoRes.	0	28	30	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
56	1084	Tel.SismoRes.	0	30	32	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
57	1084	Tel.SismoRes.	0	32	34	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
58	1084	Tel.SismoRes.	0	34	36	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
59	1084	Tel.SismoRes.	0	6	7	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
60	1084	Tel.SismoRes.	0	7	9	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
61	1084	Tel.SismoRes.	0	9	11	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
62	1084	Tel.SismoRes.	0	11	13	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
63	1084	Tel.SismoRes.	0	13	15	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
64	1084	Tel.SismoRes.	0	15	17	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
65	1084	Tel.SismoRes.	0	17	19	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
66	1084	Tel.SismoRes.	0	19	21	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
67	1084	Tel.SismoRes.	0	21	23	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
68	1084	Tel.SismoRes.	0	23	25	3.95	3.95	0	0	0	0	0	0	636	0	0	0	636	0	0	0	0	101		
69	1084	Tel.SismoRes.	0	25	27	3.95	3.95	0																	

**NODI ALLA QUOTA 3.95 m**

IDENTIFICAZIONE				RIGIDEZZE NODO ESTERNE							CARICHI NODALI CONCENTRATI					
Filo N.ro	Quo N.	D.Quo cm	P. sis	Co di	Tx (t/m)	Ty (t/m)	Tz (t/m)	Rx (t-m)	Ry (t-m)	Rz (t-m)	Fx (t)	Fy (t)	Fz (t)	Mx (t-m)	My (t-m)	Mz (t-m)
3	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000

**NODI ALLA QUOTA 3.95 m**

IDENTIFICAZIONE		RIGIDEZZE NODO ESTERNE									CARICHI NODALI CONCENTRATI					
Filo N.ro	Quo N.	D.Quo cm	P. sis	Co di	Tx (t/m)	Ty (t/m)	Tz (t/m)	Rx (t-m)	Ry (t-m)	Rz (t-m)	Fx (t)	Fy (t)	Fz (t)	Mx (t-m)	My (t-m)	Mz (t-m)
6	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
7	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
9	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
11	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
13	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
15	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
17	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
19	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
21	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
23	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
25	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
27	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
29	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
31	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
33	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
35	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
37	1	-192	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
38	1	-46	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
40	1	-156	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
42	1	-46	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
44	1	-156	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
46	1	-46	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
48	1	-156	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
50	1	-46	0	A	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000

**COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.**

DESCRIZIONI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Peso Strutturale	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.00
Perm.Non Strutturale	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.00
Var.Neve h<=1000	0.75	1.50	0.75	1.50	0.75	0.75	1.50	0.75	0.75	1.50	0.75	0.75	1.50	0.75	0.00
Var.Coperture	1.50	0.00	1.50	0.00	0.00	1.50	0.00	0.00	1.50	0.00	0.00	1.50	0.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.90	0.90	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.90	0.90	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	1.50	0.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	1.50	0.00
Corr. Tors. dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Corr. Tors. dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Sisma direz. grd 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Sisma direz. grd 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30

**COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.**

DESCRIZIONI	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Var.Neve h<=1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Var.Coperture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Vento dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 0	-1.00	1.00	-1.00	1.00	-1.00	1.00	-1.00	-1.00	1.00	-1.00	1.00	-1.00	1.00	-1.00	1.00
Corr. Tors. dir. 90	0.30	-0.30	-0.30	-0.30	-0.30	0.30	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30	0.30	0.30
Sisma direz. grd 0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Sisma direz. grd 90	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30	0.30	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.															
DESCRIZIONI	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Var.Neve h<=1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Var.Coperture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 0	0.30	-0.30	0.30	-0.30	0.30	-0.30	0.30	-0.30	-0.30	0.30	-0.30	0.30	-0.30	0.30	-0.30
Corr. Tors. dir. 90	1.00	1.00	-1.00	-1.00	-1.00	-1.00	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	1.00
Sisma direz. grd 0	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30
Sisma direz. grd 90	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	1.00	1.00	1.00	1.00	-1.00	-1.00	-1.00

COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.	
DESCRIZIONI	46
Peso Strutturale	1.00
Perm.Non Strutturale	1.00
Var.Neve h<=1000	0.00
Var.Coperture	0.00
Vento dir. 0	0.00

**COMBINAZIONI CARICHI A1 - S.L.V. / S.L.D.**

DESCRIZIONI	46
Vento dir. 90	0.00
Vento dir. 180	0.00
Vento dir. 270	0.00
Corr. Tors. dir. 0	0.30
Corr. Tors. dir. 90	1.00
Sisma direz. grd 0	-0.30
Sisma direz. grd 90	-1.00

**COMBINAZIONI RARE - S.L.E.**

DESCRIZIONI	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Var.Neve h<=1000	0.50	1.00	0.50	1.00	0.50	0.50	1.00	0.50	0.50	1.00	0.50	0.50	1.00	0.50
Var.Coperture	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.60	0.60	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.00	0.00	0.00	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.00
Corr. Tors. dir. 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sisma direz. grd 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sisma direz. grd 90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**COMBINAZIONI FREQUENTI - S.L.E.**

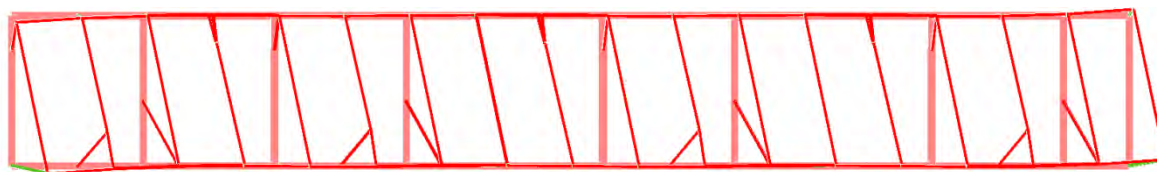
DESCRIZIONI	1	2	3	4	5	6
Peso Strutturale	1.00	1.00	1.00	1.00	1.00	1.00
Perm.Non Strutturale	1.00	1.00	1.00	1.00	1.00	1.00
Var.Neve h<=1000	0.00	0.20	0.00	0.00	0.00	0.00
Var.Coperture	0.00	0.00	0.00	0.00	0.00	0.00
Vento dir. 0	0.00	0.00	0.20	0.00	0.00	0.00
Vento dir. 90	0.00	0.00	0.00	0.20	0.00	0.00

COMBINAZIONI FREQUENTI - S.L.E.						
DESCRIZIONI	1	2	3	4	5	6
Vento dir. 180	0.00	0.00	0.00	0.00	0.20	0.00
Vento dir. 270	0.00	0.00	0.00	0.00	0.00	0.20
Corr. Tors. dir. 0	0.00	0.00	0.00	0.00	0.00	0.00
Corr. Tors. dir. 90	0.00	0.00	0.00	0.00	0.00	0.00
Sisma direz. grd 0	0.00	0.00	0.00	0.00	0.00	0.00
Sisma direz. grd 90	0.00	0.00	0.00	0.00	0.00	0.00

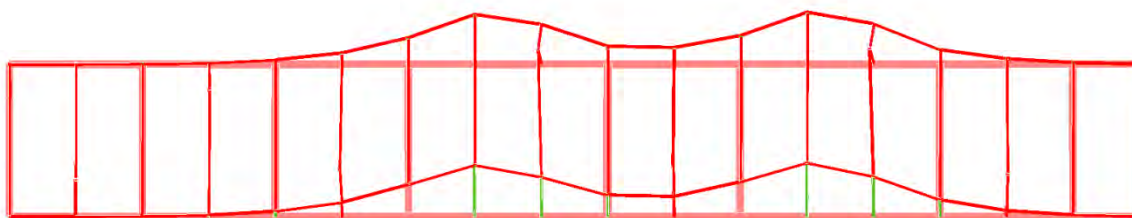
COMBINAZIONI PERMANENTI - S.L.E.	
DESCRIZIONI	1
Peso Strutturale	1.00
Perm.Non Strutturale	1.00
Var.Neve h<=1000	0.00
Var.Coperture	0.00
Vento dir. 0	0.00
Vento dir. 90	0.00
Vento dir. 180	0.00
Vento dir. 270	0.00
Corr. Tors. dir. 0	0.00
Corr. Tors. dir. 90	0.00
Sisma direz. grd 0	0.00
Sisma direz. grd 90	0.00

Di seguito si riporta il comportamento dinamico della struttura in acciaio:

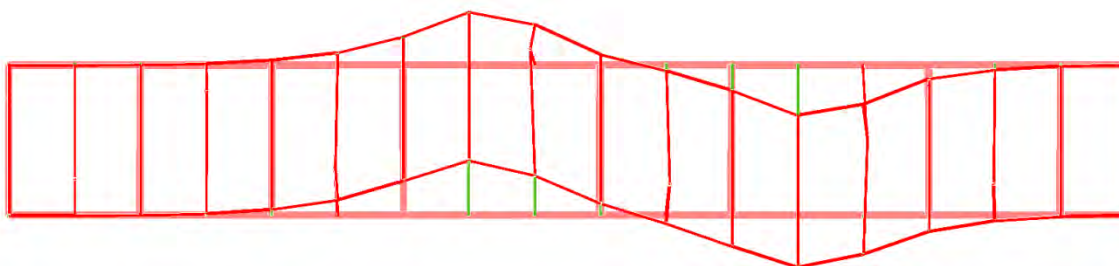
Modo n.1



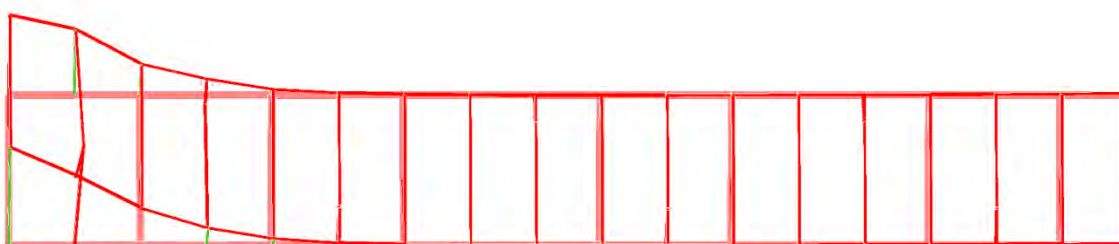
Modo n.2



Modo n.3

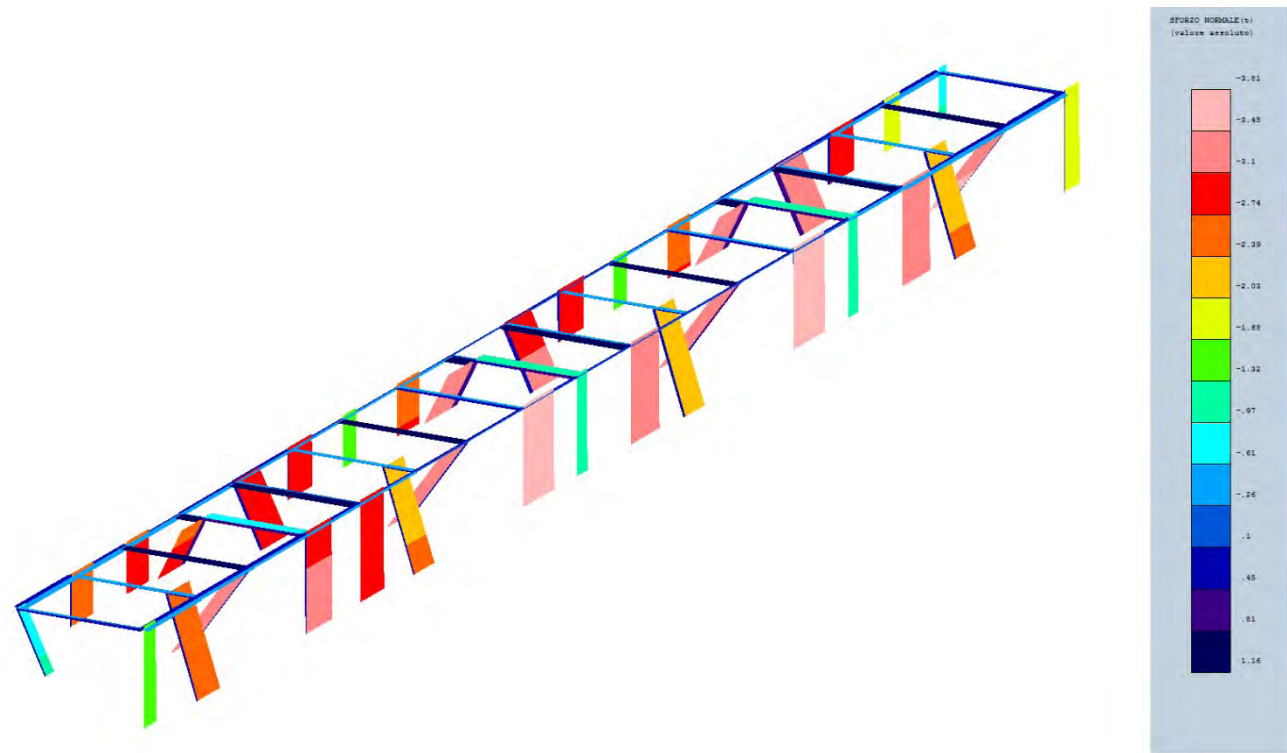


Modo n.4

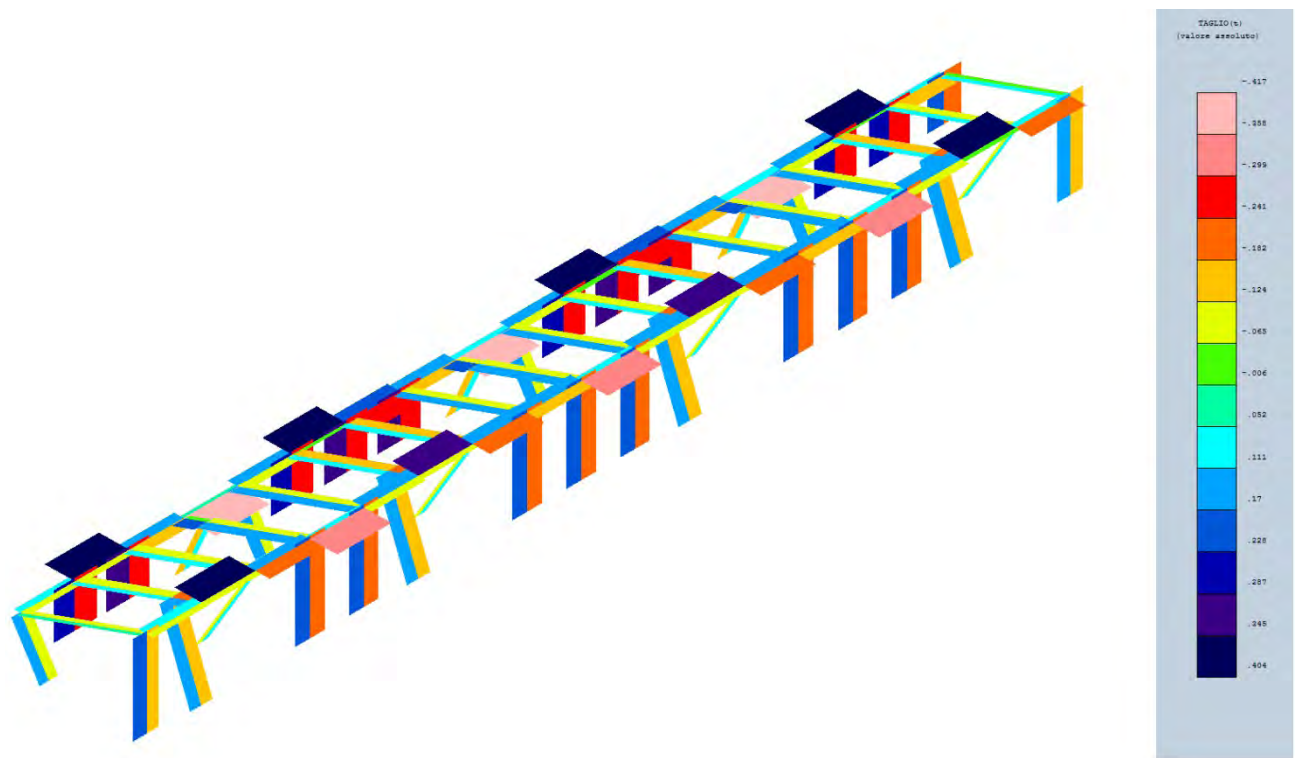


FREQUENZE E MASSE ECCITATE																
										Eccitat Totale	SISMA N.ro 1		SISMA N.ro 2		SISMA N.ro 3	
											Massa 17.78 17.79	Perc. .99	Massa 17.66 17.79	Perc. .99	Massa	Perc.
Modo N.ro	Pulsazione (rad/sec)	Periodo (sec)	Smorz Mod(%)	Sd/g SLO	Sd/g SLD	Sd/g SLV X	Sd/g SLV Y	Sd/g SLV Z	Sd/g SLC	Massa Mod Ecc. (t)	Perc.	Massa Mod Ecc. (t)	Perc.	Massa Mod Ecc. (t)	Perc.	
1	20.107	0.31249	5.0		0.241	0.434	0.434			11.17	0.63	0.00	0.00			
2	37.390	0.16804	5.0		0.241	0.434	0.434			0.00	0.00	9.13	0.51			
3	37.430	0.16786	5.0		0.241	0.434	0.434			0.00	0.00	0.00	0.00			
4	40.460	0.15530	5.0		0.241	0.434	0.434			0.05	0.00	3.17	0.18			
5	41.433	0.15165	5.0		0.241	0.432	0.432			0.35	0.02	2.46	0.14			
6	44.491	0.14122	5.0		0.233	0.420	0.420			0.78	0.04	1.01	0.06			
7	45.135	0.13921	5.0		0.231	0.418	0.418			4.77	0.27	0.06	0.00			
8	46.718	0.13449	5.0		0.226	0.412	0.412			0.58	0.03	1.04	0.06			
9	49.339	0.12735	5.0		0.219	0.404	0.404			0.01	0.00	0.53	0.03			
10	51.201	0.12272	5.0		0.215	0.399	0.399			0.06	0.00	0.22	0.01			
11	60.402	0.10402	5.0		0.197	0.378	0.378			0.00	0.00	0.00	0.00			
12	65.441	0.09601	5.0		0.189	0.369	0.369			0.00	0.00	0.04	0.00			

**Sforzo Normale - Involuppo**

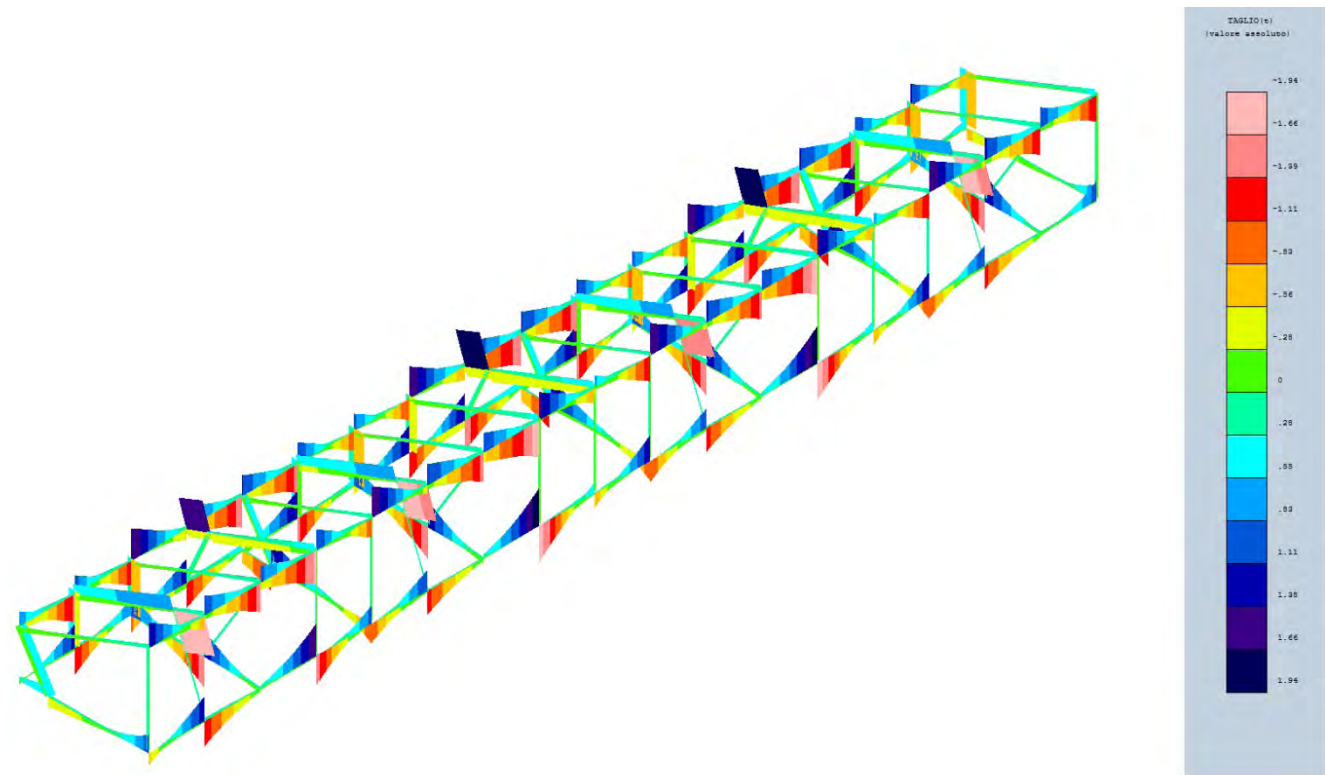


**Taglio 1 - Involuppo**

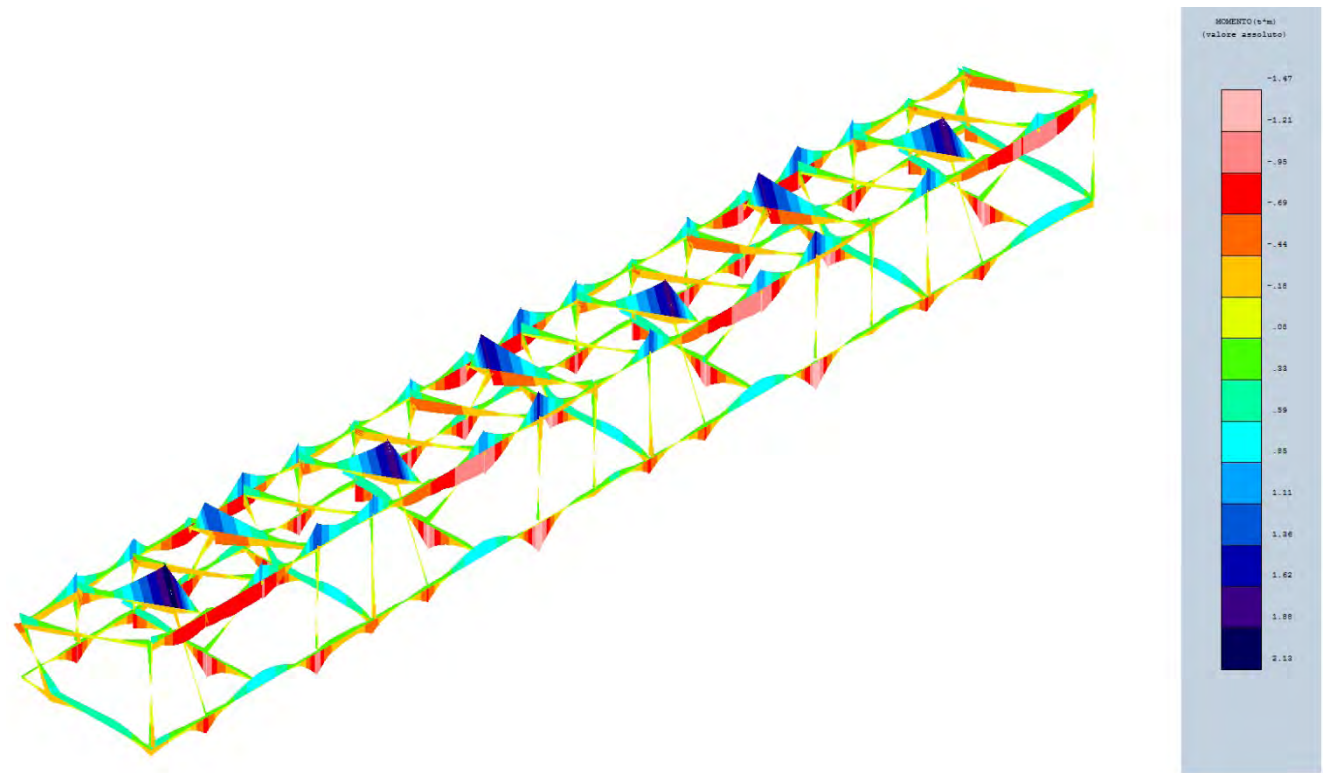




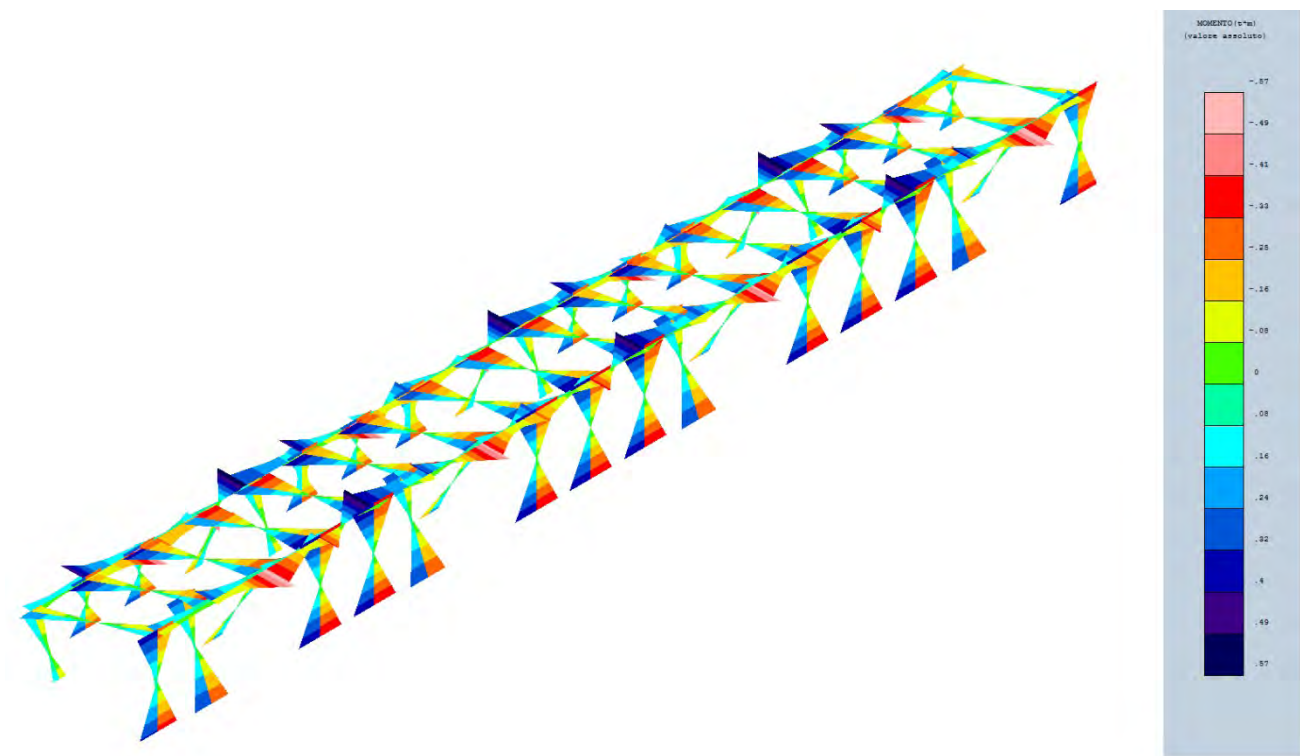
**Taglio 2 - Involuppo**



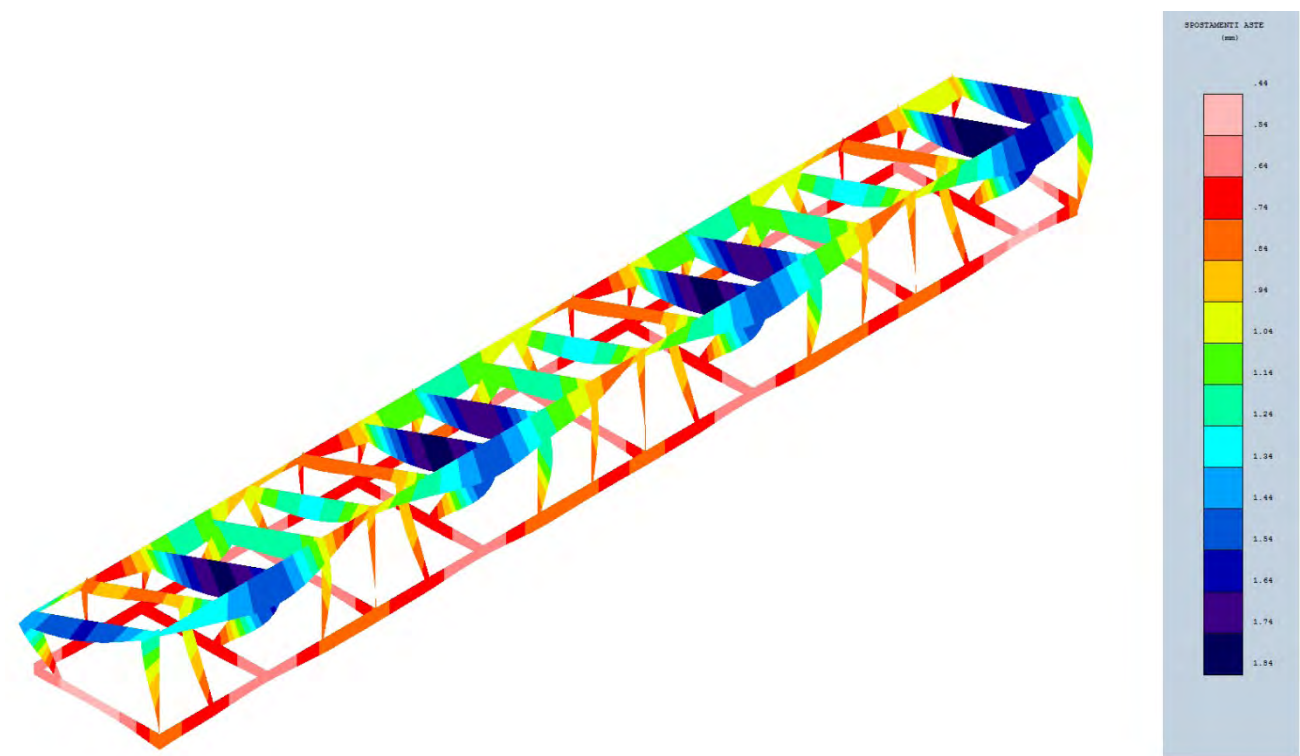
**Momento flettente 1 - Involuppo**



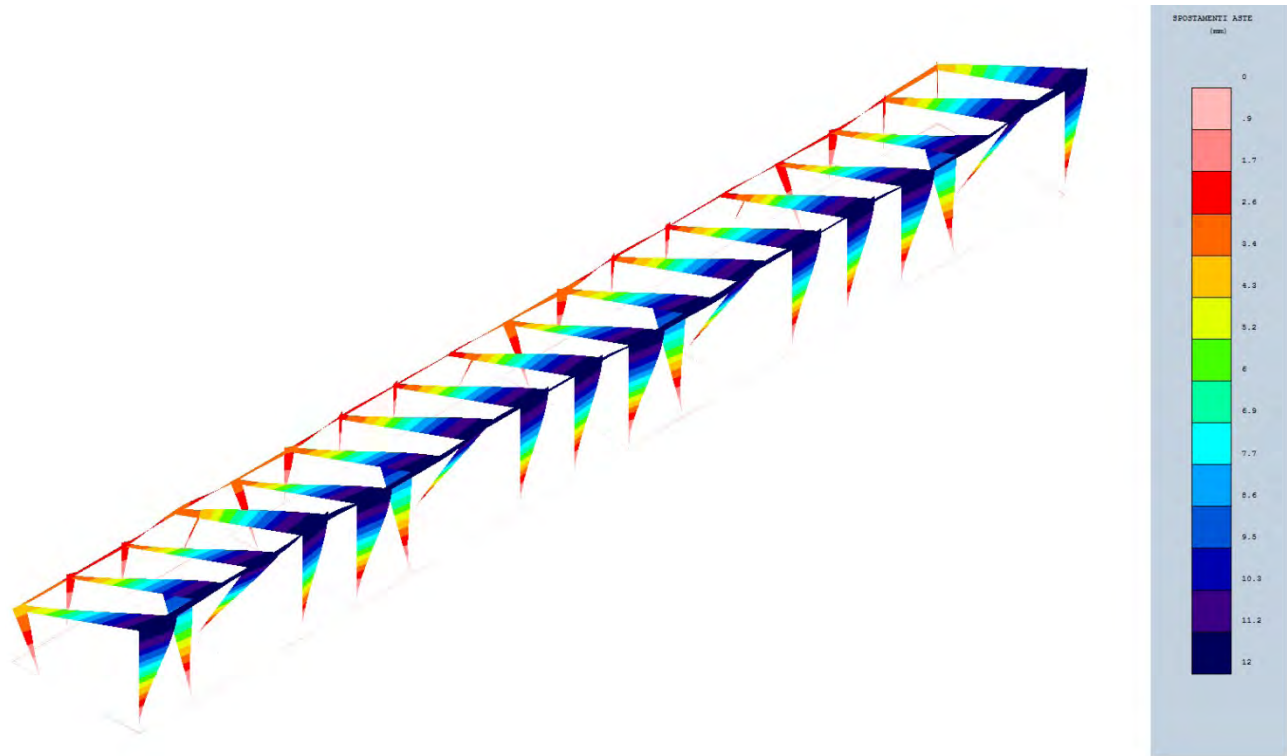
**Momento flettente 2 - Involuppo**



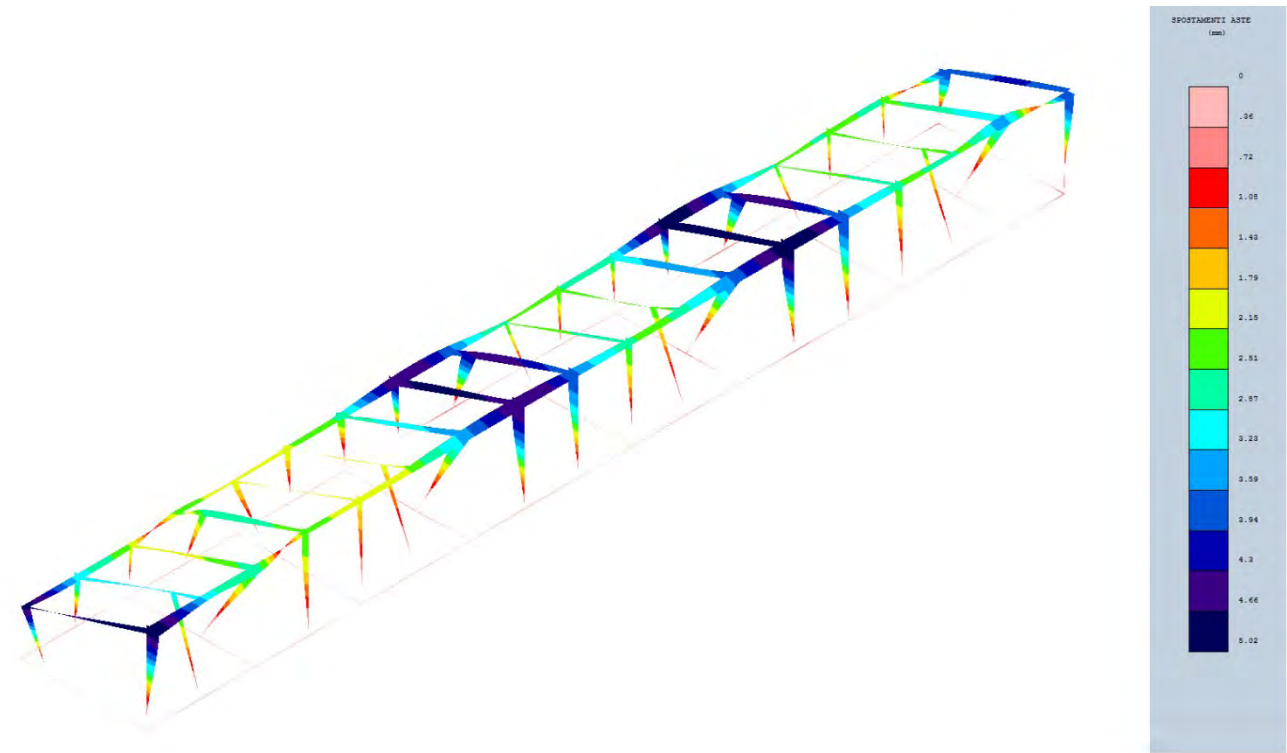
**Deformata - Condizione statica**



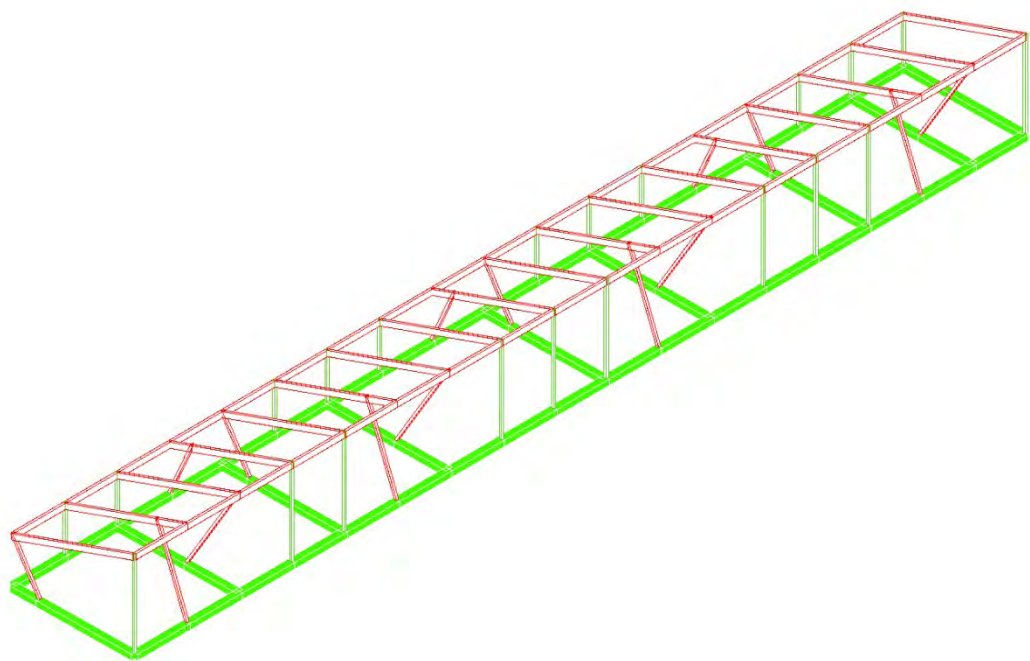
**Deformata - Condizione sismica - Dir1**



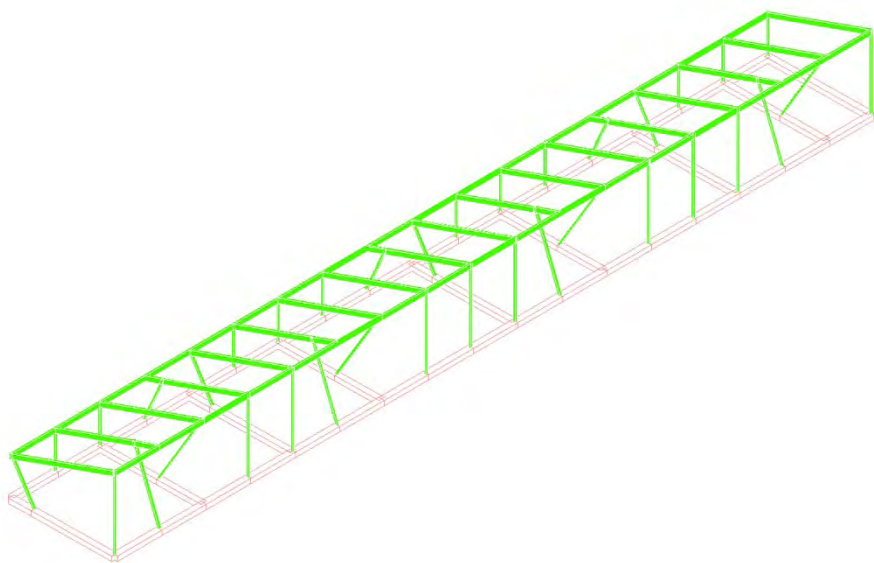
**Deformata - Condizione sismica - Dir2**



Verifica travi c.a



Verifica travi acciaio



VERIFICA ARRE

Verifica

Non verifica

Verifica esig.

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE																											
Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	Sez a Bas c	C o n	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE												
					Co Nr	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ /d	εf% /100	εc% /100	Area cmq sup inf	Co Nr	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRld (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi		
3	0.00		25 1 24	1.00	-0.1	0.0	25	1	0	3.1	3.1	7	0.0	-0.2	0.0	14.6	11.8	2.5	0.0	2	2	0.0	16	22	8		
6	0.00		30 3 43	1.00	0.2	0.0	25	1	1	3.1	3.1	7	0.0	1.0	0.0	13.7	11.1	2.4	0.0	7	9	0.0	17	202	8		
2.5			25 5 43	1.00	0.5	0.0	25	4	2	3.1	3.1	7	0.0	1.2	0.0	14.6	11.8	2.5	0.0	9	11	0.0	16	22	8		
1	0.00		25 1 25	1.00	-0.4	0.0	25	3	1	3.1	3.1	4	0.0	-0.6	0.0	14.6	11.8	2.5	0.0	4	5	0.0	16	22	8		
4	0.00		30 3 25	1.00	-0.3	0.0	25	3	1	3.1	3.1	13	0.0	1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	202	8		
2.5			25 5 31	1.00	0.5	0.0	25	4	2	3.1	3.1	13	0.0	1.3	0.0	14.6	11.8	2.5	0.0	9	11	0.0	16	22	8		

**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz Fin. Ctg0	Quota Iniz. Final	T r a t	S e z a n c o	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE															
				Co	Gam	Rd	M Exd (t*m)	N Ed (t)	x/ /d	εf% /100	εc% /100	Area cmq sup inf	Co	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi					
3 2 2.5	0.00 0.00		25 30 25	1 43 3 27 5 27	1.00 1.00 1.00	-0.1 0.1 0.2	0.0 0.0 0.0	25 25 25	1 1 2	0 0 1	3.1 3.1 3.1	3.1 3.1 3.1	7 7 7	0.0 0.0 0.0	0.3 0.5 0.5	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	4 3 4	5 4 4	0.0 0.0 0.0	16 17 16	22 82 22	8 8 8			
37 36 2.5	0.00 0.00		25 30 25	1 43 3 15 5 41	1.00 1.00 1.00	0.5 -0.3 -0.2	0.0 0.0 0.0	25 25 25	4 3 1	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-0.6 0.6 0.8	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	4 4 6	5 6 7	0.0 0.0 0.0	16 17 16	22 517 22	8 8 8			
34 51 2.5	0.00 0.00		25 30 25	1 36 3 31 5 31	1.00 1.00 1.00	0.0 0.3 0.6	0.0 0.0 0.0	25 25 25	0 2 5	0 1 2	3.1 3.1 3.1	3.1 3.1 3.1	8 7 7	0.0 0.0 0.0	0.1 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	1 9 10	1 11 12	0.0 0.0 0.0	16 17 16	22 197 22	8 8 8			
30 49 2.5	0.00 0.00		25 30 25	1 40 3 36 5 43	1.00 1.00 1.00	0.2 -0.3 0.8	0.0 0.0 0.0	25 25 25	2 2 6	1 1 3	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-1.1 1.3 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	7 9 10	9 12 12	0.0 0.0 0.0	16 17 16	22 392 22	8 8 8			
24 47 2.5	0.00 0.00		25 30 25	1 43 3 40 5 40	1.00 1.00 1.00	-0.1 0.3 0.6	0.0 0.0 0.0	25 25 25	1 2 5	0 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 7 7	0.0 0.0 0.0	-0.3 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 8 10	2 10 11	0.0 0.0 0.0	16 17 16	22 197 22	8 8 8			
20 45 2.5	0.00 0.00		25 30 25	1 34 3 43 5 46	1.00 1.00 1.00	0.2 -0.2 0.7	0.0 0.0 0.0	25 25 25	1 2 6	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-1.0 1.3 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	7 9 10	9 11 12	0.0 0.0 0.0	16 17 16	22 392 22	8 8 8			
14 43 2.5	0.00 0.00		25 30 25	1 46 3 41 5 41	1.00 1.00 1.00	-0.1 0.3 0.6	0.0 0.0 0.0	25 25 25	1 2 5	0 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 7 7	0.0 0.0 0.0	-0.3 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 8 10	2 10 12	0.0 0.0 0.0	16 17 16	22 197 22	8 8 8			
10 41 2.5	0.00 0.00		25 30 25	1 34 3 46 5 46	1.00 1.00 1.00	0.2 -0.2 0.6	0.0 0.0 0.0	25 25 25	1 2 5	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-1.1 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	8 9 10	9 11 12	0.0 0.0 0.0	16 17 16	22 392 22	8 8 8			
5 39 2.5	0.00 0.00		25 30 25	1 15 3 43 5 43	1.00 1.00 1.00	0.0 0.3 0.6	0.0 0.0 0.0	25 25 25	0 2 5	0 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 7 7	0.0 0.0 0.0	-0.3 1.1 1.3	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 8 9	2 10 11	0.0 0.0 0.0	16 17 16	22 197 22	8 8 8			
6 7 2.5	0.00 0.00		25 30 25	1 43 3 43 5 46	1.00 1.00 1.00	0.6 0.2 0.3	0.0 0.0 0.0	25 25 25	5 2 3	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	7 7 13	0.0 0.0 0.0	-1.4 -1.1 0.8	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	10 8 6	11 10 7	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
7 9 2.5	0.00 0.00		25 30 25	1 21 3 41 5 41	1.00 1.00 1.00	0.3 -0.2 0.5	0.0 0.0 0.0	25 25 25	3 1 4	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 8 8	0.0 0.0 0.0	-0.9 1.1 1.2	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	6 8 9	8 10 11	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
9 11 2.5	0.00 0.00		25 30 25	1 34 3 34 5 34	1.00 1.00 1.00	0.5 -0.2 -0.3	0.0 0.0 0.0	25 25 25	4 1 2	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	8 8 13	0.0 0.0 0.0	-1.3 -1.1 0.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	9 8 3	11 10 3	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
11 13 2.5	0.00 0.00		25 30 25	1 41 3 41 5 41	1.00 1.00 1.00	-0.3 -0.2 0.4	0.0 0.0 0.0	25 25 25	2 1 4	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 7 7	0.0 0.0 0.0	-0.3 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 9 10	2 11 12	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
13 15 2.5	0.00 0.00		25 30 25	1 18 3 34 5 20	1.00 1.00 1.00	0.5 0.2 -0.2	0.0 0.0 0.0	25 25 25	4 1 2	2 0 1	3.1 3.1 3.1	3.1 3.1 3.1	7 7 10	0.0 0.0 0.0	-1.4 -1.2 0.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	10 9 3	12 11 3	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
15 17 2.5	0.00 0.00		25 30 25	1 27 3 46 5 46	1.00 1.00 1.00	-0.2 0.2 0.5	0.0 0.0 0.0	25 25 25	2 1 4	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 13 13	0.0 0.0 0.0	-0.1 1.2 1.4	0.2 0.2 0.2	14.5 14.5 14.5	14.1 14.1 14.1	1.4 1.4 1.4	0.2 0.2 0.2	13 22 23	5 11 12	1.1 1.4 1.4	10 10 10	22 202 22	8 8 8			
17 19 2.5	0.00 0.00		25 30 25	1 37 3 41 5 41	1.00 1.00 1.00	0.4 0.2 0.6	0.0 0.0 0.0	25 25 25	4 2 5	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 8 8	0.0 0.0 0.0	-1.3 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	10 8 10	11 11 12	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
19 21 2.5	0.00 0.00		25 30 25	1 34 3 31 5 34	1.00 1.00 1.00	0.6 -0.2 -0.3	0.0 0.0 0.0	25 25 25	5 2 3	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	8 8 13	0.0 0.0 0.0	-1.6 -1.4 0.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	11 10 3	13 12 3	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
21 23 2.5	0.00 0.00		25 30 25	1 41 3 41 5 24	1.00 1.00 1.00	-0.3 -0.2 0.5	0.0 0.0 0.0	25 25 25	3 2 4	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 7 7	0.0 0.0 0.0	-0.3 1.3 1.5	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 9 11	2 12 13	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
23 25 2.5	0.00 0.00		25 30 25	1 31 3 31 5 20	1.00 1.00 1.00	0.5 0.2 -0.2	0.0 0.0 0.0	25 25 25	4 1 1	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	7 7 10	0.0 0.0 0.0	-1.5 -1.3 0.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	10 9 3	12 11 3	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8			
25 27 2.5	0.00 0.00		25 30 25	1 27 3 43 5 43	1.00 1.00 1.00	-0.2 0.2 0.5	0.0 0.0 0.0	25 25 25	2 1 4	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 13 13	0.0 0.0 0.0	-0.1 1.2 1.4	0.2 0.2 0.2	14.5 14.5 14.5	14.1 14.1 14.1	1.4 1.4 1.4	0.2 0.2 0.2	13 22 23	5 11 12	1.1 1.4 1.4	10 10 10	22 202 22	8 8 8			



**STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE**

Filo Iniz. Fin. Ctg0	Quota Iniz. Final	T r a t	Sez a Bas c	C o n c	VERIFICA A PRESSO-FLESSIONE										VERIFICA A TAGLIO E TORSIONE													
					Co Nr	Gam	Rd	M (t*m)	Exd (t)	N Ed (t)	x/ d	εf% 100	εc% 100	Area cmq sup inf	Co Nr	V (t)	Exd (t)	Eyd (t)	T Sdu (t*m)	V Rxd (t)	Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe Pas Lun Fi	
27 29 2.5	0.00 0.00		25 30 25	1 3 5	36 40 40	1.00 1.00 1.00	0.5 0.2 0.7	0.0 0.0 0.0	25 25 25	4 2 5	2 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 8 8	0.0 0.0 0.0	-1.3 1.2 1.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	10 8 10	11 11 12	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
29 31 2.5	0.00 0.00		25 30 25	1 3 5	31 31 31	1.00 1.00 1.00	0.7 -0.2 -0.3	0.0 0.0 0.0	25 25 25	5 2 3	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	8 8 13	0.0 0.0 0.0	-1.6 -1.4 0.4	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	11 10 3	13 12 3	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
31 33 2.5	0.00 0.00		25 30 25	1 3 5	40 40 40	1.00 1.00 1.00	-0.3 -0.2 0.5	0.0 0.0 0.0	25 25 25	3 2 4	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 7 7	0.0 0.0 0.0	-0.3 1.3 1.5	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 9 11	2 12 13	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
33 35 2.5	0.00 0.00		25 30 25	1 3 5	31 31 27	1.00 1.00 1.00	0.5 0.2 0.3	0.0 0.0 0.0	25 25 25	4 1 2	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	7 7 10	0.0 0.0 0.0	-1.4 -1.2 0.5	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	10 8 4	12 10 4	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
35 37 2.5	0.00 0.00		25 30 25	1 3 5	36 15 18	1.00 1.00 1.00	0.2 -0.3 -0.3	0.0 0.0 0.0	25 25 25	2 2 2	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	4 4 8	0.0 0.0 0.0	-0.7 -0.6 0.5	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	5 4 4	6 5 4	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
4 5 2.5	0.00 0.00		25 30 25	1 3 5	15 40 31	1.00 1.00 1.00	0.5 -0.3 -0.3	0.0 0.0 0.0	25 25 25	4 2 3	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-1.3 -1.1 -0.2	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	9 8 1	11 10 2	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
5 8 2.5	0.00 0.00		25 30 25	1 3 5	40 31 40	1.00 1.00 1.00	-0.3 -0.2 0.6	0.0 0.0 0.0	25 25 25	3 2 5	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	14 13 13	0.0 0.0 0.0	0.2 1.4 1.7	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	1 10 12	2 13 14	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
8 10 2.5	0.00 0.00		25 30 25	1 3 5	31 31 25	1.00 1.00 1.00	0.6 0.4 0.3	0.0 0.0 0.0	25 25 25	5 3 3	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 7	0.0 0.0 0.0	-1.5 -1.3 0.9	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	11 9 7	13 11 8	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
10 12 2.5	0.00 0.00		25 30 25	1 3 5	18 30 46	1.00 1.00 1.00	0.4 -0.1 0.4	0.0 0.0 0.0	25 25 25	3 1 3	1 0 1	3.1 3.1 3.1	3.1 3.1 3.1	7 14 14	0.0 0.0 0.0	-1.0 0.9 1.1	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	7 7 8	8 8 9	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
12 14 2.5	0.00 0.00		25 30 25	1 3 5	37 37 37	1.00 1.00 1.00	0.4 -0.2 -0.3	0.0 0.0 0.0	25 25 25	3 2 3	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 14	0.0 0.0 0.0	-1.2 -1.1 -0.2	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	9 7 1	10 9 1	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
14 16 2.5	0.00 0.00		25 30 25	1 3 5	46 46 46	1.00 1.00 1.00	-0.3 -0.2 0.6	0.0 0.0 0.0	25 25 25	3 2 5	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	0.3 1.7 1.9	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 12 14	2 15 16	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
16 18 2.5	0.00 0.00		25 30 25	1 3 5	37 37 25	1.00 1.00 1.00	0.6 0.2 0.3	0.0 0.0 0.0	25 25 25	5 1 2	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 10	0.0 0.0 0.0	-1.9 -1.6 0.6	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	13 11 4	16 14 5	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
18 20 2.5	0.00 0.00		25 30 25	1 3 5	15 43 25	1.00 1.00 1.00	0.2 -0.2 0.3	0.0 0.0 0.0	25 25 25	2 2 3	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-0.7 1.1 1.3	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	5 8 9	6 10 11	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
20 22 2.5	0.00 0.00		25 30 25	1 3 5	15 15 43	1.00 1.00 1.00	0.4 0.1 0.4	0.0 0.0 0.0	25 25 25	3 1 4	1 0 1	3.1 3.1 3.1	3.1 3.1 3.1	4 4 14	0.0 0.0 0.0	-1.1 -0.9 1.0	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	8 6 7	9 8 8	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
22 24 2.5	0.00 0.00		25 30 25	1 3 5	36 36 36	1.00 1.00 1.00	0.4 -0.3 -0.4	0.0 0.0 0.0	25 25 25	3 2 3	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 14	0.0 0.0 0.0	-1.2 -1.1 -0.2	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	9 8 1	10 10 1	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
24 26 2.5	0.00 0.00		25 30 25	1 3 5	43 43 43	1.00 1.00 1.00	-0.4 -0.2 0.7	0.0 0.0 0.0	25 25 25	3 2 5	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	0.3 1.7 1.9	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	2 12 14	2 15 16	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
26 28 2.5	0.00 0.00		25 30 25	1 3 5	36 36 25	1.00 1.00 1.00	0.7 0.2 0.2	0.0 0.0 0.0	25 25 25	5 2 2	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 10	0.0 0.0 0.0	-1.9 -1.6 0.5	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	13 11 4	16 14 5	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
28 30 2.5	0.00 0.00		25 30 25	1 3 5	15 43 24	1.00 1.00 1.00	0.3 -0.2 0.3	0.0 0.0 0.0	25 25 25	2 2 3	1 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 13	0.0 0.0 0.0	-0.7 1.1 1.3	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	5 8 9	6 10 11	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
30 32 2.5	0.00 0.00		25 30 25	1 3 5	21 43 43	1.00 1.00 1.00	0.4 0.2 0.5	0.0 0.0 0.0	25 25 25	3 1 4	1 1 2	3.1 3.1 3.1	3.1 3.1 3.1	4 14 13	0.0 0.0 0.0	-1.1 0.9 1.1	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	7 6 7	9 8 9	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	
32 34 2.5	0.00 0.00		25 30 25	1 3 5	36 36 36	1.00 1.00 1.00	0.5 -0.2 -0.4	0.0 0.0 0.0	25 25 25	4 2 3	2 1 1	3.1 3.1 3.1	3.1 3.1 3.1	13 13 14	0.0 0.0 0.0	-1.2 -1.1 -0.2	0.0 0.0 0.0	14.6 13.7 14.6	11.8 11.1 11.8	2.5 2.4 2.5	0.0 0.0 0.0	9 7 2	10 9 2	0.0 0.0 0.0	16 17 16	22 202 22	8 8 8	

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FONDAZIONE

Filo Iniz. Fin. Ctg0	Quota Iniz. Final	T r a t	Sez a Bas n c	C o n c	VERIFICA A PRESSO-FLESSIONE								VERIFICA A TAGLIO E TORSIONE														
					Co Nr	Gam Rd	M Exd (t*m)	N Ed (t)	x/ /d	εf% 100	εc% 100	Area cmq sup inf	Co Nr	V Exd (t)	V Eyd (t)	T Sdu (t*m)	V Rxd (t)	V Ryd (t)	TRd (t*m)	TRId (t*m)	Coe Cls	Coe Sta	ALon cmq	staffe			
																								Pas	Lun	Fi	
34	0.00		25	1	36	1.00	-0.4	0.0	25	3	1	3.1	3.1	15	0.0	-0.2	0.0	14.6	11.8	2.5	0.0	1	1	0.0	16	22	8
36	0.00		30	3	20	1.00	-0.4	0.0	25	3	1	3.1	3.1	13	0.0	0.8	0.0	13.7	11.1	2.4	0.0	6	7	0.0	17	202	8
2.5			25	5	25	1.00	0.4	0.0	25	3	1	3.1	3.1	13	0.0	1.0	0.0	14.6	11.8	2.5	0.0	7	8	0.0	16	22	8
2	0.00		25	1	31	1.00	0.4	0.0	25	3	1	3.1	3.1	13	0.0	-0.5	0.0	14.6	11.8	2.5	0.0	4	4	0.0	16	22	8
1	0.00		30	3	40	1.00	-0.2	0.0	25	2	1	3.1	3.1	10	0.0	0.8	0.0	13.7	11.1	2.4	0.0	5	7	0.0	17	392	8
2.5			25	5	43	1.00	0.3	0.0	25	2	1	3.1	3.1	10	0.0	1.0	0.0	14.6	11.8	2.5	0.0	7	8	0.0	16	22	8
51	0.00		25	1	31	1.00	0.6	0.0	25	5	2	3.1	3.1	7	0.0	-1.6	0.0	14.6	11.8	2.5	0.0	11	14	0.0	16	22	8
35	0.00		30	3	31	1.00	-0.3	0.0	25	2	1	3.1	3.1	7	0.0	-1.4	0.0	13.7	11.1	2.4	0.0	10	13	0.0	17	277	8
2.5			25	5	43	1.00	0.4	0.0	25	3	1	3.1	3.1	13	0.0	0.8	0.0	14.6	11.8	2.5	0.0	6	7	0.0	16	22	8
49	0.00		25	1	43	1.00	0.6	0.0	25	5	2	3.1	3.1	13	0.0	-1.3	0.0	14.6	11.8	2.5	0.0	9	11	0.0	16	22	8
31	0.00		30	3	43	1.00	0.5	0.0	25	4	2	3.1	3.1	13	0.0	-1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	82	8
2.5			25	5	43	1.00	0.2	0.0	25	1	1	3.1	3.1	13	0.0	-0.7	0.0	14.6	11.8	2.5	0.0	5	6	0.0	16	22	8
47	0.00		25	1	40	1.00	0.7	0.0	25	5	2	3.1	3.1	7	0.0	-1.6	0.0	14.6	11.8	2.5	0.0	11	13	0.0	16	22	8
25	0.00		30	3	31	1.00	-0.3	0.0	25	2	1	3.1	3.1	7	0.0	-1.4	0.0	13.7	11.1	2.4	0.0	10	12	0.0	17	277	8
2.5			25	5	43	1.00	0.5	0.0	25	4	2	3.1	3.1	13	0.0	1.0	0.0	14.6	11.8	2.5	0.0	7	9	0.0	16	22	8
45	0.00		25	1	46	1.00	0.6	0.0	25	5	2	3.1	3.1	13	0.0	-1.3	0.0	14.6	11.8	2.5	0.0	9	11	0.0	16	22	8
21	0.00		30	3	46	1.00	0.5	0.0	25	4	2	3.1	3.1	13	0.0	-1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	82	8
2.5			25	5	46	1.00	0.1	0.0	25	1	0	3.1	3.1	13	0.0	-0.7	0.0	14.6	11.8	2.5	0.0	5	6	0.0	16	22	8
43	0.00		25	1	41	1.00	0.6	0.0	25	5	2	3.1	3.1	7	0.0	-1.6	0.0	14.6	11.8	2.5	0.0	11	14	0.0	16	22	8
15	0.00		30	3	34	1.00	-0.3	0.0	25	2	1	3.1	3.1	7	0.0	-1.4	0.0	13.7	11.1	2.4	0.0	10	12	0.0	17	277	8
2.5			25	5	46	1.00	0.5	0.0	25	4	2	3.1	3.1	13	0.0	1.0	0.0	14.6	11.8	2.5	0.0	7	9	0.0	16	22	8
41	0.00		25	1	46	1.00	0.5	0.0	25	4	2	3.1	3.1	13	0.0	-1.2	0.0	14.6	11.8	2.5	0.0	9	11	0.0	16	22	8
11	0.00		30	3	46	1.00	0.4	0.0	25	3	1	3.1	3.1	13	0.0	-1.1	0.0	13.7	11.1	2.4	0.0	8	10	0.0	17	82	8
2.5			25	5	46	1.00	0.1	0.0	25	1	0	3.1	3.1	13	0.0	-0.7	0.0	14.6	11.8	2.5	0.0	5	6	0.0	16	22	8
39	0.00		25	1	43	1.00	0.6	0.0	25	5	2	3.1	3.1	7	0.0	-1.6	0.0	14.6	11.8	2.5	0.0	11	13	0.0	16	22	8
7	0.00		30	3	43	1.00	-0.2	0.0	25	2	1	3.1	3.1	7	0.0	-1.4	0.0	13.7	11.1	2.4	0.0	10	12	0.0	17	277	8
2.5			25	5	31	1.00	0.4	0.0	25	4	1	3.1	3.1	13	0.0	1.1	0.0	14.6	11.8	2.5	0.0	8	9	0.0	16	22	8

## STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.

VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Sez.N.	932	1	3.95	27	-465	-154	363	179	88	20	75651	2171	2171	20222	20222	2035	2619	24
T.Q.100*10	qn=	0		43	-377	24	9	61	105	15	75658	2171	2171	20222	20222	2035	2619	2
Asta:	52	1	0.00	27	-554	195	-344	179	88	20	75651	2171	2171	20222	20222	2035	2619	26
Instab.:I=	395.0	β*I=		395.0	-1489	116		79	cl= 1	ε= 0.92	lmd= 104	Rpf= 12	Rft= 0	Wmax/rel/lim=		6.0	6.0	15.8 mm
Sez.N.	932	6	2.03	36	-1084	-306	-254	-227	232	22	75646	2171	2171	20222	20222	2035	2618	27
T.Q.100*10	qn=	0		43	-1274	-88	-28	-86	270	32	75632	2170	2170	20222	20222	2035	2618	7
Asta:	53	6	0.00	36	-1130	165	208	-227	232	22	75646	2171	2171	20222	20222	2035	2618	19
Instab.:I=	203.0	β*I=		203.0	-2326	186		49	cl= 1	ε= 0.92	lmd= 53	Rpf= 13	Rft= 0	Wmax/rel/lim=		4.1	4.1	8.1 mm
Sez.N.	932	7	2.03	40	-288	232	203	196	-263	-7	75654	2171	2171	20222	20222	2035	2619	20
T.Q.100*10	qn=	0		13	-2762	-45	35	59	-591	25	75664	2597	2597	21843	21843	2035	2619	4

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	54	7	0.00	40	-334	-302	-196	196	-263	-7	75654	2171	2171	20222	20222	2035	2619	23
Instab.:l=	203.0	$\beta^*l=$	203.0	-2792	264	45	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 17	Rft= 0	Wmax/rel/lim=	4.7	4.7	8.1	mm		
Sez.N.	932	8	3.95	27	-659	102	367	196	-40	0	75661	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	13	-3114	24	-34	-20	-54	-26	75664	2597	2597	21843	21843	2035	2619	4	
Asta:	55	8	0.00	27	-748	-56	-391	196	-40	0	75661	2171	2171	20222	20222	2035	2619	22
Instab.:l=	395.0	$\beta^*l=$	395.0	-2864	77	41	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.4	4.4	15.8	mm		
Sez.N.	932	10	3.95	25	-526	-79	392	197	-6	0	75661	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	18	-669	60	10	-180	45	-8	75658	2171	2171	20222	20222	2035	2619	4	
Asta:	56	10	0.00	15	-701	92	373	-186	41	-8	75658	2171	2171	20222	20222	2035	2619	22
Instab.:l=	395.0	$\beta^*l=$	395.0	-2883	95	33	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.8	4.8	15.8	mm		
Sez.N.	932	13	2.03	25	-1028	-221	218	221	165	15	75652	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	41	-1132	-68	-91	-22	194	1	75660	2171	2171	20222	20222	2035	2619	9	
Asta:	57	13	0.00	25	-1074	114	-283	221	165	15	75652	2171	2171	20222	20222	2035	2619	20
Instab.:l=	203.0	$\beta^*l=$	203.0	-2634	189	49	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.1	4.1	8.1	mm		
Sez.N.	932	15	2.03	30	-253	187	296	293	-215	27	75635	2170	2170	20222	20222	2035	2618	23
T.Q.100*10	qn=	0	13	-1620	-51	-5	39	-582	36	75664	2597	2597	21843	21843	2035	2619	2	
Asta:	58	15	0.00	46	-282	-373	-185	181	-327	33	75624	2170	2170	20222	20222	2035	2618	26
Instab.:l=	203.0	$\beta^*l=$	203.0	-1128	290	15	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	5.1	5.1	8.1	mm		
Sez.N.	932	16	3.95	27	-1059	92	365	189	-36	6	75659	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	13	-3751	44	-29	-18	-88	-10	75664	2597	2597	21843	21843	2035	2619	5	
Asta:	59	16	0.00	27	-1149	-51	-382	189	-36	6	75659	2171	2171	20222	20222	2035	2619	21
Instab.:l=	395.0	$\beta^*l=$	395.0	-3808	88	37	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 17	Rft= 0	Wmax/rel/lim=	7.0	7.0	15.8	mm		
Sez.N.	932	17	2.03	46	-775	336	203	192	-258	12	75651	2171	2171	20222	20222	2035	2619	26
T.Q.100*10	qn=	0	46	-798	80	97	192	-258	12	75651	2171	2171	20222	20222	2035	2619	9	



STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	60	17	0.00	30	-572	-103	-255	305	-136	13	75647	2171	2171	20222	20222	2035	2618	17
Instab.:l=	203.0	$\beta^*l=$	203.0	-2751	198	50	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	6.8	6.8	8.1	mm		
Sez.N.	932	18	3.95	27	-449	83	380	193	-30	0	75661	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	46	-491	41	0	46	-54	-13	75661	2171	2171	20222	20222	2035	2619	3	
Asta:	61	18	0.00	27	-539	-36	-381	193	-30	0	75661	2171	2171	20222	20222	2035	2619	20
Instab.:l=	395.0	$\beta^*l=$	395.0	-539	36	152	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 10	Rft= 0	Wmax/rel/lim=	5.0	5.0	15.8	mm		
Sez.N.	932	20	3.95	25	-605	-80	393	198	47	6	75658	2171	2171	20222	20222	2035	2619	23
T.Q.100*10	qn=	0	13	-3380	14	15	34	31	-7	75664	2597	2597	21843	21843	2035	2619	4	
Asta:	62	20	0.00	25	-694	105	-390	198	47	6	75658	2171	2171	20222	20222	2035	2619	24
Instab.:l=	395.0	$\beta^*l=$	395.0	-3282	65	58	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 15	Rft= 0	Wmax/rel/lim=	5.1	5.1	15.8	mm		
Sez.N.	932	23	2.03	24	-1100	-274	210	217	205	14	75652	2171	2171	20222	20222	2035	2619	24
T.Q.100*10	qn=	0	40	-1248	-78	-16	-36	218	3	75658	2171	2171	20222	20222	2035	2619	6	
Asta:	63	23	0.00	24	-1146	142	-230	217	205	14	75652	2171	2171	20222	20222	2035	2619	19
Instab.:l=	203.0	$\beta^*l=$	203.0	-2737	186	53	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.0	4.0	8.1	mm		
Sez.N.	932	25	2.03	27	-253	196	292	289	-224	30	75633	2170	2170	20222	20222	2035	2618	23
T.Q.100*10	qn=	0	13	-1618	-52	-5	42	-580	36	75664	2597	2597	21843	21843	2035	2619	2	
Asta:	64	25	0.00	43	-303	-395	-183	177	-347	36	75618	2170	2170	20222	20222	2035	2617	27
Instab.:l=	203.0	$\beta^*l=$	203.0	-1137	289	17	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	5.1	5.1	8.1	mm		
Sez.N.	932	26	3.95	27	-1111	97	361	187	-37	6	75659	2171	2171	20222	20222	2035	2619	23
T.Q.100*10	qn=	0	13	-3751	44	-29	-18	-87	-10	75664	2597	2597	21843	21843	2035	2619	5	
Asta:	65	26	0.00	27	-1201	-50	-380	187	-37	6	75659	2171	2171	20222	20222	2035	2619	21
Instab.:l=	395.0	$\beta^*l=$	395.0	-3809	87	37	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 17	Rft= 0	Wmax/rel/lim=	7.0	7.0	15.8	mm		
Sez.N.	932	27	2.03	43	-808	358	201	190	-275	14	75648	2171	2171	20222	20222	2035	2618	27
T.Q.100*10	qn=	0	43	-830	86	108	190	-275	14	75648	2171	2171	20222	20222	2035	2618	10	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	66	27	0.00	36	-905	-192	167	38	-264	8	75654	2171	2171	20222	20222	2035	2619	18
Instab.:l=	203.0	$\beta^*l=$	203.0	-2747	197	50	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	6.7	6.7	8.1	mm		
Sez.N.	932	28	3.95	27	-177	92	379	192	-33	-5	75659	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	36	-515	40	4	-55	-51	-18	75659	2171	2171	20222	20222	2035	2619	3	
Asta:	67	28	0.00	27	-266	-39	-380	192	-33	-5	75659	2171	2171	20222	20222	2035	2619	20
Instab.:l=	395.0	$\beta^*l=$	395.0	-266	39	152	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 10	Rft= 0	Wmax/rel/lim=	5.0	5.0	15.8	mm		
Sez.N.	932	30	3.95	25	-632	-59	405	204	35	5	75658	2171	2171	20222	20222	2035	2619	22
T.Q.100*10	qn=	0	13	-3360	14	14	35	31	-6	75664	2597	2597	21843	21843	2035	2619	4	
Asta:	68	30	0.00	25	-722	80	-401	204	35	5	75658	2171	2171	20222	20222	2035	2619	23
Instab.:l=	395.0	$\beta^*l=$	395.0	-3282	65	60	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 15	Rft= 0	Wmax/rel/lim=	5.1	5.1	15.8	mm		
Sez.N.	932	33	2.03	24	-944	-213	219	223	159	23	75646	2171	2171	20222	20222	2035	2618	21
T.Q.100*10	qn=	0	40	-1265	-79	-8	-19	222	23	75645	2171	2171	20222	20222	2035	2618	6	
Asta:	69	33	0.00	24	-991	110	-234	223	159	23	75646	2171	2171	20222	20222	2035	2618	17
Instab.:l=	203.0	$\beta^*l=$	203.0	-2705	183	54	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.0	4.0	8.1	mm		
Sez.N.	932	35	2.03	27	-402	216	270	265	-249	22	75643	2171	2171	20222	20222	2035	2618	23
T.Q.100*10	qn=	0	43	-559	-36	5	158	-342	-2	75652	2171	2171	20222	20222	2035	2619	3	
Asta:	70	35	0.00	27	-448	-290	-268	265	-249	22	75643	2171	2171	20222	20222	2035	2618	26
Instab.:l=	203.0	$\beta^*l=$	203.0	-1943	249	10	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 13	Rft= 0	Wmax/rel/lim=	4.8	4.8	8.1	mm		
Sez.N.	932	36	3.95	25	-116	176	316	168	-83	12	75657	2171	2171	20222	20222	2035	2619	23
T.Q.100*10	qn=	0	43	-789	9	-38	37	12	-3	75664	2171	2171	20222	20222	2035	2619	3	
Asta:	71	36	0.00	25	-206	-152	-350	168	-83	12	75657	2171	2171	20222	20222	2035	2619	23
Instab.:l=	395.0	$\beta^*l=$	395.0	-1854	76	99	cl= 1	$\varepsilon= 0.92$	lmd= 104	Rpf= 13	Rft= 0	Wmax/rel/lim=	5.1	5.1	15.8	mm		
Sez.N.	932	37	2.03	25	-64	384	154	158	-411	29	75620	2170	2170	20222	20222	2035	2618	25
T.Q.100*10	qn=	0	18	-479	-27	-9	-230	37	-26	75642	2170	2170	20222	20222	2035	2618	2	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	72	37	0.00	25	-110	-450	-166	158	-411	29	75620	2170	2170	20222	20222	2035	2618	29
Instab.:l=	203.0	$\beta^*l=$	203.0	-756	247	41	cl= 1	$\varepsilon= 0.92$	lmd= 53	Rpf= 12	Rft= 0	Wmax/rel/lim=	4.7	4.7	8.1	mm		
Sez.N.	932	51	0.00	27	-169	-129	173	80	73	17	75659	2171	2171	20222	20222	2035	2619	14
T.Q.100*10	qn=	-12	26	-455	42	-184	76	0	20	75657	2171	2171	20222	20222	2035	2619	11	
Asta:	73	34	3.95	15	-1111	-32	222	-87	-35	-15	75659	2171	2171	20222	20222	2035	2619	13
Instab.:l=	462.2	$\beta^*l=$	323.5	-2177	187	27	cl= 1	$\varepsilon= 0.92$	lmd= 85	Rpf= 14	Rft= 0	Wmax/rel/lim=	7.8	0.8	18.5	mm		
Sez.N.	932	32	0.00	25	-719	-43	-311	-156	40	28	75647	2171	2171	20222	20222	2035	2618	17
T.Q.100*10	qn=	-8	27	-969	32	285	-161	0	29	75646	2171	2171	20222	20222	2035	2618	16	
Asta:	74	50	3.49	27	-969	32	285	-161	0	29	75646	2171	2171	20222	20222	2035	2618	16
Instab.:l=	374.2	$\beta^*l=$	261.9	-2411	108	47	cl= 1	$\varepsilon= 0.92$	lmd= 69	Rpf= 11	Rft= 0	Wmax/rel/lim=	4.3	1.1	15.0	mm		
Sez.N.	932	49	0.00	40	300	-296	-71	-71	250	7	75655	2171	2171	20222	20222	2035	2619	17
T.Q.100*10	qn=	-12	36	-1367	21	-35	100	-114	-11	75660	2171	2171	20222	20222	2035	2619	4	
Asta:	75	31	2.03	40	346	265	102	-71	221	7	75657	2171	2171	20222	20222	2035	2619	17
Instab.:l=	238.4	$\beta^*l=$	166.9	-1250	359	42	cl= 1	$\varepsilon= 0.92$	lmd= 44	Rpf= 17	Rft= 0	Wmax/rel/lim=	5.4	0.5	9.5	mm		
Sez.N.	932	29	0.00	36	559	-79	-138	-100	104	-12	75660	2171	2171	20222	20222	2035	2619	11
T.Q.100*10	qn=	-9	24	-513	17	-109	101	0	24	75653	2171	2171	20222	20222	2035	2619	6	
Asta:	76	48	2.39	36	613	164	125	-100	80	-12	75660	2171	2171	20222	20222	2035	2619	14
Instab.:l=	261.0	$\beta^*l=$	182.7	-656	215	43	cl= 1	$\varepsilon= 0.92$	lmd= 48	Rpf= 11	Rft= 0	Wmax/rel/lim=	6.1	0.8	10.4	mm		
Sez.N.	932	47	0.00	27	-651	-112	174	80	66	18	75658	2171	2171	20222	20222	2035	2619	14
T.Q.100*10	qn=	-12	25	-1088	27	-154	85	0	14	75660	2171	2171	20222	20222	2035	2619	10	
Asta:	77	24	3.95	27	-561	66	-195	80	11	18	75658	2171	2171	20222	20222	2035	2619	13
Instab.:l=	462.2	$\beta^*l=$	323.5	-1530	184	39	cl= 1	$\varepsilon= 0.92$	lmd= 85	Rpf= 12	Rft= 0	Wmax/rel/lim=	7.8	0.8	18.5	mm		
Sez.N.	932	22	0.00	25	46	-60	-307	-152	48	29	75646	2171	2171	20222	20222	2035	2618	17
T.Q.100*10	qn=	-8	21	-1054	23	171	146	0	-30	75646	2171	2171	20222	20222	2035	2618	10	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	78	46	3.49	27	-235	64	278	-158	9	28	75647	2171	2171	20222	20222	2035	2618	16
Instab.:l=	374.2	$\beta^*l=$	261.9	-2330	111	44	cl= 1	$\varepsilon= 0.92$	lmd= 69	Rpf= 11	Rft= 0	Wmax/rel/lim=	4.4	1.1	15.0	mm		
Sez.N.	932	45	0.00	24	-755	-259	-119	-113	221	-13	75653	2171	2171	20222	20222	2035	2619	18
T.Q.100*10	qn=	-12	37	-1194	20	-37	102	-100	-7	75662	2171	2171	20222	20222	2035	2619	4	
Asta:	79	21	2.03	24	-709	235	152	-113	193	-13	75655	2171	2171	20222	20222	2035	2619	19
Instab.:l=	238.4	$\beta^*l=$	166.9	-1237	358	44	cl= 1	$\varepsilon= 0.92$	lmd= 44	Rpf= 17	Rft= 0	Wmax/rel/lim=	5.4	0.5	9.5	mm		
Sez.N.	932	19	0.00	21	-582	-16	-195	-126	39	-25	75651	2171	2171	20222	20222	2035	2619	10
T.Q.100*10	qn=	-9	24	-390	17	-102	100	0	24	75654	2171	2171	20222	20222	2035	2619	6	
Asta:	80	44	2.39	37	477	150	116	-97	73	-14	75659	2171	2171	20222	20222	2035	2619	13
Instab.:l=	261.0	$\beta^*l=$	182.7	-656	217	43	cl= 1	$\varepsilon= 0.92$	lmd= 48	Rpf= 11	Rft= 0	Wmax/rel/lim=	6.1	0.8	10.4	mm		
Sez.N.	932	43	0.00	27	-704	-104	173	80	63	18	75658	2171	2171	20222	20222	2035	2619	14
T.Q.100*10	qn=	-12	24	-1032	27	-154	83	0	13	75660	2171	2171	20222	20222	2035	2619	10	
Asta:	81	14	3.95	27	-615	60	-195	80	8	18	75658	2171	2171	20222	20222	2035	2619	13
Instab.:l=	462.2	$\beta^*l=$	323.5	-1550	184	40	cl= 1	$\varepsilon= 0.92$	lmd= 85	Rpf= 12	Rft= 0	Wmax/rel/lim=	7.9	0.8	18.5	mm		
Sez.N.	932	12	0.00	27	-347	-39	-314	-158	45	28	75647	2171	2171	20222	20222	2035	2618	17
T.Q.100*10	qn=	-8	20	-908	22	-68	142	0	-29	75647	2171	2171	20222	20222	2035	2618	5	
Asta:	82	42	3.49	27	-268	59	275	-158	14	28	75647	2171	2171	20222	20222	2035	2618	16
Instab.:l=	374.2	$\beta^*l=$	261.9	-2404	117	43	cl= 1	$\varepsilon= 0.92$	lmd= 69	Rpf= 11	Rft= 0	Wmax/rel/lim=	4.4	1.1	15.0	mm		
Sez.N.	932	41	0.00	25	-882	-242	-93	-85	207	-16	75652	2171	2171	20222	20222	2035	2619	17
T.Q.100*10	qn=	-12	16	150	18	82	141	0	5	75661	2171	2171	20222	20222	2035	2619	5	
Asta:	83	11	2.03	25	-836	218	109	-85	179	-16	75654	2171	2171	20222	20222	2035	2619	16
Instab.:l=	238.4	$\beta^*l=$	166.9	-1435	343	57	cl= 1	$\varepsilon= 0.92$	lmd= 44	Rpf= 18	Rft= 0	Wmax/rel/lim=	5.2	0.4	9.5	mm		
Sez.N.	932	9	0.00	18	-1295	40	-190	-124	-18	-22	75654	2171	2171	20222	20222	2035	2619	12
T.Q.100*10	qn=	-9	34	-1421	80	-61	-84	-44	-2	75663	2171	2171	20222	20222	2035	2619	8	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	84	40	2.39	40	-766	148	-70	-24	-13	8	75663	2171	2171	20222	20222	2035	2619	11
Instab.:l=	261.0	$\beta^*l=$	182.7	-586	237	38	cl= 1	$\varepsilon= 0.92$	lmd= 48	Rpf= 12	Rft= 0	Wmax/rel/lim=	5.3	0.6	10.4	mm		
Sez.N.	932	39	0.00	21	-517	-110	-185	-92	66	-14	75659	2171	2171	20222	20222	2035	2619	14
T.Q.100*10	qn=	-12	15	-57	36	202	-87	0	-18	75658	2171	2171	20222	20222	2035	2619	11	
Asta:	85	5	3.95	21	-427	67	240	-92	11	-14	75659	2171	2171	20222	20222	2035	2619	15
Instab.:l=	462.2	$\beta^*l=$	323.5	-2603	118	43	cl= 1	$\varepsilon= 0.92$	lmd= 85	Rpf= 13	Rft= 0	Wmax/rel/lim=	7.3	0.7	18.5	mm		
Sez.N.	932	4	0.00	27	-176	-63	-296	-147	53	27	75649	2171	2171	20222	20222	2035	2619	17
T.Q.100*10	qn=	-8	20	-459	27	-199	145	0	-28	75648	2171	2171	20222	20222	2035	2618	11	
Asta:	86	38	3.49	27	-97	79	254	-147	23	27	75649	2171	2171	20222	20222	2035	2619	15
Instab.:l=	374.2	$\beta^*l=$	261.9	-2703	130	36	cl= 1	$\varepsilon= 0.92$	lmd= 69	Rpf= 12	Rft= 0	Wmax/rel/lim=	4.5	1.2	15.0	mm		
Sez.N.	932	2	0.00	43	156	-582	34	56	473	33	75605	2169	2169	20222	20222	2035	2617	29
T.Q.100*10	qn=	-12	31	-633	38	30	-55	-263	-25	75641	2170	2170	20222	20222	2035	2618	4	
Asta:	87	3	2.03	43	202	512	-100	56	445	33	75609	2170	2170	20222	20222	2035	2617	28
Instab.:l=	238.4	$\beta^*l=$	166.9	-236	499	55	cl= 1	$\varepsilon= 0.92$	lmd= 44	Rpf= 22	Rft= 0	Wmax/rel/lim=	6.3	0.6	9.5	mm		
Sez.N.	1084	1	3.95	21	37	343	194	109	47	-77	138495	8361	4837	21324	47584	5374	2619	8
Tubo100x25	qn=	-678	21	37	349	159	109	-4	-77	138495	8361	4837	21324	47584	5374	2619	7	
Asta:	88	4	3.95	43	-44	336	70	47	33	-14	138520	8362	4838	21324	47584	5374	2619	5
Instab.:l=	245.0	$\beta^*l=$	171.5	-25	775	76	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 9	Rft= 0	Wmax/rel/lim=	6.1	0.5	9.8	mm		
Sez.N.	1084	3	2.03	21	-41	208	160	66	130	27	138517	8362	4838	21324	47584	5374	2619	6
Tubo100x25	qn=	-678	20	-30	203	99	55	-1	19	138519	8362	4838	21324	47584	5374	2619	5	
Asta:	89	6	2.03	43	49	-794	81	-60	-597	-79	138470	8359	4836	21324	47584	5374	2618	11
Instab.:l=	245.0	$\beta^*l=$	171.5	-17	772	90	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 9	Rft= 0	Wmax/rel/lim=	6.3	0.2	9.8	mm		
Sez.N.	1084	36	3.95	27	281	-203	194	66	212	-34	138513	8362	4838	21324	47584	5374	2619	7
Tubo100x25	qn=	-39	27	208	369	-164	66	-1	-34	138515	8362	4838	21324	47584	5374	2619	8	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	90	37	2.03	43	265	462	-151	51	3	-40	138515	8362	4838	21324	47584	5374	2619	9
Instab.:l=	592.0	$\beta^*l=$	414.4	-274	285	47	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	3.9	1.2	23.7	mm		
Sez.N.	1084	34	3.95	15	234	20	-293	-101	88	-11	138518	8362	4838	21324	47584	5374	2619	6
Tubo100x25	qn=	-39	43	116	241	-85	50	-2	-1	138521	8362	4838	21324	47584	5374	2619	5	
Asta:	91	35	2.03	15	154	-150	303	-101	-145	-11	138518	8362	4838	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$	414.4	0	0	0	cl= 1	$\varepsilon= 0.92$	lmd= 0	Rpf= 0	Rft= 0	Wmax/rel/lim=	6.8	0.8	23.7	mm		
Sez.N.	1084	32	3.95	15	-2	16	-443	-204	94	-177	138396	8355	4834	21324	47584	5374	2617	9
Tubo100x25	qn=	-39	18	-2	40	-344	-197	-1	-167	138409	8356	4834	21324	47584	5374	2617	8	
Asta:	92	50	3.49	43	6	-899	53	63	-823	60	138465	8359	4836	21324	47584	5374	2618	12
Instab.:l=	142.6	$\beta^*l=$	99.8	-9	1406	226	cl= 1	$\varepsilon= 0.92$	lmd= 23	Rpf= 17	Rft= 0	Wmax/rel/lim=	4.8	0.3	5.7	mm		
Sez.N.	1084	50	3.49	43	17	-902	67	43	374	-25	138511	8362	4838	21324	47584	5374	2619	12
Tubo100x25	qn=	-39	15	-39	154	-180	-127	0	69	138497	8361	4837	21324	47584	5374	2619	6	
Asta:	93	33	2.03	15	-98	-228	379	-127	-173	69	138497	8361	4837	21324	47584	5374	2619	11
Instab.:l=	449.4	$\beta^*l=$	314.6	-151	1298	116	cl= 1	$\varepsilon= 0.92$	lmd= 75	Rpf= 14	Rft= 0	Wmax/rel/lim=	2.5	1.3	18.0	mm		
Sez.N.	1084	30	3.95	27	381	-111	391	132	138	8	138517	8362	4838	21324	47584	5374	2619	10
Tubo100x25	qn=	-39	43	452	146	-98	95	-2	14	138518	8362	4838	21324	47584	5374	2619	4	
Asta:	94	31	2.03	30	266	-129	-385	130	-101	7	138518	8362	4838	21324	47584	5374	2619	10
Instab.:l=	592.0	$\beta^*l=$	414.4	-350	404	25	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	2.8	0.5	23.7	mm		
Sez.N.	1084	28	3.95	27	-56	-130	440	152	182	8	138516	8362	4838	21324	47584	5374	2619	11
Tubo100x25	qn=	-39	27	-118	290	-268	152	-1	8	138516	8362	4838	21324	47584	5374	2619	9	
Asta:	95	48	2.39	31	-458	-924	137	-71	-337	-1	138518	8362	4838	21324	47584	5374	2619	14
Instab.:l=	481.0	$\beta^*l=$	336.7	-1082	1248	34	cl= 1	$\varepsilon= 0.92$	lmd= 80	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.8	1.3	19.2	mm		
Sez.N.	1084	26	3.95	27	122	-112	304	103	156	-24	138515	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-39	36	129	340	93	-42	-1	-29	138518	8362	4838	21324	47584	5374	2619	6	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 96	27	2.03		27	42	133	-304	103	-77	-24	138515	8362	4838	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$		414.4	-366	342	45	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	4.9	1.2	23.7	mm	
Sez.N. 1084	24	3.95		20	125	-132	-375	-128	156	-13	138517	8362	4838	21324	47584	5374	2619	9
Tubo100x25	qn=	-39		36	21	213	156	-96	-1	-11	138519	8362	4838	21324	47584	5374	2619	6
Asta: 97	25	2.03		21	53	-16	386	-129	-79	-12	138517	8362	4838	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$		414.4	0	0	0	cl= 1	$\varepsilon= 0.92$	lmd= 0	Rpf= 0	Rft= 0	Wmax/rel/lim=	6.5	0.9	23.7	mm	
Sez.N. 1084	22	3.95		21	30	191	-431	-194	-596	-171	138385	8354	4833	21324	47584	5374	2616	11
Tubo100x25	qn=	-39		21	21	-229	-294	-194	-623	-171	138382	8354	4833	21324	47584	5374	2616	9
Asta: 98	46	3.49		36	18	-868	-94	-53	-800	-2	138501	8361	4837	21324	47584	5374	2619	12
Instab.:l=	142.6	$\beta^*l=$		99.8	-25	1353	214	cl= 1	$\varepsilon= 0.92$	lmd= 23	Rpf= 17	Rft= 0	Wmax/rel/lim=	4.7	0.2	5.7	mm	
Sez.N. 1084	20	3.95		27	412	-17	371	126	93	7	138518	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-39		25	228	90	121	107	0	4	138519	8362	4838	21324	47584	5374	2619	4
Asta: 99	21	2.03		27	332	-151	-373	126	-139	7	138518	8362	4838	21324	47584	5374	2619	10
Instab.:l=	592.0	$\beta^*l=$		414.4	-349	402	24	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	2.8	0.5	23.7	mm	
Sez.N. 1084	48	2.39		31	617	-824	122	-74	927	-29	138478	8360	4836	21324	47584	5374	2618	13
Tubo100x25	qn=	-39		43	-277	224	-266	149	-499	44	138497	8361	4837	21324	47584	5374	2619	8
Asta: 100	29	2.03		27	-82	-12	-417	152	-208	-43	138506	8361	4837	21324	47584	5374	2619	9
Instab.:l=	111.0	$\beta^*l=$		77.7	-284	371	281	cl= 1	$\varepsilon= 0.92$	lmd= 18	Rpf= 10	Rft= 0	Wmax/rel/lim=	4.5	0.1	4.4	mm	
Sez.N. 1084	46	3.49		20	34	-736	-183	-121	321	66	138496	8361	4837	21324	47584	5374	2619	13
Tubo100x25	qn=	-39		20	4	-115	88	-121	232	66	138499	8361	4837	21324	47584	5374	2619	3
Asta: 101	23	2.03		20	-27	308	360	-121	144	66	138499	8361	4837	21324	47584	5374	2619	11
Instab.:l=	449.4	$\beta^*l=$		314.6	-159	1242	110	cl= 1	$\varepsilon= 0.92$	lmd= 75	Rpf= 14	Rft= 0	Wmax/rel/lim=	2.4	1.2	18.0	mm	
Sez.N. 1084	18	3.95		27	-101	-123	423	146	177	10	138516	8362	4838	21324	47584	5374	2619	10
Tubo100x25	qn=	-39		30	-158	286	-248	144	-1	11	138516	8362	4838	21324	47584	5374	2619	9

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 102	44	2.39		34	-412	-859	115	-58	-319	-20	138514	8362	4838	21324	47584	5374	2619	13
Instab.:l=	481.0	$\beta^*l=$		336.7	-1079	1245	33	cl= 1	$\varepsilon= 0.92$	lmd= 80	Rpf= 14	Rft= 0	Wmax/rel/lim=	4.8	1.3	19.2	mm	
Sez.N. 1084	16	3.95		25	45	-52	342	115	115	-10	138518	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-39		37	113	316	112	-56	-1	-28	138517	8362	4838	21324	47584	5374	2619	6
Asta: 103	17	2.03		25	-35	-60	-341	115	-118	-10	138518	8362	4838	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$		414.4	-366	341	44	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	4.9	1.2	23.7	mm	
Sez.N. 1084	14	3.95		21	138	-126	-370	-127	123	-13	138517	8362	4838	21324	47584	5374	2619	9
Tubo100x25	qn=	-39		37	42	203	131	-103	0	-12	138518	8362	4838	21324	47584	5374	2619	5
Asta: 104	15	2.03		37	19	152	306	-103	-67	-12	138518	8362	4838	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$		414.4	0	0	0	cl= 1	$\varepsilon= 0.92$	lmd= 0	Rpf= 0	Rft= 0	Wmax/rel/lim=	6.5	0.9	23.7	mm	
Sez.N. 1084	12	3.95		21	30	186	-445	-204	-571	-169	138390	8354	4833	21324	47584	5374	2617	11
Tubo100x25	qn=	-39		21	21	-216	-306	-204	-598	-169	138387	8354	4833	21324	47584	5374	2617	9
Asta: 105	42	3.49		37	12	-827	-122	-99	-765	-15	138497	8361	4837	21324	47584	5374	2619	12
Instab.:l=	142.6	$\beta^*l=$		99.8	-29	1403	212	cl= 1	$\varepsilon= 0.92$	lmd= 23	Rpf= 17	Rft= 0	Wmax/rel/lim=	4.8	0.2	5.7	mm	
Sez.N. 1084	10	3.95		25	278	15	377	128	123	5	138518	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-39		30	369	183	-85	111	-1	8	138518	8362	4838	21324	47584	5374	2619	4
Asta: 106	11	2.03		25	198	-34	-380	128	-110	5	138518	8362	4838	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$		414.4	-286	375	51	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	2.9	0.5	23.7	mm	
Sez.N. 1084	8	3.95		25	45	137	410	141	-61	-1	138518	8362	4838	21324	47584	5374	2619	10
Tubo100x25	qn=	-39		27	173	92	333	126	-2	7	138518	8362	4838	21324	47584	5374	2619	8
Asta: 107	40	2.39		18	-362	-610	138	-72	-61	-30	138516	8362	4838	21324	47584	5374	2619	10
Instab.:l=	481.0	$\beta^*l=$		336.7	-929	1003	92	cl= 1	$\varepsilon= 0.92$	lmd= 80	Rpf= 12	Rft= 0	Wmax/rel/lim=	4.3	1.1	19.2	mm	
Sez.N. 1084	5	3.95		21	159	-77	-347	-119	153	-17	138516	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-39		37	35	253	128	-87	-2	-10	138519	8362	4838	21324	47584	5374	2619	6



STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 108	7	2.03		21	79	102	357	-119	-80	-17	138516	8362	4838	21324	47584	5374	2619	9
Instab.:l=	592.0	$\beta^*l=$		414.4	0	0	0	cl= 1	$\varepsilon= 0.92$	lmd= 0	Rpf= 0	Rft= 0	Wmax/rel/lim=	6.4	0.8	23.7	mm	
Sez.N. 1084	4	3.95		21	-5	134	-413	-189	-337	-187	138389	8354	4833	21324	47584	5374	2617	10
Tubo100x25	qn=	-39		21	-14	-108	-288	-189	-364	-187	138389	8354	4833	21324	47584	5374	2617	7
Asta: 109	38	3.49		40	41	-859	69	58	-784	93	138442	8358	4835	21324	47584	5374	2618	12
Instab.:l=	142.6	$\beta^*l=$		99.8	-9	1601	211	cl= 1	$\varepsilon= 0.92$	lmd= 23	Rpf= 19	Rft= 0	Wmax/rel/lim=	5.2	0.3	5.7	mm	
Sez.N. 1084	1	3.95		21	123	-88	-201	-70	127	11	138520	8362	4838	21324	47584	5374	2619	5
Tubo100x25	qn=	-39		15	193	177	68	-51	-2	-12	138520	8362	4838	21324	47584	5374	2619	4
Asta: 110	3	2.03		36	-239	-341	165	-53	-189	54	138508	8361	4837	21324	47584	5374	2619	8
Instab.:l=	592.0	$\beta^*l=$		414.4	-296	324	29	cl= 1	$\varepsilon= 0.92$	lmd= 99	Rpf= 5	Rft= 0	Wmax/rel/lim=	2.7	0.4	23.7	mm	
Sez.N. 1084	44	2.39		34	580	-771	95	-66	871	-17	138489	8360	4837	21324	47584	5374	2618	12
Tubo100x25	qn=	-39		27	-65	99	-334	147	-188	-47	138504	8361	4837	21324	47584	5374	2619	8
Asta: 111	19	2.03		27	-72	-12	-402	147	-210	-47	138504	8361	4837	21324	47584	5374	2619	8
Instab.:l=	111.0	$\beta^*l=$		77.7	-248	332	247	cl= 1	$\varepsilon= 0.92$	lmd= 18	Rpf= 9	Rft= 0	Wmax/rel/lim=	4.5	0.1	4.4	mm	
Sez.N. 1084	42	3.49		37	29	-815	-136	-87	339	38	138508	8361	4837	21324	47584	5374	2619	13
Tubo100x25	qn=	-39		25	-144	146	114	85	-1	-57	138507	8361	4837	21324	47584	5374	2619	4
Asta: 112	13	2.03		21	-37	251	383	-129	114	69	138497	8361	4837	21324	47584	5374	2619	11
Instab.:l=	449.4	$\beta^*l=$		314.6	-163	1286	108	cl= 1	$\varepsilon= 0.92$	lmd= 75	Rpf= 14	Rft= 0	Wmax/rel/lim=	2.4	1.3	18.0	mm	
Sez.N. 1084	40	2.39		25	426	-574	-252	135	664	-77	138466	8359	4836	21324	47584	5374	2618	12
Tubo100x25	qn=	-39		25	419	-270	-317	135	642	-77	138468	8359	4836	21324	47584	5374	2618	10
Asta: 113	9	2.03		25	411	23	-381	135	620	-77	138469	8359	4836	21324	47584	5374	2618	8
Instab.:l=	111.0	$\beta^*l=$		77.7	-117	249	206	cl= 1	$\varepsilon= 0.92$	lmd= 18	Rpf= 7	Rft= 0	Wmax/rel/lim=	3.9	0.2	4.4	mm	
Sez.N. 1084	38	3.49		40	61	-862	78	49	361	-24	138511	8362	4838	21324	47584	5374	2619	12
Tubo100x25	qn=	-39		22	-117	34	334	-121	0	65	138500	8361	4837	21324	47584	5374	2619	7

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 114	6	2.03		36	-247	-346	296	-102	-220	39	138511	8362	4838	21324	47584	5374	2619	10
Instab.:l=	449.4	$\beta^*l=$		314.6	-150	1471	108	cl= 1	$\varepsilon= 0.92$	lmd= 75	Rpf= 16	Rft= 0	Wmax/rel/lim=	2.5	1.5	18.0	mm	
Sez.N. 1084	4	3.95		20	27	350	271	245	-84	52	138491	8360	4837	21324	47584	5374	2618	10
Tubo100x25	qn=	-678		33	92	310	-277	33	-5	99	138494	8361	4837	21324	47584	5374	2619	10
Asta: 115	5	3.95		31	90	494	-310	34	75	123	138480	8360	4836	21324	47584	5374	2618	12
Instab.:l=	245.0	$\beta^*l=$		171.5	-209	774	218	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 11	Rft= 0	Wmax/rel/lim=	7.4	0.6	9.8	mm	
Sez.N. 1084	5	3.95		25	169	-354	-289	-159	382	-31	138508	8362	4837	21324	47584	5374	2619	10
Tubo100x25	qn=	-678		7	151	5	-196	-163	-25	-17	138521	10630	5489	22850	57126	5374	2619	4
Asta: 116	8	3.95		21	-91	-611	-135	95	-619	39	138493	8361	4837	21324	47584	5374	2619	10
Instab.:l=	245.0	$\beta^*l=$		171.5	-124	788	211	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 11	Rft= 0	Wmax/rel/lim=	7.4	0.5	9.8	mm	
Sez.N. 1084	8	3.95		24	54	-550	-261	-225	440	40	138499	8361	4837	21324	47584	5374	2619	12
Tubo100x25	qn=	-678		31	-122	-137	83	-91	-2	23	138516	8362	4838	21324	47584	5374	2619	3
Asta: 117	10	3.95		25	53	110	297	-228	72	45	138496	8361	4837	21324	47584	5374	2619	7
Instab.:l=	245.0	$\beta^*l=$		171.5	-180	756	196	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 11	Rft= 0	Wmax/rel/lim=	4.9	0.5	9.8	mm	
Sez.N. 1084	10	3.95		27	-36	-466	-45	-83	428	-43	138502	8361	4837	21324	47584	5374	2619	7
Tubo100x25	qn=	-678		34	-109	217	-54	26	-2	-4	138521	8362	4838	21324	47584	5374	2619	4
Asta: 118	12	3.95		25	-106	282	153	-100	108	-11	138518	8362	4838	21324	47584	5374	2619	7
Instab.:l=	245.0	$\beta^*l=$		171.5	-84	856	232	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 12	Rft= 0	Wmax/rel/lim=	5.1	0.5	9.8	mm	
Sez.N. 1084	12	3.95		18	-77	327	193	190	-112	57	138495	8361	4837	21324	47584	5374	2619	8
Tubo100x25	qn=	-678		20	-9	224	152	231	-6	83	138473	8359	4836	21324	47584	5374	2618	6
Asta: 119	14	3.95		37	109	517	-242	192	69	104	138466	8359	4836	21324	47584	5374	2618	11
Instab.:l=	245.0	$\beta^*l=$		171.5	-12	977	184	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 13	Rft= 0	Wmax/rel/lim=	7.9	0.6	9.8	mm	
Sez.N. 1084	14	3.95		41	-80	-610	-249	-210	523	-18	138507	8361	4837	21324	47584	5374	2619	13
Tubo100x25	qn=	-678		24	82	121	213	-197	-6	-2	138515	8362	4838	21324	47584	5374	2619	6

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta:	120	16	3.95	37	141	-696	-258	152	-768	39	138483	8360	4837	21324	47584	5374	2618	14
Instab.:l=	245.0	$\beta^*l=$	171.5	-10	807	144	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	7.9	0.4	9.8	mm		
Sez.N.	1084	16	3.95	46	200	-615	-228	-123	472	28	138506	8361	4837	21324	47584	5374	2619	12
Tubo100x25	qn=	-678	34	-152	184	150	124	-5	-47	138507	8361	4837	21324	47584	5374	2619	5	
Asta:	121	18	3.95	15	-81	-274	-179	142	-336	-25	138512	8362	4838	21324	47584	5374	2619	7
Instab.:l=	245.0	$\beta^*l=$	171.5	-3	659	50	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 7	Rft= 0	Wmax/rel/lim=	7.3	0.3	9.8	mm		
Sez.N.	1084	18	3.95	27	4	-279	-275	-243	304	15	138508	8361	4837	21324	47584	5374	2619	9
Tubo100x25	qn=	-678	27	4	39	238	-243	-1	15	138508	8361	4837	21324	47584	5374	2619	5	
Asta:	122	20	3.95	46	121	-207	304	-218	-231	-40	138500	8361	4837	21324	47584	5374	2619	9
Instab.:l=	245.0	$\beta^*l=$	171.5	-40	845	207	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 12	Rft= 0	Wmax/rel/lim=	5.2	0.4	9.8	mm		
Sez.N.	1084	20	3.95	36	112	-302	167	32	188	-125	138470	8359	4836	21324	47584	5374	2618	7
Tubo100x25	qn=	-678	31	-116	224	-88	82	0	1	138520	8362	4838	21324	47584	5374	2619	5	
Asta:	123	22	3.95	25	-125	294	140	-80	120	-8	138520	8362	4838	21324	47584	5374	2619	6
Instab.:l=	245.0	$\beta^*l=$	171.5	-124	981	239	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 14	Rft= 0	Wmax/rel/lim=	5.2	0.6	9.8	mm		
Sez.N.	1084	22	3.95	15	16	359	217	202	-143	63	138490	8360	4837	21324	47584	5374	2618	9
Tubo100x25	qn=	-678	21	83	233	200	241	-4	93	138465	8359	4836	21324	47584	5374	2618	7	
Asta:	124	24	3.95	36	119	565	-213	185	98	109	138463	8359	4836	21324	47584	5374	2618	11
Instab.:l=	245.0	$\beta^*l=$	171.5	-51	984	183	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 13	Rft= 0	Wmax/rel/lim=	7.8	0.6	9.8	mm		
Sez.N.	1084	24	3.95	40	-105	-653	-248	-216	548	-21	138505	8361	4837	21324	47584	5374	2619	13
Tubo100x25	qn=	-678	43	179	169	-82	75	-497	37	138501	8361	4837	21324	47584	5374	2619	4	
Asta:	125	26	3.95	36	140	-715	-269	158	-795	42	138480	8360	4836	21324	47584	5374	2618	14
Instab.:l=	245.0	$\beta^*l=$	171.5	-65	747	160	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	7.9	0.4	9.8	mm		
Sez.N.	1084	26	3.95	43	189	-658	-254	-136	499	31	138503	8361	4837	21324	47584	5374	2619	13
Tubo100x25	qn=	-678	31	-168	222	199	136	-4	-50	138504	8361	4837	21324	47584	5374	2619	7	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 126	28	3.95		15	-87	-281	-185	149	-352	-28	138510	8362	4838	21324	47584	5374	2619	7
Instab.:l=	245.0	$\beta^*l=$		171.5	-141	783	62	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 9	Rft= 0	Wmax/rel/lim=	7.3	0.3	9.8	mm	
Sez.N. 1084	28	3.95		27	-37	-277	-286	-247	293	5	138511	8362	4838	21324	47584	5374	2619	9
Tubo100x25	qn=	-678		27	-37	51	225	-247	-5	5	138511	8362	4838	21324	47584	5374	2619	5
Asta: 127	30	3.95		43	91	-64	323	-240	-219	-48	138493	8361	4837	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-81	845	209	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 12	Rft= 0	Wmax/rel/lim=	5.2	0.4	9.8	mm	
Sez.N. 1084	30	3.95		25	-152	-478	-70	-83	468	-73	138484	8360	4837	21324	47584	5374	2618	7
Tubo100x25	qn=	-678		31	-104	237	-85	92	-4	17	138518	8362	4838	21324	47584	5374	2619	5
Asta: 128	32	3.95		24	-148	276	151	-80	122	-62	138505	8361	4837	21324	47584	5374	2619	7
Instab.:l=	245.0	$\beta^*l=$		171.5	-163	981	245	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 14	Rft= 0	Wmax/rel/lim=	5.3	0.6	9.8	mm	
Sez.N. 1084	32	3.95		15	36	342	179	233	-157	7	138511	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-678		21	84	213	222	190	-3	33	138506	8361	4837	21324	47584	5374	2619	7
Asta: 129	34	3.95		31	-66	-636	-277	200	-586	-14	138506	8361	4837	21324	47584	5374	2619	13
Instab.:l=	245.0	$\beta^*l=$		171.5	-85	957	220	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 13	Rft= 0	Wmax/rel/lim=	7.9	0.6	9.8	mm	
Sez.N. 1084	34	3.95		43	52	741	-78	-128	-83	38	138509	8362	4838	21324	47584	5374	2619	11
Tubo100x25	qn=	-678		45	57	515	-64	-126	-4	29	138512	8362	4838	21324	47584	5374	2619	8
Asta: 130	36	3.95		30	64	310	183	-159	-85	25	138511	8362	4838	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-19	850	191	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 11	Rft= 0	Wmax/rel/lim=	7.9	0.6	9.8	mm	
Sez.N. 1084	6	2.03		43	39	-625	223	186	409	-74	138486	8360	4837	21324	47584	5374	2618	12
Tubo100x25	qn=	-678		19	25	123	282	232	-5	-22	138506	8361	4837	21324	47584	5374	2619	7
Asta: 131	7	2.03		15	-21	-388	-272	154	-462	-4	138514	8362	4838	21324	47584	5374	2619	10
Instab.:l=	245.0	$\beta^*l=$		171.5	-417	697	187	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	4.8	0.3	9.8	mm	
Sez.N. 1084	7	2.03		25	-167	-358	-230	-115	376	19	138512	8362	4838	21324	47584	5374	2619	9
Tubo100x25	qn=	-678		41	-135	-157	-128	-10	-6	67	138510	8362	4838	21324	47584	5374	2619	5

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 132	9	2.03		30	-143	416	124	-133	139	-4	138518	8362	4838	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-290	824	201	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 12	Rft= 0	Wmax/rel/lim=	5.1	0.6	9.8	mm	
Sez.N. 1084	9	2.03		25	36	-285	-288	-232	470	-4	138512	8362	4838	21324	47584	5374	2619	9
Tubo100x25	qn=	-678		27	10	214	180	-191	-1	17	138511	8362	4838	21324	47584	5374	2619	6
Asta: 133	11	2.03		25	36	439	279	-232	115	-4	138512	8362	4838	21324	47584	5374	2619	11
Instab.:l=	245.0	$\beta^*l=$		171.5	-106	909	164	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 12	Rft= 0	Wmax/rel/lim=	5.2	0.4	9.8	mm	
Sez.N. 1084	11	2.03		18	-91	511	162	102	-248	24	138515	8362	4838	21324	47584	5374	2619	10
Tubo100x25	qn=	-678		26	162	96	195	-107	-6	-28	138514	8362	4838	21324	47584	5374	2619	5
Asta: 134	13	2.03		18	-91	-540	-85	102	-603	24	138501	8361	4837	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-19	844	156	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 11	Rft= 0	Wmax/rel/lim=	5.3	0.5	9.8	mm	
Sez.N. 1084	13	2.03		21	-106	144	262	208	24	-40	138501	8361	4837	21324	47584	5374	2619	7
Tubo100x25	qn=	-678		21	-106	146	223	208	-6	-40	138501	8361	4837	21324	47584	5374	2619	6
Asta: 135	15	2.03		18	-46	-254	-256	170	-276	-7	138515	8362	4838	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-55	433	179	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 7	Rft= 0	Wmax/rel/lim=	5.2	0.3	9.8	mm	
Sez.N. 1084	15	2.03		25	-33	-265	-230	-176	329	-1	138517	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-678		41	81	123	209	-212	-5	20	138508	8362	4837	21324	47584	5374	2619	6
Asta: 136	17	2.03		37	-148	-355	-279	173	-334	-3	138516	8362	4838	21324	47584	5374	2619	10
Instab.:l=	245.0	$\beta^*l=$		171.5	-226	584	121	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 8	Rft= 0	Wmax/rel/lim=	6.9	0.3	9.8	mm	
Sez.N. 1084	17	2.03		46	-215	-412	-234	-111	556	7	138510	8362	4838	21324	47584	5374	2619	10
Tubo100x25	qn=	-678		46	-215	172	-90	-111	382	7	138515	8362	4838	21324	47584	5374	2619	4
Asta: 137	19	2.03		46	-215	558	59	-111	200	7	138518	8362	4838	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-261	743	154	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	6.9	0.4	9.8	mm	
Sez.N. 1084	19	2.03		46	-77	439	-267	-241	-205	38	138498	8361	4837	21324	47584	5374	2619	11
Tubo100x25	qn=	-678		27	46	190	121	-228	-1	5	138512	8362	4838	21324	47584	5374	2619	5

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	tto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 138	21	2.03		37	-121	-731	247	-179	-698	33	138492	8361	4837	21324	47584	5374	2618	14
Instab.:l=	245.0	$\beta^*l=$		171.5	-85	1001	188	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 13	Rft= 0	Wmax/rel/lim=	5.5	0.3	9.8	mm	
Sez.N. 1084	21	2.03		46	4	-698	109	30	542	39	138498	8361	4837	21324	47584	5374	2619	11
Tubo100x25	qn=	-678		21	-174	121	187	126	-4	45	138507	8361	4837	21324	47584	5374	2619	5
Asta: 139	23	2.03		15	-139	-457	-132	98	-544	21	138505	8361	4837	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-99	375	134	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 7	Rft= 0	Wmax/rel/lim=	5.4	0.5	9.8	mm	
Sez.N. 1084	23	2.03		21	-154	194	305	231	11	-38	138499	8361	4837	21324	47584	5374	2619	9
Tubo100x25	qn=	-678		21	-154	193	283	231	-4	-38	138499	8361	4837	21324	47584	5374	2619	8
Asta: 140	25	2.03		15	-104	-228	-271	192	-293	-7	138514	8362	4838	21324	47584	5374	2619	8
Instab.:l=	245.0	$\beta^*l=$		171.5	-5	657	206	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	5.2	0.3	9.8	mm	
Sez.N. 1084	25	2.03		24	72	-260	-237	-182	324	-3	138516	8362	4838	21324	47584	5374	2619	8
Tubo100x25	qn=	-678		40	110	133	229	-221	-3	21	138507	8361	4837	21324	47584	5374	2619	6
Asta: 141	27	2.03		36	-166	-367	-291	183	-343	-3	138516	8362	4838	21324	47584	5374	2619	11
Instab.:l=	245.0	$\beta^*l=$		171.5	-203	581	121	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 8	Rft= 0	Wmax/rel/lim=	6.9	0.3	9.8	mm	
Sez.N. 1084	27	2.03		43	-194	-429	-262	-122	574	-4	138510	8362	4838	21324	47584	5374	2619	11
Tubo100x25	qn=	-678		33	118	79	176	112	-2	72	138497	8361	4837	21324	47584	5374	2619	5
Asta: 142	29	2.03		43	-194	603	60	-122	219	-4	138519	8362	4838	21324	47584	5374	2619	9
Instab.:l=	245.0	$\beta^*l=$		171.5	-230	740	154	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	6.9	0.4	9.8	mm	
Sez.N. 1084	29	2.03		43	-56	512	-314	-272	-298	44	138491	8360	4837	21324	47584	5374	2618	13
Tubo100x25	qn=	-678		27	85	127	-55	-242	0	12	138509	8362	4837	21324	47584	5374	2619	3
Asta: 143	31	2.03		36	-125	-800	274	-207	-745	36	138487	8360	4837	21324	47584	5374	2618	15
Instab.:l=	245.0	$\beta^*l=$		171.5	-56	1016	190	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 13	Rft= 0	Wmax/rel/lim=	5.5	0.3	9.8	mm	
Sez.N. 1084	31	2.03		43	164	-765	102	29	589	48	138490	8360	4837	21324	47584	5374	2618	11
Tubo100x25	qn=	-678		21	-155	100	198	136	-3	34	138510	8362	4838	21324	47584	5374	2619	5

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - ACCIAIO + VERIFICA S.L.E.																		
VERIFICHE ASTE IN ACCIAIO 3D																		
DATI DI	Fili	Quota	Tra	Cmb	N Sd	MxSd	MySd	VxSd	VySd	T Sd	N Rd	MxV.Rd	MyV.Rd	VxplRd	VyplRd	T Rd	fy rid	Rap
ASTA	N.ro	(m)	fto	N.r	(kg)	(kg*m)	(kg*m)	(kg)	(kg)	(kg*m)	kg	kg*m	kg*m	Kg	Kg	kg*m	Kg/cmq	%
Asta: 144	33	2.03		15	-202	-482	-139	109	-543	10	138509	8362	4838	21324	47584	5374	2619	9
Instab.:l=	245.0	$\beta^*l=$		171.5	-133	494	201	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 8	Rft= 0	Wmax/rel/lim=	5.5	0.5	9.8	mm	
Sez.N. 1084	33	2.03		40	-20	-443	182	139	364	-88	138482	8360	4837	21324	47584	5374	2618	9
Tubo100x25	qn=	-678		22	-111	139	162	167	-6	5	138516	8362	4838	21324	47584	5374	2619	5
Asta: 145	35	2.03		15	-149	-266	-285	211	-280	-22	138508	8361	4837	21324	47584	5374	2619	9
Instab.:l=	245.0	$\beta^*l=$		171.5	-21	617	214	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 10	Rft= 0	Wmax/rel/lim=	4.9	0.3	9.8	mm	
Sez.N. 1084	35	2.03		24	52	-156	-158	-131	322	-21	138514	8362	4838	21324	47584	5374	2619	5
Tubo100x25	qn=	-678		28	72	250	163	-88	0	-12	138519	8362	4838	21324	47584	5374	2619	6
Asta: 146	37	2.03		30	75	252	165	-91	2	-11	138519	8362	4838	21324	47584	5374	2619	6
Instab.:l=	245.0	$\beta^*l=$		171.5	-369	316	156	cl= 1	$\varepsilon= 0.92$	lmd= 41	Rpf= 6	Rft= 0	Wmax/rel/lim=	5.0	0.4	9.8	mm	

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FATTORI DI COMPORTAMENTO DEGLI ELEMENTI																						
IDENTIFICATIVO							DIREZIONE X		DIREZIONE Y			IDENTIFICATIVO							DIREZIONE X		DIREZIONE Y	
Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'			Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'	
3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.		3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.
1	1	2	3	6	0.00	0.00	1.50	1.50	1.50	1.50		2	3	4	1	4	0.00	0.00	1.50	1.50	1.50	1.50
3	1	5	3	2	0.00	0.00	1.50	1.50	1.50	1.50		4	6	7	37	36	0.00	0.00	1.50	1.50	1.50	1.50
5	8	9	34	51	0.00	0.00	1.50	1.50	1.50	1.50		6	10	11	30	49	0.00	0.00	1.50	1.50	1.50	1.50
7	12	13	24	47	0.00	0.00	1.50	1.50	1.50	1.50		8	14	15	20	45	0.00	0.00	1.50	1.50	1.50	1.50
9	16	17	14	43	0.00	0.00	1.50	1.50	1.50	1.50		10	18	19	10	41	0.00	0.00	1.50	1.50	1.50	1.50
11	20	21	5	39	0.00	0.00	1.50	1.50	1.50	1.50		12	2	22	6	7	0.00	0.00	1.50	1.50	1.50	1.50
13	22	23	7	9	0.00	0.00	1.50	1.50	1.50	1.50		14	23	24	9	11	0.00	0.00	1.50	1.50	1.50	1.50
15	24	25	11	13	0.00	0.00	1.50	1.50	1.50	1.50		16	25	26	13	15	0.00	0.00	1.50	1.50	1.50	1.50
17	26	27	15	17	0.00	0.00	1.50	1.50	1.50	1.50		18	27	28	17	19	0.00	0.00	1.50	1.50	1.50	1.50
19	28	29	19	21	0.00	0.00	1.50	1.50	1.50	1.50		20	29	30	21	23	0.00	0.00	1.50	1.50	1.50	1.50
21	30	31	23	25	0.00	0.00	1.50	1.50	1.50	1.50		22	31	32	25	27	0.00	0.00	1.50	1.50	1.50	1.50

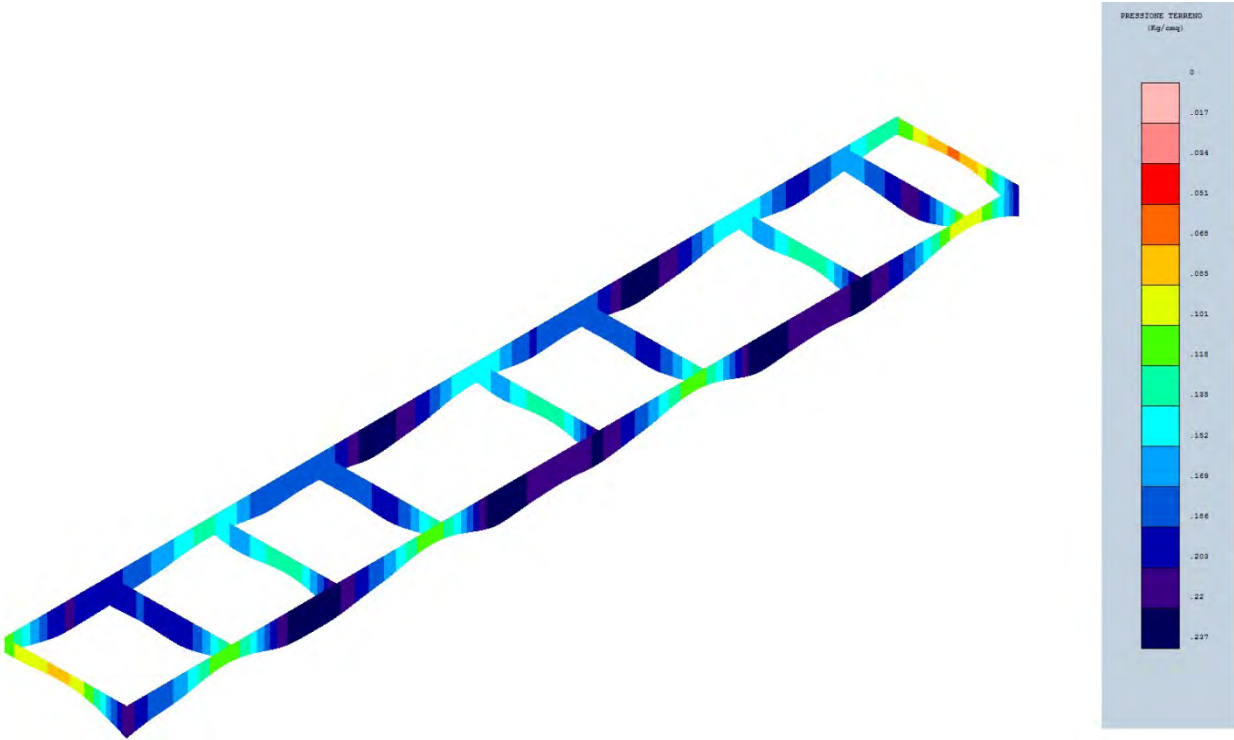
STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FATTORI DI COMPORTAMENTO DEGLI ELEMENTI																						
IDENTIFICATIVO							DIREZIONE X		DIREZIONE Y			IDENTIFICATIVO						DIREZIONE X		DIREZIONE Y		
Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'			Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'	
3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.		3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.
23	32	33	27	29	0.00	0.00	1.50	1.50	1.50	1.50		24	33	34	29	31	0.00	0.00	1.50	1.50	1.50	1.50
25	34	35	31	33	0.00	0.00	1.50	1.50	1.50	1.50		26	35	36	33	35	0.00	0.00	1.50	1.50	1.50	1.50
27	36	6	35	37	0.00	0.00	1.50	1.50	1.50	1.50		28	4	20	4	5	0.00	0.00	1.50	1.50	1.50	1.50
29	20	37	5	8	0.00	0.00	1.50	1.50	1.50	1.50		30	37	18	8	10	0.00	0.00	1.50	1.50	1.50	1.50
31	18	38	10	12	0.00	0.00	1.50	1.50	1.50	1.50		32	38	16	12	14	0.00	0.00	1.50	1.50	1.50	1.50
33	16	39	14	16	0.00	0.00	1.50	1.50	1.50	1.50		34	39	40	16	18	0.00	0.00	1.50	1.50	1.50	1.50
35	40	14	18	20	0.00	0.00	1.50	1.50	1.50	1.50		36	14	41	20	22	0.00	0.00	1.50	1.50	1.50	1.50
37	41	12	22	24	0.00	0.00	1.50	1.50	1.50	1.50		38	12	42	24	26	0.00	0.00	1.50	1.50	1.50	1.50
39	42	43	26	28	0.00	0.00	1.50	1.50	1.50	1.50		40	43	10	28	30	0.00	0.00	1.50	1.50	1.50	1.50
41	10	44	30	32	0.00	0.00	1.50	1.50	1.50	1.50		42	44	8	32	34	0.00	0.00	1.50	1.50	1.50	1.50
43	8	7	34	36	0.00	0.00	1.50	1.50	1.50	1.50		44	5	3	2	1	0.00	0.00	1.50	1.50	1.50	1.50
45	9	36	51	35	0.00	0.00	1.50	1.50	1.50	1.50		46	11	34	49	31	0.00	0.00	1.50	1.50	1.50	1.50
47	13	31	47	25	0.00	0.00	1.50	1.50	1.50	1.50		48	15	29	45	21	0.00	0.00	1.50	1.50	1.50	1.50
49	17	26	43	15	0.00	0.00	1.50	1.50	1.50	1.50		50	19	24	41	11	0.00	0.00	1.50	1.50	1.50	1.50
51	21	22	39	7	0.00	0.00	1.50	1.50	1.50	1.50		52	45	3	1	1	3.95	0.00	1.50	1.50	1.50	1.50
53	46	2	6	6	2.03	0.00	1.50	1.50	1.50	1.50		54	47	22	7	7	2.03	0.00	1.50	1.50	1.50	1.50
55	48	37	8	8	3.95	0.00	1.50	1.50	1.50	1.50		56	49	18	10	10	3.95	0.00	1.50	1.50	1.50	1.50
57	50	25	13	13	2.03	0.00	1.50	1.50	1.50	1.50		58	51	26	15	15	2.03	0.00	1.50	1.50	1.50	1.50
59	52	39	16	16	3.95	0.00	1.50	1.50	1.50	1.50		60	53	27	17	17	2.03	0.00	1.50	1.50	1.50	1.50
61	54	40	18	18	3.95	0.00	1.50	1.50	1.50	1.50		62	55	14	20	20	3.95	0.00	1.50	1.50	1.50	1.50
63	56	30	23	23	2.03	0.00	1.50	1.50	1.50	1.50		64	57	31	25	25	2.03	0.00	1.50	1.50	1.50	1.50
65	58	42	26	26	3.95	0.00	1.50	1.50	1.50	1.50		66	59	32	27	27	2.03	0.00	1.50	1.50	1.50	1.50
67	60	43	28	28	3.95	0.00	1.50	1.50	1.50	1.50		68	61	10	30	30	3.95	0.00	1.50	1.50	1.50	1.50
69	62	35	33	33	2.03	0.00	1.50	1.50	1.50	1.50		70	63	36	35	35	2.03	0.00	1.50	1.50	1.50	1.50
71	64	7	36	36	3.95	0.00	1.50	1.50	1.50	1.50		72	65	6	37	37	2.03	0.00	1.50	1.50	1.50	1.50
73	9	66	51	34	0.00	3.95	1.50	1.50	1.50	1.50		74	44	67	32	50	0.00	3.49	1.50	1.50	1.50	1.50



STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FATTORI DI COMPORTAMENTO DEGLI ELEMENTI																						
IDENTIFICATIVO							DIREZIONE X		DIREZIONE Y			IDENTIFICATIVO						DIREZIONE X		DIREZIONE Y		
Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'			Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'	
3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.		3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.
75	11	68	49	31	0.00	2.03	1.50	1.50	1.50	1.50		76	33	69	29	48	0.00	2.39	1.50	1.50	1.50	1.50
77	13	70	47	24	0.00	3.95	1.50	1.50	1.50	1.50		78	41	71	22	46	0.00	3.49	1.50	1.50	1.50	1.50
79	15	72	45	21	0.00	2.03	1.50	1.50	1.50	1.50		80	28	73	19	44	0.00	2.39	1.50	1.50	1.50	1.50
81	17	74	43	14	0.00	3.95	1.50	1.50	1.50	1.50		82	38	75	12	42	0.00	3.49	1.50	1.50	1.50	1.50
83	19	76	41	11	0.00	2.03	1.50	1.50	1.50	1.50		84	23	77	9	40	0.00	2.39	1.50	1.50	1.50	1.50
85	21	78	39	5	0.00	3.95	1.50	1.50	1.50	1.50		86	4	79	4	38	0.00	3.49	1.50	1.50	1.50	1.50
87	5	80	2	3	0.00	2.03	1.50	1.50	1.50	1.50		88	45	81	1	4	3.95	3.95	1.50	1.50	1.50	1.50
89	80	46	3	6	2.03	2.03	1.50	1.50	1.50	1.50		90	64	65	36	37	3.95	2.03	1.50	1.50	1.50	1.50
91	66	63	34	35	3.95	2.03	1.50	1.50	1.50	1.50		92	82	67	32	50	3.95	3.49	1.50	1.50	1.50	1.50
93	67	62	50	33	3.49	2.03	1.50	1.50	1.50	1.50		94	61	68	30	31	3.95	2.03	1.50	1.50	1.50	1.50
95	60	69	28	48	3.95	2.39	1.50	1.50	1.50	1.50		96	58	59	26	27	3.95	2.03	1.50	1.50	1.50	1.50
97	70	57	24	25	3.95	2.03	1.50	1.50	1.50	1.50		98	83	71	22	46	3.95	3.49	1.50	1.50	1.50	1.50
99	55	72	20	21	3.95	2.03	1.50	1.50	1.50	1.50		100	69	84	48	29	2.39	2.03	1.50	1.50	1.50	1.50
101	71	56	46	23	3.49	2.03	1.50	1.50	1.50	1.50		102	54	73	18	44	3.95	2.39	1.50	1.50	1.50	1.50
103	52	53	16	17	3.95	2.03	1.50	1.50	1.50	1.50		104	74	51	14	15	3.95	2.03	1.50	1.50	1.50	1.50
105	85	75	12	42	3.95	3.49	1.50	1.50	1.50	1.50		106	49	76	10	11	3.95	2.03	1.50	1.50	1.50	1.50
107	48	77	8	40	3.95	2.39	1.50	1.50	1.50	1.50		108	78	47	5	7	3.95	2.03	1.50	1.50	1.50	1.50
109	81	79	4	38	3.95	3.49	1.50	1.50	1.50	1.50		110	45	80	1	3	3.95	2.03	1.50	1.50	1.50	1.50
111	73	86	44	19	2.39	2.03	1.50	1.50	1.50	1.50		112	75	50	42	13	3.49	2.03	1.50	1.50	1.50	1.50
113	77	87	40	9	2.39	2.03	1.50	1.50	1.50	1.50		114	79	46	38	6	3.49	2.03	1.50	1.50	1.50	1.50
115	81	78	4	5	3.95	3.95	1.50	1.50	1.50	1.50		116	78	48	5	8	3.95	3.95	1.50	1.50	1.50	1.50
117	48	49	8	10	3.95	3.95	1.50	1.50	1.50	1.50		118	49	85	10	12	3.95	3.95	1.50	1.50	1.50	1.50
119	85	74	12	14	3.95	3.95	1.50	1.50	1.50	1.50		120	74	52	14	16	3.95	3.95	1.50	1.50	1.50	1.50
121	52	54	16	18	3.95	3.95	1.50	1.50	1.50	1.50		122	54	55	18	20	3.95	3.95	1.50	1.50	1.50	1.50
123	55	83	20	22	3.95	3.95	1.50	1.50	1.50	1.50		124	83	70	22	24	3.95	3.95	1.50	1.50	1.50	1.50
125	70	58	24	26	3.95	3.95	1.50	1.50	1.50	1.50		126	58	60	26	28	3.95	3.95	1.50	1.50	1.50	1.50

STAMPA PROGETTO S.L.U. - AZIONI S.L.V. - FATTORI DI COMPORTAMENTO DEGLI ELEMENTI																							
IDENTIFICATIVO							DIREZIONE X		DIREZIONE Y				IDENTIFICATIVO						DIREZIONE X		DIREZIONE Y		
Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'				Asta	Nodo	Nodo	Filo	Filo	QuoIn	QuoFi	Fattore 'q'		Fattore 'q'	
3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.			3D	In.	Fin.	Iniz	Fin.	(m)	(m)	Tagl.	Fless	Tagl.	Fless.
127	60	61	28	30	3.95	3.95	1.50	1.50	1.50	1.50			128	61	82	30	32	3.95	3.95	1.50	1.50	1.50	1.50
129	82	66	32	34	3.95	3.95	1.50	1.50	1.50	1.50			130	66	64	34	36	3.95	3.95	1.50	1.50	1.50	1.50
131	46	47	6	7	2.03	2.03	1.50	1.50	1.50	1.50			132	47	87	7	9	2.03	2.03	1.50	1.50	1.50	1.50
133	87	76	9	11	2.03	2.03	1.50	1.50	1.50	1.50			134	76	50	11	13	2.03	2.03	1.50	1.50	1.50	1.50
135	50	51	13	15	2.03	2.03	1.50	1.50	1.50	1.50			136	51	53	15	17	2.03	2.03	1.50	1.50	1.50	1.50
137	53	86	17	19	2.03	2.03	1.50	1.50	1.50	1.50			138	86	72	19	21	2.03	2.03	1.50	1.50	1.50	1.50
139	72	56	21	23	2.03	2.03	1.50	1.50	1.50	1.50			140	56	57	23	25	2.03	2.03	1.50	1.50	1.50	1.50
141	57	59	25	27	2.03	2.03	1.50	1.50	1.50	1.50			142	59	84	27	29	2.03	2.03	1.50	1.50	1.50	1.50
143	84	68	29	31	2.03	2.03	1.50	1.50	1.50	1.50			144	68	62	31	33	2.03	2.03	1.50	1.50	1.50	1.50
145	62	63	33	35	2.03	2.03	1.50	1.50	1.50	1.50			146	63	65	35	37	2.03	2.03	1.50	1.50	1.50	1.50

Di seguito si riportano le pressioni sul terreno di fondazione della struttura molto ridotte rispetto alle resistenze del terreno:



2.15

*Elaborato 3*

*RELAZIONE SUI MATERIALI*

### **3. Relazione sui Materiali**

La relazione sui materiali è stata redatta secondo le prescrizioni e le indicazioni riportate nel capitolo 10 e 11 delle NTC18, tenendo conto delle indicazioni fornite nelle relative parti della Circolare Ministeriale.

#### **3.1 Elenco dei materiali impiegati e loro modalità di posa in opera**

Si descrivono di seguito i materiali utilizzati negli interventi locali previsti per l'edificio in oggetto.

##### **Calcestruzzo C 25/30**

Per realizzare le strutture in c.a. è previsto calcestruzzo classe C25/30.

La resistenza caratteristica a compressione è definita come la resistenza per la quale si ha il 5% di probabilità di trovare valori inferiori. Nelle presenti norme la resistenza caratteristica designa quella dedotta da prove su provini come sopra descritti, confezionati e stagionati come specificato al § 11.2.4, eseguite a 28 giorni di maturazione. Si dovrà tener conto degli effetti prodotti da eventuali processi accelerati di maturazione. In tal caso potranno essere indicati altri tempi di maturazione a cui riferire le misure di resistenza ed il corrispondente valore caratteristico.

Il conglomerato per il getto delle strutture di un'opera o di parte di essa si considera omogeneo se confezionato con la stessa miscela e prodotto con medesime procedure.

##### **Acciaio B450C**

L'acciaio da armatura per c.c.a. da utilizzare sarà il B450C Controllato ad aderenza migliorata come già descritto nelle tavole del progetto esecutivo. Il materiale sarà conforme con quanto richiesto al punto § 11.3 delle NTC18.

##### **11.3.2.1 Acciaio per cemento armato B450C**

L'acciaio per cemento armato B450C è caratterizzato dai seguenti valori nominali delle tensioni caratteristiche di snervamento e rottura da utilizzare nei calcoli:

Tabella 11.3.Ia

$f_{yk}$	450 N/mm <sup>2</sup>
$f_{tk}$	540 N/mm <sup>2</sup>

e deve rispettare i requisiti indicati nella seguente Tab. 11.3.Ib:

Nella tabella precedente sono riportate le caratteristiche di resistenza nominali che saranno opportunamente ridotte per i coefficienti di sicurezza, come indicato nella normativa tecnica.

##### **Acciaio Strutturale S275**

Tutti gli acciai che saranno utilizzati nelle opere previste, siano essi destinati ad utilizzo come armature per cemento armato o carpenterie in strutture metalliche devono essere prodotti con un sistema permanente di controllo interno della produzione in stabilimento che deve assicurare il mantenimento dello stesso livello di affidabilità nella conformità del prodotto finito, indipendentemente dal processo di produzione.

Per la realizzazione delle strutture metalliche devono essere utilizzati acciai conformi alle norme armonizzate della Serie Uni En 10025.

Il direttore dei lavori prima della messa in opera, è tenuto a verificare quanto sopra indicato e rifiutare le eventuali forniture non conformi.

È stata scelta questa tipologia costruttiva per non realizzare cordoli in breccia nella muratura, che possono modificare lo stato tensionale delle pareti portanti. In questo modo si prevedono selle localizzate in prossimità dell'appoggio per inserire le travi in acciaio e creare un corretto grado di vincolamento.

### **Fissaggi Tipo Fischer-Hilti**

Barre filettate da un metro, con dado esagonale e rosetta, in acciaio zincato classe 8.8 e 4.6. questi elementi sono utilizzati generalmente per applicazioni strutturali e carpenteria pesante.

### **Malta**

Secondo le indicazioni delle NTC18 la malta di allettamento per la muratura ordinaria deve avere resistenza media non inferiore a 5 MPa e i giunti verticali devono essere riempiti con malta.

Si è scelto di utilizzare malta con caratteristiche meccaniche medie tipiche delle malte M10.

## **3.2 Valori di calcolo**

### **Calcestruzzo C 25/30**

In sede progettuale sono state assunte convenzionalmente le seguenti grandezze nominali delle proprietà del materiale:

$$R_{ck} = 30 \text{ MPa} \quad f_{ck} = 24.9 \text{ MPa} \quad f_{cd} = 14.11 \text{ MPa}$$

Si osserva che la classe d'esposizione del calcestruzzo è in entrambi i casi XC1.

- Produzione calcestruzzo: Ordinaria
- Valore di  $f_{bd}$  riferito a barre  $\Phi \leq 32\text{mm}$

Classe	$f_{ck}$ [MPa]	$\alpha_{cc}$	$\gamma_{cls}$	$E_{cm}$ [MPa]	$f_{cd}$ [MPa]	$f_{ctm}$ [MPa]	$f_{ctk}$ [MPa]	$f_{ctd}$ [MPa]	$f_{ctm}$ [MPa]	$f_{hk}$ [MPa]	$f_{bd}$ [MPa]	$\varepsilon_{c2}$	$\varepsilon_{cu}$	$\sigma_{c,Rara}$ [MPa]	$\sigma_{c,QP}$ [MPa]
C25/30	25.00	0.85	1.50	31,476	14.17	2.57	1.80	1.20	3.08	4.04	2.70	0.00200	0.00350	15.00	11.25

Calcestruzzo a prestazione garantita secondo UNI EN 206-1

- Cemento conforme alla norma EN 197-1
- Diametro massimo barre di armatura,  $\Phi_{max} = 14 \text{ mm}$
- Aggregati normali conformi alla norma UNI EN 12620,  $D_{max} = 20 \text{ mm}$
- Interfero minimo  $d_{bars} = 25 \text{ mm}$
- Acqua di impasto conforme alla norma EN 1008
- Additivi conformi alla norma EN 934-2

Classe esposizione	Minima classe di resistenza	Rapporto $(A/C)_{max}$	Slump	Quantità minima cemento [kg/m³]	Contenuto minimo aria	Altro
XC2	C25/30	0.60	S4	300	-	-

### **Acciaio Strutturale S275**

In sede progettuale sono state assunte convenzionalmente le seguenti grandezze nominali delle proprietà del materiale:

$$E = 210000 \text{ MPa}$$

$$G = E / [2(1 + \nu)]$$

$$\nu = 0.3$$

$$\rho = 7850 \text{ kg/m}^3$$

Norme e qualità degli acciai	Spessore nominale dell'elemento			
	t ≤ 40 mm		40 mm < t ≤ 80 mm	
	$f_{yk}$ [N/mm <sup>2</sup> ]	$f_{tk}$ [N/mm <sup>2</sup> ]	$f_{yk}$ [N/mm <sup>2</sup> ]	$f_{tk}$ [N/mm <sup>2</sup> ]
UNI EN 10025-2				
S 235	235	360	215	360
S 275	275	430	255	410
S 355	355	510	335	470
S 450	440	550	420	550
UNI EN 10025-3				
S 275 N/NL	275	390	255	370
S 355 N/NL	355	490	335	470
S 420 N/NL	420	520	390	520
S 460 N/NL	460	540	430	540
UNI EN 10025-4				
S 275 M/ML	275	370	255	360
S 355 M/ML	355	470	335	450
S 420 M/ML	420	520	390	500
S 460 M/ML	460	540	430	530
UNI EN 10025-5				
S 235 W	235	360	215	340
S 355 W	355	510	335	490

$$f_{yd} = 261 \text{ MPa}$$

### Acciaio per cemento armato B450C

L'acciaio per cemento armato B450C è caratterizzato dai seguenti valori nominali delle tensioni caratteristiche di snervamento e rottura da utilizzare nei calcoli:

$f_{y \text{ nom}}$	450 N/mm <sup>2</sup>
$f_{t \text{ nom}}$	540 N/mm <sup>2</sup>

CARATTERISTICHE	REQUISITI	FRATTILE (%)
Tensione caratteristica di snervamento $f_{yk}$	$\geq f_{y \text{ nom}}$	5.0
Tensione caratteristica di rottura $f_{tk}$	$\geq f_{t \text{ nom}}$	5.0
$(f_{tk}/f_{yk})_k$	$\geq 1.15$	10.0
$(f_{tk}/f_{yk})_k$	$\leq 1.35$	10.0
$(f_{tk}/f_{yk})_k$	$\leq 1.25$	10.0
Allungamento $(A_{gR})_k$	$\geq 7.5 \%$	10.0
Diametro del mandrino per prove di piegamento a 90° e successivo raddrizzamento senza cricche:		
$\phi < 12 \text{ mm}$	4 $\phi$	
$12 \leq \phi \leq 16 \text{ mm}$	5 $\phi$	
per $16 < \phi \leq 25 \text{ mm}$	8 $\phi$	
per $25 < \phi \leq 40 \text{ mm}$	10 $\phi$	

Classe acciaio	$f_{yk}$ [MPa]	$\gamma_s$	$f_{tk}$ [MPa]	$E_s$ [MPa]	$f_{yd}$ [MPa]	$\varepsilon_{yd}$	$\varepsilon_{uk}$	$(f_{tk}/f_{y \text{ nom}})_k$	$\varepsilon_{ud}$	$k = (f_{tk}/f_{yk})_k$	$\sigma_{s, \text{Rara}}$	Diametro minimo mandrino di piegatura
B450C	450.00	1.15	540.00	210,000	391.30	0.00186	0.07500	≤ 1.25	0.06750	1.15 - 1.35	360.00	4 $\phi$
												7 $\phi$

### Fissaggi Tipo Fischer-Hilti

Le caratteristiche meccaniche delle barre filettate zincate – Classe 8.8 sono le seguenti:

Carico unitario a rottura: > 830 MPa

Carico unitario di scostamento dalla proporzionalità > 660 MPa

Allungamento dopo la rottura > 12%

*Elaborato 4*

*ELABORATI GRAFICI ESECUTIVI E*

*PARTICOLARI COSTRUTTIVI*

#### **4. Elaborati grafici esecutivi e particolari costruttivi**

##### **4.1 Progetto esecutivo Nuova costruzione**

Vedi tavole denominate:

- 4A.1 - PIANTE SEZIONI E FONDAZIONI DI PENSILINA ESTERNA
- 4A.2 - FONDAZIONI - PLATEA IN C.A.
- 4A.3 - FONDAZIONI - PLATEA IN C.A.- RAFFITTIMENTI
- 4A.4 - FONDAZIONI - TRAVI IN C.A.- I°PARTE
- 4A.5 - FONDAZIONI - TRAVI IN C.A.- II°PARTE
- 4A.6 - PIANTE PILASTRI E TRAVI PIANO 1°
- 4A.7 - PIANTE SOLAI PIANO 1°
- 4A.8 - PIANTE PILASTRI E TRAVI PIANO 2°
- 4A.9 - PIANTE SOLAI PIANO 2°
- 4A.10 - PIANTE PILASTRI E TRAVI PIANO 3°
- 4A.11 - PIANTE SOLAI PIANO 3°
- 4A.12 - PIANTE PILASTRI E TRAVI PIANO 4°
- 4A.13 - PIANTE SOLAI PIANO 4°
- 4A.14 - SVILUPPO ARMATURE PILASTRI IN C.A. FILI 1-10
- 4A.15 - SVILUPPO ARMATURE PILASTRI IN C.A. FILI 11-20
- 4A.16 - SVILUPPO ARMATURE PILASTRI IN C.A. FILI 21-46
- 4A.17 - SVILUPPO ARMATURE PARETI IN C.A. E SCALE
- 4A.18 - SEZIONI E PARTICOLARI ELEMENTI SECONDARI



*Elaborato 5*

*PIANO DI MANUTENZIONE DELLA PARTE  
STRUTTURALE DELL'OPERA*

## **5. Piano di manutenzione della parte strutturale dell'opera**

Il piano di manutenzione delle strutture è il documento complementare al progetto strutturale che ne prevede, pianifica e programma tenendo conto degli elaborati progettuali esecutivi dell'intera opera l'attività di manutenzione, al fine di mantenerne nel tempo la funzionalità, le caratteristiche di qualità l'efficienza ed il valore economico.

I manuali d'uso e di manutenzione rappresentano gli strumenti con cui l'utente si rapporta con l'immobile: direttamente utilizzandolo evitando comportamenti anomali che possano danneggiarne o comprometterne la durabilità e le caratteristiche; attraverso i manutentori che utilizzeranno così metodologie più confacenti ad una gestione che coniughi economicità e durabilità del bene.

A tal fine, i manuali definiscono le procedure di raccolta e di registrazione dell'informazione nonché le azioni necessarie per impostare il piano di manutenzione e per organizzare in modo efficiente, sia sul piano tecnico che su quello economico, il servizio di manutenzione.

Il manuale d'uso mette a punto una metodica di ispezione dei manufatti che individua sulla base dei requisiti fissati dal progettista in fase di redazione del progetto, la serie di guasti che possono influenzare la durabilità del bene e per i quali, un intervento manutentivo potrebbe rappresentare allungamento della vita utile e mantenimento del valore patrimoniale. Il manuale di manutenzione invece rappresenta lo strumento con cui l'esperto si rapporta con il bene in fase di gestione di un contratto di manutenzione programmata.

Il programma infine è lo strumento con cui, chi ha il compito di gestire il bene, riesce a programmare le attività in riferimento alla previsione del complesso di interventi inerenti la manutenzione di cui si presumono la frequenza, gli indici di costo orientativi e le strategie di attuazione nel medio e nel lungo periodo.

Il piano di manutenzione è organizzato nei tre strumenti individuati dall'art. 40 del regolamento LLPP ovvero:

- a. il manuale d'uso;
- b. il manuale di manutenzione;
- c. il programma di manutenzione:
- d. il sottoprogramma delle prestazioni, che prende in considerazione, per classe di requisito, le prestazioni fornite dal bene e dalle sue parti nel corso del suo ciclo di vita;
- e. il sottoprogramma dei controlli, che definisce il programma delle verifiche e dei controlli al fine di rilevare il livello prestazionale (qualitativo e quantitativo) nei successivi momenti della vita del bene, individuando la dinamica della caduta delle prestazioni aventi come estremi il valore di collaudo e quello minimo di norma;
- f. il sottoprogramma degli interventi di manutenzione, che riporta in ordine temporale i differenti interventi di manutenzione, al fine di fornire le informazioni per una corretta conservazione del bene.

Tali strumenti devono consentire di raggiungere, in accordo con quanto previsti dalla norma “ UNI 10874 Criteri di stesura dei manuali d'uso e di manutenzione” almeno i seguenti obiettivi, raggruppati in base alla loro natura:

1. Obiettivi tecnico – funzionali:

- a. istituire un sistema di raccolta delle "informazioni di base" e di aggiornamento con le "informazioni di ritorno" a seguito degli interventi, che consenta, attraverso l'implementazione e il costante aggiornamento del "sistema informativo", di conoscere e mantenere correttamente l'immobile e le sue parti;
  - b. consentire l'individuazione delle strategie di manutenzione più adeguate in relazione alle caratteristiche del bene immobile ed alla più generale politica di gestione del patrimonio immobiliare;
  - c. istruire gli operatori tecnici sugli interventi di ispezione e manutenzione da eseguire, favorendo la corretta ed efficiente esecuzione degli interventi;
  - d. istruire gli utenti sul corretto uso dell'immobile e delle sue parti, su eventuali interventi di piccola manutenzione che possono eseguire direttamente; sulla corretta interpretazione degli indicatori di uno stato di guasto o di malfunzionamento e sulle procedure per la sua segnalazione alle competenti strutture di manutenzione;
  - e. definire le istruzioni e le procedure per controllare la qualità del servizio di manutenzione.
2. Obiettivi economici:
- a. ottimizzare l'utilizzo del bene immobile e prolungarne il ciclo di vita con l'effettuazione d'interventi manutentivi mirati;
  - b. conseguire il risparmio di gestione sia con il contenimento dei consumi energetici o di altra natura, sia con la riduzione dei guasti e del tempo di non utilizzazione del bene immobile;
  - c. consentire la pianificazione e l'organizzazione più efficiente ed economica del servizio di manutenzione.

Il presente "Piano di manutenzione della parte strutturale dell'opera" è redatto ai sensi del D.M. 14 gennaio 2008 art. 10.1.

Oggetto: Progetto per la costruzione di un nuovo fabbricato ad uso ricovero attrzzi agricoli in località san vittore via del rio 577

- ✈ Committente dei Lavori: ACER - Azienda Casa Emilia-Romagna della Provincia di Forlì-Cesena
- ✈ Ubicazione opere: Via G. Galilei - Cesenatico (FC)
- ✈ Foglio: 39
- ✈ P.IIa: 226
- ✈ Descrizione interventi: Nuova costruzione
- ✈ Progettista Architettonico: Arch. Paolo Severi
- ✈ Progettazione delle Strutture: Ing. Davide Neri P.zza Sciascia 51, 47522 Cesena (FC) iscritto all'Ordine degli Ingegneri della provincia di Forlì Cesena al n. 1002/A
- ✈ Direzione Lavori: Arch. Paolo Severi

Al termine dei lavori e del relativo certificato di collaudo le opere verranno consegnate al Committente dei Lavori. Restano a carico del Committente le attività di ispezione, gestione e manutenzione delle opere

realizzate, rimanendo altresì a carico dell'appaltatore la garanzia per le difformità e i vizi dell'opera.

## Unità strutturali

### Strutture di fondazione

1. Travi di fondazione in c.a.
3. Platee in c.a.

### Strutture in elevazione

1. Pilastri in c.a.
4. Travi in c.a.
8. Murature in blocchi

### Strutture orizzontali

2. Solette in c.a.

## **MANUALE D'USO**

Travi di fondazione in c.a.

### Descrizione

Elementi strutturali in conglomerato cementizio armato a sviluppo lineare orizzontale o sub-orizzontale con superfici a contatto con il terreno o magrone di cls.

### Funzione

Ripartizione dei carichi della struttura sul terreno.

### Modalità d'uso corretto

Le travi di fondazioni sono concepite per resistere ai carichi di progetto della struttura in elevazione.

Platea in c.a.

### Descrizione

Elemento strutturale in conglomerato cementizio armato a sviluppo superficiale orizzontale o sub-orizzontale con superfici a contatto con il terreno o magrone di cls.

### Funzione

Ripartizione dei carichi della struttura sul terreno.

### Modalità d'uso corretto

La platea è concepita per resistere ai carichi di progetto della struttura in elevazione.

Pilastri in c.a.

### Descrizione

Elementi strutturali in conglomerato cementizio armato a sviluppo lineare verticale o sub-verticale.

#### Funzione

Sostegno delle travi e dei solai.

#### Modalità d'uso corretto

I pilastri in c.a. sono concepiti per resistere ai carichi di progetto trasmessi dalle travi e dagli impalcati. Non ne deve essere compromessa l'integrità e la funzionalità. Controllo periodico del grado di usura con contestuale rilievo di eventuali anomalie.

Travi in c.a.

#### Descrizione

Elementi strutturali in conglomerato cementizio armato a sviluppo lineare orizzontale o sub-orizzontale.

#### Funzione

Sostegno delle murature di tamponamento e dei solai.

#### Modalità d'uso corretto

Le travi in c.a. sono concepite per resistere ai carichi di progetto trasmessi dai solai e dai tamponamenti. Non ne deve essere compromessa l'integrità e la funzionalità. Controllo periodico del grado di usura con contestuale rilievo di eventuali anomalie.

Murature in blocchi

#### Descrizione

Elementi strutturali in blocchi artificiali e malta a sviluppo superficiale verticale.

#### Funzione

Resistenza a carichi verticali e orizzontali. Sostegno solai.

#### Modalità d'uso corretto

Le murature in blocchi sono concepite per resistere ai carichi di progetto della struttura in elevazione. Non ne deve essere compromessa l'integrità e la funzionalità. Controllo periodico del grado di usura con contestuale rilievo di eventuali anomalie.

Solette in c.a.

#### Descrizione

Elementi strutturali costituiti da getti di c.a., con eventuale interposizione di blocchi di alleggerimento a sviluppo superficiale orizzontale o sub-orizzontale.

#### Funzione

Creazione di superfici resistenti eventualmente praticabili, con funzione di collegamento delle strutture verticali.

#### Modalità d'uso corretto

I solai sono concepiti per resistere ai carichi di progetto della struttura. Non ne deve essere compromessa l'integrità e la funzionalità. Controllo periodico del grado di usura con contestuale rilievo di eventuali anomalie.

## **MANUALE DI MANUTENZIONE**

Travi di fondazione in c.a.

Livello minimo di prestazioni

Le travi di fondazione devono garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

Anomalie riscontrabili

- ✈ Cedimenti differenziali con conseguenti abbassamenti del piano di imposta delle fondazioni
- ✈ Distacchi murari
- ✈ Lesioni in elementi direttamente connessi
- ✈ Comparsa di risalite di umidità
- ✈ Corrosione delle armature degli elementi verticali spiccati

Controlli

- ✈ Periodicità: annuale
- ✈ Esecutore: personale tecnico specializzato
- ✈ Forma di controllo: visivo, integrato da eventuali prove non distruttive

Interventi manutentivi

Esecutore: personale tecnico specializzato

Platee di fondazione in c.a.

Livello minimo di prestazioni

Le platee di fondazione devono garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

Anomalie riscontrabili

- ✈ Cedimenti differenziali con conseguenti abbassamenti del piano di imposta delle fondazioni
- ✈ Distacchi murari
- ✈ Lesioni in elementi direttamente connessi
- ✈ Comparsa di risalite di umidità
- ✈ Corrosione delle armature degli elementi verticali spiccati

Controlli

- ✈ Periodicità: annuale

✈ Esecutore: personale tecnico specializzato

✈ Forma di controllo: visivo, integrato da eventuali prove non distruttive

Interventi manutentivi

Esecutore: personale tecnico specializzato

Pilastri in c.a.

Livello minimo di prestazioni

I pilastri in c.a. devono garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

Anomalie riscontrabili

✈ Distacchi

✈ Lesioni

✈ Cavillature

✈ Comparsa di macchie di umidità

✈ Difetti di verticalità

Controlli

✈ Periodicità: annuale

✈ Esecutore: personale tecnico specializzato

✈ Forma di controllo: visivo, integrato da eventuali prove non distruttive

Interventi manutentivi

Esecutore: personale tecnico specializzato

Travi in c.a.

Livello minimo di prestazioni

Le travi in c.a. devono garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

Anomalie riscontrabili

✈ Distacchi

✈ Lesioni

✈ Cavillature

✈ Comparsa di macchie di umidità

Controlli

✈ Periodicità: annuale

✈ Esecutore: personale tecnico specializzato

✈ Forma di controllo: visivo, integrato da eventuali prove non distruttive

Interventi manutentivi

Esecutore: personale tecnico specializzato

Murature in blocchi

Livello minimo di prestazioni

Le murature in blocchi devono garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

Anomalie riscontrabili

✈ Distacchi

✈ Fessurazioni

✈ Comparsa di macchie di umidità

✈ Eccessiva deformazione

✈ Difetti di verticalità

✈ Sbandamenti fuori piano

✈ Polverizzazione della malta

Controlli

✈ Periodicità: annuale

✈ Esecutore: personale tecnico specializzato

✈ Forma di controllo: visivo, integrato da eventuali prove non distruttive

Interventi manutentivi

Esecutore: personale tecnico specializzato

Solette in c.a.

Livello minimo di prestazioni

Le solette in c.a. devono garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

Anomalie riscontrabili

✈ Distacchi

✈ Fessurazioni

✈ Comparsa di macchie di umidità

✈ Eccessiva deformazione



✈ Eccessiva vibrazione

#### Controlli

✈ Periodicità: annuale

✈ Esecutore: personale tecnico specializzato

✈ Forma di controllo: visivo, integrato da eventuali prove non distruttive

#### Interventi manutentivi

Esecutore: personale tecnico specializzato

### **PROGRAMMA DI MANUTENZIONE**

#### Programma delle prestazioni

La vita nominale dell'opera è quella indicata nella apposita relazione di calcolo, pari a 50 anni.

#### Strutture di fondazione

1. Travi di fondazione in c.a.

3. Platee in c.a.

Le strutture di fondazione dovranno garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

#### Strutture in elevazione

1. Pilastri in c.a.

4. Travi in c.a.

8. Murature in blocchi

Le strutture in elevazione dovranno garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

#### Strutture orizzontali

2. Solette in c.a.

Le strutture orizzontali dovranno garantire le specifiche prestazioni indicate nel progetto strutturale, comunque non inferiori alle prestazioni prescritte dalle normative vigenti.

#### Programma dei controlli

L'esito di ogni ispezione deve formare oggetto di uno specifico rapporto da conservare insieme alla relativa documentazione tecnica. A conclusione di ogni ispezione, inoltre, il tecnico incaricato deve, se necessario, indicare gli eventuali interventi a carattere manutentorio da eseguire ed esprimere un giudizio riassuntivo sullo stato d'opera.

#### Strutture di fondazione

1. Travi di fondazione in c.a.

3. Platee in c.a.

#### Controlli

1. Periodicità: annuale. In caso di eventi eccezionali procedere al controllo
2. Esecutore: personale tecnico specializzato
3. Forma di controllo: visivo, integrato da eventuali prove non distruttive
4. Risorse: necessità di strumentazione tecnica a richiesta dell'Esecutore

#### Strutture in elevazione

1. Pilastri in c.a.
4. Travi in c.a.
8. Murature in blocchi

#### Controlli

1. Periodicità: annuale. In caso di eventi eccezionali procedere al controllo
2. Esecutore: personale tecnico specializzato
3. Forma di controllo: visivo, integrato da eventuali prove non distruttive
4. Risorse: necessità di strumentazione tecnica a richiesta dell'Esecutore

#### Strutture orizzontali

2. Solette in c.a.

#### Controlli

1. Periodicità: annuale. In caso di eventi eccezionali procedere al controllo
2. Esecutore: personale tecnico specializzato
3. Forma di controllo: visivo, integrato da eventuali prove non distruttive
4. Risorse: necessità di strumentazione tecnica a richiesta dell'Esecutore

*Elaborato 6*

*RELAZIONE SUI RISULTATI SPERIMENTALI –  
INDAGINI SPECIALISTICHE*

## **6. Relazione sui risultati sperimentali – indagini specialistiche**

Questo elaborato che contiene la relazione del progettista sui criteri seguiti per la definizione del piano delle indagini, con relativa motivazione delle scelte compiute.

### **6.1 Relazione geologica: indagini, caratterizzazione e modellazione geologica del sito**

*“Il moto sismico al suolo è fortemente influenzato dalle caratteristiche degli strati di terreno più superficiale e dalla morfologia del sito..... Gli effetti morfologici possono essere considerati incrementando l'azione sismica attraverso un coefficiente di amplificazione topografica o sulla base di studi di risposta sismica locale. In alcuni casi potrebbe risultare opportuno analizzare gli effetti di sito in modo più completo attraverso indagini di micro zonazione sismica .....”*

La conoscenza delle caratteristiche del moto del terreno in superficie a seguito di un evento sismico risulta di fondamentale importanza per la zonazione sismica di un territorio e per la successiva progettazione di strutture in grado di resistere alle azioni sismiche.

Tutti i più importanti eventi hanno mostrato la grande influenza delle condizioni locali sul moto del terreno e, nel contempo, hanno evidenziato come tali fenomeni naturali siano in grado di vulnerare anche in modo grave aree densamente popolate; per tale motivo, è indispensabile conoscere le peculiarità geologiche territoriali.

### **6.2 Relazione geotecnica: indagini, caratterizzazione e modellazione del volume significativo di terreno**

Si è valutata la portanza dei terreni di fondazione secondo quanto disposto dal testo unico DM 17/1/2018 e cioè sulla base della verifica agli stati limite ultimi. Per ogni stato limite ultimo deve essere rispettata la condizione  $E_d < R_d$ , dove  $E_d$  è il valore di progetto dell'azione e  $R_d$  è il valore di progetto della resistenza. La verifica di questa condizione deve essere fatta impiegando combinazioni di gruppi di coefficienti parziali, rispettivamente definiti per le azioni (A1 e A2), per i parametri geotecnici (M1 e M2) e per le resistenze (R1, R2 e R3). I diversi gruppi di coefficienti di sicurezza parziali sono scelti nell'ambito di due approcci progettuali distinti e alternativi. Nel primo approccio progettuale (Approccio n.1) sono previste due diverse combinazioni di gruppi di coefficienti, la prima più severa nei confronti del dimensionamento strutturale, la seconda più severa nei riguardi del dimensionamento geotecnico. Nel secondo approccio progettuale (Approccio n.2) è prevista un'unica combinazione di gruppi di coefficienti, da adottare sia nelle verifiche strutturali sia nelle verifiche geotecniche. Nella presente valutazione relativa al dimensionamento delle fondazioni è stata scelta la seconda combinazione unica.

DATI GENERALI		
COEFFICIENTI PARZIALI GEOTECNICA		
	TABELLA M1	TABELLA M2
Tangente Resist. Taglio	1.00	
Peso Specifico	1.00	
Coesione Efficace (c'k)	1.00	
Resist. a taglio NON drenata (cuk)	1.00	

DATI GENERALI			
COEFFICIENTI PARZIALI GEOTECNICA			
	TABELLA M1		TABELLA M2
Tipo Approccio	Combinazione Unica: (A1+M1+R3)		
Tipo di fondazione	Su Pali Infissi		
	COEFFICIENTE R1	COEFFICIENTE R2	COEFFICIENTE R3
Capacita' Portante			2.30
Scorrimento			1.10
Resist. alla Base			1.15
Resist. Lat. a Compr.			1.15
Resist. Lat. a Traz.			1.25
Carichi Trasversali			1.30

Per i coefficienti parziali si sono utilizzate le tabelle presenti nelle NTC18 e si sono considerati terreni coesivi in superficie, poi sabbie e ghiaie più in profondità, con fondazioni aventi piani di posa orizzontale e carichi permanenti assiali.

Al fine di verificare le caratteristiche geomeccaniche del terreno interessato al progetto ed in considerazione del rilievo effettuato, sono state realizzate:

- n. 1 sondaggio a carotaggio continuo,
- n.3 prove CPTU,
- n.1 indagine geofisica,
- Prove di laboratorio su n. 3 campioni,
- Installazione di n. 3 piezometri

TABELLA N. 1 - LINEAMENTI STRATIGRAFICI E GEOTECNICI FORNITI DAL SONDAGGIO

Profondità (m)	Descrizione sintetica del terreno	Pocket (N/cm <sup>2</sup> )		Vane Test (N/cm <sup>2</sup> )	
		Min	Md	Min	Md
0,0 - 0,4	Sabbia fine con frustuli organici e presenza di ghiaietto arrotondato	-	-	-	-
0,4 - 5,2	Sabbia fine, talora fine-media, con un arricchimento in materia organica a tra 4,2 e 4,4 metri di profondità nel sottosuolo	-	-	-	-
5,2 - 8,2	Sabbia fine con abbondanti bioclasti con talvolta intercalati livelletti centimetrici di sabbia fine limosa	-	-	-	-
8,2-11,7	Limo argilloso e argilla limosa con presenza di calcinelli ad oltre 9,6 metri nel sottosuolo	0,3	1,3	0,1	0,6
11,7-12,7	Limo sabbioso	-	-	-	-
12,7-15,0	Limo argilloso e argilla limosa con presenza di calcinelli ed un livelletto di sabbia limosa tra 13,2 e 13,3 metri nel sottosuolo	1,7	2,0	0,9	1,0

TABELLA N. 4 - RISULTATI DELLE PROVE IN LABORATORIO

Campione			Proprietà indice			Taglio CD			Edometro (σ = 1,0 kg/cm <sup>2</sup> )		
Sond.	Camp.	Profondità	w	γ	γ <sub>d</sub>	q'	e'	E	C <sub>v</sub>	cm <sup>2</sup> /s	K
n°	n°	m	%	t/m <sup>3</sup>	t/m <sup>3</sup>	*	kg/cm <sup>2</sup>	kg/cm <sup>2</sup>	cm <sup>2</sup> /s	cm/s	
1	1	3,00-3,50	23,4	2,01	1,63	33,5	0,0	81	6,02E-03	7,43E-08	
1	2	5,50-6,10	29,1	1,92	1,49	32	0,0	51	3,46E-03	6,79E-08	
1	3	10,00-10,60	30,4	1,88	1,44	22	0,12	35	1,26E-04	3,66E-09	

Di seguito si riporta la caratterizzazione geotecnica desunta dalle indagini specifiche:

**TABELLA N. 5 - PARAMETRI GEOTECNICI CARATTERISTICI DEL TERRENO IN ESAME**

Profondità (m)	Unità litostratigrafica	$\gamma$ (t/mc)	Cu (kg/cm <sup>2</sup> )	C' (kg/cm <sup>2</sup> )	$\Phi'$ (°)	Mv (cm <sup>2</sup> /kg)
0,0 - 5,0/5,2	A	2,00	-	-	33	0,012
5,0/5,2 - 7,6/8,2	B	1,95	-	-	30	0,020
7,6/8,2 - 12,6/12,7	C	1,90	0,60	0,10	22	0,028
12,6/12,7-15,9	D	1,95	0,75	0,15	24	0,016

Ai fini progettuali sono stati indagati i parametri geotecnici da utilizzare nelle verifiche:

GEOMETRIA TRAVI WINKLER																
IDENTIFICATIVO						COORDINATE 3D ESTREMI ASTA WINKLER						DATI IMPRONTA				
Trave N.ro	Ast3d N.ro	Fl In.	Fl Fin	Nod3d Iniz.	Nod3d Fin.	X3dIn. (m)	Y3dIn. (m)	Z3dIn. (m)	X3dFin (m)	Y3dFin (m)	Z3dFin (m)	Xfond (m)	Yfond (m)	Zfond (m)	Bfond (m)	Lfond (m)
1	43	29	12	14	42	-14.77	10.71	0.00	-11.52	11.80	0.00	-13.15	11.25	0.80	1.35	3.43
2	50	25	23	44	45	-13.20	7.07	0.00	-13.20	9.45	0.00	-13.20	8.26	0.80	1.35	2.38

STRATIGRAFIA TRAVI WINKLER															
Trave N.ro	Q.t.v. (m)	Q.t.d. (m)	Q.falda (m)	Incl Grd	Kw kg/cm <sup>c</sup>	Numero Strato	Sp.str. (m)	Peso Sp kg/m <sup>c</sup>	Fi' (Grd)	C' kg/cm <sup>q</sup>	Cu kg/cm <sup>q</sup>	Mod.El. kg/cm <sup>q</sup>	Poisson	Gr.Sovr	Mod.Ed. kg/cm <sup>q</sup>
1	0.80	0.00		0	1.00	1	5.20	2000	33.00	0.00	0.00	540.00	0.40	1.00	81.00
						2	3.00	1950	30.00	0.00	0.00	380.00	0.42	1.00	51.00
						3		1900	22.00	0.10	0.60	123.00	0.42	1.00	35.00
2	0.80	0.00		0	1.00	1	5.20	2000	33.00	0.00	0.00	540.00	0.40	1.00	81.00
						2	3.00	1950	30.00	0.00	0.00	380.00	0.42	1.00	51.00
						3		1900	22.00	0.10	0.60	123.00	0.42	1.00	35.00

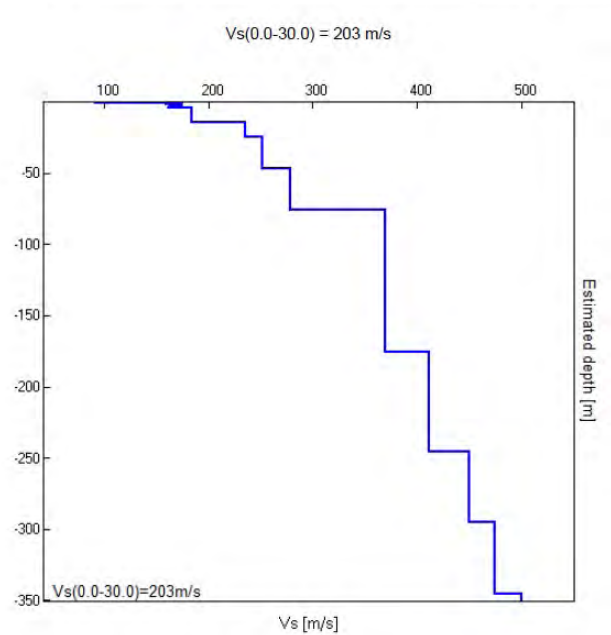
GEOMETRIA PLATEA																													
Shell N.ro	Nodo 1	Nodo 2	Nodo 3	Nodo 4	Sez Nro	Shell N.ro	Nodo 1	Nodo 2	Nodo 3	Nodo 4	Sez Nro	Shell N.ro	Nodo 1	Nodo 2	Nodo 3	Nodo 4	Sez Nro	Shell N.ro	Nodo 1	Nodo 2	Nodo 3	Nodo 4	Sez Nro	Shell N.ro	Nodo 1	Nodo 2	Nodo 3	Nodo 4	Sez Nro
1	1	15	17	17	1	2	2	1	17	17	1	3	20	3	17	17	1	4	3	2	17	17	1	5	3	20	21	21	1
5	3	20	21	21	1	6	4	3	21	21	1	7	5	4	21	21	1	8	16	5	21	21	1	9	7	1	50	50	1
9	7	1	50	50	1	10	1	2	50	50	1	11	2	3	50	50	1	12	9	7	50	50	1	13	3	40	50	50	1
13	3	40	50	50	1	14	40	11	50	50	1	15	11	12	50	50	1	16	12	13	50	50	1	17	13	14	50	50	1
17	13	14	50	50	1	18	14	9	50	50	1	19	40	3	51	51	1	20	3	4	51	51	1	21	4	5	51	51	1
21	4	5	51	51	1	22	5	6	51	51	1	23	11	40	51	51	1	24	6	8	51	51	1	25	10	11	51	51	1
25	10	11	51	51	1	26	8	10	51	51	1	27	22	19	31	31	1	28	23	22	31	31	1	29	27	23	31	31	1
29	27	23	31	31	1	30	25	27	31	31	1	31	24	25	31	31	1	32	19	18	31	31	1	33	26	24	31	31	1
33	26	24	31	31	1	34	30	26	31	31	1	35	28	30	31	31	1	36	29	28	31	31	1	37	18	29	31	31	1
37	18	29	31	31	1	38	29	18	45	45	1	39	18	42	45	45	1	40	42	41	45	45	1	41	41	14	45	45	1
41	41	14	45	45	1	42	14	13	45	45	1	43	12	44	45	13	1	44	29	45	44	28	1	45	30	28	44	44	1
45	30	28	44	44	1	46	12	11	44	44	1	47	11	30	44	44	1	48	30	11	43	43	1	49	26	30	43	43	1
49	26	30	43	43	1	50	11	10	43	43	1	51	22	32	33	33	1	52	19	22	33	33	1	53	18	19	33	33	1
53	18	19	33	33	1	54	37	18	33	33	1	55	37	42	18	18	1	56	37	38	42	42	1	57	38	9	42	42	1
57	38	9	42	42	1	58	14	41	9	9	1	59	41	42	9	9	1	60	10	46	43	43	1	61	47	46	10	10	1
61	47	46	10	10	1	62	10	8	47	47	1	63	8	35	47	47	1	64	49	47	35	35	1	65	36	49	35	35	1
65	36	49	35	35	1	66	36	24	49	49	1	67	24	48	49	49	1	68	24	26	48	48	1	69	26	43	48	48	1
69	26	43	48	48	1	70	43	46	48	48	1	71	48	46	47	49	1	72	25	24	39	39	1	73	24	36	39	39	1
73	24	36	39	39	1	74	27	25	39	39	1	75	34	27	39	39	1												

STRATIGRAFIA PLATEA															
Str. N.ro	Q.t.v. (m)	Q.t.d. (m)	Q.falda (m)	Incl Grd	Kw kg/cm <sup>c</sup>	Num Str	Sp.str. (m)	Peso Sp kg/m <sup>c</sup>	Fi' (Grd)	C' kg/cm <sup>q</sup>	Cu kg/cm <sup>q</sup>	Mod.El. kg/cm <sup>q</sup>	Poisson	Gr.Sovr (%)	Mod.Ed. kg/cm <sup>q</sup>
1	0.50	0.00		0	1.00	1	5.20	2000	33.00	0.00	0.00	540.00	0.40	1	81.00
						2	3.00	1950	30.00	0.00	0.00	380.00	0.42	1	51.00
						3		1900	22.00	0.10	0.60	123.00	0.42	1	35.00

### **6.3 Relazione sulla modellazione sismica concernente la "pericolosità sismica di base" del sito di costruzione**

Al fine di identificare l'azione sismica agente ai vari stati limite è stato identificato un terreno di tipologia C tipico del territorio comunale di Cesena perchè sulla base della indagine eseguita da Geol. Dott. Aldo

Antoniazzi è stata registrata una velocità media di 203 m/s, con un primo strato con valori ridotti che corrispondono alla categoria appena descritta.



Cesena 22/07/2019

**Ing. Davide Neri**