

IMPIANTO DI TRATTAMENTO ANAEROBICO DELLA FRAZIONE ORGANICA DEI
RIFIUTI SOLIDI URBANI PER LA PRODUZIONE DI BIOMETANO

CIG: 9880245C18 – CUP: F62F18000070004

PROGETTO ESECUTIVO

NOME ELABORATO VASCA DIGESTATO LIQUIDO TABULATO DI CALCOLO		CLASSE	10.17
		STRUTTURE VASCA DIGESTATO LIQUIDO	
		N. TAVOLA	10.17.2
		FORMATO	A4
		SCALA	/
CODIFICA ELABORATO	23008-OW-C-101-RS-099-MA1-0		

00	11/10/2024	PRIMA EMISSIONE	B. BARONE	C. BUTTICE'	R. MARTELLO
REV	DATA	DESCRIZIONE	ESEGUITO	VERIFICATO	APPROVATO

Committente	Progettista indicato	Mandataria
 CITTA' DI FERMO Settore IV e V Lavori Pubblici, Protezione Civile, Ambiente, Urbanistica, Patrimonio, Contratti e Appalti Via Mazzini 4 63900 – Fermo (FM) DOTT. Mauro Fortuna RUP	 Via Resuttana 360 90142 -PALERMO OWAC Engineering Company S.R.L ING. Rocco Martello Direttore Tecnico UNI EN ISO 9001:2015 N. 30233/14/S UNI EN ISO 45001:2018 N. OHS-4849 UNI EN ISO 14001:2015 N. EMS-9477/S UNI/PdR 74 :2019 N. SGBIM-01/23 UNI/PdR 74:2019 N. 21042BIM	 Via del Cardoncello 22 70022 – Altamura (BA) EDILALTA S.R.L. DOTT. Angelantonio Disabato Socio
		Mandante  Via Bassa di Casalmoro 3 46041 – Asola (MN) ANAERGIA S.R.L. DOTT. Andrea Parisi Institore



00	B. BARONE	10/10/2024	C. BUTTICE'	11/10/2024	R. MARTELLO	11/10/2024
REV	ESEGUITO	DATA	VERIFICATO	DATA	APPROVATO	DATA



**Relazione di calcolo strutturale impostata e redatta secondo le modalità
previste nel D.M. 17 Gennaio 2018 cap. 10 "Redazione dei progetti
strutturali esecutivi e delle relazioni di calcolo".**

Origine e Caratteristiche dei Codici di Calcolo	
Codice di calcolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	PROFESSIONAL (build 2024-07-200)
Produttore- Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l. Via Garibaldi, 90 44121 Ferrara FE (Italy) Tel. +39 0532 200091 www.2si.it
Codice Licenza:	Licenza dsi5924

Descrizione	
Progetto	Impianto di trattamento anaerobico della F.O.R.S.U. per la produzione di Biometano.
	Vasca per la sezione separato liquido-solido
Ubicazione	Comune di FERMO (FM) (Regione MARCHE)
	Località FERMO (FM)
	Longitudine 13.716, Latitudine 43.160

In merito al punto 10.2 delle Norme Tecniche per le Costruzioni (*Affidabilità dei codici utilizzati*), si fa riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST" disponibile per il download sul sito: <https://www.2si.it/it/prodotti/affidabilita/>



INTESTAZIONE E CONTENUTI DELLA RELAZIONE

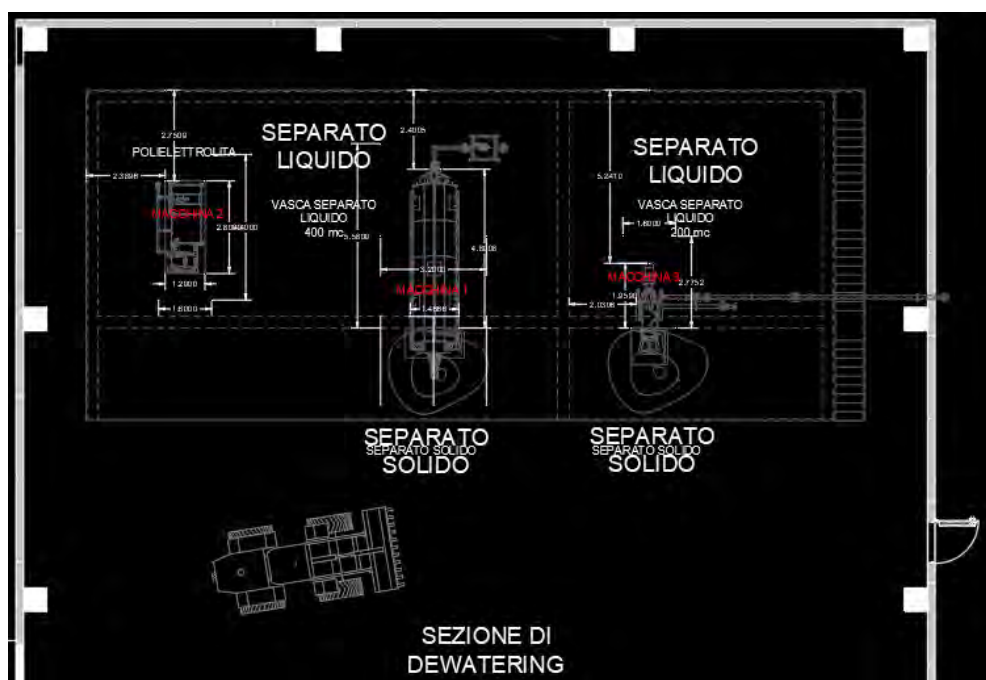
PROGETTO

La struttura della vasca conterrà il liquido proveniente dalla sezione impiantistica di separazione solido-liquido. Gli elementi sismo-resistenti sono per la parte in elevazione delle pareti hanno uno spessore pari a 35 cm, la copertura della vasca ha uno spessore di cm 30, la fondazione una platea di spessore 60cm. La qualità del calcestruzzo è C35/45 in quanto la classe di esposizione è XA3, il copriferro è pari a cm 4,5.

Le barre di acciaio sono di qualità B450C.

Parametri del liquido contenuto all'interno della vasca ha un peso dell'unità di volume pari a $\gamma = 1000$ daN/mc.

La vasca è posta all'interno di corpo di fabbrica. Sulla copertura della vasca sono posti delle macchine che



spremono la materia proveniente dal digestore.

Le macchine hanno i seguenti pesi:

- macchina 1 peso 3350 kg;
- macchina 2 peso 500 kg;
- macchina 3 peso 800 kg.

Contenuti della relazione:

RELAZIONE DI CALCOLO STRUTTURALE

- Origine e Caratteristiche dei Codici di Calcolo
- Affidabilità dei codici utilizzati
- Validazione dei codici
- Tipo di analisi svolta
- Modalità di presentazione dei risultati



Città di Fermo

Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

- *Informazioni generali sull'elaborazione*
- *Giudizio motivato di accettabilità dei risultati*

STAMPA DEI DATI DI INGRESSO

- *Normative prese a riferimento*
- *Criteri adottati per le misure di sicurezza*
- *Criteri seguiti nella schematizzazione della struttura, dei vincoli e delle sconnessioni*
- *Interazione tra terreno e struttura*
- *Legami costitutivi adottati per la modellazione dei materiali e dei terreni*
- *Schematizzazione delle azioni, condizioni e combinazioni di carico*
- *Metodologie numeriche utilizzate per l'analisi strutturale*
- *Metodologie numeriche utilizzate per la progettazione e la verifica degli elementi strutturali*

STAMPA DEI RISULTATI

Il Progettista:

MANDATARIA



MANDANTE



PROGETTISTA INDICATO



TABULATO DI CALCOLO

REV. 00

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14 ottobre 2024

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RELAZIONE DI CALCOLO STRUTTURALE

PREMESSA

La presente relazione di calcolo strutturale, in conformità al §10.1 del DM 17/01/18, è comprensiva di una descrizione generale dell'opera e dei criteri generali di analisi e verifica. Segue inoltre le indicazioni fornite al §10.2 del DM stesso per quanto concerne analisi e verifiche svolte con l'ausilio di codici di calcolo.

Nella presente parte sono riportati i principali elementi di inquadramento del progetto esecutivo riguardante le strutture, in relazione agli strumenti urbanistici, al progetto architettonico, al progetto delle componenti tecnologiche in generale ed alle prestazioni attese dalla struttura.

La struttura della vasca contenete il liquido proveniente dalla sezione impiantistica che si occupa della separazione tra il solido e il liquido.

DESCRIZIONE GENERALE DELL'OPERA

La struttura è costituita da una platea di fondazione e da pareti in calcestruzzo armato

Descrizione generale dell'opera	
Fabbricato ad uso	A servizio dei processi industriali
Ubicazione	Comune di FERMO (FM) (Regione MARCHE)
	Località FERMO (FM)
	Longitudine 13.677, Latitudine 43.123
Numero di piani	Fuori terra 0
	Interrati 0
	le dimensioni dell'opera in pianta sono racchiuse in un rettangolo di m 11,43 x 24,80
Numero vani scale	0
Numero vani ascensore	0
Tipo di fondazione	diretta

Principali caratteristiche della struttura	
Struttura regolare in pianta	Si
Struttura regolare in altezza	Si
Classe di duttilità	Non Dissipativa
Travi: ricalate o in spessore	0
Pilastrì	0
Pilastrì in falso	0
Tipo di fondazione	Platea
Condizioni per cui è necessario considerare la componente verticale del sisma	Nessuna

Parametri della struttura			
Classe d'uso	Vita Vn [anni]	Coeff. Uso	Periodo Vr [anni]
III	50.0	1.5	75.0

Fattore di struttura/comportamento
La struttura è non dissipativa

QUADRO NORMATIVO DI RIFERIMENTO ADOTTATO

Le norme ed i documenti assunti quale riferimento per la progettazione strutturale vengono indicati di seguito.

Nel capitolo "normativa di riferimento" è comunque presente l'elenco completo delle normative disponibili.

Progetto-verifica degli elementi	
Progetto cemento armato	D.M. 17-01-2018
Progetto acciaio	D.M. 17-01-2018
Progetto legno	D.M. 17-01-2018
Progetto muratura	D.M. 17-01-2018
Azione sismica	
Norma applicata per l' azione sismica	D.M. 17-01-2018



AZIONI DI PROGETTO SULLA COSTRUZIONE

Nei capitoli "modellazione delle azioni" e "schematizzazione dei casi di carico" sono indicate le azioni sulla costruzioni.

Nel prosieguo si indicano tipo di analisi strutturale condotta (statico, dinamico, lineare o non lineare) e il metodo adottato per la risoluzione del problema strutturale nonché le metodologie seguite per la verifica o per il progetto-verifica delle sezioni. Si riportano le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti; le configurazioni studiate per la struttura in esame *sono risultate effettivamente esaustive per la progettazione-verifica*.

La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici (tra cui quelli di tipo sismico).

L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:

$$\mathbf{K} \cdot \mathbf{u} = \mathbf{F} \quad \text{dove} \quad \mathbf{K} = \text{matrice di rigidezza}$$

$\mathbf{u}$ = vettore spostamenti nodali

$\mathbf{F}$ = vettore forze nodali

Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso.

Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto.

Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

Elemento tipo TRUSS	(biella-D2)
Elemento tipo BEAM	(trave-D2)
Elemento tipo MEMBRANE	(membrana-D3)
Elemento tipo PLATE	(piastra-guscio-D3)
Elemento tipo BOUNDARY	(molla)
Elemento tipo STIFFNESS	(matrice di rigidezza)
Elemento tipo BRICK	(elemento solido)
Elemento tipo SOLAIO	(macro elemento composto da più membrane)

MODELLO NUMERICO

In questa parte viene descritto il modello numerico utilizzato (o i modelli numerici utilizzati) per l'analisi della struttura. La presentazione delle informazioni deve essere, coerentemente con le prescrizioni del paragrafo 10.2 e relativi sottoparagrafi delle NTC-18, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

Gli elementi utilizzati per modellare sia le pareti sia la copertura e la platea di fondazione sono gli elementi shell (elementi D3).



Tipo di analisi strutturale

Sismica statica lineare	NO
Sismica dinamica lineare	SI
Sismica statica non lineare (prop. masse)	NO
Sismica statica non lineare (prop. modo)	NO
Sismica statica non lineare (triangolare)	NO
Non linearità geometriche (fattore P delta)	NO
Analisi lineare	SI

Di seguito si indicano l'origine e le caratteristiche dei codici di calcolo utilizzati riportando titolo, produttore e distributore, versione, estremi della licenza d'uso:

Informazioni sul codice di calcolo

Titolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	PROFESSIONAL (build 2024-07-200)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Dati utente finale:	Owac Engineering Company
Codice Utente:	Owac Engineering Company
Codice Licenza:	Licenza dsi5924

Un attento esame preliminare della documentazione a corredo del software **ha consentito di valutarne l'affidabilità e soprattutto l'idoneità al caso specifico**. La documentazione, fornita dal produttore e distributore del software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, corredati dei file di input necessari a riprodurre l'elaborazione:

Affidabilità dei codici utilizzati

2S.I. ha verificato l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche.

E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link:
<https://www.2si.it/it/prodotti/affidabilita/>

Modellazione della geometria e proprietà meccaniche:

nodi	1625
elementi D2 (per aste, travi, pilastri...)	0
elementi D3 (per pareti, platee, gusci...)	1667
elementi solaio	0
elementi solidi	0

Dimensione del modello strutturale [cm]:

X min =	120.00
Xmax =	2510.51
Ymin =	120.00
Ymax =	1262.50
Zmin =	-30.00
Zmax =	515.00

Strutture verticali:

Elementi di tipo asta	NO
-----------------------	----



Pilastrì	NO
Pareti	SI
Setti (a comportamento membranale)	NO
Strutture non verticali:	
Elementi di tipo asta	NO
Travi	NO
Gusci	SI
Membrane	NO
Orizzontamenti:	
Solai con la proprietà piano rigido	NO
Solai senza la proprietà piano rigido	NO
Tipo di vincoli:	
Nodi vincolati rigidamente	NO
Nodi vincolati elasticamente	NO
Nodi con isolatori sismici	NO
Fondazioni puntuali (plinti/plinti su palo)	NO
Fondazioni di tipo trave	NO
Fondazioni di tipo platea	SI
Fondazioni con elementi solidi	NO

MODELLAZIONE DELLE AZIONI

Si veda il capitolo **"Schematizzazione dei casi di carico"** per le informazioni necessarie alla comprensione ed alla ricostruzione delle azioni applicate al modello numerico, coerentemente con quanto indicato nella parte **"2.6. Azioni di progetto sulla costruzione"**.

COMBINAZIONI E/O PERCORSI DI CARICO

Si veda il capitolo **"Definizione delle combinazioni"** in cui sono indicate le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti.

Combinazioni dei casi di carico	
APPROCCIO PROGETTUALE	Approccio 2
SLU	SI
SLV (SLU con sisma)	SI
SLC	NO
SLD	SI
SLO	NO
SLU GEO A2 (per approccio 1)	NO
SLU EQU	NO
Combinazione caratteristica (rara)	SI
Combinazione frequente	SI
Combinazione quasi permanente (SLE)	SI
SLA (accidentale quale incendio)	NO

Principali risultati

I risultati devono costituire una sintesi completa ed efficace, presentata in modo da riassumere il comportamento della struttura, per ogni tipo di analisi svolta.

Nella presente relazione di calcolo sono riportati i seguenti risultati che il progettista ritiene di interesse per la descrizione e la comprensione del/i modello/i e del comportamento della struttura:

per l'analisi modale:

- periodi dei modi di vibrare della struttura
- masse eccitate dai singoli modi
- massa eccitata totale

deformate e sollecitazioni:



- spostamenti e rotazioni dei singoli nodi della struttura
- reazioni vincolari (nel caso siano presenti nodi vincolati rigidamente)
- pressioni sul terreno (nel caso siano presenti elementi di fondazione)
- sollecitazioni sugli elementi d2 nelle combinazioni di calcolo più significative
- tensioni sugli elementi d3 nelle combinazioni di calcolo più significative
- sollecitazioni sui macroelementi da elementi d3 nelle combinazioni di calcolo più significative

altri risultati significativi:

- nessuna

La presente relazione, oltre ad illustrare in modo esaustivo i dati in ingresso ed i risultati delle analisi in forma tabellare, riporta una serie di immagini: per i dati in ingresso:

- modello solido della struttura
- numerazione di nodi e ed elementi
- configurazioni di carico statiche
- configurazioni di carico sismiche con baricentri delle masse e eccentricità

per le combinazioni più significative (statisticamente più gravose per la struttura):

- configurazioni deformate
- diagrammi e involucri delle azioni interne
- mappe delle tensioni
- reazioni vincolari
- mappe delle pressioni sul terreno

per il progetto-verifica degli elementi:

- diagrammi di armatura
- percentuali di sfruttamento
- mappe delle verifiche più significative per i vari stati limite

Informazioni generali sull'elaborazione e giudizio motivato di accettabilità dei risultati.

Il programma prevede una serie di controlli automatici (check) che consentono l'individuazione di errori di modellazione. Al termine dell'analisi un controllo automatico identifica la presenza di spostamenti o rotazioni anormali. Si può pertanto asserire che l'elaborazione sia corretta e completa. I risultati delle elaborazioni sono stati sottoposti a controlli che ne comprovano l'attendibilità. Tale valutazione ha compreso il confronto con i risultati di semplici calcoli, eseguiti con metodi tradizionali e adottati, anche in fase di primo proporzionamento della struttura. Inoltre, sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della struttura e delle azioni. Si allega al termine della presente relazione elenco sintetico dei controlli svolti (verifiche di equilibrio tra reazioni vincolari e carichi applicati, comparazioni tra i risultati delle analisi e quelli di valutazioni semplificate, etc.).

VERIFICHE AGLI STATI LIMITE ULTIMI

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLU vengono indicate, con riferimento alla normativa adottata, le modalità ed i criteri seguiti per valutare la sicurezza della struttura nei confronti delle possibili situazioni di crisi ed i risultati delle valutazioni svolte. In via generale, oltre alle verifiche di resistenza e di spostamento, devono essere prese in considerazione verifiche nei confronti dei fenomeni di instabilità, locale e globale, di fatica, di duttilità, di degrado.

VERIFICHE AGLI STATI LIMITE DI ESERCIZIO

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLE vengono indicate, con riferimento alla normativa adottata, le modalità seguite per valutare l'affidabilità della struttura nei confronti delle possibili situazioni di perdita di funzionalità (per eccessive deformazioni, fessurazioni, vibrazioni, etc.) ed i risultati delle valutazioni svolte.



NORMATIVA DI RIFERIMENTO

1. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
2. Circolare 21/01/19, n. 7 C.S.LL.PP. "Istruzioni per l'applicazione dell'aggiornamento delle Norme Tecniche delle Costruzioni di cui al decreto ministeriale 17 gennaio 2018"
3. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
4. D.M. LL.PP. 9 Gennaio 1996 "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
5. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>".
6. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
7. Circolare 4/07/96, n.156AA.GG./STC. istruzioni per l'applicazione delle "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>" di cui al D.M. 16/01/96.
8. Circolare 10/04/97, n.65AA.GG. istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/96.
9. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
10. Circolare 4 Gennaio 1989 n. 30787 "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
11. D.M. LL.PP. 11 Marzo 1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione".
12. D.M. LL.PP. 3 Dicembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate".
13. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
14. Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modificazioni e integrazioni.
15. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
16. UNI EN 1991-1-1:2004 01/08/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-1: Azioni in generale - Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.
17. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui ponti.
18. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
19. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
20. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
21. UNI EN 1992-1-1:2005 24/11/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
22. UNI EN 1992-1-2:2005 01/04/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio.
23. UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici.
24. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.
25. UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
26. UNI EN 1994-2:2006 12/01/2006 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 2: Regole generali e regole per i ponti.
27. UNI EN 1995-1-1:2005 01/02/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali - Regole comuni e regole per gli edifici.
28. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
29. UNI EN 1996-1-1:2006 26/01/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 1-1:



Regole generali per strutture di muratura armata e non armata.

30. UNI EN 1996-3:2006 09/03/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata.
31. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
32. UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici.
33. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.
34. UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici.
35. CNR DT-200/2013 - Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati
36. CNR DT-215/2018 - Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati a Matrice Inorganica

NOTA: il presente capitolo riporta l'elenco delle normative implementate nel software. Le norme utilizzate per la struttura oggetto della presente relazione sono indicate nel precedente capitolo "RELAZIONE DI CALCOLO STRUTTURALE" "ANALISI E VERIFICHE SVOLTE CON L'AUSILIO DI CODICI DI CALCOLO".

Laddove nei capitoli successivi vengano richiamate normative antecedenti al DM 17.01.18 è dovuto alla progettazione simulata di edificio esistente.

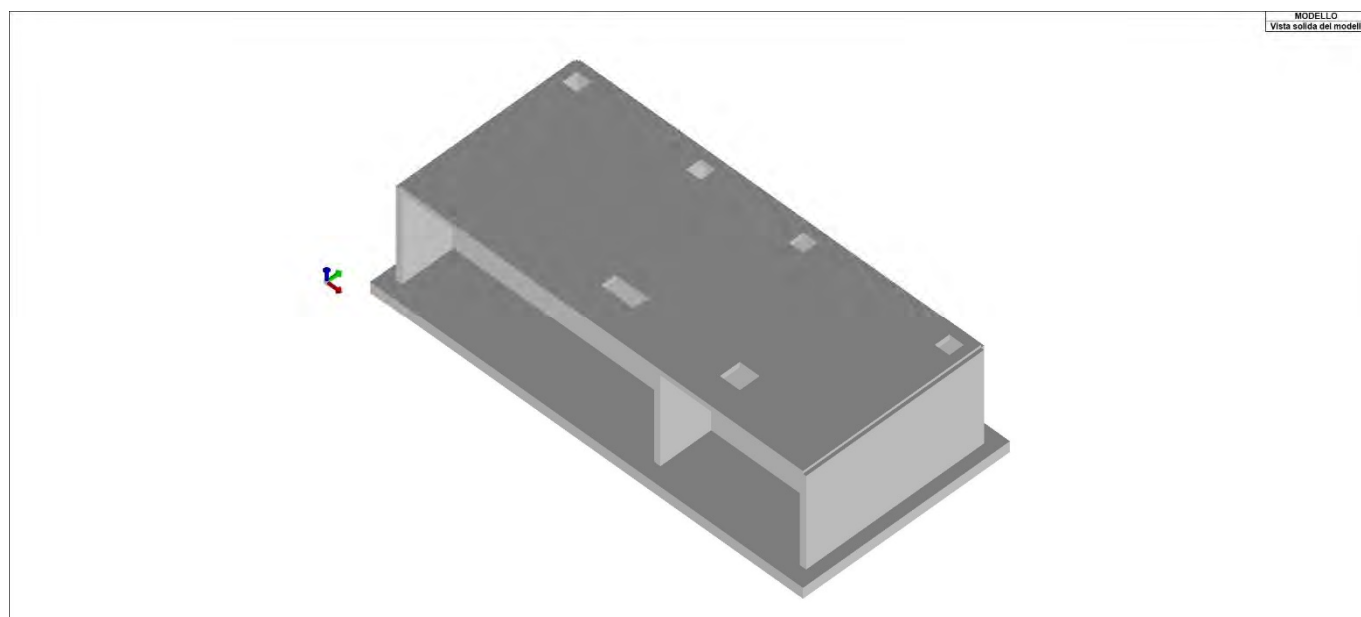


Figura 1 - VISTA_SOLIDA_001



MODELLO
Vista solida del modello

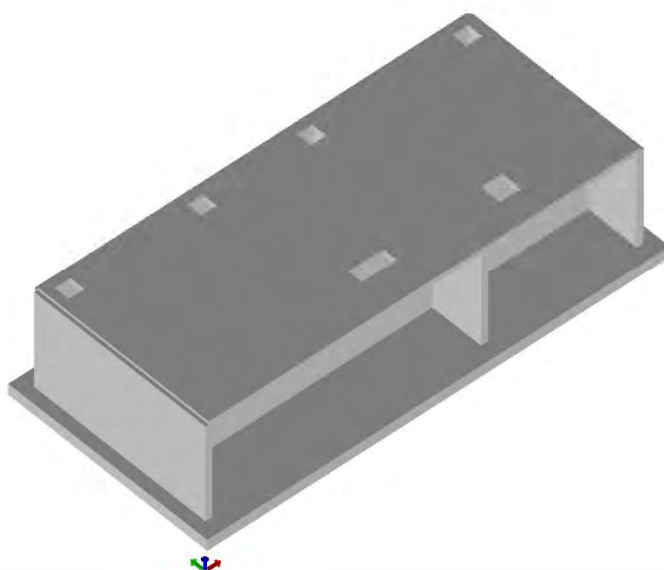


Figura 2 - VISTA_SOLIDA_002

MODELLO
Vista solida del modello



Figura 3 - VISTA_SOLIDA_003

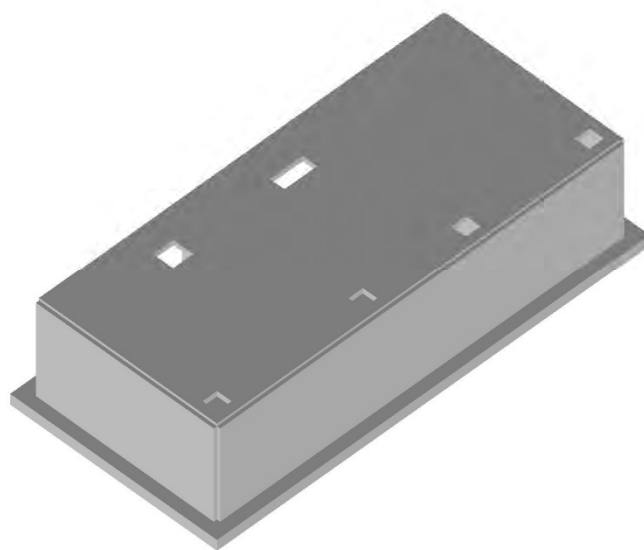


Figura 4 - VISTA_SOLIDA_004



CARATTERISTICHE MATERIALI UTILIZZATI

LEGENDA TABELLA DATI MATERIALI

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

1	materiale tipo cemento armato
2	materiale tipo acciaio
3	materiale tipo muratura
4	materiale tipo legno
5	materiale tipo generico

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale ν
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Fattore di confidenza FC m	Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura)
Fattore di confidenza FC a	Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura)
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Massima compressione	Massima tensione di compressione per aste non lineari
Massima trazione	Massima tensione di trazione per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari
Rapporto HRDb	Rapporto di hardening a flessione
Rapporto HRDv	Rapporto di hardening a taglio

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

1	c.a.	Resistenza Rc	resistenza a compressione cubica
		Resistenza fctm	resistenza media a trazione semplice
		Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
2	acciaio	Tensione ft	Valore della tensione di rottura
		Tensione fy	Valore della tensione di snervamento
		Resistenza fd	Resistenza di calcolo per SL CNR-UNI 10011
		Resistenza fd (>40)	Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm
		Tensione ammissibile	Tensione ammissibile CNR-UNI 10011
		Tensione ammissibile(>40)	Tensione ammissibile CNR-UNI 10011 per spessori > 40mm
3	muratura		



	Muratura consolidata	Muratura per la quale si prevedono interventi di rinforzo"
	Incremento resistenza	Incremento conseguito in termini di resistenza
	Incremento rigidezza	Incremento conseguito in termini di rigidezza
	Resistenza f	Valore della resistenza a compressione
	Resistenza fv0	Valore della resistenza a taglio in assenza di tensioni normali
	Resistenza fh	Valore della resistenza a compressione orizzontale
	Resistenza fb	Valore della resistenza a compressione dei blocchi
	Resistenza fbh	Valore della resistenza a compressione dei blocchi in direzione orizzontale
	Resistenza fv0h	Valore della resistenza a taglio in assenza di tensioni normali per le travi
	Resistenza ft	Valore della resistenza a trazione per fessurazione diagonale
	Resistenza fvlm	Valore della massima resistenza a taglio
	Resistenza fbt	Valore della resistenza a trazione dei blocchi
	Coefficiente mu	Coefficiente d'attrito utilizzato per la resistenza a taglio
	Coefficiente fi	Coefficiente d'ingranamento utilizzato per la resistenza a taglio
	Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
4	legno	
	E0,05	Modulo di elasticità corrispondente ad un frattile del 5%
	Resistenza fc0	Valore della resistenza a compressione parallela
	Resistenza ft0	Valore della resistenza a trazione parallela
	Resistenza fm	Valore della resistenza a flessione
	Resistenza fv	Valore della resistenza a taglio
	Resist. ft0k	Resistenza caratteristica (tensione amm. per REGLES) per trazione
	Resist. fmk	Resistenza caratteristica (tensione amm. per REGLES) per flessione
	Resist. fvk	Resistenza caratteristica (tensione amm. per REGLES) per taglio
	Modulo E0,05	Modulo elastico parallelo caratteristico
	Lamellare	lamellare o massiccio

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamiciatura CAM, CNR-DT 200 per interventi con FRP, CNR-DT 215 per interventi con FRCM)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/cm2	daN/cm2	daN/cm2		daN/cm2	daN/cm3		
6	Calcestruzzo Classe C35/45			3.463e+05	0.20	1.443e+05	2.50e-03	1.00e-05	
	Resistenza Rc	450.0							
	Resistenza fctm		33.5						
	Rapporto Rfessurata (assiale)								1.00
	Rapporto Rfessurata (flessione)								1.00
	Rapporto Rfessurata (taglio)								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05



MODELLO
 Linee nascoste del D3 (per materiale)

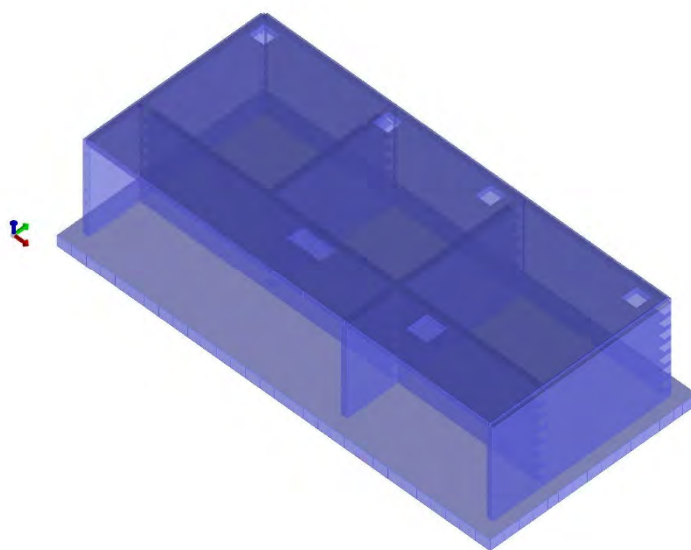


Figura 5 - MOD_MATERIALI_D3

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetto armatura	Singolo elemento	Singolo elemento FONDAZIONE	Singolo elemento NON DISSIPATIVO	Singolo elemento	Parete estesa debolmente armata	Singolo elemento
	Singolo elemento	Singolo elemento FONDAZIONE	Singolo elemento NON DISSIPATIVO			
Armatura						
Inclinazione Av [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
	90.00	90.00	90.00			
Angolo Av-Ao [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
	90.00	90.00	90.00			
Minima tesa	0.20	0.20	0.20	2.000e-02	0.20	0.20
	0.20	0.20	0.20			
Massima tesa	4.00	4.00	4.00	4.00	4.00	4.00
	4.00	4.00	4.00			
Maglia unica centrale	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Unico strato verticale	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Unico strato orizzontale	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Copriferro [cm]	2.00	2.00	2.00	2.00	2.00	2.00
	2.00	4.50	4.50			
Maglia V						
diametro	10	10	10	10	10	10
	10	20	16			
passo	25	25	25	25	25	25
	25	40	25			
diametro aggiuntivi	12	12	12	12	12	12
	12	20	16			
Maglia O						
diametro	10	10	10	10	10	10
	10	20	16			
passo	25	25	25	25	25	25
	25	40	25			
diametro aggiuntivi	12	12	12	12	12	12
	12	20	16			
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00
	4500.00	4500.00	4500.00			



Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
	tipo C	tipo C	tipo C			
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
	1.15	1.15	1.15			
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
	1.50	1.50	1.50			
Verifiche con N costante	SI	SI	SI	SI	SI	SI
	SI	SI	SI			
Tensioni ammissibili						
Tensione amm. cls [daN/cm ²]	97.50	97.50	97.50	97.50	97.50	97.50
	97.50	97.50	97.50			
Tensione amm. acciaio [daN/cm ²]	2600.00	2600.00	2600.00	2600.00	2600.00	2600.00
	2600.00	2600.00	2600.00			
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
	15.00	15.00	15.00			
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00			
Parete estesa debolmente armata						
Fattore amplificazione taglio V	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Hcrit. par. 7.4.4.5.1 [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Hcrit. par. 7.4.6.1.4 [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Diagramma involuppo taglio	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Vincolo lati	nessun lato	nessun lato	nessun lato	nessun lato	nessun lato	nessun lato
	nessun lato	nessun lato	nessun lato			
Verifica come fascia	NO	NO	NO	NO	SI	NO
	NO	NO	NO			
Diametro di estremità	0	0	0	0	0	0
	0	0	0			
Zona confinata						
Minima tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00			
Massima tesa	4.00	4.00	4.00	4.00	4.00	4.00
	4.00	4.00	4.00			
Distanza barre [cm]	2.00	2.00	2.00	2.00	2.00	2.00
	2.00	2.00	2.00			
Interferro	2	2	2	2	2	2
	2	2	2			
Armatura inclinata						
Area barre [cm ²]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Angolo orizzontale [gradi]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Distanza di base [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Resistenza al fuoco						
3- intradosso	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
3+ estradosso	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Tempo di esposizione R	15	15	15	15	15	15
	15	15	15			



Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Armatura						
Inclinazione Ax [gradi]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0			
Angolo Ax-Ay [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
	90.00	90.00	90.00			
Minima tesa	0.31	0.10	0.13	2.000e-02	0.31	0.31
	0.31	0.10	0.31			
Massima tesa	0.78	4.00	4.00	4.00	0.78	0.78
	0.78	4.00	0.78			
Maglia unica centrale	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Copriferro [cm]	2.00	3.00	2.00	2.00	2.00	2.00
	2.00	4.50	4.50			
Maglia x						
diametro	10	12	10	10	10	10
	10	20	20			
passo	20	20	20	20	20	20
	20	40	30			
diametro aggiuntivi	12	12	12	12	12	12
	12	20	20			
Maglia y						
diametro	10	12	10	10	10	10
	10	20	18			
passo	20	20	20	20	20	20
	20	40	25			
diametro aggiuntivi	12	12	12	12	12	12
	12	20	18			
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00
	4500.00	4500.00	4500.00			
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
	tipo C	tipo C	tipo C			
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
	1.15	1.15	1.15			
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
	1.50	1.50	1.50			
Verifiche con N costante	SI	SI	SI	SI	SI	SI
	SI	SI	SI			
Applica SLU da DIN	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50	97.50	97.50	97.50	97.50	97.50
	97.50	97.50	97.50			
Tensione amm. acciaio [daN/cm2]	2600.00	2600.00	2600.00	2600.00	2600.00	2600.00
	2600.00	2600.00	2600.00			
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
	15.00	15.00	15.00			
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00			
Resistenza al fuoco						
3- intradosso	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
3+ estradosso	NO	NO	NO	NO	NO	NO
	NO	NO	NO			
Tempo di esposizione R	15	15	15	15	15	15
	15	15	15			



MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

Area	area della sezione
A V2	area della sezione/fattore di taglio (per il taglio in direzione 2)
A V3	area della sezione/fattore di taglio (per il taglio in direzione 3)
Jt	fattore torsionale di rigidezza
J2-2	momento d'inerzia della sezione riferito all'asse 2
J3-3	momento d'inerzia della sezione riferito all'asse 3
W2-2	modulo di resistenza della sezione riferito all'asse 2
W3-3	modulo di resistenza della sezione riferito all'asse 3
Wp2-2	modulo di resistenza plastico della sezione riferito all'asse 2
Wp3-3	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

rettangolare	a T	a T rovescia	a T di colmo	a L	a L specchiata
a L specchiata rovescia	a L rovescia	a L di colmo	a doppio T	a quattro specchiata	a quattro
a U	a C	a croce	circolare	rettangolare cava	circolare cava



Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):

i valori dimensionali con prefisso B sono riferiti all'asse 2

i valori dimensionali con prefisso H sono riferiti all'asse 3

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3

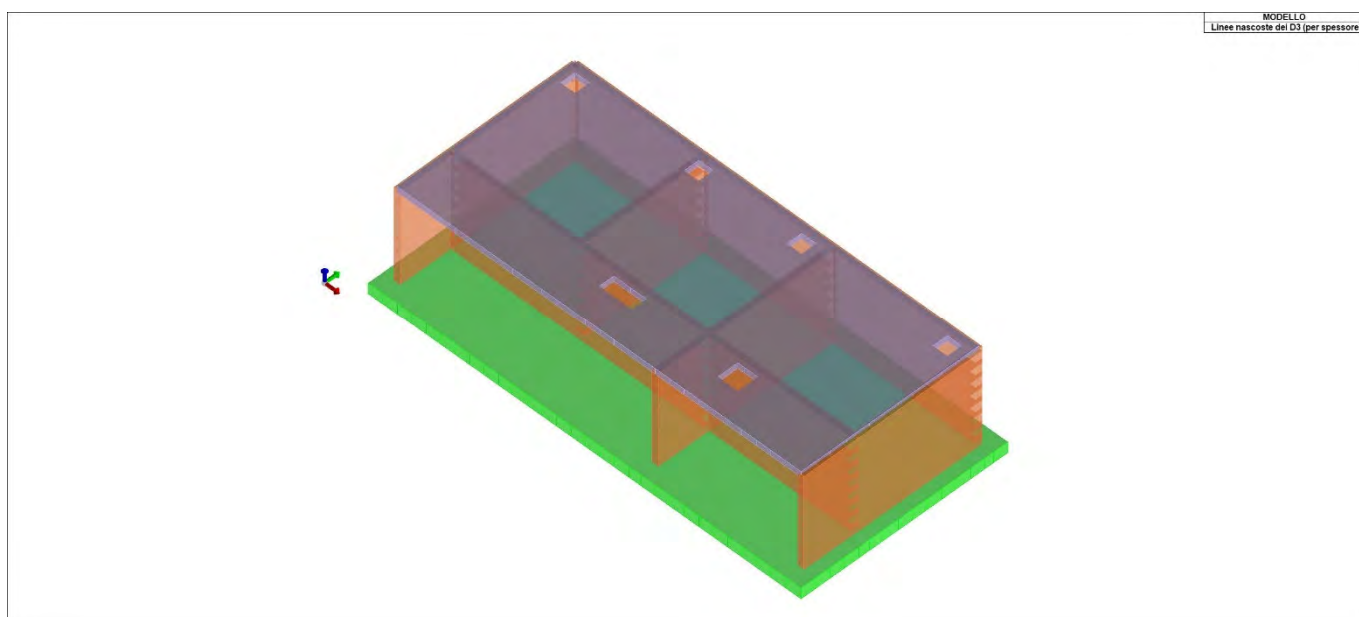


Figura 6 - MOD_SPESSORI_D3



MODELLAZIONE STRUTTURA: NODI

LEGENDA TABELLA DATI NODI

Il programma utilizza per la modellazione nodi strutturali.

Ogni nodo è individuato dalle coordinate cartesiane nel sistema di riferimento globale (X Y Z).

Ad ogni nodo è eventualmente associato un codice di vincolamento rigido, un codice di fondazione speciale, ed un set di sei molle (tre per le traslazioni, tre per le rotazioni). Le tabelle sottoriportate riflettono le succitate possibilità. In particolare per ogni nodo viene indicato in tabella:

Nodo	numero del nodo.
X	valore della coordinata X
Y	valore della coordinata Y
Z	valore della coordinata Z

Per i nodi ai quali sia associato un codice di vincolamento rigido, un codice di fondazione speciale o un set di molle viene indicato in tabella:

Nodo	numero del nodo.
X	valore della coordinata X
Y	valore della coordinata Y
Z	valore della coordinata Z
Note	eventuale codice di vincolo (es. v=110010 sei valori relativi ai sei gradi di libertà previsti per il nodo TxTyTzRxRyRz, il valore 1 indica che lo spostamento o rotazione relativo è impedito, il valore 0 indica che lo spostamento o rotazione relativo è libero).
Note	(FS = 1, 2,...) eventuale codice del tipo di fondazione speciale (1, 2,... fanno riferimento alle tipologie: plinto, palo, plinto su pali,...) che è collegato al nodo. (ISO = "id SIGLA") indice e sigla identificativa dell' eventuale isolatore sismico assegnato al nodo
Rig. TX	valore della rigidezza dei vincoli elastici eventualmente applicati al nodo, nello specifico TX (idem per TY, TZ, RX, RY, RZ).

Per strutture sismicamente isolate viene inoltre inserita la tabella delle caratteristiche per gli isolatori utilizzati; le caratteristiche sono indicate in conformità al cap. 7.10 del D.M. 17/01/18

TABELLA DATI NODI

Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
	cm	cm	cm		cm	cm	cm		cm	cm	cm
1	120.0	120.0	-30.0	2	200.0	120.0	-30.0	3	280.0	120.0	-30.0
4	360.0	120.0	-30.0	5	440.0	120.0	-30.0	6	520.0	120.0	-30.0
7	600.0	120.0	-30.0	8	680.0	120.0	-30.0	9	760.0	120.0	-30.0
10	840.0	120.0	-30.0	11	912.0	120.0	-30.0	12	1000.0	120.0	-30.0
13	1080.0	120.0	-30.0	14	1160.0	120.0	-30.0	15	1240.0	120.0	-30.0
16	1320.0	120.0	-30.0	17	1400.0	120.0	-30.0	18	1480.0	120.0	-30.0
19	1560.0	120.0	-30.0	20	1625.6	120.0	-30.0	21	1705.6	120.0	-30.0
22	1785.6	120.0	-30.0	23	1865.6	120.0	-30.0	24	1945.6	120.0	-30.0
25	2025.6	120.0	-30.0	26	2105.6	120.0	-30.0	27	2185.6	120.0	-30.0
28	2265.6	120.0	-30.0	29	2345.6	120.0	-30.0	30	2430.5	120.0	-30.0
31	2510.5	120.0	-30.0	32	120.0	200.0	-30.0	33	200.0	200.0	-30.0
34	280.0	200.0	-30.0	35	360.0	200.0	-30.0	36	440.0	200.0	-30.0
37	520.0	200.0	-30.0	38	600.0	200.0	-30.0	39	680.0	200.0	-30.0
40	760.0	200.0	-30.0	41	840.0	200.0	-30.0	42	912.0	200.0	-30.0
43	1000.0	200.0	-30.0	44	1080.0	200.0	-30.0	45	1160.0	200.0	-30.0
46	1240.0	200.0	-30.0	47	1320.0	200.0	-30.0	48	1400.0	200.0	-30.0
49	1480.0	200.0	-30.0	50	1560.0	200.0	-30.0	51	1625.6	200.0	-30.0



Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
52	1705.6	200.0	-30.0	53	1785.6	200.0	-30.0	54	1865.6	200.0	-30.0
55	1945.6	200.0	-30.0	56	2025.6	200.0	-30.0	57	2105.6	200.0	-30.0
58	2185.6	200.0	-30.0	59	2265.6	200.0	-30.0	60	2345.6	200.0	-30.0
61	2430.5	200.0	-30.0	62	2510.5	200.0	-30.0	63	120.0	280.0	-30.0
64	200.0	280.0	-30.0	65	280.0	280.0	-30.0	66	360.0	280.0	-30.0
67	440.0	280.0	-30.0	68	520.0	280.0	-30.0	69	600.0	280.0	-30.0
70	680.0	280.0	-30.0	71	760.0	280.0	-30.0	72	840.0	280.0	-30.0
73	912.0	280.0	-30.0	74	1000.0	280.0	-30.0	75	1080.0	280.0	-30.0
76	1160.0	280.0	-30.0	77	1240.0	280.0	-30.0	78	1320.0	280.0	-30.0
79	1400.0	280.0	-30.0	80	1480.0	280.0	-30.0	81	1560.0	280.0	-30.0
82	1625.6	280.0	-30.0	83	1705.6	280.0	-30.0	84	1785.6	280.0	-30.0
85	1865.6	280.0	-30.0	86	1945.6	280.0	-30.0	87	2025.6	280.0	-30.0
88	2105.6	280.0	-30.0	89	2185.6	280.0	-30.0	90	2265.6	280.0	-30.0
91	2345.6	280.0	-30.0	92	2430.5	280.0	-30.0	93	2510.5	280.0	-30.0
94	120.0	360.0	-30.0	95	200.0	360.0	-30.0	96	280.0	360.0	-30.0
97	360.0	360.0	-30.0	98	440.0	360.0	-30.0	99	520.0	360.0	-30.0
100	600.0	360.0	-30.0	101	680.0	360.0	-30.0	102	760.0	360.0	-30.0
103	840.0	360.0	-30.0	104	912.0	360.0	-30.0	105	1000.0	360.0	-30.0
106	1080.0	360.0	-30.0	107	1160.0	360.0	-30.0	108	1240.0	360.0	-30.0
109	1320.0	360.0	-30.0	110	1400.0	360.0	-30.0	111	1480.0	360.0	-30.0
112	1560.0	360.0	-30.0	113	1625.6	360.0	-30.0	114	1705.6	360.0	-30.0
115	1785.6	360.0	-30.0	116	1865.6	360.0	-30.0	117	1945.6	360.0	-30.0
118	2025.6	360.0	-30.0	119	2105.6	360.0	-30.0	120	2185.6	360.0	-30.0
121	2265.6	360.0	-30.0	122	2345.6	360.0	-30.0	123	2430.5	360.0	-30.0
124	2510.5	360.0	-30.0	125	120.0	440.0	-30.0	126	200.0	440.0	-30.0
127	280.0	440.0	-30.0	128	360.0	440.0	-30.0	129	440.0	440.0	-30.0
130	520.0	440.0	-30.0	131	600.0	440.0	-30.0	132	680.0	440.0	-30.0
133	760.0	440.0	-30.0	134	840.0	440.0	-30.0	135	912.0	440.0	-30.0
136	1000.0	440.0	-30.0	137	1080.0	440.0	-30.0	138	1160.0	440.0	-30.0
139	1240.0	440.0	-30.0	140	1320.0	440.0	-30.0	141	1400.0	440.0	-30.0
142	1480.0	440.0	-30.0	143	1560.0	440.0	-30.0	144	1625.6	440.0	-30.0
145	1705.6	440.0	-30.0	146	1785.6	440.0	-30.0	147	1865.6	440.0	-30.0
148	1945.6	440.0	-30.0	149	2025.6	440.0	-30.0	150	2105.6	440.0	-30.0
151	2185.6	440.0	-30.0	152	2265.6	440.0	-30.0	153	2345.6	440.0	-30.0
154	2430.5	440.0	-30.0	155	2510.5	440.0	-30.0	156	120.0	497.5	-30.0
157	200.0	497.5	-30.0	158	280.0	497.5	-30.0	159	360.0	497.5	-30.0
160	440.0	497.5	-30.0	161	520.0	497.5	-30.0	162	600.0	497.5	-30.0
163	680.0	497.5	-30.0	164	760.0	497.5	-30.0	165	840.0	497.5	-30.0
166	912.0	497.5	-30.0	167	1000.0	497.5	-30.0	168	1080.0	497.5	-30.0
169	1160.0	497.5	-30.0	170	1240.0	497.5	-30.0	171	1320.0	497.5	-30.0
172	1400.0	497.5	-30.0	173	1480.0	497.5	-30.0	174	1560.0	497.5	-30.0
175	1625.6	497.5	-30.0	176	1705.6	497.5	-30.0	177	1785.6	497.5	-30.0
178	1865.6	497.5	-30.0	179	1945.6	497.5	-30.0	180	2025.6	497.5	-30.0
181	2105.6	497.5	-30.0	182	2185.6	497.5	-30.0	183	2265.6	497.5	-30.0
184	2345.6	497.5	-30.0	185	2430.5	497.5	-30.0	186	2510.5	497.5	-30.0
187	120.0	577.5	-30.0	188	200.0	577.5	-30.0	189	280.0	577.5	-30.0
190	360.0	577.5	-30.0	191	440.0	577.5	-30.0	192	520.0	577.5	-30.0
193	600.0	577.5	-30.0	194	680.0	577.5	-30.0	195	760.0	577.5	-30.0
196	840.0	577.5	-30.0	197	912.0	577.5	-30.0	198	1000.0	577.5	-30.0
199	1080.0	577.5	-30.0	200	1160.0	577.5	-30.0	201	1240.0	577.5	-30.0
202	1320.0	577.5	-30.0	203	1400.0	577.5	-30.0	204	1480.0	577.5	-30.0
205	1560.0	577.5	-30.0	206	1625.6	577.5	-30.0	207	1705.6	577.5	-30.0
208	1785.6	577.5	-30.0	209	1865.6	577.5	-30.0	210	1945.6	577.5	-30.0
211	2025.6	577.5	-30.0	212	2105.6	577.5	-30.0	213	2185.6	577.5	-30.0
214	2265.6	577.5	-30.0	215	2345.6	577.5	-30.0	216	2430.5	577.5	-30.0
217	2510.5	577.5	-30.0	218	120.0	657.5	-30.0	219	200.0	657.5	-30.0
220	280.0	657.5	-30.0	221	360.0	657.5	-30.0	222	440.0	657.5	-30.0
223	520.0	657.5	-30.0	224	600.0	657.5	-30.0	225	680.0	657.5	-30.0
226	760.0	657.5	-30.0	227	840.0	657.5	-30.0	228	912.0	657.5	-30.0
229	1000.0	657.5	-30.0	230	1080.0	657.5	-30.0	231	1160.0	657.5	-30.0
232	1240.0	657.5	-30.0	233	1320.0	657.5	-30.0	234	1400.0	657.5	-30.0
235	1480.0	657.5	-30.0	236	1560.0	657.5	-30.0	237	1625.6	657.5	-30.0
238	1705.6	657.5	-30.0	239	1785.6	657.5	-30.0	240	1865.6	657.5	-30.0
241	1945.6	657.5	-30.0	242	2025.6	657.5	-30.0	243	2105.6	657.5	-30.0
244	2185.6	657.5	-30.0	245	2265.6	657.5	-30.0	246	2345.6	657.5	-30.0
247	2430.5	657.5	-30.0	248	2510.5	657.5	-30.0	249	120.0	737.5	-30.0
250	200.0	737.5	-30.0	251	280.0	737.5	-30.0	252	360.0	737.5	-30.0
253	440.0	737.5	-30.0	254	520.0	737.5	-30.0	255	600.0	737.5	-30.0
256	680.0	737.5	-30.0	257	760.0	737.5	-30.0	258	840.0	737.5	-30.0
259	912.0	737.5	-30.0	260	1000.0	737.5	-30.0	261	1080.0	737.5	-30.0
262	1160.0	737.5	-30.0	263	1240.0	737.5	-30.0	264	1320.0	737.5	-30.0
265	1400.0	737.5	-30.0	266	1480.0	737.5	-30.0	267	1560.0	737.5	-30.0



Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
268	1625.6	737.5	-30.0	269	1705.6	737.5	-30.0	270	1785.6	737.5	-30.0
271	1865.6	737.5	-30.0	272	1945.6	737.5	-30.0	273	2025.6	737.5	-30.0
274	2105.6	737.5	-30.0	275	2185.6	737.5	-30.0	276	2265.6	737.5	-30.0
277	2345.6	737.5	-30.0	278	2430.5	737.5	-30.0	279	2510.5	737.5	-30.0
280	120.0	817.5	-30.0	281	200.0	817.5	-30.0	282	280.0	817.5	-30.0
283	360.0	817.5	-30.0	284	440.0	817.5	-30.0	285	520.0	817.5	-30.0
286	600.0	817.5	-30.0	287	680.0	817.5	-30.0	288	760.0	817.5	-30.0
289	840.0	817.5	-30.0	290	912.0	817.5	-30.0	291	1000.0	817.5	-30.0
292	1080.0	817.5	-30.0	293	1160.0	817.5	-30.0	294	1240.0	817.5	-30.0
295	1320.0	817.5	-30.0	296	1400.0	817.5	-30.0	297	1480.0	817.5	-30.0
298	1560.0	817.5	-30.0	299	1625.6	817.5	-30.0	300	1705.6	817.5	-30.0
301	1785.6	817.5	-30.0	302	1865.6	817.5	-30.0	303	1945.6	817.5	-30.0
304	2025.6	817.5	-30.0	305	2105.6	817.5	-30.0	306	2185.6	817.5	-30.0
307	2265.6	817.5	-30.0	308	2345.6	817.5	-30.0	309	2430.5	817.5	-30.0
310	2510.5	817.5	-30.0	311	120.0	897.5	-30.0	312	200.0	897.5	-30.0
313	280.0	897.5	-30.0	314	360.0	897.5	-30.0	315	440.0	897.5	-30.0
316	520.0	897.5	-30.0	317	600.0	897.5	-30.0	318	680.0	897.5	-30.0
319	760.0	897.5	-30.0	320	840.0	897.5	-30.0	321	912.0	897.5	-30.0
322	1000.0	897.5	-30.0	323	1080.0	897.5	-30.0	324	1160.0	897.5	-30.0
325	1240.0	897.5	-30.0	326	1320.0	897.5	-30.0	327	1400.0	897.5	-30.0
328	1480.0	897.5	-30.0	329	1560.0	897.5	-30.0	330	1625.6	897.5	-30.0
331	1705.6	897.5	-30.0	332	1785.6	897.5	-30.0	333	1865.6	897.5	-30.0
334	1945.6	897.5	-30.0	335	2025.6	897.5	-30.0	336	2105.6	897.5	-30.0
337	2185.6	897.5	-30.0	338	2265.6	897.5	-30.0	339	2345.6	897.5	-30.0
340	2430.5	897.5	-30.0	341	2510.5	897.5	-30.0	342	120.0	977.5	-30.0
343	200.0	977.5	-30.0	344	280.0	977.5	-30.0	345	360.0	977.5	-30.0
346	440.0	977.5	-30.0	347	520.0	977.5	-30.0	348	600.0	977.5	-30.0
349	680.0	977.5	-30.0	350	760.0	977.5	-30.0	351	840.0	977.5	-30.0
352	912.0	977.5	-30.0	353	1000.0	977.5	-30.0	354	1080.0	977.5	-30.0
355	1160.0	977.5	-30.0	356	1240.0	977.5	-30.0	357	1320.0	977.5	-30.0
358	1400.0	977.5	-30.0	359	1480.0	977.5	-30.0	360	1560.0	977.5	-30.0
361	1625.6	977.5	-30.0	362	1705.6	977.5	-30.0	363	1785.6	977.5	-30.0
364	1865.6	977.5	-30.0	365	1945.6	977.5	-30.0	366	2025.6	977.5	-30.0
367	2105.6	977.5	-30.0	368	2185.6	977.5	-30.0	369	2265.6	977.5	-30.0
370	2345.6	977.5	-30.0	371	2430.5	977.5	-30.0	372	2510.5	977.5	-30.0
373	120.0	1057.5	-30.0	374	200.0	1057.5	-30.0	375	280.0	1057.5	-30.0
376	360.0	1057.5	-30.0	377	440.0	1057.5	-30.0	378	520.0	1057.5	-30.0
379	600.0	1057.5	-30.0	380	680.0	1057.5	-30.0	381	760.0	1057.5	-30.0
382	840.0	1057.5	-30.0	383	912.0	1057.5	-30.0	384	1000.0	1057.5	-30.0
385	1080.0	1057.5	-30.0	386	1160.0	1057.5	-30.0	387	1240.0	1057.5	-30.0
388	1320.0	1057.5	-30.0	389	1400.0	1057.5	-30.0	390	1480.0	1057.5	-30.0
391	1560.0	1057.5	-30.0	392	1625.6	1057.5	-30.0	393	1705.6	1057.5	-30.0
394	1785.6	1057.5	-30.0	395	1865.6	1057.5	-30.0	396	1945.6	1057.5	-30.0
397	2025.6	1057.5	-30.0	398	2105.6	1057.5	-30.0	399	2185.6	1057.5	-30.0
400	2265.6	1057.5	-30.0	401	2345.6	1057.5	-30.0	402	2430.5	1057.5	-30.0
403	2510.5	1057.5	-30.0	404	120.0	1137.5	-30.0	405	200.0	1137.5	-30.0
406	280.0	1137.5	-30.0	407	360.0	1137.5	-30.0	408	440.0	1137.5	-30.0
409	520.0	1137.5	-30.0	410	600.0	1137.5	-30.0	411	680.0	1137.5	-30.0
412	760.0	1137.5	-30.0	413	840.0	1137.5	-30.0	414	912.0	1137.5	-30.0
415	1000.0	1137.5	-30.0	416	1080.0	1137.5	-30.0	417	1160.0	1137.5	-30.0
418	1240.0	1137.5	-30.0	419	1320.0	1137.5	-30.0	420	1400.0	1137.5	-30.0
421	1480.0	1137.5	-30.0	422	1560.0	1137.5	-30.0	423	1625.6	1137.5	-30.0
424	1705.6	1137.5	-30.0	425	1785.6	1137.5	-30.0	426	1865.6	1137.5	-30.0
427	1945.6	1137.5	-30.0	428	2025.6	1137.5	-30.0	429	2105.6	1137.5	-30.0
430	2185.6	1137.5	-30.0	431	2265.6	1137.5	-30.0	432	2345.6	1137.5	-30.0
433	2430.5	1137.5	-30.0	434	2510.5	1137.5	-30.0	435	120.0	1182.5	-30.0
436	200.0	1182.5	-30.0	437	280.0	1182.5	-30.0	438	360.0	1182.5	-30.0
439	440.0	1182.5	-30.0	440	520.0	1182.5	-30.0	441	600.0	1182.5	-30.0
442	680.0	1182.5	-30.0	443	760.0	1182.5	-30.0	444	840.0	1182.5	-30.0
445	912.0	1182.5	-30.0	446	1000.0	1182.5	-30.0	447	1080.0	1182.5	-30.0
448	1160.0	1182.5	-30.0	449	1240.0	1182.5	-30.0	450	1320.0	1182.5	-30.0
451	1400.0	1182.5	-30.0	452	1480.0	1182.5	-30.0	453	1560.0	1182.5	-30.0
454	1625.6	1182.5	-30.0	455	1705.6	1182.5	-30.0	456	1785.6	1182.5	-30.0
457	1865.6	1182.5	-30.0	458	1945.6	1182.5	-30.0	459	2025.6	1182.5	-30.0
460	2105.6	1182.5	-30.0	461	2185.6	1182.5	-30.0	462	2265.6	1182.5	-30.0
463	2345.6	1182.5	-30.0	464	2430.5	1182.5	-30.0	465	2510.5	1182.5	-30.0
466	120.0	1262.5	-30.0	467	200.0	1262.5	-30.0	468	280.0	1262.5	-30.0
469	360.0	1262.5	-30.0	470	440.0	1262.5	-30.0	471	520.0	1262.5	-30.0
472	600.0	1262.5	-30.0	473	680.0	1262.5	-30.0	474	760.0	1262.5	-30.0
475	840.0	1262.5	-30.0	476	912.0	1262.5	-30.0	477	1000.0	1262.5	-30.0
478	1080.0	1262.5	-30.0	479	1160.0	1262.5	-30.0	480	1240.0	1262.5	-30.0
481	1320.0	1262.5	-30.0	482	1400.0	1262.5	-30.0	483	1480.0	1262.5	-30.0



Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
484	1560.0	1262.5	-30.0	485	1625.6	1262.5	-30.0	486	1705.6	1262.5	-30.0
487	1785.6	1262.5	-30.0	488	1865.6	1262.5	-30.0	489	1945.6	1262.5	-30.0
490	2025.6	1262.5	-30.0	491	2105.6	1262.5	-30.0	492	2185.6	1262.5	-30.0
493	2265.6	1262.5	-30.0	494	2345.6	1262.5	-30.0	495	2430.5	1262.5	-30.0
496	2510.5	1262.5	-30.0	497	200.0	200.0	38.1	498	1625.6	200.0	38.1
499	2430.5	200.0	38.1	500	200.0	280.0	38.1	501	1625.6	280.0	38.1
502	2430.5	280.0	38.1	503	200.0	360.0	38.1	504	1625.6	360.0	38.1
505	2430.5	360.0	38.1	506	200.0	440.0	38.1	507	1625.6	440.0	38.1
508	2430.5	440.0	38.1	509	200.0	497.5	38.1	510	280.0	497.5	38.1
511	360.0	497.5	38.1	512	440.0	497.5	38.1	513	520.0	497.5	38.1
514	600.0	497.5	38.1	515	680.0	497.5	38.1	516	760.0	497.5	38.1
517	840.0	497.5	38.1	518	912.0	497.5	38.1	519	1000.0	497.5	38.1
520	1080.0	497.5	38.1	521	1160.0	497.5	38.1	522	1240.0	497.5	38.1
523	1320.0	497.5	38.1	524	1400.0	497.5	38.1	525	1480.0	497.5	38.1
526	1560.0	497.5	38.1	527	1625.6	497.5	38.1	528	1705.6	497.5	38.1
529	1785.6	497.5	38.1	530	1865.6	497.5	38.1	531	1945.6	497.5	38.1
532	2025.6	497.5	38.1	533	2105.6	497.5	38.1	534	2185.6	497.5	38.1
535	2265.6	497.5	38.1	536	2345.6	497.5	38.1	537	2430.5	497.5	38.1
538	200.0	577.5	38.1	539	912.0	577.5	38.1	540	1625.6	577.5	38.1
541	2430.5	577.5	38.1	542	200.0	657.5	38.1	543	912.0	657.5	38.1
544	1625.6	657.5	38.1	545	2430.5	657.5	38.1	546	200.0	737.5	38.1
547	912.0	737.5	38.1	548	1625.6	737.5	38.1	549	2430.5	737.5	38.1
550	200.0	817.5	38.1	551	912.0	817.5	38.1	552	1625.6	817.5	38.1
553	2430.5	817.5	38.1	554	200.0	897.5	38.1	555	912.0	897.5	38.1
556	1625.6	897.5	38.1	557	2430.5	897.5	38.1	558	200.0	977.5	38.1
559	912.0	977.5	38.1	560	1625.6	977.5	38.1	561	2430.5	977.5	38.1
562	200.0	1057.5	38.1	563	912.0	1057.5	38.1	564	1625.6	1057.5	38.1
565	2430.5	1057.5	38.1	566	200.0	1137.5	38.1	567	912.0	1137.5	38.1
568	1625.6	1137.5	38.1	569	2430.5	1137.5	38.1	570	200.0	1182.5	38.1
571	280.0	1182.5	38.1	572	360.0	1182.5	38.1	573	440.0	1182.5	38.1
574	520.0	1182.5	38.1	575	600.0	1182.5	38.1	576	680.0	1182.5	38.1
577	760.0	1182.5	38.1	578	840.0	1182.5	38.1	579	912.0	1182.5	38.1
580	1000.0	1182.5	38.1	581	1080.0	1182.5	38.1	582	1160.0	1182.5	38.1
583	1240.0	1182.5	38.1	584	1320.0	1182.5	38.1	585	1400.0	1182.5	38.1
586	1480.0	1182.5	38.1	587	1560.0	1182.5	38.1	588	1625.6	1182.5	38.1
589	1705.6	1182.5	38.1	590	1785.6	1182.5	38.1	591	1865.6	1182.5	38.1
592	1945.6	1182.5	38.1	593	2025.6	1182.5	38.1	594	2105.6	1182.5	38.1
595	2185.6	1182.5	38.1	596	2265.6	1182.5	38.1	597	2345.6	1182.5	38.1
598	2430.5	1182.5	38.1	599	200.0	200.0	106.2	600	1625.6	200.0	106.2
601	2430.5	200.0	106.2	602	200.0	280.0	106.2	603	1625.6	280.0	106.2
604	2430.5	280.0	106.2	605	200.0	360.0	106.2	606	1625.6	360.0	106.2
607	2430.5	360.0	106.2	608	200.0	440.0	106.2	609	1625.6	440.0	106.2
610	2430.5	440.0	106.2	611	200.0	497.5	106.2	612	280.0	497.5	106.2
613	360.0	497.5	106.2	614	440.0	497.5	106.2	615	520.0	497.5	106.2
616	600.0	497.5	106.2	617	680.0	497.5	106.2	618	760.0	497.5	106.2
619	840.0	497.5	106.2	620	912.0	497.5	106.2	621	1000.0	497.5	106.2
622	1080.0	497.5	106.2	623	1160.0	497.5	106.2	624	1240.0	497.5	106.2
625	1320.0	497.5	106.2	626	1400.0	497.5	106.2	627	1480.0	497.5	106.2
628	1560.0	497.5	106.2	629	1625.6	497.5	106.2	630	1705.6	497.5	106.2
631	1785.6	497.5	106.2	632	1865.6	497.5	106.2	633	1945.6	497.5	106.2
634	2025.6	497.5	106.2	635	2105.6	497.5	106.2	636	2185.6	497.5	106.2
637	2265.6	497.5	106.2	638	2345.6	497.5	106.2	639	2430.5	497.5	106.2
640	200.0	577.5	106.2	641	912.0	577.5	106.2	642	1625.6	577.5	106.2
643	2430.5	577.5	106.2	644	200.0	657.5	106.2	645	912.0	657.5	106.2
646	1625.6	657.5	106.2	647	2430.5	657.5	106.2	648	200.0	737.5	106.2
649	912.0	737.5	106.2	650	1625.6	737.5	106.2	651	2430.5	737.5	106.2
652	200.0	817.5	106.2	653	912.0	817.5	106.2	654	1625.6	817.5	106.2
655	2430.5	817.5	106.2	656	200.0	897.5	106.2	657	912.0	897.5	106.2
658	1625.6	897.5	106.2	659	2430.5	897.5	106.2	660	200.0	977.5	106.2
661	912.0	977.5	106.2	662	1625.6	977.5	106.2	663	2430.5	977.5	106.2
664	200.0	1057.5	106.2	665	912.0	1057.5	106.2	666	1625.6	1057.5	106.2
667	2430.5	1057.5	106.2	668	200.0	1137.5	106.2	669	912.0	1137.5	106.2
670	1625.6	1137.5	106.2	671	2430.5	1137.5	106.2	672	200.0	1182.5	106.2
673	280.0	1182.5	106.2	674	360.0	1182.5	106.2	675	440.0	1182.5	106.2
676	520.0	1182.5	106.2	677	600.0	1182.5	106.2	678	680.0	1182.5	106.2
679	760.0	1182.5	106.2	680	840.0	1182.5	106.2	681	912.0	1182.5	106.2
682	1000.0	1182.5	106.2	683	1080.0	1182.5	106.2	684	1160.0	1182.5	106.2
685	1240.0	1182.5	106.2	686	1320.0	1182.5	106.2	687	1400.0	1182.5	106.2
688	1480.0	1182.5	106.2	689	1560.0	1182.5	106.2	690	1625.6	1182.5	106.2
691	1705.6	1182.5	106.2	692	1785.6	1182.5	106.2	693	1865.6	1182.5	106.2
694	1945.6	1182.5	106.2	695	2025.6	1182.5	106.2	696	2105.6	1182.5	106.2
697	2185.6	1182.5	106.2	698	2265.6	1182.5	106.2	699	2345.6	1182.5	106.2

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Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
700	2430.5	1182.5	106.2	701	200.0	200.0	174.4	702	1625.6	200.0	174.4
703	2430.5	200.0	174.4	704	200.0	280.0	174.4	705	1625.6	280.0	174.4
706	2430.5	280.0	174.4	707	200.0	360.0	174.4	708	1625.6	360.0	174.4
709	2430.5	360.0	174.4	710	200.0	440.0	174.4	711	1625.6	440.0	174.4
712	2430.5	440.0	174.4	713	200.0	497.5	174.4	714	280.0	497.5	174.4
715	360.0	497.5	174.4	716	440.0	497.5	174.4	717	520.0	497.5	174.4
718	600.0	497.5	174.4	719	680.0	497.5	174.4	720	760.0	497.5	174.4
721	840.0	497.5	174.4	722	912.0	497.5	174.4	723	1000.0	497.5	174.4
724	1080.0	497.5	174.4	725	1160.0	497.5	174.4	726	1240.0	497.5	174.4
727	1320.0	497.5	174.4	728	1400.0	497.5	174.4	729	1480.0	497.5	174.4
730	1560.0	497.5	174.4	731	1625.6	497.5	174.4	732	1705.6	497.5	174.4
733	1785.6	497.5	174.4	734	1865.6	497.5	174.4	735	1945.6	497.5	174.4
736	2025.6	497.5	174.4	737	2105.6	497.5	174.4	738	2185.6	497.5	174.4
739	2265.6	497.5	174.4	740	2345.6	497.5	174.4	741	2430.5	497.5	174.4
742	200.0	577.5	174.4	743	912.0	577.5	174.4	744	1625.6	577.5	174.4
745	2430.5	577.5	174.4	746	200.0	657.5	174.4	747	912.0	657.5	174.4
748	1625.6	657.5	174.4	749	2430.5	657.5	174.4	750	200.0	737.5	174.4
751	912.0	737.5	174.4	752	1625.6	737.5	174.4	753	2430.5	737.5	174.4
754	200.0	817.5	174.4	755	912.0	817.5	174.4	756	1625.6	817.5	174.4
757	2430.5	817.5	174.4	758	200.0	897.5	174.4	759	912.0	897.5	174.4
760	1625.6	897.5	174.4	761	2430.5	897.5	174.4	762	200.0	977.5	174.4
763	912.0	977.5	174.4	764	1625.6	977.5	174.4	765	2430.5	977.5	174.4
766	200.0	1057.5	174.4	767	912.0	1057.5	174.4	768	1625.6	1057.5	174.4
769	2430.5	1057.5	174.4	770	200.0	1137.5	174.4	771	912.0	1137.5	174.4
772	1625.6	1137.5	174.4	773	2430.5	1137.5	174.4	774	200.0	1182.5	174.4
775	280.0	1182.5	174.4	776	360.0	1182.5	174.4	777	440.0	1182.5	174.4
778	520.0	1182.5	174.4	779	600.0	1182.5	174.4	780	680.0	1182.5	174.4
781	760.0	1182.5	174.4	782	840.0	1182.5	174.4	783	912.0	1182.5	174.4
784	1000.0	1182.5	174.4	785	1080.0	1182.5	174.4	786	1160.0	1182.5	174.4
787	1240.0	1182.5	174.4	788	1320.0	1182.5	174.4	789	1400.0	1182.5	174.4
790	1480.0	1182.5	174.4	791	1560.0	1182.5	174.4	792	1625.6	1182.5	174.4
793	1705.6	1182.5	174.4	794	1785.6	1182.5	174.4	795	1865.6	1182.5	174.4
796	1945.6	1182.5	174.4	797	2025.6	1182.5	174.4	798	2105.6	1182.5	174.4
799	2185.6	1182.5	174.4	800	2265.6	1182.5	174.4	801	2345.6	1182.5	174.4
802	2430.5	1182.5	174.4	803	200.0	200.0	242.5	804	1625.6	200.0	242.5
805	2430.5	200.0	242.5	806	200.0	280.0	242.5	807	1625.6	280.0	242.5
808	2430.5	280.0	242.5	809	200.0	360.0	242.5	810	1625.6	360.0	242.5
811	2430.5	360.0	242.5	812	200.0	440.0	242.5	813	1625.6	440.0	242.5
814	2430.5	440.0	242.5	815	200.0	497.5	242.5	816	280.0	497.5	242.5
817	360.0	497.5	242.5	818	440.0	497.5	242.5	819	520.0	497.5	242.5
820	600.0	497.5	242.5	821	680.0	497.5	242.5	822	760.0	497.5	242.5
823	840.0	497.5	242.5	824	912.0	497.5	242.5	825	1000.0	497.5	242.5
826	1080.0	497.5	242.5	827	1160.0	497.5	242.5	828	1240.0	497.5	242.5
829	1320.0	497.5	242.5	830	1400.0	497.5	242.5	831	1480.0	497.5	242.5
832	1560.0	497.5	242.5	833	1625.6	497.5	242.5	834	1705.6	497.5	242.5
835	1785.6	497.5	242.5	836	1865.6	497.5	242.5	837	1945.6	497.5	242.5
838	2025.6	497.5	242.5	839	2105.6	497.5	242.5	840	2185.6	497.5	242.5
841	2265.6	497.5	242.5	842	2345.6	497.5	242.5	843	2430.5	497.5	242.5
844	200.0	577.5	242.5	845	912.0	577.5	242.5	846	1625.6	577.5	242.5
847	2430.5	577.5	242.5	848	200.0	657.5	242.5	849	912.0	657.5	242.5
850	1625.6	657.5	242.5	851	2430.5	657.5	242.5	852	200.0	737.5	242.5
853	912.0	737.5	242.5	854	1625.6	737.5	242.5	855	2430.5	737.5	242.5
856	200.0	817.5	242.5	857	912.0	817.5	242.5	858	1625.6	817.5	242.5
859	2430.5	817.5	242.5	860	200.0	897.5	242.5	861	912.0	897.5	242.5
862	1625.6	897.5	242.5	863	2430.5	897.5	242.5	864	200.0	977.5	242.5
865	912.0	977.5	242.5	866	1625.6	977.5	242.5	867	2430.5	977.5	242.5
868	200.0	1057.5	242.5	869	912.0	1057.5	242.5	870	1625.6	1057.5	242.5
871	2430.5	1057.5	242.5	872	200.0	1137.5	242.5	873	912.0	1137.5	242.5
874	1625.6	1137.5	242.5	875	2430.5	1137.5	242.5	876	200.0	1182.5	242.5
877	280.0	1182.5	242.5	878	360.0	1182.5	242.5	879	440.0	1182.5	242.5
880	520.0	1182.5	242.5	881	600.0	1182.5	242.5	882	680.0	1182.5	242.5
883	760.0	1182.5	242.5	884	840.0	1182.5	242.5	885	912.0	1182.5	242.5
886	1000.0	1182.5	242.5	887	1080.0	1182.5	242.5	888	1160.0	1182.5	242.5
889	1240.0	1182.5	242.5	890	1320.0	1182.5	242.5	891	1400.0	1182.5	242.5
892	1480.0	1182.5	242.5	893	1560.0	1182.5	242.5	894	1625.6	1182.5	242.5
895	1705.6	1182.5	242.5	896	1785.6	1182.5	242.5	897	1865.6	1182.5	242.5
898	1945.6	1182.5	242.5	899	2025.6	1182.5	242.5	900	2105.6	1182.5	242.5
901	2185.6	1182.5	242.5	902	2265.6	1182.5	242.5	903	2345.6	1182.5	242.5
904	2430.5	1182.5	242.5	905	200.0	200.0	310.6	906	1625.6	200.0	310.6
907	2430.5	200.0	310.6	908	200.0	280.0	310.6	909	1625.6	280.0	310.6
910	2430.5	280.0	310.6	911	200.0	360.0	310.6	912	1625.6	360.0	310.6
913	2430.5	360.0	310.6	914	200.0	440.0	310.6	915	1625.6	440.0	310.6

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Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
916	2430.5	440.0	310.6	917	200.0	497.5	310.6	918	280.0	497.5	310.6
919	360.0	497.5	310.6	920	440.0	497.5	310.6	921	520.0	497.5	310.6
922	600.0	497.5	310.6	923	680.0	497.5	310.6	924	760.0	497.5	310.6
925	840.0	497.5	310.6	926	912.0	497.5	310.6	927	1000.0	497.5	310.6
928	1080.0	497.5	310.6	929	1160.0	497.5	310.6	930	1240.0	497.5	310.6
931	1320.0	497.5	310.6	932	1400.0	497.5	310.6	933	1480.0	497.5	310.6
934	1560.0	497.5	310.6	935	1625.6	497.5	310.6	936	1705.6	497.5	310.6
937	1785.6	497.5	310.6	938	1865.6	497.5	310.6	939	1945.6	497.5	310.6
940	2025.6	497.5	310.6	941	2105.6	497.5	310.6	942	2185.6	497.5	310.6
943	2265.6	497.5	310.6	944	2345.6	497.5	310.6	945	2430.5	497.5	310.6
946	200.0	577.5	310.6	947	912.0	577.5	310.6	948	1625.6	577.5	310.6
949	2430.5	577.5	310.6	950	200.0	657.5	310.6	951	912.0	657.5	310.6
952	1625.6	657.5	310.6	953	2430.5	657.5	310.6	954	200.0	737.5	310.6
955	912.0	737.5	310.6	956	1625.6	737.5	310.6	957	2430.5	737.5	310.6
958	200.0	817.5	310.6	959	912.0	817.5	310.6	960	1625.6	817.5	310.6
961	2430.5	817.5	310.6	962	200.0	897.5	310.6	963	912.0	897.5	310.6
964	1625.6	897.5	310.6	965	2430.5	897.5	310.6	966	200.0	977.5	310.6
967	912.0	977.5	310.6	968	1625.6	977.5	310.6	969	2430.5	977.5	310.6
970	200.0	1057.5	310.6	971	912.0	1057.5	310.6	972	1625.6	1057.5	310.6
973	2430.5	1057.5	310.6	974	200.0	1137.5	310.6	975	912.0	1137.5	310.6
976	1625.6	1137.5	310.6	977	2430.5	1137.5	310.6	978	200.0	1182.5	310.6
979	280.0	1182.5	310.6	980	360.0	1182.5	310.6	981	440.0	1182.5	310.6
982	520.0	1182.5	310.6	983	600.0	1182.5	310.6	984	680.0	1182.5	310.6
985	760.0	1182.5	310.6	986	840.0	1182.5	310.6	987	912.0	1182.5	310.6
988	1000.0	1182.5	310.6	989	1080.0	1182.5	310.6	990	1160.0	1182.5	310.6
991	1240.0	1182.5	310.6	992	1320.0	1182.5	310.6	993	1400.0	1182.5	310.6
994	1480.0	1182.5	310.6	995	1560.0	1182.5	310.6	996	1625.6	1182.5	310.6
997	1705.6	1182.5	310.6	998	1785.6	1182.5	310.6	999	1865.6	1182.5	310.6
1000	1945.6	1182.5	310.6	1001	2025.6	1182.5	310.6	1002	2105.6	1182.5	310.6
1003	2185.6	1182.5	310.6	1004	2265.6	1182.5	310.6	1005	2345.6	1182.5	310.6
1006	2430.5	1182.5	310.6	1007	200.0	200.0	378.8	1008	1625.6	200.0	378.8
1009	2430.5	200.0	378.8	1010	200.0	280.0	378.8	1011	1625.6	280.0	378.8
1012	2430.5	280.0	378.8	1013	200.0	360.0	378.8	1014	1625.6	360.0	378.8
1015	2430.5	360.0	378.8	1016	200.0	440.0	378.8	1017	1625.6	440.0	378.8
1018	2430.5	440.0	378.8	1019	200.0	497.5	378.8	1020	280.0	497.5	378.8
1021	360.0	497.5	378.8	1022	440.0	497.5	378.8	1023	520.0	497.5	378.8
1024	600.0	497.5	378.8	1025	680.0	497.5	378.8	1026	760.0	497.5	378.8
1027	840.0	497.5	378.8	1028	912.0	497.5	378.8	1029	1000.0	497.5	378.8
1030	1080.0	497.5	378.8	1031	1160.0	497.5	378.8	1032	1240.0	497.5	378.8
1033	1320.0	497.5	378.8	1034	1400.0	497.5	378.8	1035	1480.0	497.5	378.8
1036	1560.0	497.5	378.8	1037	1625.6	497.5	378.8	1038	1705.6	497.5	378.8
1039	1785.6	497.5	378.8	1040	1865.6	497.5	378.8	1041	1945.6	497.5	378.8
1042	2025.6	497.5	378.8	1043	2105.6	497.5	378.8	1044	2185.6	497.5	378.8
1045	2265.6	497.5	378.8	1046	2345.6	497.5	378.8	1047	2430.5	497.5	378.8
1048	200.0	577.5	378.8	1049	912.0	577.5	378.8	1050	1625.6	577.5	378.8
1051	2430.5	577.5	378.8	1052	200.0	657.5	378.8	1053	912.0	657.5	378.8
1054	1625.6	657.5	378.8	1055	2430.5	657.5	378.8	1056	200.0	737.5	378.8
1057	912.0	737.5	378.8	1058	1625.6	737.5	378.8	1059	2430.5	737.5	378.8
1060	200.0	817.5	378.8	1061	912.0	817.5	378.8	1062	1625.6	817.5	378.8
1063	2430.5	817.5	378.8	1064	200.0	897.5	378.8	1065	912.0	897.5	378.8
1066	1625.6	897.5	378.8	1067	2430.5	897.5	378.8	1068	200.0	977.5	378.8
1069	912.0	977.5	378.8	1070	1625.6	977.5	378.8	1071	2430.5	977.5	378.8
1072	200.0	1057.5	378.8	1073	912.0	1057.5	378.8	1074	1625.6	1057.5	378.8
1075	2430.5	1057.5	378.8	1076	200.0	1137.5	378.8	1077	912.0	1137.5	378.8
1078	1625.6	1137.5	378.8	1079	2430.5	1137.5	378.8	1080	200.0	1182.5	378.8
1081	280.0	1182.5	378.8	1082	360.0	1182.5	378.8	1083	440.0	1182.5	378.8
1084	520.0	1182.5	378.8	1085	600.0	1182.5	378.8	1086	680.0	1182.5	378.8
1087	760.0	1182.5	378.8	1088	840.0	1182.5	378.8	1089	912.0	1182.5	378.8
1090	1000.0	1182.5	378.8	1091	1080.0	1182.5	378.8	1092	1160.0	1182.5	378.8
1093	1240.0	1182.5	378.8	1094	1320.0	1182.5	378.8	1095	1400.0	1182.5	378.8
1096	1480.0	1182.5	378.8	1097	1560.0	1182.5	378.8	1098	1625.6	1182.5	378.8
1099	1705.6	1182.5	378.8	1100	1785.6	1182.5	378.8	1101	1865.6	1182.5	378.8
1102	1945.6	1182.5	378.8	1103	2025.6	1182.5	378.8	1104	2105.6	1182.5	378.8
1105	2185.6	1182.5	378.8	1106	2265.6	1182.5	378.8	1107	2345.6	1182.5	378.8
1108	2430.5	1182.5	378.8	1109	200.0	200.0	446.9	1110	1625.6	200.0	446.9
1111	2430.5	200.0	446.9	1112	200.0	280.0	446.9	1113	1625.6	280.0	446.9
1114	2430.5	280.0	446.9	1115	200.0	360.0	446.9	1116	1625.6	360.0	446.9
1117	2430.5	360.0	446.9	1118	200.0	450.5	446.9	1119	1625.6	450.5	446.9
1120	2430.5	450.5	446.9	1121	200.0	497.5	446.9	1122	280.0	497.5	446.9
1123	360.0	497.5	446.9	1124	440.0	497.5	446.9	1125	520.0	497.5	446.9
1126	600.0	497.5	446.9	1127	680.0	497.5	446.9	1128	760.0	497.5	446.9
1129	840.0	497.5	446.9	1130	912.0	497.5	446.9	1131	1000.0	497.5	446.9

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Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
1132	1080.0	497.5	446.9	1133	1160.0	497.5	446.9	1134	1240.0	497.5	446.9
1135	1320.0	497.5	446.9	1136	1400.0	497.5	446.9	1137	1480.0	497.5	446.9
1138	1560.0	497.5	446.9	1139	1625.6	497.5	446.9	1140	1705.6	497.5	446.9
1141	1785.6	497.5	446.9	1142	1865.6	497.5	446.9	1143	1945.6	497.5	446.9
1144	2025.6	497.5	446.9	1145	2105.6	497.5	446.9	1146	2185.6	497.5	446.9
1147	2265.6	497.5	446.9	1148	2345.6	497.5	446.9	1149	2430.5	497.5	446.9
1150	200.0	577.5	446.9	1151	912.0	577.5	446.9	1152	1625.6	577.5	446.9
1153	2430.5	577.5	446.9	1154	200.0	657.5	446.9	1155	912.0	657.5	446.9
1156	1625.6	657.5	446.9	1157	2430.5	657.5	446.9	1158	200.0	737.5	446.9
1159	912.0	737.5	446.9	1160	1625.6	737.5	446.9	1161	2430.5	737.5	446.9
1162	200.0	817.5	446.9	1163	912.0	817.5	446.9	1164	1625.6	817.5	446.9
1165	2430.5	817.5	446.9	1166	200.0	897.5	446.9	1167	912.0	897.5	446.9
1168	1625.6	897.5	446.9	1169	2430.5	897.5	446.9	1170	200.0	977.5	446.9
1171	912.0	977.5	446.9	1172	1625.6	977.5	446.9	1173	2430.5	977.5	446.9
1174	200.0	1055.5	446.9	1175	912.0	1055.5	446.9	1176	1625.6	1055.5	446.9
1177	2430.5	1055.5	446.9	1178	200.0	1135.5	446.9	1179	912.0	1135.5	446.9
1180	1625.6	1135.5	446.9	1181	2430.5	1135.5	446.9	1182	200.0	1182.5	446.9
1183	280.0	1182.5	446.9	1184	360.0	1182.5	446.9	1185	440.0	1182.5	446.9
1186	520.0	1182.5	446.9	1187	600.0	1182.5	446.9	1188	680.0	1182.5	446.9
1189	760.0	1182.5	446.9	1190	840.0	1182.5	446.9	1191	912.0	1182.5	446.9
1192	1000.0	1182.5	446.9	1193	1080.0	1182.5	446.9	1194	1160.0	1182.5	446.9
1195	1240.0	1182.5	446.9	1196	1320.0	1182.5	446.9	1197	1400.0	1182.5	446.9
1198	1480.0	1182.5	446.9	1199	1560.0	1182.5	446.9	1200	1625.6	1182.5	446.9
1201	1705.6	1182.5	446.9	1202	1785.6	1182.5	446.9	1203	1865.6	1182.5	446.9
1204	1945.6	1182.5	446.9	1205	2025.6	1182.5	446.9	1206	2105.6	1182.5	446.9
1207	2185.6	1182.5	446.9	1208	2265.6	1182.5	446.9	1209	2345.6	1182.5	446.9
1210	2430.5	1182.5	446.9	1211	200.0	200.0	515.0	1212	280.0	200.0	515.0
1213	360.0	200.0	515.0	1214	440.0	200.0	515.0	1215	520.0	200.0	515.0
1216	600.0	200.0	515.0	1217	680.0	200.0	515.0	1218	760.0	200.0	515.0
1219	840.0	200.0	515.0	1220	912.0	200.0	515.0	1221	1000.0	200.0	515.0
1222	1080.0	200.0	515.0	1223	1160.0	200.0	515.0	1224	1240.0	200.0	515.0
1225	1320.0	200.0	515.0	1226	1400.0	200.0	515.0	1227	1480.0	200.0	515.0
1228	1560.0	200.0	515.0	1229	1625.6	200.0	515.0	1230	1705.6	200.0	515.0
1231	1785.6	200.0	515.0	1232	1865.6	200.0	515.0	1233	1945.6	200.0	515.0
1234	2025.6	200.0	515.0	1235	2105.6	200.0	515.0	1236	2185.6	200.0	515.0
1237	2265.6	200.0	515.0	1238	2345.6	200.0	515.0	1239	2430.5	200.0	515.0
1240	200.0	280.0	515.0	1241	280.0	280.0	515.0	1242	360.0	280.0	515.0
1243	440.0	280.0	515.0	1244	520.0	280.0	515.0	1245	600.0	280.0	515.0
1246	680.0	280.0	515.0	1247	760.0	280.0	515.0	1248	840.0	280.0	515.0
1249	912.0	280.0	515.0	1250	1000.0	280.0	515.0	1251	1080.0	280.0	515.0
1252	1160.0	280.0	515.0	1253	1240.0	280.0	515.0	1254	1320.0	280.0	515.0
1255	1400.0	280.0	515.0	1256	1480.0	280.0	515.0	1257	1560.0	280.0	515.0
1258	1625.6	280.0	515.0	1259	1705.6	280.0	515.0	1260	1785.6	280.0	515.0
1261	1865.6	280.0	515.0	1262	1945.6	280.0	515.0	1263	2025.6	280.0	515.0
1264	2105.6	280.0	515.0	1265	2185.6	280.0	515.0	1266	2265.6	280.0	515.0
1267	2345.6	280.0	515.0	1268	2430.5	280.0	515.0	1269	1831.0	340.5	515.0
1270	1865.6	340.5	515.0	1271	1941.0	340.5	515.0	1272	200.0	360.0	515.0
1273	280.0	360.0	515.0	1274	360.0	360.0	515.0	1275	440.0	360.0	515.0
1276	520.0	360.0	515.0	1277	600.0	360.0	515.0	1278	680.0	360.0	515.0
1279	760.0	360.0	515.0	1280	840.0	360.0	515.0	1281	912.0	360.0	515.0
1282	1000.0	360.0	515.0	1283	1080.0	360.0	515.0	1284	1400.0	360.0	515.0
1285	1480.0	360.0	515.0	1286	1560.0	360.0	515.0	1287	1625.6	360.0	515.0
1288	1705.6	360.0	515.0	1289	1785.6	360.0	515.0	1290	2025.6	360.0	515.0
1291	2105.6	360.0	515.0	1292	2185.6	360.0	515.0	1293	2265.6	360.0	515.0
1294	2345.6	360.0	515.0	1295	2430.5	360.0	515.0	1296	1146.0	370.5	515.0
1297	1240.0	370.5	515.0	1298	1326.0	370.5	515.0	1299	200.0	450.5	515.0
1300	280.0	450.5	515.0	1301	360.0	450.5	515.0	1302	440.0	450.5	515.0
1303	520.0	450.5	515.0	1304	600.0	450.5	515.0	1305	680.0	450.5	515.0
1306	760.0	450.5	515.0	1307	840.0	450.5	515.0	1308	912.0	450.5	515.0
1309	1000.0	450.5	515.0	1310	1080.0	450.5	515.0	1311	1146.0	450.5	515.0
1312	1240.0	450.5	515.0	1313	1326.0	450.5	515.0	1314	1400.0	450.5	515.0
1315	1480.0	450.5	515.0	1316	1560.0	450.5	515.0	1317	1625.6	450.5	515.0
1318	1705.6	450.5	515.0	1319	1785.6	450.5	515.0	1320	1831.0	450.5	515.0
1321	1865.6	450.5	515.0	1322	1941.0	450.5	515.0	1323	2025.6	450.5	515.0
1324	2105.6	450.5	515.0	1325	2185.6	450.5	515.0	1326	2265.6	450.5	515.0
1327	2345.6	450.5	515.0	1328	2430.5	450.5	515.0	1329	200.0	497.5	515.0
1330	280.0	497.5	515.0	1331	360.0	497.5	515.0	1332	440.0	497.5	515.0
1333	520.0	497.5	515.0	1334	600.0	497.5	515.0	1335	680.0	497.5	515.0
1336	760.0	497.5	515.0	1337	840.0	497.5	515.0	1338	912.0	497.5	515.0
1339	1000.0	497.5	515.0	1340	1080.0	497.5	515.0	1341	1160.0	497.5	515.0
1342	1240.0	497.5	515.0	1343	1320.0	497.5	515.0	1344	1400.0	497.5	515.0
1345	1480.0	497.5	515.0	1346	1560.0	497.5	515.0	1347	1625.6	497.5	515.0

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Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
1348	1705.6	497.5	515.0	1349	1785.6	497.5	515.0	1350	1865.6	497.5	515.0
1351	1945.6	497.5	515.0	1352	2025.6	497.5	515.0	1353	2105.6	497.5	515.0
1354	2185.6	497.5	515.0	1355	2265.6	497.5	515.0	1356	2345.6	497.5	515.0
1357	2430.5	497.5	515.0	1358	200.0	577.5	515.0	1359	280.0	577.5	515.0
1360	360.0	577.5	515.0	1361	440.0	577.5	515.0	1362	520.0	577.5	515.0
1363	600.0	577.5	515.0	1364	680.0	577.5	515.0	1365	760.0	577.5	515.0
1366	840.0	577.5	515.0	1367	912.0	577.5	515.0	1368	1000.0	577.5	515.0
1369	1080.0	577.5	515.0	1370	1160.0	577.5	515.0	1371	1240.0	577.5	515.0
1372	1320.0	577.5	515.0	1373	1400.0	577.5	515.0	1374	1480.0	577.5	515.0
1375	1560.0	577.5	515.0	1376	1625.6	577.5	515.0	1377	1705.6	577.5	515.0
1378	1785.6	577.5	515.0	1379	1865.6	577.5	515.0	1380	1945.6	577.5	515.0
1381	2025.6	577.5	515.0	1382	2105.6	577.5	515.0	1383	2185.6	577.5	515.0
1384	2265.6	577.5	515.0	1385	2345.6	577.5	515.0	1386	2430.5	577.5	515.0
1387	200.0	657.5	515.0	1388	280.0	657.5	515.0	1389	360.0	657.5	515.0
1390	440.0	657.5	515.0	1391	520.0	657.5	515.0	1392	600.0	657.5	515.0
1393	680.0	657.5	515.0	1394	760.0	657.5	515.0	1395	840.0	657.5	515.0
1396	912.0	657.5	515.0	1397	1000.0	657.5	515.0	1398	1080.0	657.5	515.0
1399	1160.0	657.5	515.0	1400	1240.0	657.5	515.0	1401	1320.0	657.5	515.0
1402	1400.0	657.5	515.0	1403	1480.0	657.5	515.0	1404	1560.0	657.5	515.0
1405	1625.6	657.5	515.0	1406	1705.6	657.5	515.0	1407	1785.6	657.5	515.0
1408	1865.6	657.5	515.0	1409	1945.6	657.5	515.0	1410	2025.6	657.5	515.0
1411	2105.6	657.5	515.0	1412	2185.6	657.5	515.0	1413	2265.6	657.5	515.0
1414	2345.6	657.5	515.0	1415	2430.5	657.5	515.0	1416	200.0	737.5	515.0
1417	280.0	737.5	515.0	1418	360.0	737.5	515.0	1419	440.0	737.5	515.0
1420	520.0	737.5	515.0	1421	600.0	737.5	515.0	1422	680.0	737.5	515.0
1423	760.0	737.5	515.0	1424	840.0	737.5	515.0	1425	912.0	737.5	515.0
1426	1000.0	737.5	515.0	1427	1080.0	737.5	515.0	1428	1160.0	737.5	515.0
1429	1240.0	737.5	515.0	1430	1320.0	737.5	515.0	1431	1400.0	737.5	515.0
1432	1480.0	737.5	515.0	1433	1560.0	737.5	515.0	1434	1625.6	737.5	515.0
1435	1705.6	737.5	515.0	1436	1785.6	737.5	515.0	1437	1865.6	737.5	515.0
1438	1945.6	737.5	515.0	1439	2025.6	737.5	515.0	1440	2105.6	737.5	515.0
1441	2185.6	737.5	515.0	1442	2265.6	737.5	515.0	1443	2345.6	737.5	515.0
1444	2430.5	737.5	515.0	1445	200.0	817.5	515.0	1446	280.0	817.5	515.0
1447	360.0	817.5	515.0	1448	440.0	817.5	515.0	1449	520.0	817.5	515.0
1450	600.0	817.5	515.0	1451	680.0	817.5	515.0	1452	760.0	817.5	515.0
1453	840.0	817.5	515.0	1454	912.0	817.5	515.0	1455	1000.0	817.5	515.0
1456	1080.0	817.5	515.0	1457	1160.0	817.5	515.0	1458	1240.0	817.5	515.0
1459	1320.0	817.5	515.0	1460	1400.0	817.5	515.0	1461	1480.0	817.5	515.0
1462	1560.0	817.5	515.0	1463	1625.6	817.5	515.0	1464	1705.6	817.5	515.0
1465	1785.6	817.5	515.0	1466	1865.6	817.5	515.0	1467	1945.6	817.5	515.0
1468	2025.6	817.5	515.0	1469	2105.6	817.5	515.0	1470	2185.6	817.5	515.0
1471	2265.6	817.5	515.0	1472	2345.6	817.5	515.0	1473	2430.5	817.5	515.0
1474	200.0	897.5	515.0	1475	280.0	897.5	515.0	1476	360.0	897.5	515.0
1477	440.0	897.5	515.0	1478	520.0	897.5	515.0	1479	600.0	897.5	515.0
1480	680.0	897.5	515.0	1481	760.0	897.5	515.0	1482	840.0	897.5	515.0
1483	912.0	897.5	515.0	1484	1000.0	897.5	515.0	1485	1080.0	897.5	515.0
1486	1160.0	897.5	515.0	1487	1240.0	897.5	515.0	1488	1320.0	897.5	515.0
1489	1400.0	897.5	515.0	1490	1480.0	897.5	515.0	1491	1560.0	897.5	515.0
1492	1625.6	897.5	515.0	1493	1705.6	897.5	515.0	1494	1785.6	897.5	515.0
1495	1865.6	897.5	515.0	1496	1945.6	897.5	515.0	1497	2025.6	897.5	515.0
1498	2105.6	897.5	515.0	1499	2185.6	897.5	515.0	1500	2265.6	897.5	515.0
1501	2345.6	897.5	515.0	1502	2430.5	897.5	515.0	1503	200.0	977.5	515.0
1504	280.0	977.5	515.0	1505	360.0	977.5	515.0	1506	440.0	977.5	515.0
1507	520.0	977.5	515.0	1508	600.0	977.5	515.0	1509	680.0	977.5	515.0
1510	760.0	977.5	515.0	1511	840.0	977.5	515.0	1512	912.0	977.5	515.0
1513	1000.0	977.5	515.0	1514	1080.0	977.5	515.0	1515	1160.0	977.5	515.0
1516	1240.0	977.5	515.0	1517	1320.0	977.5	515.0	1518	1400.0	977.5	515.0
1519	1480.0	977.5	515.0	1520	1560.0	977.5	515.0	1521	1625.6	977.5	515.0
1522	1705.6	977.5	515.0	1523	1785.6	977.5	515.0	1524	1865.6	977.5	515.0
1525	1945.6	977.5	515.0	1526	2025.6	977.5	515.0	1527	2105.6	977.5	515.0
1528	2185.6	977.5	515.0	1529	2265.6	977.5	515.0	1530	2345.6	977.5	515.0
1531	2430.5	977.5	515.0	1532	200.0	1055.5	515.0	1533	247.0	1055.5	515.0
1534	327.0	1055.5	515.0	1535	360.0	1055.5	515.0	1536	440.0	1055.5	515.0
1537	520.0	1055.5	515.0	1538	600.0	1055.5	515.0	1539	680.0	1055.5	515.0
1540	760.0	1055.5	515.0	1541	840.0	1055.5	515.0	1542	912.0	1055.5	515.0
1543	930.0	1055.5	515.0	1544	1010.0	1055.5	515.0	1545	1080.0	1055.5	515.0
1546	1160.0	1055.5	515.0	1547	1240.0	1055.5	515.0	1548	1320.0	1055.5	515.0
1549	1400.0	1055.5	515.0	1550	1498.0	1055.5	515.0	1551	1578.0	1055.5	515.0
1552	1625.6	1055.5	515.0	1553	1705.6	1055.5	515.0	1554	1785.6	1055.5	515.0
1555	1865.6	1055.5	515.0	1556	1945.6	1055.5	515.0	1557	2025.6	1055.5	515.0
1558	2105.6	1055.5	515.0	1559	2185.6	1055.5	515.0	1560	2265.6	1055.5	515.0
1561	2303.0	1055.5	515.0	1562	2383.0	1055.5	515.0	1563	2430.5	1055.5	515.0

MANDATARIA

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Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
1564	200.0	1135.5	515.0	1565	247.0	1135.5	515.0	1566	327.0	1135.5	515.0
1567	360.0	1135.5	515.0	1568	440.0	1135.5	515.0	1569	520.0	1135.5	515.0
1570	600.0	1135.5	515.0	1571	680.0	1135.5	515.0	1572	760.0	1135.5	515.0
1573	840.0	1135.5	515.0	1574	912.0	1135.5	515.0	1575	930.0	1135.5	515.0
1576	1010.0	1135.5	515.0	1577	1080.0	1135.5	515.0	1578	1160.0	1135.5	515.0
1579	1240.0	1135.5	515.0	1580	1320.0	1135.5	515.0	1581	1400.0	1135.5	515.0
1582	1498.0	1135.5	515.0	1583	1578.0	1135.5	515.0	1584	1625.6	1135.5	515.0
1585	1705.6	1135.5	515.0	1586	1785.6	1135.5	515.0	1587	1865.6	1135.5	515.0
1588	1945.6	1135.5	515.0	1589	2025.6	1135.5	515.0	1590	2105.6	1135.5	515.0
1591	2185.6	1135.5	515.0	1592	2265.6	1135.5	515.0	1593	2303.0	1135.5	515.0
1594	2345.6	1135.5	515.0	1595	2383.0	1135.5	515.0	1596	2430.5	1135.5	515.0
1597	200.0	1182.5	515.0	1598	280.0	1182.5	515.0	1599	360.0	1182.5	515.0
1600	440.0	1182.5	515.0	1601	520.0	1182.5	515.0	1602	600.0	1182.5	515.0
1603	680.0	1182.5	515.0	1604	760.0	1182.5	515.0	1605	840.0	1182.5	515.0
1606	912.0	1182.5	515.0	1607	1000.0	1182.5	515.0	1608	1080.0	1182.5	515.0
1609	1160.0	1182.5	515.0	1610	1240.0	1182.5	515.0	1611	1320.0	1182.5	515.0
1612	1400.0	1182.5	515.0	1613	1480.0	1182.5	515.0	1614	1560.0	1182.5	515.0
1615	1625.6	1182.5	515.0	1616	1705.6	1182.5	515.0	1617	1785.6	1182.5	515.0
1618	1865.6	1182.5	515.0	1619	1945.6	1182.5	515.0	1620	2025.6	1182.5	515.0
1621	2105.6	1182.5	515.0	1622	2185.6	1182.5	515.0	1623	2265.6	1182.5	515.0
1624	2345.6	1182.5	515.0	1625	2430.5	1182.5	515.0				

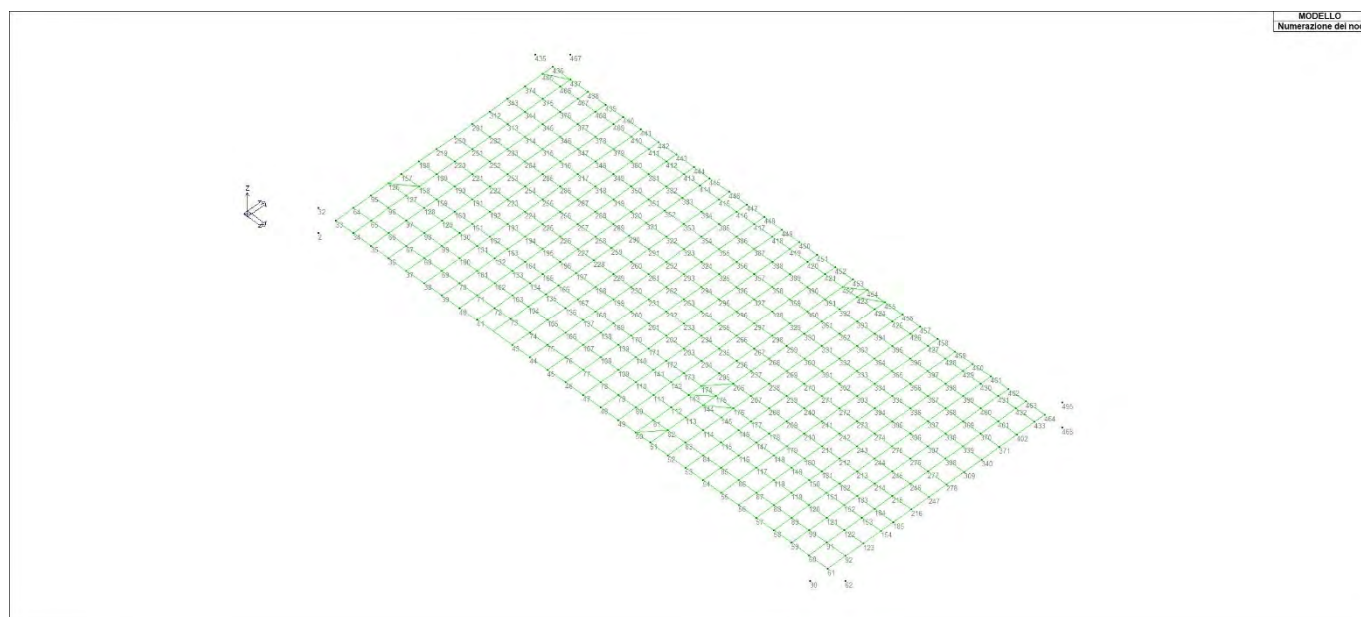


Figura 7 - MOD_NUMERAZIONE_NODI_GR_001



MODELLO
Numerazione dei nodi

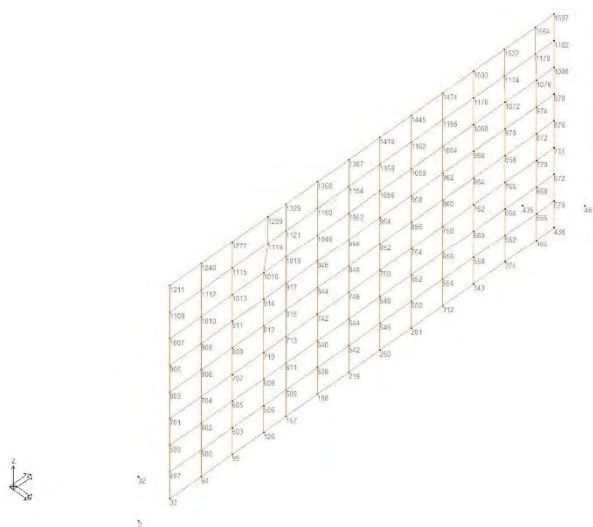


Figura 8 - MOD_NUMERAZIONE_NODI_GR_002

MODELLO
Numerazione dei nodi

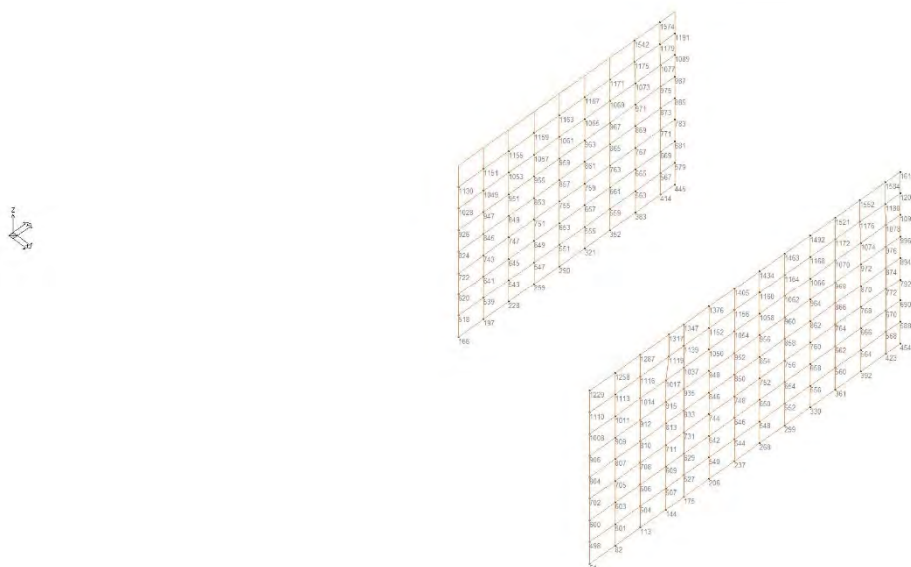


Figura 9 - MOD_NUMERAZIONE_NODI_GR_003

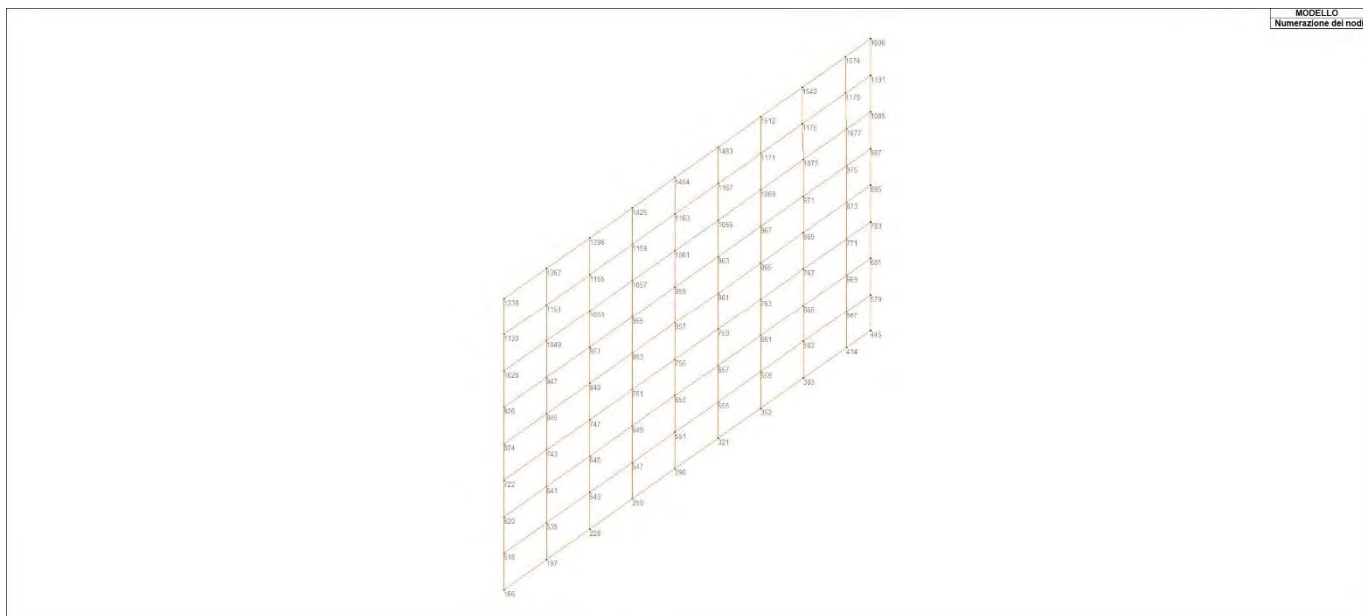


Figura 10 - MOD_NUMERAZIONE_NODI_GR_004

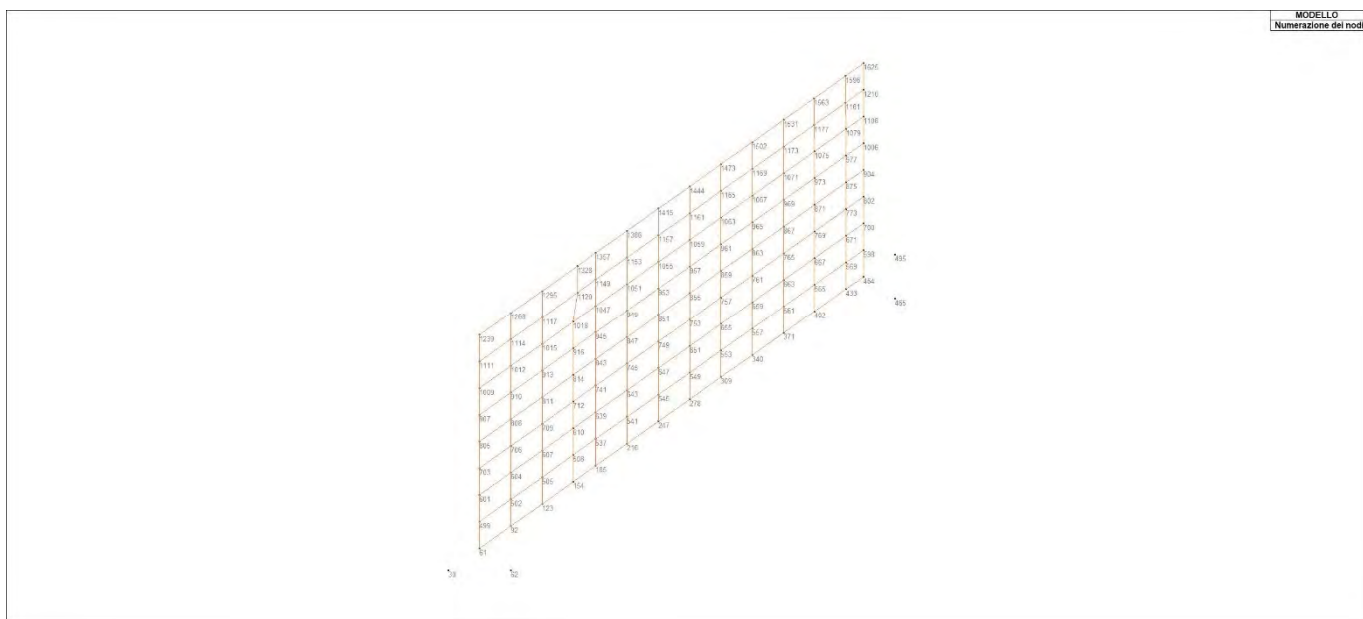


Figura 11 - MOD_NUMERAZIONE_NODI_GR_005

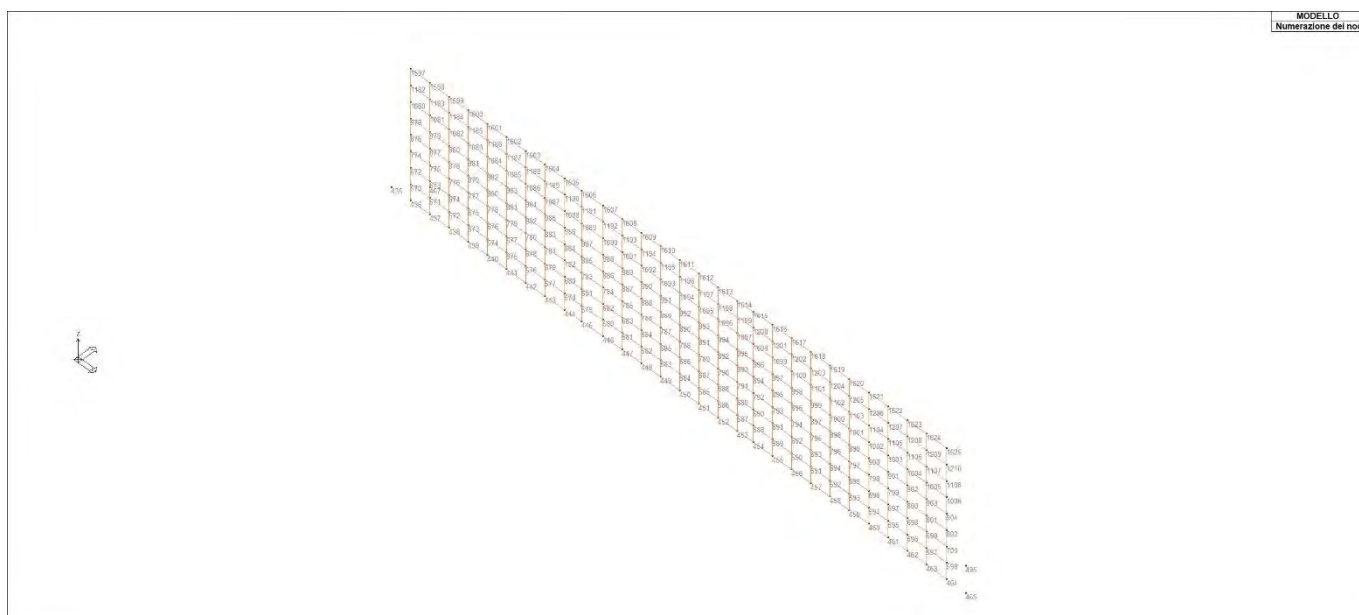


Figura 12 - MOD_NUMERAZIONE_NODI_GR_006

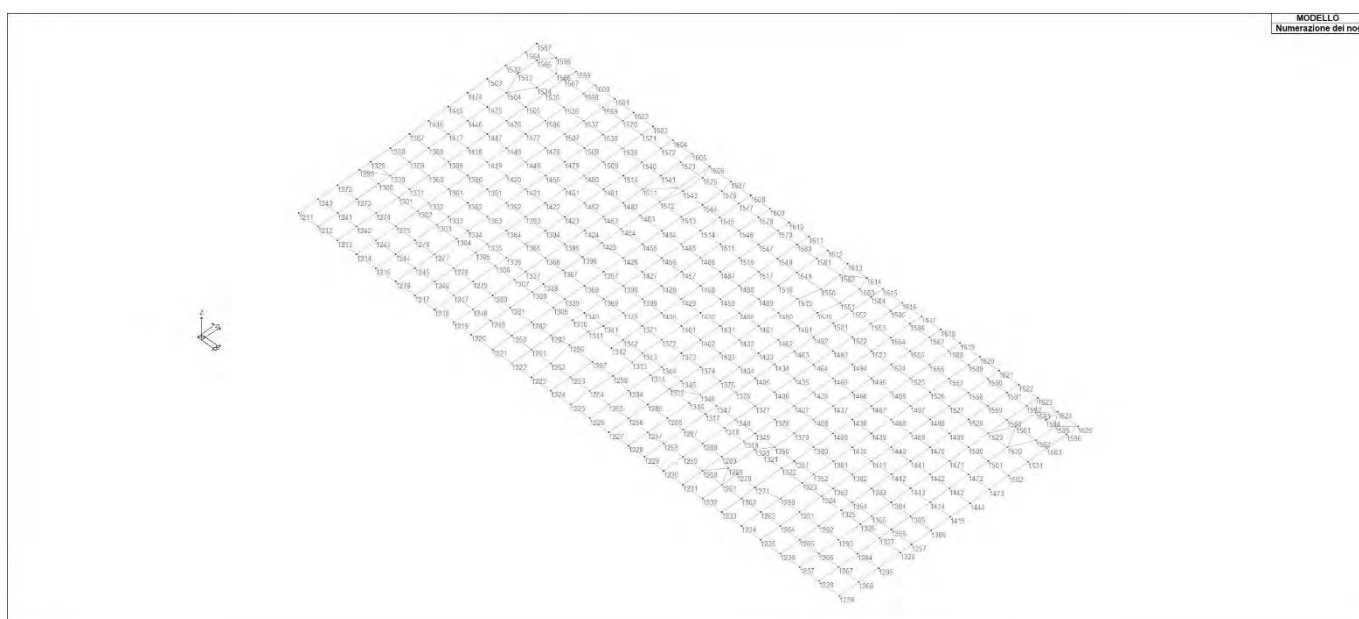


Figura 13 - MOD_NUMERAZIONE_NODI_GR_007

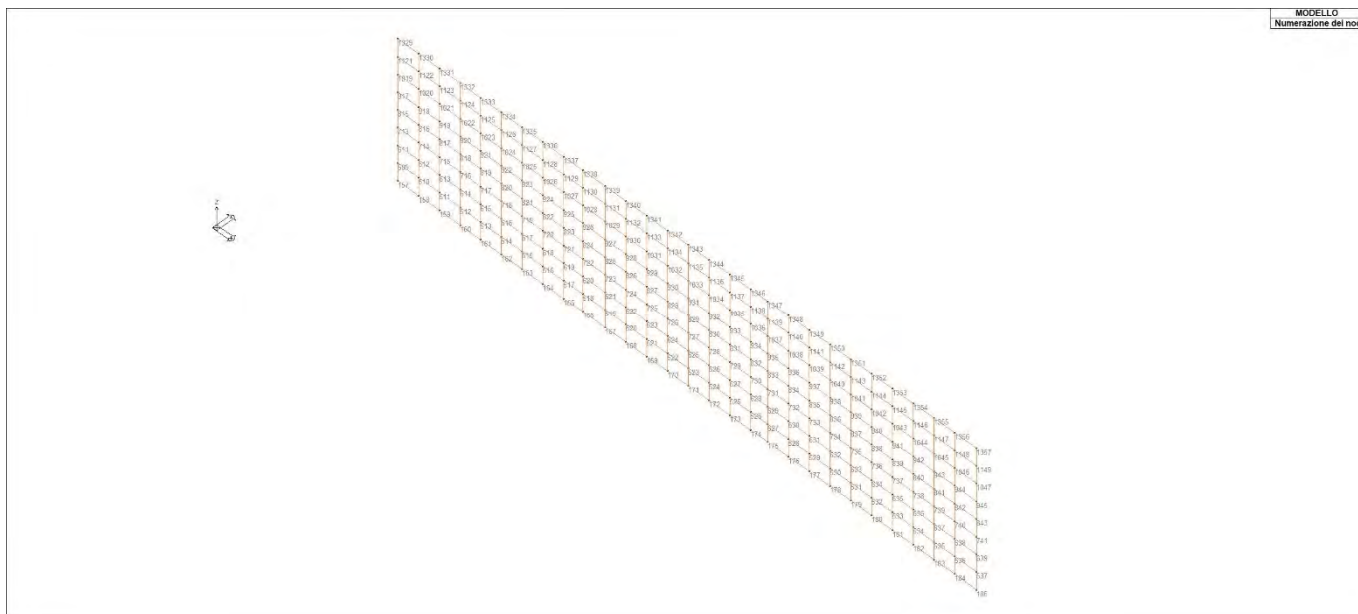


Figura 14 - MOD_NUMERAZIONE_NODI_GR_008



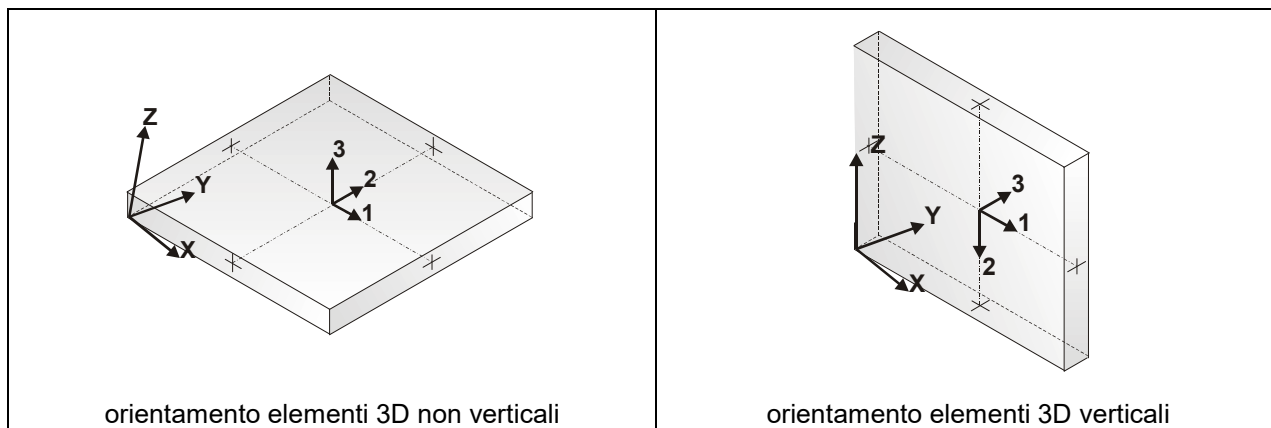
MODELLAZIONE STRUTTURA: ELEMENTI SHELL

LEGENDA TABELLA DATI SHELL

Il programma utilizza per la modellazione elementi a tre o quattro nodi denominati in generale shell.

Ogni elemento shell è individuato dai nodi I, J, K, L (L=I per gli elementi a tre nodi).

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: <i>Guscio</i> (elemento guscio in elevazione non verticale) <i>Guscio fond.</i> (elemento guscio su suolo elastico) <i>Setto</i> (elemento guscio in elevazione verticale) <i>Membrana</i> (elemento guscio con comportamento membranale)
Nodo I (J, K, L)	numero del nodo I (J, K, L)
Mat.	codice del materiale assegnato all'elemento
Spessore	spessore dell'elemento (costante)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico verticale
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale



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CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
								cm		daN/cm3	daN/cm3
1	Guscio fond.	1	2	33	32	6	8	60.0		0.80	0.29
2	Guscio fond.	2	3	34	33	6	8	60.0		0.80	0.29
3	Guscio fond.	3	4	35	34	6	8	60.0		0.80	0.29
4	Guscio fond.	4	5	36	35	6	8	60.0		0.80	0.29
5	Guscio fond.	5	6	37	36	6	8	60.0		0.80	0.29
6	Guscio fond.	6	7	38	37	6	8	60.0		0.80	0.29
7	Guscio fond.	7	8	39	38	6	8	60.0		0.80	0.29
8	Guscio fond.	8	9	40	39	6	8	60.0		0.80	0.29
9	Guscio fond.	9	10	41	40	6	8	60.0		0.80	0.29
10	Guscio fond.	10	11	42	41	6	8	60.0		0.80	0.29
11	Guscio fond.	11	12	43	42	6	8	60.0		0.80	0.29
12	Guscio fond.	12	13	44	43	6	8	60.0		0.80	0.29
13	Guscio fond.	13	14	45	44	6	8	60.0		0.80	0.29
14	Guscio fond.	14	15	46	45	6	8	60.0		0.80	0.29
15	Guscio fond.	15	16	47	46	6	8	60.0		0.80	0.29
16	Guscio fond.	16	17	48	47	6	8	60.0		0.80	0.29
17	Guscio fond.	17	18	49	48	6	8	60.0		0.80	0.29
18	Guscio fond.	18	19	50	49	6	8	60.0		0.80	0.29
19	Guscio fond.	19	20	51	50	6	8	60.0		0.80	0.29
20	Guscio fond.	20	21	52	51	6	8	60.0		0.80	0.29
21	Guscio fond.	21	22	53	52	6	8	60.0		0.80	0.29
22	Guscio fond.	22	23	54	53	6	8	60.0		0.80	0.29
23	Guscio fond.	23	24	55	54	6	8	60.0		0.80	0.29
24	Guscio fond.	24	25	56	55	6	8	60.0		0.80	0.29
25	Guscio fond.	25	26	57	56	6	8	60.0		0.80	0.29
26	Guscio fond.	26	27	58	57	6	8	60.0		0.80	0.29
27	Guscio fond.	27	28	59	58	6	8	60.0		0.80	0.29
28	Guscio fond.	28	29	60	59	6	8	60.0		0.80	0.29
29	Guscio fond.	29	30	61	60	6	8	60.0		0.80	0.29
30	Guscio fond.	30	31	62	61	6	8	60.0		0.80	0.29
31	Guscio fond.	50	51	82		6	8	60.0		0.80	0.29
32	Guscio fond.	32	33	64	63	6	8	60.0		0.80	0.29
33	Guscio fond.	33	34	65	64	6	8	60.0		0.80	0.29
34	Guscio fond.	34	35	66	65	6	8	60.0		0.80	0.29
35	Guscio fond.	35	36	67	66	6	8	60.0		0.80	0.29
36	Guscio fond.	36	37	68	67	6	8	60.0		0.80	0.29
37	Guscio fond.	37	38	69	68	6	8	60.0		0.80	0.29
38	Guscio fond.	38	39	70	69	6	8	60.0		0.80	0.29
39	Guscio fond.	39	40	71	70	6	8	60.0		0.80	0.29
40	Guscio fond.	40	41	72	71	6	8	60.0		0.80	0.29
41	Guscio fond.	41	42	73	72	6	8	60.0		0.80	0.29
42	Guscio fond.	42	43	74	73	6	8	60.0		0.80	0.29
43	Guscio fond.	43	44	75	74	6	8	60.0		0.80	0.29
44	Guscio fond.	44	45	76	75	6	8	60.0		0.80	0.29
45	Guscio fond.	45	46	77	76	6	8	60.0		0.80	0.29
46	Guscio fond.	46	47	78	77	6	8	60.0		0.80	0.29
47	Guscio fond.	47	48	79	78	6	8	60.0		0.80	0.29
48	Guscio fond.	48	49	80	79	6	8	60.0		0.80	0.29
49	Guscio fond.	49	50	81	80	6	8	60.0		0.80	0.29
50	Guscio fond.	51	52	83	82	6	8	60.0		0.80	0.29
51	Guscio fond.	52	53	84	83	6	8	60.0		0.80	0.29
52	Guscio fond.	53	54	85	84	6	8	60.0		0.80	0.29
53	Guscio fond.	54	55	86	85	6	8	60.0		0.80	0.29
54	Guscio fond.	55	56	87	86	6	8	60.0		0.80	0.29
55	Guscio fond.	56	57	88	87	6	8	60.0		0.80	0.29
56	Guscio fond.	57	58	89	88	6	8	60.0		0.80	0.29
57	Guscio fond.	58	59	90	89	6	8	60.0		0.80	0.29
58	Guscio fond.	59	60	91	90	6	8	60.0		0.80	0.29
59	Guscio fond.	60	61	92	91	6	8	60.0		0.80	0.29
60	Guscio fond.	61	62	93	92	6	8	60.0		0.80	0.29
61	Guscio fond.	81	50	82		6	8	60.0		0.80	0.29
62	Guscio fond.	63	64	95	94	6	8	60.0		0.80	0.29
63	Guscio fond.	64	65	96	95	6	8	60.0		0.80	0.29
64	Guscio fond.	65	66	97	96	6	8	60.0		0.80	0.29
65	Guscio fond.	66	67	98	97	6	8	60.0		0.80	0.29
66	Guscio fond.	67	68	99	98	6	8	60.0		0.80	0.29
67	Guscio fond.	68	69	100	99	6	8	60.0		0.80	0.29
68	Guscio fond.	69	70	101	100	6	8	60.0		0.80	0.29

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CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
69	Guscio fond.	70	71	102	101	6	8	60.0		0.80	0.29
70	Guscio fond.	71	72	103	102	6	8	60.0		0.80	0.29
71	Guscio fond.	72	73	104	103	6	8	60.0		0.80	0.29
72	Guscio fond.	73	74	105	104	6	8	60.0		0.80	0.29
73	Guscio fond.	74	75	106	105	6	8	60.0		0.80	0.29
74	Guscio fond.	75	76	107	106	6	8	60.0		0.80	0.29
75	Guscio fond.	76	77	108	107	6	8	60.0		0.80	0.29
76	Guscio fond.	77	78	109	108	6	8	60.0		0.80	0.29
77	Guscio fond.	78	79	110	109	6	8	60.0		0.80	0.29
78	Guscio fond.	79	80	111	110	6	8	60.0		0.80	0.29
79	Guscio fond.	80	81	112	111	6	8	60.0		0.80	0.29
80	Guscio fond.	81	82	113	112	6	8	60.0		0.80	0.29
81	Guscio fond.	82	83	114	113	6	8	60.0		0.80	0.29
82	Guscio fond.	83	84	115	114	6	8	60.0		0.80	0.29
83	Guscio fond.	84	85	116	115	6	8	60.0		0.80	0.29
84	Guscio fond.	85	86	117	116	6	8	60.0		0.80	0.29
85	Guscio fond.	86	87	118	117	6	8	60.0		0.80	0.29
86	Guscio fond.	87	88	119	118	6	8	60.0		0.80	0.29
87	Guscio fond.	88	89	120	119	6	8	60.0		0.80	0.29
88	Guscio fond.	89	90	121	120	6	8	60.0		0.80	0.29
89	Guscio fond.	90	91	122	121	6	8	60.0		0.80	0.29
90	Guscio fond.	91	92	123	122	6	8	60.0		0.80	0.29
91	Guscio fond.	92	93	124	123	6	8	60.0		0.80	0.29
92	Guscio fond.	94	95	126	125	6	8	60.0		0.80	0.29
93	Guscio fond.	95	96	127	126	6	8	60.0		0.80	0.29
94	Guscio fond.	96	97	128	127	6	8	60.0		0.80	0.29
95	Guscio fond.	97	98	129	128	6	8	60.0		0.80	0.29
96	Guscio fond.	98	99	130	129	6	8	60.0		0.80	0.29
97	Guscio fond.	99	100	131	130	6	8	60.0		0.80	0.29
98	Guscio fond.	100	101	132	131	6	8	60.0		0.80	0.29
99	Guscio fond.	101	102	133	132	6	8	60.0		0.80	0.29
100	Guscio fond.	102	103	134	133	6	8	60.0		0.80	0.29
101	Guscio fond.	103	104	135	134	6	8	60.0		0.80	0.29
102	Guscio fond.	104	105	136	135	6	8	60.0		0.80	0.29
103	Guscio fond.	105	106	137	136	6	8	60.0		0.80	0.29
104	Guscio fond.	106	107	138	137	6	8	60.0		0.80	0.29
105	Guscio fond.	107	108	139	138	6	8	60.0		0.80	0.29
106	Guscio fond.	108	109	140	139	6	8	60.0		0.80	0.29
107	Guscio fond.	109	110	141	140	6	8	60.0		0.80	0.29
108	Guscio fond.	110	111	142	141	6	8	60.0		0.80	0.29
109	Guscio fond.	111	112	143	142	6	8	60.0		0.80	0.29
110	Guscio fond.	112	113	144	143	6	8	60.0		0.80	0.29
111	Guscio fond.	113	114	145	144	6	8	60.0		0.80	0.29
112	Guscio fond.	114	115	146	145	6	8	60.0		0.80	0.29
113	Guscio fond.	115	116	147	146	6	8	60.0		0.80	0.29
114	Guscio fond.	116	117	148	147	6	8	60.0		0.80	0.29
115	Guscio fond.	117	118	149	148	6	8	60.0		0.80	0.29
116	Guscio fond.	118	119	150	149	6	8	60.0		0.80	0.29
117	Guscio fond.	119	120	151	150	6	8	60.0		0.80	0.29
118	Guscio fond.	120	121	152	151	6	8	60.0		0.80	0.29
119	Guscio fond.	121	122	153	152	6	8	60.0		0.80	0.29
120	Guscio fond.	122	123	154	153	6	8	60.0		0.80	0.29
121	Guscio fond.	123	124	155	154	6	8	60.0		0.80	0.29
122	Guscio fond.	126	127	158		6	8	60.0		0.80	0.29
123	Guscio fond.	143	144	175		6	8	60.0		0.80	0.29
124	Guscio fond.	144	145	176		6	8	60.0		0.80	0.29
125	Guscio fond.	125	126	157	156	6	8	60.0		0.80	0.29
126	Guscio fond.	127	128	159	158	6	8	60.0		0.80	0.29
127	Guscio fond.	128	129	160	159	6	8	60.0		0.80	0.29
128	Guscio fond.	129	130	161	160	6	8	60.0		0.80	0.29
129	Guscio fond.	130	131	162	161	6	8	60.0		0.80	0.29
130	Guscio fond.	131	132	163	162	6	8	60.0		0.80	0.29
131	Guscio fond.	132	133	164	163	6	8	60.0		0.80	0.29
132	Guscio fond.	133	134	165	164	6	8	60.0		0.80	0.29
133	Guscio fond.	134	135	166	165	6	8	60.0		0.80	0.29
134	Guscio fond.	135	136	167	166	6	8	60.0		0.80	0.29
135	Guscio fond.	136	137	168	167	6	8	60.0		0.80	0.29
136	Guscio fond.	137	138	169	168	6	8	60.0		0.80	0.29
137	Guscio fond.	138	139	170	169	6	8	60.0		0.80	0.29
138	Guscio fond.	139	140	171	170	6	8	60.0		0.80	0.29
139	Guscio fond.	140	141	172	171	6	8	60.0		0.80	0.29
140	Guscio fond.	141	142	173	172	6	8	60.0		0.80	0.29

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
141	Guscio fond.	142	143	174	173	6	8	60.0		0.80	0.29
142	Guscio fond.	145	146	177	176	6	8	60.0		0.80	0.29
143	Guscio fond.	146	147	178	177	6	8	60.0		0.80	0.29
144	Guscio fond.	147	148	179	178	6	8	60.0		0.80	0.29
145	Guscio fond.	148	149	180	179	6	8	60.0		0.80	0.29
146	Guscio fond.	149	150	181	180	6	8	60.0		0.80	0.29
147	Guscio fond.	150	151	182	181	6	8	60.0		0.80	0.29
148	Guscio fond.	151	152	183	182	6	8	60.0		0.80	0.29
149	Guscio fond.	152	153	184	183	6	8	60.0		0.80	0.29
150	Guscio fond.	153	154	185	184	6	8	60.0		0.80	0.29
151	Guscio fond.	154	155	186	185	6	8	60.0		0.80	0.29
152	Guscio fond.	157	126	158		6	8	60.0		0.80	0.29
153	Guscio fond.	174	143	175		6	8	60.0		0.80	0.29
154	Guscio fond.	175	144	176		6	8	60.0		0.80	0.29
155	Guscio fond.	174	175	206		6	8	60.0		0.80	0.29
156	Guscio fond.	156	157	188	187	6	8	60.0		0.80	0.29
157	Guscio fond.	157	158	189	188	6	8	60.0		0.80	0.29
158	Guscio fond.	158	159	190	189	6	8	60.0		0.80	0.29
159	Guscio fond.	159	160	191	190	6	8	60.0		0.80	0.29
160	Guscio fond.	160	161	192	191	6	8	60.0		0.80	0.29
161	Guscio fond.	161	162	193	192	6	8	60.0		0.80	0.29
162	Guscio fond.	162	163	194	193	6	8	60.0		0.80	0.29
163	Guscio fond.	163	164	195	194	6	8	60.0		0.80	0.29
164	Guscio fond.	164	165	196	195	6	8	60.0		0.80	0.29
165	Guscio fond.	165	166	197	196	6	8	60.0		0.80	0.29
166	Guscio fond.	166	167	198	197	6	8	60.0		0.80	0.29
167	Guscio fond.	167	168	199	198	6	8	60.0		0.80	0.29
168	Guscio fond.	168	169	200	199	6	8	60.0		0.80	0.29
169	Guscio fond.	169	170	201	200	6	8	60.0		0.80	0.29
170	Guscio fond.	170	171	202	201	6	8	60.0		0.80	0.29
171	Guscio fond.	171	172	203	202	6	8	60.0		0.80	0.29
172	Guscio fond.	172	173	204	203	6	8	60.0		0.80	0.29
173	Guscio fond.	173	174	205	204	6	8	60.0		0.80	0.29
174	Guscio fond.	175	176	207	206	6	8	60.0		0.80	0.29
175	Guscio fond.	176	177	208	207	6	8	60.0		0.80	0.29
176	Guscio fond.	177	178	209	208	6	8	60.0		0.80	0.29
177	Guscio fond.	178	179	210	209	6	8	60.0		0.80	0.29
178	Guscio fond.	179	180	211	210	6	8	60.0		0.80	0.29
179	Guscio fond.	180	181	212	211	6	8	60.0		0.80	0.29
180	Guscio fond.	181	182	213	212	6	8	60.0		0.80	0.29
181	Guscio fond.	182	183	214	213	6	8	60.0		0.80	0.29
182	Guscio fond.	183	184	215	214	6	8	60.0		0.80	0.29
183	Guscio fond.	184	185	216	215	6	8	60.0		0.80	0.29
184	Guscio fond.	185	186	217	216	6	8	60.0		0.80	0.29
185	Guscio fond.	205	174	206		6	8	60.0		0.80	0.29
186	Guscio fond.	187	188	219	218	6	8	60.0		0.80	0.29
187	Guscio fond.	188	189	220	219	6	8	60.0		0.80	0.29
188	Guscio fond.	189	190	221	220	6	8	60.0		0.80	0.29
189	Guscio fond.	190	191	222	221	6	8	60.0		0.80	0.29
190	Guscio fond.	191	192	223	222	6	8	60.0		0.80	0.29
191	Guscio fond.	192	193	224	223	6	8	60.0		0.80	0.29
192	Guscio fond.	193	194	225	224	6	8	60.0		0.80	0.29
193	Guscio fond.	194	195	226	225	6	8	60.0		0.80	0.29
194	Guscio fond.	195	196	227	226	6	8	60.0		0.80	0.29
195	Guscio fond.	196	197	228	227	6	8	60.0		0.80	0.29
196	Guscio fond.	197	198	229	228	6	8	60.0		0.80	0.29
197	Guscio fond.	198	199	230	229	6	8	60.0		0.80	0.29
198	Guscio fond.	199	200	231	230	6	8	60.0		0.80	0.29
199	Guscio fond.	200	201	232	231	6	8	60.0		0.80	0.29
200	Guscio fond.	201	202	233	232	6	8	60.0		0.80	0.29
201	Guscio fond.	202	203	234	233	6	8	60.0		0.80	0.29
202	Guscio fond.	203	204	235	234	6	8	60.0		0.80	0.29
203	Guscio fond.	204	205	236	235	6	8	60.0		0.80	0.29
204	Guscio fond.	205	206	237	236	6	8	60.0		0.80	0.29
205	Guscio fond.	206	207	238	237	6	8	60.0		0.80	0.29
206	Guscio fond.	207	208	239	238	6	8	60.0		0.80	0.29
207	Guscio fond.	208	209	240	239	6	8	60.0		0.80	0.29
208	Guscio fond.	209	210	241	240	6	8	60.0		0.80	0.29
209	Guscio fond.	210	211	242	241	6	8	60.0		0.80	0.29
210	Guscio fond.	211	212	243	242	6	8	60.0		0.80	0.29
211	Guscio fond.	212	213	244	243	6	8	60.0		0.80	0.29
212	Guscio fond.	213	214	245	244	6	8	60.0		0.80	0.29

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

Pag. 39 di 237



Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
213	Guscio fond.	214	215	246	245	6	8	60.0		0.80	0.29
214	Guscio fond.	215	216	247	246	6	8	60.0		0.80	0.29
215	Guscio fond.	216	217	248	247	6	8	60.0		0.80	0.29
216	Guscio fond.	218	219	250	249	6	8	60.0		0.80	0.29
217	Guscio fond.	219	220	251	250	6	8	60.0		0.80	0.29
218	Guscio fond.	220	221	252	251	6	8	60.0		0.80	0.29
219	Guscio fond.	221	222	253	252	6	8	60.0		0.80	0.29
220	Guscio fond.	222	223	254	253	6	8	60.0		0.80	0.29
221	Guscio fond.	223	224	255	254	6	8	60.0		0.80	0.29
222	Guscio fond.	224	225	256	255	6	8	60.0		0.80	0.29
223	Guscio fond.	225	226	257	256	6	8	60.0		0.80	0.29
224	Guscio fond.	226	227	258	257	6	8	60.0		0.80	0.29
225	Guscio fond.	227	228	259	258	6	8	60.0		0.80	0.29
226	Guscio fond.	228	229	260	259	6	8	60.0		0.80	0.29
227	Guscio fond.	229	230	261	260	6	8	60.0		0.80	0.29
228	Guscio fond.	230	231	262	261	6	8	60.0		0.80	0.29
229	Guscio fond.	231	232	263	262	6	8	60.0		0.80	0.29
230	Guscio fond.	232	233	264	263	6	8	60.0		0.80	0.29
231	Guscio fond.	233	234	265	264	6	8	60.0		0.80	0.29
232	Guscio fond.	234	235	266	265	6	8	60.0		0.80	0.29
233	Guscio fond.	235	236	267	266	6	8	60.0		0.80	0.29
234	Guscio fond.	236	237	268	267	6	8	60.0		0.80	0.29
235	Guscio fond.	237	238	269	268	6	8	60.0		0.80	0.29
236	Guscio fond.	238	239	270	269	6	8	60.0		0.80	0.29
237	Guscio fond.	239	240	271	270	6	8	60.0		0.80	0.29
238	Guscio fond.	240	241	272	271	6	8	60.0		0.80	0.29
239	Guscio fond.	241	242	273	272	6	8	60.0		0.80	0.29
240	Guscio fond.	242	243	274	273	6	8	60.0		0.80	0.29
241	Guscio fond.	243	244	275	274	6	8	60.0		0.80	0.29
242	Guscio fond.	244	245	276	275	6	8	60.0		0.80	0.29
243	Guscio fond.	245	246	277	276	6	8	60.0		0.80	0.29
244	Guscio fond.	246	247	278	277	6	8	60.0		0.80	0.29
245	Guscio fond.	247	248	279	278	6	8	60.0		0.80	0.29
246	Guscio fond.	249	250	281	280	6	8	60.0		0.80	0.29
247	Guscio fond.	250	251	282	281	6	8	60.0		0.80	0.29
248	Guscio fond.	251	252	283	282	6	8	60.0		0.80	0.29
249	Guscio fond.	252	253	284	283	6	8	60.0		0.80	0.29
250	Guscio fond.	253	254	285	284	6	8	60.0		0.80	0.29
251	Guscio fond.	254	255	286	285	6	8	60.0		0.80	0.29
252	Guscio fond.	255	256	287	286	6	8	60.0		0.80	0.29
253	Guscio fond.	256	257	288	287	6	8	60.0		0.80	0.29
254	Guscio fond.	257	258	289	288	6	8	60.0		0.80	0.29
255	Guscio fond.	258	259	290	289	6	8	60.0		0.80	0.29
256	Guscio fond.	259	260	291	290	6	8	60.0		0.80	0.29
257	Guscio fond.	260	261	292	291	6	8	60.0		0.80	0.29
258	Guscio fond.	261	262	293	292	6	8	60.0		0.80	0.29
259	Guscio fond.	262	263	294	293	6	8	60.0		0.80	0.29
260	Guscio fond.	263	264	295	294	6	8	60.0		0.80	0.29
261	Guscio fond.	264	265	296	295	6	8	60.0		0.80	0.29
262	Guscio fond.	265	266	297	296	6	8	60.0		0.80	0.29
263	Guscio fond.	266	267	298	297	6	8	60.0		0.80	0.29
264	Guscio fond.	267	268	299	298	6	8	60.0		0.80	0.29
265	Guscio fond.	268	269	300	299	6	8	60.0		0.80	0.29
266	Guscio fond.	269	270	301	300	6	8	60.0		0.80	0.29
267	Guscio fond.	270	271	302	301	6	8	60.0		0.80	0.29
268	Guscio fond.	271	272	303	302	6	8	60.0		0.80	0.29
269	Guscio fond.	272	273	304	303	6	8	60.0		0.80	0.29
270	Guscio fond.	273	274	305	304	6	8	60.0		0.80	0.29
271	Guscio fond.	274	275	306	305	6	8	60.0		0.80	0.29
272	Guscio fond.	275	276	307	306	6	8	60.0		0.80	0.29
273	Guscio fond.	276	277	308	307	6	8	60.0		0.80	0.29
274	Guscio fond.	277	278	309	308	6	8	60.0		0.80	0.29
275	Guscio fond.	278	279	310	309	6	8	60.0		0.80	0.29
276	Guscio fond.	280	281	312	311	6	8	60.0		0.80	0.29
277	Guscio fond.	281	282	313	312	6	8	60.0		0.80	0.29
278	Guscio fond.	282	283	314	313	6	8	60.0		0.80	0.29
279	Guscio fond.	283	284	315	314	6	8	60.0		0.80	0.29
280	Guscio fond.	284	285	316	315	6	8	60.0		0.80	0.29
281	Guscio fond.	285	286	317	316	6	8	60.0		0.80	0.29
282	Guscio fond.	286	287	318	317	6	8	60.0		0.80	0.29
283	Guscio fond.	287	288	319	318	6	8	60.0		0.80	0.29
284	Guscio fond.	288	289	320	319	6	8	60.0		0.80	0.29

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
285	Guscio fond.	289	290	321	320	6	8	60.0		0.80	0.29
286	Guscio fond.	290	291	322	321	6	8	60.0		0.80	0.29
287	Guscio fond.	291	292	323	322	6	8	60.0		0.80	0.29
288	Guscio fond.	292	293	324	323	6	8	60.0		0.80	0.29
289	Guscio fond.	293	294	325	324	6	8	60.0		0.80	0.29
290	Guscio fond.	294	295	326	325	6	8	60.0		0.80	0.29
291	Guscio fond.	295	296	327	326	6	8	60.0		0.80	0.29
292	Guscio fond.	296	297	328	327	6	8	60.0		0.80	0.29
293	Guscio fond.	297	298	329	328	6	8	60.0		0.80	0.29
294	Guscio fond.	298	299	330	329	6	8	60.0		0.80	0.29
295	Guscio fond.	299	300	331	330	6	8	60.0		0.80	0.29
296	Guscio fond.	300	301	332	331	6	8	60.0		0.80	0.29
297	Guscio fond.	301	302	333	332	6	8	60.0		0.80	0.29
298	Guscio fond.	302	303	334	333	6	8	60.0		0.80	0.29
299	Guscio fond.	303	304	335	334	6	8	60.0		0.80	0.29
300	Guscio fond.	304	305	336	335	6	8	60.0		0.80	0.29
301	Guscio fond.	305	306	337	336	6	8	60.0		0.80	0.29
302	Guscio fond.	306	307	338	337	6	8	60.0		0.80	0.29
303	Guscio fond.	307	308	339	338	6	8	60.0		0.80	0.29
304	Guscio fond.	308	309	340	339	6	8	60.0		0.80	0.29
305	Guscio fond.	309	310	341	340	6	8	60.0		0.80	0.29
306	Guscio fond.	311	312	343	342	6	8	60.0		0.80	0.29
307	Guscio fond.	312	313	344	343	6	8	60.0		0.80	0.29
308	Guscio fond.	313	314	345	344	6	8	60.0		0.80	0.29
309	Guscio fond.	314	315	346	345	6	8	60.0		0.80	0.29
310	Guscio fond.	315	316	347	346	6	8	60.0		0.80	0.29
311	Guscio fond.	316	317	348	347	6	8	60.0		0.80	0.29
312	Guscio fond.	317	318	349	348	6	8	60.0		0.80	0.29
313	Guscio fond.	318	319	350	349	6	8	60.0		0.80	0.29
314	Guscio fond.	319	320	351	350	6	8	60.0		0.80	0.29
315	Guscio fond.	320	321	352	351	6	8	60.0		0.80	0.29
316	Guscio fond.	321	322	353	352	6	8	60.0		0.80	0.29
317	Guscio fond.	322	323	354	353	6	8	60.0		0.80	0.29
318	Guscio fond.	323	324	355	354	6	8	60.0		0.80	0.29
319	Guscio fond.	324	325	356	355	6	8	60.0		0.80	0.29
320	Guscio fond.	325	326	357	356	6	8	60.0		0.80	0.29
321	Guscio fond.	326	327	358	357	6	8	60.0		0.80	0.29
322	Guscio fond.	327	328	359	358	6	8	60.0		0.80	0.29
323	Guscio fond.	328	329	360	359	6	8	60.0		0.80	0.29
324	Guscio fond.	329	330	361	360	6	8	60.0		0.80	0.29
325	Guscio fond.	330	331	362	361	6	8	60.0		0.80	0.29
326	Guscio fond.	331	332	363	362	6	8	60.0		0.80	0.29
327	Guscio fond.	332	333	364	363	6	8	60.0		0.80	0.29
328	Guscio fond.	333	334	365	364	6	8	60.0		0.80	0.29
329	Guscio fond.	334	335	366	365	6	8	60.0		0.80	0.29
330	Guscio fond.	335	336	367	366	6	8	60.0		0.80	0.29
331	Guscio fond.	336	337	368	367	6	8	60.0		0.80	0.29
332	Guscio fond.	337	338	369	368	6	8	60.0		0.80	0.29
333	Guscio fond.	338	339	370	369	6	8	60.0		0.80	0.29
334	Guscio fond.	339	340	371	370	6	8	60.0		0.80	0.29
335	Guscio fond.	340	341	372	371	6	8	60.0		0.80	0.29
336	Guscio fond.	342	343	374	373	6	8	60.0		0.80	0.29
337	Guscio fond.	343	344	375	374	6	8	60.0		0.80	0.29
338	Guscio fond.	344	345	376	375	6	8	60.0		0.80	0.29
339	Guscio fond.	345	346	377	376	6	8	60.0		0.80	0.29
340	Guscio fond.	346	347	378	377	6	8	60.0		0.80	0.29
341	Guscio fond.	347	348	379	378	6	8	60.0		0.80	0.29
342	Guscio fond.	348	349	380	379	6	8	60.0		0.80	0.29
343	Guscio fond.	349	350	381	380	6	8	60.0		0.80	0.29
344	Guscio fond.	350	351	382	381	6	8	60.0		0.80	0.29
345	Guscio fond.	351	352	383	382	6	8	60.0		0.80	0.29
346	Guscio fond.	352	353	384	383	6	8	60.0		0.80	0.29
347	Guscio fond.	353	354	385	384	6	8	60.0		0.80	0.29
348	Guscio fond.	354	355	386	385	6	8	60.0		0.80	0.29
349	Guscio fond.	355	356	387	386	6	8	60.0		0.80	0.29
350	Guscio fond.	356	357	388	387	6	8	60.0		0.80	0.29
351	Guscio fond.	357	358	389	388	6	8	60.0		0.80	0.29
352	Guscio fond.	358	359	390	389	6	8	60.0		0.80	0.29
353	Guscio fond.	359	360	391	390	6	8	60.0		0.80	0.29
354	Guscio fond.	360	361	392	391	6	8	60.0		0.80	0.29
355	Guscio fond.	361	362	393	392	6	8	60.0		0.80	0.29
356	Guscio fond.	362	363	394	393	6	8	60.0		0.80	0.29



Città di Fermo
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Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
357	Guscio fond.	363	364	395	394	6	8	60.0		0.80	0.29
358	Guscio fond.	364	365	396	395	6	8	60.0		0.80	0.29
359	Guscio fond.	365	366	397	396	6	8	60.0		0.80	0.29
360	Guscio fond.	366	367	398	397	6	8	60.0		0.80	0.29
361	Guscio fond.	367	368	399	398	6	8	60.0		0.80	0.29
362	Guscio fond.	368	369	400	399	6	8	60.0		0.80	0.29
363	Guscio fond.	369	370	401	400	6	8	60.0		0.80	0.29
364	Guscio fond.	370	371	402	401	6	8	60.0		0.80	0.29
365	Guscio fond.	371	372	403	402	6	8	60.0		0.80	0.29
366	Guscio fond.	373	374	405	404	6	8	60.0		0.80	0.29
367	Guscio fond.	374	375	406	405	6	8	60.0		0.80	0.29
368	Guscio fond.	375	376	407	406	6	8	60.0		0.80	0.29
369	Guscio fond.	376	377	408	407	6	8	60.0		0.80	0.29
370	Guscio fond.	377	378	409	408	6	8	60.0		0.80	0.29
371	Guscio fond.	378	379	410	409	6	8	60.0		0.80	0.29
372	Guscio fond.	379	380	411	410	6	8	60.0		0.80	0.29
373	Guscio fond.	380	381	412	411	6	8	60.0		0.80	0.29
374	Guscio fond.	381	382	413	412	6	8	60.0		0.80	0.29
375	Guscio fond.	382	383	414	413	6	8	60.0		0.80	0.29
376	Guscio fond.	383	384	415	414	6	8	60.0		0.80	0.29
377	Guscio fond.	384	385	416	415	6	8	60.0		0.80	0.29
378	Guscio fond.	385	386	417	416	6	8	60.0		0.80	0.29
379	Guscio fond.	386	387	418	417	6	8	60.0		0.80	0.29
380	Guscio fond.	387	388	419	418	6	8	60.0		0.80	0.29
381	Guscio fond.	388	389	420	419	6	8	60.0		0.80	0.29
382	Guscio fond.	389	390	421	420	6	8	60.0		0.80	0.29
383	Guscio fond.	390	391	422	421	6	8	60.0		0.80	0.29
384	Guscio fond.	391	392	423	422	6	8	60.0		0.80	0.29
385	Guscio fond.	392	393	424	423	6	8	60.0		0.80	0.29
386	Guscio fond.	393	394	425	424	6	8	60.0		0.80	0.29
387	Guscio fond.	394	395	426	425	6	8	60.0		0.80	0.29
388	Guscio fond.	395	396	427	426	6	8	60.0		0.80	0.29
389	Guscio fond.	396	397	428	427	6	8	60.0		0.80	0.29
390	Guscio fond.	397	398	429	428	6	8	60.0		0.80	0.29
391	Guscio fond.	398	399	430	429	6	8	60.0		0.80	0.29
392	Guscio fond.	399	400	431	430	6	8	60.0		0.80	0.29
393	Guscio fond.	400	401	432	431	6	8	60.0		0.80	0.29
394	Guscio fond.	401	402	433	432	6	8	60.0		0.80	0.29
395	Guscio fond.	402	403	434	433	6	8	60.0		0.80	0.29
396	Guscio fond.	405	406	437		6	8	60.0		0.80	0.29
397	Guscio fond.	422	423	454		6	8	60.0		0.80	0.29
398	Guscio fond.	423	424	455		6	8	60.0		0.80	0.29
399	Guscio fond.	404	405	436	435	6	8	60.0		0.80	0.29
400	Guscio fond.	406	407	438	437	6	8	60.0		0.80	0.29
401	Guscio fond.	407	408	439	438	6	8	60.0		0.80	0.29
402	Guscio fond.	408	409	440	439	6	8	60.0		0.80	0.29
403	Guscio fond.	409	410	441	440	6	8	60.0		0.80	0.29
404	Guscio fond.	410	411	442	441	6	8	60.0		0.80	0.29
405	Guscio fond.	411	412	443	442	6	8	60.0		0.80	0.29
406	Guscio fond.	412	413	444	443	6	8	60.0		0.80	0.29
407	Guscio fond.	413	414	445	444	6	8	60.0		0.80	0.29
408	Guscio fond.	414	415	446	445	6	8	60.0		0.80	0.29
409	Guscio fond.	415	416	447	446	6	8	60.0		0.80	0.29
410	Guscio fond.	416	417	448	447	6	8	60.0		0.80	0.29
411	Guscio fond.	417	418	449	448	6	8	60.0		0.80	0.29
412	Guscio fond.	418	419	450	449	6	8	60.0		0.80	0.29
413	Guscio fond.	419	420	451	450	6	8	60.0		0.80	0.29
414	Guscio fond.	420	421	452	451	6	8	60.0		0.80	0.29
415	Guscio fond.	421	422	453	452	6	8	60.0		0.80	0.29
416	Guscio fond.	424	425	456	455	6	8	60.0		0.80	0.29
417	Guscio fond.	425	426	457	456	6	8	60.0		0.80	0.29
418	Guscio fond.	426	427	458	457	6	8	60.0		0.80	0.29
419	Guscio fond.	427	428	459	458	6	8	60.0		0.80	0.29
420	Guscio fond.	428	429	460	459	6	8	60.0		0.80	0.29
421	Guscio fond.	429	430	461	460	6	8	60.0		0.80	0.29
422	Guscio fond.	430	431	462	461	6	8	60.0		0.80	0.29
423	Guscio fond.	431	432	463	462	6	8	60.0		0.80	0.29
424	Guscio fond.	432	433	464	463	6	8	60.0		0.80	0.29
425	Guscio fond.	433	434	465	464	6	8	60.0		0.80	0.29
426	Guscio fond.	436	405	437		6	8	60.0		0.80	0.29
427	Guscio fond.	453	422	454		6	8	60.0		0.80	0.29
428	Guscio fond.	454	423	455		6	8	60.0		0.80	0.29

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



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Città di Fermo
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Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
429	Guscio fond.	435	436	467	466	6	8	60.0		0.80	0.29
430	Guscio fond.	436	437	468	467	6	8	60.0		0.80	0.29
431	Guscio fond.	437	438	469	468	6	8	60.0		0.80	0.29
432	Guscio fond.	438	439	470	469	6	8	60.0		0.80	0.29
433	Guscio fond.	439	440	471	470	6	8	60.0		0.80	0.29
434	Guscio fond.	440	441	472	471	6	8	60.0		0.80	0.29
435	Guscio fond.	441	442	473	472	6	8	60.0		0.80	0.29
436	Guscio fond.	442	443	474	473	6	8	60.0		0.80	0.29
437	Guscio fond.	443	444	475	474	6	8	60.0		0.80	0.29
438	Guscio fond.	444	445	476	475	6	8	60.0		0.80	0.29
439	Guscio fond.	445	446	477	476	6	8	60.0		0.80	0.29
440	Guscio fond.	446	447	478	477	6	8	60.0		0.80	0.29
441	Guscio fond.	447	448	479	478	6	8	60.0		0.80	0.29
442	Guscio fond.	448	449	480	479	6	8	60.0		0.80	0.29
443	Guscio fond.	449	450	481	480	6	8	60.0		0.80	0.29
444	Guscio fond.	450	451	482	481	6	8	60.0		0.80	0.29
445	Guscio fond.	451	452	483	482	6	8	60.0		0.80	0.29
446	Guscio fond.	452	453	484	483	6	8	60.0		0.80	0.29
447	Guscio fond.	453	454	485	484	6	8	60.0		0.80	0.29
448	Guscio fond.	454	455	486	485	6	8	60.0		0.80	0.29
449	Guscio fond.	455	456	487	486	6	8	60.0		0.80	0.29
450	Guscio fond.	456	457	488	487	6	8	60.0		0.80	0.29
451	Guscio fond.	457	458	489	488	6	8	60.0		0.80	0.29
452	Guscio fond.	458	459	490	489	6	8	60.0		0.80	0.29
453	Guscio fond.	459	460	491	490	6	8	60.0		0.80	0.29
454	Guscio fond.	460	461	492	491	6	8	60.0		0.80	0.29
455	Guscio fond.	461	462	493	492	6	8	60.0		0.80	0.29
456	Guscio fond.	462	463	494	493	6	8	60.0		0.80	0.29
457	Guscio fond.	463	464	495	494	6	8	60.0		0.80	0.29
458	Guscio fond.	464	465	496	495	6	8	60.0		0.80	0.29
459	Setto	33	64	500	497	6	9	35.0			
460	Setto	51	82	501	498	6	9	35.0			
461	Setto	61	92	502	499	6	9	35.0			
462	Setto	64	95	503	500	6	9	35.0			
463	Setto	82	113	504	501	6	9	35.0			
464	Setto	92	123	505	502	6	9	35.0			
465	Setto	95	126	506	503	6	9	35.0			
466	Setto	113	144	507	504	6	9	35.0			
467	Setto	123	154	508	505	6	9	35.0			
468	Setto	126	157	509	506	6	9	35.0			
469	Setto	144	175	527	507	6	9	35.0			
470	Setto	154	185	537	508	6	9	35.0			
471	Setto	509	510	158	157	6	9	35.0			
472	Setto	510	511	159	158	6	9	35.0			
473	Setto	511	512	160	159	6	9	35.0			
474	Setto	512	513	161	160	6	9	35.0			
475	Setto	513	514	162	161	6	9	35.0			
476	Setto	514	515	163	162	6	9	35.0			
477	Setto	515	516	164	163	6	9	35.0			
478	Setto	516	517	165	164	6	9	35.0			
479	Setto	517	518	166	165	6	9	35.0			
480	Setto	518	519	167	166	6	9	35.0			
481	Setto	519	520	168	167	6	9	35.0			
482	Setto	520	521	169	168	6	9	35.0			
483	Setto	521	522	170	169	6	9	35.0			
484	Setto	522	523	171	170	6	9	35.0			
485	Setto	523	524	172	171	6	9	35.0			
486	Setto	524	525	173	172	6	9	35.0			
487	Setto	525	526	174	173	6	9	35.0			
488	Setto	526	527	175	174	6	9	35.0			
489	Setto	527	528	176	175	6	9	35.0			
490	Setto	528	529	177	176	6	9	35.0			
491	Setto	529	530	178	177	6	9	35.0			
492	Setto	530	531	179	178	6	9	35.0			
493	Setto	531	532	180	179	6	9	35.0			
494	Setto	532	533	181	180	6	9	35.0			
495	Setto	533	534	182	181	6	9	35.0			
496	Setto	534	535	183	182	6	9	35.0			
497	Setto	535	536	184	183	6	9	35.0			
498	Setto	536	537	185	184	6	9	35.0			
499	Setto	157	188	538	509	6	9	35.0			
500	Setto	166	197	539	518	6	9	35.0			

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PROGETTISTA INDICATO

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Città di Fermo
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Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
501	Setto	175	206	540	527	6	9	35.0			
502	Setto	185	216	541	537	6	9	35.0			
503	Setto	188	219	542	538	6	9	35.0			
504	Setto	197	228	543	539	6	9	35.0			
505	Setto	206	237	544	540	6	9	35.0			
506	Setto	216	247	545	541	6	9	35.0			
507	Setto	219	250	546	542	6	9	35.0			
508	Setto	228	259	547	543	6	9	35.0			
509	Setto	237	268	548	544	6	9	35.0			
510	Setto	247	278	549	545	6	9	35.0			
511	Setto	250	281	550	546	6	9	35.0			
512	Setto	259	290	551	547	6	9	35.0			
513	Setto	268	299	552	548	6	9	35.0			
514	Setto	278	309	553	549	6	9	35.0			
515	Setto	281	312	554	550	6	9	35.0			
516	Setto	290	321	555	551	6	9	35.0			
517	Setto	299	330	556	552	6	9	35.0			
518	Setto	309	340	557	553	6	9	35.0			
519	Setto	312	343	558	554	6	9	35.0			
520	Setto	321	352	559	555	6	9	35.0			
521	Setto	330	361	560	556	6	9	35.0			
522	Setto	340	371	561	557	6	9	35.0			
523	Setto	343	374	562	558	6	9	35.0			
524	Setto	352	383	563	559	6	9	35.0			
525	Setto	361	392	564	560	6	9	35.0			
526	Setto	371	402	565	561	6	9	35.0			
527	Setto	374	405	566	562	6	9	35.0			
528	Setto	383	414	567	563	6	9	35.0			
529	Setto	392	423	568	564	6	9	35.0			
530	Setto	402	433	569	565	6	9	35.0			
531	Setto	405	436	570	566	6	9	35.0			
532	Setto	414	445	579	567	6	9	35.0			
533	Setto	423	454	588	568	6	9	35.0			
534	Setto	433	464	598	569	6	9	35.0			
535	Setto	570	571	437	436	6	9	35.0			
536	Setto	571	572	438	437	6	9	35.0			
537	Setto	572	573	439	438	6	9	35.0			
538	Setto	573	574	440	439	6	9	35.0			
539	Setto	574	575	441	440	6	9	35.0			
540	Setto	575	576	442	441	6	9	35.0			
541	Setto	576	577	443	442	6	9	35.0			
542	Setto	577	578	444	443	6	9	35.0			
543	Setto	578	579	445	444	6	9	35.0			
544	Setto	579	580	446	445	6	9	35.0			
545	Setto	580	581	447	446	6	9	35.0			
546	Setto	581	582	448	447	6	9	35.0			
547	Setto	582	583	449	448	6	9	35.0			
548	Setto	583	584	450	449	6	9	35.0			
549	Setto	584	585	451	450	6	9	35.0			
550	Setto	585	586	452	451	6	9	35.0			
551	Setto	586	587	453	452	6	9	35.0			
552	Setto	587	588	454	453	6	9	35.0			
553	Setto	588	589	455	454	6	9	35.0			
554	Setto	589	590	456	455	6	9	35.0			
555	Setto	590	591	457	456	6	9	35.0			
556	Setto	591	592	458	457	6	9	35.0			
557	Setto	592	593	459	458	6	9	35.0			
558	Setto	593	594	460	459	6	9	35.0			
559	Setto	594	595	461	460	6	9	35.0			
560	Setto	595	596	462	461	6	9	35.0			
561	Setto	596	597	463	462	6	9	35.0			
562	Setto	597	598	464	463	6	9	35.0			
563	Setto	497	500	602	599	6	9	35.0			
564	Setto	498	501	603	600	6	9	35.0			
565	Setto	499	502	604	601	6	9	35.0			
566	Setto	500	503	605	602	6	9	35.0			
567	Setto	501	504	606	603	6	9	35.0			
568	Setto	502	505	607	604	6	9	35.0			
569	Setto	503	506	608	605	6	9	35.0			
570	Setto	504	507	609	606	6	9	35.0			
571	Setto	505	508	610	607	6	9	35.0			
572	Setto	506	509	611	608	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
573	Setto	507	527	629	609	6	9	35.0			
574	Setto	508	537	639	610	6	9	35.0			
575	Setto	611	612	510	509	6	9	35.0			
576	Setto	612	613	511	510	6	9	35.0			
577	Setto	613	614	512	511	6	9	35.0			
578	Setto	614	615	513	512	6	9	35.0			
579	Setto	615	616	514	513	6	9	35.0			
580	Setto	616	617	515	514	6	9	35.0			
581	Setto	617	618	516	515	6	9	35.0			
582	Setto	618	619	517	516	6	9	35.0			
583	Setto	619	620	518	517	6	9	35.0			
584	Setto	620	621	519	518	6	9	35.0			
585	Setto	621	622	520	519	6	9	35.0			
586	Setto	622	623	521	520	6	9	35.0			
587	Setto	623	624	522	521	6	9	35.0			
588	Setto	624	625	523	522	6	9	35.0			
589	Setto	625	626	524	523	6	9	35.0			
590	Setto	626	627	525	524	6	9	35.0			
591	Setto	627	628	526	525	6	9	35.0			
592	Setto	628	629	527	526	6	9	35.0			
593	Setto	629	630	528	527	6	9	35.0			
594	Setto	630	631	529	528	6	9	35.0			
595	Setto	631	632	530	529	6	9	35.0			
596	Setto	632	633	531	530	6	9	35.0			
597	Setto	633	634	532	531	6	9	35.0			
598	Setto	634	635	533	532	6	9	35.0			
599	Setto	635	636	534	533	6	9	35.0			
600	Setto	636	637	535	534	6	9	35.0			
601	Setto	637	638	536	535	6	9	35.0			
602	Setto	638	639	537	536	6	9	35.0			
603	Setto	509	538	640	611	6	9	35.0			
604	Setto	518	539	641	620	6	9	35.0			
605	Setto	527	540	642	629	6	9	35.0			
606	Setto	537	541	643	639	6	9	35.0			
607	Setto	538	542	644	640	6	9	35.0			
608	Setto	539	543	645	641	6	9	35.0			
609	Setto	540	544	646	642	6	9	35.0			
610	Setto	541	545	647	643	6	9	35.0			
611	Setto	542	546	648	644	6	9	35.0			
612	Setto	543	547	649	645	6	9	35.0			
613	Setto	544	548	650	646	6	9	35.0			
614	Setto	545	549	651	647	6	9	35.0			
615	Setto	546	550	652	648	6	9	35.0			
616	Setto	547	551	653	649	6	9	35.0			
617	Setto	548	552	654	650	6	9	35.0			
618	Setto	549	553	655	651	6	9	35.0			
619	Setto	550	554	656	652	6	9	35.0			
620	Setto	551	555	657	653	6	9	35.0			
621	Setto	552	556	658	654	6	9	35.0			
622	Setto	553	557	659	655	6	9	35.0			
623	Setto	554	558	660	656	6	9	35.0			
624	Setto	555	559	661	657	6	9	35.0			
625	Setto	556	560	662	658	6	9	35.0			
626	Setto	557	561	663	659	6	9	35.0			
627	Setto	558	562	664	660	6	9	35.0			
628	Setto	559	563	665	661	6	9	35.0			
629	Setto	560	564	666	662	6	9	35.0			
630	Setto	561	565	667	663	6	9	35.0			
631	Setto	562	566	668	664	6	9	35.0			
632	Setto	563	567	669	665	6	9	35.0			
633	Setto	564	568	670	666	6	9	35.0			
634	Setto	565	569	671	667	6	9	35.0			
635	Setto	566	570	672	668	6	9	35.0			
636	Setto	567	579	681	669	6	9	35.0			
637	Setto	568	588	690	670	6	9	35.0			
638	Setto	569	598	700	671	6	9	35.0			
639	Setto	672	673	571	570	6	9	35.0			
640	Setto	673	674	572	571	6	9	35.0			
641	Setto	674	675	573	572	6	9	35.0			
642	Setto	675	676	574	573	6	9	35.0			
643	Setto	676	677	575	574	6	9	35.0			
644	Setto	677	678	576	575	6	9	35.0			

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TABULATO DI CALCOLO



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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
645	Setto	678	679	577	576	6	9	35.0			
646	Setto	679	680	578	577	6	9	35.0			
647	Setto	680	681	579	578	6	9	35.0			
648	Setto	681	682	580	579	6	9	35.0			
649	Setto	682	683	581	580	6	9	35.0			
650	Setto	683	684	582	581	6	9	35.0			
651	Setto	684	685	583	582	6	9	35.0			
652	Setto	685	686	584	583	6	9	35.0			
653	Setto	686	687	585	584	6	9	35.0			
654	Setto	687	688	586	585	6	9	35.0			
655	Setto	688	689	587	586	6	9	35.0			
656	Setto	689	690	588	587	6	9	35.0			
657	Setto	690	691	589	588	6	9	35.0			
658	Setto	691	692	590	589	6	9	35.0			
659	Setto	692	693	591	590	6	9	35.0			
660	Setto	693	694	592	591	6	9	35.0			
661	Setto	694	695	593	592	6	9	35.0			
662	Setto	695	696	594	593	6	9	35.0			
663	Setto	696	697	595	594	6	9	35.0			
664	Setto	697	698	596	595	6	9	35.0			
665	Setto	698	699	597	596	6	9	35.0			
666	Setto	699	700	598	597	6	9	35.0			
667	Setto	599	602	704	701	6	9	35.0			
668	Setto	600	603	705	702	6	9	35.0			
669	Setto	601	604	706	703	6	9	35.0			
670	Setto	602	605	707	704	6	9	35.0			
671	Setto	603	606	708	705	6	9	35.0			
672	Setto	604	607	709	706	6	9	35.0			
673	Setto	605	608	710	707	6	9	35.0			
674	Setto	606	609	711	708	6	9	35.0			
675	Setto	607	610	712	709	6	9	35.0			
676	Setto	608	611	713	710	6	9	35.0			
677	Setto	609	629	731	711	6	9	35.0			
678	Setto	610	639	741	712	6	9	35.0			
679	Setto	713	714	612	611	6	9	35.0			
680	Setto	714	715	613	612	6	9	35.0			
681	Setto	715	716	614	613	6	9	35.0			
682	Setto	716	717	615	614	6	9	35.0			
683	Setto	717	718	616	615	6	9	35.0			
684	Setto	718	719	617	616	6	9	35.0			
685	Setto	719	720	618	617	6	9	35.0			
686	Setto	720	721	619	618	6	9	35.0			
687	Setto	721	722	620	619	6	9	35.0			
688	Setto	722	723	621	620	6	9	35.0			
689	Setto	723	724	622	621	6	9	35.0			
690	Setto	724	725	623	622	6	9	35.0			
691	Setto	725	726	624	623	6	9	35.0			
692	Setto	726	727	625	624	6	9	35.0			
693	Setto	727	728	626	625	6	9	35.0			
694	Setto	728	729	627	626	6	9	35.0			
695	Setto	729	730	628	627	6	9	35.0			
696	Setto	730	731	629	628	6	9	35.0			
697	Setto	731	732	630	629	6	9	35.0			
698	Setto	732	733	631	630	6	9	35.0			
699	Setto	733	734	632	631	6	9	35.0			
700	Setto	734	735	633	632	6	9	35.0			
701	Setto	735	736	634	633	6	9	35.0			
702	Setto	736	737	635	634	6	9	35.0			
703	Setto	737	738	636	635	6	9	35.0			
704	Setto	738	739	637	636	6	9	35.0			
705	Setto	739	740	638	637	6	9	35.0			
706	Setto	740	741	639	638	6	9	35.0			
707	Setto	611	640	742	713	6	9	35.0			
708	Setto	620	641	743	722	6	9	35.0			
709	Setto	629	642	744	731	6	9	35.0			
710	Setto	639	643	745	741	6	9	35.0			
711	Setto	640	644	746	742	6	9	35.0			
712	Setto	641	645	747	743	6	9	35.0			
713	Setto	642	646	748	744	6	9	35.0			
714	Setto	643	647	749	745	6	9	35.0			
715	Setto	644	648	750	746	6	9	35.0			
716	Setto	645	649	751	747	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



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Città di Fermo
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Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
717	Setto	646	650	752	748	6	9	35.0			
718	Setto	647	651	753	749	6	9	35.0			
719	Setto	648	652	754	750	6	9	35.0			
720	Setto	649	653	755	751	6	9	35.0			
721	Setto	650	654	756	752	6	9	35.0			
722	Setto	651	655	757	753	6	9	35.0			
723	Setto	652	656	758	754	6	9	35.0			
724	Setto	653	657	759	755	6	9	35.0			
725	Setto	654	658	760	756	6	9	35.0			
726	Setto	655	659	761	757	6	9	35.0			
727	Setto	656	660	762	758	6	9	35.0			
728	Setto	657	661	763	759	6	9	35.0			
729	Setto	658	662	764	760	6	9	35.0			
730	Setto	659	663	765	761	6	9	35.0			
731	Setto	660	664	766	762	6	9	35.0			
732	Setto	661	665	767	763	6	9	35.0			
733	Setto	662	666	768	764	6	9	35.0			
734	Setto	663	667	769	765	6	9	35.0			
735	Setto	664	668	770	766	6	9	35.0			
736	Setto	665	669	771	767	6	9	35.0			
737	Setto	666	670	772	768	6	9	35.0			
738	Setto	667	671	773	769	6	9	35.0			
739	Setto	668	672	774	770	6	9	35.0			
740	Setto	669	681	783	771	6	9	35.0			
741	Setto	670	690	792	772	6	9	35.0			
742	Setto	671	700	802	773	6	9	35.0			
743	Setto	774	775	673	672	6	9	35.0			
744	Setto	775	776	674	673	6	9	35.0			
745	Setto	776	777	675	674	6	9	35.0			
746	Setto	777	778	676	675	6	9	35.0			
747	Setto	778	779	677	676	6	9	35.0			
748	Setto	779	780	678	677	6	9	35.0			
749	Setto	780	781	679	678	6	9	35.0			
750	Setto	781	782	680	679	6	9	35.0			
751	Setto	782	783	681	680	6	9	35.0			
752	Setto	783	784	682	681	6	9	35.0			
753	Setto	784	785	683	682	6	9	35.0			
754	Setto	785	786	684	683	6	9	35.0			
755	Setto	786	787	685	684	6	9	35.0			
756	Setto	787	788	686	685	6	9	35.0			
757	Setto	788	789	687	686	6	9	35.0			
758	Setto	789	790	688	687	6	9	35.0			
759	Setto	790	791	689	688	6	9	35.0			
760	Setto	791	792	690	689	6	9	35.0			
761	Setto	792	793	691	690	6	9	35.0			
762	Setto	793	794	692	691	6	9	35.0			
763	Setto	794	795	693	692	6	9	35.0			
764	Setto	795	796	694	693	6	9	35.0			
765	Setto	796	797	695	694	6	9	35.0			
766	Setto	797	798	696	695	6	9	35.0			
767	Setto	798	799	697	696	6	9	35.0			
768	Setto	799	800	698	697	6	9	35.0			
769	Setto	800	801	699	698	6	9	35.0			
770	Setto	801	802	700	699	6	9	35.0			
771	Setto	701	704	806	803	6	9	35.0			
772	Setto	702	705	807	804	6	9	35.0			
773	Setto	703	706	808	805	6	9	35.0			
774	Setto	704	707	809	806	6	9	35.0			
775	Setto	705	708	810	807	6	9	35.0			
776	Setto	706	709	811	808	6	9	35.0			
777	Setto	707	710	812	809	6	9	35.0			
778	Setto	708	711	813	810	6	9	35.0			
779	Setto	709	712	814	811	6	9	35.0			
780	Setto	710	713	815	812	6	9	35.0			
781	Setto	711	731	833	813	6	9	35.0			
782	Setto	712	741	843	814	6	9	35.0			
783	Setto	815	816	714	713	6	9	35.0			
784	Setto	816	817	715	714	6	9	35.0			
785	Setto	817	818	716	715	6	9	35.0			
786	Setto	818	819	717	716	6	9	35.0			
787	Setto	819	820	718	717	6	9	35.0			
788	Setto	820	821	719	718	6	9	35.0			

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Città di Fermo
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Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
789	Setto	821	822	720	719	6	9	35.0			
790	Setto	822	823	721	720	6	9	35.0			
791	Setto	823	824	722	721	6	9	35.0			
792	Setto	824	825	723	722	6	9	35.0			
793	Setto	825	826	724	723	6	9	35.0			
794	Setto	826	827	725	724	6	9	35.0			
795	Setto	827	828	726	725	6	9	35.0			
796	Setto	828	829	727	726	6	9	35.0			
797	Setto	829	830	728	727	6	9	35.0			
798	Setto	830	831	729	728	6	9	35.0			
799	Setto	831	832	730	729	6	9	35.0			
800	Setto	832	833	731	730	6	9	35.0			
801	Setto	833	834	732	731	6	9	35.0			
802	Setto	834	835	733	732	6	9	35.0			
803	Setto	835	836	734	733	6	9	35.0			
804	Setto	836	837	735	734	6	9	35.0			
805	Setto	837	838	736	735	6	9	35.0			
806	Setto	838	839	737	736	6	9	35.0			
807	Setto	839	840	738	737	6	9	35.0			
808	Setto	840	841	739	738	6	9	35.0			
809	Setto	841	842	740	739	6	9	35.0			
810	Setto	842	843	741	740	6	9	35.0			
811	Setto	713	742	844	815	6	9	35.0			
812	Setto	722	743	845	824	6	9	35.0			
813	Setto	731	744	846	833	6	9	35.0			
814	Setto	741	745	847	843	6	9	35.0			
815	Setto	742	746	848	844	6	9	35.0			
816	Setto	743	747	849	845	6	9	35.0			
817	Setto	744	748	850	846	6	9	35.0			
818	Setto	745	749	851	847	6	9	35.0			
819	Setto	746	750	852	848	6	9	35.0			
820	Setto	747	751	853	849	6	9	35.0			
821	Setto	748	752	854	850	6	9	35.0			
822	Setto	749	753	855	851	6	9	35.0			
823	Setto	750	754	856	852	6	9	35.0			
824	Setto	751	755	857	853	6	9	35.0			
825	Setto	752	756	858	854	6	9	35.0			
826	Setto	753	757	859	855	6	9	35.0			
827	Setto	754	758	860	856	6	9	35.0			
828	Setto	755	759	861	857	6	9	35.0			
829	Setto	756	760	862	858	6	9	35.0			
830	Setto	757	761	863	859	6	9	35.0			
831	Setto	758	762	864	860	6	9	35.0			
832	Setto	759	763	865	861	6	9	35.0			
833	Setto	760	764	866	862	6	9	35.0			
834	Setto	761	765	867	863	6	9	35.0			
835	Setto	762	766	868	864	6	9	35.0			
836	Setto	763	767	869	865	6	9	35.0			
837	Setto	764	768	870	866	6	9	35.0			
838	Setto	765	769	871	867	6	9	35.0			
839	Setto	766	770	872	868	6	9	35.0			
840	Setto	767	771	873	869	6	9	35.0			
841	Setto	768	772	874	870	6	9	35.0			
842	Setto	769	773	875	871	6	9	35.0			
843	Setto	770	774	876	872	6	9	35.0			
844	Setto	771	783	885	873	6	9	35.0			
845	Setto	772	792	894	874	6	9	35.0			
846	Setto	773	802	904	875	6	9	35.0			
847	Setto	876	877	775	774	6	9	35.0			
848	Setto	877	878	776	775	6	9	35.0			
849	Setto	878	879	777	776	6	9	35.0			
850	Setto	879	880	778	777	6	9	35.0			
851	Setto	880	881	779	778	6	9	35.0			
852	Setto	881	882	780	779	6	9	35.0			
853	Setto	882	883	781	780	6	9	35.0			
854	Setto	883	884	782	781	6	9	35.0			
855	Setto	884	885	783	782	6	9	35.0			
856	Setto	885	886	784	783	6	9	35.0			
857	Setto	886	887	785	784	6	9	35.0			
858	Setto	887	888	786	785	6	9	35.0			
859	Setto	888	889	787	786	6	9	35.0			
860	Setto	889	890	788	787	6	9	35.0			

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Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
861	Setto	890	891	789	788	6	9	35.0			
862	Setto	891	892	790	789	6	9	35.0			
863	Setto	892	893	791	790	6	9	35.0			
864	Setto	893	894	792	791	6	9	35.0			
865	Setto	894	895	793	792	6	9	35.0			
866	Setto	895	896	794	793	6	9	35.0			
867	Setto	896	897	795	794	6	9	35.0			
868	Setto	897	898	796	795	6	9	35.0			
869	Setto	898	899	797	796	6	9	35.0			
870	Setto	899	900	798	797	6	9	35.0			
871	Setto	900	901	799	798	6	9	35.0			
872	Setto	901	902	800	799	6	9	35.0			
873	Setto	902	903	801	800	6	9	35.0			
874	Setto	903	904	802	801	6	9	35.0			
875	Setto	803	806	908	905	6	9	35.0			
876	Setto	804	807	909	906	6	9	35.0			
877	Setto	805	808	910	907	6	9	35.0			
878	Setto	806	809	911	908	6	9	35.0			
879	Setto	807	810	912	909	6	9	35.0			
880	Setto	808	811	913	910	6	9	35.0			
881	Setto	809	812	914	911	6	9	35.0			
882	Setto	810	813	915	912	6	9	35.0			
883	Setto	811	814	916	913	6	9	35.0			
884	Setto	812	815	917	914	6	9	35.0			
885	Setto	813	833	935	915	6	9	35.0			
886	Setto	814	843	945	916	6	9	35.0			
887	Setto	917	918	816	815	6	9	35.0			
888	Setto	918	919	817	816	6	9	35.0			
889	Setto	919	920	818	817	6	9	35.0			
890	Setto	920	921	819	818	6	9	35.0			
891	Setto	921	922	820	819	6	9	35.0			
892	Setto	922	923	821	820	6	9	35.0			
893	Setto	923	924	822	821	6	9	35.0			
894	Setto	924	925	823	822	6	9	35.0			
895	Setto	925	926	824	823	6	9	35.0			
896	Setto	926	927	825	824	6	9	35.0			
897	Setto	927	928	826	825	6	9	35.0			
898	Setto	928	929	827	826	6	9	35.0			
899	Setto	929	930	828	827	6	9	35.0			
900	Setto	930	931	829	828	6	9	35.0			
901	Setto	931	932	830	829	6	9	35.0			
902	Setto	932	933	831	830	6	9	35.0			
903	Setto	933	934	832	831	6	9	35.0			
904	Setto	934	935	833	832	6	9	35.0			
905	Setto	935	936	834	833	6	9	35.0			
906	Setto	936	937	835	834	6	9	35.0			
907	Setto	937	938	836	835	6	9	35.0			
908	Setto	938	939	837	836	6	9	35.0			
909	Setto	939	940	838	837	6	9	35.0			
910	Setto	940	941	839	838	6	9	35.0			
911	Setto	941	942	840	839	6	9	35.0			
912	Setto	942	943	841	840	6	9	35.0			
913	Setto	943	944	842	841	6	9	35.0			
914	Setto	944	945	843	842	6	9	35.0			
915	Setto	815	844	946	917	6	9	35.0			
916	Setto	824	845	947	926	6	9	35.0			
917	Setto	833	846	948	935	6	9	35.0			
918	Setto	843	847	949	945	6	9	35.0			
919	Setto	844	848	950	946	6	9	35.0			
920	Setto	845	849	951	947	6	9	35.0			
921	Setto	846	850	952	948	6	9	35.0			
922	Setto	847	851	953	949	6	9	35.0			
923	Setto	848	852	954	950	6	9	35.0			
924	Setto	849	853	955	951	6	9	35.0			
925	Setto	850	854	956	952	6	9	35.0			
926	Setto	851	855	957	953	6	9	35.0			
927	Setto	852	856	958	954	6	9	35.0			
928	Setto	853	857	959	955	6	9	35.0			
929	Setto	854	858	960	956	6	9	35.0			
930	Setto	855	859	961	957	6	9	35.0			
931	Setto	856	860	962	958	6	9	35.0			
932	Setto	857	861	963	959	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
933	Setto	858	862	964	960	6	9	35.0			
934	Setto	859	863	965	961	6	9	35.0			
935	Setto	860	864	966	962	6	9	35.0			
936	Setto	861	865	967	963	6	9	35.0			
937	Setto	862	866	968	964	6	9	35.0			
938	Setto	863	867	969	965	6	9	35.0			
939	Setto	864	868	970	966	6	9	35.0			
940	Setto	865	869	971	967	6	9	35.0			
941	Setto	866	870	972	968	6	9	35.0			
942	Setto	867	871	973	969	6	9	35.0			
943	Setto	868	872	974	970	6	9	35.0			
944	Setto	869	873	975	971	6	9	35.0			
945	Setto	870	874	976	972	6	9	35.0			
946	Setto	871	875	977	973	6	9	35.0			
947	Setto	872	876	978	974	6	9	35.0			
948	Setto	873	885	987	975	6	9	35.0			
949	Setto	874	894	996	976	6	9	35.0			
950	Setto	875	904	1006	977	6	9	35.0			
951	Setto	978	979	877	876	6	9	35.0			
952	Setto	979	980	878	877	6	9	35.0			
953	Setto	980	981	879	878	6	9	35.0			
954	Setto	981	982	880	879	6	9	35.0			
955	Setto	982	983	881	880	6	9	35.0			
956	Setto	983	984	882	881	6	9	35.0			
957	Setto	984	985	883	882	6	9	35.0			
958	Setto	985	986	884	883	6	9	35.0			
959	Setto	986	987	885	884	6	9	35.0			
960	Setto	987	988	886	885	6	9	35.0			
961	Setto	988	989	887	886	6	9	35.0			
962	Setto	989	990	888	887	6	9	35.0			
963	Setto	990	991	889	888	6	9	35.0			
964	Setto	991	992	890	889	6	9	35.0			
965	Setto	992	993	891	890	6	9	35.0			
966	Setto	993	994	892	891	6	9	35.0			
967	Setto	994	995	893	892	6	9	35.0			
968	Setto	995	996	894	893	6	9	35.0			
969	Setto	996	997	895	894	6	9	35.0			
970	Setto	997	998	896	895	6	9	35.0			
971	Setto	998	999	897	896	6	9	35.0			
972	Setto	999	1000	898	897	6	9	35.0			
973	Setto	1000	1001	899	898	6	9	35.0			
974	Setto	1001	1002	900	899	6	9	35.0			
975	Setto	1002	1003	901	900	6	9	35.0			
976	Setto	1003	1004	902	901	6	9	35.0			
977	Setto	1004	1005	903	902	6	9	35.0			
978	Setto	1005	1006	904	903	6	9	35.0			
979	Setto	905	908	1010	1007	6	9	35.0			
980	Setto	906	909	1011	1008	6	9	35.0			
981	Setto	907	910	1012	1009	6	9	35.0			
982	Setto	908	911	1013	1010	6	9	35.0			
983	Setto	909	912	1014	1011	6	9	35.0			
984	Setto	910	913	1015	1012	6	9	35.0			
985	Setto	911	914	1016	1013	6	9	35.0			
986	Setto	912	915	1017	1014	6	9	35.0			
987	Setto	913	916	1018	1015	6	9	35.0			
988	Setto	914	917	1019	1016	6	9	35.0			
989	Setto	915	935	1037	1017	6	9	35.0			
990	Setto	916	945	1047	1018	6	9	35.0			
991	Setto	1019	1020	918	917	6	9	35.0			
992	Setto	1020	1021	919	918	6	9	35.0			
993	Setto	1021	1022	920	919	6	9	35.0			
994	Setto	1022	1023	921	920	6	9	35.0			
995	Setto	1023	1024	922	921	6	9	35.0			
996	Setto	1024	1025	923	922	6	9	35.0			
997	Setto	1025	1026	924	923	6	9	35.0			
998	Setto	1026	1027	925	924	6	9	35.0			
999	Setto	1027	1028	926	925	6	9	35.0			
1000	Setto	1028	1029	927	926	6	9	35.0			
1001	Setto	1029	1030	928	927	6	9	35.0			
1002	Setto	1030	1031	929	928	6	9	35.0			
1003	Setto	1031	1032	930	929	6	9	35.0			
1004	Setto	1032	1033	931	930	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1005	Setto	1033	1034	932	931	6	9	35.0			
1006	Setto	1034	1035	933	932	6	9	35.0			
1007	Setto	1035	1036	934	933	6	9	35.0			
1008	Setto	1036	1037	935	934	6	9	35.0			
1009	Setto	1037	1038	936	935	6	9	35.0			
1010	Setto	1038	1039	937	936	6	9	35.0			
1011	Setto	1039	1040	938	937	6	9	35.0			
1012	Setto	1040	1041	939	938	6	9	35.0			
1013	Setto	1041	1042	940	939	6	9	35.0			
1014	Setto	1042	1043	941	940	6	9	35.0			
1015	Setto	1043	1044	942	941	6	9	35.0			
1016	Setto	1044	1045	943	942	6	9	35.0			
1017	Setto	1045	1046	944	943	6	9	35.0			
1018	Setto	1046	1047	945	944	6	9	35.0			
1019	Setto	917	946	1048	1019	6	9	35.0			
1020	Setto	926	947	1049	1028	6	9	35.0			
1021	Setto	935	948	1050	1037	6	9	35.0			
1022	Setto	945	949	1051	1047	6	9	35.0			
1023	Setto	946	950	1052	1048	6	9	35.0			
1024	Setto	947	951	1053	1049	6	9	35.0			
1025	Setto	948	952	1054	1050	6	9	35.0			
1026	Setto	949	953	1055	1051	6	9	35.0			
1027	Setto	950	954	1056	1052	6	9	35.0			
1028	Setto	951	955	1057	1053	6	9	35.0			
1029	Setto	952	956	1058	1054	6	9	35.0			
1030	Setto	953	957	1059	1055	6	9	35.0			
1031	Setto	954	958	1060	1056	6	9	35.0			
1032	Setto	955	959	1061	1057	6	9	35.0			
1033	Setto	956	960	1062	1058	6	9	35.0			
1034	Setto	957	961	1063	1059	6	9	35.0			
1035	Setto	958	962	1064	1060	6	9	35.0			
1036	Setto	959	963	1065	1061	6	9	35.0			
1037	Setto	960	964	1066	1062	6	9	35.0			
1038	Setto	961	965	1067	1063	6	9	35.0			
1039	Setto	962	966	1068	1064	6	9	35.0			
1040	Setto	963	967	1069	1065	6	9	35.0			
1041	Setto	964	968	1070	1066	6	9	35.0			
1042	Setto	965	969	1071	1067	6	9	35.0			
1043	Setto	966	970	1072	1068	6	9	35.0			
1044	Setto	967	971	1073	1069	6	9	35.0			
1045	Setto	968	972	1074	1070	6	9	35.0			
1046	Setto	969	973	1075	1071	6	9	35.0			
1047	Setto	970	974	1076	1072	6	9	35.0			
1048	Setto	971	975	1077	1073	6	9	35.0			
1049	Setto	972	976	1078	1074	6	9	35.0			
1050	Setto	973	977	1079	1075	6	9	35.0			
1051	Setto	974	978	1080	1076	6	9	35.0			
1052	Setto	975	987	1089	1077	6	9	35.0			
1053	Setto	976	996	1098	1078	6	9	35.0			
1054	Setto	977	1006	1108	1079	6	9	35.0			
1055	Setto	1080	1081	979	978	6	9	35.0			
1056	Setto	1081	1082	980	979	6	9	35.0			
1057	Setto	1082	1083	981	980	6	9	35.0			
1058	Setto	1083	1084	982	981	6	9	35.0			
1059	Setto	1084	1085	983	982	6	9	35.0			
1060	Setto	1085	1086	984	983	6	9	35.0			
1061	Setto	1086	1087	985	984	6	9	35.0			
1062	Setto	1087	1088	986	985	6	9	35.0			
1063	Setto	1088	1089	987	986	6	9	35.0			
1064	Setto	1089	1090	988	987	6	9	35.0			
1065	Setto	1090	1091	989	988	6	9	35.0			
1066	Setto	1091	1092	990	989	6	9	35.0			
1067	Setto	1092	1093	991	990	6	9	35.0			
1068	Setto	1093	1094	992	991	6	9	35.0			
1069	Setto	1094	1095	993	992	6	9	35.0			
1070	Setto	1095	1096	994	993	6	9	35.0			
1071	Setto	1096	1097	995	994	6	9	35.0			
1072	Setto	1097	1098	996	995	6	9	35.0			
1073	Setto	1098	1099	997	996	6	9	35.0			
1074	Setto	1099	1100	998	997	6	9	35.0			
1075	Setto	1100	1101	999	998	6	9	35.0			
1076	Setto	1101	1102	1000	999	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1077	Setto	1102	1103	1001	1000	6	9	35.0			
1078	Setto	1103	1104	1002	1001	6	9	35.0			
1079	Setto	1104	1105	1003	1002	6	9	35.0			
1080	Setto	1105	1106	1004	1003	6	9	35.0			
1081	Setto	1106	1107	1005	1004	6	9	35.0			
1082	Setto	1107	1108	1006	1005	6	9	35.0			
1083	Setto	1007	1010	1112	1109	6	9	35.0			
1084	Setto	1008	1011	1113	1110	6	9	35.0			
1085	Setto	1009	1012	1114	1111	6	9	35.0			
1086	Setto	1010	1013	1115	1112	6	9	35.0			
1087	Setto	1011	1014	1116	1113	6	9	35.0			
1088	Setto	1012	1015	1117	1114	6	9	35.0			
1089	Setto	1013	1016	1118	1115	6	9	35.0			
1090	Setto	1014	1017	1119	1116	6	9	35.0			
1091	Setto	1015	1018	1120	1117	6	9	35.0			
1092	Setto	1016	1019	1121	1118	6	9	35.0			
1093	Setto	1017	1037	1139	1119	6	9	35.0			
1094	Setto	1018	1047	1149	1120	6	9	35.0			
1095	Setto	1121	1122	1020	1019	6	9	35.0			
1096	Setto	1122	1123	1021	1020	6	9	35.0			
1097	Setto	1123	1124	1022	1021	6	9	35.0			
1098	Setto	1124	1125	1023	1022	6	9	35.0			
1099	Setto	1125	1126	1024	1023	6	9	35.0			
1100	Setto	1126	1127	1025	1024	6	9	35.0			
1101	Setto	1127	1128	1026	1025	6	9	35.0			
1102	Setto	1128	1129	1027	1026	6	9	35.0			
1103	Setto	1129	1130	1028	1027	6	9	35.0			
1104	Setto	1130	1131	1029	1028	6	9	35.0			
1105	Setto	1131	1132	1030	1029	6	9	35.0			
1106	Setto	1132	1133	1031	1030	6	9	35.0			
1107	Setto	1133	1134	1032	1031	6	9	35.0			
1108	Setto	1134	1135	1033	1032	6	9	35.0			
1109	Setto	1135	1136	1034	1033	6	9	35.0			
1110	Setto	1136	1137	1035	1034	6	9	35.0			
1111	Setto	1137	1138	1036	1035	6	9	35.0			
1112	Setto	1138	1139	1037	1036	6	9	35.0			
1113	Setto	1139	1140	1038	1037	6	9	35.0			
1114	Setto	1140	1141	1039	1038	6	9	35.0			
1115	Setto	1141	1142	1040	1039	6	9	35.0			
1116	Setto	1142	1143	1041	1040	6	9	35.0			
1117	Setto	1143	1144	1042	1041	6	9	35.0			
1118	Setto	1144	1145	1043	1042	6	9	35.0			
1119	Setto	1145	1146	1044	1043	6	9	35.0			
1120	Setto	1146	1147	1045	1044	6	9	35.0			
1121	Setto	1147	1148	1046	1045	6	9	35.0			
1122	Setto	1148	1149	1047	1046	6	9	35.0			
1123	Setto	1019	1048	1150	1121	6	9	35.0			
1124	Setto	1028	1049	1151	1130	6	9	35.0			
1125	Setto	1037	1050	1152	1139	6	9	35.0			
1126	Setto	1047	1051	1153	1149	6	9	35.0			
1127	Setto	1048	1052	1154	1150	6	9	35.0			
1128	Setto	1049	1053	1155	1151	6	9	35.0			
1129	Setto	1050	1054	1156	1152	6	9	35.0			
1130	Setto	1051	1055	1157	1153	6	9	35.0			
1131	Setto	1052	1056	1158	1154	6	9	35.0			
1132	Setto	1053	1057	1159	1155	6	9	35.0			
1133	Setto	1054	1058	1160	1156	6	9	35.0			
1134	Setto	1055	1059	1161	1157	6	9	35.0			
1135	Setto	1056	1060	1162	1158	6	9	35.0			
1136	Setto	1057	1061	1163	1159	6	9	35.0			
1137	Setto	1058	1062	1164	1160	6	9	35.0			
1138	Setto	1059	1063	1165	1161	6	9	35.0			
1139	Setto	1060	1064	1166	1162	6	9	35.0			
1140	Setto	1061	1065	1167	1163	6	9	35.0			
1141	Setto	1062	1066	1168	1164	6	9	35.0			
1142	Setto	1063	1067	1169	1165	6	9	35.0			
1143	Setto	1064	1068	1170	1166	6	9	35.0			
1144	Setto	1065	1069	1171	1167	6	9	35.0			
1145	Setto	1066	1070	1172	1168	6	9	35.0			
1146	Setto	1067	1071	1173	1169	6	9	35.0			
1147	Setto	1068	1072	1174	1170	6	9	35.0			
1148	Setto	1069	1073	1175	1171	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1149	Setto	1070	1074	1176	1172	6	9	35.0			
1150	Setto	1071	1075	1177	1173	6	9	35.0			
1151	Setto	1072	1076	1178	1174	6	9	35.0			
1152	Setto	1073	1077	1179	1175	6	9	35.0			
1153	Setto	1074	1078	1180	1176	6	9	35.0			
1154	Setto	1075	1079	1181	1177	6	9	35.0			
1155	Setto	1076	1080	1182	1178	6	9	35.0			
1156	Setto	1077	1089	1191	1179	6	9	35.0			
1157	Setto	1078	1098	1200	1180	6	9	35.0			
1158	Setto	1079	1108	1210	1181	6	9	35.0			
1159	Setto	1182	1183	1081	1080	6	9	35.0			
1160	Setto	1183	1184	1082	1081	6	9	35.0			
1161	Setto	1184	1185	1083	1082	6	9	35.0			
1162	Setto	1185	1186	1084	1083	6	9	35.0			
1163	Setto	1186	1187	1085	1084	6	9	35.0			
1164	Setto	1187	1188	1086	1085	6	9	35.0			
1165	Setto	1188	1189	1087	1086	6	9	35.0			
1166	Setto	1189	1190	1088	1087	6	9	35.0			
1167	Setto	1190	1191	1089	1088	6	9	35.0			
1168	Setto	1191	1192	1090	1089	6	9	35.0			
1169	Setto	1192	1193	1091	1090	6	9	35.0			
1170	Setto	1193	1194	1092	1091	6	9	35.0			
1171	Setto	1194	1195	1093	1092	6	9	35.0			
1172	Setto	1195	1196	1094	1093	6	9	35.0			
1173	Setto	1196	1197	1095	1094	6	9	35.0			
1174	Setto	1197	1198	1096	1095	6	9	35.0			
1175	Setto	1198	1199	1097	1096	6	9	35.0			
1176	Setto	1199	1200	1098	1097	6	9	35.0			
1177	Setto	1200	1201	1099	1098	6	9	35.0			
1178	Setto	1201	1202	1100	1099	6	9	35.0			
1179	Setto	1202	1203	1101	1100	6	9	35.0			
1180	Setto	1203	1204	1102	1101	6	9	35.0			
1181	Setto	1204	1205	1103	1102	6	9	35.0			
1182	Setto	1205	1206	1104	1103	6	9	35.0			
1183	Setto	1206	1207	1105	1104	6	9	35.0			
1184	Setto	1207	1208	1106	1105	6	9	35.0			
1185	Setto	1208	1209	1107	1106	6	9	35.0			
1186	Setto	1209	1210	1108	1107	6	9	35.0			
1187	Setto	1109	1112	1240	1211	6	9	35.0			
1188	Setto	1110	1113	1258	1229	6	9	35.0			
1189	Setto	1111	1114	1268	1239	6	9	35.0			
1190	Setto	1112	1115	1272	1240	6	9	35.0			
1191	Setto	1113	1116	1287	1258	6	9	35.0			
1192	Setto	1114	1117	1295	1268	6	9	35.0			
1193	Setto	1115	1118	1299	1272	6	9	35.0			
1194	Setto	1116	1119	1317	1287	6	9	35.0			
1195	Setto	1117	1120	1328	1295	6	9	35.0			
1196	Setto	1118	1121	1329	1299	6	9	35.0			
1197	Setto	1119	1139	1347	1317	6	9	35.0			
1198	Setto	1120	1149	1357	1328	6	9	35.0			
1199	Setto	1329	1330	1122	1121	6	9	35.0			
1200	Setto	1330	1331	1123	1122	6	9	35.0			
1201	Setto	1331	1332	1124	1123	6	9	35.0			
1202	Setto	1332	1333	1125	1124	6	9	35.0			
1203	Setto	1333	1334	1126	1125	6	9	35.0			
1204	Setto	1334	1335	1127	1126	6	9	35.0			
1205	Setto	1335	1336	1128	1127	6	9	35.0			
1206	Setto	1336	1337	1129	1128	6	9	35.0			
1207	Setto	1337	1338	1130	1129	6	9	35.0			
1208	Setto	1338	1339	1131	1130	6	9	35.0			
1209	Setto	1339	1340	1132	1131	6	9	35.0			
1210	Setto	1340	1341	1133	1132	6	9	35.0			
1211	Setto	1341	1342	1134	1133	6	9	35.0			
1212	Setto	1342	1343	1135	1134	6	9	35.0			
1213	Setto	1343	1344	1136	1135	6	9	35.0			
1214	Setto	1344	1345	1137	1136	6	9	35.0			
1215	Setto	1345	1346	1138	1137	6	9	35.0			
1216	Setto	1346	1347	1139	1138	6	9	35.0			
1217	Setto	1347	1348	1140	1139	6	9	35.0			
1218	Setto	1348	1349	1141	1140	6	9	35.0			
1219	Setto	1349	1350	1142	1141	6	9	35.0			
1220	Setto	1350	1351	1143	1142	6	9	35.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
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Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1221	Setto	1351	1352	1144	1143	6	9	35.0			
1222	Setto	1352	1353	1145	1144	6	9	35.0			
1223	Setto	1353	1354	1146	1145	6	9	35.0			
1224	Setto	1354	1355	1147	1146	6	9	35.0			
1225	Setto	1355	1356	1148	1147	6	9	35.0			
1226	Setto	1356	1357	1149	1148	6	9	35.0			
1227	Setto	1121	1150	1358	1329	6	9	35.0			
1228	Setto	1130	1151	1367	1338	6	9	35.0			
1229	Setto	1139	1152	1376	1347	6	9	35.0			
1230	Setto	1149	1153	1386	1357	6	9	35.0			
1231	Setto	1150	1154	1387	1358	6	9	35.0			
1232	Setto	1151	1155	1396	1367	6	9	35.0			
1233	Setto	1152	1156	1405	1376	6	9	35.0			
1234	Setto	1153	1157	1415	1386	6	9	35.0			
1235	Setto	1154	1158	1416	1387	6	9	35.0			
1236	Setto	1155	1159	1425	1396	6	9	35.0			
1237	Setto	1156	1160	1434	1405	6	9	35.0			
1238	Setto	1157	1161	1444	1415	6	9	35.0			
1239	Setto	1158	1162	1445	1416	6	9	35.0			
1240	Setto	1159	1163	1454	1425	6	9	35.0			
1241	Setto	1160	1164	1463	1434	6	9	35.0			
1242	Setto	1161	1165	1473	1444	6	9	35.0			
1243	Setto	1162	1166	1474	1445	6	9	35.0			
1244	Setto	1163	1167	1483	1454	6	9	35.0			
1245	Setto	1164	1168	1492	1463	6	9	35.0			
1246	Setto	1165	1169	1502	1473	6	9	35.0			
1247	Setto	1166	1170	1503	1474	6	9	35.0			
1248	Setto	1167	1171	1512	1483	6	9	35.0			
1249	Setto	1168	1172	1521	1492	6	9	35.0			
1250	Setto	1169	1173	1531	1502	6	9	35.0			
1251	Setto	1170	1174	1532	1503	6	9	35.0			
1252	Setto	1171	1175	1542	1512	6	9	35.0			
1253	Setto	1172	1176	1552	1521	6	9	35.0			
1254	Setto	1173	1177	1563	1531	6	9	35.0			
1255	Setto	1174	1178	1564	1532	6	9	35.0			
1256	Setto	1175	1179	1574	1542	6	9	35.0			
1257	Setto	1176	1180	1584	1552	6	9	35.0			
1258	Setto	1177	1181	1596	1563	6	9	35.0			
1259	Setto	1178	1182	1597	1564	6	9	35.0			
1260	Setto	1179	1191	1606	1574	6	9	35.0			
1261	Setto	1180	1200	1615	1584	6	9	35.0			
1262	Setto	1181	1210	1625	1596	6	9	35.0			
1263	Setto	1597	1598	1183	1182	6	9	35.0			
1264	Setto	1598	1599	1184	1183	6	9	35.0			
1265	Setto	1599	1600	1185	1184	6	9	35.0			
1266	Setto	1600	1601	1186	1185	6	9	35.0			
1267	Setto	1601	1602	1187	1186	6	9	35.0			
1268	Setto	1602	1603	1188	1187	6	9	35.0			
1269	Setto	1603	1604	1189	1188	6	9	35.0			
1270	Setto	1604	1605	1190	1189	6	9	35.0			
1271	Setto	1605	1606	1191	1190	6	9	35.0			
1272	Setto	1606	1607	1192	1191	6	9	35.0			
1273	Setto	1607	1608	1193	1192	6	9	35.0			
1274	Setto	1608	1609	1194	1193	6	9	35.0			
1275	Setto	1609	1610	1195	1194	6	9	35.0			
1276	Setto	1610	1611	1196	1195	6	9	35.0			
1277	Setto	1611	1612	1197	1196	6	9	35.0			
1278	Setto	1612	1613	1198	1197	6	9	35.0			
1279	Setto	1613	1614	1199	1198	6	9	35.0			
1280	Setto	1614	1615	1200	1199	6	9	35.0			
1281	Setto	1615	1616	1201	1200	6	9	35.0			
1282	Setto	1616	1617	1202	1201	6	9	35.0			
1283	Setto	1617	1618	1203	1202	6	9	35.0			
1284	Setto	1618	1619	1204	1203	6	9	35.0			
1285	Setto	1619	1620	1205	1204	6	9	35.0			
1286	Setto	1620	1621	1206	1205	6	9	35.0			
1287	Setto	1621	1622	1207	1206	6	9	35.0			
1288	Setto	1622	1623	1208	1207	6	9	35.0			
1289	Setto	1623	1624	1209	1208	6	9	35.0			
1290	Setto	1624	1625	1210	1209	6	9	35.0			
1291	Guscio	1211	1212	1241	1240	6	9	30.0			
1292	Guscio	1212	1213	1242	1241	6	9	30.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1293	Guscio	1213	1214	1243	1242	6	9	30.0			
1294	Guscio	1214	1215	1244	1243	6	9	30.0			
1295	Guscio	1215	1216	1245	1244	6	9	30.0			
1296	Guscio	1216	1217	1246	1245	6	9	30.0			
1297	Guscio	1217	1218	1247	1246	6	9	30.0			
1298	Guscio	1218	1219	1248	1247	6	9	30.0			
1299	Guscio	1219	1220	1249	1248	6	9	30.0			
1300	Guscio	1220	1221	1250	1249	6	9	30.0			
1301	Guscio	1221	1222	1251	1250	6	9	30.0			
1302	Guscio	1222	1223	1252	1251	6	9	30.0			
1303	Guscio	1223	1224	1253	1252	6	9	30.0			
1304	Guscio	1224	1225	1254	1253	6	9	30.0			
1305	Guscio	1225	1226	1255	1254	6	9	30.0			
1306	Guscio	1226	1227	1256	1255	6	9	30.0			
1307	Guscio	1227	1228	1257	1256	6	9	30.0			
1308	Guscio	1228	1229	1258	1257	6	9	30.0			
1309	Guscio	1229	1230	1259	1258	6	9	30.0			
1310	Guscio	1230	1231	1260	1259	6	9	30.0			
1311	Guscio	1231	1232	1261	1260	6	9	30.0			
1312	Guscio	1232	1233	1262	1261	6	9	30.0			
1313	Guscio	1233	1234	1263	1262	6	9	30.0			
1314	Guscio	1234	1235	1264	1263	6	9	30.0			
1315	Guscio	1235	1236	1265	1264	6	9	30.0			
1316	Guscio	1236	1237	1266	1265	6	9	30.0			
1317	Guscio	1237	1238	1267	1266	6	9	30.0			
1318	Guscio	1238	1239	1268	1267	6	9	30.0			
1319	Guscio	1260	1261	1269		6	9	30.0			
1320	Guscio	1261	1262	1271	1270	6	9	30.0			
1321	Guscio	1262	1263	1290	1271	6	9	30.0			
1322	Guscio	1240	1241	1273	1272	6	9	30.0			
1323	Guscio	1241	1242	1274	1273	6	9	30.0			
1324	Guscio	1242	1243	1275	1274	6	9	30.0			
1325	Guscio	1243	1244	1276	1275	6	9	30.0			
1326	Guscio	1244	1245	1277	1276	6	9	30.0			
1327	Guscio	1245	1246	1278	1277	6	9	30.0			
1328	Guscio	1246	1247	1279	1278	6	9	30.0			
1329	Guscio	1247	1248	1280	1279	6	9	30.0			
1330	Guscio	1248	1249	1281	1280	6	9	30.0			
1331	Guscio	1249	1250	1282	1281	6	9	30.0			
1332	Guscio	1250	1251	1283	1282	6	9	30.0			
1333	Guscio	1255	1256	1285	1284	6	9	30.0			
1334	Guscio	1256	1257	1286	1285	6	9	30.0			
1335	Guscio	1257	1258	1287	1286	6	9	30.0			
1336	Guscio	1258	1259	1288	1287	6	9	30.0			
1337	Guscio	1259	1260	1289	1288	6	9	30.0			
1338	Guscio	1269	1261	1270		6	9	30.0			
1339	Guscio	1263	1264	1291	1290	6	9	30.0			
1340	Guscio	1264	1265	1292	1291	6	9	30.0			
1341	Guscio	1265	1266	1293	1292	6	9	30.0			
1342	Guscio	1266	1267	1294	1293	6	9	30.0			
1343	Guscio	1267	1268	1295	1294	6	9	30.0			
1344	Guscio	1251	1252	1296	1283	6	9	30.0			
1345	Guscio	1254	1255	1284	1298	6	9	30.0			
1346	Guscio	1252	1253	1297	1296	6	9	30.0			
1347	Guscio	1253	1254	1298	1297	6	9	30.0			
1348	Guscio	1289	1260	1269		6	9	30.0			
1349	Guscio	1289	1269	1320	1319	6	9	30.0			
1350	Guscio	1271	1290	1323	1322	6	9	30.0			
1351	Guscio	1272	1273	1300	1299	6	9	30.0			
1352	Guscio	1273	1274	1301	1300	6	9	30.0			
1353	Guscio	1274	1275	1302	1301	6	9	30.0			
1354	Guscio	1275	1276	1303	1302	6	9	30.0			
1355	Guscio	1276	1277	1304	1303	6	9	30.0			
1356	Guscio	1277	1278	1305	1304	6	9	30.0			
1357	Guscio	1278	1279	1306	1305	6	9	30.0			
1358	Guscio	1279	1280	1307	1306	6	9	30.0			
1359	Guscio	1280	1281	1308	1307	6	9	30.0			
1360	Guscio	1281	1282	1309	1308	6	9	30.0			
1361	Guscio	1282	1283	1310	1309	6	9	30.0			
1362	Guscio	1284	1285	1315	1314	6	9	30.0			
1363	Guscio	1285	1286	1316	1315	6	9	30.0			
1364	Guscio	1286	1287	1317	1316	6	9	30.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1365	Guscio	1287	1288	1318	1317	6	9	30.0			
1366	Guscio	1288	1289	1319	1318	6	9	30.0			
1367	Guscio	1290	1291	1324	1323	6	9	30.0			
1368	Guscio	1291	1292	1325	1324	6	9	30.0			
1369	Guscio	1292	1293	1326	1325	6	9	30.0			
1370	Guscio	1293	1294	1327	1326	6	9	30.0			
1371	Guscio	1294	1295	1328	1327	6	9	30.0			
1372	Guscio	1283	1296	1311	1310	6	9	30.0			
1373	Guscio	1298	1284	1314	1313	6	9	30.0			
1374	Guscio	1299	1300	1330		6	9	30.0			
1375	Guscio	1315	1316	1346		6	9	30.0			
1376	Guscio	1320	1321	1350		6	9	30.0			
1377	Guscio	1300	1301	1331	1330	6	9	30.0			
1378	Guscio	1301	1302	1332	1331	6	9	30.0			
1379	Guscio	1302	1303	1333	1332	6	9	30.0			
1380	Guscio	1303	1304	1334	1333	6	9	30.0			
1381	Guscio	1304	1305	1335	1334	6	9	30.0			
1382	Guscio	1305	1306	1336	1335	6	9	30.0			
1383	Guscio	1306	1307	1337	1336	6	9	30.0			
1384	Guscio	1307	1308	1338	1337	6	9	30.0			
1385	Guscio	1308	1309	1339	1338	6	9	30.0			
1386	Guscio	1309	1310	1340	1339	6	9	30.0			
1387	Guscio	1310	1311	1341	1340	6	9	30.0			
1388	Guscio	1311	1312	1342	1341	6	9	30.0			
1389	Guscio	1312	1313	1343	1342	6	9	30.0			
1390	Guscio	1313	1314	1344	1343	6	9	30.0			
1391	Guscio	1314	1315	1345	1344	6	9	30.0			
1392	Guscio	1316	1317	1347	1346	6	9	30.0			
1393	Guscio	1317	1318	1348	1347	6	9	30.0			
1394	Guscio	1318	1319	1349	1348	6	9	30.0			
1395	Guscio	1319	1320	1350	1349	6	9	30.0			
1396	Guscio	1321	1322	1351	1350	6	9	30.0			
1397	Guscio	1322	1323	1352	1351	6	9	30.0			
1398	Guscio	1323	1324	1353	1352	6	9	30.0			
1399	Guscio	1324	1325	1354	1353	6	9	30.0			
1400	Guscio	1325	1326	1355	1354	6	9	30.0			
1401	Guscio	1326	1327	1356	1355	6	9	30.0			
1402	Guscio	1327	1328	1357	1356	6	9	30.0			
1403	Guscio	1329	1299	1330		6	9	30.0			
1404	Guscio	1345	1315	1346		6	9	30.0			
1405	Guscio	1329	1330	1359	1358	6	9	30.0			
1406	Guscio	1330	1331	1360	1359	6	9	30.0			
1407	Guscio	1331	1332	1361	1360	6	9	30.0			
1408	Guscio	1332	1333	1362	1361	6	9	30.0			
1409	Guscio	1333	1334	1363	1362	6	9	30.0			
1410	Guscio	1334	1335	1364	1363	6	9	30.0			
1411	Guscio	1335	1336	1365	1364	6	9	30.0			
1412	Guscio	1336	1337	1366	1365	6	9	30.0			
1413	Guscio	1337	1338	1367	1366	6	9	30.0			
1414	Guscio	1338	1339	1368	1367	6	9	30.0			
1415	Guscio	1339	1340	1369	1368	6	9	30.0			
1416	Guscio	1340	1341	1370	1369	6	9	30.0			
1417	Guscio	1341	1342	1371	1370	6	9	30.0			
1418	Guscio	1342	1343	1372	1371	6	9	30.0			
1419	Guscio	1343	1344	1373	1372	6	9	30.0			
1420	Guscio	1344	1345	1374	1373	6	9	30.0			
1421	Guscio	1345	1346	1375	1374	6	9	30.0			
1422	Guscio	1346	1347	1376	1375	6	9	30.0			
1423	Guscio	1347	1348	1377	1376	6	9	30.0			
1424	Guscio	1348	1349	1378	1377	6	9	30.0			
1425	Guscio	1349	1350	1379	1378	6	9	30.0			
1426	Guscio	1350	1351	1380	1379	6	9	30.0			
1427	Guscio	1351	1352	1381	1380	6	9	30.0			
1428	Guscio	1352	1353	1382	1381	6	9	30.0			
1429	Guscio	1353	1354	1383	1382	6	9	30.0			
1430	Guscio	1354	1355	1384	1383	6	9	30.0			
1431	Guscio	1355	1356	1385	1384	6	9	30.0			
1432	Guscio	1356	1357	1386	1385	6	9	30.0			
1433	Guscio	1358	1359	1388	1387	6	9	30.0			
1434	Guscio	1359	1360	1389	1388	6	9	30.0			
1435	Guscio	1360	1361	1390	1389	6	9	30.0			
1436	Guscio	1361	1362	1391	1390	6	9	30.0			

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1437	Guscio	1362	1363	1392	1391	6	9	30.0			
1438	Guscio	1363	1364	1393	1392	6	9	30.0			
1439	Guscio	1364	1365	1394	1393	6	9	30.0			
1440	Guscio	1365	1366	1395	1394	6	9	30.0			
1441	Guscio	1366	1367	1396	1395	6	9	30.0			
1442	Guscio	1367	1368	1397	1396	6	9	30.0			
1443	Guscio	1368	1369	1398	1397	6	9	30.0			
1444	Guscio	1369	1370	1399	1398	6	9	30.0			
1445	Guscio	1370	1371	1400	1399	6	9	30.0			
1446	Guscio	1371	1372	1401	1400	6	9	30.0			
1447	Guscio	1372	1373	1402	1401	6	9	30.0			
1448	Guscio	1373	1374	1403	1402	6	9	30.0			
1449	Guscio	1374	1375	1404	1403	6	9	30.0			
1450	Guscio	1375	1376	1405	1404	6	9	30.0			
1451	Guscio	1376	1377	1406	1405	6	9	30.0			
1452	Guscio	1377	1378	1407	1406	6	9	30.0			
1453	Guscio	1378	1379	1408	1407	6	9	30.0			
1454	Guscio	1379	1380	1409	1408	6	9	30.0			
1455	Guscio	1380	1381	1410	1409	6	9	30.0			
1456	Guscio	1381	1382	1411	1410	6	9	30.0			
1457	Guscio	1382	1383	1412	1411	6	9	30.0			
1458	Guscio	1383	1384	1413	1412	6	9	30.0			
1459	Guscio	1384	1385	1414	1413	6	9	30.0			
1460	Guscio	1385	1386	1415	1414	6	9	30.0			
1461	Guscio	1387	1388	1417	1416	6	9	30.0			
1462	Guscio	1388	1389	1418	1417	6	9	30.0			
1463	Guscio	1389	1390	1419	1418	6	9	30.0			
1464	Guscio	1390	1391	1420	1419	6	9	30.0			
1465	Guscio	1391	1392	1421	1420	6	9	30.0			
1466	Guscio	1392	1393	1422	1421	6	9	30.0			
1467	Guscio	1393	1394	1423	1422	6	9	30.0			
1468	Guscio	1394	1395	1424	1423	6	9	30.0			
1469	Guscio	1395	1396	1425	1424	6	9	30.0			
1470	Guscio	1396	1397	1426	1425	6	9	30.0			
1471	Guscio	1397	1398	1427	1426	6	9	30.0			
1472	Guscio	1398	1399	1428	1427	6	9	30.0			
1473	Guscio	1399	1400	1429	1428	6	9	30.0			
1474	Guscio	1400	1401	1430	1429	6	9	30.0			
1475	Guscio	1401	1402	1431	1430	6	9	30.0			
1476	Guscio	1402	1403	1432	1431	6	9	30.0			
1477	Guscio	1403	1404	1433	1432	6	9	30.0			
1478	Guscio	1404	1405	1434	1433	6	9	30.0			
1479	Guscio	1405	1406	1435	1434	6	9	30.0			
1480	Guscio	1406	1407	1436	1435	6	9	30.0			
1481	Guscio	1407	1408	1437	1436	6	9	30.0			
1482	Guscio	1408	1409	1438	1437	6	9	30.0			
1483	Guscio	1409	1410	1439	1438	6	9	30.0			
1484	Guscio	1410	1411	1440	1439	6	9	30.0			
1485	Guscio	1411	1412	1441	1440	6	9	30.0			
1486	Guscio	1412	1413	1442	1441	6	9	30.0			
1487	Guscio	1413	1414	1443	1442	6	9	30.0			
1488	Guscio	1414	1415	1444	1443	6	9	30.0			
1489	Guscio	1416	1417	1446	1445	6	9	30.0			
1490	Guscio	1417	1418	1447	1446	6	9	30.0			
1491	Guscio	1418	1419	1448	1447	6	9	30.0			
1492	Guscio	1419	1420	1449	1448	6	9	30.0			
1493	Guscio	1420	1421	1450	1449	6	9	30.0			
1494	Guscio	1421	1422	1451	1450	6	9	30.0			
1495	Guscio	1422	1423	1452	1451	6	9	30.0			
1496	Guscio	1423	1424	1453	1452	6	9	30.0			
1497	Guscio	1424	1425	1454	1453	6	9	30.0			
1498	Guscio	1425	1426	1455	1454	6	9	30.0			
1499	Guscio	1426	1427	1456	1455	6	9	30.0			
1500	Guscio	1427	1428	1457	1456	6	9	30.0			
1501	Guscio	1428	1429	1458	1457	6	9	30.0			
1502	Guscio	1429	1430	1459	1458	6	9	30.0			
1503	Guscio	1430	1431	1460	1459	6	9	30.0			
1504	Guscio	1431	1432	1461	1460	6	9	30.0			
1505	Guscio	1432	1433	1462	1461	6	9	30.0			
1506	Guscio	1433	1434	1463	1462	6	9	30.0			
1507	Guscio	1434	1435	1464	1463	6	9	30.0			
1508	Guscio	1435	1436	1465	1464	6	9	30.0			

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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1509	Guscio	1436	1437	1466	1465	6	9	30.0			
1510	Guscio	1437	1438	1467	1466	6	9	30.0			
1511	Guscio	1438	1439	1468	1467	6	9	30.0			
1512	Guscio	1439	1440	1469	1468	6	9	30.0			
1513	Guscio	1440	1441	1470	1469	6	9	30.0			
1514	Guscio	1441	1442	1471	1470	6	9	30.0			
1515	Guscio	1442	1443	1472	1471	6	9	30.0			
1516	Guscio	1443	1444	1473	1472	6	9	30.0			
1517	Guscio	1445	1446	1475	1474	6	9	30.0			
1518	Guscio	1446	1447	1476	1475	6	9	30.0			
1519	Guscio	1447	1448	1477	1476	6	9	30.0			
1520	Guscio	1448	1449	1478	1477	6	9	30.0			
1521	Guscio	1449	1450	1479	1478	6	9	30.0			
1522	Guscio	1450	1451	1480	1479	6	9	30.0			
1523	Guscio	1451	1452	1481	1480	6	9	30.0			
1524	Guscio	1452	1453	1482	1481	6	9	30.0			
1525	Guscio	1453	1454	1483	1482	6	9	30.0			
1526	Guscio	1454	1455	1484	1483	6	9	30.0			
1527	Guscio	1455	1456	1485	1484	6	9	30.0			
1528	Guscio	1456	1457	1486	1485	6	9	30.0			
1529	Guscio	1457	1458	1487	1486	6	9	30.0			
1530	Guscio	1458	1459	1488	1487	6	9	30.0			
1531	Guscio	1459	1460	1489	1488	6	9	30.0			
1532	Guscio	1460	1461	1490	1489	6	9	30.0			
1533	Guscio	1461	1462	1491	1490	6	9	30.0			
1534	Guscio	1462	1463	1492	1491	6	9	30.0			
1535	Guscio	1463	1464	1493	1492	6	9	30.0			
1536	Guscio	1464	1465	1494	1493	6	9	30.0			
1537	Guscio	1465	1466	1495	1494	6	9	30.0			
1538	Guscio	1466	1467	1496	1495	6	9	30.0			
1539	Guscio	1467	1468	1497	1496	6	9	30.0			
1540	Guscio	1468	1469	1498	1497	6	9	30.0			
1541	Guscio	1469	1470	1499	1498	6	9	30.0			
1542	Guscio	1470	1471	1500	1499	6	9	30.0			
1543	Guscio	1471	1472	1501	1500	6	9	30.0			
1544	Guscio	1472	1473	1502	1501	6	9	30.0			
1545	Guscio	1474	1475	1504	1503	6	9	30.0			
1546	Guscio	1475	1476	1505	1504	6	9	30.0			
1547	Guscio	1476	1477	1506	1505	6	9	30.0			
1548	Guscio	1477	1478	1507	1506	6	9	30.0			
1549	Guscio	1478	1479	1508	1507	6	9	30.0			
1550	Guscio	1479	1480	1509	1508	6	9	30.0			
1551	Guscio	1480	1481	1510	1509	6	9	30.0			
1552	Guscio	1481	1482	1511	1510	6	9	30.0			
1553	Guscio	1482	1483	1512	1511	6	9	30.0			
1554	Guscio	1483	1484	1513	1512	6	9	30.0			
1555	Guscio	1484	1485	1514	1513	6	9	30.0			
1556	Guscio	1485	1486	1515	1514	6	9	30.0			
1557	Guscio	1486	1487	1516	1515	6	9	30.0			
1558	Guscio	1487	1488	1517	1516	6	9	30.0			
1559	Guscio	1488	1489	1518	1517	6	9	30.0			
1560	Guscio	1489	1490	1519	1518	6	9	30.0			
1561	Guscio	1490	1491	1520	1519	6	9	30.0			
1562	Guscio	1491	1492	1521	1520	6	9	30.0			
1563	Guscio	1492	1493	1522	1521	6	9	30.0			
1564	Guscio	1493	1494	1523	1522	6	9	30.0			
1565	Guscio	1494	1495	1524	1523	6	9	30.0			
1566	Guscio	1495	1496	1525	1524	6	9	30.0			
1567	Guscio	1496	1497	1526	1525	6	9	30.0			
1568	Guscio	1497	1498	1527	1526	6	9	30.0			
1569	Guscio	1498	1499	1528	1527	6	9	30.0			
1570	Guscio	1499	1500	1529	1528	6	9	30.0			
1571	Guscio	1500	1501	1530	1529	6	9	30.0			
1572	Guscio	1501	1502	1531	1530	6	9	30.0			
1573	Guscio	1511	1512	1542		6	9	30.0			
1574	Guscio	1529	1530	1561		6	9	30.0			
1575	Guscio	1503	1504	1533	1532	6	9	30.0			
1576	Guscio	1504	1505	1535	1534	6	9	30.0			
1577	Guscio	1505	1506	1536	1535	6	9	30.0			
1578	Guscio	1506	1507	1537	1536	6	9	30.0			
1579	Guscio	1507	1508	1538	1537	6	9	30.0			
1580	Guscio	1508	1509	1539	1538	6	9	30.0			

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PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1581	Guscio	1509	1510	1540	1539	6	9	30.0			
1582	Guscio	1510	1511	1541	1540	6	9	30.0			
1583	Guscio	1512	1513	1544	1543	6	9	30.0			
1584	Guscio	1513	1514	1545	1544	6	9	30.0			
1585	Guscio	1514	1515	1546	1545	6	9	30.0			
1586	Guscio	1515	1516	1547	1546	6	9	30.0			
1587	Guscio	1516	1517	1548	1547	6	9	30.0			
1588	Guscio	1517	1518	1549	1548	6	9	30.0			
1589	Guscio	1518	1519	1550	1549	6	9	30.0			
1590	Guscio	1519	1520	1551	1550	6	9	30.0			
1591	Guscio	1520	1521	1552	1551	6	9	30.0			
1592	Guscio	1521	1522	1553	1552	6	9	30.0			
1593	Guscio	1522	1523	1554	1553	6	9	30.0			
1594	Guscio	1523	1524	1555	1554	6	9	30.0			
1595	Guscio	1524	1525	1556	1555	6	9	30.0			
1596	Guscio	1525	1526	1557	1556	6	9	30.0			
1597	Guscio	1526	1527	1558	1557	6	9	30.0			
1598	Guscio	1527	1528	1559	1558	6	9	30.0			
1599	Guscio	1528	1529	1560	1559	6	9	30.0			
1600	Guscio	1530	1531	1563	1562	6	9	30.0			
1601	Guscio	1533	1504	1534		6	9	30.0			
1602	Guscio	1541	1511	1542		6	9	30.0			
1603	Guscio	1542	1512	1543		6	9	30.0			
1604	Guscio	1560	1529	1561		6	9	30.0			
1605	Guscio	1561	1530	1562		6	9	30.0			
1606	Guscio	1532	1533	1565	1564	6	9	30.0			
1607	Guscio	1534	1535	1567	1566	6	9	30.0			
1608	Guscio	1535	1536	1568	1567	6	9	30.0			
1609	Guscio	1536	1537	1569	1568	6	9	30.0			
1610	Guscio	1537	1538	1570	1569	6	9	30.0			
1611	Guscio	1538	1539	1571	1570	6	9	30.0			
1612	Guscio	1539	1540	1572	1571	6	9	30.0			
1613	Guscio	1540	1541	1573	1572	6	9	30.0			
1614	Guscio	1541	1542	1574	1573	6	9	30.0			
1615	Guscio	1542	1543	1575	1574	6	9	30.0			
1616	Guscio	1544	1545	1577	1576	6	9	30.0			
1617	Guscio	1545	1546	1578	1577	6	9	30.0			
1618	Guscio	1546	1547	1579	1578	6	9	30.0			
1619	Guscio	1547	1548	1580	1579	6	9	30.0			
1620	Guscio	1548	1549	1581	1580	6	9	30.0			
1621	Guscio	1549	1550	1582	1581	6	9	30.0			
1622	Guscio	1551	1552	1584	1583	6	9	30.0			
1623	Guscio	1552	1553	1585	1584	6	9	30.0			
1624	Guscio	1553	1554	1586	1585	6	9	30.0			
1625	Guscio	1554	1555	1587	1586	6	9	30.0			
1626	Guscio	1555	1556	1588	1587	6	9	30.0			
1627	Guscio	1556	1557	1589	1588	6	9	30.0			
1628	Guscio	1557	1558	1590	1589	6	9	30.0			
1629	Guscio	1558	1559	1591	1590	6	9	30.0			
1630	Guscio	1559	1560	1592	1591	6	9	30.0			
1631	Guscio	1560	1561	1593	1592	6	9	30.0			
1632	Guscio	1562	1563	1596	1595	6	9	30.0			
1633	Guscio	1565	1566	1598		6	9	30.0			
1634	Guscio	1574	1575	1606		6	9	30.0			
1635	Guscio	1582	1583	1614		6	9	30.0			
1636	Guscio	1592	1593	1623		6	9	30.0			
1637	Guscio	1593	1594	1624		6	9	30.0			
1638	Guscio	1594	1595	1624		6	9	30.0			
1639	Guscio	1595	1596	1625		6	9	30.0			
1640	Guscio	1564	1565	1598	1597	6	9	30.0			
1641	Guscio	1566	1567	1599	1598	6	9	30.0			
1642	Guscio	1567	1568	1600	1599	6	9	30.0			
1643	Guscio	1568	1569	1601	1600	6	9	30.0			
1644	Guscio	1569	1570	1602	1601	6	9	30.0			
1645	Guscio	1570	1571	1603	1602	6	9	30.0			
1646	Guscio	1571	1572	1604	1603	6	9	30.0			
1647	Guscio	1572	1573	1605	1604	6	9	30.0			
1648	Guscio	1573	1574	1606	1605	6	9	30.0			
1649	Guscio	1575	1576	1607	1606	6	9	30.0			
1650	Guscio	1576	1577	1608	1607	6	9	30.0			
1651	Guscio	1577	1578	1609	1608	6	9	30.0			
1652	Guscio	1578	1579	1610	1609	6	9	30.0			

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TABULATO DI CALCOLO



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Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Crit.	Spessore	Svincolo	Wink V	Wink O
1653	Guscio	1579	1580	1611	1610	6	9	30.0			
1654	Guscio	1580	1581	1612	1611	6	9	30.0			
1655	Guscio	1581	1582	1613	1612	6	9	30.0			
1656	Guscio	1583	1584	1615	1614	6	9	30.0			
1657	Guscio	1584	1585	1616	1615	6	9	30.0			
1658	Guscio	1585	1586	1617	1616	6	9	30.0			
1659	Guscio	1586	1587	1618	1617	6	9	30.0			
1660	Guscio	1587	1588	1619	1618	6	9	30.0			
1661	Guscio	1588	1589	1620	1619	6	9	30.0			
1662	Guscio	1589	1590	1621	1620	6	9	30.0			
1663	Guscio	1590	1591	1622	1621	6	9	30.0			
1664	Guscio	1591	1592	1623	1622	6	9	30.0			
1665	Guscio	1613	1582	1614		6	9	30.0			
1666	Guscio	1623	1593	1624		6	9	30.0			
1667	Guscio	1624	1595	1625		6	9	30.0			

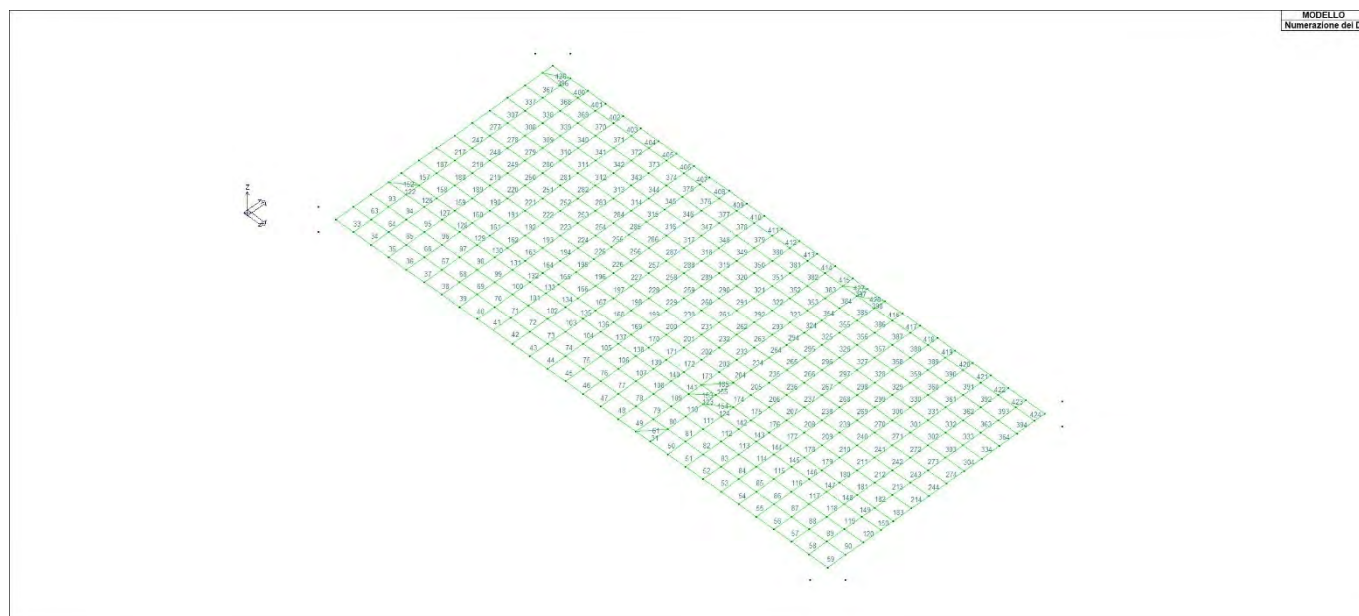


Figura 15 - MOD_NUMERAZIONE_D3_GR_001



MODELLO
Numerazione dei D3

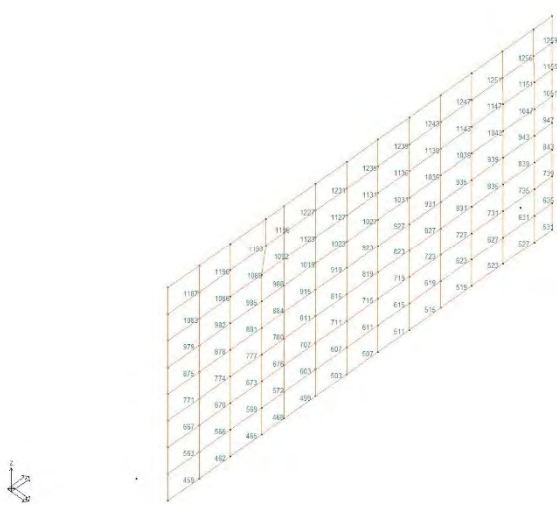


Figura 16 - MOD_NUMERAZIONE_D3_GR_002

MODELLO
Numerazione dei D3

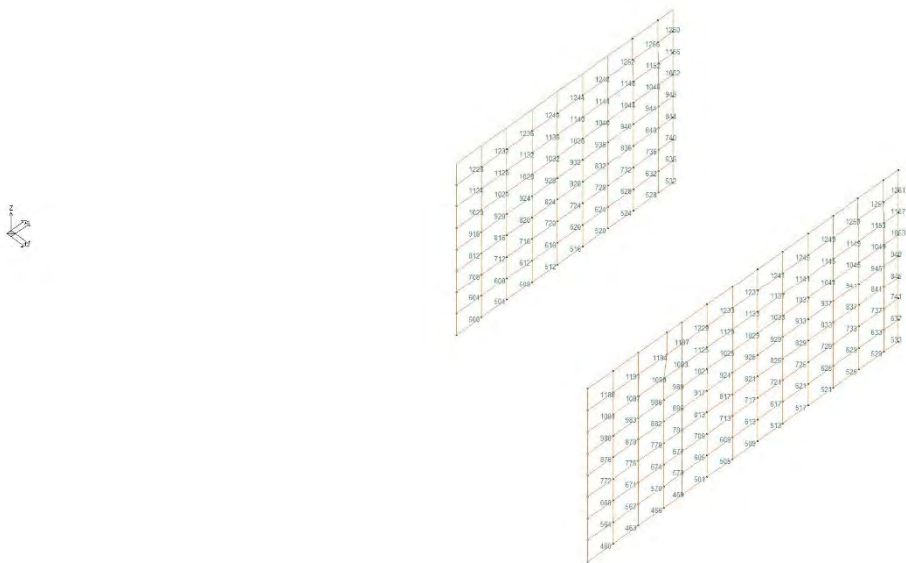


Figura 17 - MOD_NUMERAZIONE_D3_GR_003



MODELLO
Numerazione dei D3

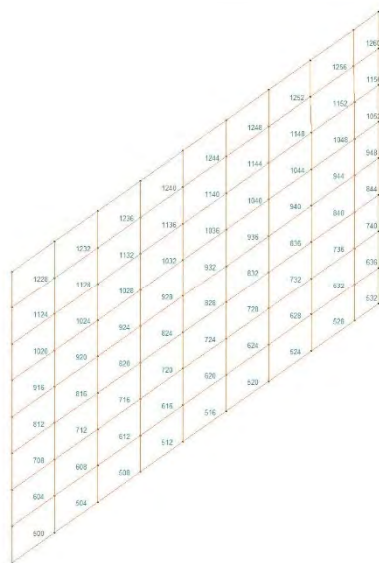


Figura 18 - MOD_NUMERAZIONE_D3_GR_004

MODELLO
Numerazione dei D3

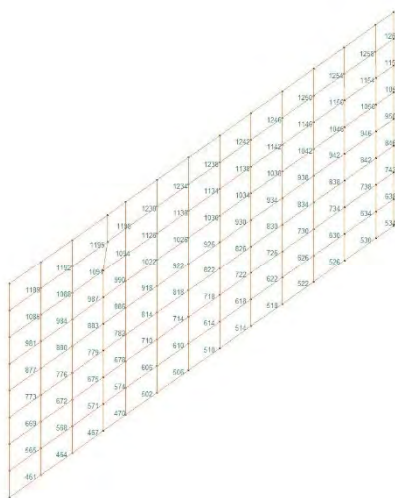


Figura 19 - MOD_NUMERAZIONE_D3_GR_005

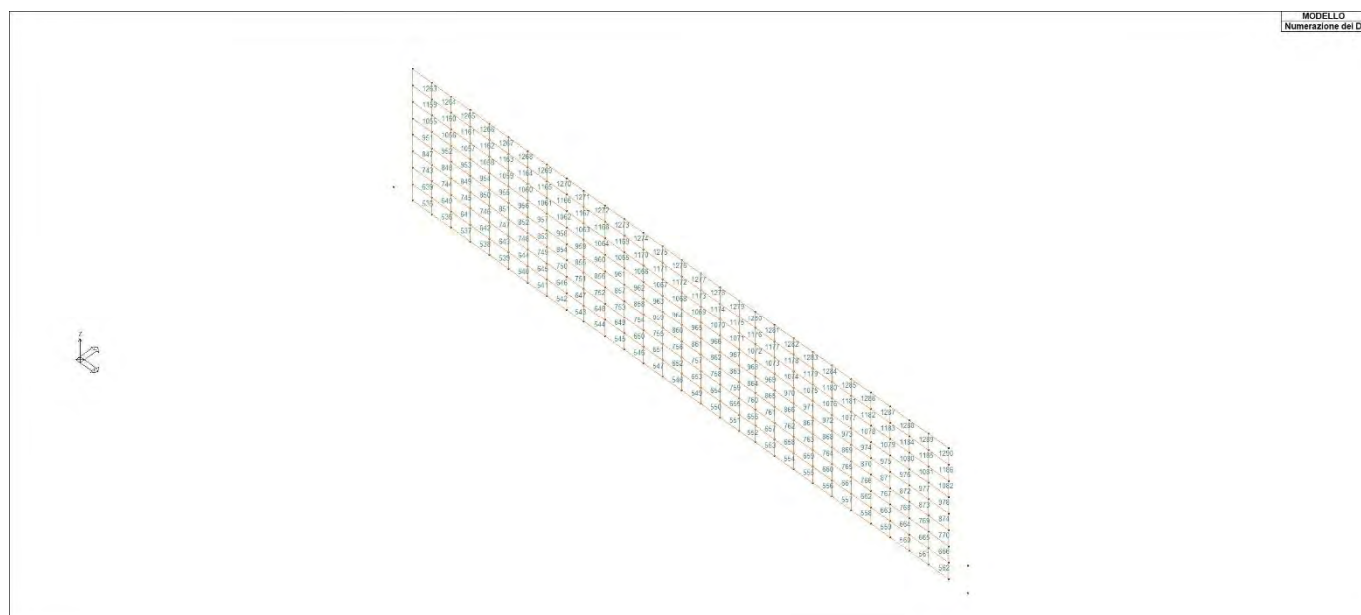


Figura 20 - MOD_NUMERAZIONE_D3_GR_006

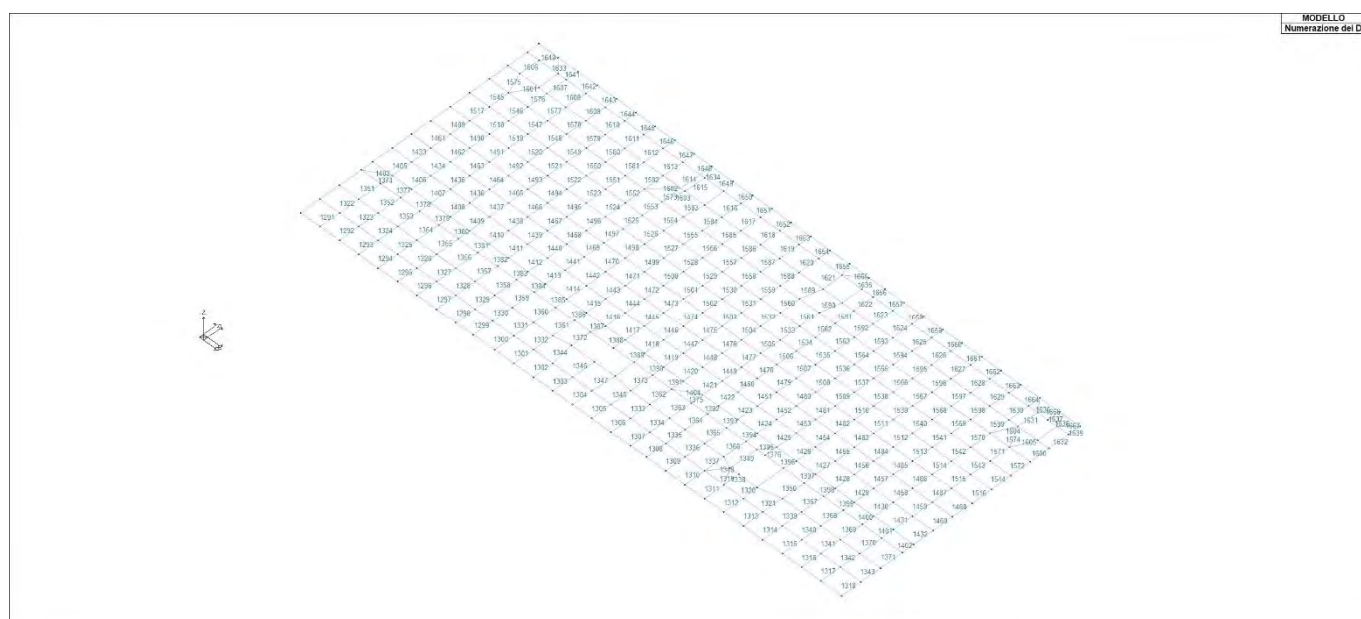


Figura 21 - MOD_NUMERAZIONE_D3_GR_007

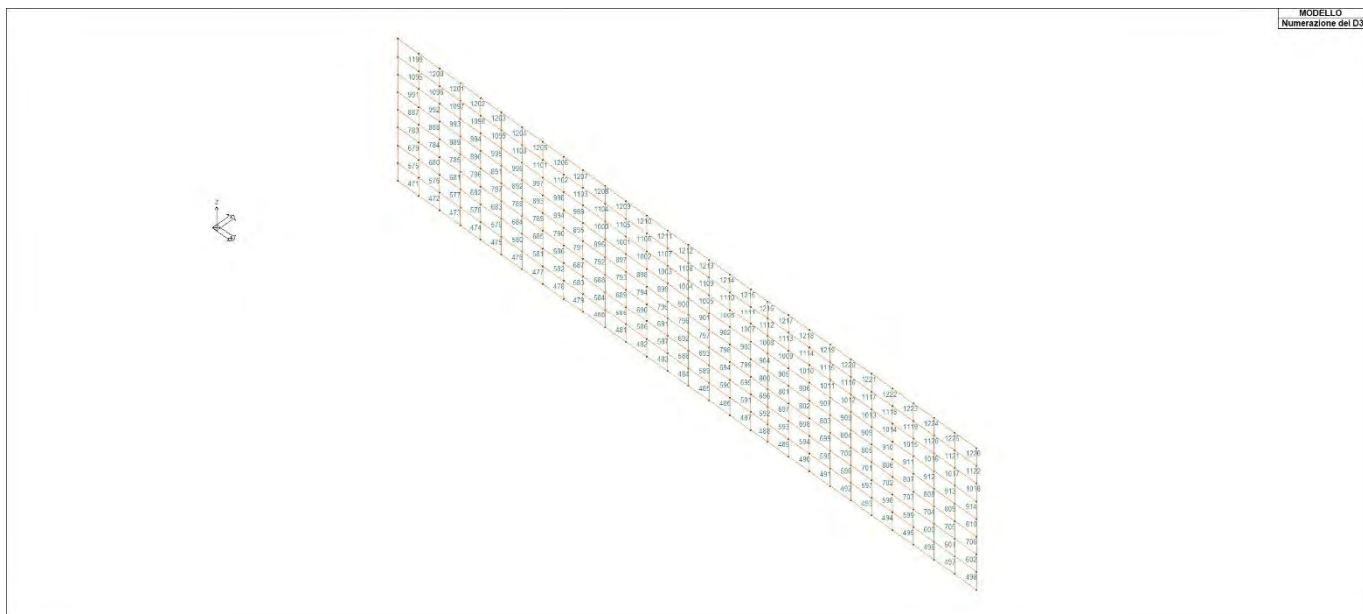


Figura 22 - MOD_NUMERAZIONE_D3_GR_008

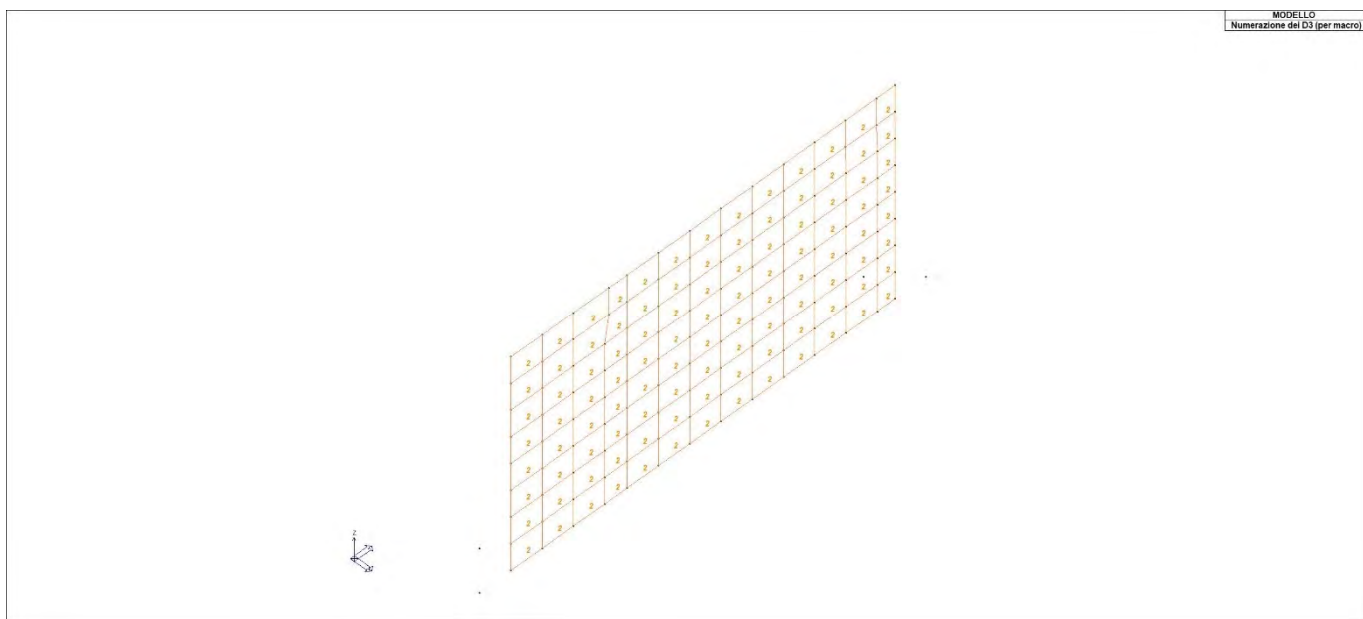


Figura 23 - MOD_NUMERAZIONE_D3_MACRO_GR_002



MODELLO
Numerazione dei D3 (per macro)

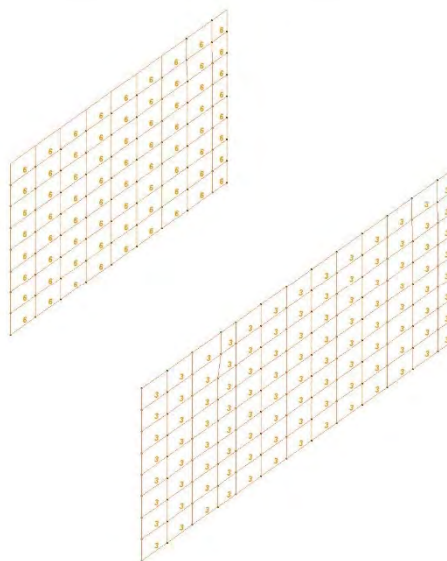


Figura 24 - MOD_NUMERAZIONE_D3_MACRO_GR_003

MODELLO
Numerazione dei D3 (per macro)

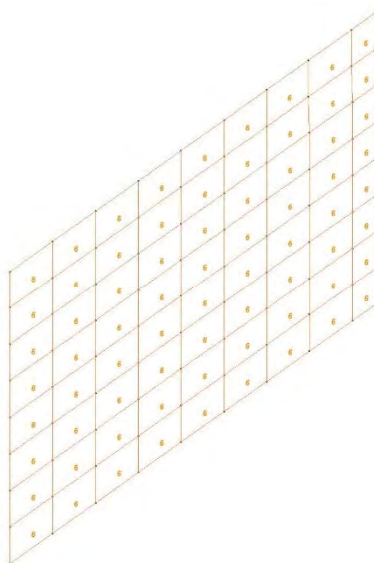


Figura 25 - MOD_NUMERAZIONE_D3_MACRO_GR_004



MODELLO
Numerazione del D3 (per macro)

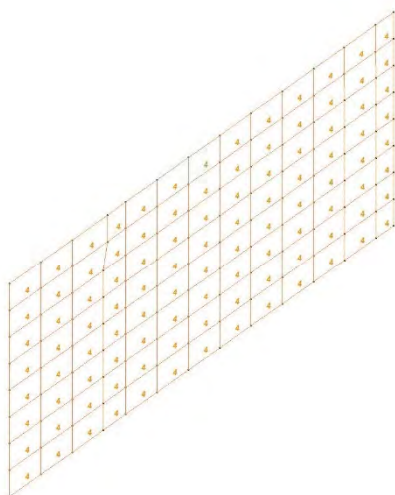


Figura 26 - MOD_NUMERAZIONE_D3_MACRO_GR_005

MODELLO
Numerazione del D3 (per macro)

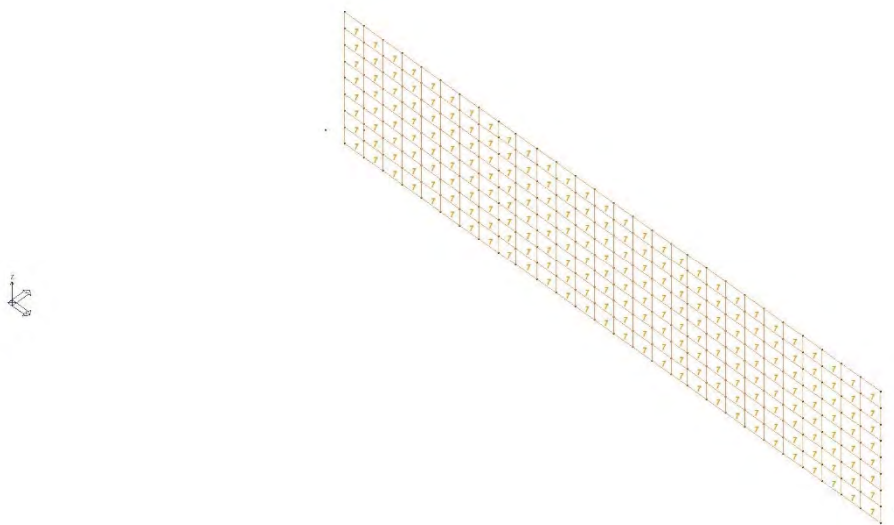


Figura 27 - MOD_NUMERAZIONE_D3_MACRO_GR_006



Figura 28 - MOD_NUMERAZIONE_D3_MACRO_GR_008



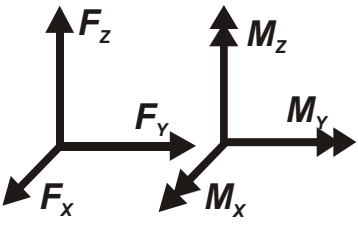
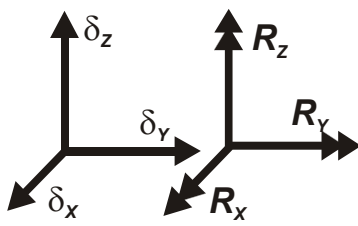
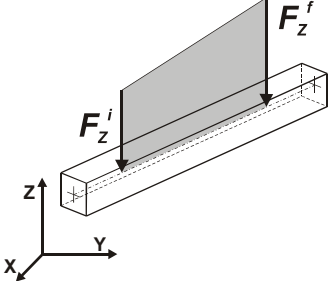
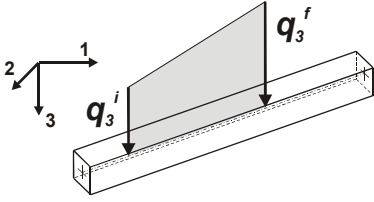
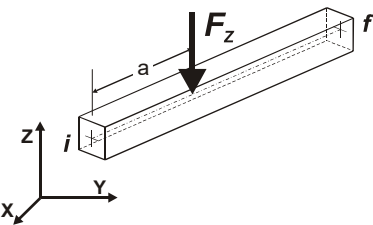
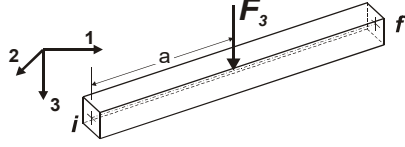
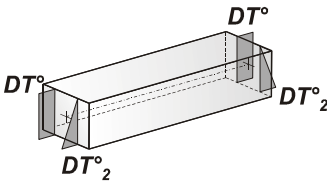
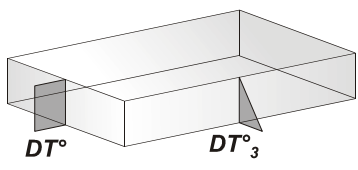
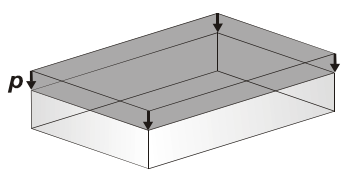
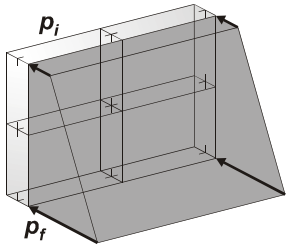
MODELLAZIONE DELLE AZIONI

LEGENDA TABELLA DATI AZIONI

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

1	carico concentrato nodale 6 dati (forza F_x , F_y , F_z , momento M_x , M_y , M_z)
2	spostamento nodale impresso 6 dati (spostamento T_x , T_y , T_z , rotazione R_x , R_y , R_z)
3	carico distribuito globale su elemento tipo trave 7 dati (f_x , f_y , f_z , m_x , m_y , m_z , ascissa di inizio carico) 7 dati (f_x , f_y , f_z , m_x , m_y , m_z , ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati (f_1 , f_2 , f_3 , m_1 , m_2 , m_3 , ascissa di inizio carico) 7 dati (f_1 , f_2 , f_3 , m_1 , m_2 , m_3 , ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati (F_x , F_y , F_z , M_x , M_y , M_z , ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati (F_1 , F_2 , F_3 , M_1 , M_2 , M_3 , ascissa di carico)
7	variazione termica applicata ad elemento tipo trave 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	carico di pressione uniforme su elemento tipo piastra 1 dato (pressione)
9	carico di pressione variabile su elemento tipo piastra 4 dati (pressione, quota, pressione, quota)
10	variazione termica applicata ad elemento tipo piastra 2 dati (variazioni termiche: media e differenza nello spessore)
11	carico variabile generale su elementi tipo trave e piastra 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	gruppo di carichi con impronta su piastra 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell'impronta, interasse tra i carichi)



 Carico concentrato nodale	 Spostamento impresso
 Carico distribuito globale	 Carico distribuito locale
 Carico concentrato globale	 Carico concentrato locale
 Carico termico 2D	 Carico termico 3D
 Carico pressione uniforme	 Carico pressione variabile

Tipo carico di pressione uniforme su piastra

Id	Tipo	pressione
		daN/cm2
9	PRESS_FOND_1 - P3:p=0.49	0.49
10	PRESS_FOND_2 - P3:p=0.49	0.49

Tipo carico di pressione variabile su piastra



Id	Tipo	pressione	quota	pressione	quota
		daN/cm2	cm	daN/cm2	cm
11	PRES_PAR_1 - PL3:pi=0.0 qi=495.00 pf=0.49 qf=0.0	0.0	495.00	0.49	0.0
12	PRES_PAR_2 - PL3:pi=0.0 qi=495.00 pf=0.49 qf=0.0	0.0	495.00	0.49	0.0

Tipo carico variabile generale

Id	Tipo	ascissa	valore	ascissa	valore
		cm	daN/cm2	cm	daN/cm2
13	C_PER_COP - QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-0.01		
14	C_ACC_COP - QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-0.01		
15	MACCHINA 1 - QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-0.02		
16	MACCHINA 2 - QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-9.00e-03		
17	MACCHINA 3 - QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-0.02		



SCHEMATIZZAZIONE DEI CASI DI CARICO

LEGENDA TABELLA CASI DI CARICO

Il programma consente l'applicazione di diverse tipologie di casi di carico.

Sono previsti i seguenti 11 tipi di casi di carico:

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

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:

7-Qtk, in quanto richiede solo il valore della variazione termica;

9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:

Numero Tipo e Sigla identificativa, Valore di riferimento del caso di carico (se previsto).

In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

CDC	Tipo	Sigla Id	Note	Per non automatici:
1	Ggk	CDC=Ggk (peso proprio della struttura)		
2	Gk	CDC=G2k (permanente generico n.c.d.) COP	Azioni applicate:	Ad elementi:
			[13] C_PER_COP - QV:unif - Qz - Area	D3: 1291 # 1667



CDC	Tipo	Sigla Id	Note	Per non automatici:
3	Gk	CDC=G2k (permanente generico n.c.d.) LIQ_VASC	Azioni applicate:	Ad elementi:
			[9] PRESS_FOND_1 - P3:p=0.49	D3: 155, 157 # 173, 185, 187 # 204, 217 # 234, 247 # 264, 277 # 294, 307 # 324, 337 # 354, 367 # 384, 396 # 397, 400 # 415, 426 # 427
			[10] PRESS_FOND_2 - P3:p=0.49	D3: 174 # 183, 205 # 214, 235 # 244, 265 # 274, 295 # 304, 325 # 334, 355 # 364, 385 # 394, 398, 416 # 424, 428
			[11] PRES_PAR_1 - PL3:pi=0.0 qi=495.00 pf=0.49 qf=0.0	D3: 471 # 488, 499, 503, 507, 511, 515, 519, 523, 527, 531, 535 # 552, 575 # 592, 603, 607, 611, 615, 619, 623, 627, 631, 635, 639 # 656, 679 # 696, 707, 711, 715, 719, 723, 727, 731, 735, 739, 743 # 760, 783 # 800, 811, 815, 819, 823, 827, 831, 835, 839, 843, 847 # 864, 887 # 904, 915, 919, 923, 927, 931, 935, 939, 943, 947, 951 # 968, 991 # 1008, 1019, 1023, 1027, 1031, 1035, 1039, 1043, 1047, 1051, 1055 # 1072, 1095 # 1112, 1123, 1127, 1131, 1135, 1139, 1143, 1147, 1151, 1155, 1159 # 1176, 1199 # 1216, 1227, 1231, 1235, 1239, 1243, 1247, 1251, 1255, 1259, 1263 # 1280
			[12] PRES_PAR_2 - PL3:pi=0.0 qi=495.00 pf=0.49 qf=0.0	D3: 489 # 498, 502, 506, 510, 514, 518, 522, 526, 530, 534, 553 # 562, 593 # 602, 606, 610, 614, 618, 622, 626, 630, 634, 638, 657 # 666, 697 # 706, 710, 714, 718, 722, 726, 730, 734, 738, 742, 761 # 770, 801 # 810, 814, 818, 822, 826, 830, 834, 838, 842, 846, 865 # 874, 905 # 914, 918, 922, 926, 930, 934, 938, 942, 946, 950, 969 # 978, 1009 # 1018, 1022, 1026, 1030, 1034, 1038, 1042, 1046, 1050, 1054, 1073 # 1082, 1113 # 1122, 1126, 1130, 1134, 1138, 1142, 1146, 1150, 1154, 1158, 1177 # 1186, 1217 # 1226, 1230, 1234, 1238, 1242, 1246, 1250, 1254, 1258, 1262, 1281 # 1290
4	Gk	CDC=G2k (permanente generico n.c.d.) MACC	Azioni applicate:	Ad elementi:
			[15] MACCHINA 1 - QV:unif - Qz - Area	D3: 1416 # 1419, 1444 # 1447, 1472 # 1475, 1500 # 1503, 1528 # 1531, 1556 # 1559, 1585 # 1588
			[16] MACCHINA 2 - QV:unif - Qz - Area	D3: 1407 # 1408, 1435 # 1436, 1463 # 1464, 1491 # 1492, 1519 # 1520, 1547 # 1548
			[17] MACCHINA 3 - QV:unif - Qz - Area	D3: 1425 # 1426, 1453 # 1454, 1481 # 1482
5	Qk	CDC=Qk (variabile generico) COP	Azioni applicate:	Ad elementi:
			[14] C_ACC_COP - QV:unif - Qz - Area	D3: 1291 # 1667
6	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura)	
			partecipazione:1.00 per 2 CDC=G2k (permanente generico n.c.d.) COP	
			partecipazione:1.00 per 3 CDC=G2k (permanente generico n.c.d.) LIQ_VASC	
			partecipazione:1.00 per 4 CDC=G2k (permanente generico n.c.d.) MACC	
			partecipazione:1.00 per 5 CDC=Qk (variabile generico) COP	
7	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico	
8	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico	
9	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico	
10	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico	
11	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico	
12	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico	
13	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico	

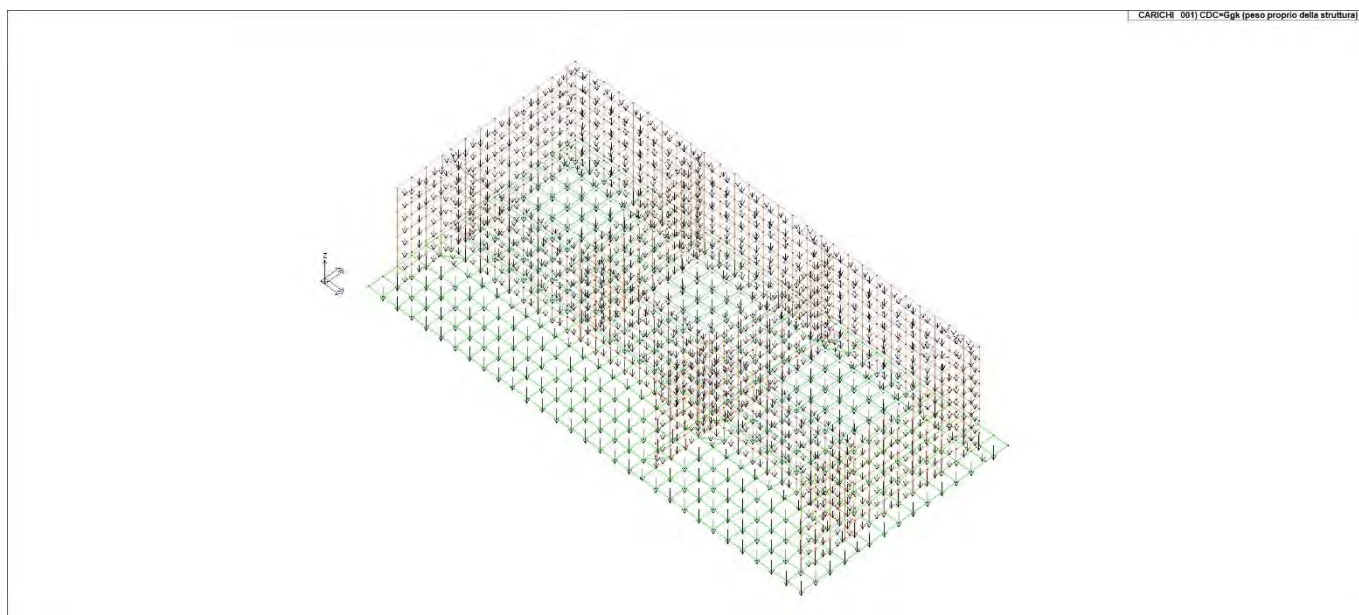


Figura 29 - CDC_001_CDCGgk peso proprio della struttura

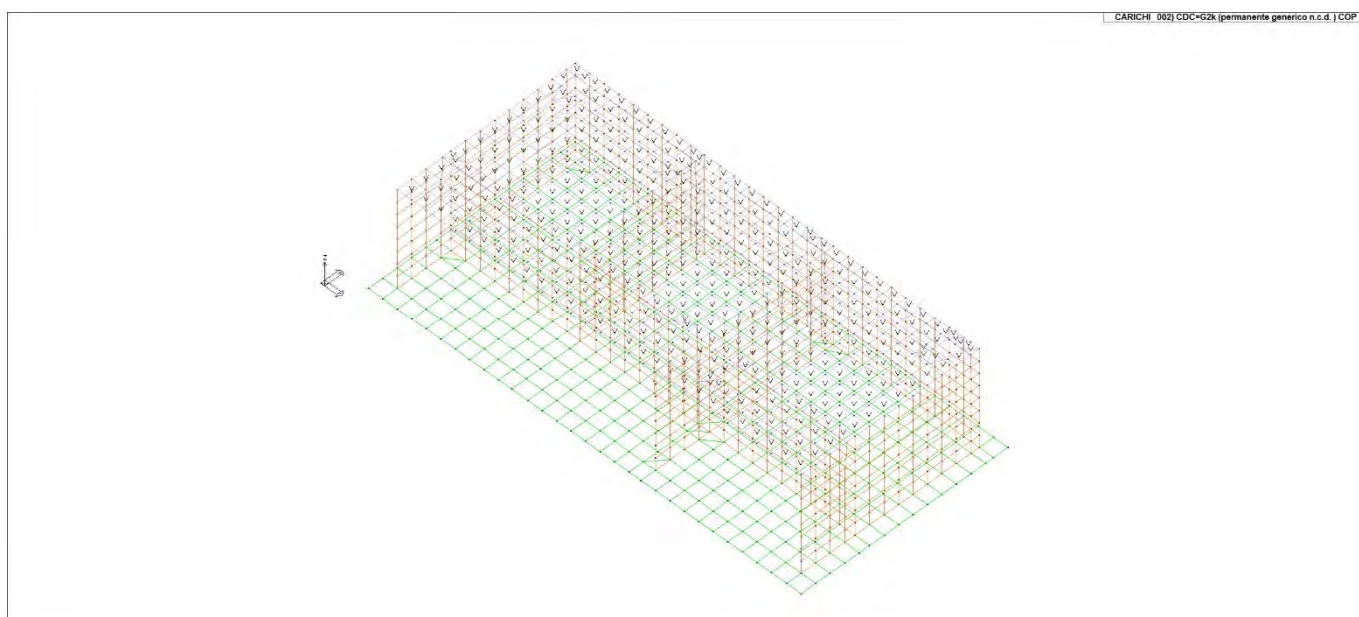


Figura 30 - CDC_002_CDCG2k permanente generico ncd COP



CARICH 003 CDC-G2k (permanente generico n.c.d.) LIQ_VASC

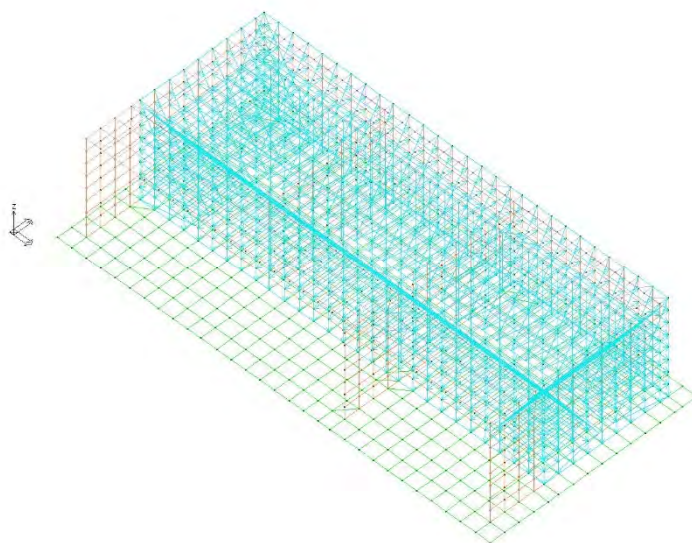


Figura 31 - CDC_003_CDCG2k permanente generico ncd LIQVASC

CARICH 004 CDC-G2k (permanente generico n.c.d.) MACC

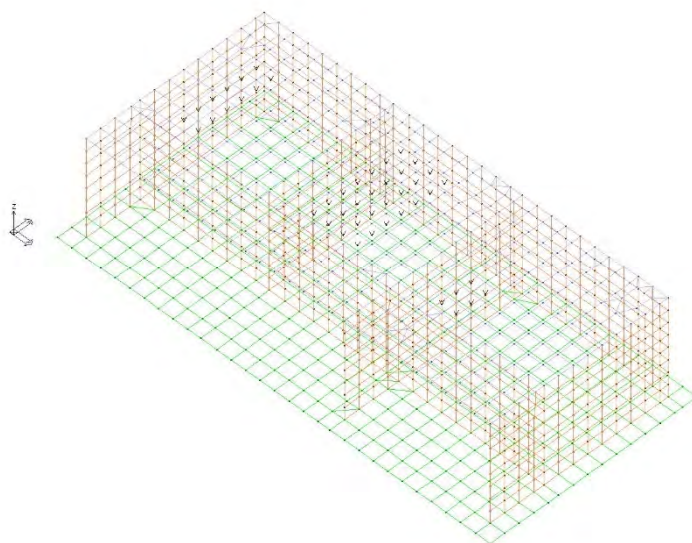


Figura 32 - CDC_004_CDCG2k permanente generico ncd MACC



CARICHE 005) CDC=0k (variabile generico) COP

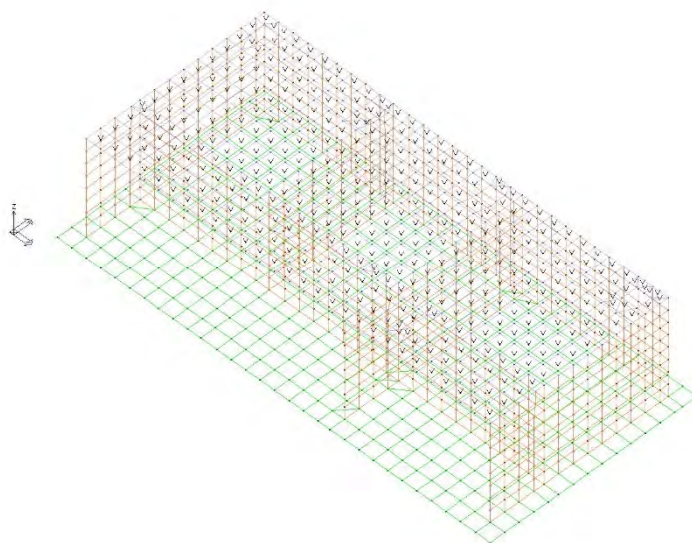


Figura 33 - CDC_005_CDCQk variabile generico COP

CARICHE 005) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)

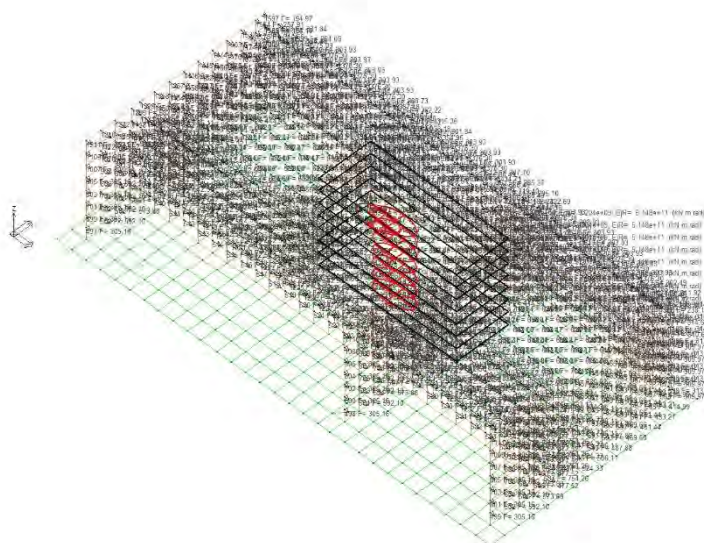


Figura 34 - CDC_006_CDCEd dinamico SLU alfa=0.0 ecc. +

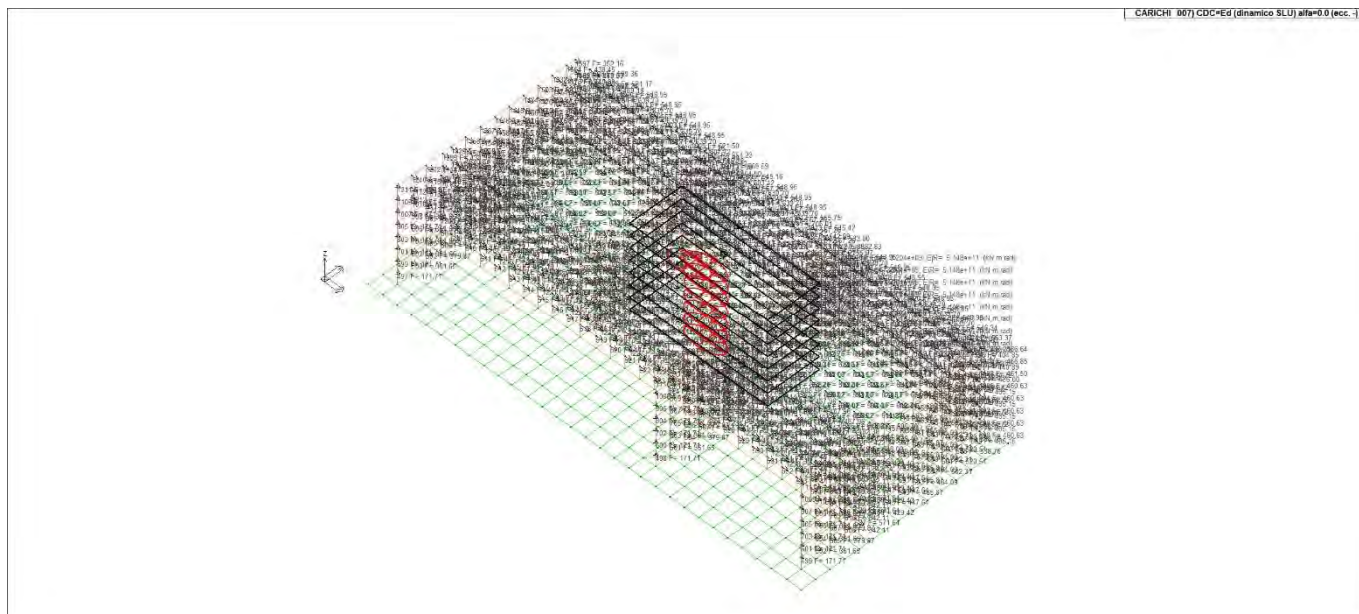


Figura 35 - CDC_007_CDCEd dinamico SLU alfa00 ecc -

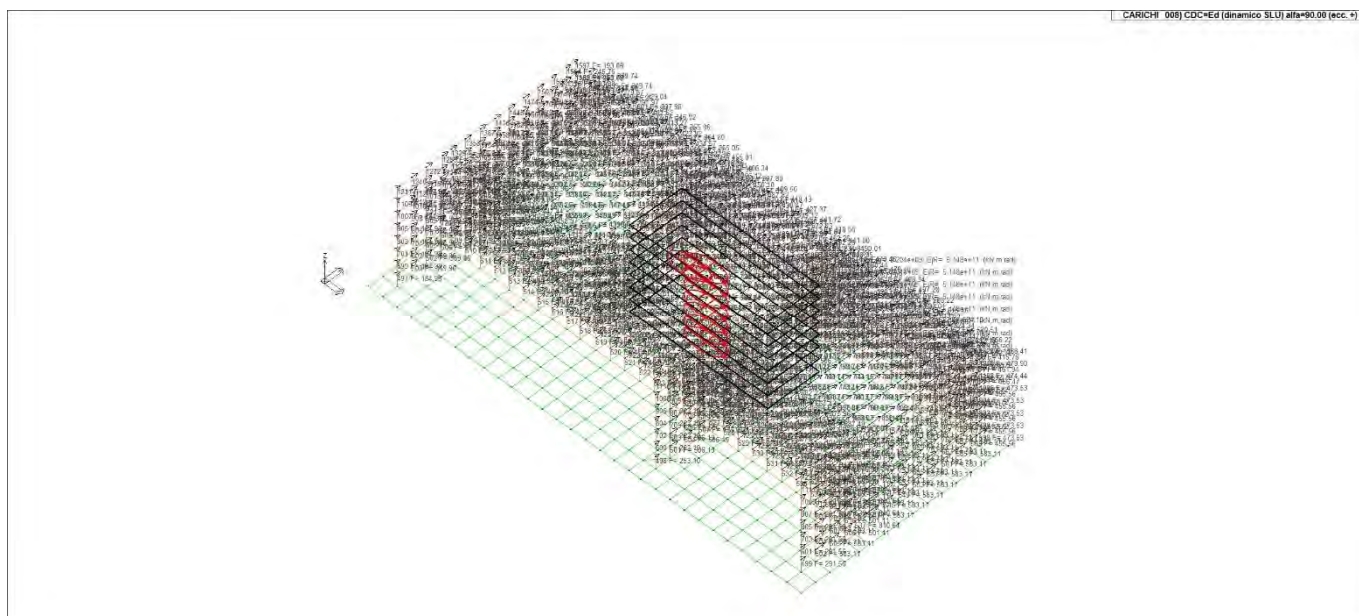


Figura 36 - CDC_008_CDCEd dinamico SLU alfa90 ecc +

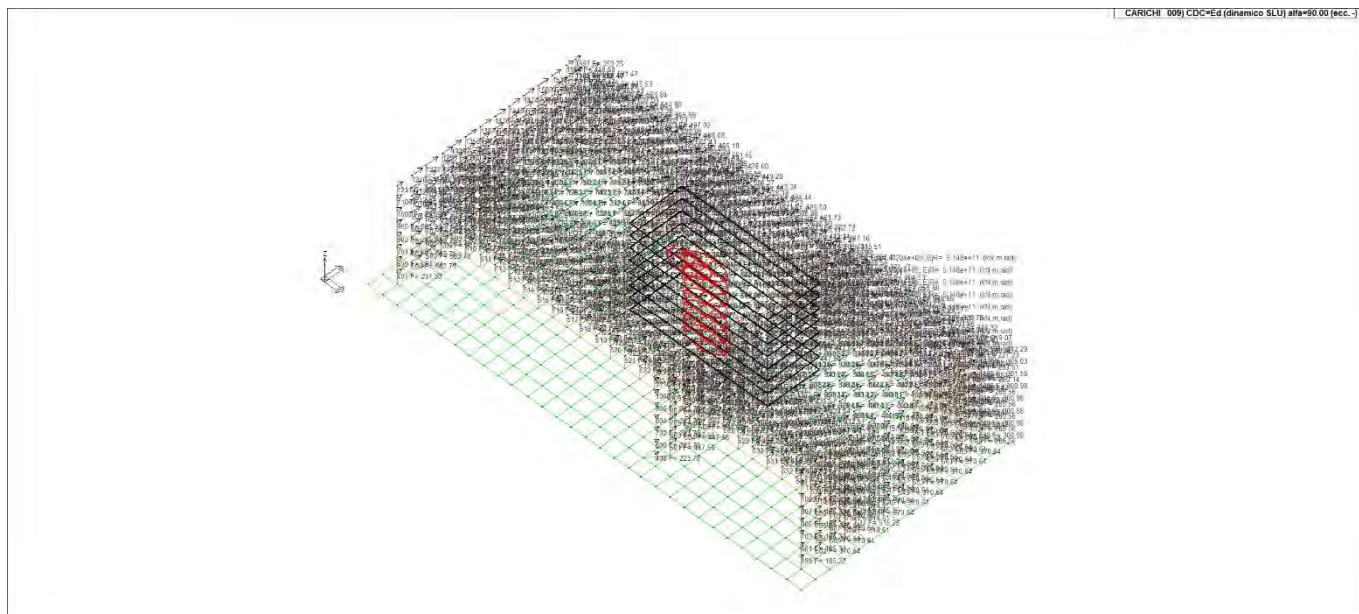


Figura 37 - CDC_009_CDCEd dinamico SLU alfa90 ecc -

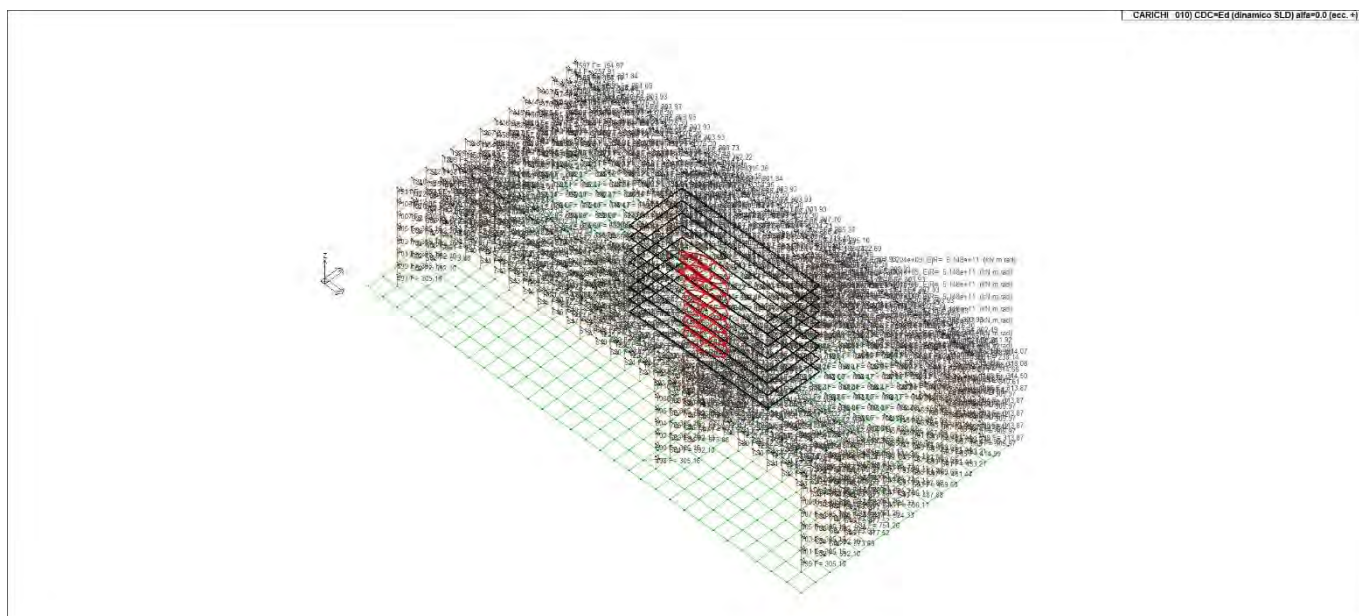


Figura 38 - CDC_010_CDCEd dinamico SLD alfa00 ecc +

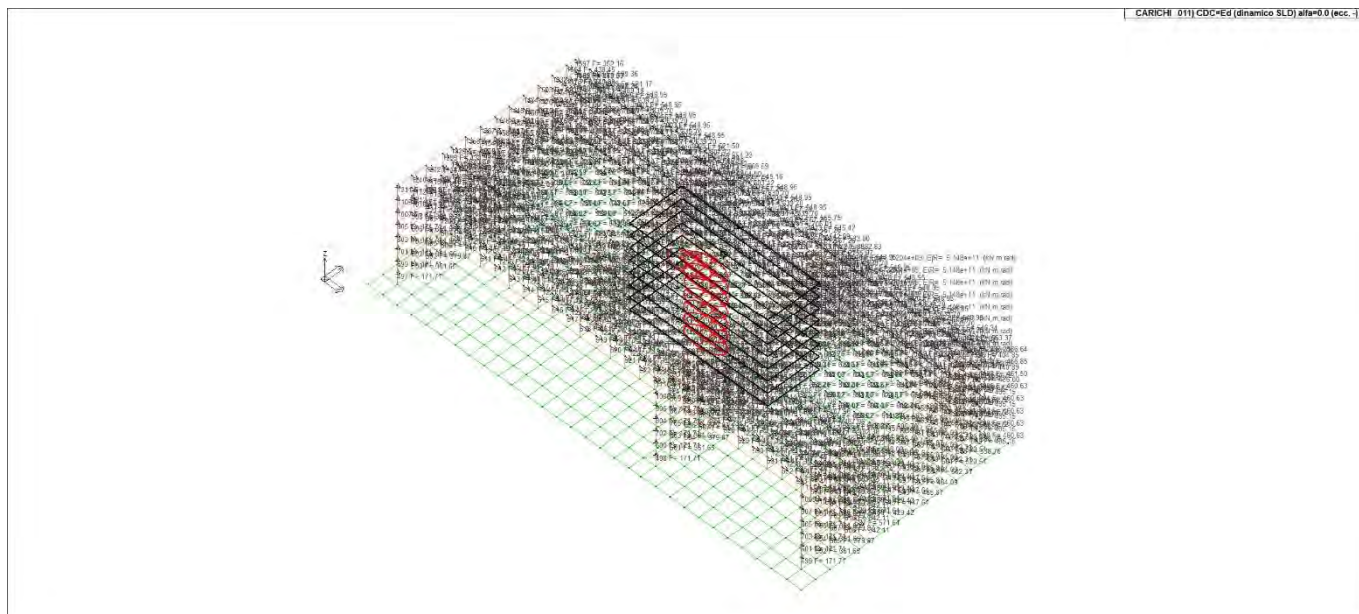


Figura 39 - CDC_011_CDCEd dinamico SLD alfa00 ecc -

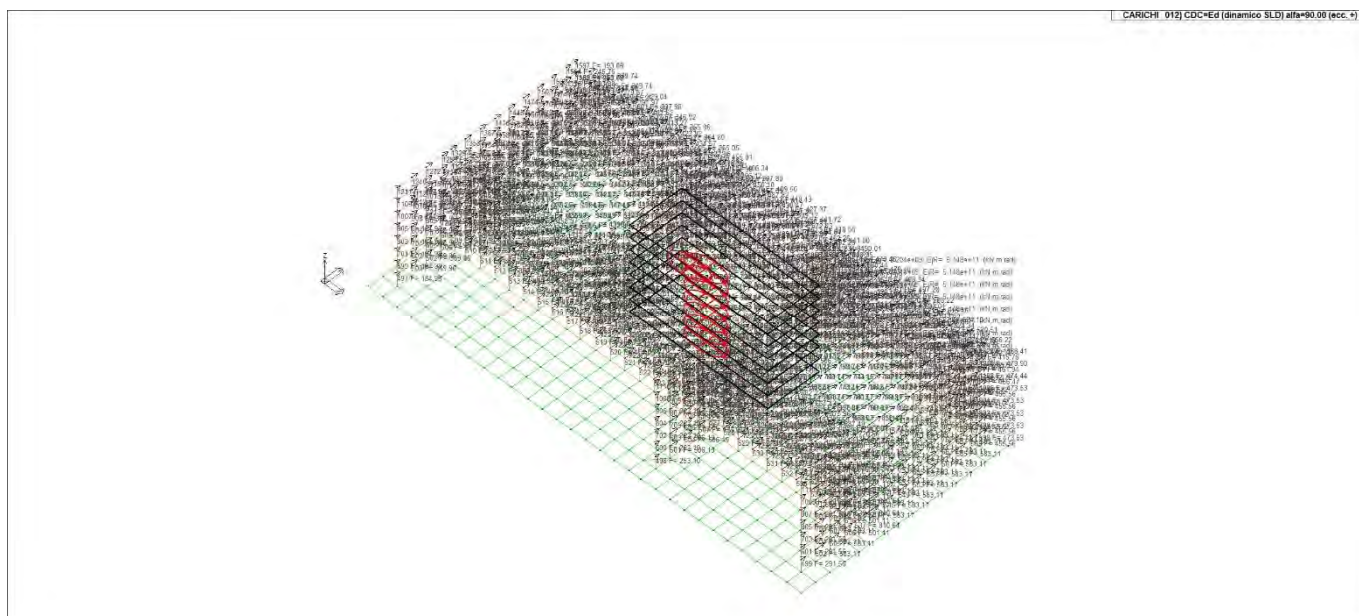


Figura 40 - CDC_012_CDCEd dinamico SLD alfa90 ecc +

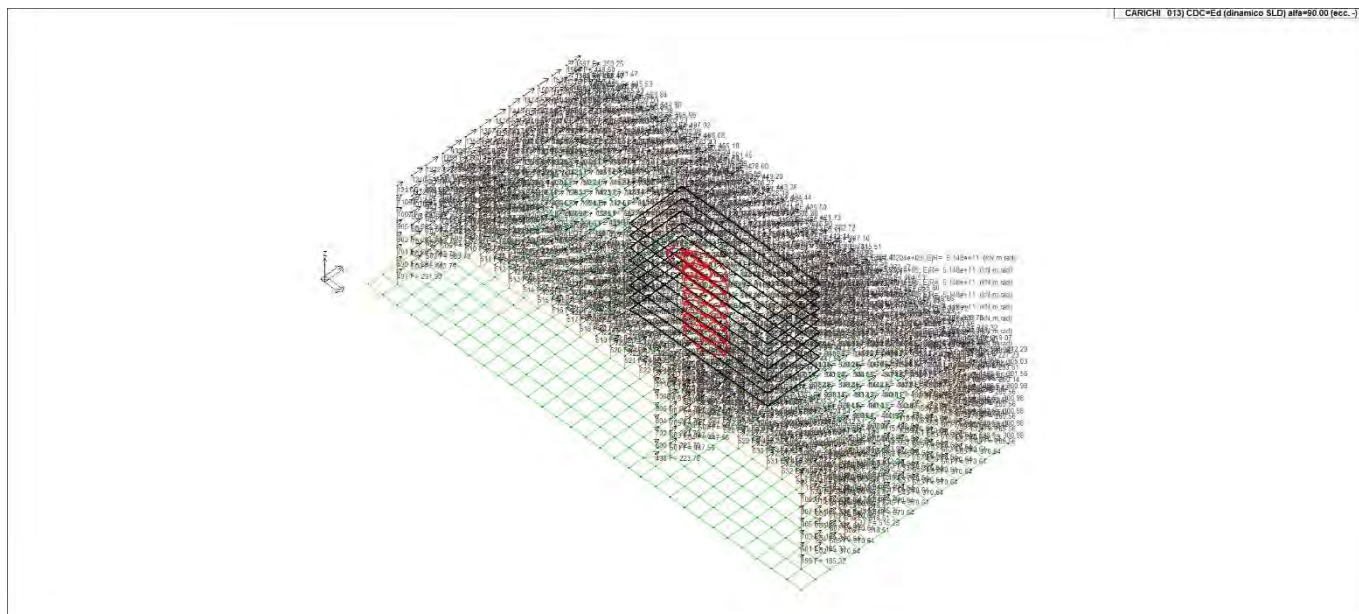


Figura 41 - CDC_013_CDCEd dinamico SLD alfa90 ecc -



DEFINIZIONE DELLE COMBINAZIONI

LEGENDA TABELLA COMBINAZIONI DI CARICO

Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente. Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.

La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico.

Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:

Combinazione fondamentale SLU

$$\gamma G1 \cdot G1 + \gamma G2 \cdot G2 + \gamma P \cdot P + \gamma Q1 \cdot Qk1 + \gamma Q2 \cdot \psi 02 \cdot Qk2 + \gamma Q3 \cdot \psi 03 \cdot Qk3 + \dots$$

Combinazione caratteristica (rara) SLE

$$G1 + G2 + P + Qk1 + \psi 02 \cdot Qk2 + \psi 03 \cdot Qk3 + \dots$$

Combinazione frequente SLE

$$G1 + G2 + P + \psi 11 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione quasi permanente SLE

$$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E

$$E + G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Combinazione eccezionale, impiegata per gli stati limite connessi alle azioni eccezionali

$$G1 + G2 + Ad + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Dove:

NTC 2018 Tabella 2.5.I

Destinazione d'uso/azione	$\psi 0$	$\psi 1$	$\psi 2$
Categoria A residenziali	0,70	0,50	0,30
Categoria B uffici	0,70	0,50	0,30
Categoria C ambienti suscettibili di affollamento	0,70	0,70	0,60
Categoria D ambienti ad uso commerciale	0,70	0,70	0,60
Categoria E biblioteche, archivi, magazzini,...	1,00	0,90	0,80
Categoria F Rimesse e parcheggi (autoveicoli $\leq 30kN$)	0,70	0,70	0,60
Categoria G Rimesse e parcheggi (autoveicoli $> 30kN$)	0,70	0,50	0,30
Categoria H Coperture	0,00	0,00	0,00
Vento	0,60	0,20	0,00
Neve a quota ≤ 1000 m	0,50	0,20	0,00
Neve a quota > 1000 m	0,70	0,50	0,20
Variazioni Termiche	0,60	0,50	0,00

Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:

- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),
- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).

NTC 2018 Tabella 2.6.I



		Coefficiente γ_f	EQU	A1	A2
<i>Carichi permanenti</i>	<i>Favorevoli</i>	γ_{G1}	0,9	1,0	1,0
	<i>Sfavorevoli</i>		1,1	1,3	1,0
<i>Carichi permanenti non strutturali</i> <i>(Non compiutamente definiti)</i>	<i>Favorevoli</i>	γ_{G2}	0,8	0,8	0,8
	<i>Sfavorevoli</i>		1,5	1,5	1,3
<i>Carichi variabili</i>	<i>Favorevoli</i>	γ_{Qi}	0,0	0,0	0,0
	<i>Sfavorevoli</i>		1,5	1,5	1,3

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU	Comb. SLU A1 1	
2	SLU	Comb. SLU A1 2	
3	SLU	Comb. SLU A1 3	
4	SLU	Comb. SLU A1 4	
5	SLE(r)	Comb. SLE(rara) 5	
6	SLE(r)	Comb. SLE(rara) 6	
7	SLE(f)	Comb. SLE(freq.) 7	
8	SLE(p)	Comb. SLE(perm.) 8	
9	SLU	Comb. SLU A1 (SLV sism.) 9	
10	SLU	Comb. SLU A1 (SLV sism.) 10	
11	SLU	Comb. SLU A1 (SLV sism.) 11	
12	SLU	Comb. SLU A1 (SLV sism.) 12	
13	SLU	Comb. SLU A1 (SLV sism.) 13	
14	SLU	Comb. SLU A1 (SLV sism.) 14	
15	SLU	Comb. SLU A1 (SLV sism.) 15	
16	SLU	Comb. SLU A1 (SLV sism.) 16	
17	SLU	Comb. SLU A1 (SLV sism.) 17	
18	SLU	Comb. SLU A1 (SLV sism.) 18	
19	SLU	Comb. SLU A1 (SLV sism.) 19	
20	SLU	Comb. SLU A1 (SLV sism.) 20	
21	SLU	Comb. SLU A1 (SLV sism.) 21	
22	SLU	Comb. SLU A1 (SLV sism.) 22	
23	SLU	Comb. SLU A1 (SLV sism.) 23	
24	SLU	Comb. SLU A1 (SLV sism.) 24	
25	SLU	Comb. SLU A1 (SLV sism.) 25	
26	SLU	Comb. SLU A1 (SLV sism.) 26	
27	SLU	Comb. SLU A1 (SLV sism.) 27	
28	SLU	Comb. SLU A1 (SLV sism.) 28	
29	SLU	Comb. SLU A1 (SLV sism.) 29	
30	SLU	Comb. SLU A1 (SLV sism.) 30	
31	SLU	Comb. SLU A1 (SLV sism.) 31	
32	SLU	Comb. SLU A1 (SLV sism.) 32	
33	SLU	Comb. SLU A1 (SLV sism.) 33	
34	SLU	Comb. SLU A1 (SLV sism.) 34	
35	SLU	Comb. SLU A1 (SLV sism.) 35	
36	SLU	Comb. SLU A1 (SLV sism.) 36	
37	SLU	Comb. SLU A1 (SLV sism.) 37	
38	SLU	Comb. SLU A1 (SLV sism.) 38	
39	SLU	Comb. SLU A1 (SLV sism.) 39	
40	SLU	Comb. SLU A1 (SLV sism.) 40	
41	SLE(sis)	Comb. SLE (SLD Danno sism.) 41	
42	SLE(sis)	Comb. SLE (SLD Danno sism.) 42	
43	SLE(sis)	Comb. SLE (SLD Danno sism.) 43	
44	SLE(sis)	Comb. SLE (SLD Danno sism.) 44	
45	SLE(sis)	Comb. SLE (SLD Danno sism.) 45	
46	SLE(sis)	Comb. SLE (SLD Danno sism.) 46	
47	SLE(sis)	Comb. SLE (SLD Danno sism.) 47	
48	SLE(sis)	Comb. SLE (SLD Danno sism.) 48	
49	SLE(sis)	Comb. SLE (SLD Danno sism.) 49	
50	SLE(sis)	Comb. SLE (SLD Danno sism.) 50	
51	SLE(sis)	Comb. SLE (SLD Danno sism.) 51	
52	SLE(sis)	Comb. SLE (SLD Danno sism.) 52	



Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Cmb	Tipo	Sigla Id	effetto P-delta
53	SLE(sis)	Comb. SLE (SLD Danno sism.) 53	
54	SLE(sis)	Comb. SLE (SLD Danno sism.) 54	
55	SLE(sis)	Comb. SLE (SLD Danno sism.) 55	
56	SLE(sis)	Comb. SLE (SLD Danno sism.) 56	
57	SLE(sis)	Comb. SLE (SLD Danno sism.) 57	
58	SLE(sis)	Comb. SLE (SLD Danno sism.) 58	
59	SLE(sis)	Comb. SLE (SLD Danno sism.) 59	
60	SLE(sis)	Comb. SLE (SLD Danno sism.) 60	
61	SLE(sis)	Comb. SLE (SLD Danno sism.) 61	
62	SLE(sis)	Comb. SLE (SLD Danno sism.) 62	
63	SLE(sis)	Comb. SLE (SLD Danno sism.) 63	
64	SLE(sis)	Comb. SLE (SLD Danno sism.) 64	
65	SLE(sis)	Comb. SLE (SLD Danno sism.) 65	
66	SLE(sis)	Comb. SLE (SLD Danno sism.) 66	
67	SLE(sis)	Comb. SLE (SLD Danno sism.) 67	
68	SLE(sis)	Comb. SLE (SLD Danno sism.) 68	
69	SLE(sis)	Comb. SLE (SLD Danno sism.) 69	
70	SLE(sis)	Comb. SLE (SLD Danno sism.) 70	
71	SLE(sis)	Comb. SLE (SLD Danno sism.) 71	
72	SLE(sis)	Comb. SLE (SLD Danno sism.) 72	

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
1	1.30	1.50	1.50	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	1.30	1.50	1.50	1.50	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	1.00	0.80	0.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	1.00	0.80	0.80	0.80	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9	1.00	1.00	1.00	1.00	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	
10	1.00	1.00	1.00	1.00	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	
11	1.00	1.00	1.00	1.00	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	
12	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	
13	1.00	1.00	1.00	1.00	0.0	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	
14	1.00	1.00	1.00	1.00	0.0	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	
15	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	
16	1.00	1.00	1.00	1.00	0.0	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	
17	1.00	1.00	1.00	1.00	0.0	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	
18	1.00	1.00	1.00	1.00	0.0	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	
19	1.00	1.00	1.00	1.00	0.0	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	
20	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	
21	1.00	1.00	1.00	1.00	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	
22	1.00	1.00	1.00	1.00	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	
23	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	
24	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	
25	1.00	1.00	1.00	1.00	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	
26	1.00	1.00	1.00	1.00	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	
27	1.00	1.00	1.00	1.00	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	
28	1.00	1.00	1.00	1.00	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	
29	1.00	1.00	1.00	1.00	0.0	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	
30	1.00	1.00	1.00	1.00	0.0	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	
31	1.00	1.00	1.00	1.00	0.0	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	
32	1.00	1.00	1.00	1.00	0.0	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	
33	1.00	1.00	1.00	1.00	0.0	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	
34	1.00	1.00	1.00	1.00	0.0	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	
35	1.00	1.00	1.00	1.00	0.0	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	
36	1.00	1.00	1.00	1.00	0.0	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	
37	1.00	1.00	1.00	1.00	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	
38	1.00	1.00	1.00	1.00	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	
39	1.00	1.00	1.00	1.00	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	
40	1.00	1.00	1.00	1.00	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	
41	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	
42	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	
43	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	
44	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	
45	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	-0.30	

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
46	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	0.30	
47	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	-0.30	
48	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.30	
49	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	-0.30	0.0	
50	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.30	0.0	
51	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	-0.30	0.0	
52	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.30	0.0	
53	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	
54	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	
55	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	
56	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	
57	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	
58	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	
59	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	
60	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	
61	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	-1.00	0.0	
62	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	1.00	0.0	
63	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	-1.00	0.0	
64	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	1.00	0.0	
65	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	-1.00	
66	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	1.00	
67	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0	-1.00	
68	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0	1.00	
69	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	
70	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	
71	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	
72	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	



AZIONE SISMICA

VALUTAZIONE DELL' AZIONE SISMICA

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

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

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

a_g : accelerazione orizzontale massima del terreno;

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

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

Parametri della struttura					
Classe d'uso	Vita V_n [anni]	Coeff. Uso	Periodo V_r [anni]	Tipo di suolo	Categoria topografica
III	50.0	1.5	75.0	C	T2

Per la struttura in esame si sono adottati i parametri di pericolosità sismica da analisi di Risposta Sismica locale; si sono adottati i parametri spettrali riportati nelle seguenti tabelle; i parametri consentono la definizione degli spettri elastici come previsto al cap. 3.2 delle norme tecniche:

lo spettro di risposta elastico in accelerazione della componente orizzontale del moto sismico, S_e , è definito dalle seguenti espressioni:

$$\begin{aligned}
 0 \leq T < T_B & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right] \\
 T_B \leq T < T_C & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \\
 T_C \leq T < T_D & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right) \\
 T_D \leq T & \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)
 \end{aligned}$$

Lo spettro di risposta elastico in accelerazione della componente verticale del moto sismico, S_{ve} , è definito dalle espressioni:

$$\begin{aligned}
 0 \leq T < T_B & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right] \\
 T_B \leq T < T_C & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \\
 T_C \leq T < T_D & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C}{T} \right) \\
 T_D \leq T & \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)
 \end{aligned}$$



I valori di S_s , T_B , T_C e T_D , sono riportati nella seguente Tabella

Categoria di sottosuolo	S_s	T_B	T_C	T_D
A, B, C, D, E	1,0	0,05 s	0,15 s	1,0 s

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente $S = S_s \cdot S_t$ (3.2.3); nel caso di RSL i valori sono unitari

F_o è il fattore che quantifica l'amplificazione spettrale massima, su sito in esame

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

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

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

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

Simbologia adottata nelle tabelle

$Se(t)$	Accelerazioni dello spettro di input
T_r	Periodo di ritorno
T_{min}	Valore minore tra i tre periodi di vibrazione dell'edificio con massa partecipante più elevata
$2T_{max}$	Valore maggiore tra i tre periodi di vibrazione dell'edificio con massa partecipante più elevata moltiplicato per due
Integrale RSL	Integrale dello spettro di risposta sismica locale valutato nell'intervallo compreso tra T_{min} e $2T_{max}$
Integrale NTC*1.2	Integrale dello spettro da normativa amplificato del 20% valutato nell'intervallo compreso tra T_{min} e $2T_{max}$
Rapporto	Rapporto tra Integrale RSL e Integrale NTC*1.2;
Esito confronto RSL vs NTC	- Possibile l'uso dello spettro NTC se Rapporto minore di 1 e $RSL < NTC \cdot 1.3$ - Non ammesso l'uso dello spettro NTC se $RSL \geq NTC \cdot 1.3$ e Rapporto maggiore di 1 - Non ammesso l'uso dello spettro NTC (30% superato) se $RSL \geq NTC \cdot 1.3$ - Non ammesso l'uso dello spettro NTC (rapporto integrali) se Rapporto maggiore di 1
$Se(t)$ RSL	Accelerazioni dello spettro di risposta sismica locale
$Se(t)$ NTC*1.3	Accelerazioni dello spettro da normativa amplificate del 30%
Confronto ord.55	Confronto tra lo spettro di risposta sismica locale e lo spettro da normativa amplificato del 30% nell'intervallo compreso tra T_{min} e $2T_{max}$ secondo l'Ordinanza n. 55 – 24/04/2018: - Non richiesto (ad di fuori dell'intervallo compreso tra T_{min} e $2T_{max}$); - $RSL \leq NTC \cdot 1.3$; - $RSL > NTC \cdot 1.3$
Esito confronto RSL vs NTC (0.7 A)	Se lo spettro di risposta sismica locale è minore del 70% dello spettro da normativa non è consentito l'uso dello spettro di risposta sismica locale (7.2.6 NTC 2018): - Possibile l'uso dello spettro RSL; - Non ammesso l'uso di RSL (0.7 non superato).
$Se(t)$ NTC*0.7 suolo tipo A	70% delle Accelerazioni dello spettro da normativa valutato per categoria A di sottosuolo tipo A
Confronto NTC	Confronto tra lo spettro di risposta sismica locale e il 70% dello spettro da normativa:



- $RSL \geq NTC_A \cdot 0.7$;
- $RSL < NTC_A \cdot 0.7$

A seguire sono riportati i confronti tra pericolosità sismica RSL e NTC come previsto da Ordinanza n.55 – 24/04/2018 e NTC (7.2.6)

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	13.716	43.160	
22980	13.696	43.135	3.352
22981	13.764	43.135	4.793
22759	13.764	43.185	4.667
22758	13.696	43.185	3.170

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	45.2	0.097	2.502	0.472
SLD	63.0	75.4	0.126	2.657	0.436
SLV	10.0	711.8	0.280	2.314	0.463
SLC	5.0	1462.2	0.365	2.294	0.475

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.097	1.000	2.502	1.053	0.157	0.472	1.989
SLD	0.126	1.000	2.657	1.275	0.145	0.436	2.105
SLV	0.280	1.000	2.314	1.653	0.154	0.463	2.720
SLC	0.365	1.000	2.294	1.872	0.158	0.475	3.061

Modo	Frequenza	Periodo	X M efficace x g	%	Y M efficace x g	%	Z M efficace x g	%	RZ M efficace x g	%
	1/sec	sec	daN		daN		daN		daN cm2	
1	4.41	0.23	12.4	0	5.070e+05	87	2316.9	0	1.357e+05	0
2	5.22	0.19	4.773e+05	82	13.2	0	1.2	0	1.991e+06	5
3	5.72	0.17	6.040e+04	10	0.1	0	0.7	0	3.301e+07	93
4	9.22	0.11	108.7	0	1.052e+04	1	5.473e+05	94	5802.2	0
5	9.70	0.10	4.279e+04	7	96.0	0	982.6	0	1.635e+05	0
6	11.20	0.09	19.1	0	6.156e+04	10	2.582e+04	4	2.025e+04	0

Periodo di ritorno <Tr>	Accelerazione max <ag>	Amplificazione <Fo>	Inizio v=costante <T*c>
	[g]		[s]
30	0.080	2.486	0.451
50	0.102	2.506	0.477
72	0.124	2.665	0.435
75	0.126	2.658	0.435
101	0.140	2.610	0.439
140	0.157	2.558	0.443
201	0.179	2.501	0.447
475	0.241	2.339	0.458
712	0.280	2.314	0.463
975	0.314	2.294	0.467



Periodo di ritorno <Tr>	Accelerazione max <ag>	Amplificazione <Fo>	Inizio v=costante <T*c>
2475	0.444	2.293	0.485



Confronto spettri RSL vs NTC	
Tmin	0.100
2Tmax	0.700
Integrale RSL	0.309
Integrale NTC*1.2	0.517
Rapporto	0.599
Esito confronto	Possibile l'uso dello spettro NTC

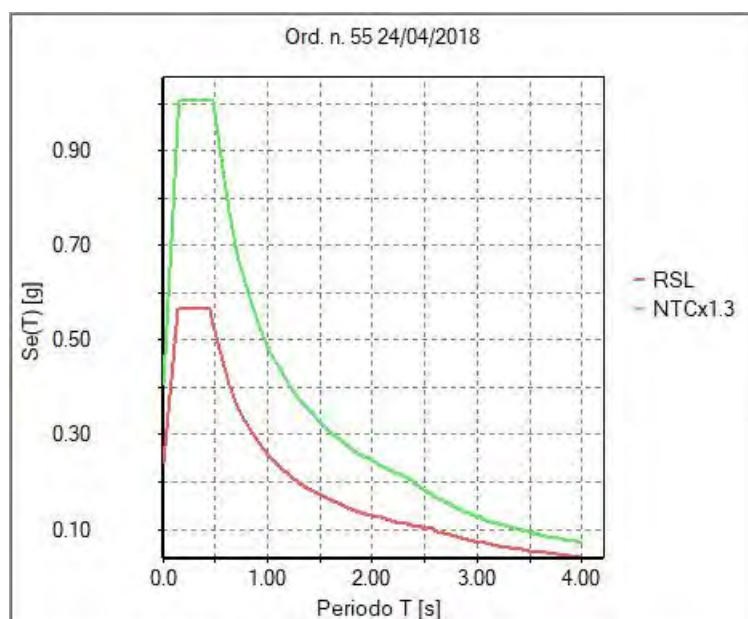


Figura 42 – Spettri per la valutazione della RSL

Periodo	Se(t) RSL	Se(t) NTC*1.3	Confronto ord.55
[s]	[g]	[g]	
0.000	0.241	0.407	Non richiesto
0.100	0.453	0.775	RSL <= NTC*1.3
0.153	0.565	0.968	RSL <= NTC*1.3
0.162	0.565	1.004	RSL <= NTC*1.3
0.249	0.565	1.004	RSL <= NTC*1.3
0.346	0.565	1.004	RSL <= NTC*1.3
0.442	0.565	1.004	RSL <= NTC*1.3
0.458	0.565	1.004	RSL <= NTC*1.3
0.487	0.531	1.004	RSL <= NTC*1.3
0.539	0.480	0.908	RSL <= NTC*1.3
0.635	0.407	0.770	RSL <= NTC*1.3
0.700	0.370	0.699	RSL <= NTC*1.3
0.732	0.353	0.669	Non richiesto
0.828	0.312	0.591	Non richiesto
0.925	0.280	0.529	Non richiesto
1.021	0.253	0.479	Non richiesto
1.118	0.231	0.438	Non richiesto
1.215	0.213	0.403	Non richiesto
1.311	0.197	0.373	Non richiesto
1.408	0.184	0.348	Non richiesto
1.504	0.172	0.325	Non richiesto
1.601	0.162	0.306	Non richiesto
1.697	0.152	0.288	Non richiesto
1.794	0.144	0.273	Non richiesto



Periodo	Se(t) RSL	Se(t) NTC*1.3	Confronto ord.55
1.890	0.137	0.259	Non richiesto
1.987	0.130	0.246	Non richiesto
2.083	0.124	0.235	Non richiesto
2.180	0.119	0.225	Non richiesto
2.276	0.114	0.215	Non richiesto
2.330	0.111	0.210	Non richiesto
2.373	0.109	0.203	Non richiesto
2.469	0.105	0.187	Non richiesto
2.566	0.101	0.173	Non richiesto
2.623	0.096	0.166	Non richiesto
2.681	0.092	0.159	Non richiesto
2.738	0.089	0.152	Non richiesto
2.795	0.085	0.146	Non richiesto
2.853	0.082	0.140	Non richiesto
2.910	0.078	0.135	Non richiesto
2.968	0.075	0.130	Non richiesto
3.025	0.073	0.125	Non richiesto
3.082	0.070	0.120	Non richiesto
3.140	0.067	0.116	Non richiesto
3.197	0.065	0.112	Non richiesto
3.254	0.063	0.108	Non richiesto
3.312	0.061	0.104	Non richiesto
3.369	0.058	0.100	Non richiesto
3.426	0.057	0.097	Non richiesto
3.484	0.055	0.094	Non richiesto
3.541	0.053	0.091	Non richiesto
3.598	0.051	0.088	Non richiesto
3.656	0.050	0.085	Non richiesto
3.713	0.048	0.083	Non richiesto
3.771	0.047	0.080	Non richiesto
3.828	0.045	0.078	Non richiesto
3.885	0.044	0.076	Non richiesto
3.943	0.043	0.073	Non richiesto
4.000	0.041	0.071	Non richiesto



Confronto spettro RSL vs NTC (0.7 A)	
Esito confronto	Possibile l'uso dello spettro RSL

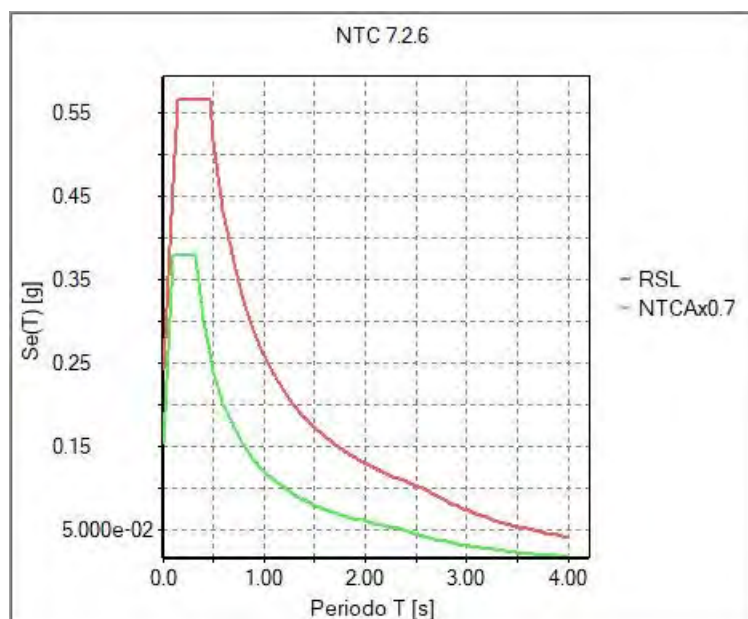


Figura 43 - Spettri per la valutazione della RSL

Periodo	Se(t) RSL	Se(t) NTC*0.7 suolo tipo A	Confronto NTC
[s]	[g]	[g]	
0.000	0.241	0.153	RSL >= NTC A*0.7
0.106	0.466	0.378	RSL >= NTC A*0.7
0.153	0.565	0.378	RSL >= NTC A*0.7
0.204	0.565	0.378	RSL >= NTC A*0.7
0.303	0.565	0.378	RSL >= NTC A*0.7
0.318	0.565	0.378	RSL >= NTC A*0.7
0.401	0.565	0.300	RSL >= NTC A*0.7
0.458	0.565	0.263	RSL >= NTC A*0.7
0.500	0.518	0.241	RSL >= NTC A*0.7
0.598	0.433	0.201	RSL >= NTC A*0.7
0.696	0.371	0.173	RSL >= NTC A*0.7
0.795	0.326	0.151	RSL >= NTC A*0.7
0.893	0.290	0.135	RSL >= NTC A*0.7
0.992	0.261	0.121	RSL >= NTC A*0.7
1.090	0.237	0.110	RSL >= NTC A*0.7
1.188	0.218	0.101	RSL >= NTC A*0.7
1.287	0.201	0.093	RSL >= NTC A*0.7
1.385	0.187	0.087	RSL >= NTC A*0.7
1.484	0.174	0.081	RSL >= NTC A*0.7
1.582	0.164	0.076	RSL >= NTC A*0.7
1.680	0.154	0.072	RSL >= NTC A*0.7
1.779	0.145	0.068	RSL >= NTC A*0.7
1.877	0.138	0.064	RSL >= NTC A*0.7
1.976	0.131	0.061	RSL >= NTC A*0.7
2.074	0.125	0.058	RSL >= NTC A*0.7
2.172	0.119	0.055	RSL >= NTC A*0.7
2.271	0.114	0.053	RSL >= NTC A*0.7
2.330	0.111	0.052	RSL >= NTC A*0.7



Periodo	Se(t) RSL	Se(t) NTC*0.7 suolo tipo A	Confronto NTC
2.369	0.109	0.050	RSL >= NTC_A*0.7
2.468	0.105	0.046	RSL >= NTC_A*0.7
2.566	0.101	0.043	RSL >= NTC_A*0.7
2.623	0.096	0.041	RSL >= NTC_A*0.7
2.681	0.092	0.039	RSL >= NTC_A*0.7
2.738	0.089	0.037	RSL >= NTC_A*0.7
2.795	0.085	0.036	RSL >= NTC_A*0.7
2.853	0.082	0.034	RSL >= NTC_A*0.7
2.910	0.078	0.033	RSL >= NTC_A*0.7
2.968	0.075	0.032	RSL >= NTC_A*0.7
3.025	0.073	0.031	RSL >= NTC_A*0.7
3.082	0.070	0.030	RSL >= NTC_A*0.7
3.140	0.067	0.028	RSL >= NTC_A*0.7
3.197	0.065	0.027	RSL >= NTC_A*0.7
3.254	0.063	0.026	RSL >= NTC_A*0.7
3.312	0.061	0.026	RSL >= NTC_A*0.7
3.369	0.058	0.025	RSL >= NTC_A*0.7
3.426	0.057	0.024	RSL >= NTC_A*0.7
3.484	0.055	0.023	RSL >= NTC_A*0.7
3.541	0.053	0.022	RSL >= NTC_A*0.7
3.598	0.051	0.022	RSL >= NTC_A*0.7
3.656	0.050	0.021	RSL >= NTC_A*0.7
3.713	0.048	0.020	RSL >= NTC_A*0.7
3.771	0.047	0.020	RSL >= NTC_A*0.7
3.828	0.045	0.019	RSL >= NTC_A*0.7
3.885	0.044	0.019	RSL >= NTC_A*0.7
3.943	0.043	0.018	RSL >= NTC_A*0.7
4.000	0.041	0.018	RSL >= NTC_A*0.7

Periodo di ritorno <Tr>	Esito confronto
30	Possibile l'uso dello spettro RSL
50	Possibile l'uso dello spettro RSL
72	Possibile l'uso dello spettro RSL
101	Possibile l'uso dello spettro RSL
140	Possibile l'uso dello spettro RSL
201	Possibile l'uso dello spettro RSL
475	Possibile l'uso dello spettro RSL
975	Possibile l'uso dello spettro RSL
2475	Possibile l'uso dello spettro RSL

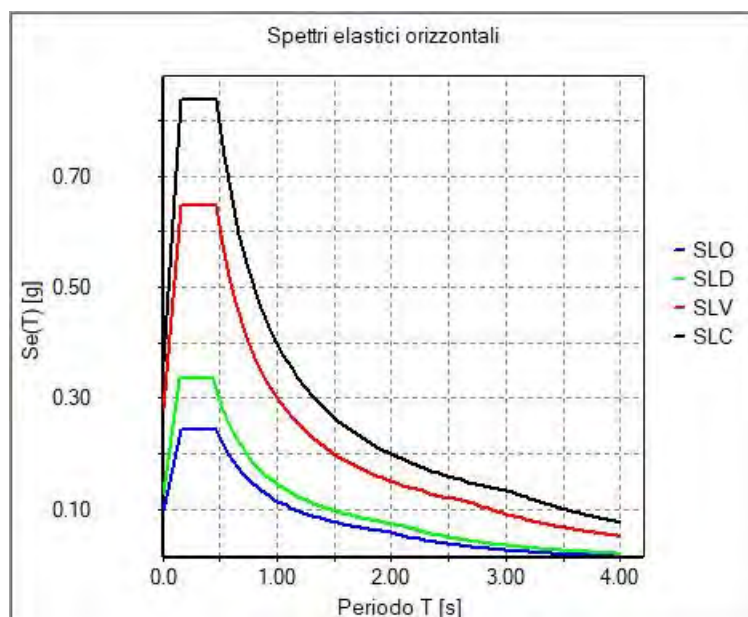


Figura 44 -DIA_SPETTRI_ELASTICI_O

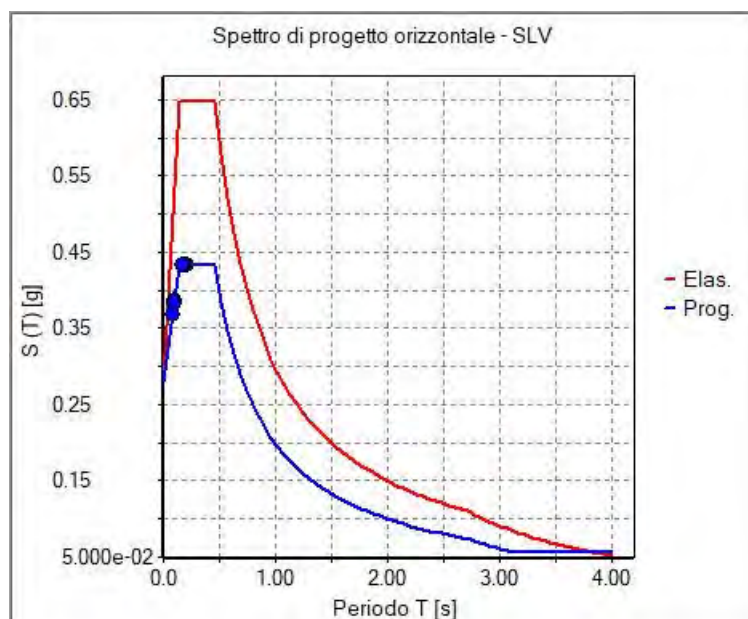


Figura 45 - DIA_SPETTRI_PROGETTO_SLV_O

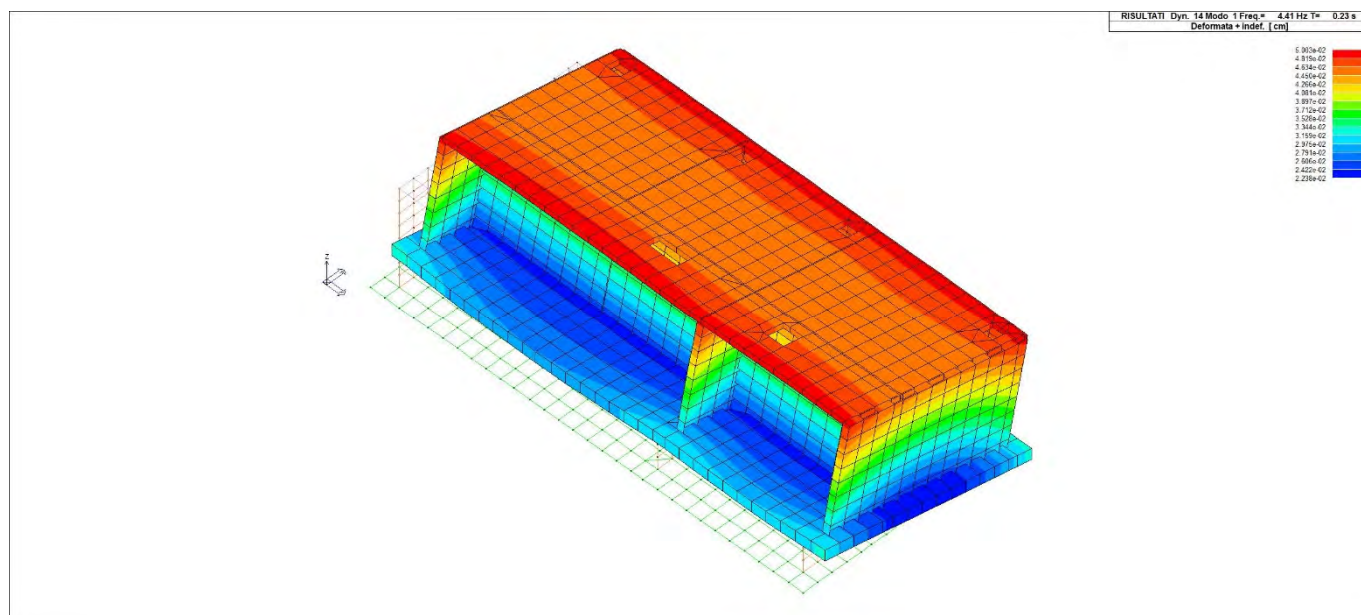


Figura 46 - INPSIS_001_FORME MODALI

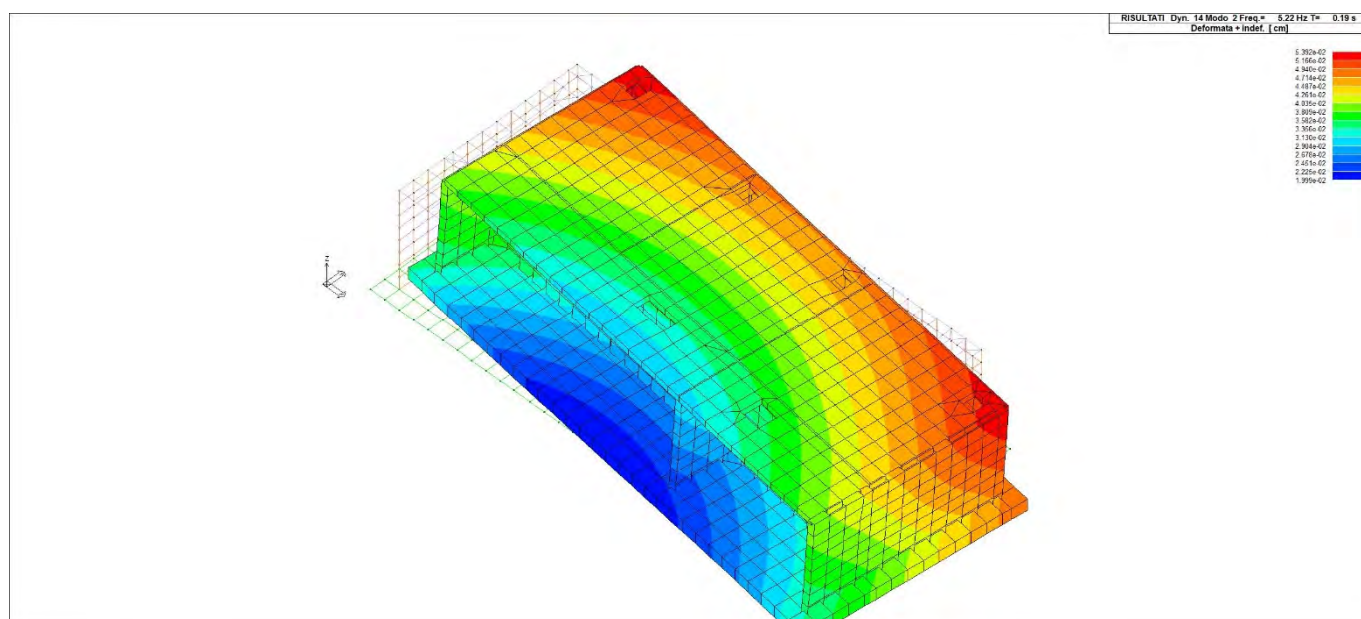


Figura 47 - INPSIS_002_FORME MODALI

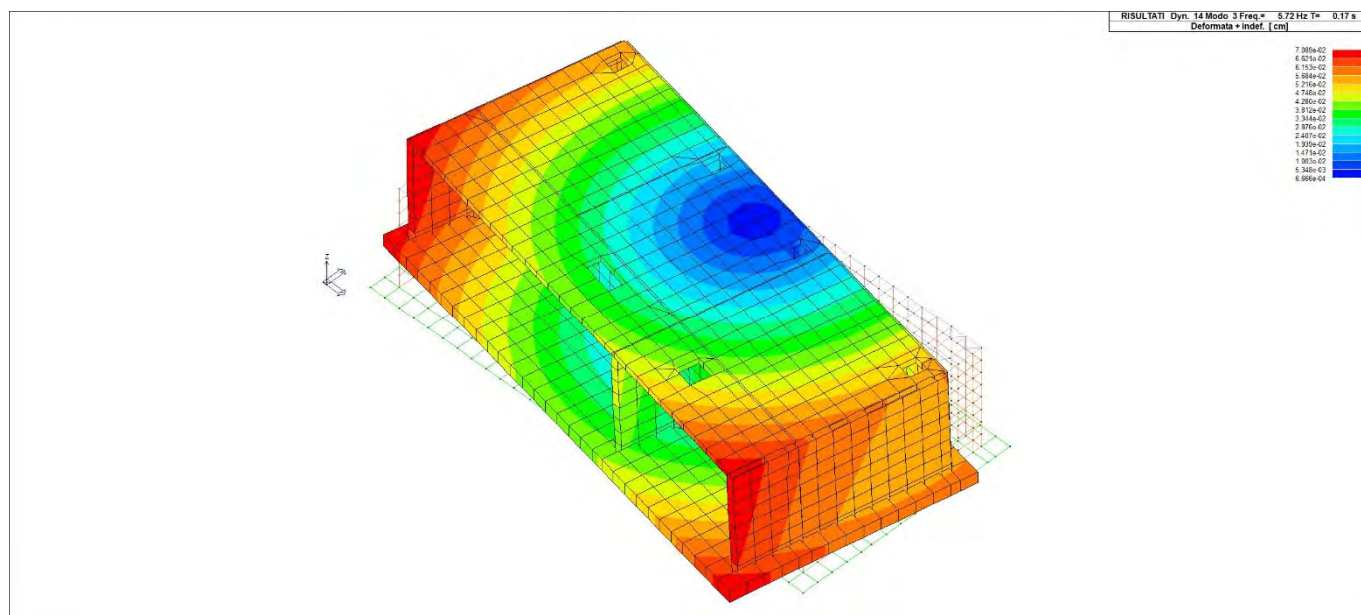


Figura 48 - INPSIS_003_FORME MODALI

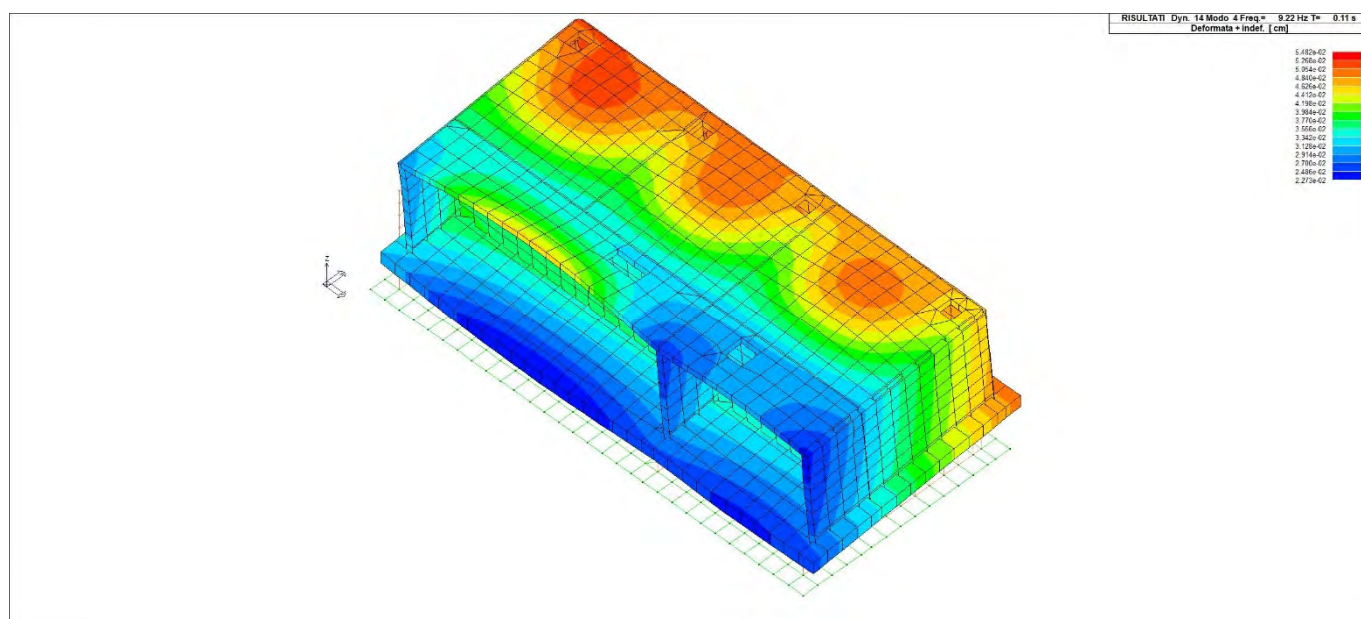


Figura 49 - INPSIS_004_FORME MODALI

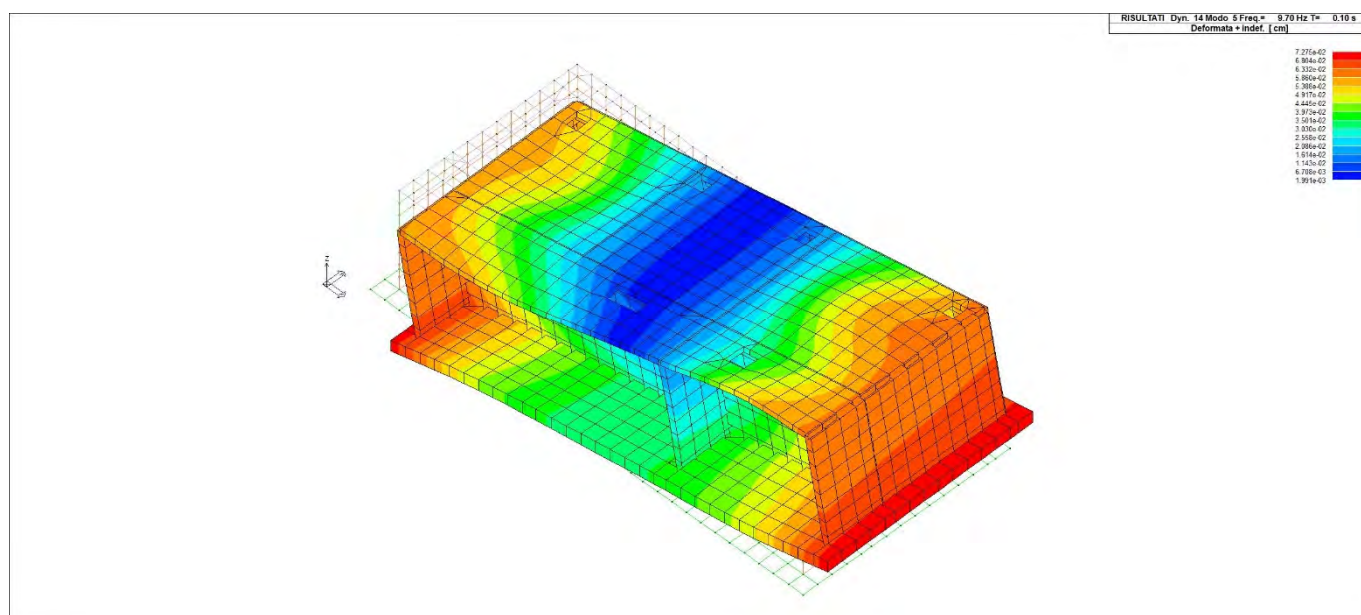


Figura 50 - INPSIS_005_FORME MODALI

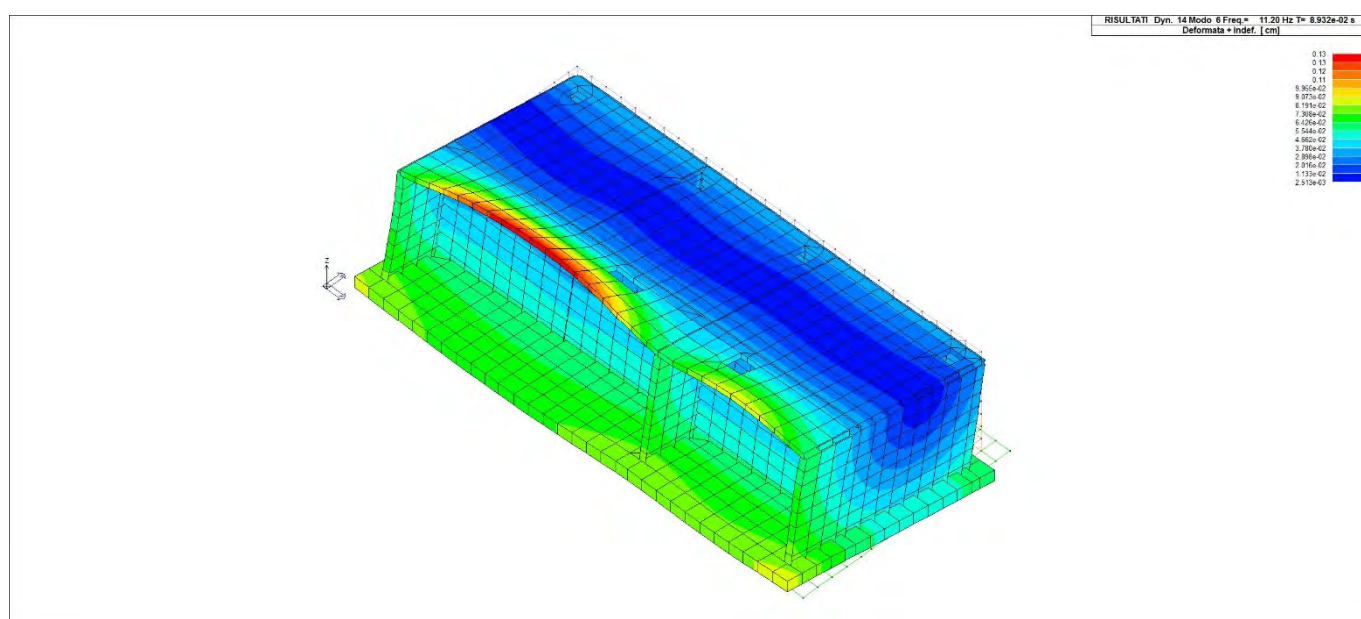


Figura 51 - INPSIS_006_FORME MODALI



RISULTATI ANALISI SISMICHE

LEGENDA TABELLA ANALISI SISMICHE

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

9. Esk caso di carico sismico con analisi statica equivalente

10. Edk caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l'azione sismica: in particolare possono essere presenti i seguenti valori:

Angolo di ingresso	di	Angolo di ingresso dell'azione sismica orizzontale
Fattore di importanza	di	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica		Zona sismica
Accelerazione ag		Accelerazione orizzontale massima sul suolo
Categoria suolo		Categoria di profilo stratigrafico del suolo di fondazione
Fattore q		Fattore di struttura/di comportamento. Dipendente dalla tipologia strutturale
Amplificazione ND		Coefficiente di amplificazione q/q_{ND} delle azioni sismiche (solo per elementi progettati in campo non dissipativo)
Fattore di sito S		Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD		Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore SLD	riduz.	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo T1	proprio	Periodo proprio di vibrazione della struttura
Coefficiente Lambda		Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata Sd(T1)	spettro	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata Se(T1)	spettro	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata S (Tb-Tc)	spettro	Valore dell'ordinata dello spettro in uso nel tratto costante
N° di modi considerati		Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Nel caso di elementi progettati in campo non dissipativo vengono adottate le sollecitazioni calcolate con un fattore q_{ND} ricavato come da 7.3.2 in funzione del fattore di comportamento q utilizzato per la struttura: $1 < q_{ND} = 2/3 * q < 1.5$

Il coefficiente di amplificazione delle azioni sismiche rispetto alle azioni calcolate con il fattore di comportamento globale viene indicato nelle relative tabelle.

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



forza):

- a) analisi sismica statica equivalente:
 - quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/L_s (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
 - azione sismica complessiva
- b) analisi sismica dinamica con spettro di risposta:
 - quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/L_s (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
 - frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
 - massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione ϵ_T (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità $1000 \cdot \epsilon_T/h$ da confrontare direttamente con i valori forniti nella norma (es. 5 per tamponature fragili, 7.5 per tamponature duttili, 10.0 per edifici con tamponamenti collegati elasticamente, 2 per edifici in muratura ordinaria, 3 per edifici in muratura armata, 2.5 per edifici in muratura confinata).

Note:

- I valori riportati sono già amplificati per un eventuale fattore q_{SLD}
- Per SLO i valori devono essere inferiori ai $2/3$ dei limiti sopra citati

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo la circolare n.7/2019 del C.S.LL.PP nelle combinazioni in SLC come previsto dal DM 17-01-2018. Per ogni combinazione è riportato il codice di verifica ed i valori utilizzati per la verifica: spostamento dE , area ridotta e dimensione A_2 , azione verticale, deformazioni di taglio dell'elastomero e tensioni nell'acciaio.

In particolare la tabella, per ogni combinazione di calcolo, riporta:

Nodo	Nodo di appoggio dell' isolatore
Cmb	Combinazione oggetto della verifica
Verif.	Codice di verifica ok – verifica positiva, NV – verifica negativa, ND – verifica non completata
dE	Spostamento relativo tra le due facce combinato con la regola del 30%
Ang fi	Angolo utilizzato per il calcolo dell' area ridotta A_r (per dispositivi circolari)
V	Azione verticale agente
A_r	Area ridotta efficace
Dim A_2	Dimensione utile per il calcolo della deformazione per rotazione
Sig s	Tensione nell' inserto in acciaio
Gam $c(a,s,t)$	Deformazioni di taglio dell' elastomero
Vcr	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

- 1) $V > 0$
- 2) $Sig s < f_{yk}$
- 3) $Gam t < 5$
- 4) $Gam s < Gam^*$ (caratteristica dell' elastomero)
- 5) $Gam s < 2$
- 6) $V < 0.5 V_{cr}$

CDC	Tipo	Sigla Id	Note
6	Edk	CDC=Ed (dinamico SLU) $\alpha=0.0$ (ecc. +)	
			categoria suolo: C
			fattore di sito $S = 1.000$



CDC	Tipo	Sigla Id	Note
			ordinata spettro (tratto Tb-Tc) = 0.432 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.189 s
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 2.224
			classe di duttilità CD: ND
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	0.0	-49.13	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.411	0.227	0.432	11.93	2.05e-03	5.070e+05	87.3	2316.84	0.4	0.0	0.0
2	5.287	0.189	0.432	5.380e+05	92.6	12.14	2.09e-03	1.66	2.85e-04	0.0	0.0
3	5.667	0.176	0.432	32.85	5.66e-03	0.35	5.96e-05	0.07	1.15e-05	0.0	0.0
4	9.216	0.109	0.387	110.67	1.91e-02	1.052e+04	1.8	5.472e+05	94.2	0.0	0.0
5	9.691	0.103	0.382	4.248e+04	7.3	96.13	1.66e-02	1019.95	0.2	0.0	0.0
6	11.196	0.089	0.368	18.21	3.14e-03	6.156e+04	10.6	2.581e+04	4.4	0.0	0.0
7	17.781	0.056	0.335	37.96	6.54e-03	1182.45	0.2	2555.92	0.4	0.0	0.0
8	22.199	0.045	0.324	2.57	4.42e-04	252.78	4.35e-02	108.64	1.87e-02	0.0	0.0
9	22.898	0.044	0.323	0.06	1.03e-05	53.03	9.13e-03	5.40	9.29e-04	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

CDC	Tipo	Sigla Id	Note
7	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.432 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.196 s
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 2.182
			classe di duttilità CD: ND
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	0.0	49.13	1367.18	839.98	0.464	0.044	0.291



Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
446.88	4.824e+04	1318.80	785.84	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.411	0.227	0.432	14.00	2.41e-03	5.070e+05	87.3	2316.91	0.4	0.0	0.0
2	5.105	0.196	0.432	4.229e+05	72.8	15.11	2.60e-03	0.92	1.59e-04	0.0	0.0
3	5.852	0.171	0.432	1.142e+05	19.7	0.41	7.09e-05	1.23	2.12e-04	0.0	0.0
4	9.216	0.109	0.387	105.99	1.82e-02	1.052e+04	1.8	5.473e+05	94.2	0.0	0.0
5	9.707	0.103	0.382	4.343e+04	7.5	95.41	1.64e-02	927.72	0.2	0.0	0.0
6	11.196	0.089	0.368	20.11	3.46e-03	6.156e+04	10.6	2.583e+04	4.4	0.0	0.0
7	17.789	0.056	0.335	39.86	6.86e-03	1184.37	0.2	2558.11	0.4	0.0	0.0
8	22.230	0.045	0.324	2.72	4.68e-04	246.84	4.25e-02	100.22	1.73e-02	0.0	0.0
9	22.923	0.044	0.323	0.06	9.78e-06	52.27	9.00e-03	4.97	8.57e-04	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

CDC	Tipo	Sigla Id	Note
8	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.432 g
			angolo di ingresso: 90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.230 s
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 2.008
			classe di duttilità CD: ND
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	111.53	0.0	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.352	0.230	0.432	656.92	0.1	4.928e+05	84.9	2065.27	0.4	0.0	0.0
2	5.239	0.191	0.432	4.991e+05	85.9	2973.97	0.5	37.84	6.52e-03	0.0	0.0



Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
3	5.829	0.172	0.432	3.799e+04	6.5	1.086e+04	1.9	471.30	8.12e-02	0.0	0.0
4	9.219	0.108	0.387	82.50	1.42e-02	1.046e+04	1.8	5.481e+05	94.4	0.0	0.0
5	9.696	0.103	0.382	4.281e+04	7.4	97.04	1.67e-02	575.40	9.91e-02	0.0	0.0
6	11.215	0.089	0.368	38.11	6.56e-03	6.199e+04	10.7	2.509e+04	4.3	0.0	0.0
7	17.777	0.056	0.336	39.01	6.72e-03	1171.27	0.2	2548.88	0.4	0.0	0.0
8	22.193	0.045	0.324	2.97	5.12e-04	258.50	4.45e-02	102.92	1.77e-02	0.0	0.0
9	22.923	0.044	0.323	5.29e-06	0.0	48.77	8.40e-03	3.61	6.21e-04	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

CDC	Tipo	Sigla Id	Note
9	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.432 g
			angolo di ingresso: 90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.230 s
			fattore q: 1.500
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 2.007
			classe di duttilità CD: ND
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	-111.53	0.0	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.352	0.230	0.432	1022.16	0.2	4.919e+05	84.7	2063.52	0.4	0.0	0.0
2	5.241	0.191	0.432	4.990e+05	85.9	3728.90	0.6	70.36	1.21e-02	0.0	0.0
3	5.823	0.172	0.432	3.773e+04	6.5	1.095e+04	1.9	409.28	7.05e-02	0.0	0.0
4	9.218	0.108	0.387	142.91	2.46e-02	1.046e+04	1.8	5.471e+05	94.2	0.0	0.0
5	9.698	0.103	0.382	4.278e+04	7.4	94.59	1.63e-02	1562.92	0.3	0.0	0.0
6	11.209	0.089	0.368	6.09	1.05e-03	6.199e+04	10.7	2.515e+04	4.3	0.0	0.0
7	17.794	0.056	0.335	38.77	6.68e-03	1209.32	0.2	2563.20	0.4	0.0	0.0
8	22.233	0.045	0.324	2.36	4.06e-04	241.73	4.16e-02	103.96	1.79e-02	0.0	0.0
9	22.898	0.044	0.323	2.44e-05	0.0	56.78	9.78e-03	6.82	1.17e-03	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

CDC	Tipo	Sigla Id	Note
10	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	



CDC	Tipo	Sigla Id	Note
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.336 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.189 s
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	0.0	-49.13	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	0.0	-49.12	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.411	0.227	0.336	11.93	2.05e-03	5.070e+05	87.3	2316.84	0.4	0.0	0.0
2	5.287	0.189	0.336	5.380e+05	92.6	12.14	2.09e-03	1.66	2.85e-04	0.0	0.0
3	5.667	0.176	0.336	32.85	5.66e-03	0.35	5.96e-05	0.07	1.15e-05	0.0	0.0
4	9.216	0.109	0.283	110.67	1.91e-02	1.052e+04	1.8	5.472e+05	94.2	0.0	0.0
5	9.691	0.103	0.275	4.248e+04	7.3	96.13	1.66e-02	1019.95	0.2	0.0	0.0
6	11.196	0.089	0.255	18.21	3.14e-03	6.156e+04	10.6	2.581e+04	4.4	0.0	0.0
7	17.781	0.056	0.207	37.96	6.54e-03	1182.45	0.2	2555.92	0.4	0.0	0.0
8	22.199	0.045	0.191	2.57	4.42e-04	252.78	4.35e-02	108.64	1.87e-02	0.0	0.0
9	22.898	0.044	0.189	0.06	1.03e-05	53.03	9.13e-03	5.40	9.29e-04	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

CDC	Tipo	Sigla Id	Note
11	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.336 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.196 s
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	0.0	49.13	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113



Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
38.12	4.824e+04	1318.80	785.83	0.0	49.12	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.411	0.227	0.336	14.00	2.41e-03	5.070e+05	87.3	2316.91	0.4	0.0	0.0
2	5.105	0.196	0.336	4.229e+05	72.8	15.11	2.60e-03	0.92	1.59e-04	0.0	0.0
3	5.852	0.171	0.336	1.142e+05	19.7	0.41	7.09e-05	1.23	2.12e-04	0.0	0.0
4	9.216	0.109	0.283	105.99	1.82e-02	1.052e+04	1.8	5.473e+05	94.2	0.0	0.0
5	9.707	0.103	0.275	4.343e+04	7.5	95.41	1.64e-02	927.72	0.2	0.0	0.0
6	11.196	0.089	0.255	20.11	3.46e-03	6.156e+04	10.6	2.583e+04	4.4	0.0	0.0
7	17.789	0.056	0.207	39.86	6.86e-03	1184.37	0.2	2558.11	0.4	0.0	0.0
8	22.230	0.045	0.191	2.72	4.68e-04	246.84	4.25e-02	100.22	1.73e-02	0.0	0.0
9	22.923	0.044	0.189	0.06	9.78e-06	52.27	9.00e-03	4.97	8.57e-04	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

CDC	Tipo	Sigla Id	Note
12	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.336 g
			angolo di ingresso: 90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.230 s
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	111.53	0.0	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	111.53	0.0	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.352	0.230	0.336	656.92	0.1	4.928e+05	84.9	2065.27	0.4	0.0	0.0
2	5.239	0.191	0.336	4.991e+05	85.9	2973.97	0.5	37.84	6.52e-03	0.0	0.0
3	5.829	0.172	0.336	3.799e+04	6.5	1.086e+04	1.9	471.30	8.12e-02	0.0	0.0
4	9.219	0.108	0.283	82.50	1.42e-02	1.046e+04	1.8	5.481e+05	94.4	0.0	0.0
5	9.696	0.103	0.275	4.281e+04	7.4	97.04	1.67e-02	575.40	9.91e-02	0.0	0.0
6	11.215	0.089	0.255	38.11	6.56e-03	6.199e+04	10.7	2.509e+04	4.3	0.0	0.0
7	17.777	0.056	0.207	39.01	6.72e-03	1171.27	0.2	2548.88	0.4	0.0	0.0
8	22.193	0.045	0.191	2.97	5.12e-04	258.50	4.45e-02	102.92	1.77e-02	0.0	0.0
9	22.923	0.044	0.189	5.29e-06	0.0	48.77	8.40e-03	3.61	6.21e-04	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			



CDC	Tipo	Sigla Id	Note
13	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.000
			ordinata spettro (tratto Tb-Tc) = 0.336 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.230 s
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
515.00	2.431e+05	1311.61	700.67	-111.53	0.0	1367.18	839.98	0.464	0.044	0.291
446.88	4.824e+04	1318.80	785.84	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
378.75	4.824e+04	1318.80	785.81	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
310.62	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
242.50	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
174.38	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
106.25	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
38.12	4.824e+04	1318.80	785.83	-111.53	0.0	1367.18	839.98	0.464	0.038	0.113
Risulta	5.808e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	4.352	0.230	0.336	1022.16	0.2	4.919e+05	84.7	2063.52	0.4	0.0	0.0
2	5.241	0.191	0.336	4.990e+05	85.9	3728.90	0.6	70.36	1.21e-02	0.0	0.0
3	5.823	0.172	0.336	3.773e+04	6.5	1.095e+04	1.9	409.28	7.05e-02	0.0	0.0
4	9.218	0.108	0.283	142.91	2.46e-02	1.046e+04	1.8	5.471e+05	94.2	0.0	0.0
5	9.698	0.103	0.275	4.278e+04	7.4	94.59	1.63e-02	1562.92	0.3	0.0	0.0
6	11.209	0.089	0.255	6.09	1.05e-03	6.199e+04	10.7	2.515e+04	4.3	0.0	0.0
7	17.794	0.056	0.207	38.77	6.68e-03	1209.32	0.2	2563.20	0.4	0.0	0.0
8	22.233	0.045	0.191	2.36	4.06e-04	241.73	4.16e-02	103.96	1.79e-02	0.0	0.0
9	22.898	0.044	0.189	2.44e-05	0.0	56.78	9.78e-03	6.82	1.17e-03	0.0	0.0
Risulta				5.807e+05		5.807e+05		5.790e+05			
In percentuale				99.98		99.98		99.70			

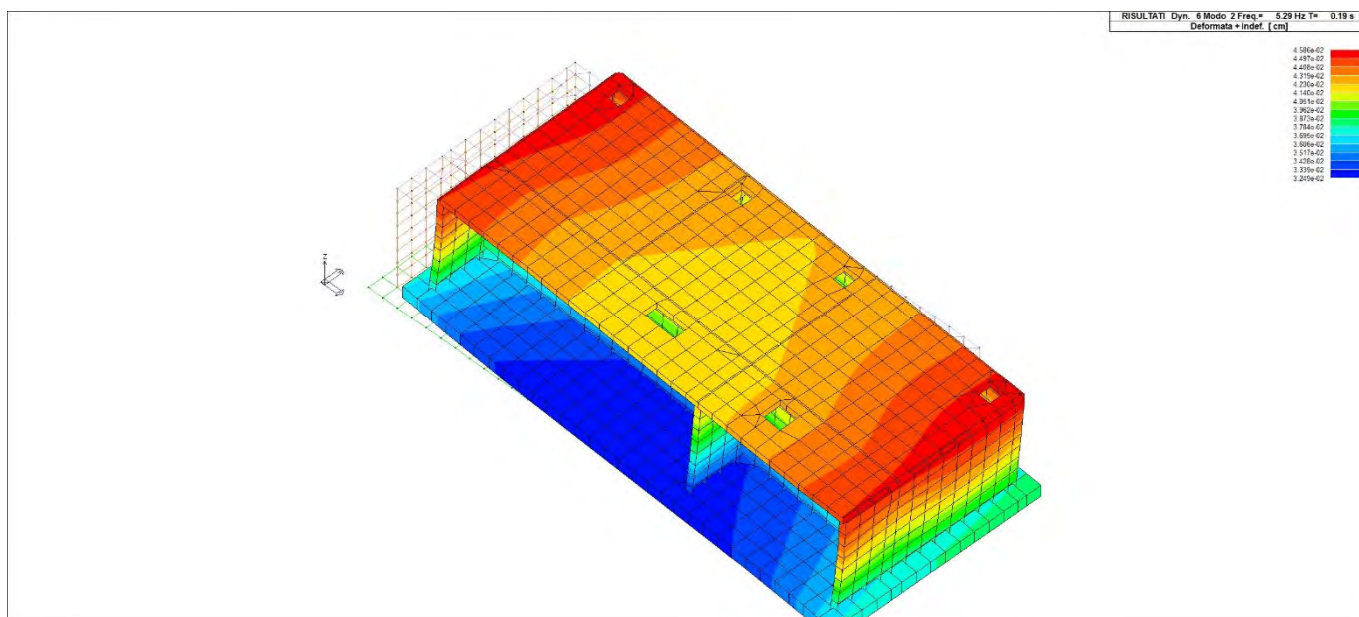


Figura 52 - RIS_MODALX_002_CDCEd dinamico SLU alfa00 ecc +

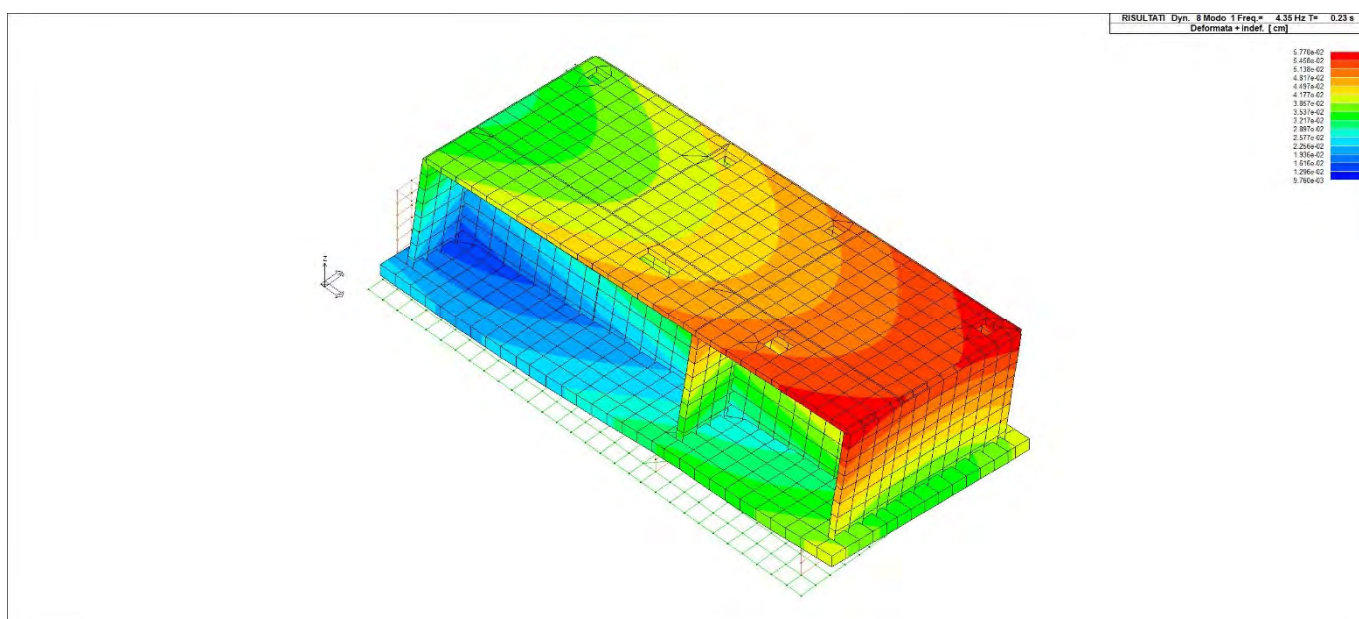


Figura 53 - RIS_MODALY_001_CDCEd dinamico SLU alfa9000 ecc +



RISULTATI OPERE DI FONDAZIONE

LEGENDA RISULTATI OPERE DI FONDAZIONE

Il controllo dei risultati delle analisi condotte, per quanto concerne le opere di fondazione, è possibile in relazione alle tabelle sotto riportate.

La prima tabella è riferita alle fondazioni tipo palo e plinto su pali.

Per questo tipo di fondazione vengono riportate le sei componenti di sollecitazione (esprese nel riferimento globale della struttura) per ogni palo componente l'opera.

In particolare viene riportato:

Nodo	numero del nodo a cui è applicato il plinto
Tipo	codice corrispondente al nome assegnato al tipo di plinto di fondazione: 3) palo singolo (<i>PALO</i>) 4) plinto su palo 5) plinto su due pali (<i>PL.2P</i>) 6) plinto su tre pali (<i>PL.3P</i>) 7) plinto su quattro pali (<i>PL.4P</i>) 8) plinto rettangolare su cinque pali (<i>PL.5P.R</i>) 9) plinto pentagonale su cinque pali (<i>PL.5P</i>) 10) plinto su sei pali (<i>PL.6P</i>)
Palo	numero del palo
Comb.	combinazione di carico in cui si verificano le sei componenti di sollecitazione.
Quota	quota assoluta della sezione del palo per cui si riportano le sei componenti di sollecitazione.

L'azione F_z (corrispondente allo sforzo normale nel palo) è costante poiché il peso del palo stesso non è considerato nella modellazione.

La seconda tabella è riferita alle fondazioni tipo plinto su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni nei quattro vertici dell'impronta sul terreno.

In particolare viene riportato:

Nodo	numero del nodo a cui è applicato il plinto
Tipo	Codice identificativo del nome assegnato al plinto
area	area dell'impronta del plinto
Wink O Wink V	coefficienti di Winkler (orizzontale e verticale) adottati
Comb	Combinazione di carico in cui si verificano i valori riportati
Pt (P1 P2 P3 P4)	valori di pressione nei vertici

La terza tabella è riferita alle fondazioni tipo platea su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni in ogni vertice (nodo) degli elementi costituenti la platea.

La quarta tabella è riferita alle fondazioni tipo trave su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni alle estremità dell'elemento e la massima (in valore assoluto) pressione lungo lo sviluppo dell'elemento.

Vengono inoltre riportati, con funzione statistica, i valori massimo e minimo delle pressioni che compaiono nella tabella.



Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...							
	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2
1	-0.52	-0.39	-0.37	-0.37	-0.65	-0.59					
2	-0.50	-0.38	-0.36	-0.36	-0.62	-0.56					
3	-0.49	-0.36	-0.35	-0.35	-0.60	-0.54					
4	-0.47	-0.35	-0.34	-0.34	-0.57	-0.52					
5	-0.45	-0.34	-0.32	-0.32	-0.54	-0.49					
6	-0.43	-0.32	-0.31	-0.31	-0.52	-0.47					
7	-0.42	-0.32	-0.31	-0.31	-0.50	-0.46					
8	-0.41	-0.31	-0.30	-0.30	-0.49	-0.45					
9	-0.41	-0.31	-0.30	-0.30	-0.48	-0.44					
10	-0.41	-0.30	-0.29	-0.29	-0.47	-0.43					
11	-0.41	-0.30	-0.29	-0.29	-0.47	-0.43					
12	-0.41	-0.31	-0.30	-0.30	-0.47	-0.43					
13	-0.41	-0.31	-0.30	-0.30	-0.47	-0.43					
14	-0.42	-0.32	-0.31	-0.31	-0.48	-0.44					
15	-0.43	-0.32	-0.31	-0.31	-0.49	-0.45					
16	-0.45	-0.33	-0.32	-0.32	-0.51	-0.47					
17	-0.46	-0.34	-0.33	-0.33	-0.53	-0.49					
18	-0.48	-0.36	-0.35	-0.35	-0.56	-0.51					
19	-0.49	-0.37	-0.35	-0.35	-0.57	-0.52					
20	-0.50	-0.37	-0.36	-0.36	-0.58	-0.53					
21	-0.50	-0.37	-0.36	-0.36	-0.58	-0.53					
22	-0.49	-0.36	-0.35	-0.35	-0.57	-0.52					
23	-0.48	-0.36	-0.34	-0.34	-0.56	-0.51					
24	-0.47	-0.35	-0.34	-0.34	-0.56	-0.51					
25	-0.47	-0.35	-0.34	-0.34	-0.55	-0.50					
26	-0.47	-0.35	-0.34	-0.34	-0.56	-0.51					
27	-0.47	-0.35	-0.34	-0.34	-0.57	-0.51					
28	-0.48	-0.36	-0.35	-0.35	-0.58	-0.53					
29	-0.49	-0.37	-0.35	-0.35	-0.60	-0.54					
30	-0.50	-0.37	-0.36	-0.36	-0.62	-0.56					
31	-0.51	-0.38	-0.37	-0.37	-0.64	-0.58					
32	-0.58	-0.43	-0.41	-0.41	-0.66	-0.60					
33	-0.57	-0.42	-0.41	-0.41	-0.64	-0.59					
34	-0.55	-0.41	-0.40	-0.40	-0.62	-0.57					
35	-0.54	-0.40	-0.38	-0.38	-0.59	-0.54					
36	-0.52	-0.39	-0.37	-0.37	-0.57	-0.53					
37	-0.51	-0.38	-0.37	-0.37	-0.55	-0.51					
38	-0.50	-0.37	-0.36	-0.36	-0.54	-0.50					
39	-0.49	-0.37	-0.36	-0.36	-0.53	-0.49					
40	-0.49	-0.36	-0.35	-0.35	-0.52	-0.48					
41	-0.49	-0.36	-0.35	-0.35	-0.51	-0.48					
42	-0.49	-0.36	-0.35	-0.35	-0.51	-0.47					
43	-0.49	-0.36	-0.35	-0.35	-0.51	-0.47					
44	-0.49	-0.37	-0.36	-0.36	-0.51	-0.48					
45	-0.50	-0.37	-0.36	-0.36	-0.52	-0.48					
46	-0.51	-0.38	-0.37	-0.37	-0.52	-0.49					
47	-0.52	-0.38	-0.37	-0.37	-0.54	-0.50					
48	-0.53	-0.39	-0.38	-0.38	-0.56	-0.52					
49	-0.55	-0.40	-0.39	-0.39	-0.57	-0.53					
50	-0.56	-0.41	-0.40	-0.40	-0.59	-0.55					
51	-0.56	-0.42	-0.40	-0.40	-0.60	-0.56					
52	-0.56	-0.41	-0.40	-0.40	-0.60	-0.55					
53	-0.55	-0.41	-0.40	-0.40	-0.59	-0.55					
54	-0.54	-0.40	-0.39	-0.39	-0.58	-0.54					
55	-0.54	-0.40	-0.39	-0.39	-0.58	-0.53					
56	-0.53	-0.39	-0.38	-0.38	-0.57	-0.53					
57	-0.53	-0.39	-0.38	-0.38	-0.58	-0.53					
58	-0.54	-0.40	-0.39	-0.39	-0.59	-0.54					
59	-0.54	-0.40	-0.39	-0.39	-0.60	-0.55					
60	-0.55	-0.41	-0.40	-0.40	-0.61	-0.57					
61	-0.56	-0.42	-0.40	-0.40	-0.63	-0.58					
62	-0.57	-0.42	-0.41	-0.41	-0.65	-0.59					
63	-0.64	-0.47	-0.45	-0.45	-0.67	-0.62					
64	-0.63	-0.46	-0.45	-0.45	-0.65	-0.60					
65	-0.62	-0.45	-0.44	-0.44	-0.63	-0.59					
66	-0.60	-0.44	-0.43	-0.43	-0.61	-0.57					
67	-0.59	-0.44	-0.42	-0.42	-0.60	-0.56					
68	-0.59	-0.43	-0.42	-0.42	-0.58	-0.55					



Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...						
69	-0.58	-0.43	-0.41	-0.41	-0.57	-0.54				
70	-0.58	-0.42	-0.41	-0.41	-0.56	-0.53				
71	-0.57	-0.42	-0.41	-0.41	-0.56	-0.52				
72	-0.57	-0.42	-0.41	-0.41	-0.55	-0.52				
73	-0.57	-0.42	-0.41	-0.41	-0.55	-0.52				
74	-0.57	-0.42	-0.41	-0.41	-0.55	-0.52				
75	-0.58	-0.42	-0.41	-0.41	-0.55	-0.52				
76	-0.58	-0.43	-0.41	-0.41	-0.55	-0.52				
77	-0.59	-0.43	-0.42	-0.42	-0.56	-0.53				
78	-0.59	-0.43	-0.42	-0.42	-0.57	-0.53				
79	-0.60	-0.44	-0.43	-0.43	-0.58	-0.55				
80	-0.61	-0.45	-0.44	-0.44	-0.59	-0.56				
81	-0.62	-0.45	-0.44	-0.44	-0.61	-0.57				
82	-0.62	-0.46	-0.45	-0.45	-0.61	-0.58				
83	-0.62	-0.46	-0.44	-0.44	-0.61	-0.57				
84	-0.62	-0.45	-0.44	-0.44	-0.61	-0.57				
85	-0.61	-0.45	-0.43	-0.43	-0.60	-0.56				
86	-0.60	-0.44	-0.43	-0.43	-0.60	-0.56				
87	-0.60	-0.44	-0.43	-0.43	-0.60	-0.56				
88	-0.60	-0.44	-0.43	-0.43	-0.60	-0.56				
89	-0.60	-0.44	-0.43	-0.43	-0.61	-0.57				
90	-0.61	-0.45	-0.43	-0.43	-0.62	-0.57				
91	-0.61	-0.45	-0.44	-0.44	-0.63	-0.59				
92	-0.62	-0.46	-0.44	-0.44	-0.64	-0.60				
93	-0.63	-0.46	-0.45	-0.45	-0.66	-0.61				
94	-0.69	-0.50	-0.49	-0.49	-0.67	-0.63				
95	-0.68	-0.50	-0.49	-0.49	-0.66	-0.62				
96	-0.68	-0.49	-0.48	-0.48	-0.65	-0.61				
97	-0.67	-0.49	-0.48	-0.48	-0.63	-0.60				
98	-0.67	-0.48	-0.47	-0.47	-0.62	-0.59				
99	-0.66	-0.48	-0.47	-0.47	-0.61	-0.58				
100	-0.66	-0.48	-0.47	-0.47	-0.61	-0.58				
101	-0.65	-0.48	-0.47	-0.47	-0.60	-0.57				
102	-0.65	-0.48	-0.46	-0.46	-0.60	-0.57				
103	-0.65	-0.48	-0.46	-0.46	-0.59	-0.56				
104	-0.65	-0.48	-0.46	-0.46	-0.59	-0.56				
105	-0.65	-0.48	-0.46	-0.46	-0.59	-0.56				
106	-0.66	-0.48	-0.47	-0.47	-0.59	-0.56				
107	-0.66	-0.48	-0.47	-0.47	-0.59	-0.56				
108	-0.66	-0.48	-0.47	-0.47	-0.59	-0.56				
109	-0.67	-0.48	-0.47	-0.47	-0.59	-0.56				
110	-0.67	-0.49	-0.48	-0.48	-0.60	-0.57				
111	-0.68	-0.49	-0.48	-0.48	-0.61	-0.58				
112	-0.68	-0.50	-0.48	-0.48	-0.62	-0.59				
113	-0.68	-0.50	-0.49	-0.49	-0.62	-0.59				
114	-0.68	-0.50	-0.48	-0.48	-0.62	-0.59				
115	-0.68	-0.49	-0.48	-0.48	-0.62	-0.59				
116	-0.67	-0.49	-0.48	-0.48	-0.62	-0.59				
117	-0.67	-0.49	-0.48	-0.48	-0.62	-0.59				
118	-0.67	-0.49	-0.48	-0.48	-0.62	-0.59				
119	-0.67	-0.49	-0.48	-0.48	-0.62	-0.59				
120	-0.67	-0.49	-0.48	-0.48	-0.63	-0.59				
121	-0.67	-0.49	-0.48	-0.48	-0.63	-0.60				
122	-0.67	-0.49	-0.48	-0.48	-0.64	-0.61				
123	-0.68	-0.50	-0.48	-0.48	-0.65	-0.61				
124	-0.68	-0.50	-0.49	-0.49	-0.66	-0.62				
125	-0.74	-0.54	-0.53	-0.53	-0.69	-0.66				
126	-0.74	-0.54	-0.53	-0.53	-0.68	-0.65				
127	-0.74	-0.54	-0.52	-0.52	-0.67	-0.64				
128	-0.74	-0.53	-0.52	-0.52	-0.66	-0.63				
129	-0.73	-0.53	-0.52	-0.52	-0.65	-0.62				
130	-0.73	-0.53	-0.52	-0.52	-0.64	-0.61				
131	-0.73	-0.53	-0.52	-0.52	-0.64	-0.61				
132	-0.73	-0.53	-0.52	-0.52	-0.63	-0.61				
133	-0.73	-0.53	-0.52	-0.52	-0.63	-0.60				
134	-0.73	-0.53	-0.52	-0.52	-0.63	-0.60				
135	-0.73	-0.53	-0.52	-0.52	-0.62	-0.60				
136	-0.73	-0.53	-0.52	-0.52	-0.62	-0.60				
137	-0.73	-0.53	-0.52	-0.52	-0.62	-0.60				
138	-0.73	-0.53	-0.52	-0.52	-0.62	-0.59				
139	-0.73	-0.53	-0.52	-0.52	-0.61	-0.59				
140	-0.73	-0.53	-0.52	-0.52	-0.61	-0.59				



Città di Fermo

Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...						
141	-0.74	-0.53	-0.52	-0.52	-0.62	-0.60				
142	-0.74	-0.54	-0.52	-0.52	-0.62	-0.60				
143	-0.74	-0.54	-0.52	-0.52	-0.63	-0.61				
144	-0.74	-0.54	-0.52	-0.52	-0.63	-0.61				
145	-0.74	-0.54	-0.52	-0.52	-0.63	-0.61				
146	-0.74	-0.54	-0.52	-0.52	-0.63	-0.61				
147	-0.74	-0.53	-0.52	-0.52	-0.63	-0.61				
148	-0.73	-0.53	-0.52	-0.52	-0.64	-0.61				
149	-0.73	-0.53	-0.52	-0.52	-0.64	-0.61				
150	-0.73	-0.53	-0.52	-0.52	-0.64	-0.61				
151	-0.73	-0.53	-0.52	-0.52	-0.64	-0.62				
152	-0.73	-0.53	-0.52	-0.52	-0.65	-0.62				
153	-0.73	-0.53	-0.52	-0.52	-0.66	-0.63				
154	-0.74	-0.53	-0.52	-0.52	-0.68	-0.64				
155	-0.74	-0.54	-0.52	-0.52	-0.69	-0.65				
156	-0.78	-0.57	-0.55	-0.55	-0.71	-0.68				
157	-0.78	-0.57	-0.55	-0.55	-0.70	-0.67				
158	-0.78	-0.56	-0.55	-0.55	-0.69	-0.66				
159	-0.78	-0.56	-0.55	-0.55	-0.68	-0.65				
160	-0.78	-0.56	-0.55	-0.55	-0.67	-0.64				
161	-0.78	-0.56	-0.55	-0.55	-0.66	-0.64				
162	-0.78	-0.56	-0.55	-0.55	-0.65	-0.63				
163	-0.78	-0.56	-0.55	-0.55	-0.65	-0.63				
164	-0.78	-0.56	-0.55	-0.55	-0.65	-0.63				
165	-0.78	-0.56	-0.55	-0.55	-0.64	-0.62				
166	-0.78	-0.56	-0.55	-0.55	-0.64	-0.62				
167	-0.78	-0.56	-0.55	-0.55	-0.64	-0.62				
168	-0.78	-0.56	-0.55	-0.55	-0.64	-0.62				
169	-0.78	-0.56	-0.55	-0.55	-0.63	-0.61				
170	-0.78	-0.56	-0.55	-0.55	-0.63	-0.61				
171	-0.78	-0.56	-0.55	-0.55	-0.63	-0.61				
172	-0.78	-0.57	-0.55	-0.55	-0.63	-0.61				
173	-0.78	-0.57	-0.55	-0.55	-0.63	-0.61				
174	-0.78	-0.57	-0.55	-0.55	-0.64	-0.62				
175	-0.78	-0.57	-0.55	-0.55	-0.64	-0.62				
176	-0.78	-0.57	-0.55	-0.55	-0.64	-0.62				
177	-0.78	-0.56	-0.55	-0.55	-0.64	-0.62				
178	-0.78	-0.56	-0.55	-0.55	-0.64	-0.62				
179	-0.78	-0.56	-0.55	-0.55	-0.65	-0.62				
180	-0.78	-0.56	-0.55	-0.55	-0.65	-0.63				
181	-0.78	-0.56	-0.55	-0.55	-0.66	-0.63				
182	-0.78	-0.56	-0.55	-0.55	-0.67	-0.64				
183	-0.78	-0.56	-0.55	-0.55	-0.68	-0.65				
184	-0.78	-0.56	-0.55	-0.55	-0.69	-0.65				
185	-0.78	-0.56	-0.55	-0.55	-0.70	-0.66				
186	-0.78	-0.56	-0.55	-0.55	-0.71	-0.67				
187	-0.84	-0.61	-0.59	-0.59	-0.74	-0.71				
188	-0.84	-0.60	-0.59	-0.59	-0.73	-0.70				
189	-0.84	-0.60	-0.59	-0.59	-0.72	-0.69				
190	-0.84	-0.60	-0.59	-0.59	-0.71	-0.68				
191	-0.84	-0.60	-0.59	-0.59	-0.70	-0.68				
192	-0.84	-0.60	-0.59	-0.59	-0.69	-0.67				
193	-0.84	-0.60	-0.59	-0.59	-0.69	-0.66				
194	-0.84	-0.61	-0.59	-0.59	-0.68	-0.66				
195	-0.84	-0.61	-0.59	-0.59	-0.67	-0.65				
196	-0.84	-0.61	-0.59	-0.59	-0.66	-0.65				
197	-0.84	-0.61	-0.59	-0.59	-0.65	-0.64				
198	-0.84	-0.61	-0.59	-0.59	-0.65	-0.64				
199	-0.84	-0.61	-0.59	-0.59	-0.65	-0.64				
200	-0.84	-0.61	-0.59	-0.59	-0.65	-0.63				
201	-0.84	-0.61	-0.59	-0.59	-0.64	-0.63				
202	-0.84	-0.60	-0.59	-0.59	-0.64	-0.63				
203	-0.84	-0.60	-0.59	-0.59	-0.64	-0.63				
204	-0.84	-0.60	-0.59	-0.59	-0.64	-0.63				
205	-0.84	-0.60	-0.59	-0.59	-0.64	-0.63				
206	-0.84	-0.60	-0.59	-0.59	-0.65	-0.63				
207	-0.84	-0.60	-0.59	-0.59	-0.65	-0.64				
208	-0.84	-0.60	-0.59	-0.59	-0.65	-0.64				
209	-0.83	-0.60	-0.59	-0.59	-0.66	-0.64				
210	-0.83	-0.60	-0.59	-0.59	-0.67	-0.65				
211	-0.83	-0.60	-0.59	-0.59	-0.68	-0.66				
212	-0.83	-0.60	-0.59	-0.59	-0.69	-0.66				

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...						
213	-0.83	-0.60	-0.59	-0.59	-0.69	-0.67				
214	-0.83	-0.60	-0.59	-0.59	-0.70	-0.68				
215	-0.83	-0.60	-0.59	-0.59	-0.71	-0.69				
216	-0.83	-0.60	-0.59	-0.59	-0.73	-0.69				
217	-0.83	-0.60	-0.59	-0.59	-0.74	-0.70				
218	-0.89	-0.64	-0.63	-0.63	-0.77	-0.74				
219	-0.89	-0.64	-0.63	-0.63	-0.76	-0.73				
220	-0.89	-0.64	-0.63	-0.63	-0.75	-0.72				
221	-0.89	-0.64	-0.63	-0.63	-0.74	-0.71				
222	-0.89	-0.64	-0.63	-0.63	-0.73	-0.71				
223	-0.89	-0.64	-0.63	-0.63	-0.72	-0.70				
224	-0.89	-0.64	-0.63	-0.63	-0.71	-0.69				
225	-0.89	-0.64	-0.63	-0.63	-0.71	-0.69				
226	-0.90	-0.64	-0.63	-0.63	-0.70	-0.68				
227	-0.90	-0.64	-0.63	-0.63	-0.69	-0.68				
228	-0.90	-0.64	-0.63	-0.63	-0.68	-0.67				
229	-0.90	-0.64	-0.63	-0.63	-0.67	-0.66				
230	-0.90	-0.64	-0.63	-0.63	-0.66	-0.66				
231	-0.90	-0.64	-0.63	-0.63	-0.66	-0.65				
232	-0.90	-0.64	-0.63	-0.63	-0.65	-0.65				
233	-0.89	-0.64	-0.63	-0.63	-0.65	-0.65				
234	-0.89	-0.64	-0.63	-0.63	-0.65	-0.65				
235	-0.89	-0.64	-0.63	-0.63	-0.65	-0.65				
236	-0.89	-0.64	-0.63	-0.63	-0.66	-0.65				
237	-0.89	-0.64	-0.63	-0.63	-0.67	-0.66				
238	-0.89	-0.64	-0.63	-0.63	-0.68	-0.66				
239	-0.89	-0.64	-0.63	-0.63	-0.68	-0.67				
240	-0.89	-0.64	-0.63	-0.63	-0.69	-0.67				
241	-0.89	-0.64	-0.62	-0.62	-0.70	-0.68				
242	-0.88	-0.63	-0.62	-0.62	-0.70	-0.69				
243	-0.88	-0.63	-0.62	-0.62	-0.71	-0.69				
244	-0.88	-0.63	-0.62	-0.62	-0.72	-0.70				
245	-0.88	-0.63	-0.62	-0.62	-0.73	-0.71				
246	-0.88	-0.64	-0.62	-0.62	-0.74	-0.72				
247	-0.89	-0.64	-0.63	-0.63	-0.76	-0.73				
248	-0.89	-0.64	-0.63	-0.63	-0.77	-0.74				
249	-0.95	-0.68	-0.67	-0.67	-0.81	-0.78				
250	-0.95	-0.68	-0.67	-0.67	-0.80	-0.77				
251	-0.94	-0.68	-0.66	-0.66	-0.79	-0.76				
252	-0.94	-0.68	-0.66	-0.66	-0.77	-0.75				
253	-0.94	-0.68	-0.66	-0.66	-0.76	-0.74				
254	-0.94	-0.68	-0.66	-0.66	-0.75	-0.73				
255	-0.95	-0.68	-0.67	-0.67	-0.75	-0.73				
256	-0.95	-0.68	-0.67	-0.67	-0.74	-0.72				
257	-0.95	-0.68	-0.67	-0.67	-0.73	-0.72				
258	-0.95	-0.68	-0.67	-0.67	-0.73	-0.71				
259	-0.95	-0.68	-0.67	-0.67	-0.72	-0.71				
260	-0.95	-0.68	-0.67	-0.67	-0.71	-0.70				
261	-0.95	-0.68	-0.67	-0.67	-0.70	-0.69				
262	-0.95	-0.68	-0.67	-0.67	-0.69	-0.69				
263	-0.95	-0.68	-0.67	-0.67	-0.69	-0.68				
264	-0.95	-0.68	-0.67	-0.67	-0.69	-0.68				
265	-0.95	-0.68	-0.67	-0.67	-0.69	-0.68				
266	-0.95	-0.68	-0.67	-0.67	-0.69	-0.69				
267	-0.95	-0.68	-0.67	-0.67	-0.70	-0.69				
268	-0.95	-0.68	-0.67	-0.67	-0.71	-0.70				
269	-0.95	-0.68	-0.67	-0.67	-0.71	-0.70				
270	-0.94	-0.68	-0.66	-0.66	-0.72	-0.71				
271	-0.94	-0.67	-0.66	-0.66	-0.73	-0.71				
272	-0.94	-0.67	-0.66	-0.66	-0.73	-0.71				
273	-0.94	-0.67	-0.66	-0.66	-0.74	-0.72				
274	-0.93	-0.67	-0.66	-0.66	-0.75	-0.73				
275	-0.93	-0.67	-0.66	-0.66	-0.76	-0.73				
276	-0.93	-0.67	-0.66	-0.66	-0.77	-0.74				
277	-0.94	-0.67	-0.66	-0.66	-0.78	-0.75				
278	-0.94	-0.68	-0.66	-0.66	-0.80	-0.77				
279	-0.95	-0.68	-0.67	-0.67	-0.81	-0.78				
280	-1.01	-0.72	-0.71	-0.71	-0.86	-0.83				
281	-1.00	-0.72	-0.70	-0.70	-0.85	-0.81				
282	-1.00	-0.71	-0.70	-0.70	-0.83	-0.80				
283	-0.99	-0.71	-0.70	-0.70	-0.82	-0.79				
284	-0.99	-0.71	-0.70	-0.70	-0.81	-0.78				



Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...							
285	-0.99	-0.71	-0.70	-0.70	-0.80	-0.78					
286	-1.00	-0.71	-0.70	-0.70	-0.79	-0.77					
287	-1.00	-0.71	-0.70	-0.70	-0.78	-0.77					
288	-1.00	-0.72	-0.70	-0.70	-0.78	-0.76					
289	-1.00	-0.72	-0.71	-0.71	-0.77	-0.76					
290	-1.00	-0.72	-0.71	-0.71	-0.77	-0.76					
291	-1.00	-0.72	-0.71	-0.71	-0.77	-0.75					
292	-1.00	-0.72	-0.71	-0.71	-0.76	-0.75					
293	-1.00	-0.72	-0.70	-0.70	-0.76	-0.74					
294	-1.00	-0.72	-0.70	-0.70	-0.75	-0.74					
295	-1.00	-0.71	-0.70	-0.70	-0.75	-0.74					
296	-1.00	-0.72	-0.70	-0.70	-0.75	-0.74					
297	-1.00	-0.72	-0.70	-0.70	-0.76	-0.75					
298	-1.00	-0.72	-0.71	-0.71	-0.76	-0.75					
...											
496	-1.30	-0.92	-0.91	-0.91	-1.18	-1.12					
Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...							
	-1.31										
	-0.29										

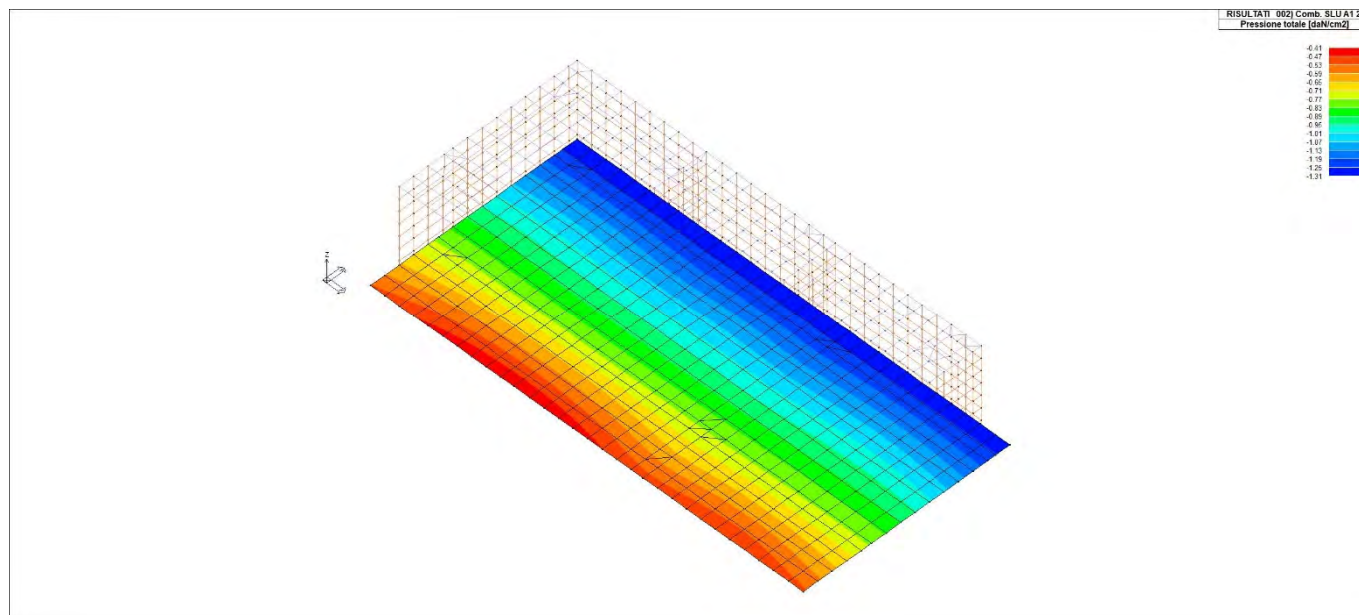


Figura 54 - RIS_PRESSIONI_002_Comb SLU A1 2

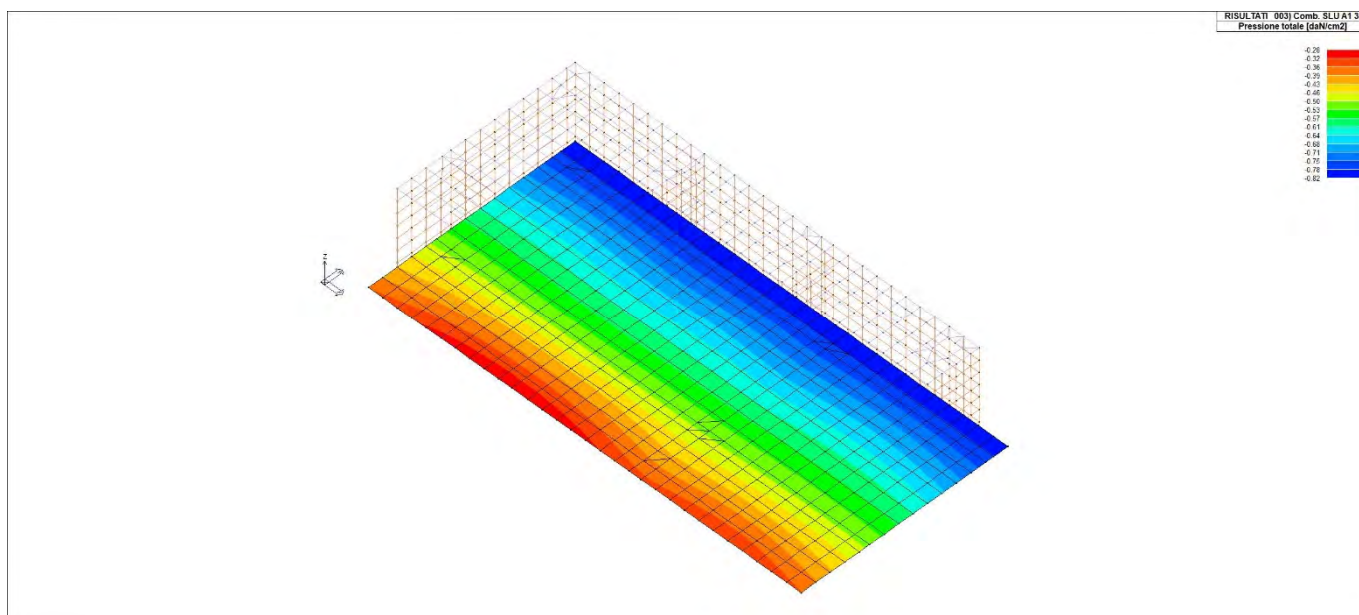


Figura 55 - RIS_PRESSIONI_003_Comb SLU A1 3

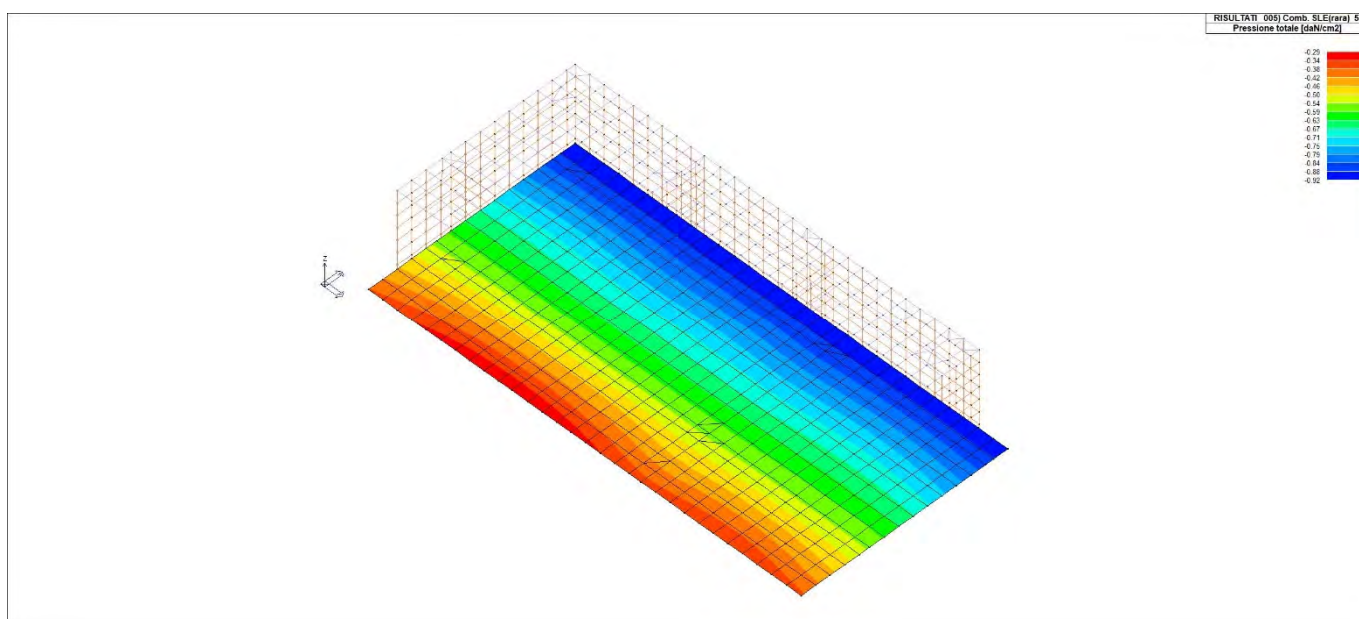


Figura 56 - RIS_PRESSIONI_005_Comb SLERara 5

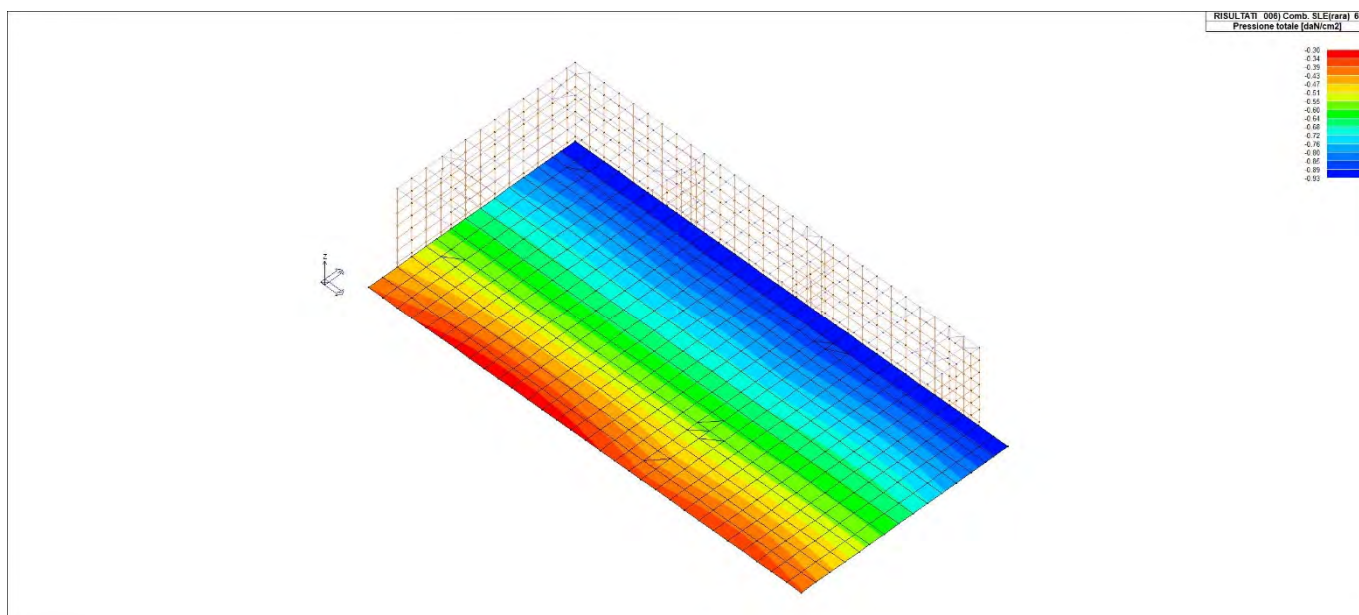


Figura 57 - RIS_PRESSIONI_006_Comb SLEfreq 6

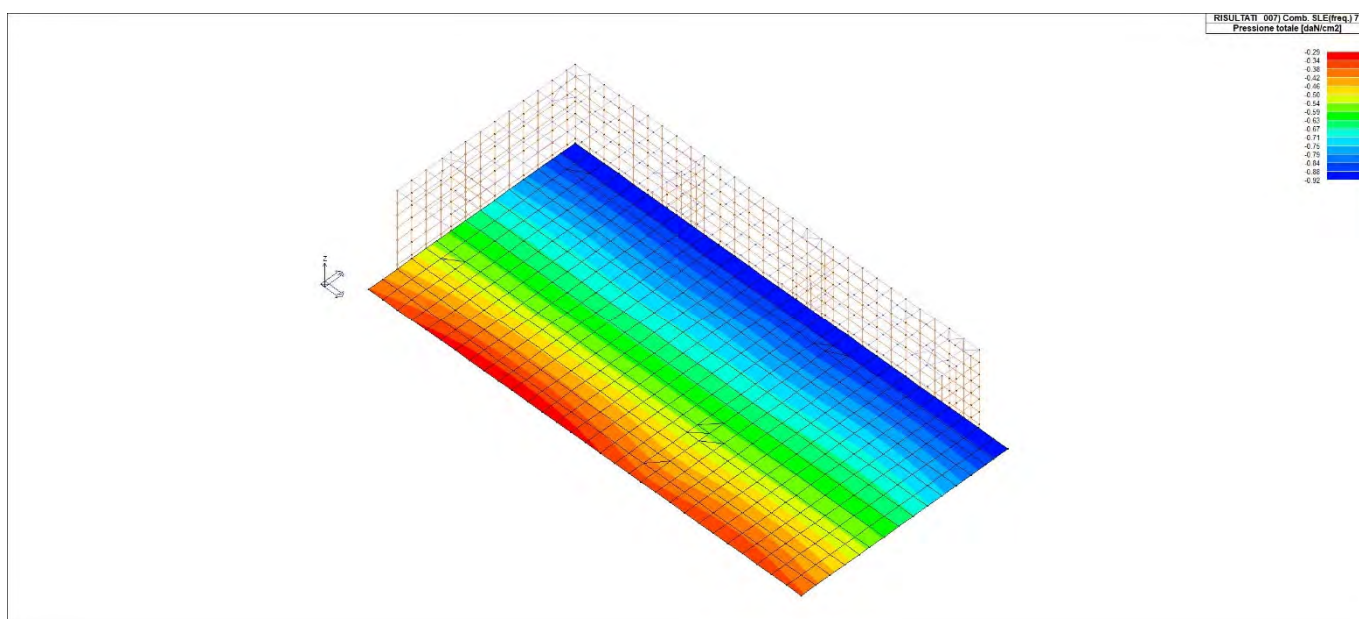


Figura 58 - RIS_PRESSIONI_007_Comb SLEfreq 7

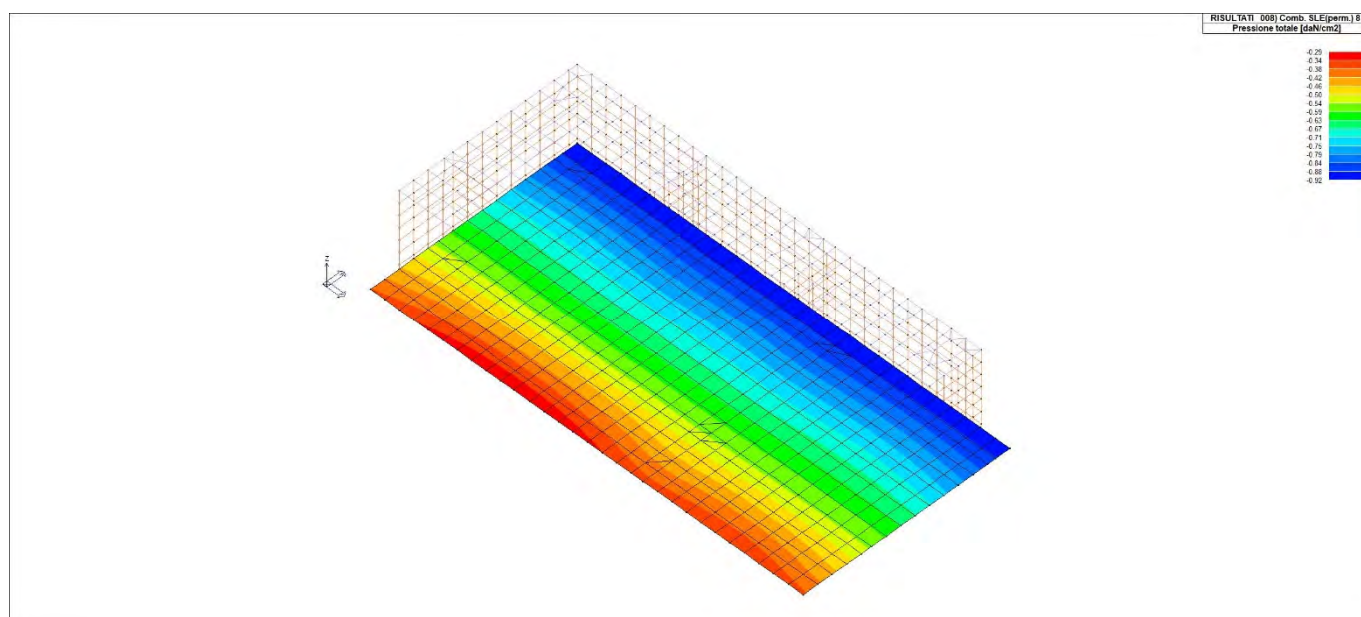


Figura 59 - RIS_PRESSIONI_008_Comb SLEperm 8

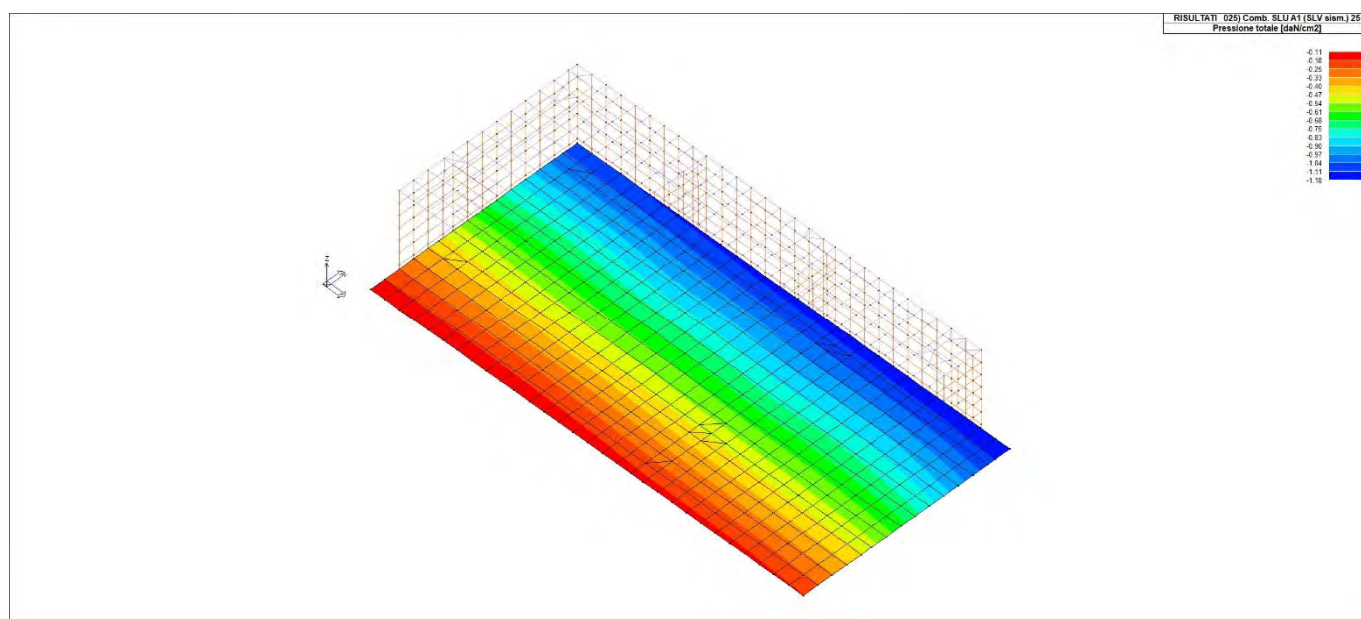


Figura 60 - RIS_PRESSIONI_025_Comb SLU A1 SLV sism 25

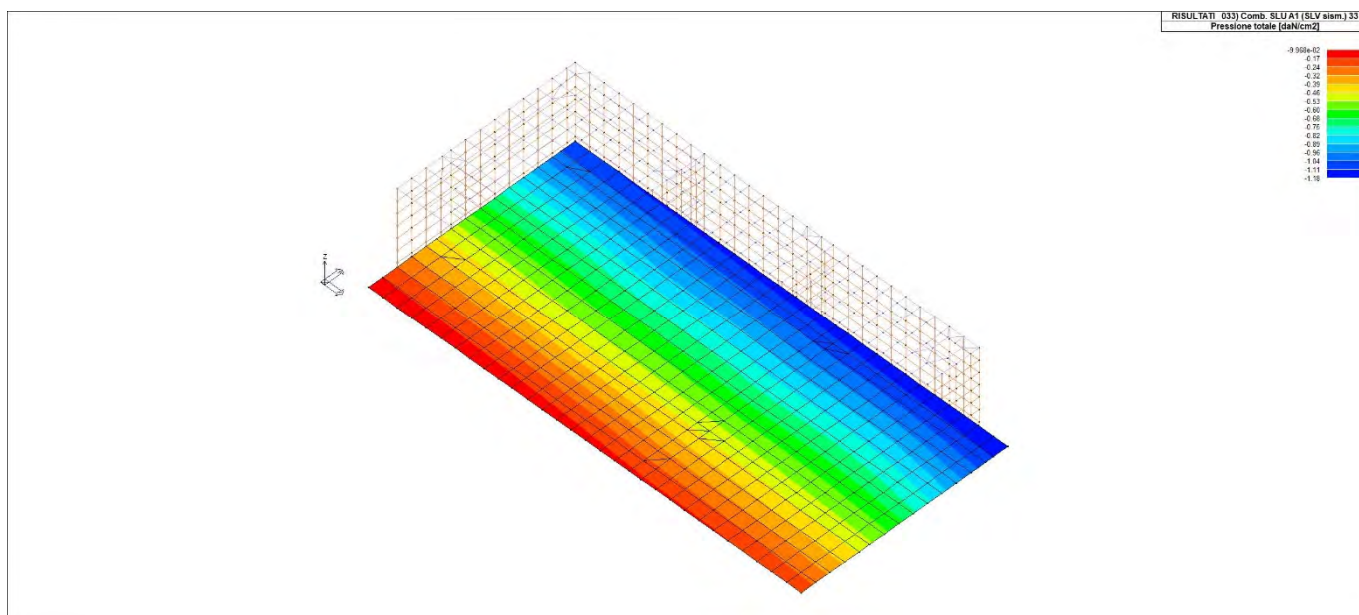


Figura 61 - RIS_PRESSIONI_033_Comb SLU A1 SLV sism 33

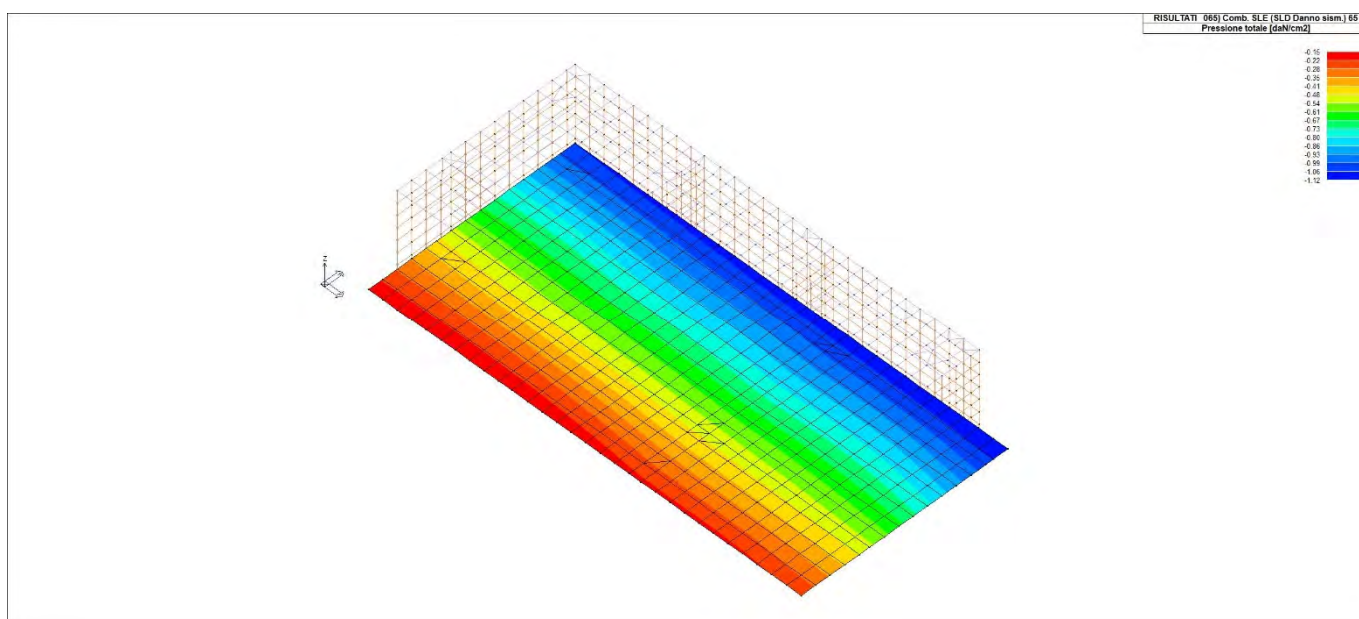


Figura 62 - RIS_PRESSIONI_065_Comb SLE SLD Danno sism 65

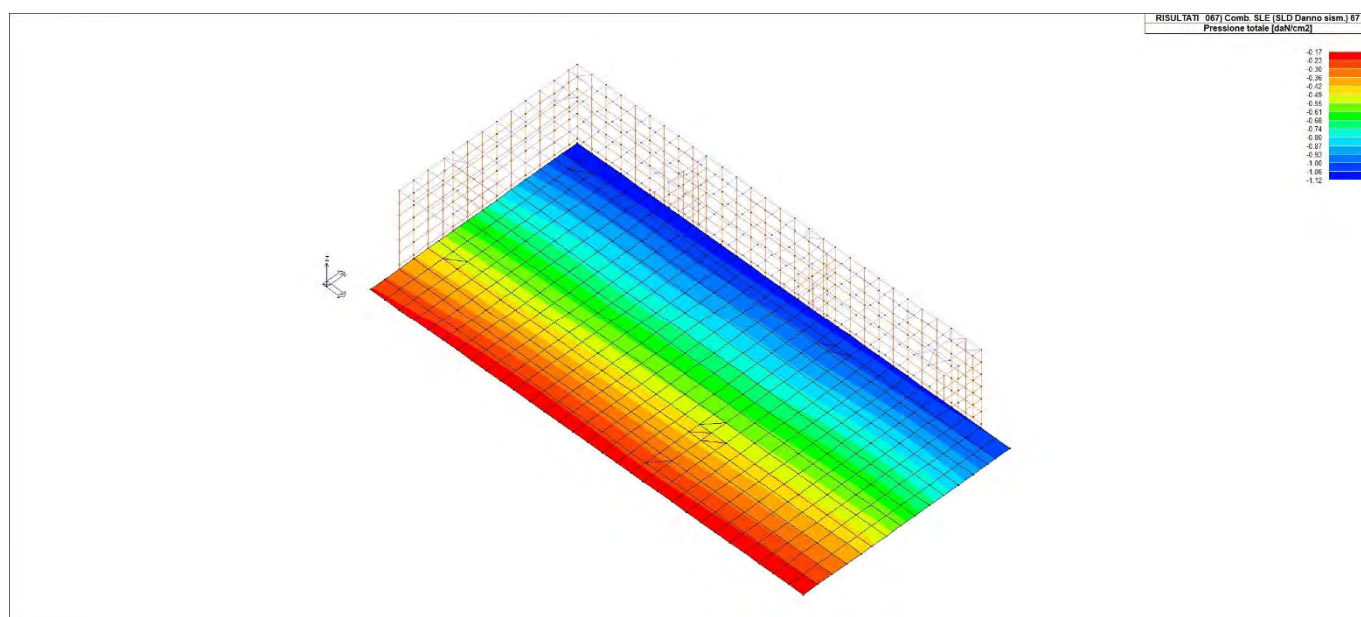


Figura 63 - RIS_PRESSIONI_067_Comb SLE SLD Danno sism 67

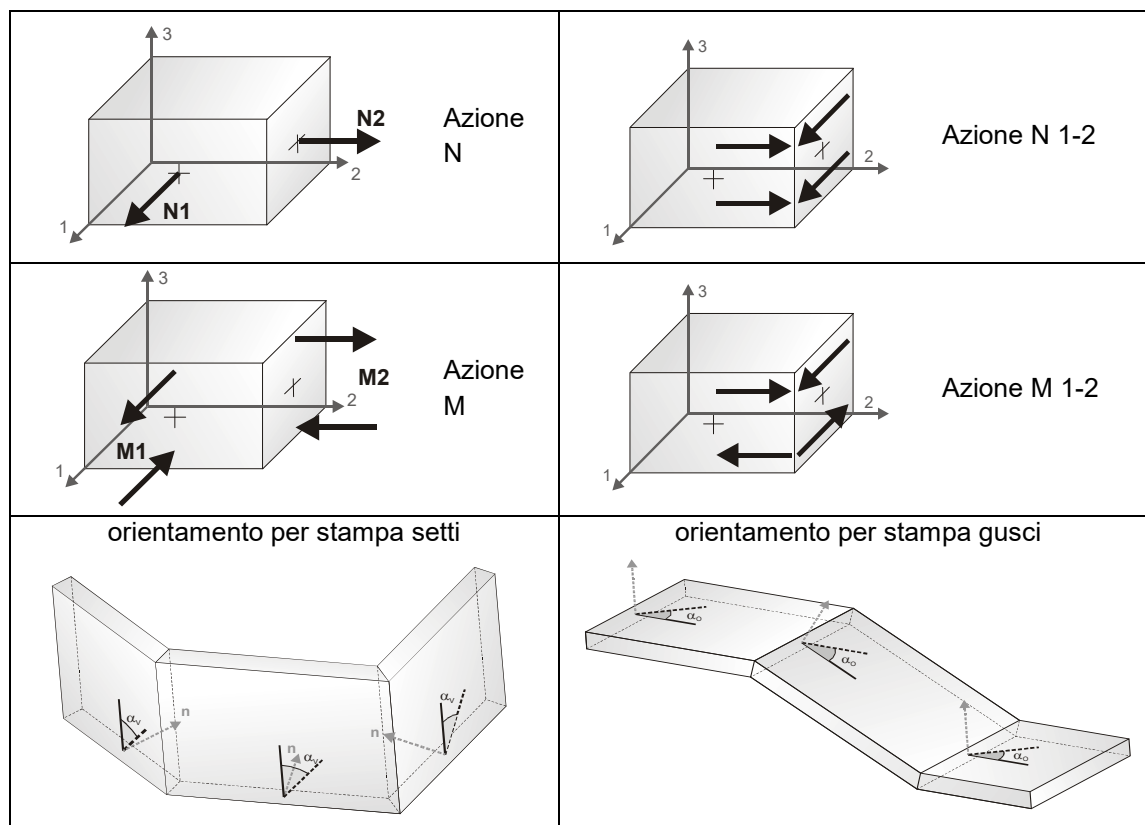


RISULTATI ELEMENTI TIPO SHELL

LEGENDA RISULTATI ELEMENTI TIPO SHELL

Il controllo dei risultati delle analisi condotte, per quanto concerne gli elementi tipo shell, è possibile in relazione alle tabelle sottoriportate.

Per ogni elemento, e per ogni combinazione(o caso di carico) vengono riportati i risultati più significativi.



In particolare vengono riportati in ogni nodo di un elemento per ogni combinazione:

tensione di Von Mises		(valore riassuntivo del complessivo stato di sollecitazione)
N max		sforzo membranale principale massimo
N min		sforzo membranale principale minimo
M max		sforzo flessionale principale massimo
M min		sforzo flessionale principale minimo
N1	N2	sforzi membranali e flessionali in direzione locale 1 e 2 dell'elemento (lo sforzo 2-1 è uguale allo sforzo 1-2 per la reciprocità delle tensioni tangenziali)
N1-2	M1	
M2	M1-2	

I suddetti risultati possono a scelta del progettista essere preceduti o sostituiti da valori di sollecitazione non più riferiti al sistema locale dell'elemento ma al sistema globale.

In questo caso gli elementi vengono raggruppati in gruppi (M_S: macro gusci o macro setti, raggruppati per materiale, spessore, e posizione fisica) per la valutazione dei valori mediati ai nodi appartenenti agli elementi dei gruppi stessi. I valori di sollecitazione sono, in questo caso, riferiti ad una terna specifica del gruppo ruotata di α_o attorno all'asse Z per i gusci e ruotata di α_v attorno alla normale (che per definizione è orizzontale) al piano del setto.

Per i setti, in particolare, se α_v è zero, l'asse '1-1' rappresenta la verticale e l'asse '2-2' l'orizzontale contenuta nel setto.

Le azioni sui setti possono essere espresse anche con formato macro, cioè riferite all'intero macroelemento.



In particolare vengono riportati per ogni quota Z dei nodi e per ogni combinazione i seguenti valori:

N memb.	Azione membranale complessiva agente sulla parete in direzione Z
V memb.	Azione complessiva di taglio agente nel piano del macroelemento
V orto	Azione complessiva di taglio agente in direzione perpendicolare al macroelemento
M memb.	Azione flessionale complessiva agente nel piano del macroelemento
M orto	Azione flessionale complessiva agente in direzione perpendicolare al macroelemento
T	Azione torsionale complessiva agente nel piano orizzontale

Macro	Tipo	Angolo 1-Z (gradi)
2	Setto	0.0

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
			cm	daN	daN	daN	daN cm	daN cm	daN cm
2	2		-30.00	-7.381e+04	-2640.58	-4.619e+04	2.311e+06	1.791e+06	-3.366e+05
2	2		38.12	-7.546e+04	-2640.58	-4.619e+04	4.167e+06	1.798e+06	-1.919e+05
2	2		106.25	-6.549e+04	-2472.71	-1.997e+04	3.261e+06	-4.565e+05	-1.036e+05
2	2		174.38	-5.713e+04	-1498.73	-5614.49	2.331e+06	-1.329e+06	-2.890e+04
2	2		242.50	-4.937e+04	-799.71	1320.96	1.546e+06	-1.476e+06	-2611.58
2	2		310.62	-4.212e+04	18.80	3913.32	8.530e+05	-1.298e+06	1.892e+04
2	2		378.75	-3.522e+04	1028.14	3978.38	2.445e+05	-1.030e+06	4.973e+04
2	2		446.88	-2.861e+04	2452.43	2603.59	-3.118e+05	-8.070e+05	1.267e+05
2	2		515.00	-2.219e+04	3167.24	1421.75	-1.201e+06	-6.721e+05	2.544e+05
2	3		-30.00	-5.087e+04	-1970.91	-2.364e+04	8.755e+05	8.437e+05	-2.096e+05
2	3		38.12	-5.183e+04	-1970.91	-2.364e+04	2.036e+06	8.486e+05	-1.228e+05
2	3		106.25	-4.513e+04	-1828.01	-1.006e+04	1.548e+06	-3.000e+05	-6.742e+04
2	3		174.38	-3.940e+04	-1197.03	-2682.71	1.088e+06	-7.349e+05	-1.927e+04
2	3		242.50	-3.398e+04	-751.53	820.03	7.091e+05	-7.988e+05	-1109.55
2	3		310.62	-2.881e+04	-244.03	2037.99	3.694e+05	-7.018e+05	1.382e+04
2	3		378.75	-2.379e+04	369.31	1900.89	6.510e+04	-5.680e+05	3.450e+04
2	3		446.88	-1.890e+04	1226.06	981.06	-2.167e+05	-4.706e+05	8.504e+04
2	3		515.00	-1.403e+04	1661.62	268.46	-6.962e+05	-4.293e+05	1.663e+05
2	5		-30.00	-5.251e+04	-2025.96	-3.044e+04	1.290e+06	1.152e+06	-2.292e+05
2	5		38.12	-5.360e+04	-2025.96	-3.044e+04	2.565e+06	1.157e+06	-1.296e+05
2	5		106.25	-4.640e+04	-1904.50	-1.310e+04	1.975e+06	-3.267e+05	-6.748e+04
2	5		174.38	-4.032e+04	-1229.69	-3615.67	1.378e+06	-8.971e+05	-1.529e+04
2	5		242.50	-3.465e+04	-756.04	971.90	8.803e+05	-9.876e+05	3043.14
2	5		310.62	-2.932e+04	-215.39	2705.24	4.439e+05	-8.627e+05	1.690e+04
2	5		378.75	-2.419e+04	438.67	2794.51	6.496e+04	-6.757e+05	3.539e+04
2	5		446.88	-1.923e+04	1355.13	1965.59	-2.773e+05	-5.142e+05	8.160e+04
2	5		515.00	-1.434e+04	1806.92	1274.63	-8.353e+05	-4.052e+05	1.589e+05
2	6		-30.00	-5.512e+04	-1993.82	-3.032e+04	1.436e+06	1.142e+06	-2.419e+05
2	6		38.12	-5.628e+04	-1993.82	-3.032e+04	2.767e+06	1.147e+06	-1.407e+05
2	6		106.25	-4.900e+04	-1851.41	-1.303e+04	2.153e+06	-3.301e+05	-7.800e+04
2	6		174.38	-4.284e+04	-1141.34	-3603.11	1.545e+06	-8.977e+05	-2.396e+04
2	6		242.50	-3.708e+04	-630.94	908.98	1.034e+06	-9.899e+05	-4103.76
2	6		310.62	-3.165e+04	-35.28	2524.74	5.781e+05	-8.734e+05	1.281e+04
2	6		378.75	-2.644e+04	697.68	2429.11	1.717e+05	-7.050e+05	3.728e+04
2	6		446.88	-2.142e+04	1729.59	1341.45	-2.044e+05	-5.776e+05	9.762e+04
2	6		515.00	-1.650e+04	2255.55	447.01	-8.194e+05	-5.181e+05	1.957e+05
2	7		-30.00	-5.251e+04	-2025.96	-3.044e+04	1.290e+06	1.152e+06	-2.292e+05
2	7		38.12	-5.360e+04	-2025.96	-3.044e+04	2.565e+06	1.157e+06	-1.296e+05
2	7		106.25	-4.640e+04	-1904.50	-1.310e+04	1.975e+06	-3.267e+05	-6.748e+04
2	7		174.38	-4.032e+04	-1229.69	-3615.67	1.378e+06	-8.971e+05	-1.529e+04
2	7		242.50	-3.465e+04	-756.04	971.90	8.803e+05	-9.876e+05	3043.14
2	7		310.62	-2.932e+04	-215.39	2705.24	4.439e+05	-8.627e+05	1.690e+04
2	7		378.75	-2.419e+04	438.67	2794.51	6.496e+04	-6.757e+05	3.539e+04



M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
2	7	446.88	-1.923e+04	1355.13	1965.59	-2.773e+05	-5.142e+05	8.160e+04
2	7	515.00	-1.434e+04	1806.92	1274.63	-8.353e+05	-4.052e+05	1.589e+05
2	8	-30.00	-5.251e+04	-2025.96	-3.044e+04	1.290e+06	1.152e+06	-2.292e+05
2	8	38.12	-5.360e+04	-2025.96	-3.044e+04	2.565e+06	1.157e+06	-1.296e+05
2	8	106.25	-4.640e+04	-1904.50	-1.310e+04	1.975e+06	-3.267e+05	-6.748e+04
2	8	174.38	-4.032e+04	-1229.69	-3615.67	1.378e+06	-8.971e+05	-1.529e+04
2	8	242.50	-3.465e+04	-756.04	971.90	8.803e+05	-9.876e+05	3043.14
2	8	310.62	-2.932e+04	-215.39	2705.24	4.439e+05	-8.627e+05	1.690e+04
2	8	378.75	-2.419e+04	438.67	2794.51	6.496e+04	-6.757e+05	3.539e+04
2	8	446.88	-1.923e+04	1355.13	1965.59	-2.773e+05	-5.142e+05	8.160e+04
2	8	515.00	-1.434e+04	1806.92	1274.63	-8.353e+05	-4.052e+05	1.589e+05
2	16	-30.00	-7.598e+04	1.153e+04	-3.479e+04	5.269e+06	1.314e+06	-3.796e+05
2	16	38.12	-7.707e+04	1.153e+04	-3.479e+04	6.544e+06	1.322e+06	-2.732e+05
2	16	106.25	-6.595e+04	1.139e+04	-1.515e+04	5.269e+06	-3.881e+05	-2.056e+05
2	16	174.38	-5.635e+04	1.140e+04	-4616.33	4.482e+06	-1.058e+06	-9.957e+04
2	16	242.50	-4.708e+04	1.090e+04	532.90	3.327e+06	-1.199e+06	-3.401e+04
2	16	310.62	-3.858e+04	1.032e+04	2941.09	2.282e+06	-1.092e+06	3.647e+04
2	16	378.75	-3.200e+04	9758.95	3334.63	1.574e+06	-8.984e+05	1.063e+05
2	16	446.88	-2.415e+04	9472.22	3362.62	9.173e+05	-6.855e+05	2.030e+05
2	16	515.00	-1.158e+04	8646.04	3989.45	-3.745e+05	-2.720e+05	2.924e+05
2	36	-30.00	-6.123e+04	4.570e+04	-3.101e+04	1.255e+07	1.130e+06	-4.709e+05
2	36	38.12	-6.232e+04	4.570e+04	-3.101e+04	1.382e+07	1.139e+06	-3.019e+05
2	36	106.25	-5.346e+04	4.475e+04	-1.348e+04	1.136e+07	-3.803e+05	-1.780e+05
2	36	174.38	-4.578e+04	4.263e+04	-3892.11	9.147e+06	-9.716e+05	-3.377e+04
2	36	242.50	-3.851e+04	3.947e+04	813.64	7.038e+06	-1.078e+06	1.206e+04
2	36	310.62	-3.176e+04	3.587e+04	2800.56	5.160e+06	-9.614e+05	5.411e+04
2	36	378.75	-2.587e+04	3.208e+04	3195.65	3.575e+06	-7.720e+05	9.485e+04
2	36	446.88	-1.995e+04	2.853e+04	3020.98	2.158e+06	-5.432e+05	1.705e+05
2	36	515.00	-1.261e+04	2.461e+04	3008.81	3.920e+05	-2.892e+05	2.659e+05
2	37	-30.00	-4.446e+04	-5.125e+04	-3.000e+04	-1.004e+07	1.173e+06	5749.05
2	37	38.12	-4.555e+04	-5.125e+04	-3.000e+04	-8.762e+06	1.175e+06	2.905e+04
2	37	106.25	-4.000e+04	-4.997e+04	-1.279e+04	-7.561e+06	-2.720e+05	2.565e+04
2	37	174.38	-3.551e+04	-4.628e+04	-3362.33	-6.390e+06	-8.286e+05	-1.066e+04
2	37	242.50	-3.090e+04	-4.196e+04	1121.12	-5.362e+06	-9.052e+05	-1.251e+04
2	37	310.62	-2.687e+04	-3.707e+04	2601.25	-4.369e+06	-7.737e+05	-2.153e+04
2	37	378.75	-2.299e+04	-3.242e+04	2391.67	-3.550e+06	-5.892e+05	-1.658e+04
2	37	446.88	-1.889e+04	-2.666e+04	965.04	-2.801e+06	-4.932e+05	6878.66
2	37	515.00	-1.546e+04	-2.254e+04	-346.41	-2.298e+06	-5.177e+05	6.566e+04
2	48	-30.00	-7.066e+04	8482.17	-3.380e+04	4.379e+06	1.277e+06	-3.458e+05
2	48	38.12	-7.175e+04	8482.17	-3.380e+04	5.654e+06	1.284e+06	-2.410e+05
2	48	106.25	-6.152e+04	8411.58	-1.468e+04	4.534e+06	-3.742e+05	-1.746e+05
2	48	174.38	-5.270e+04	8573.75	-4391.53	3.780e+06	-1.022e+06	-8.108e+04
2	48	242.50	-4.424e+04	8297.85	630.96	2.771e+06	-1.152e+06	-2.585e+04
2	48	310.62	-3.644e+04	7969.63	2878.02	1.863e+06	-1.041e+06	3.197e+04
2	48	378.75	-3.015e+04	7684.85	3198.13	1.225e+06	-8.483e+05	9.043e+04
2	48	446.88	-2.296e+04	7671.94	3025.46	6.352e+05	-6.474e+05	1.755e+05
2	48	515.00	-1.227e+04	7139.27	3358.77	-4.873e+05	-3.079e+05	2.613e+05
2	68	-30.00	-5.926e+04	3.501e+04	-3.088e+04	1.002e+07	1.134e+06	-4.166e+05
2	68	38.12	-6.035e+04	3.501e+04	-3.088e+04	1.130e+07	1.143e+06	-2.630e+05
2	68	106.25	-5.185e+04	3.431e+04	-1.340e+04	9.244e+06	-3.683e+05	-1.527e+05
2	68	174.38	-4.453e+04	3.283e+04	-3831.04	7.389e+06	-9.550e+05	-3.069e+04
2	68	242.50	-3.761e+04	3.049e+04	849.34	5.637e+06	-1.058e+06	9660.78
2	68	310.62	-3.117e+04	2.781e+04	2776.50	4.080e+06	-9.390e+05	4.570e+04
2	68	378.75	-2.544e+04	2.502e+04	3092.18	2.762e+06	-7.493e+05	8.150e+04
2	68	446.88	-1.973e+04	2.246e+04	2754.53	1.583e+06	-5.389e+05	1.494e+05
2	68	515.00	-1.299e+04	1.952e+04	2588.51	8.781e+04	-3.214e+05	2.382e+05
2	69	-30.00	-4.630e+04	-4.022e+04	-3.010e+04	-7.496e+06	1.168e+06	-4.706e+04
2	69	38.12	-4.739e+04	-4.022e+04	-3.010e+04	-6.221e+06	1.172e+06	-6837.38
2	69	106.25	-4.147e+04	-3.922e+04	-1.286e+04	-5.411e+06	-2.843e+05	4179.60
2	69	174.38	-3.663e+04	-3.621e+04	-3418.39	-4.633e+06	-8.439e+05	-1.064e+04
2	69	242.50	-3.180e+04	-3.276e+04	1087.44	-3.940e+06	-9.237e+05	-8652.45
2	69	310.62	-2.747e+04	-2.885e+04	2627.14	-3.266e+06	-7.939e+05	-1.288e+04
2	69	378.75	-2.331e+04	-2.509e+04	2495.25	-2.712e+06	-6.097e+05	-4911.84
2	69	446.88	-1.902e+04	-2.041e+04	1218.25	-2.205e+06	-4.958e+05	2.484e+04
2	69	515.00	-1.524e+04	-1.710e+04	48.58	-1.934e+06	-4.863e+05	9.040e+04
M_S			N memb.	V memb.	V orto	M memb.	M orto	T
			-7.707e+04	-5.125e+04	-4.619e+04	-1.004e+07	-1.476e+06	-4.709e+05
			-1.158e+04	4.570e+04	3989.45	1.382e+07	1.798e+06	2.924e+05



Macro	Tipo	Angolo 1-Z (gradi)
3	Setto	0.0

M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
		cm	daN	daN	daN	daN cm	daN cm	daN cm
3	2	-30.00	-1.025e+05	6719.64	879.32	1.374e+07	-6.377e+04	6.209e+04
3	2	38.12	-1.016e+05	6719.64	879.32	1.637e+07	-6.489e+04	4.026e+04
3	2	106.25	-9.654e+04	7099.00	366.34	1.279e+07	-2.200e+04	2.708e+04
3	2	174.38	-9.315e+04	7891.68	188.50	8.892e+06	-2926.34	1.581e+04
3	2	242.50	-8.904e+04	8853.02	103.77	5.514e+06	6968.39	1.152e+04
3	2	310.62	-8.389e+04	1.005e+04	42.51	2.731e+06	1.187e+04	6061.43
3	2	378.75	-7.790e+04	1.163e+04	3.52	4.424e+05	1.340e+04	-4990.29
3	2	446.88	-7.116e+04	1.343e+04	-47.67	-1.459e+06	1.266e+04	-3.512e+04
3	2	515.00	-6.412e+04	1.423e+04	-5.67	-3.429e+06	1.039e+04	-7.410e+04
3	3	-30.00	-7.515e+04	3593.28	489.58	6.892e+06	-3.698e+04	3.918e+04
3	3	38.12	-7.460e+04	3593.28	489.58	8.570e+06	-3.768e+04	2.530e+04
3	3	106.25	-6.973e+04	3911.88	216.56	6.643e+06	-1.334e+04	1.629e+04
3	3	174.38	-6.570e+04	4473.79	113.65	4.622e+06	-1989.57	8745.10
3	3	242.50	-6.129e+04	5103.85	61.93	2.874e+06	3959.85	5817.83
3	3	310.62	-5.636e+04	5855.24	23.30	1.426e+06	6819.93	2424.61
3	3	378.75	-5.103e+04	6812.95	-3.53	2.200e+05	7477.11	-4138.67
3	3	446.88	-4.535e+04	7876.32	-44.48	-7.904e+05	6300.52	-2.211e+04
3	3	515.00	-3.955e+04	8332.15	-54.47	-1.863e+06	2670.65	-4.530e+04
3	5	-30.00	-7.377e+04	4404.87	571.79	8.767e+06	-4.205e+04	4.265e+04
3	5	38.12	-7.314e+04	4404.87	571.79	1.059e+07	-4.281e+04	2.729e+04
3	5	106.25	-6.882e+04	4695.77	243.67	8.224e+06	-1.471e+04	1.761e+04
3	5	174.38	-6.560e+04	5260.38	126.18	5.674e+06	-1991.91	9516.35
3	5	242.50	-6.189e+04	5916.75	69.22	3.472e+06	4624.95	6465.45
3	5	310.62	-5.749e+04	6713.42	26.93	1.665e+06	7845.05	2941.14
3	5	378.75	-5.253e+04	7741.28	-1.60	1.869e+05	8681.55	-3963.62
3	5	446.88	-4.709e+04	8897.49	-39.13	-1.036e+06	7769.59	-2.292e+04
3	5	515.00	-4.148e+04	9395.33	-24.25	-2.305e+06	5331.46	-4.720e+04
3	6	-30.00	-7.909e+04	4526.01	607.65	9.081e+06	-4.474e+04	4.477e+04
3	6	38.12	-7.848e+04	4526.01	607.65	1.098e+07	-4.555e+04	2.916e+04
3	6	106.25	-7.414e+04	4836.18	258.65	8.566e+06	-1.572e+04	1.952e+04
3	6	174.38	-7.091e+04	5438.11	134.14	5.983e+06	-2214.92	1.130e+04
3	6	242.50	-6.722e+04	6148.98	73.55	3.741e+06	4818.85	8112.21
3	6	310.62	-6.284e+04	7025.97	29.52	1.883e+06	8275.84	4088.75
3	6	378.75	-5.794e+04	8169.83	0.84	3.419e+05	9291.04	-3972.04
3	6	446.88	-5.256e+04	9457.53	-40.56	-9.471e+05	8499.44	-2.593e+04
3	6	515.00	-4.699e+04	1.003e+04	-27.16	-2.299e+06	5862.95	-5.442e+04
3	7	-30.00	-7.377e+04	4404.87	571.79	8.767e+06	-4.205e+04	4.265e+04
3	7	38.12	-7.314e+04	4404.87	571.79	1.059e+07	-4.281e+04	2.729e+04
3	7	106.25	-6.882e+04	4695.77	243.67	8.224e+06	-1.471e+04	1.761e+04
3	7	174.38	-6.560e+04	5260.38	126.18	5.674e+06	-1991.91	9516.35
3	7	242.50	-6.189e+04	5916.75	69.22	3.472e+06	4624.95	6465.45
3	7	310.62	-5.749e+04	6713.42	26.93	1.665e+06	7845.05	2941.14
3	7	378.75	-5.253e+04	7741.28	-1.60	1.869e+05	8681.55	-3963.62
3	7	446.88	-4.709e+04	8897.49	-39.13	-1.036e+06	7769.59	-2.292e+04
3	7	515.00	-4.148e+04	9395.33	-24.25	-2.305e+06	5331.46	-4.720e+04
3	8	-30.00	-7.377e+04	4404.87	571.79	8.767e+06	-4.205e+04	4.265e+04
3	8	38.12	-7.314e+04	4404.87	571.79	1.059e+07	-4.281e+04	2.729e+04
3	8	106.25	-6.882e+04	4695.77	243.67	8.224e+06	-1.471e+04	1.761e+04
3	8	174.38	-6.560e+04	5260.38	126.18	5.674e+06	-1991.91	9516.35
3	8	242.50	-6.189e+04	5916.75	69.22	3.472e+06	4624.95	6465.45
3	8	310.62	-5.749e+04	6713.42	26.93	1.665e+06	7845.05	2941.14
3	8	378.75	-5.253e+04	7741.28	-1.60	1.869e+05	8681.55	-3963.62
3	8	446.88	-4.709e+04	8897.49	-39.13	-1.036e+06	7769.59	-2.292e+04
3	8	515.00	-4.148e+04	9395.33	-24.25	-2.305e+06	5331.46	-4.720e+04
3	10	-30.00	-8.924e+04	2.689e+04	8487.83	1.506e+07	-5.518e+05	4.030e+04
3	10	38.12	-8.860e+04	2.689e+04	8487.83	1.689e+07	-5.525e+05	6.449e+04
3	10	106.25	-8.267e+04	2.759e+04	3865.37	1.363e+07	-1.321e+05	1.016e+05
3	10	174.38	-7.759e+04	2.753e+04	1934.69	1.020e+07	6.953e+04	8.826e+04
3	10	242.50	-7.198e+04	2.712e+04	824.63	7.132e+06	1.640e+05	5.748e+04
3	10	310.62	-6.580e+04	2.665e+04	72.50	4.521e+06	1.933e+05	1.338e+04
3	10	378.75	-5.909e+04	2.623e+04	-682.51	2.280e+06	1.727e+05	-3.572e+04
3	10	446.88	-5.200e+04	2.586e+04	-1709.99	3.445e+05	9.518e+04	-8.750e+04

MANDATARIA

MANDANTE

PROGETTISTA INDICATO



TABULATO DI CALCOLO

REV. 00

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M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
3		10	515.00	-4.503e+04	2.453e+04	-2526.59	-1.603e+06	-6.496e+04	-9.807e+04
3		14	-30.00	-8.902e+04	2.390e+04	8636.82	1.492e+07	-5.604e+05	3.899e+04
3		14	38.12	-8.838e+04	2.390e+04	8636.82	1.674e+07	-5.628e+05	6.860e+04
3		14	106.25	-8.253e+04	2.464e+04	3905.81	1.356e+07	-1.348e+05	1.090e+05
3		14	174.38	-7.754e+04	2.478e+04	1990.17	1.018e+07	7.023e+04	1.027e+05
3		14	242.50	-7.199e+04	2.465e+04	849.11	7.150e+06	1.677e+05	6.816e+04
3		14	310.62	-6.584e+04	2.452e+04	91.42	4.557e+06	1.993e+05	2.062e+04
3		14	378.75	-5.915e+04	2.444e+04	-668.05	2.322e+06	1.807e+05	-3.205e+04
3		14	446.88	-5.207e+04	2.439e+04	-1669.40	3.821e+05	1.019e+05	-7.680e+04
3		14	515.00	-4.512e+04	2.336e+04	-2366.61	-1.578e+06	-4.625e+04	-8.920e+04
3		15	-30.00	-5.852e+04	-1.509e+04	-7493.25	2.617e+06	4.763e+05	4.630e+04
3		15	38.12	-5.789e+04	-1.509e+04	-7493.25	4.444e+06	4.772e+05	-1.403e+04
3		15	106.25	-5.511e+04	-1.525e+04	-3418.47	2.888e+06	1.054e+05	-7.381e+04
3		15	174.38	-5.366e+04	-1.426e+04	-1737.81	1.168e+06	-7.422e+04	-8.366e+04
3		15	242.50	-5.180e+04	-1.282e+04	-710.67	-2.064e+05	-1.585e+05	-5.523e+04
3		15	310.62	-4.914e+04	-1.109e+04	-37.57	-1.227e+06	-1.836e+05	-1.473e+04
3		15	378.75	-4.592e+04	-8958.68	664.86	-1.948e+06	-1.634e+05	2.413e+04
3		15	446.88	-4.212e+04	-6595.72	1591.13	-2.453e+06	-8.637e+04	3.096e+04
3		15	515.00	-3.784e+04	-4566.06	2318.11	-3.032e+06	5.692e+04	-5206.57
3		30	-30.00	-8.677e+04	7.496e+04	2000.18	2.898e+07	-1.273e+05	5.930e+04
3		30	38.12	-8.613e+04	7.496e+04	2000.18	3.081e+07	-1.283e+05	4.174e+04
3		30	106.25	-7.998e+04	7.603e+04	832.00	2.537e+07	-2.799e+04	3.633e+04
3		30	174.38	-7.465e+04	7.416e+04	413.87	1.988e+07	1.817e+04	4642.77
3		30	242.50	-6.883e+04	7.109e+04	217.46	1.490e+07	4.425e+04	1515.39
3		30	310.62	-6.274e+04	6.740e+04	25.37	1.057e+07	4.730e+04	-3449.83
3		30	378.75	-5.605e+04	6.359e+04	-148.77	6.765e+06	4.183e+04	-1.430e+04
3		30	446.88	-4.903e+04	6.015e+04	-413.42	3.402e+06	2.568e+04	-4.672e+04
3		30	515.00	-4.236e+04	5.553e+04	-641.46	1.208e+05	-3.403e+04	-7.670e+04
3		42	-30.00	-8.572e+04	2.185e+04	6717.19	1.365e+07	-4.380e+05	4.081e+04
3		42	38.12	-8.509e+04	2.185e+04	6717.19	1.547e+07	-4.387e+05	5.569e+04
3		42	106.25	-7.951e+04	2.247e+04	3056.22	1.241e+07	-1.059e+05	8.254e+04
3		42	174.38	-7.485e+04	2.255e+04	1531.13	9.178e+06	5.317e+04	7.067e+04
3		42	242.50	-6.967e+04	2.238e+04	656.38	6.305e+06	1.282e+05	4.613e+04
3		42	310.62	-6.388e+04	2.220e+04	62.20	3.872e+06	1.518e+05	1.101e+04
3		42	378.75	-5.755e+04	2.210e+04	-530.72	1.801e+06	1.360e+05	-2.847e+04
3		42	446.88	-5.083e+04	2.208e+04	-1340.25	2.356e+04	7.530e+04	-7.250e+04
3		42	515.00	-4.415e+04	2.116e+04	-1969.23	-1.776e+06	-4.804e+04	-8.528e+04
3		44	-30.00	-6.631e+04	1.925e+04	-5849.93	1.324e+07	3.742e+05	5.605e+04
3		44	38.12	-6.567e+04	1.925e+04	-5849.93	1.506e+07	3.733e+05	3707.35
3		44	106.25	-6.189e+04	1.960e+04	-2718.53	1.197e+07	8.406e+04	-4.357e+04
3		44	174.38	-5.930e+04	1.957e+04	-1361.34	8.740e+06	-5.643e+04	-5.948e+04
3		44	242.50	-5.626e+04	1.939e+04	-540.04	5.916e+06	-1.191e+05	-3.967e+04
3		44	310.62	-5.262e+04	1.914e+04	-12.81	3.566e+06	-1.395e+05	-1.019e+04
3		44	378.75	-4.837e+04	1.908e+04	539.62	1.602e+06	-1.223e+05	1.722e+04
3		44	446.88	-4.364e+04	1.918e+04	1278.17	-5.653e+04	-6.152e+04	1.985e+04
3		44	515.00	-3.872e+04	1.868e+04	1914.07	-1.731e+06	4.955e+04	-1.834e+04
3		46	-30.00	-8.555e+04	1.952e+04	6832.99	1.354e+07	-4.447e+05	3.980e+04
3		46	38.12	-8.491e+04	1.952e+04	6832.99	1.536e+07	-4.467e+05	5.890e+04
3		46	106.25	-7.941e+04	2.017e+04	3087.74	1.236e+07	-1.080e+05	8.832e+04
3		46	174.38	-7.481e+04	2.041e+04	1573.61	9.165e+06	5.370e+04	8.168e+04
3		46	242.50	-6.967e+04	2.046e+04	674.74	6.319e+06	1.311e+05	5.424e+04
3		46	310.62	-6.391e+04	2.054e+04	75.04	3.901e+06	1.564e+05	1.654e+04
3		46	378.75	-5.760e+04	2.072e+04	-521.63	1.834e+06	1.419e+05	-2.564e+04
3		46	446.88	-5.089e+04	2.094e+04	-1311.05	5.347e+04	7.988e+04	-6.484e+04
3		46	515.00	-4.423e+04	2.025e+04	-1849.06	-1.756e+06	-3.530e+04	-7.936e+04
3		62	-30.00	-8.383e+04	5.915e+04	1680.74	2.444e+07	-1.083e+05	5.560e+04
3		62	38.12	-8.319e+04	5.915e+04	1680.74	2.627e+07	-1.093e+05	3.812e+04
3		62	106.25	-7.743e+04	6.007e+04	701.12	2.151e+07	-2.507e+04	3.168e+04
3		62	174.38	-7.257e+04	5.875e+04	350.74	1.668e+07	1.350e+04	5927.82
3		62	242.50	-6.722e+04	5.653e+04	184.94	1.231e+07	3.537e+04	2808.86
3		62	310.62	-6.149e+04	5.385e+04	25.32	8.542e+06	3.853e+04	-1959.06
3		62	378.75	-5.517e+04	5.113e+04	-116.11	5.252e+06	3.479e+04	-1.192e+04
3		62	446.88	-4.851e+04	4.871e+04	-334.87	2.362e+06	2.202e+04	-4.029e+04
3		62	515.00	-4.205e+04	4.523e+04	-507.46	-4.825e+05	-2.259e+04	-6.738e+04
M	S			N memb.	V memb.	V orto	M memb.	M orto	T
				-1.025e+05	-1.525e+04	-7493.25	-3.429e+06	-5.628e+05	-9.807e+04
				-3.784e+04	7.603e+04	8636.82	3.081e+07	4.772e+05	1.090e+05



Macro	Tipo	Angolo 1-Z (gradi)
4	Setto	0.0

M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
			cm	daN	daN	daN	daN cm	daN cm	daN cm
4	2		-30.00	-7.582e+04	-5912.46	4.628e+04	9.303e+05	-1.811e+06	2.190e+05
4	2		38.12	-7.627e+04	-5912.46	4.628e+04	2.670e+06	-1.816e+06	1.164e+05
4	2		106.25	-6.654e+04	-5809.30	2.001e+04	1.956e+06	4.425e+05	6.291e+04
4	2		174.38	-5.815e+04	-5088.28	5627.83	1.164e+06	1.317e+06	1.788e+04
4	2		242.50	-5.035e+04	-4519.54	-1294.84	5.026e+05	1.465e+06	3477.08
4	2		310.62	-4.304e+04	-3836.46	-3817.27	-7.300e+04	1.291e+06	-9783.16
4	2		378.75	-3.606e+04	-2920.77	-3789.67	-5.656e+05	1.033e+06	-3.031e+04
4	2		446.88	-2.936e+04	-1675.76	-2227.28	-1.008e+06	8.283e+05	-7.825e+04
4	2		515.00	-2.301e+04	-1008.44	-885.64	-1.734e+06	7.249e+05	-1.738e+05
4	3		-30.00	-5.226e+04	-3963.34	2.366e+04	6316.52	-8.518e+05	1.360e+05
4	3		38.12	-5.246e+04	-3963.34	2.366e+04	1.101e+06	-8.554e+05	7.572e+04
4	3		106.25	-4.588e+04	-3844.19	1.007e+04	7.344e+05	2.939e+05	4.208e+04
4	3		174.38	-4.011e+04	-3371.03	2679.87	3.657e+05	7.286e+05	1.257e+04
4	3		242.50	-3.464e+04	-3004.04	-810.31	6.736e+04	7.927e+05	1896.35
4	3		310.62	-2.941e+04	-2580.19	-1984.91	-1.961e+05	6.979e+05	-7849.20
4	3		378.75	-2.433e+04	-2025.06	-1791.75	-4.265e+05	5.696e+05	-2.222e+04
4	3		446.88	-1.937e+04	-1279.61	-762.25	-6.365e+05	4.830e+05	-5.517e+04
4	3		515.00	-1.454e+04	-870.18	48.13	-1.016e+06	4.602e+05	-1.167e+05
4	5		-30.00	-5.395e+04	-4285.66	3.049e+04	3.450e+05	-1.164e+06	1.489e+05
4	5		38.12	-5.422e+04	-4285.66	3.049e+04	1.544e+06	-1.168e+06	7.838e+04
4	5		106.25	-4.718e+04	-4204.50	1.312e+04	1.085e+06	3.181e+05	4.032e+04
4	5		174.38	-4.107e+04	-3702.47	3620.76	5.854e+05	8.891e+05	8561.30
4	5		242.50	-3.535e+04	-3315.34	-956.97	1.752e+05	9.802e+05	-1621.68
4	5		310.62	-2.996e+04	-2863.39	-2643.04	-1.781e+05	8.580e+05	-1.001e+04
4	5		378.75	-2.477e+04	-2268.82	-2670.35	-4.750e+05	6.774e+05	-2.201e+04
4	5		446.88	-1.974e+04	-1465.40	-1716.04	-7.370e+05	5.282e+05	-4.987e+04
4	5		515.00	-1.488e+04	-1039.49	-919.98	-1.182e+06	4.401e+05	-1.071e+05
4	6		-30.00	-5.661e+04	-4298.18	3.037e+04	4.404e+05	-1.154e+06	1.573e+05
4	6		38.12	-5.690e+04	-4298.18	3.037e+04	1.691e+06	-1.158e+06	8.631e+04
4	6		106.25	-4.979e+04	-4193.26	1.305e+04	1.215e+06	3.213e+05	4.849e+04
4	6		174.38	-4.360e+04	-3664.89	3607.39	7.077e+05	8.894e+05	1.573e+04
4	6		242.50	-3.780e+04	-3247.54	-893.05	2.866e+05	9.822e+05	4447.18
4	6		310.62	-3.232e+04	-2750.62	-2458.50	-8.443e+04	8.686e+05	-6413.65
4	6		378.75	-2.705e+04	-2087.18	-2296.76	-4.080e+05	7.070e+05	-2.328e+04
4	6		446.88	-2.197e+04	-1188.70	-1077.80	-7.034e+05	5.925e+05	-6.235e+04
4	6		515.00	-1.710e+04	-698.02	-67.68	-1.203e+06	5.553e+05	-1.365e+05
4	7		-30.00	-5.395e+04	-4285.66	3.049e+04	3.450e+05	-1.164e+06	1.489e+05
4	7		38.12	-5.422e+04	-4285.66	3.049e+04	1.544e+06	-1.168e+06	7.838e+04
4	7		106.25	-4.718e+04	-4204.50	1.312e+04	1.085e+06	3.181e+05	4.032e+04
4	7		174.38	-4.107e+04	-3702.47	3620.76	5.854e+05	8.891e+05	8561.30
4	7		242.50	-3.535e+04	-3315.34	-956.97	1.752e+05	9.802e+05	-1621.68
4	7		310.62	-2.996e+04	-2863.39	-2643.04	-1.781e+05	8.580e+05	-1.001e+04
4	7		378.75	-2.477e+04	-2268.82	-2670.35	-4.750e+05	6.774e+05	-2.201e+04
4	7		446.88	-1.974e+04	-1465.40	-1716.04	-7.370e+05	5.282e+05	-4.987e+04
4	7		515.00	-1.488e+04	-1039.49	-919.98	-1.182e+06	4.401e+05	-1.071e+05
4	8		-30.00	-5.395e+04	-4285.66	3.049e+04	3.450e+05	-1.164e+06	1.489e+05
4	8		38.12	-5.422e+04	-4285.66	3.049e+04	1.544e+06	-1.168e+06	7.838e+04
4	8		106.25	-4.718e+04	-4204.50	1.312e+04	1.085e+06	3.181e+05	4.032e+04
4	8		174.38	-4.107e+04	-3702.47	3620.76	5.854e+05	8.891e+05	8561.30
4	8		242.50	-3.535e+04	-3315.34	-956.97	1.752e+05	9.802e+05	-1621.68
4	8		310.62	-2.996e+04	-2863.39	-2643.04	-1.781e+05	8.580e+05	-1.001e+04
4	8		378.75	-2.477e+04	-2268.82	-2670.35	-4.750e+05	6.774e+05	-2.201e+04
4	8		446.88	-1.974e+04	-1465.40	-1716.04	-7.370e+05	5.282e+05	-4.987e+04
4	8		515.00	-1.488e+04	-1039.49	-919.98	-1.182e+06	4.401e+05	-1.071e+05
4	10		-30.00	-7.779e+04	9402.39	3.491e+04	4.100e+06	-1.338e+06	2.731e+05
4	10		38.12	-7.806e+04	9402.39	3.491e+04	5.299e+06	-1.344e+06	2.058e+05
4	10		106.25	-6.649e+04	9306.88	1.523e+04	4.076e+06	3.713e+05	1.704e+05
4	10		174.38	-5.705e+04	9053.18	4655.32	3.417e+06	1.048e+06	9.548e+04
4	10		242.50	-4.773e+04	8416.88	-503.21	2.393e+06	1.190e+06	3.900e+04
4	10		310.62	-3.985e+04	7689.28	-2873.06	1.623e+06	1.087e+06	-2.467e+04
4	10		378.75	-3.267e+04	7024.72	-3203.61	9.188e+05	8.981e+05	-8.614e+04
4	10		446.88	-2.468e+04	6572.75	-3078.86	3.700e+05	6.989e+05	-1.617e+05
4	10		515.00	-1.223e+04	5688.09	-3638.92	-6.837e+05	3.072e+05	-2.248e+05
4	26		-30.00	-6.294e+04	4.420e+04	3.130e+04	1.125e+07	-1.185e+06	3.378e+05



M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
4	26	38.12	-6.321e+04	4.420e+04	3.130e+04	1.245e+07	-1.191e+06	2.176e+05
4	26	106.25	-5.428e+04	4.321e+04	1.373e+04	1.008e+07	3.487e+05	1.340e+05
4	26	174.38	-4.668e+04	4.078e+04	4015.00	8.013e+06	9.555e+05	3.659e+04
4	26	242.50	-3.934e+04	3.747e+04	-749.63	6.048e+06	1.066e+06	-1331.60
4	26	310.62	-3.283e+04	3.369e+04	-2716.63	4.384e+06	9.532e+05	-3.580e+04
4	26	378.75	-2.665e+04	2.978e+04	-3027.83	2.906e+06	7.679e+05	-6.654e+04
4	26	446.88	-2.044e+04	2.604e+04	-2694.45	1.595e+06	5.548e+05	-1.193e+05
4	26	515.00	-1.328e+04	2.205e+04	-2765.44	-2.127e+04	3.271e+05	-1.825e+05
4	31	-30.00	-4.555e+04	-5.425e+04	2.983e+04	-1.068e+07	-1.145e+06	-3.372e+04
4	31	38.12	-4.582e+04	-5.425e+04	2.983e+04	-9.481e+06	-1.147e+06	-4.750e+04
4	31	106.25	-4.045e+04	-5.299e+04	1.260e+04	-8.099e+06	2.857e+05	-3.613e+04
4	31	174.38	-3.584e+04	-4.935e+04	3252.56	-6.888e+06	8.286e+05	-5697.63
4	31	242.50	-3.142e+04	-4.505e+04	-1158.31	-5.797e+06	9.034e+05	4711.84
4	31	310.62	-2.749e+04	-4.019e+04	-2568.81	-4.911e+06	7.724e+05	1.647e+04
4	31	378.75	-2.335e+04	-3.558e+04	-2312.40	-3.962e+06	5.966e+05	1.510e+04
4	31	446.88	-1.942e+04	-2.987e+04	-788.95	-3.161e+06	5.099e+05	5507.31
4	31	515.00	-1.594e+04	-2.579e+04	818.52	-2.554e+06	5.499e+05	-4.539e+04
4	42	-30.00	-7.237e+04	6328.40	3.390e+04	3.260e+06	-1.298e+06	2.452e+05
4	42	38.12	-7.264e+04	6328.40	3.390e+04	4.459e+06	-1.303e+06	1.773e+05
4	42	106.25	-6.210e+04	6278.94	1.475e+04	3.411e+06	3.592e+05	1.412e+05
4	42	174.38	-5.341e+04	6200.21	4422.85	2.776e+06	1.012e+06	7.621e+04
4	42	242.50	-4.490e+04	5797.16	-604.58	1.890e+06	1.143e+06	2.999e+04
4	42	310.62	-3.755e+04	5336.63	-2811.47	1.210e+06	1.035e+06	-2.127e+04
4	42	378.75	-3.080e+04	4956.93	-3068.40	5.972e+05	8.486e+05	-7.180e+04
4	42	446.88	-2.348e+04	4790.31	-2750.43	1.098e+05	6.608e+05	-1.364e+05
4	42	515.00	-1.289e+04	4205.06	-3008.14	-8.046e+05	3.428e+05	-1.976e+05
4	58	-30.00	-6.090e+04	3.334e+04	3.112e+04	8.803e+06	-1.180e+06	2.954e+05
4	58	38.12	-6.117e+04	3.334e+04	3.112e+04	1.000e+07	-1.186e+06	1.862e+05
4	58	106.25	-5.266e+04	3.261e+04	1.359e+04	8.054e+06	3.418e+05	1.126e+05
4	58	174.38	-4.539e+04	3.084e+04	3927.82	6.332e+06	9.406e+05	3.075e+04
4	58	242.50	-3.841e+04	2.836e+04	-796.24	4.713e+06	1.046e+06	-1185.12
4	58	310.62	-3.213e+04	2.553e+04	-2698.46	3.338e+06	9.317e+05	-2.996e+04
4	58	378.75	-2.617e+04	2.263e+04	-2936.14	2.125e+06	7.470e+05	-5.657e+04
4	58	446.88	-2.022e+04	1.990e+04	-2450.69	1.048e+06	5.507e+05	-1.029e+05
4	58	515.00	-1.363e+04	1.690e+04	-2323.77	-3.050e+05	3.578e+05	-1.632e+05
4	63	-30.00	-4.748e+04	-4.306e+04	2.998e+04	-8.203e+06	-1.149e+06	7279.30
4	63	38.12	-4.774e+04	-4.306e+04	2.998e+04	-7.004e+06	-1.152e+06	-1.907e+04
4	63	106.25	-4.200e+04	-4.208e+04	1.271e+04	-6.029e+06	2.930e+05	-1.866e+04
4	63	174.38	-3.706e+04	-3.915e+04	3334.06	-5.196e+06	8.422e+05	-2933.00
4	63	242.50	-3.235e+04	-3.573e+04	-1113.03	-4.438e+06	9.206e+05	3086.80
4	63	310.62	-2.810e+04	-3.186e+04	-2586.81	-3.825e+06	7.917e+05	1.051e+04
4	63	378.75	-2.373e+04	-2.814e+04	-2403.90	-3.156e+06	6.154e+05	6784.94
4	63	446.88	-1.955e+04	-2.353e+04	-1020.35	-2.591e+06	5.122e+05	-7751.07
4	63	515.00	-1.573e+04	-2.026e+04	400.78	-2.217e+06	5.200e+05	-6.169e+04
M_S			N memb.	V memb.	V orto	M memb.	M orto	T
			-7.806e+04	-5.425e+04	-3817.27	-1.068e+07	-1.816e+06	-2.248e+05
			-1.223e+04	4.420e+04	4.628e+04	1.245e+07	1.465e+06	3.378e+05

Macro	Tipo	Angolo 1-Z (gradi)
5	Setto	0.0

M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
		cm	daN	daN	daN	daN cm	daN cm	daN cm
5	1	-30.00	-2.562e+05	-1083.62	-1.959e+05	2.442e+07	1.040e+07	610.46
5	1	38.12	-2.485e+05	-1083.62	-1.959e+05	2.396e+07	1.040e+07	-5219.67
5	1	106.25	-2.262e+05	-783.42	-9.297e+04	1.890e+07	5.635e+05	-2008.52
5	1	174.38	-2.054e+05	-607.01	-3.347e+04	1.395e+07	-3.743e+06	-1530.90
5	1	242.50	-1.870e+05	-531.60	-450.41	1.020e+07	-4.898e+06	-214.24
5	1	310.62	-1.702e+05	-478.65	1.770e+04	7.580e+06	-4.311e+06	1040.54
5	1	378.75	-1.541e+05	-425.74	2.851e+04	5.894e+06	-2.737e+06	1560.56
5	1	446.88	-1.384e+05	-410.99	3.663e+04	4.894e+06	-5.190e+05	4072.95
5	1	515.00	-1.222e+05	-450.71	4.379e+04	4.242e+06	2.220e+06	-3151.69
5	2	-30.00	-2.764e+05	-934.53	-1.968e+05	2.564e+07	1.047e+07	855.70



M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
5	2	38.12	-2.684e+05	-934.53	-1.968e+05	2.515e+07	1.047e+07	-5328.50	
5	2	106.25	-2.460e+05	-610.18	-9.331e+04	1.997e+07	5.930e+05	-1923.91	
5	2	174.38	-2.251e+05	-423.48	-3.363e+04	1.490e+07	-3.731e+06	-1416.55	
5	2	242.50	-2.069e+05	-343.07	-514.91	1.109e+07	-4.894e+06	-6.85	
5	2	310.62	-1.903e+05	-286.84	1.772e+04	8.448e+06	-4.308e+06	1365.97	
5	2	378.75	-1.745e+05	-232.13	2.867e+04	6.787e+06	-2.728e+06	1918.97	
5	2	446.88	-1.594e+05	-216.60	3.718e+04	5.869e+06	-4.862e+05	4799.14	
5	2	515.00	-1.437e+05	-278.36	4.542e+04	5.302e+06	2.327e+06	-3341.34	
5	3	-30.00	-1.932e+05	-980.23	-1.059e+05	1.526e+07	5.645e+06	10.69	
5	3	38.12	-1.877e+05	-980.23	-1.059e+05	1.496e+07	5.645e+06	-3894.98	
5	3	106.25	-1.710e+05	-803.26	-5.005e+04	1.191e+07	3.325e+05	-1804.79	
5	3	174.38	-1.549e+05	-699.84	-1.802e+04	8.954e+06	-1.986e+06	-1459.64	
5	3	242.50	-1.405e+05	-653.15	-293.27	6.742e+06	-2.610e+06	-591.03	
5	3	310.62	-1.271e+05	-620.62	9467.54	5.207e+06	-2.297e+06	235.34	
5	3	378.75	-1.143e+05	-588.84	1.538e+04	4.242e+06	-1.451e+06	545.92	
5	3	446.88	-1.019e+05	-575.86	2.011e+04	3.715e+06	-2.428e+05	2283.75	
5	3	515.00	-8.931e+04	-599.16	2.509e+04	3.391e+06	1.297e+06	-2564.28	
5	5	-30.00	-1.954e+05	-897.33	-1.312e+05	1.725e+07	6.978e+06	270.06	
5	5	38.12	-1.897e+05	-897.33	-1.312e+05	1.692e+07	6.978e+06	-3962.89	
5	5	106.25	-1.727e+05	-689.86	-6.218e+04	1.339e+07	3.896e+05	-1657.96	
5	5	174.38	-1.567e+05	-568.19	-2.239e+04	9.957e+06	-2.491e+06	-1300.23	
5	5	242.50	-1.424e+05	-515.11	-323.34	7.366e+06	-3.264e+06	-350.12	
5	5	310.62	-1.292e+05	-477.94	1.181e+04	5.560e+06	-2.873e+06	554.73	
5	5	378.75	-1.167e+05	-441.12	1.908e+04	4.407e+06	-1.821e+06	915.86	
5	5	446.88	-1.045e+05	-429.07	2.467e+04	3.743e+06	-3.312e+05	2763.78	
5	5	515.00	-9.196e+04	-456.46	2.995e+04	3.318e+06	1.529e+06	-2485.20	
5	6	-30.00	-2.089e+05	-797.93	-1.318e+05	1.806e+07	7.025e+06	433.56	
5	6	38.12	-2.029e+05	-797.93	-1.318e+05	1.772e+07	7.025e+06	-4035.44	
5	6	106.25	-1.859e+05	-574.37	-6.241e+04	1.411e+07	4.093e+05	-1601.56	
5	6	174.38	-1.698e+05	-445.84	-2.249e+04	1.059e+07	-2.483e+06	-1224.00	
5	6	242.50	-1.556e+05	-389.42	-366.34	7.960e+06	-3.261e+06	-211.86	
5	6	310.62	-1.426e+05	-350.07	1.182e+04	6.138e+06	-2.871e+06	771.68	
5	6	378.75	-1.303e+05	-312.05	1.919e+04	5.002e+06	-1.815e+06	1154.80	
5	6	446.88	-1.185e+05	-299.48	2.504e+04	4.393e+06	-3.094e+05	3247.91	
5	6	515.00	-1.063e+05	-341.56	3.104e+04	4.025e+06	1.600e+06	-2611.64	
5	7	-30.00	-1.954e+05	-897.33	-1.312e+05	1.725e+07	6.978e+06	270.06	
5	7	38.12	-1.897e+05	-897.33	-1.312e+05	1.692e+07	6.978e+06	-3962.89	
5	7	106.25	-1.727e+05	-689.86	-6.218e+04	1.339e+07	3.896e+05	-1657.96	
5	7	174.38	-1.567e+05	-568.19	-2.239e+04	9.957e+06	-2.491e+06	-1300.23	
5	7	242.50	-1.424e+05	-515.11	-323.34	7.366e+06	-3.264e+06	-350.12	
5	7	310.62	-1.292e+05	-477.94	1.181e+04	5.560e+06	-2.873e+06	554.73	
5	7	378.75	-1.167e+05	-441.12	1.908e+04	4.407e+06	-1.821e+06	915.86	
5	7	446.88	-1.045e+05	-429.07	2.467e+04	3.743e+06	-3.312e+05	2763.78	
5	7	515.00	-9.196e+04	-456.46	2.995e+04	3.318e+06	1.529e+06	-2485.20	
5	8	-30.00	-1.954e+05	-897.33	-1.312e+05	1.725e+07	6.978e+06	270.06	
5	8	38.12	-1.897e+05	-897.33	-1.312e+05	1.692e+07	6.978e+06	-3962.89	
5	8	106.25	-1.727e+05	-689.86	-6.218e+04	1.339e+07	3.896e+05	-1657.96	
5	8	174.38	-1.567e+05	-568.19	-2.239e+04	9.957e+06	-2.491e+06	-1300.23	
5	8	242.50	-1.424e+05	-515.11	-323.34	7.366e+06	-3.264e+06	-350.12	
5	8	310.62	-1.292e+05	-477.94	1.181e+04	5.560e+06	-2.873e+06	554.73	
5	8	378.75	-1.167e+05	-441.12	1.908e+04	4.407e+06	-1.821e+06	915.86	
5	8	446.88	-1.045e+05	-429.07	2.467e+04	3.743e+06	-3.312e+05	2763.78	
5	8	515.00	-9.196e+04	-456.46	2.995e+04	3.318e+06	1.529e+06	-2485.20	
5	15	-30.00	-1.750e+05	-1.542e+05	-1.247e+05	6.011e+07	6.433e+06	-3.987e+04	
5	15	38.12	-1.693e+05	-1.542e+05	-1.247e+05	5.977e+07	6.434e+06	-5.099e+04	
5	15	106.25	-1.550e+05	-1.526e+05	-5.883e+04	5.021e+07	1.770e+05	-4.850e+04	
5	15	174.38	-1.417e+05	-1.441e+05	-2.045e+04	4.142e+07	-2.522e+06	-4.538e+04	
5	15	242.50	-1.300e+05	-1.345e+05	686.36	3.381e+07	-3.181e+06	-4.460e+04	
5	15	310.62	-1.184e+05	-1.239e+05	1.215e+04	2.639e+07	-2.761e+06	-4.283e+04	
5	15	378.75	-1.093e+05	-1.135e+05	1.873e+04	2.012e+07	-1.708e+06	-3.198e+04	
5	15	446.88	-9.889e+04	-1.038e+05	2.375e+04	1.582e+07	-2.343e+05	-3.498e+04	
5	15	515.00	-8.800e+04	-9.333e+04	2.882e+04	1.130e+07	1.548e+06	-4.926e+04	
5	23	-30.00	-1.744e+05	-1.127e+05	-1.255e+05	5.335e+07	6.449e+06	-4.196e+04	
5	23	38.12	-1.687e+05	-1.127e+05	-1.255e+05	5.302e+07	6.448e+06	-7.171e+04	
5	23	106.25	-1.545e+05	-1.126e+05	-5.950e+04	4.470e+07	1.663e+05	-7.766e+04	
5	23	174.38	-1.411e+05	-1.071e+05	-2.081e+04	3.690e+07	-2.539e+06	-9.720e+04	
5	23	242.50	-1.296e+05	-1.013e+05	653.00	3.013e+07	-3.202e+06	-7.524e+04	
5	23	310.62	-1.189e+05	-9.467e+04	1.214e+04	2.442e+07	-2.776e+06	-4.453e+04	
5	23	378.75	-1.086e+05	-8.840e+04	1.872e+04	1.959e+07	-1.715e+06	-5.409e+04	
5	23	446.88	-9.862e+04	-8.254e+04	2.379e+04	1.545e+07	-2.470e+05	-4.493e+04	
5	23	515.00	-8.783e+04	-7.559e+04	2.879e+04	9.994e+06	1.548e+06	-8.089e+04	
5	25	-30.00	-1.094e+05	6.418e+04	-1.034e+05	-1.228e+07	4.670e+06	4.229e+04	

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
5	25	38.12	-1.036e+05	6.418e+04	-1.034e+05	-1.261e+07	4.670e+06	3.795e+04
5	25	106.25	-9.846e+04	6.394e+04	-4.844e+04	-1.116e+07	-5.132e+05	4.924e+04
5	25	174.38	-9.421e+04	6.217e+04	-1.495e+04	-1.025e+07	-2.611e+06	3.559e+04
5	25	242.50	-9.080e+04	5.926e+04	3399.62	-9.255e+06	-2.990e+06	4.386e+04
5	25	310.62	-8.772e+04	5.564e+04	1.291e+04	-7.463e+06	-2.472e+06	4.326e+04
5	25	378.75	-8.351e+04	5.304e+04	1.728e+04	-5.484e+06	-1.416e+06	3.482e+04
5	25	446.88	-7.879e+04	4.883e+04	2.032e+04	-3.698e+06	-1.733e+04	2.890e+04
5	25	515.00	-7.201e+04	4.452e+04	2.502e+04	-1.672e+06	1.633e+06	-1426.71
5	36	-30.00	-2.825e+05	-2.380e+04	-1.592e+05	4.626e+07	9.288e+06	2.803e+04
5	36	38.12	-2.768e+05	-2.380e+04	-1.592e+05	4.593e+07	9.286e+06	2.755e+04
5	36	106.25	-2.475e+05	-2.022e+04	-7.564e+04	3.812e+07	1.292e+06	8857.91
5	36	174.38	-2.193e+05	-2.049e+04	-2.973e+04	3.023e+07	-2.307e+06	1.734e+04
5	36	242.50	-1.939e+05	-1.771e+04	-3978.92	2.397e+07	-3.517e+06	2.416e+04
5	36	310.62	-1.705e+05	-1.482e+04	1.074e+04	1.852e+07	-3.255e+06	2.608e+04
5	36	378.75	-1.496e+05	-1.023e+04	2.062e+04	1.430e+07	-2.207e+06	-6416.61
5	36	446.88	-1.299e+05	-5169.16	2.836e+04	1.142e+07	-6.205e+05	-1341.37
5	36	515.00	-1.117e+05	-2490.55	3.468e+04	9.106e+06	1.556e+06	2806.24
5	47	-30.00	-1.796e+05	-1.200e+05	-1.262e+05	5.040e+07	6.555e+06	-3.091e+04
5	47	38.12	-1.739e+05	-1.200e+05	-1.262e+05	5.007e+07	6.555e+06	-4.039e+04
5	47	106.25	-1.590e+05	-1.187e+05	-5.958e+04	4.186e+07	2.244e+05	-3.761e+04
5	47	174.38	-1.451e+05	-1.120e+05	-2.089e+04	3.426e+07	-2.515e+06	-3.544e+04
5	47	242.50	-1.329e+05	-1.046e+05	460.00	2.777e+07	-3.202e+06	-3.465e+04
5	47	310.62	-1.210e+05	-9.639e+04	1.207e+04	2.163e+07	-2.788e+06	-3.304e+04
5	47	378.75	-1.110e+05	-8.831e+04	1.882e+04	1.652e+07	-1.735e+06	-2.447e+04
5	47	446.88	-1.003e+05	-8.070e+04	2.396e+04	1.302e+07	-2.617e+05	-2.629e+04
5	47	515.00	-8.908e+04	-7.260e+04	2.903e+04	9.414e+06	1.542e+06	-3.730e+04
5	55	-30.00	-1.792e+05	-8.773e+04	-1.268e+05	4.513e+07	6.566e+06	-3.255e+04
5	55	38.12	-1.735e+05	-8.773e+04	-1.268e+05	4.480e+07	6.566e+06	-5.656e+04
5	55	106.25	-1.586e+05	-8.758e+04	-6.010e+04	3.755e+07	2.161e+05	-6.055e+04
5	55	174.38	-1.447e+05	-8.332e+04	-2.117e+04	3.073e+07	-2.528e+06	-7.585e+04
5	55	242.50	-1.325e+05	-7.876e+04	434.73	2.489e+07	-3.218e+06	-5.855e+04
5	55	310.62	-1.213e+05	-7.364e+04	1.206e+04	2.006e+07	-2.799e+06	-3.447e+04
5	55	378.75	-1.105e+05	-6.876e+04	1.882e+04	1.604e+07	-1.741e+06	-4.175e+04
5	55	446.88	-1.001e+05	-6.421e+04	2.399e+04	1.267e+07	-2.712e+05	-3.452e+04
5	55	515.00	-8.895e+04	-5.881e+04	2.901e+04	8.372e+06	1.542e+06	-6.251e+04
5	57	-30.00	-1.289e+05	4.965e+04	-1.097e+05	-5.646e+06	5.186e+06	3.288e+04
5	57	38.12	-1.231e+05	4.965e+04	-1.097e+05	-5.978e+06	5.186e+06	2.778e+04
5	57	106.25	-1.154e+05	4.952e+04	-5.152e+04	-5.641e+06	-3.114e+05	3.723e+04
5	57	174.38	-1.085e+05	4.818e+04	-1.660e+04	-5.698e+06	-2.585e+06	2.753e+04
5	57	242.50	-1.027e+05	4.593e+04	2567.43	-5.485e+06	-3.059e+06	3.417e+04
5	57	310.62	-9.740e+04	4.314e+04	1.265e+04	-4.492e+06	-2.567e+06	3.369e+04
5	57	378.75	-9.141e+04	4.112e+04	1.773e+04	-3.201e+06	-1.515e+06	2.663e+04
5	57	446.88	-8.514e+04	3.786e+04	2.132e+04	-1.930e+06	-1.061e+05	2.223e+04
5	57	515.00	-7.724e+04	3.450e+04	2.596e+04	-4.166e+05	1.595e+06	-2561.98
5	68	-30.00	-2.627e+05	-1.868e+04	-1.529e+05	3.975e+07	8.771e+06	2.180e+04
5	68	38.12	-2.570e+05	-1.868e+04	-1.529e+05	3.942e+07	8.770e+06	2.048e+04
5	68	106.25	-2.305e+05	-1.585e+04	-7.263e+04	3.255e+07	1.090e+06	6224.78
5	68	174.38	-2.049e+05	-1.603e+04	-2.809e+04	2.566e+07	-2.351e+06	1.370e+04
5	68	242.50	-1.821e+05	-1.386e+04	-3161.82	2.020e+07	-3.453e+06	1.901e+04
5	68	310.62	-1.609e+05	-1.161e+04	1.099e+04	1.556e+07	-3.165e+06	2.064e+04
5	68	378.75	-1.417e+05	-8038.83	2.024e+04	1.201e+07	-2.113e+06	-4995.24
5	68	446.88	-1.236e+05	-4120.49	2.754e+04	9.591e+06	-5.371e+05	486.62
5	68	515.00	-1.065e+05	-2050.09	3.379e+04	7.667e+06	1.555e+06	1048.17
M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
			-2.825e+05	-1.542e+05	-1.968e+05	-1.261e+07	-4.898e+06	-9.720e+04
			-7.201e+04	6.418e+04	4.542e+04	6.011e+07	1.047e+07	4.924e+04

Macro	Tipo	Angolo 1-Z (gradi)
6	Setto	0.0

M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
		cm	daN	daN	daN	daN cm	daN cm	daN cm
6	1	-30.00	-1.606e+04	-2.036e+04	-578.27	-9.205e+06	4.785e+04	-331.09



M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
6	1	38.12	-1.590e+04	-2.036e+04	-578.27	-7.137e+06	4.813e+04	-1641.13	
6	1	106.25	-2.258e+04	-1.033e+04	-194.35	-5.235e+06	2.175e+04	-1151.46	
6	1	174.38	-3.445e+04	-6382.84	-118.47	-2.864e+06	1.111e+04	-1237.48	
6	1	242.50	-4.247e+04	-4031.33	-80.57	-1.376e+06	4323.95	-1210.78	
6	1	310.62	-4.642e+04	-2204.73	-96.64	-5.756e+05	-1774.58	-1144.90	
6	1	378.75	-4.682e+04	36.50	-172.35	-3.646e+05	-1.104e+04	-1592.80	
6	1	446.88	-4.438e+04	3538.42	-227.62	-6.531e+05	-2.480e+04	383.61	
6	1	515.00	-3.962e+04	9005.68	-226.60	-1.850e+06	-4.033e+04	-149.85	
6	2	-30.00	-1.982e+04	-2.157e+04	-594.42	-9.492e+06	4.904e+04	-358.28	
6	2	38.12	-1.979e+04	-2.157e+04	-594.42	-7.327e+06	4.935e+04	-1711.36	
6	2	106.25	-2.672e+04	-1.102e+04	-196.49	-5.317e+06	2.234e+04	-1200.28	
6	2	174.38	-3.897e+04	-6876.20	-118.68	-2.823e+06	1.163e+04	-1303.35	
6	2	242.50	-4.726e+04	-4374.82	-79.73	-1.268e+06	4865.36	-1298.29	
6	2	310.62	-5.139e+04	-2364.06	-96.98	-4.516e+05	-1227.39	-1248.76	
6	2	378.75	-5.187e+04	208.13	-177.29	-2.848e+05	-1.070e+04	-1783.77	
6	2	446.88	-4.933e+04	4356.03	-227.87	-6.897e+05	-2.465e+04	396.37	
6	2	515.00	-4.406e+04	1.117e+04	-204.72	-2.198e+06	-3.944e+04	-87.48	
6	5	-30.00	-1.722e+04	-1.445e+04	-388.34	-6.532e+06	3.251e+04	-205.73	
6	5	38.12	-1.713e+04	-1.445e+04	-388.34	-5.045e+06	3.271e+04	-1080.33	
6	5	106.25	-2.115e+04	-7193.08	-132.82	-3.675e+06	1.491e+04	-743.62	
6	5	174.38	-2.868e+04	-4342.68	-80.17	-1.969e+06	7675.81	-814.15	
6	5	242.50	-3.352e+04	-2642.44	-53.60	-9.046e+05	3114.18	-809.12	
6	5	310.62	-3.558e+04	-1311.29	-63.93	-3.398e+05	-935.47	-770.51	
6	5	378.75	-3.521e+04	345.06	-115.24	-2.078e+05	-7118.76	-1106.19	
6	5	446.88	-3.286e+04	2969.97	-147.79	-4.488e+05	-1.618e+04	355.50	
6	5	515.00	-2.880e+04	7205.99	-131.72	-1.389e+06	-2.574e+04	-21.30	
6	6	-30.00	-1.973e+04	-1.525e+04	-399.11	-6.724e+06	3.331e+04	-223.86	
6	6	38.12	-1.973e+04	-1.525e+04	-399.11	-5.172e+06	3.352e+04	-1127.15	
6	6	106.25	-2.391e+04	-7652.53	-134.25	-3.730e+06	1.531e+04	-776.16	
6	6	174.38	-3.169e+04	-4671.59	-80.31	-1.941e+06	8023.64	-858.06	
6	6	242.50	-3.671e+04	-2871.44	-53.04	-8.328e+05	3475.12	-867.46	
6	6	310.62	-3.889e+04	-1417.51	-64.16	-2.571e+05	-570.68	-839.76	
6	6	378.75	-3.857e+04	459.48	-118.53	-1.546e+05	-6887.38	-1233.51	
6	6	446.88	-3.616e+04	3515.04	-147.96	-4.732e+05	-1.608e+04	364.01	
6	6	515.00	-3.176e+04	8649.36	-117.13	-1.620e+06	-2.515e+04	20.28	
6	7	-30.00	-1.722e+04	-1.445e+04	-388.34	-6.532e+06	3.251e+04	-205.73	
6	7	38.12	-1.713e+04	-1.445e+04	-388.34	-5.045e+06	3.271e+04	-1080.33	
6	7	106.25	-2.115e+04	-7193.08	-132.82	-3.675e+06	1.491e+04	-743.62	
6	7	174.38	-2.868e+04	-4342.68	-80.17	-1.969e+06	7675.81	-814.15	
6	7	242.50	-3.352e+04	-2642.44	-53.60	-9.046e+05	3114.18	-809.12	
6	7	310.62	-3.558e+04	-1311.29	-63.93	-3.398e+05	-935.47	-770.51	
6	7	378.75	-3.521e+04	345.06	-115.24	-2.078e+05	-7118.76	-1106.19	
6	7	446.88	-3.286e+04	2969.97	-147.79	-4.488e+05	-1.618e+04	355.50	
6	7	515.00	-2.880e+04	7205.99	-131.72	-1.389e+06	-2.574e+04	-21.30	
6	8	-30.00	-1.722e+04	-1.445e+04	-388.34	-6.532e+06	3.251e+04	-205.73	
6	8	38.12	-1.713e+04	-1.445e+04	-388.34	-5.045e+06	3.271e+04	-1080.33	
6	8	106.25	-2.115e+04	-7193.08	-132.82	-3.675e+06	1.491e+04	-743.62	
6	8	174.38	-2.868e+04	-4342.68	-80.17	-1.969e+06	7675.81	-814.15	
6	8	242.50	-3.352e+04	-2642.44	-53.60	-9.046e+05	3114.18	-809.12	
6	8	310.62	-3.558e+04	-1311.29	-63.93	-3.398e+05	-935.47	-770.51	
6	8	378.75	-3.521e+04	345.06	-115.24	-2.078e+05	-7118.76	-1106.19	
6	8	446.88	-3.286e+04	2969.97	-147.79	-4.488e+05	-1.618e+04	355.50	
6	8	515.00	-2.880e+04	7205.99	-131.72	-1.389e+06	-2.574e+04	-21.30	
6	27	-30.00	-5.194e+04	-5.066e+04	-2394.88	-7.286e+06	1.662e+05	-464.67	
6	27	38.12	-5.185e+04	-5.066e+04	-2394.88	-5.799e+06	1.642e+05	3391.54	
6	27	106.25	-5.019e+04	-4.928e+04	-1127.82	-4.843e+06	4.419e+04	7893.17	
6	27	174.38	-5.216e+04	-4.674e+04	-610.90	-3.375e+06	-7366.59	9183.40	
6	27	242.50	-5.235e+04	-4.337e+04	-271.80	-2.262e+06	-3.189e+04	5278.87	
6	27	310.62	-5.052e+04	-3.960e+04	-69.12	-1.488e+06	-4.642e+04	3328.64	
6	27	378.75	-4.691e+04	-3.530e+04	80.30	-1.046e+06	-4.831e+04	1767.86	
6	27	446.88	-4.296e+04	-3.005e+04	321.64	-5.483e+05	-3.407e+04	5135.79	
6	27	515.00	-3.575e+04	-2.315e+04	640.72	-1.102e+06	-410.18	3378.02	
6	28	-30.00	1.263e+04	2.128e+04	-1542.86	-6.153e+06	1.004e+05	-539.55	
6	28	38.12	1.272e+04	2.128e+04	-1542.86	-4.666e+06	1.025e+05	-9978.45	
6	28	106.25	3246.56	3.518e+04	-611.91	-2.693e+06	2.916e+04	-1.260e+04	
6	28	174.38	-9568.33	3.831e+04	-355.75	-5.999e+05	-1.263e+04	-1.436e+04	
6	28	242.50	-1.861e+04	3.872e+04	-184.49	4.896e+05	-3.586e+04	-1.012e+04	
6	28	310.62	-2.400e+04	3.771e+04	-68.72	8.709e+05	-4.131e+04	-7887.29	
6	28	378.75	-2.626e+04	3.665e+04	18.92	6.817e+05	-4.069e+04	-6604.23	
6	28	446.88	-2.490e+04	3.676e+04	195.04	-3.383e+05	-3.442e+04	-8069.34	
6	28	515.00	-2.351e+04	3.824e+04	334.32	-1.706e+06	-1.445e+04	-2936.94	
6	34	-30.00	1.764e+04	3.194e+04	1618.24	-5.555e+06	-9.078e+04	-4329.92	



M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
6	34	38.12	1.773e+04	3.194e+04	1618.24	-4.068e+06	-9.023e+04	1897.58
6	34	106.25	7947.72	4.531e+04	837.78	-2.407e+06	-1.295e+04	-3924.03
6	34	174.38	-5201.18	4.783e+04	415.69	-5.407e+05	2.205e+04	-4515.75
6	34	242.50	-1.472e+04	4.686e+04	161.00	4.205e+05	3.947e+04	-2467.26
6	34	310.62	-2.065e+04	4.455e+04	-47.34	7.491e+05	4.082e+04	-2427.79
6	34	378.75	-2.351e+04	4.230e+04	-298.28	5.699e+05	2.938e+04	-1694.98
6	34	446.88	-2.289e+04	4.111e+04	-584.38	-3.562e+05	-2233.56	2082.19
6	34	515.00	-2.173e+04	4.166e+04	-801.09	-1.696e+06	-4.774e+04	-6966.73
6	37	-30.00	-4.752e+04	-6.094e+04	678.94	-7.179e+06	-3.828e+04	4063.35
6	37	38.12	-4.743e+04	-6.094e+04	678.94	-5.692e+06	-3.825e+04	-2583.82
6	37	106.25	-4.590e+04	-6.036e+04	321.73	-4.777e+06	1708.72	3348.17
6	37	174.38	-4.805e+04	-5.763e+04	202.27	-3.366e+06	2.843e+04	4363.30
6	37	242.50	-4.865e+04	-5.290e+04	70.10	-2.262e+06	3.907e+04	2415.41
6	37	310.62	-4.734e+04	-4.840e+04	-77.42	-1.482e+06	4.091e+04	3004.84
6	37	378.75	-4.430e+04	-4.273e+04	-253.59	-1.027e+06	2.917e+04	1312.41
6	37	446.88	-4.081e+04	-3.657e+04	-496.40	-5.461e+05	5316.79	1386.55
6	37	515.00	-3.429e+04	-2.844e+04	-666.60	-1.049e+06	-3.887e+04	6893.17
6	59	-30.00	-4.415e+04	-4.248e+04	-1945.91	-7.119e+06	1.364e+05	-375.44
6	59	38.12	-4.406e+04	-4.248e+04	-1945.91	-5.632e+06	1.348e+05	2382.60
6	59	106.25	-4.367e+04	-3.982e+04	-905.30	-4.581e+06	3.765e+04	5946.36
6	59	174.38	-4.689e+04	-3.723e+04	-492.29	-3.056e+06	-3940.08	6928.43
6	59	242.50	-4.811e+04	-3.425e+04	-222.97	-1.952e+06	-2.402e+04	3898.27
6	59	310.62	-4.715e+04	-3.105e+04	-67.41	-1.223e+06	-3.622e+04	2405.22
6	59	378.75	-4.426e+04	-2.734e+04	36.60	-8.511e+05	-3.906e+04	1124.94
6	59	446.88	-4.056e+04	-2.266e+04	216.89	-5.448e+05	-3.009e+04	4033.23
6	59	515.00	-3.406e+04	-1.635e+04	467.87	-1.183e+06	-6333.28	2470.81
6	60	-30.00	5947.31	1.321e+04	-1284.40	-6.235e+06	8.523e+04	-436.12
6	60	38.12	6034.75	1.321e+04	-1284.40	-4.748e+06	8.695e+04	-7993.71
6	60	106.25	-2214.83	2.565e+04	-504.80	-2.913e+06	2.598e+04	-9925.56
6	60	174.38	-1.384e+04	2.875e+04	-294.27	-9.106e+05	-8022.53	-1.131e+04
6	60	242.50	-2.195e+04	2.947e+04	-155.39	1.707e+05	-2.711e+04	-8021.04
6	60	310.62	-2.659e+04	2.899e+04	-68.34	5.915e+05	-3.226e+04	-6292.71
6	60	378.75	-2.828e+04	2.854e+04	-10.91	4.748e+05	-3.317e+04	-5384.07
6	60	446.88	-2.680e+04	2.921e+04	118.97	-3.440e+05	-3.015e+04	-6165.86
6	60	515.00	-2.480e+04	3.131e+04	230.74	-1.618e+06	-1.684e+04	-2117.80
6	66	-30.00	9817.71	2.151e+04	1168.94	-5.771e+06	-6.322e+04	-3438.84
6	66	38.12	9905.15	2.151e+04	1168.94	-4.284e+06	-6.276e+04	1248.84
6	66	106.25	1419.14	3.355e+04	620.54	-2.692e+06	-6718.22	-3193.48
6	66	174.38	-1.047e+04	3.616e+04	304.98	-8.646e+05	1.876e+04	-3657.54
6	66	242.50	-1.895e+04	3.580e+04	113.03	1.168e+05	3.132e+04	-2065.58
6	66	310.62	-2.402e+04	3.431e+04	-52.20	4.960e+05	3.147e+04	-2019.19
6	66	378.75	-2.616e+04	3.293e+04	-256.94	3.863e+05	2.119e+04	-1547.40
6	66	446.88	-2.527e+04	3.259e+04	-487.53	-3.570e+05	-5344.27	1731.46
6	66	515.00	-2.345e+04	3.395e+04	-652.21	-1.610e+06	-4.266e+04	-5276.77
6	69	-30.00	-4.073e+04	-5.049e+04	440.03	-7.037e+06	-2.248e+04	3091.88
6	69	38.12	-4.065e+04	-5.049e+04	440.03	-5.551e+06	-2.241e+04	-2269.03
6	69	106.25	-4.036e+04	-4.845e+04	220.17	-4.530e+06	4653.45	2403.78
6	69	174.38	-4.372e+04	-4.571e+04	139.11	-3.048e+06	2.372e+04	3170.57
6	69	242.50	-4.526e+04	-4.167e+04	42.55	-1.951e+06	3.096e+04	1662.01
6	69	310.62	-4.470e+04	-3.789e+04	-73.14	-1.216e+06	3.150e+04	2116.19
6	69	378.75	-4.225e+04	-3.312e+04	-223.27	-8.342e+05	2.101e+04	759.30
6	69	446.88	-3.891e+04	-2.773e+04	-418.43	-5.444e+05	321.93	1129.88
6	69	515.00	-3.295e+04	-2.047e+04	-546.74	-1.143e+06	-3.596e+04	5196.03
M_S			N memb.	V memb.	V orto	M memb.	M orto	T
			-5.235e+04	-6.094e+04	-2394.88	-9.492e+06	-9.078e+04	-1.436e+04
			1.773e+04	4.783e+04	1618.24	8.709e+05	1.662e+05	9183.40

Macro	Tipo	Angolo 1-Z (gradi)
7	Setto	0.0

M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
		cm	daN	daN	daN	daN cm	daN cm	daN cm
7	2	-30.00	-2.239e+05	557.06	1.734e+05	-6.096e+05	-7.901e+06	6267.00



M	S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
7	2	38.12	-2.196e+05	557.06	1.734e+05	-1.688e+05	-7.900e+06	2531.44	
7	2	106.25	-1.905e+05	398.08	8.111e+04	-6.454e+05	7.690e+05	2027.37	
7	2	174.38	-1.624e+05	340.32	2.806e+04	-9.624e+05	4.488e+06	1260.71	
7	2	242.50	-1.364e+05	292.90	-326.14	-1.136e+06	5.432e+06	737.12	
7	2	310.62	-1.124e+05	245.26	-1.384e+04	-1.202e+06	4.949e+06	-144.90	
7	2	378.75	-8.999e+04	217.18	-1.872e+04	-1.187e+06	3.839e+06	-1305.38	
7	2	446.88	-6.917e+04	117.19	-1.847e+04	-1.128e+06	2.572e+06	-2761.30	
7	2	515.00	-4.982e+04	-47.36	-1.786e+04	-1.016e+06	1.334e+06	-1881.60	
7	3	-30.00	-1.524e+05	783.30	9.069e+04	-8.479e+05	-3.978e+06	3922.75	
7	3	38.12	-1.492e+05	783.30	9.069e+04	-5.723e+05	-3.977e+06	1085.46	
7	3	106.25	-1.301e+05	689.96	4.208e+04	-8.056e+05	5.456e+05	741.66	
7	3	174.38	-1.115e+05	654.95	1.432e+04	-9.345e+05	2.467e+06	159.43	
7	3	242.50	-9.385e+04	624.21	-404.75	-9.780e+05	2.941e+06	-170.39	
7	3	310.62	-7.716e+04	594.64	-7247.75	-9.586e+05	2.680e+06	-686.75	
7	3	378.75	-6.129e+04	575.93	-9465.86	-8.919e+05	2.110e+06	-1342.29	
7	3	446.88	-4.627e+04	514.40	-8921.02	-7.996e+05	1.483e+06	-2171.61	
7	3	515.00	-3.205e+04	413.39	-8399.79	-6.797e+05	8.935e+05	-1640.48	
7	5	-30.00	-1.600e+05	660.85	1.149e+05	-5.803e+05	-5.169e+06	4148.62	
7	5	38.12	-1.568e+05	660.85	1.149e+05	-2.778e+05	-5.168e+06	1420.68	
7	5	106.25	-1.358e+05	556.20	5.358e+04	-5.720e+05	5.701e+05	1035.46	
7	5	174.38	-1.155e+05	517.09	1.837e+04	-7.546e+05	3.021e+06	474.69	
7	5	242.50	-9.656e+04	484.55	-473.74	-8.399e+05	3.630e+06	116.26	
7	5	310.62	-7.891e+04	452.75	-9490.20	-8.526e+05	3.291e+06	-467.20	
7	5	378.75	-6.233e+04	433.80	-1.283e+04	-8.113e+05	2.530e+06	-1210.98	
7	5	446.88	-4.676e+04	367.13	-1.282e+04	-7.426e+05	1.656e+06	-2157.99	
7	5	515.00	-3.214e+04	257.79	-1.258e+04	-6.430e+05	7.908e+05	-1550.94	
7	6	-30.00	-1.656e+05	541.12	1.148e+05	-6.622e+05	-5.163e+06	4580.57	
7	6	38.12	-1.623e+05	541.12	1.148e+05	-3.459e+05	-5.162e+06	1653.57	
7	6	106.25	-1.413e+05	428.72	5.355e+04	-6.623e+05	5.723e+05	1293.77	
7	6	174.38	-1.210e+05	387.73	1.845e+04	-8.621e+05	3.025e+06	693.59	
7	6	242.50	-1.020e+05	352.98	-234.60	-9.616e+05	3.645e+06	315.82	
7	6	310.62	-8.427e+04	318.46	-8999.11	-9.859e+05	3.331e+06	-305.26	
7	6	378.75	-6.761e+04	297.38	-1.195e+04	-9.531e+05	2.617e+06	-1119.25	
7	6	446.88	-5.202e+04	225.25	-1.142e+04	-8.892e+05	1.820e+06	-2137.67	
7	6	515.00	-3.744e+04	106.53	-1.080e+04	-7.878e+05	1.063e+06	-1520.88	
7	7	-30.00	-1.600e+05	660.85	1.149e+05	-5.803e+05	-5.169e+06	4148.62	
7	7	38.12	-1.568e+05	660.85	1.149e+05	-2.778e+05	-5.168e+06	1420.68	
7	7	106.25	-1.358e+05	556.20	5.358e+04	-5.720e+05	5.701e+05	1035.46	
7	7	174.38	-1.155e+05	517.09	1.837e+04	-7.546e+05	3.021e+06	474.69	
7	7	242.50	-9.656e+04	484.55	-473.74	-8.399e+05	3.630e+06	116.26	
7	7	310.62	-7.891e+04	452.75	-9490.20	-8.526e+05	3.291e+06	-467.20	
7	7	378.75	-6.233e+04	433.80	-1.283e+04	-8.113e+05	2.530e+06	-1210.98	
7	7	446.88	-4.676e+04	367.13	-1.282e+04	-7.426e+05	1.656e+06	-2157.99	
7	7	515.00	-3.214e+04	257.79	-1.258e+04	-6.430e+05	7.908e+05	-1550.94	
7	8	-30.00	-1.600e+05	660.85	1.149e+05	-5.803e+05	-5.169e+06	4148.62	
7	8	38.12	-1.568e+05	660.85	1.149e+05	-2.778e+05	-5.168e+06	1420.68	
7	8	106.25	-1.358e+05	556.20	5.358e+04	-5.720e+05	5.701e+05	1035.46	
7	8	174.38	-1.155e+05	517.09	1.837e+04	-7.546e+05	3.021e+06	474.69	
7	8	242.50	-9.656e+04	484.55	-473.74	-8.399e+05	3.630e+06	116.26	
7	8	310.62	-7.891e+04	452.75	-9490.20	-8.526e+05	3.291e+06	-467.20	
7	8	378.75	-6.233e+04	433.80	-1.283e+04	-8.113e+05	2.530e+06	-1210.98	
7	8	446.88	-4.676e+04	367.13	-1.282e+04	-7.426e+05	1.656e+06	-2157.99	
7	8	515.00	-3.214e+04	257.79	-1.258e+04	-6.430e+05	7.908e+05	-1550.94	
7	15	-30.00	-1.827e+05	-5.535e+04	1.182e+05	2.401e+07	-5.345e+06	-4.433e+04	
7	15	38.12	-1.795e+05	-5.535e+04	1.182e+05	2.431e+07	-5.345e+06	-5.004e+04	
7	15	106.25	-1.555e+05	-5.284e+04	5.514e+04	2.040e+07	5.665e+05	-4.813e+04	
7	15	174.38	-1.320e+05	-4.854e+04	1.924e+04	1.682e+07	3.097e+06	-3.058e+04	
7	15	242.50	-1.098e+05	-4.313e+04	-7.37	1.352e+07	3.752e+06	-3.541e+04	
7	15	310.62	-8.910e+04	-3.735e+04	-9693.50	1.050e+07	3.434e+06	-3.370e+04	
7	15	378.75	-6.963e+04	-3.093e+04	-1.312e+04	7.801e+06	2.673e+06	-4.162e+04	
7	15	446.88	-5.124e+04	-2.493e+04	-1.352e+04	5.189e+06	1.765e+06	-5.936e+04	
7	15	515.00	-3.249e+04	-1.868e+04	-1.397e+04	2.188e+06	7.679e+05	-9.592e+04	
7	21	-30.00	-1.838e+05	1.102e+05	1.177e+05	-2.376e+07	-5.288e+06	3.282e+04	
7	21	38.12	-1.805e+05	1.102e+05	1.177e+05	-2.345e+07	-5.287e+06	3.041e+04	
7	21	106.25	-1.566e+05	1.060e+05	5.483e+04	-2.047e+07	6.043e+05	2.766e+04	
7	21	174.38	-1.331e+05	9.875e+04	1.903e+04	-1.541e+07	3.122e+06	-2.014e+04	
7	21	242.50	-1.109e+05	9.088e+04	-140.30	-1.320e+07	3.778e+06	-1.182e+04	
7	21	310.62	-9.004e+04	8.248e+04	-9811.28	-1.104e+07	3.458e+06	1.905e+04	
7	21	378.75	-7.052e+04	7.451e+04	-1.324e+04	-8.876e+06	2.696e+06	1.028e+04	
7	21	446.88	-5.222e+04	6.652e+04	-1.370e+04	-6.562e+06	1.768e+06	2.813e+04	
7	21	515.00	-3.335e+04	5.975e+04	-1.423e+04	-5.586e+06	7.328e+05	3.896e+04	
7	33	-30.00	-2.379e+05	4.718e+04	1.255e+05	-1.022e+07	-5.672e+06	-1.292e+04	



M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
7	33	38.12	-2.346e+05	4.718e+04	1.255e+05	-9.918e+06	-5.671e+06	-2.171e+04
7	33	106.25	-2.035e+05	4.570e+04	5.855e+04	-9.131e+06	6.243e+05	-2.342e+04
7	33	174.38	-1.725e+05	4.252e+04	2.113e+04	-8.403e+06	3.326e+06	-2.700e+04
7	33	242.50	-1.428e+05	4.004e+04	950.18	-7.576e+06	4.074e+06	-2.457e+04
7	33	310.62	-1.147e+05	3.709e+04	-1.038e+04	-6.633e+06	3.796e+06	-6967.02
7	33	378.75	-8.808e+04	3.575e+04	-1.394e+04	-5.537e+06	3.034e+06	-1.871e+04
7	33	446.88	-6.350e+04	3.371e+04	-1.529e+04	-4.157e+06	2.088e+06	-1.268e+04
7	33	515.00	-3.485e+04	3.465e+04	-1.756e+04	-5.177e+06	6.482e+05	3935.55
7	40	-30.00	-8.214e+04	-5.702e+04	1.044e+05	8.262e+06	-4.668e+06	2.194e+04
7	40	38.12	-7.892e+04	-5.702e+04	1.044e+05	8.565e+06	-4.668e+06	2.492e+04
7	40	106.25	-6.810e+04	-5.540e+04	4.866e+04	7.292e+06	5.156e+05	2.578e+04
7	40	174.38	-5.856e+04	-5.173e+04	1.566e+04	5.626e+06	2.717e+06	3.737e+04
7	40	242.50	-5.033e+04	-4.873e+04	-1879.35	4.896e+06	3.185e+06	3.320e+04
7	40	310.62	-4.318e+04	-4.528e+04	-8600.97	4.185e+06	2.782e+06	7426.93
7	40	378.75	-3.654e+04	-4.341e+04	-1.170e+04	3.397e+06	2.024e+06	2.007e+04
7	40	446.88	-3.003e+04	-4.098e+04	-1.033e+04	2.368e+06	1.235e+06	1.187e+04
7	40	515.00	-2.943e+04	-4.156e+04	-7579.06	3.916e+06	9.329e+05	5351.97
7	47	-30.00	-1.776e+05	-4.281e+04	1.174e+05	1.844e+07	-5.304e+06	-3.360e+04
7	47	38.12	-1.744e+05	-4.281e+04	1.174e+05	1.875e+07	-5.303e+06	-3.840e+04
7	47	106.25	-1.510e+05	-4.089e+04	5.478e+04	1.564e+07	5.672e+05	-3.698e+04
7	47	174.38	-1.283e+05	-3.756e+04	1.904e+04	1.282e+07	3.080e+06	-2.395e+04
7	47	242.50	-1.068e+05	-3.337e+04	-112.44	1.023e+07	3.725e+06	-2.748e+04
7	47	310.62	-8.679e+04	-2.889e+04	-9642.44	7.884e+06	3.402e+06	-2.638e+04
7	47	378.75	-6.797e+04	-2.391e+04	-1.304e+04	5.802e+06	2.641e+06	-3.255e+04
7	47	446.88	-5.020e+04	-1.927e+04	-1.335e+04	3.800e+06	1.741e+06	-4.597e+04
7	47	515.00	-3.243e+04	-1.444e+04	-1.365e+04	1.533e+06	7.744e+05	-7.339e+04
7	53	-30.00	-1.784e+05	8.576e+04	1.171e+05	-1.850e+07	-5.259e+06	2.652e+04
7	53	38.12	-1.752e+05	8.576e+04	1.171e+05	-1.820e+07	-5.259e+06	2.387e+04
7	53	106.25	-1.519e+05	8.249e+04	5.453e+04	-1.594e+07	5.965e+05	2.171e+04
7	53	174.38	-1.291e+05	7.683e+04	1.888e+04	-1.210e+07	3.099e+06	-1.545e+04
7	53	242.50	-1.076e+05	7.071e+04	-214.25	-1.040e+07	3.744e+06	-9274.01
7	53	310.62	-8.750e+04	6.418e+04	-9728.45	-8.713e+06	3.420e+06	1.461e+04
7	53	378.75	-6.864e+04	5.798e+04	-1.313e+04	-7.018e+06	2.659e+06	7651.19
7	53	446.88	-5.095e+04	5.176e+04	-1.349e+04	-5.208e+06	1.743e+06	2.096e+04
7	53	515.00	-3.307e+04	4.648e+04	-1.385e+04	-4.406e+06	7.482e+05	2.922e+04
7	65	-30.00	-2.204e+05	3.681e+04	1.230e+05	-8.051e+06	-5.554e+06	-9106.69
7	65	38.12	-2.171e+05	3.681e+04	1.230e+05	-7.749e+06	-5.553e+06	-1.668e+04
7	65	106.25	-1.883e+05	3.564e+04	5.739e+04	-7.205e+06	6.117e+05	-1.811e+04
7	65	174.38	-1.596e+05	3.317e+04	2.050e+04	-6.683e+06	3.256e+06	-2.085e+04
7	65	242.50	-1.323e+05	3.123e+04	633.39	-6.062e+06	3.973e+06	-1.909e+04
7	65	310.62	-1.065e+05	2.894e+04	-1.015e+04	-5.334e+06	3.682e+06	-5740.38
7	65	378.75	-8.218e+04	2.788e+04	-1.364e+04	-4.476e+06	2.921e+06	-1.504e+04
7	65	446.88	-5.961e+04	2.628e+04	-1.469e+04	-3.394e+06	1.990e+06	-1.060e+04
7	65	515.00	-3.426e+04	2.696e+04	-1.641e+04	-4.066e+06	6.866e+05	2236.98
7	72	-30.00	-9.964e+04	-4.416e+04	1.068e+05	6.268e+06	-4.786e+06	1.796e+04
7	72	38.12	-9.641e+04	-4.416e+04	1.068e+05	6.570e+06	-4.786e+06	1.977e+04
7	72	106.25	-8.334e+04	-4.293e+04	4.980e+04	5.516e+06	5.282e+05	2.034e+04
7	72	174.38	-7.141e+04	-4.010e+04	1.627e+04	4.198e+06	2.787e+06	2.917e+04
7	72	242.50	-6.079e+04	-3.777e+04	-1566.37	3.614e+06	3.286e+06	2.588e+04
7	72	310.62	-5.130e+04	-3.510e+04	-8828.73	3.059e+06	2.897e+06	5902.21
7	72	378.75	-4.245e+04	-3.365e+04	-1.201e+04	2.454e+06	2.138e+06	1.553e+04
7	72	446.88	-3.392e+04	-3.177e+04	-1.094e+04	1.672e+06	1.329e+06	8927.08
7	72	515.00	-3.002e+04	-3.222e+04	-8731.57	2.799e+06	8.946e+05	4046.92
M_S			N memb.	V memb.	V orto	M memb.	M orto	T
			-2.379e+05	-5.702e+04	-1.872e+04	-2.376e+07	-7.901e+06	-9.592e+04
			-2.943e+04	1.102e+05	1.734e+05	2.431e+07	5.432e+06	3.896e+04

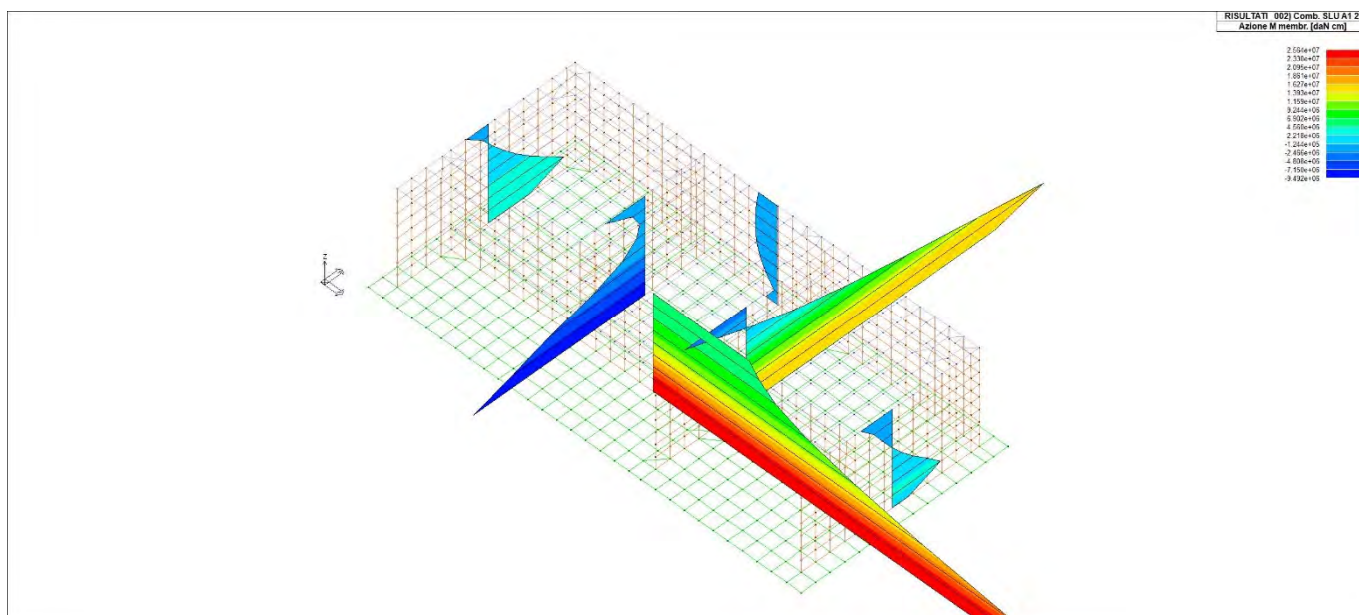


Figura 64 - RIS_M_002_Comb SLU A1 2

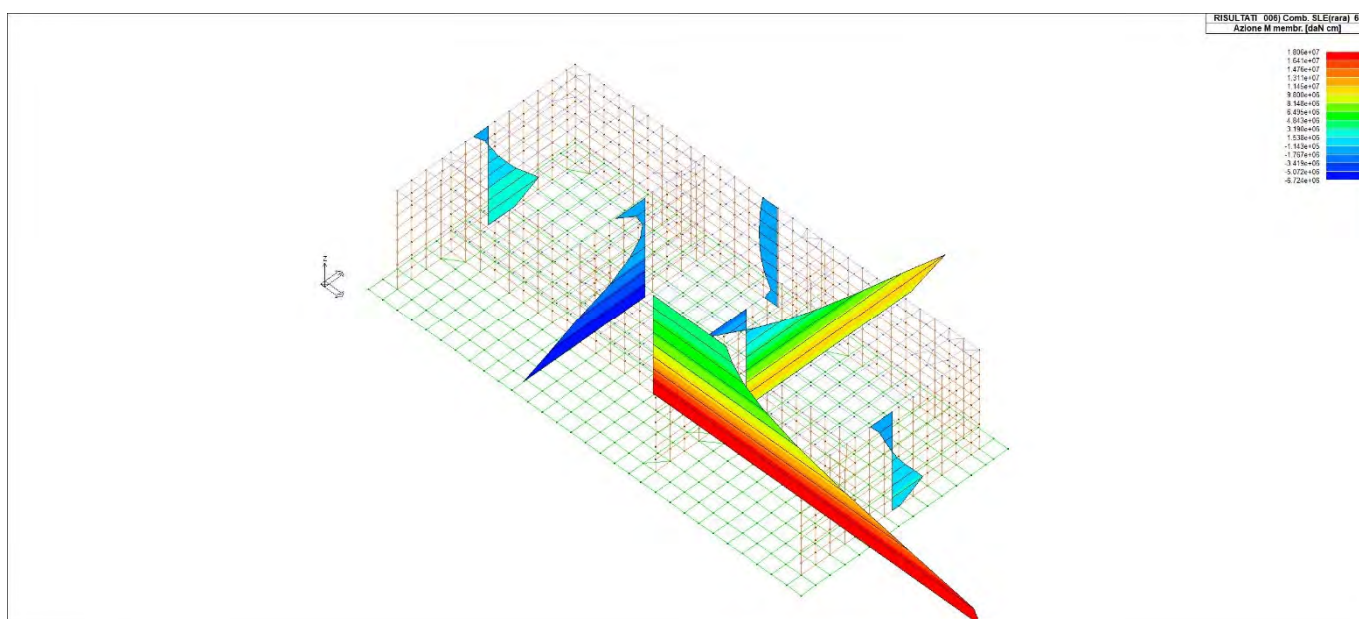


Figura 65 - RIS_M_006_Comb SLERara 6

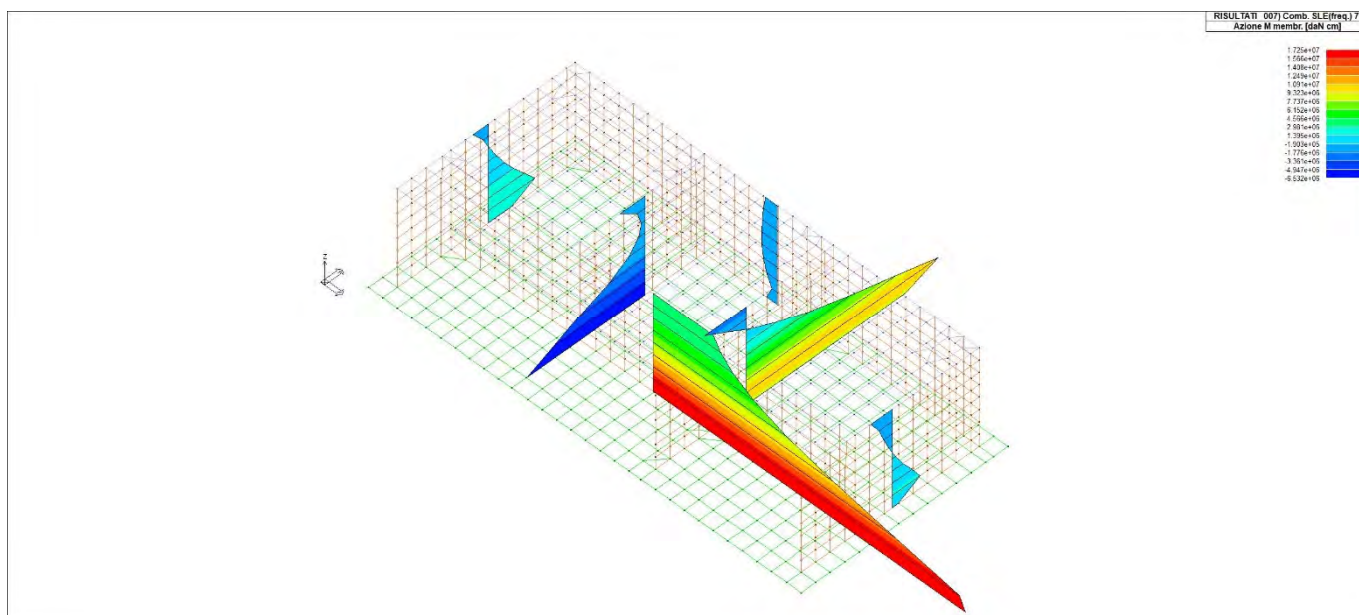


Figura 66 - RIS_M_007_Comb SLEfreq 7

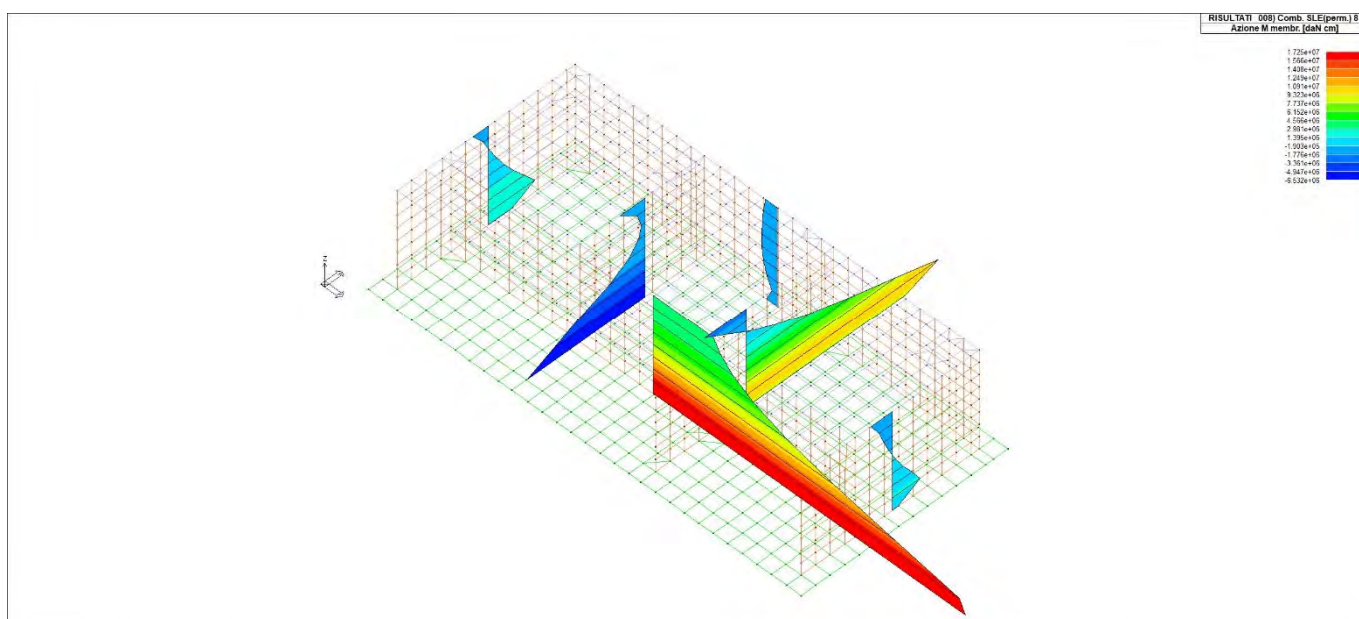


Figura 67 - RIS_M_008_Comb SLEperm 8

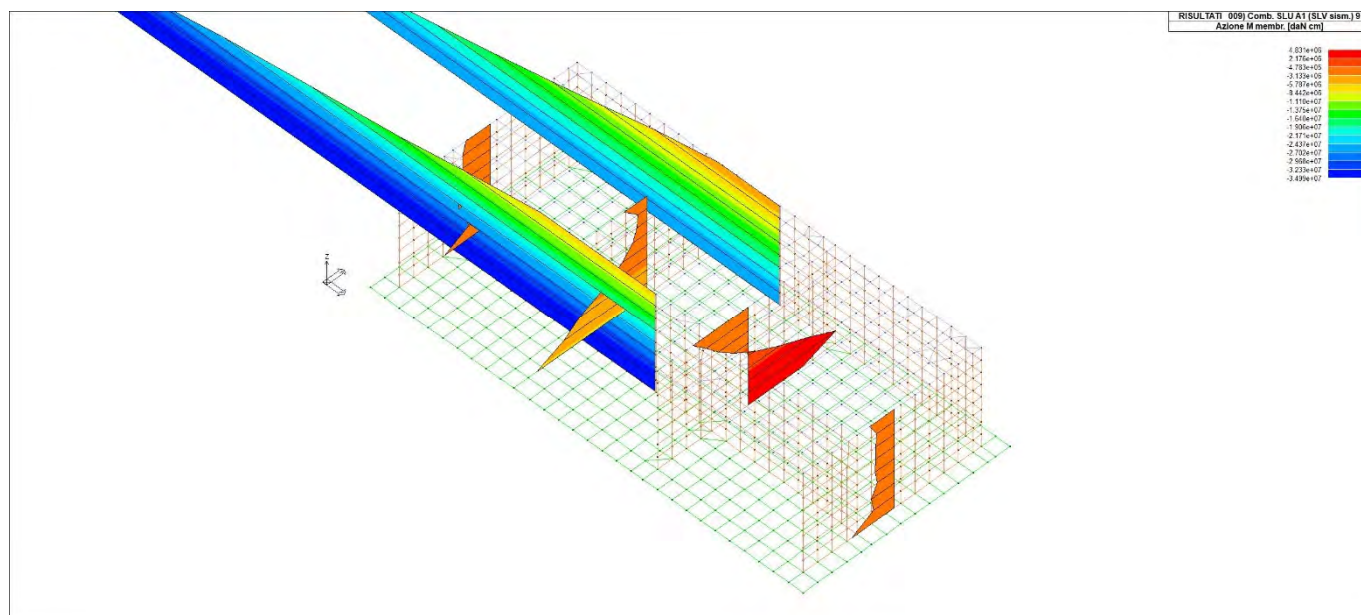


Figura 68 - RIS_M_009_Comb SLU A1 SLV sism 9

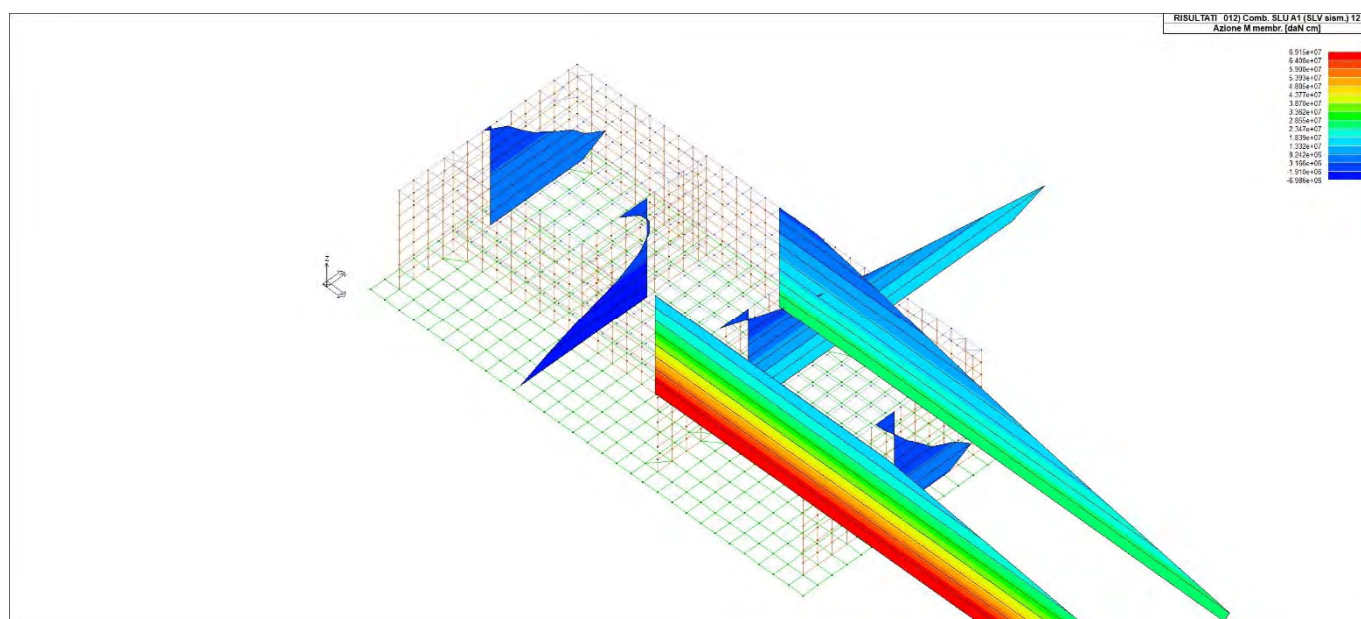


Figura 69 - RIS_M_012_Comb SLU A1 SLV sism 12

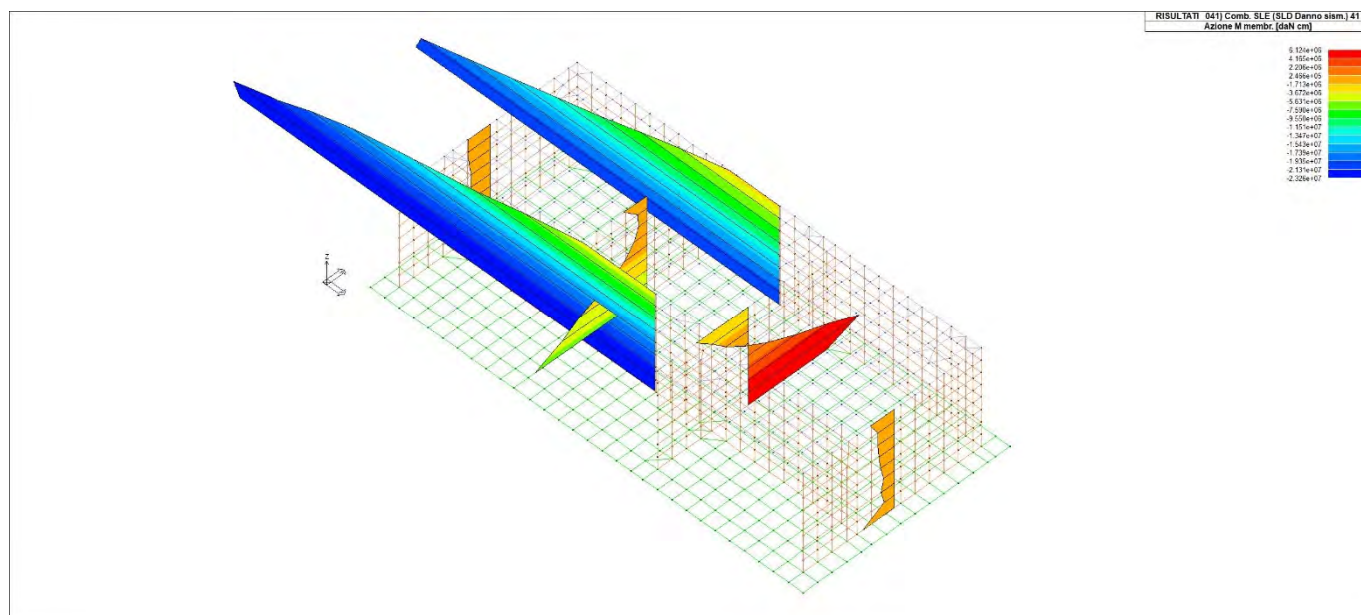


Figura 70 - RIS_M_041_Comb SLE SLD Danno sism 41

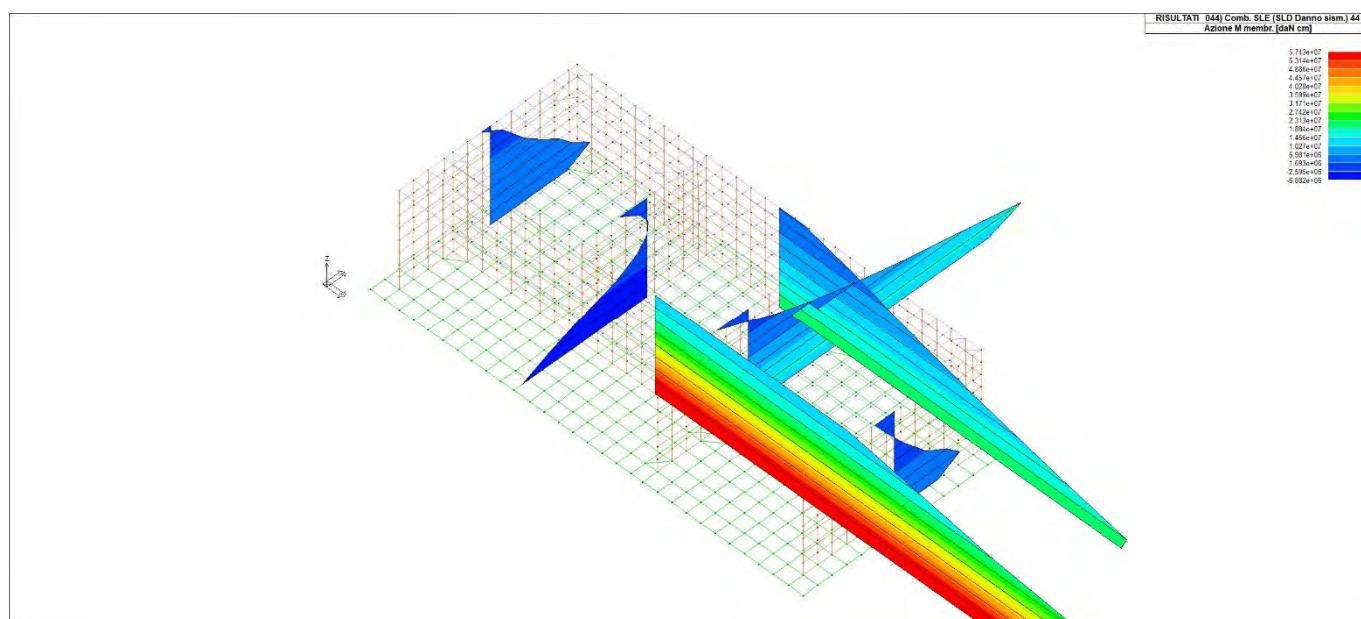


Figura 71 - RIS_M_044_Comb SLE SLD Danno sism 44

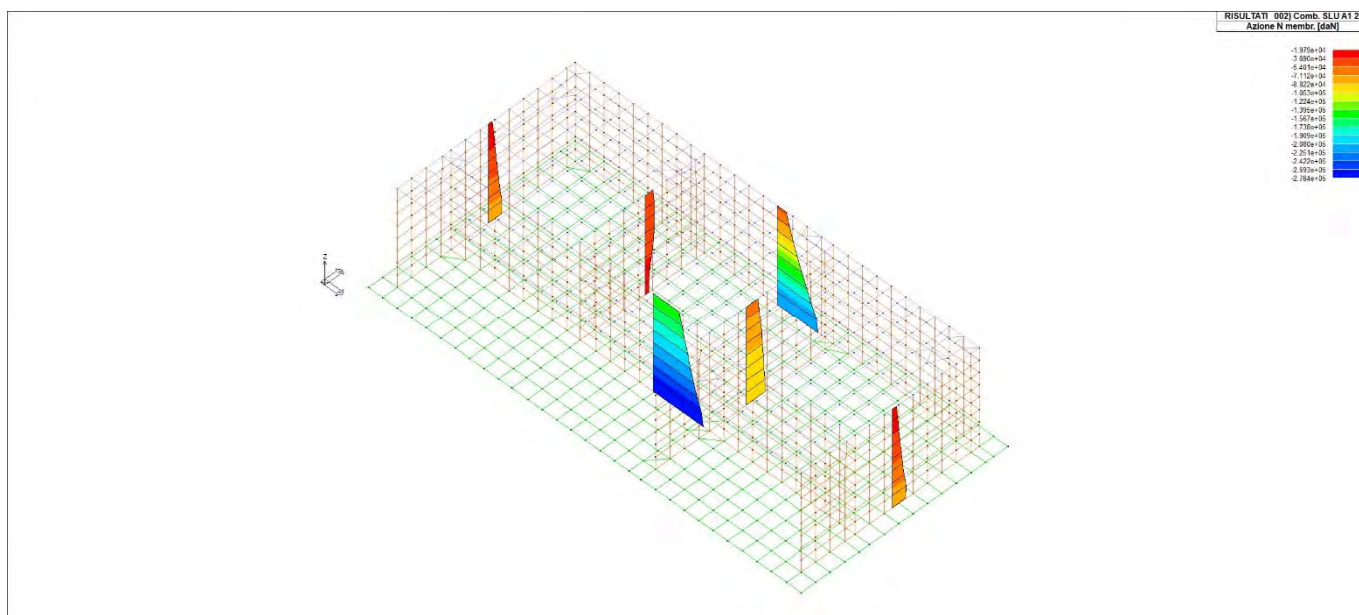


Figura 72 - RIS_N_002_Comb SLU A1 2

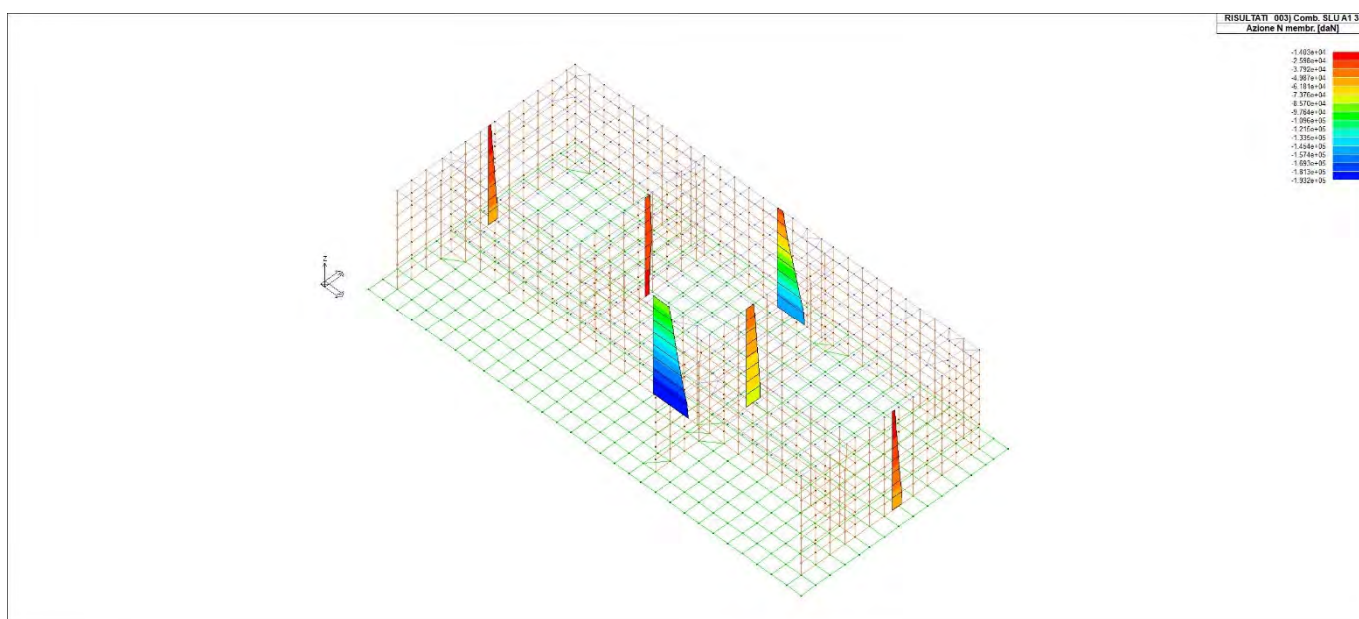


Figura 73 - RIS_N_003_Comb SLU A1 3

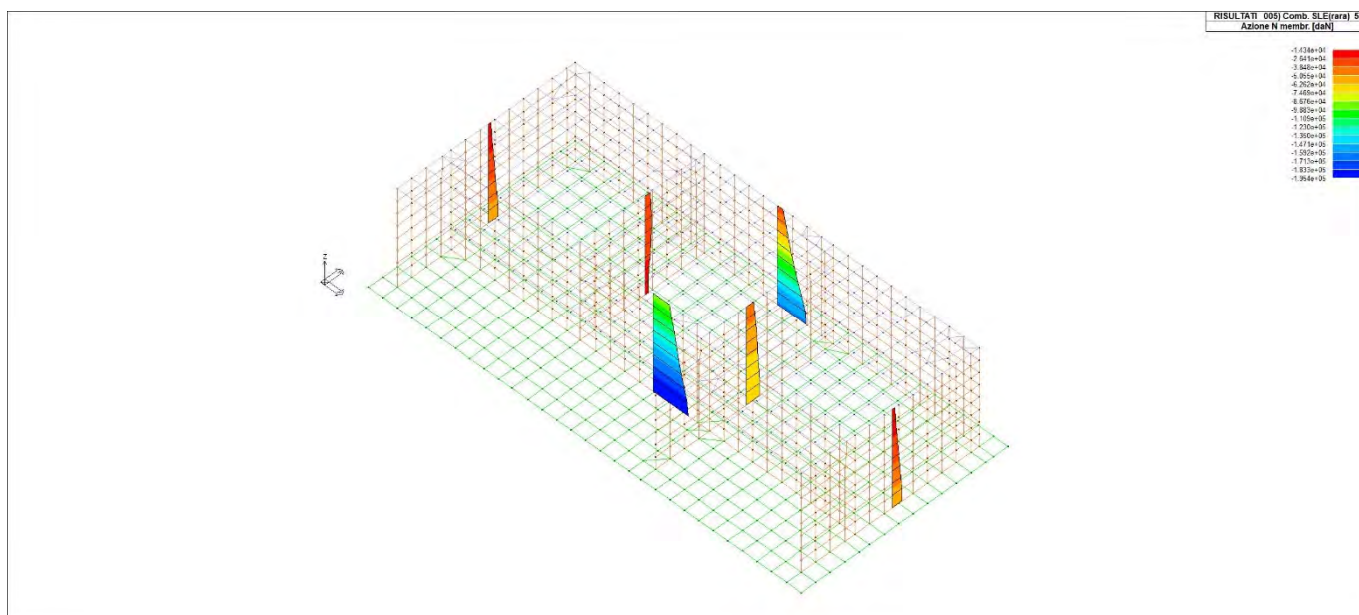


Figura 74 - RIS_N_005_Comb SLerara 5

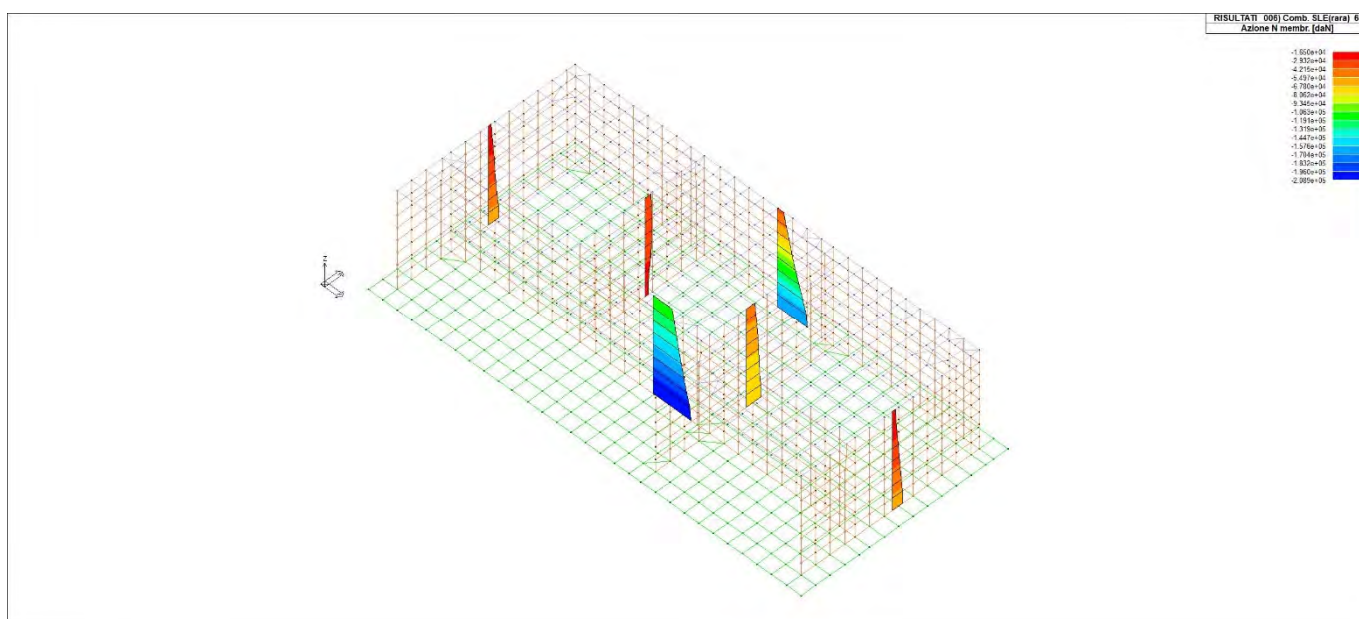


Figura 75 - RIS_N_006_Comb SLErara 6

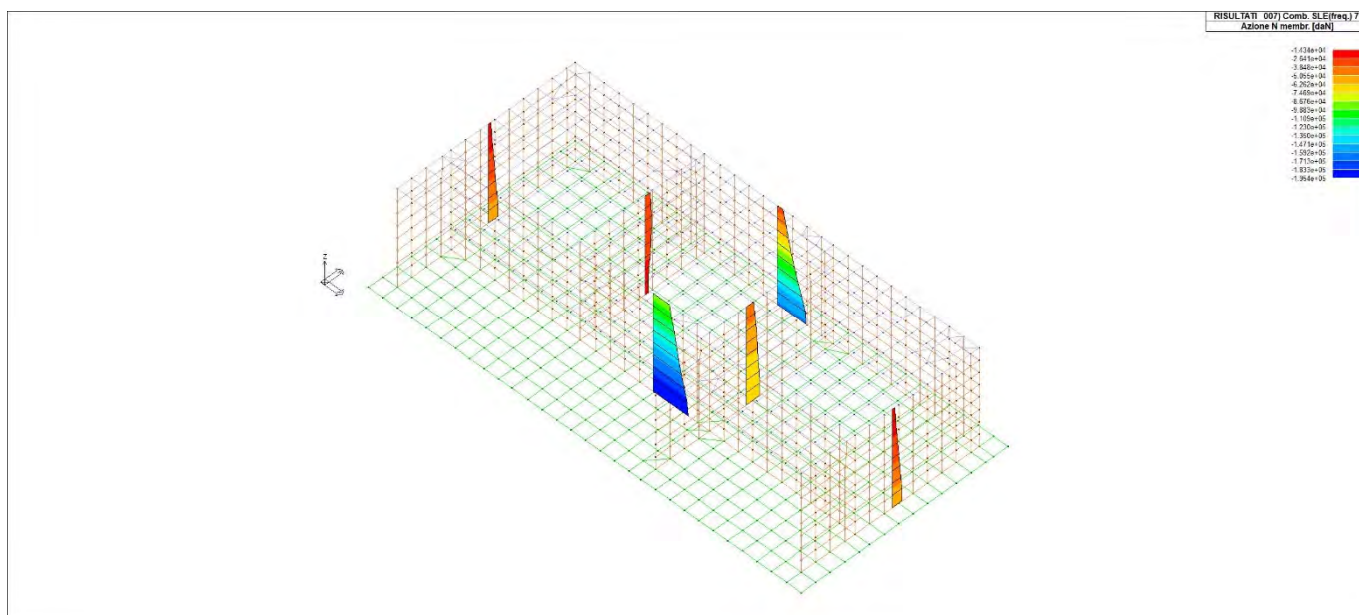


Figura 76 - RIS_N_007_Comb SLEfreq 7

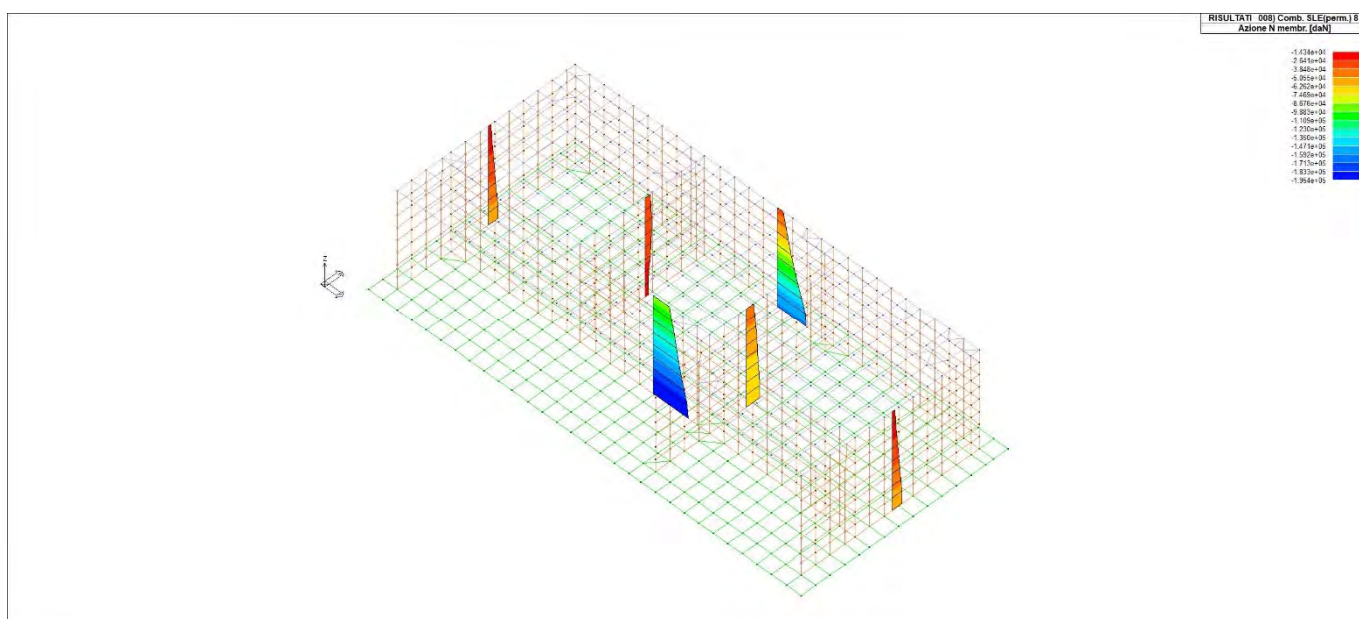


Figura 77 - RIS_N_008_Comb SLEperm 8

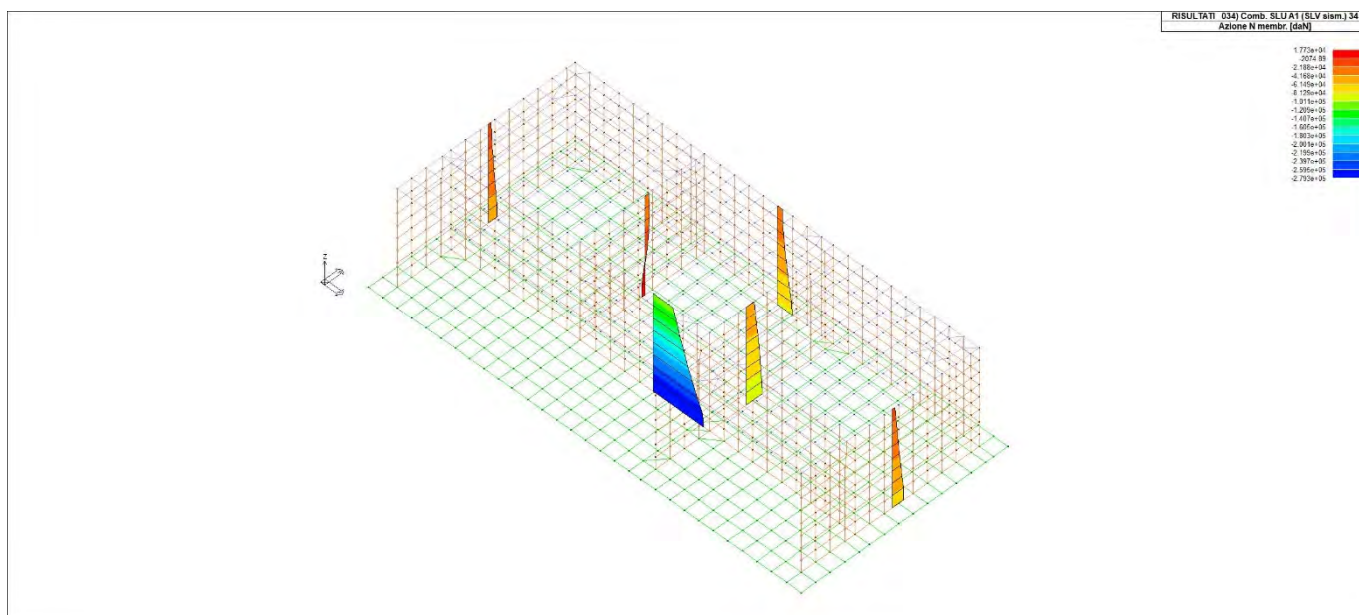


Figura 78 - RIS_N_034_Comb SLU A1 SLV sism 34

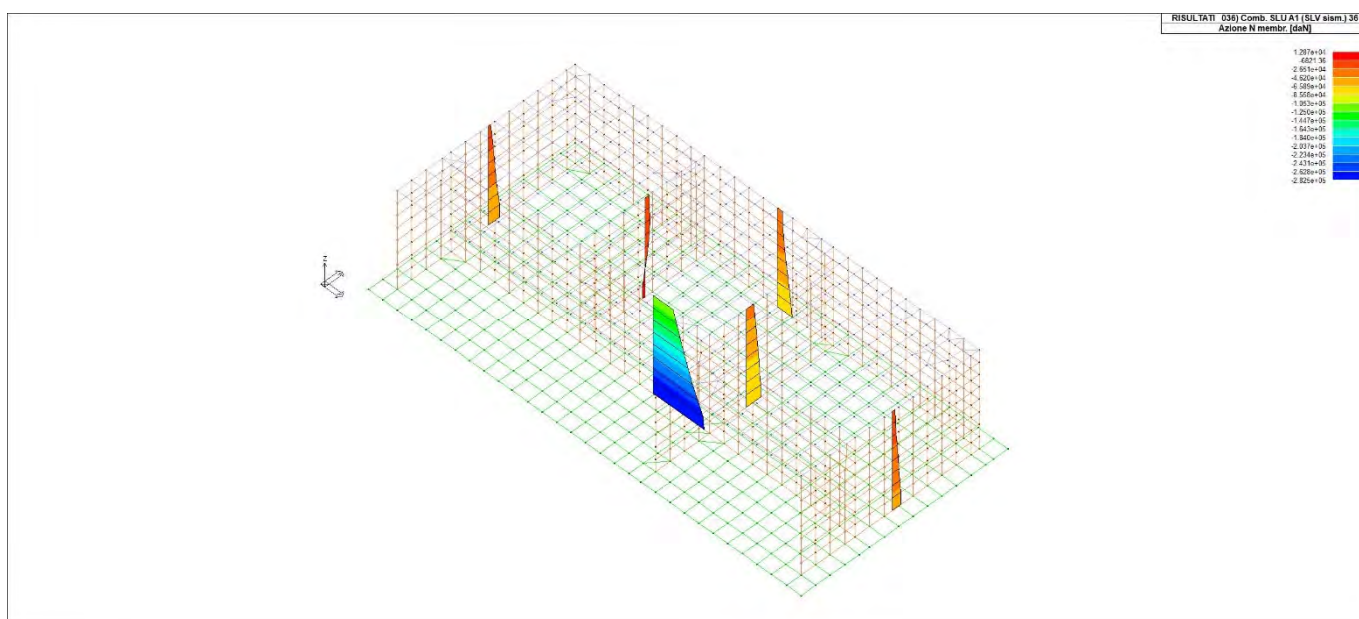


Figura 79 - RIS_N_036_Comb SLU A1 SLV sism 36

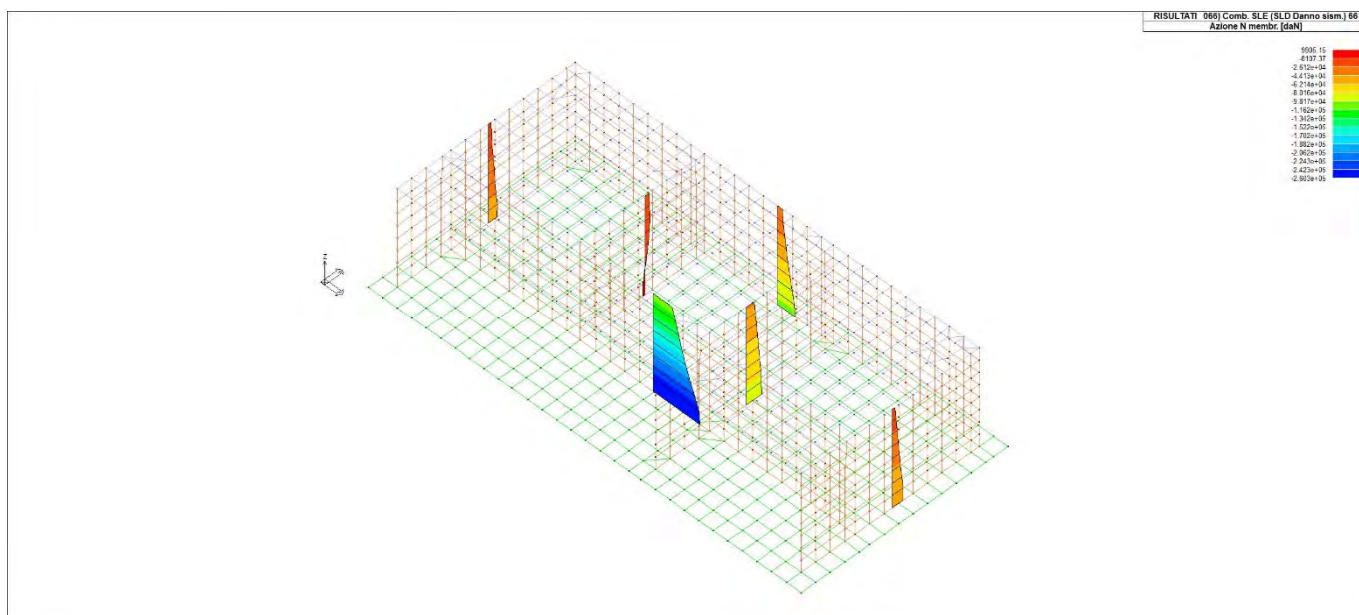


Figura 80 - RIS_N_066_Comb SLE SLD Danno sism 66

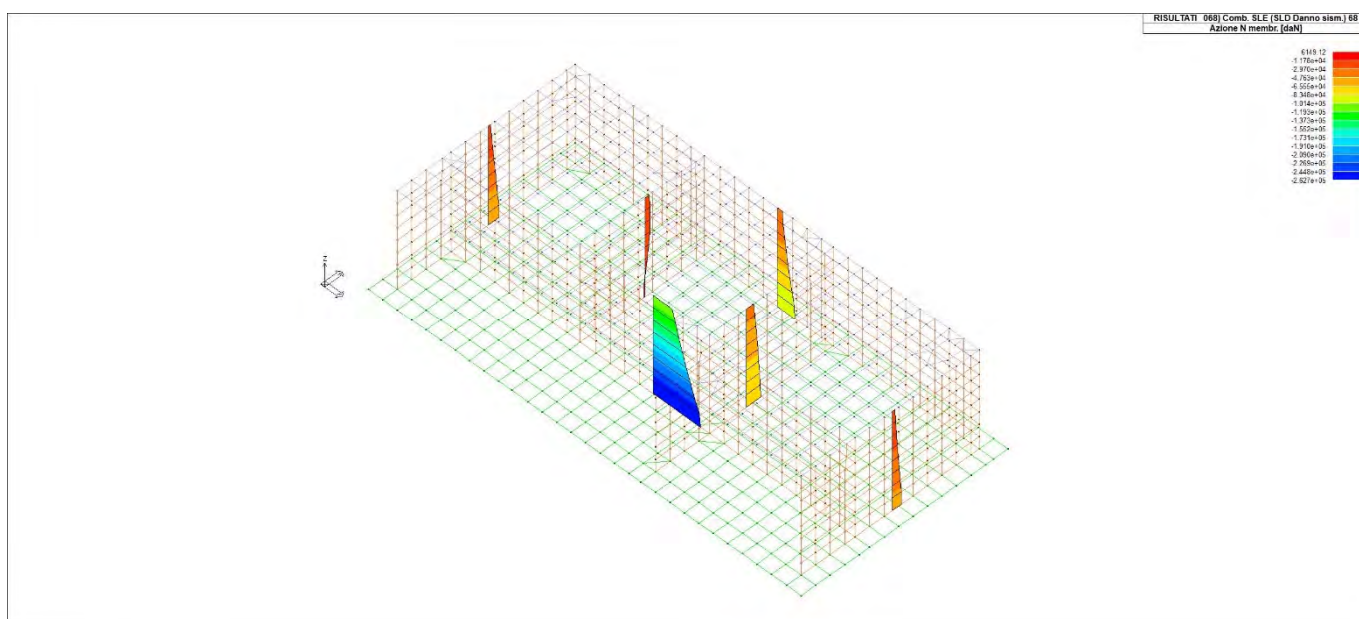


Figura 81 - RIS_N_068_Comb SLE SLD Danno sism 68

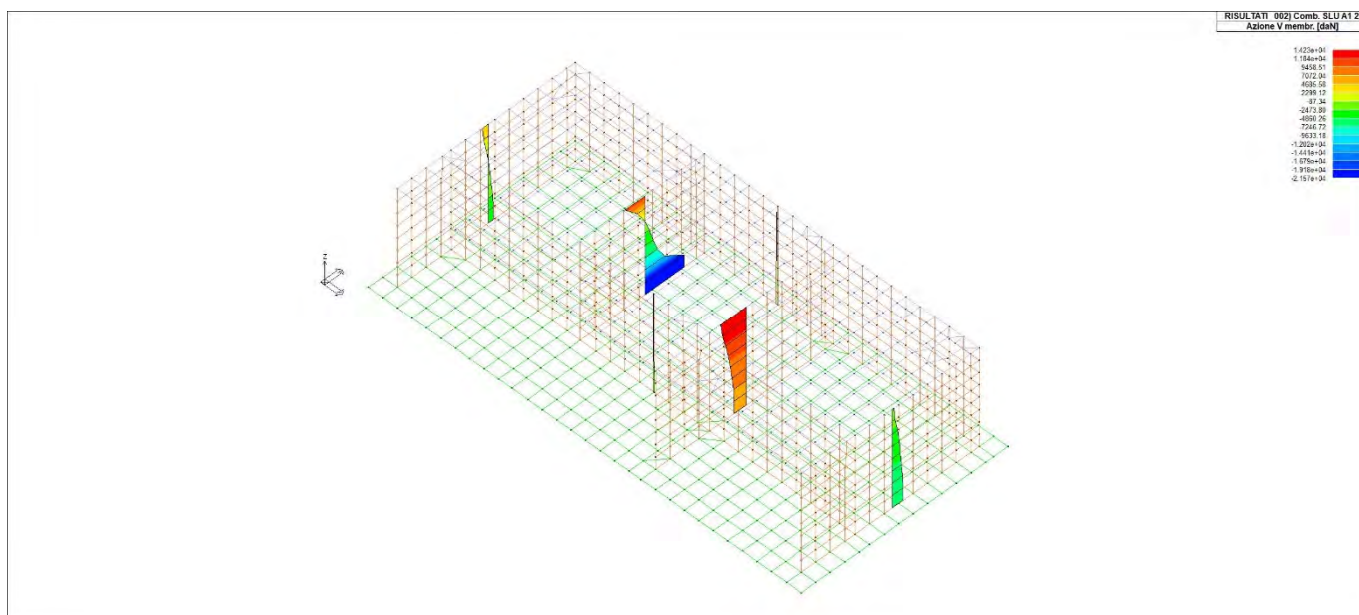


Figura 82 - RIS_V_002_Comb SLU A1 2

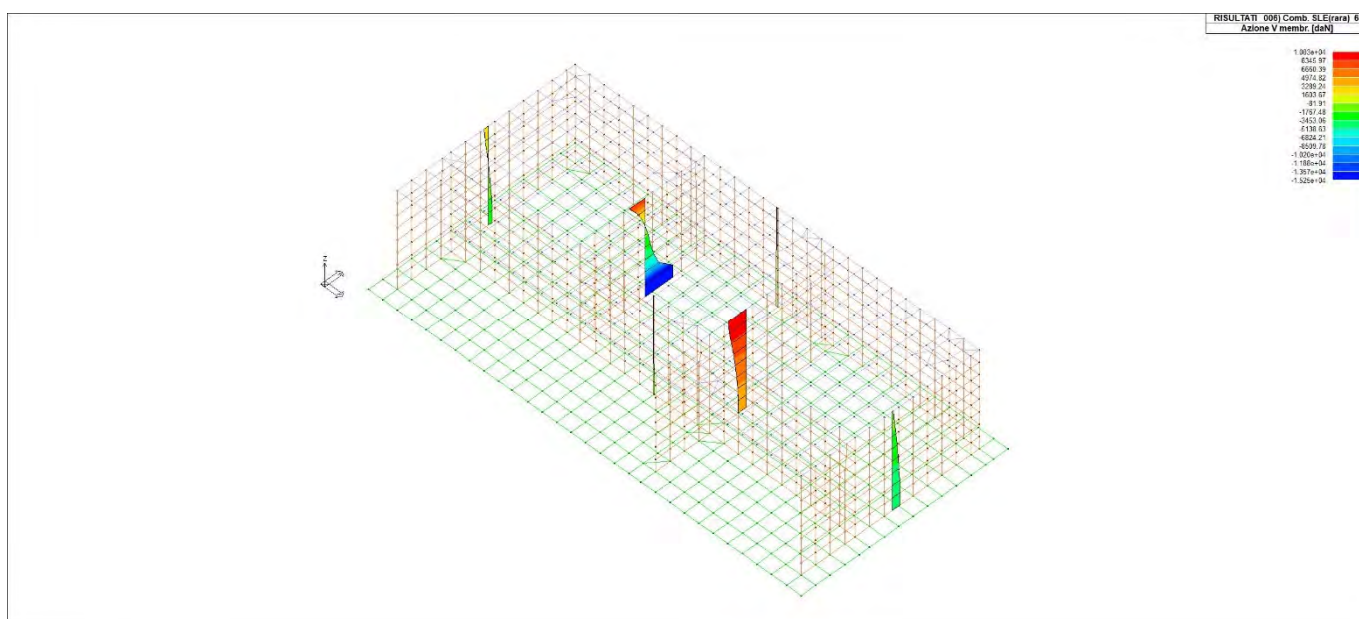


Figura 83 - RIS_V_006_Comb SLErrara 6

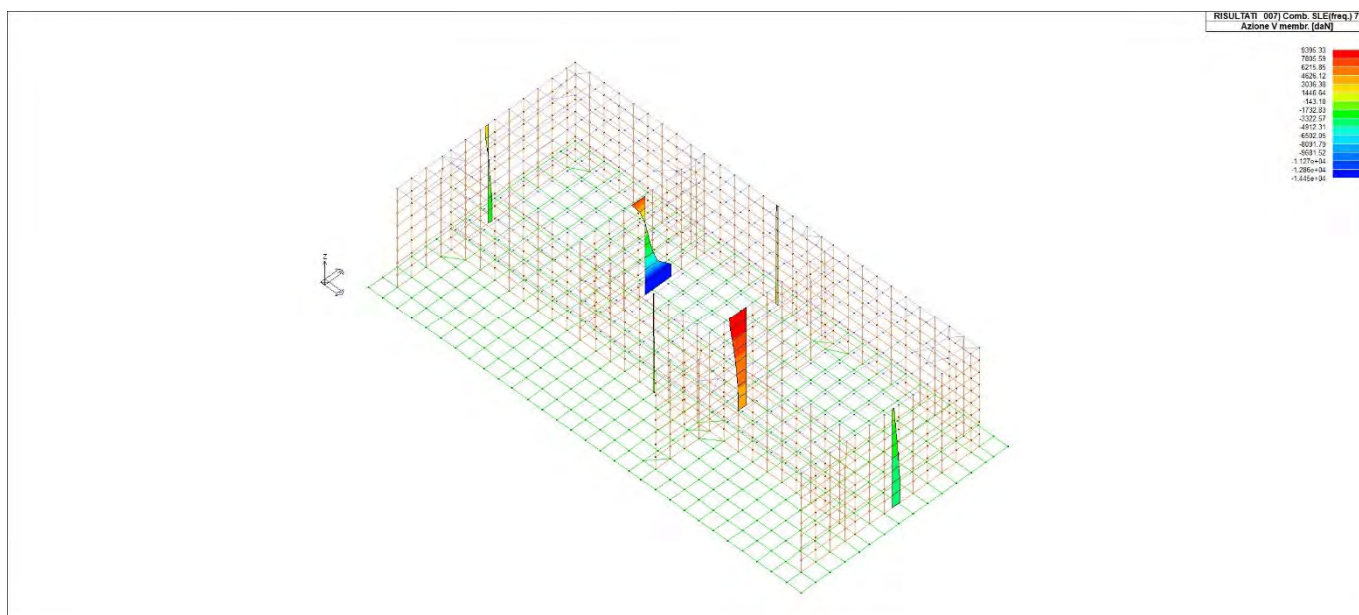


Figura 84 - RIS_V_007_Comb SLEfreq 7

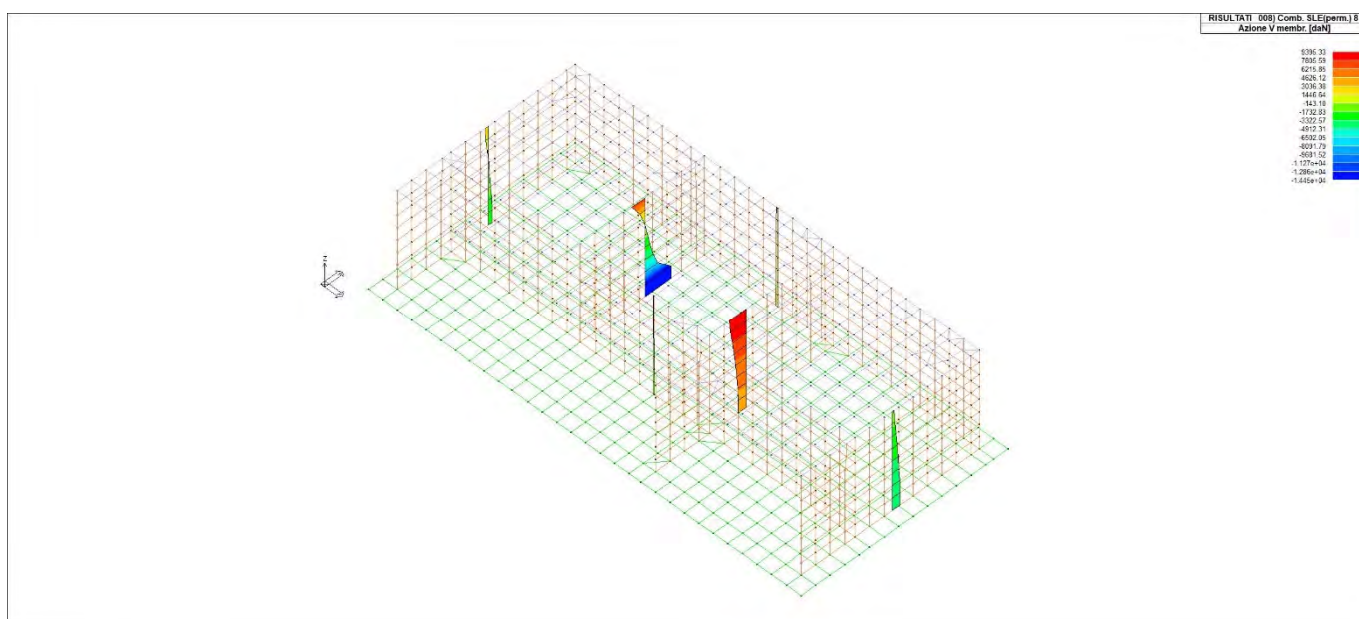


Figura 85 - RIS_V_008_Comb SLEperm 8

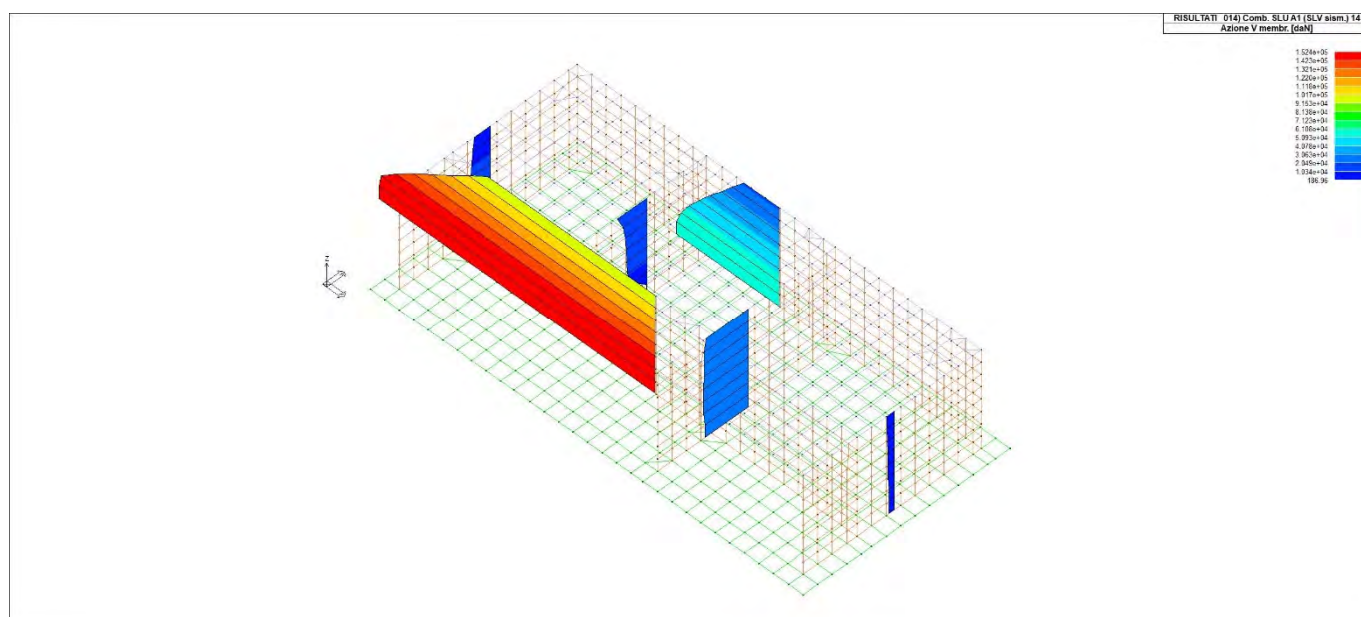


Figura 86 - RIS_V_014_Comb SLU A1 SLV sism 14

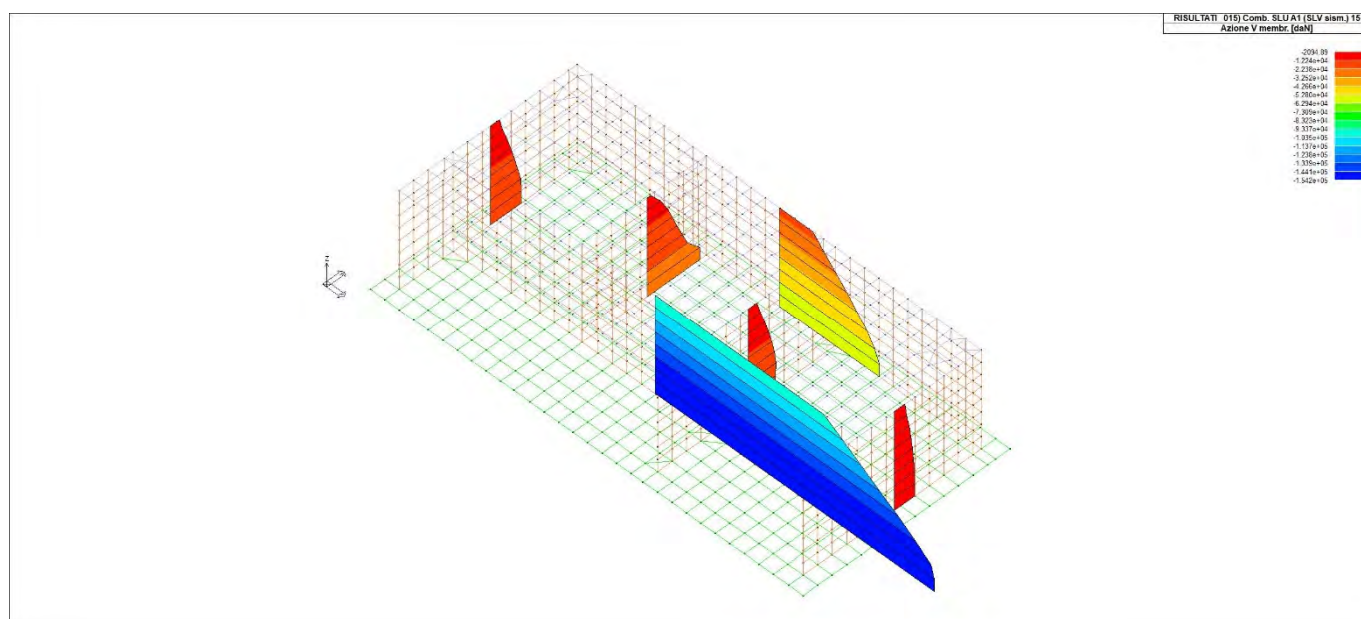


Figura 87 - RIS_V_015_Comb SLU A1 SLV sism 15

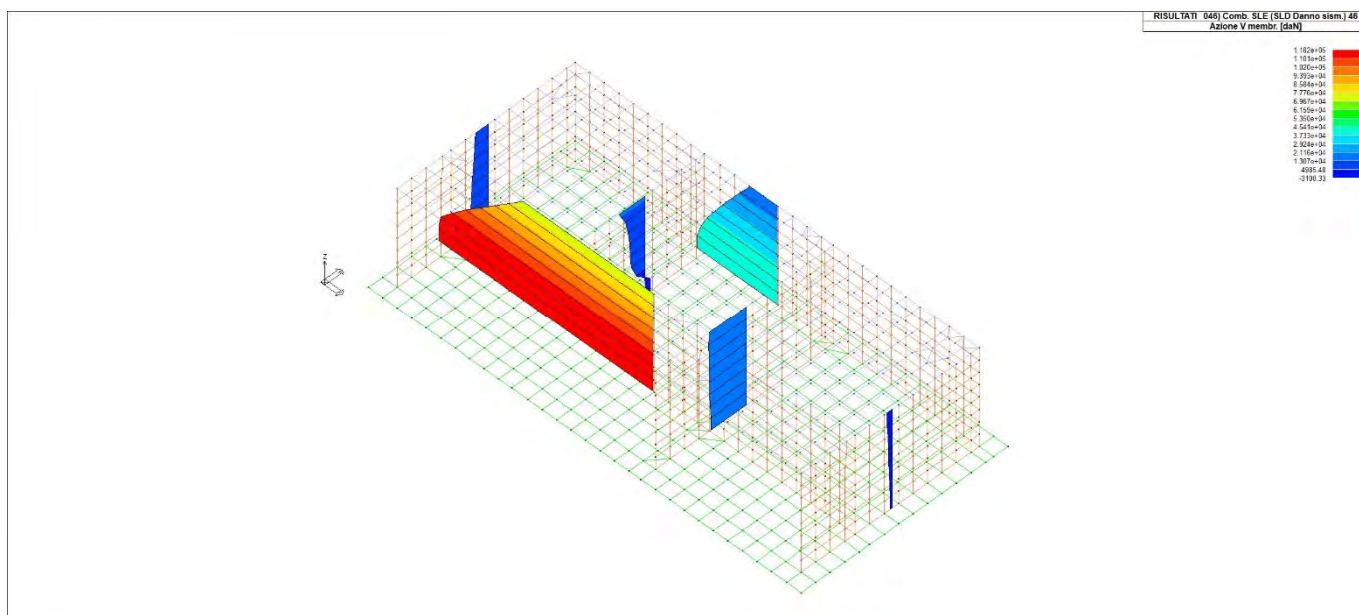


Figura 88 - RIS_V_046_Comb SLE SLD Danno sism 46

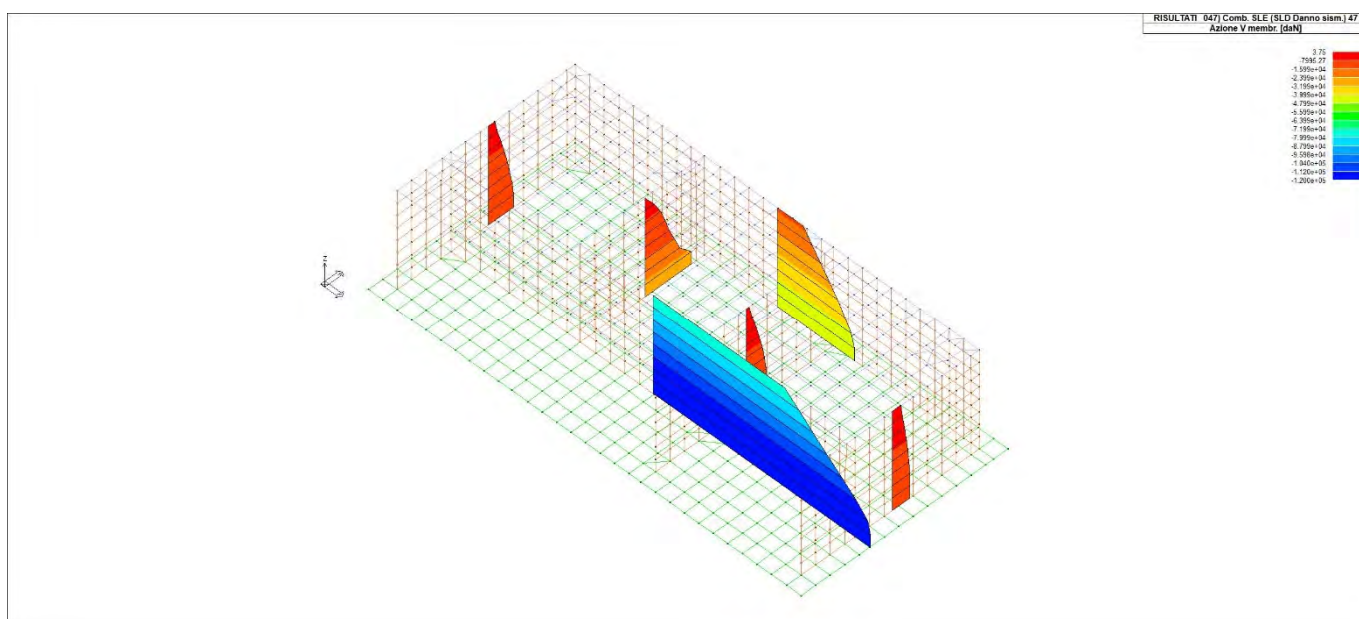


Figura 89 - RIS_V_047_Comb SLE SLD Danno sism 47

Macro	Tipo	Angolo 1-X (gradi)
1	Guscio	0.0

M_G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
1	2	1	35.31	12.86	21.88	26.30	-11.00	49.40	-4532.68	-2162.12	-2321.15	2289.66
1	2	2	8.53	-23.73	8.35	-23.55	2.39	-662.82	-4797.10	-2646.77	-2813.15	2065.47
1	2	3	16.63	-8.29	-2.75	11.09	10.37	1059.08	-3457.38	-1340.93	-1057.37	2253.77
1	2	4	1.13	-21.21	-21.10	1.02	1.51	3905.50	-2681.78	1445.52	-221.81	3186.39



M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	2	5	-0.62	-20.44	-20.02	-1.04	-2.87	5144.49	-1783.63	3201.18	159.68	3112.40	
1	2	6	-0.70	-13.74	-12.57	-1.87	-3.73	5175.74	-1182.01	3699.37	294.36	2684.54	
1	2	7	0.21	-6.87	-4.80	-1.85	-3.22	4720.51	-694.96	3699.98	325.57	2117.83	
1	2	8	2.73	-2.97	1.34	-1.57	-2.45	4113.49	-293.62	3508.82	311.05	1516.32	
1	2	9	6.36	-1.78	5.88	-1.30	-1.92	3560.02	32.00	3301.52	290.50	919.33	
1	2	10	9.53	-1.46	9.28	-1.21	-1.65	3211.06	237.45	3170.96	277.55	342.97	
1	2	11	12.62	-1.31	12.45	-1.15	-1.51	3154.49	261.93	3139.54	276.88	-207.43	
1	2	12	15.66	-1.25	15.54	-1.14	-1.39	3416.39	69.81	3205.27	280.93	-813.61	
1	2	13	18.07	-1.36	18.00	-1.29	-1.13	3865.39	-257.36	3319.08	288.94	-1397.79	
1	2	14	19.49	-1.59	19.47	-1.57	-0.61	4309.41	-668.46	3355.34	285.60	-1959.33	
1	2	15	19.45	-1.79	19.45	-1.79	-9.95e-04	4546.31	-1173.81	3126.00	246.51	-2471.25	
1	2	16	18.62	-1.50	18.62	-1.50	-9.19e-02	4262.63	-1850.34	2299.88	112.42	-2854.10	
1	2	17	21.25	-0.10	20.93	0.21	-2.57	3055.49	-2820.28	397.71	-162.50	-2924.50	
1	2	18	39.91	1.48	36.81	4.58	-10.47	502.30	-5040.62	-3606.53	-931.79	-2427.43	
1	2	19	89.10	10.88	82.10	17.89	-22.34	-1588.65	-8816.55	-8756.55	-1648.65	-655.81	
1	2	20	94.44	-43.50	94.44	-43.50	0.34	-4281.23	-1.140e+04	-1.135e+04	-4334.73	-614.93	
1	2	21	79.13	11.09	70.81	19.41	22.30	-1531.48	-7662.98	-7619.72	-1574.74	-513.19	
1	2	22	28.99	-1.14	24.86	2.98	10.36	103.72	-2610.53	-1961.92	-544.89	1157.49	
1	2	23	10.15	-1.73	8.89	-0.47	3.66	2738.29	-566.65	2065.06	106.58	1331.07	
1	2	24	4.21	-2.80	3.49	-2.09	2.12	4279.43	182.96	4054.79	407.60	932.61	
1	2	25	1.21	-4.46	-0.82	-2.42	2.72	5030.21	541.65	5017.50	554.36	238.51	
1	2	26	-0.34	-9.15	-7.25	-2.24	3.63	5315.05	502.18	5250.94	566.30	-551.78	
1	2	27	-0.53	-15.43	-14.65	-1.32	3.32	5112.80	102.88	4772.73	442.95	-1260.18	
1	2	28	0.51	-17.60	-17.59	0.51	-0.17	3827.06	-648.21	3080.79	98.06	-1668.19	
1	2	29	12.99	-7.38	-3.71	9.32	-7.84	1141.76	-1433.44	305.50	-597.19	-1205.90	
1	2	30	5.97	-18.91	5.82	-18.75	-1.95	-435.36	-3095.07	-1452.91	-2077.53	-1292.66	
1	2	31	27.91	10.00	17.13	20.77	8.77	110.18	-3192.29	-1407.99	-1674.12	-1645.86	
1	2	32	32.37	-3.80	0.71	27.87	-11.95	-921.94	-5266.33	-2760.84	-3427.43	2146.47	
1	2	33	9.06	-3.23	-0.52	6.35	5.09	-712.80	-6121.81	-3160.69	-3673.91	2692.31	
1	2	34	24.94	-6.46	1.45	17.03	13.63	1963.52	-4642.88	-1063.84	-1615.53	3291.67	
1	2	35	7.86	-2.44	-2.36	7.78	0.89	4600.51	-3107.23	1860.34	-367.05	3689.45	
1	2	36	6.18	-3.88	-0.20	2.51	-4.84	5265.09	-2341.13	2868.46	55.50	3533.47	
1	2	37	8.24	-4.94	3.61	-0.31	-6.29	5065.86	-1690.06	3189.10	186.70	3026.06	
1	2	38	10.87	-3.85	8.23	-1.21	-5.65	4431.24	-1155.76	3105.48	170.00	2376.84	
1	2	39	14.07	-2.36	12.69	-0.98	-4.55	3697.87	-702.01	2893.91	101.96	1700.29	
1	2	40	17.45	-1.29	16.66	-0.49	-3.77	3047.21	-308.75	2690.43	48.03	1034.44	
1	2	41	20.63	-0.86	20.11	-0.33	-3.32	2619.57	-34.65	2561.79	23.13	387.33	
1	2	42	23.53	-0.65	23.16	-0.27	-2.99	2556.02	1.57	2535.36	22.23	-228.79	
1	2	43	26.31	-0.48	26.03	-0.21	-2.70	2902.95	-250.72	2609.66	42.57	-915.92	
1	2	44	28.85	-0.60	28.66	-0.41	-2.36	3459.81	-651.06	2734.47	74.28	-1567.06	
1	2	45	31.08	-0.93	30.99	-0.84	-1.73	4030.18	-1113.90	2808.40	107.87	-2189.11	
1	2	46	33.28	-0.77	33.25	-0.74	-1.01	4428.39	-1654.54	2669.34	104.51	-2757.89	
1	2	47	35.99	0.87	35.94	0.92	-1.33	4356.87	-2333.04	2047.50	-23.66	-3180.61	
1	2	48	40.82	4.47	40.16	5.13	-4.83	3364.95	-3280.40	487.73	-403.18	-3292.68	
1	2	49	50.96	7.17	45.79	12.34	-14.12	931.85	-4672.35	-2511.84	-1228.66	-2727.66	
1	2	50	72.58	0.80	50.00	23.37	-33.33	-3163.95	-8985.53	-8481.70	-3667.79	-1636.84	
1	2	51	49.11	-9.94	49.11	-9.94	-2.17e-02	-4932.26	-1.169e+04	-1.158e+04	-5042.48	-855.88	
1	2	52	69.00	2.13	49.85	21.28	30.23	-2548.73	-6892.45	-6870.48	-2570.69	308.08	
1	2	53	44.33	3.83	37.62	10.53	15.05	428.05	-2193.17	-1034.87	-730.25	1301.73	
1	2	54	31.46	1.81	29.50	3.78	7.37	2713.74	-771.12	1877.38	65.23	1488.32	
1	2	55	23.24	-1.24	22.11	-0.11	5.12	3862.06	172.65	3542.26	492.44	1038.06	
1	2	56	17.52	-3.23	15.80	-1.51	5.72	4344.88	674.20	4326.81	692.27	256.90	
1	2	57	13.11	-4.14	9.85	-0.88	6.75	4656.86	617.06	4552.29	721.63	-641.49	
1	2	58	9.40	-2.95	4.67	1.78	6.00	4720.72	59.95	4210.79	569.88	-1454.86	
1	2	59	6.86	0.68	0.97	6.56	1.32	4116.22	-807.35	3157.01	151.86	-1950.04	
1	2	60	19.92	-2.98	2.35	14.59	-9.68	1728.13	-2309.54	347.41	-928.82	-1915.33	
1	2	61	7.19	-1.64	0.11	5.45	-3.52	-649.05	-4119.16	-2035.17	-2733.05	-1699.60	
1	2	62	26.89	-2.58	1.39	22.92	10.06	-838.91	-3781.59	-2085.64	-2534.86	-1454.09	
1	2	63	49.50	-3.36	0.36	45.78	-13.53	262.59	-4800.79	-1294.99	-3243.20	2336.79	
1	2	64	55.60	-2.53	-2.23	55.29	4.21	1047.70	-6041.59	-1844.47	-3149.42	3484.08	
1	2	65	34.56	-7.30	-3.53	30.79	11.98	3337.90	-6081.73	-668.65	-2075.18	4657.01	
1	2	66	17.14	5.41	6.19	16.36	-2.92	4872.44	-4438.29	1531.53	-1097.37	4465.95	
1	2	67	18.85	-1.67	12.10	5.08	-9.64	4905.88	-3587.22	2118.96	-800.31	3987.81	
1	2	68	22.47	-6.32	17.16	-1.01	-11.17	4221.55	-3006.63	2101.95	-887.03	3290.62	
1	2	69	24.86	-6.50	21.28	-2.93	-9.97	3354.96	-2529.27	1921.56	-1095.87	2525.83	
1	2	70	27.21	-4.52	24.85	-2.15	-8.33	2533.20	-2150.41	1701.63	-1318.84	1789.76	
1	2	71	30.09	-2.57	28.32	-0.80	-7.40	1862.36	-1841.40	1499.94	-1478.99	1100.44	
1	2	72	32.92	-2.28	31.55	-0.91	-6.81	1430.85	-1577.81	1369.73	-1516.69	424.45	
1	2	73	35.33	-2.23	34.41	-1.30	-5.82	1365.74	-1524.40	1346.26	-1504.92	-236.46	
1	2	74	37.72	-1.07	37.06	-0.41	-5.02	1738.75	-1753.46	1436.37	-1451.09	-982.10	
1	2	75	40.17	-0.99	39.59	-0.42	-4.82	2343.84	-2102.44	1592.24	-1350.84	-1666.41	
1	2	76	42.84	-2.05	42.40	-1.61	-4.41	3021.63	-2463.84	1728.08	-1170.28	-2328.62	



M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	2	77	45.76	-1.96	45.49	-1.69	-3.58	3628.70	-2919.22	1716.38	-1006.89	-2977.38	
1	2	78	48.47	1.30	48.17	1.60	-3.76	3932.76	-3518.41	1387.23	-972.89	-3533.76	
1	2	79	50.59	8.63	49.26	9.96	-7.37	3505.31	-4321.17	418.67	-1234.53	-3824.94	
1	2	80	56.63	15.75	47.97	24.41	-16.71	1752.52	-5716.34	-1903.53	-2060.29	-3733.61	
1	2	81	76.89	9.73	46.28	40.35	-33.45	-2155.94	-8374.86	-6579.03	-3951.77	-2818.35	
1	2	82	57.18	40.42	47.70	49.90	-8.31	-4662.31	-9820.62	-9633.45	-4849.49	-964.61	
1	2	83	77.72	2.37	43.51	36.58	37.52	-2475.71	-6083.00	-5318.69	-3240.02	1474.09	
1	2	84	56.45	8.90	44.22	21.13	20.78	1033.40	-3128.53	-713.08	-1382.05	2053.91	
1	2	85	45.86	2.81	41.41	7.27	13.11	2621.55	-1652.49	1440.99	-471.93	1911.03	
1	2	86	39.86	-3.51	36.90	-0.56	10.93	3013.09	-578.87	2485.59	-51.37	1271.42	
1	2	87	34.78	-7.03	31.07	-3.32	11.89	3027.91	107.84	2990.60	145.15	327.97	
1	2	88	30.07	-7.42	24.60	-1.95	13.23	3359.51	43.67	3186.95	216.23	-736.47	
1	2	89	24.77	-3.51	17.61	3.65	12.30	3934.91	-661.77	3120.90	152.23	-1754.74	
1	2	90	19.06	5.54	10.46	14.14	6.51	4013.86	-1744.81	2495.88	-226.83	-2537.18	
1	2	91	28.75	-0.67	1.17	26.90	-7.13	2635.83	-3540.60	328.87	-1233.64	-2987.76	
1	2	92	46.01	-0.15	-5.75e-02	45.91	-2.11	560.85	-4131.49	-1261.40	-2309.23	-2286.93	
1	2	93	42.69	-2.93	0.56	39.19	12.14	-172.18	-3436.27	-1158.02	-2450.43	-1498.66	
1	2	94	72.01	-6.20	-4.30	70.11	-12.04	1993.97	-3281.78	-96.50	-1191.31	2580.45	
1	2	95	82.53	-2.22	-2.18	82.49	-1.84	2702.17	-4235.03	-330.87	-1201.99	3441.14	
1	2	96	49.18	-7.94e-03	-2.79e-03	49.18	0.50	3427.11	-5915.96	-172.37	-2316.48	4546.86	
1	2	97	31.89	5.11	11.90	25.10	-11.64	3568.35	-5762.93	608.70	-2803.28	4342.55	
1	2	98	32.24	-3.99	21.37	6.88	-16.60	2886.90	-5698.01	727.07	-3538.18	3725.19	
1	2	99	35.41	-9.62	28.47	-2.68	-16.26	1945.11	-5668.61	517.89	-4241.38	2971.45	
1	2	100	37.54	-10.04	33.16	-5.66	-13.75	1132.60	-5656.51	289.70	-4813.61	2238.76	
1	2	101	39.61	-6.83	36.57	-3.79	-11.48	553.22	-5646.34	125.71	-5218.83	1570.86	
1	2	102	43.30	-2.82	40.38	9.48e-02	-11.23	125.95	-5678.12	-50.16	-5502.00	995.57	
1	2	103	47.13	-4.07	44.44	-1.37	-11.44	-210.25	-5679.20	-244.86	-5644.59	433.65	
1	2	104	48.16	-7.63	46.90	-6.36	-8.32	-281.27	-5547.15	-288.80	-5539.62	-198.97	
1	2	105	49.59	-0.46	48.94	0.19	-5.67	-3.60	-5639.61	-152.91	-5490.30	-905.13	
1	2	106	50.74	0.18	49.81	1.11	-6.79	472.32	-5571.99	85.73	-5185.39	-1478.93	
1	2	107	52.95	-3.37	51.91	-2.33	-7.60	981.14	-5512.67	243.87	-4775.41	-2060.13	
1	2	108	55.89	-3.72	55.11	-2.94	-6.78	1545.04	-5531.62	303.59	-4290.18	-2691.48	
1	2	109	58.24	1.15	57.60	1.80	-6.05	2075.98	-5598.38	220.72	-3743.11	-3285.72	
1	2	110	58.97	12.71	57.78	13.90	-7.31	2258.68	-5758.51	-261.57	-3238.26	-3722.05	
1	2	111	61.67	28.25	54.94	34.98	-13.40	1490.04	-6100.89	-1631.48	-2979.37	-3735.16	
1	2	112	81.70	26.60	47.64	60.66	-26.77	-442.94	-6332.66	-3990.10	-2785.50	-2882.61	
1	2	113	89.32	46.39	46.66	89.06	3.35	-2604.79	-5335.14	-5195.48	-2744.45	-601.51	
1	2	114	85.62	17.56	47.81	55.38	33.82	-1283.16	-4865.11	-3459.52	-2688.75	1749.02	
1	2	115	65.42	17.43	52.51	30.34	21.28	739.86	-4094.87	-927.38	-2427.63	2298.04	
1	2	116	57.52	4.03	51.93	9.62	16.36	1449.99	-3467.89	427.39	-2445.29	1995.83	
1	2	117	53.51	-6.56	48.63	-1.68	16.41	1375.06	-3018.25	965.87	-2609.06	1276.82	
1	2	118	49.06	-11.78	42.92	-5.65	18.33	1222.45	-2737.37	1190.64	-2705.57	353.45	
1	2	119	44.43	-12.21	35.81	-3.59	20.34	1455.00	-2703.72	1345.84	-2594.56	-664.87	
1	2	120	39.45	-7.28	27.13	5.05	20.59	2102.96	-2926.58	1451.61	-2275.23	-1688.71	
1	2	121	35.43	2.81	16.51	21.73	16.10	2720.62	-3318.44	1272.62	-1870.44	-2578.34	
1	2	122	45.20	4.40	4.70	44.90	3.49	2609.51	-3749.07	391.59	-1531.15	-3030.45	
1	2	123	71.32	0.17	0.31	71.17	3.23	1731.11	-2942.46	-214.07	-997.28	-2303.74	
1	2	124	64.17	-4.65	-2.61	62.13	11.67	1187.28	-2269.95	-204.16	-878.51	-1695.41	
1	2	125	90.01	-4.11	-3.46	89.35	-7.83	2768.74	-1597.43	733.30	438.01	2178.09	
1	2	126	97.00	-5.67	-5.04	96.37	-8.02	2079.91	-3201.43	464.26	-1585.79	2433.61	
1	2	127	71.05	-1.35	1.12	68.58	-13.14	2073.44	-5277.06	64.29	-3267.91	3275.91	
1	2	128	47.78	-2.09	15.75	29.94	-23.90	960.76	-7760.56	-516.33	-6283.46	3271.15	
1	2	129	45.08	-9.86	29.14	6.08	-24.94	-99.42	-9417.06	-1032.98	-8483.51	2797.68	
1	2	130	46.56	-14.64	37.54	-5.61	-21.70	-862.82	-1.062e+04	-1435.38	-1.005e+04	2293.57	
1	2	131	48.44	-14.39	43.08	-9.02	-17.56	-1359.98	-1.133e+04	-1690.18	-1.100e+04	1784.07	
1	2	132	50.56	-9.68	46.92	-6.04	-14.35	-1625.68	-1.163e+04	-1791.18	-1.147e+04	1276.15	
1	2	133	56.81	-0.93	52.23	3.65	-15.61	-1811.83	-1.174e+04	-1871.91	-1.168e+04	770.07	
1	2	134	66.93	-3.24	61.05	2.64	-19.45	-2187.78	-1.206e+04	-2204.32	-1.204e+04	403.80	
1	2	135	63.68	-25.78	62.47	-24.57	-10.33	-2461.02	-1.246e+04	-2462.74	-1.246e+04	-131.27	
1	2	136	63.52	6.06	63.45	6.13	-1.99	-2013.51	-1.178e+04	-2065.20	-1.173e+04	-708.77	
1	2	137	58.76	4.34	57.78	5.32	-7.24	-1578.72	-1.130e+04	-1704.76	-1.117e+04	-1099.60	
1	2	138	59.29	-4.83	57.63	-3.17	-10.19	-1327.21	-1.096e+04	-1605.40	-1.068e+04	-1613.13	
1	2	139	61.65	-5.47	60.24	-4.06	-9.62	-995.34	-1.037e+04	-1490.22	-9872.15	-2095.94	
1	2	140	64.39	6.99e-02	63.23	1.23	-8.58	-534.65	-9381.34	-1326.69	-8589.30	-2525.79	
1	2	141	66.78	13.65	65.61	14.81	-7.78	-96.96	-8033.12	-1284.33	-6845.75	-2830.78	
1	2	142	67.83	37.25	64.37	40.71	-9.69	63.82	-6404.41	-1580.69	-4759.90	-2816.50	
1	2	143	95.56	54.14	62.99	86.71	-16.98	-437.87	-4020.40	-1807.12	-2651.15	-1740.84	
1	2	144	107.26	60.26	62.46	105.05	9.94	-1670.98	-2444.31	-1958.76	-2156.54	-373.81	
1	2	145	98.17	38.33	61.20	75.30	29.08	-1113.79	-3336.22	-1785.61	-2664.40	1020.65	
1	2	146	72.18	23.84	61.77	34.24	19.87	-611.41	-5205.90	-1279.36	-4537.95	1619.48	
1	2	147	68.04	2.82	61.58	9.27	19.48	-589.00	-6585.79	-930.91	-6243.88	1390.49	
1	2	148	63.58	-10.55	56.53	-3.51	21.75	-790.47	-7624.31	-905.98	-7508.81	880.93	



M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	2	149	59.00	-17.08	50.10	-8.18	24.46	-904.53	-8143.20	-913.34	-8134.39	252.44	
1	2	150	55.16	-18.11	42.91	-5.87	27.34	-790.23	-8047.20	-815.44	-8021.98	-427.03	
1	2	151	52.15	-13.95	33.79	4.41	29.61	-382.07	-7308.89	-570.65	-7120.32	-1127.23	
1	2	152	52.11	-4.85	20.88	26.38	28.35	338.44	-5943.16	-193.81	-5410.90	-1749.32	
1	2	153	66.42	0.96	5.60	61.78	16.81	1165.49	-4114.83	162.56	-3111.90	-2071.21	
1	2	154	95.17	-0.79	-0.13	94.52	7.90	1508.47	-1861.69	378.55	-731.76	-1591.00	
1	2	155	80.45	-4.45	-3.60	79.60	8.46	1555.17	-855.30	429.53	270.35	-1202.60	
1	2	156	96.75	-7.17	-7.09	96.67	-2.80	1705.15	32.01	934.11	803.05	834.00	
1	2	157	111.53	-7.15	-6.83	111.21	-6.15	1293.52	-1338.36	848.81	-893.65	986.24	
1	2	158	97.50	0.86	2.59	95.77	-12.81	1008.41	-3580.71	333.41	-2905.72	1625.43	
1	2	159	77.28	23.14	28.30	72.12	-15.89	-273.06	-6413.82	-645.06	-6041.82	1464.91	
1	2	160	66.66	38.62	44.72	60.56	-11.57	-882.14	-8354.50	-1220.34	-8016.30	1553.32	
1	2	161	60.10	48.26	54.46	53.90	-5.91	-1366.06	-9727.48	-1632.92	-9460.61	1469.74	
1	2	162	60.45	50.86	60.37	50.94	-0.88	-1727.66	-1.063e+04	-1925.06	-1.044e+04	1311.10	
1	2	163	64.66	49.89	64.13	50.42	2.74	-2029.81	-1.121e+04	-2145.78	-1.109e+04	1025.35	
1	2	164	68.38	51.85	68.36	51.87	0.51	-2189.48	-1.163e+04	-2218.82	-1.160e+04	525.49	
1	2	165	89.54	50.25	86.61	53.18	-10.32	-2548.48	-1.224e+04	-2549.24	-1.223e+04	-85.99	
1	2	166	97.63	34.89	97.41	35.11	-3.69	-2883.85	-1.286e+04	-2884.37	-1.286e+04	-71.62	
1	2	167	85.55	55.96	85.32	56.19	2.61	-2370.06	-1.183e+04	-2370.60	-1.183e+04	-71.71	
1	2	168	73.42	51.94	69.60	55.75	-8.21	-1977.06	-1.100e+04	-2030.27	-1.094e+04	-690.70	
1	2	169	75.40	50.54	69.66	56.29	-10.48	-1744.87	-1.025e+04	-1895.00	-1.009e+04	-1119.66	
1	2	170	75.43	54.45	71.31	58.57	-8.33	-1389.19	-9244.76	-1620.83	-9013.12	-1328.91	
1	2	171	76.92	60.40	74.42	62.90	-5.91	-1058.49	-7896.10	-1364.97	-7589.63	-1414.78	
1	2	172	80.21	69.04	78.82	70.43	-3.70	-780.50	-6201.98	-1172.48	-5810.00	-1404.09	
1	2	173	86.62	78.70	82.36	82.95	-3.95	-592.58	-4333.75	-1083.89	-3842.44	-1263.60	
1	2	174	114.61	78.99	83.23	110.38	-11.53	-356.13	-2276.80	-843.57	-1789.36	-835.83	
1	2	175	117.80	73.97	74.53	117.24	-4.92	-875.69	-2265.77	-1272.70	-1868.76	-627.90	
1	2	176	109.92	71.58	77.44	104.06	13.79	-1176.66	-2053.98	-1176.66	-2053.98	1.42	
1	2	177	83.46	77.02	82.02	78.46	2.68	-903.13	-3616.10	-919.80	-3599.43	211.99	
1	2	178	77.57	65.43	76.59	66.41	3.31	-975.18	-5235.64	-988.78	-5222.04	240.35	
1	2	179	73.06	56.77	70.56	59.27	5.87	-1053.22	-6490.92	-1057.22	-6486.91	147.52	
1	2	180	70.22	50.41	64.65	55.98	8.91	-1120.11	-7193.19	-1120.13	-7193.17	10.72	
1	2	181	69.61	44.29	57.72	56.18	12.64	-1076.29	-7260.33	-1079.58	-7257.04	-142.59	
1	2	182	72.25	35.84	47.79	60.29	17.10	-864.09	-6636.75	-878.36	-6622.48	-286.59	
1	2	183	78.44	23.25	32.36	69.33	20.49	-434.48	-5280.89	-464.77	-5250.60	-381.96	
1	2	184	87.37	5.73	8.83	84.27	15.59	256.88	-3249.70	207.29	-3200.10	-414.06	
1	2	185	106.57	-4.22	-3.86	106.21	6.25	669.26	-698.73	643.18	-672.64	-187.09	
1	2	186	86.73	-9.03	-8.95	86.65	2.80	868.04	310.08	645.38	532.74	-273.23	
1	2	187	105.71	4.67	4.74	105.64	-2.69	458.47	111.02	151.17	418.32	-111.07	
1	2	188	115.80	21.30	21.91	115.18	-7.60	1255.76	-295.01	1076.07	-115.32	-496.35	
1	2	189	109.02	40.72	42.72	107.02	-11.50	1306.36	-1676.98	1306.36	-1676.98	1.04	
1	2	190	110.98	54.48	55.22	110.24	-6.41	387.52	-2804.37	320.32	-2737.18	458.22	
1	2	191	112.26	64.28	64.36	112.18	1.94	-170.70	-3891.11	-305.80	-3756.00	695.98	
1	2	192	114.14	69.46	71.61	111.99	9.56	-579.82	-4744.37	-733.45	-4590.74	784.98	
1	2	193	116.45	71.27	77.27	110.45	15.34	-1025.05	-5447.32	-1149.35	-5323.02	730.91	
1	2	194	117.45	72.75	82.80	107.39	18.66	-1540.57	-6012.88	-1597.39	-5956.06	500.88	
1	2	195	112.71	77.60	88.43	101.88	16.21	-2014.06	-6412.65	-2015.75	-6410.96	86.14	
1	2	196	106.30	88.17	89.06	105.42	3.91	-1430.59	-6312.41	-1454.94	-6288.06	-343.93	
1	2	197	127.39	91.02	91.41	127.01	3.74	-678.56	-5728.43	-678.82	-5728.16	36.74	
1	2	198	107.11	91.34	92.17	106.27	3.53	-1405.22	-6161.25	-1440.17	-6126.30	406.21	
1	2	199	111.15	89.73	93.19	107.69	-7.88	-1825.45	-5947.98	-1825.52	-5947.91	-16.72	
1	2	200	118.90	87.53	90.46	115.98	-9.13	-1242.52	-5248.11	-1271.50	-5219.13	-339.44	
1	2	201	121.94	88.39	89.50	120.83	-6.01	-765.66	-4415.00	-827.40	-4353.26	-470.64	
1	2	202	123.99	89.73	89.88	123.85	-2.21	-474.29	-3514.15	-547.54	-3440.90	-466.17	
1	2	203	125.03	90.33	90.35	125.01	0.88	-390.32	-2622.65	-471.95	-2541.01	-419.02	
1	2	204	123.70	89.86	89.88	123.68	0.84	-409.27	-1852.35	-517.91	-1743.71	-380.76	
1	2	205	126.03	87.12	87.80	125.35	-5.10	-314.94	-1325.04	-498.38	-1141.60	-389.41	
1	2	206	137.99	84.77	85.88	136.89	-7.58	-224.18	-1165.65	-516.01	-873.81	-435.42	
1	2	207	121.00	82.77	83.75	120.02	-6.03	-365.05	-1229.20	-556.96	-1037.29	-359.17	
1	2	208	126.00	81.95	86.40	121.55	-13.27	-313.90	-1497.33	-501.51	-1309.72	-432.23	
1	2	209	127.08	80.76	85.11	122.73	-13.51	-185.74	-1860.35	-303.05	-1743.04	-427.41	
1	2	210	124.41	79.49	82.34	121.56	-10.94	-145.55	-2230.76	-210.80	-2165.51	-363.05	
1	2	211	120.73	77.15	78.40	119.48	-7.26	-158.47	-2494.60	-186.78	-2466.29	-255.59	
1	2	212	117.04	72.89	73.01	116.91	-2.34	-142.11	-2575.56	-148.63	-2569.03	-125.87	
1	2	213	114.07	65.55	65.92	113.70	4.21	-14.66	-2435.29	-14.93	-2435.02	25.36	
1	2	214	110.81	54.54	56.94	108.42	11.36	354.62	-2067.51	328.57	-2041.46	249.85	
1	2	215	105.45	39.99	43.56	101.88	14.86	1232.19	-1463.10	1074.85	-1305.76	631.92	
1	2	216	109.42	21.75	22.64	108.53	8.79	1431.61	-930.30	786.20	-284.90	1052.54	
1	2	217	96.50	5.66	5.73	96.42	2.63	785.43	-537.91	-8.01	255.52	648.42	
1	2	218	115.39	-1.98	-1.86	115.28	-3.67	418.72	-1296.14	-815.03	-62.39	-770.43	
1	2	219	114.78	37.02	39.14	112.65	-12.67	1948.46	-731.10	1212.60	4.76	-1195.95	
1	2	220	114.02	68.99	79.31	103.70	-18.93	2636.48	-495.61	2423.79	-282.92	-787.99	



M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	2	221	106.63	74.10	79.09	101.65	-11.72	1139.25	-1269.21	1103.22	-1233.19	-292.35	
1	2	222	104.14	79.21	79.52	103.83	-2.77	321.30	-2058.68	319.92	-2057.30	57.20	
1	2	223	106.61	80.20	81.28	105.53	5.23	-220.90	-2775.58	-249.62	-2746.86	269.34	
1	2	224	110.61	79.86	84.52	105.95	11.02	-727.57	-3319.27	-783.80	-3263.04	377.59	
1	2	225	113.15	80.80	88.59	105.36	13.83	-1271.86	-3593.38	-1341.20	-3524.05	395.15	
1	2	226	113.49	84.38	91.19	106.68	12.32	-1559.51	-3398.74	-1636.79	-3321.46	369.01	
1	2	227	119.79	87.03	88.50	118.32	6.77	-647.84	-2526.51	-733.70	-2440.64	392.35	
1	2	228	151.90	90.78	90.95	151.73	3.24	182.24	-1667.78	177.73	-1663.27	91.21	
1	2	229	117.26	91.41	91.42	117.25	-0.51	-741.81	-2554.70	-766.46	-2530.06	-209.94	
1	2	230	113.45	94.66	96.89	111.21	-6.08	-1460.04	-3289.77	-1469.80	-3280.01	-133.24	
1	2	231	116.50	93.55	96.36	113.69	-7.53	-1023.81	-3363.96	-1028.25	-3359.52	-101.91	
1	2	232	118.77	93.51	94.86	117.41	-5.69	-541.02	-3071.82	-541.37	-3071.47	-29.73	
1	2	233	120.46	93.86	94.09	120.22	-2.51	-287.03	-2638.31	-289.87	-2635.47	81.67	
1	2	234	122.18	93.81	93.82	122.17	0.61	-294.27	-2161.54	-313.04	-2142.78	186.24	
1	2	235	124.74	92.55	92.69	124.60	2.13	-493.61	-1660.12	-535.32	-1618.42	216.59	
1	2	236	132.21	88.41	88.41	132.21	0.42	-647.41	-1122.91	-663.57	-1106.76	86.14	
1	2	237	152.05	86.93	87.32	151.66	-5.04	-514.20	-1022.71	-744.14	-792.78	-253.09	
1	2	238	131.14	83.23	85.68	128.69	-10.56	-182.10	-1492.95	-771.92	-903.13	-652.13	
1	2	239	126.24	83.82	87.81	122.25	-12.39	27.52	-1610.19	-481.22	-1101.45	-757.87	
1	2	240	123.58	83.11	86.37	120.32	-11.01	234.35	-1575.69	-103.97	-1237.37	-705.63	
1	2	241	120.06	82.19	83.91	118.33	-7.90	334.81	-1487.35	152.88	-1305.42	-546.27	
1	2	242	115.83	81.11	81.54	115.39	-3.85	354.70	-1364.01	293.42	-1302.74	-318.68	
1	2	243	111.45	79.59	79.66	111.38	1.50	410.72	-1205.87	409.29	-1204.45	-47.96	
1	2	244	108.73	76.23	78.66	106.30	8.55	659.25	-1019.83	617.65	-978.22	261.00	
1	2	245	109.65	69.76	78.46	100.95	16.47	1306.25	-806.56	1088.48	-588.78	642.41	
1	2	246	114.39	63.97	78.37	99.99	22.77	2608.39	-543.45	2116.99	-52.05	1143.39	
1	2	247	110.45	35.66	38.72	107.39	14.81	2049.12	-1161.77	907.51	-20.16	1536.98	
1	2	248	106.46	-2.39	-2.20	106.27	4.50	505.89	-1773.59	-999.60	-268.11	1079.46	
1	2	249	121.48	-1.20	-1.18	121.46	1.40	-217.51	-2068.34	-1594.06	-691.79	-808.00	
1	2	250	109.30	50.07	51.48	107.89	-9.04	1972.10	-643.65	1254.03	74.41	-1167.33	
1	2	251	116.20	83.66	102.76	97.10	-16.03	3617.59	249.96	3242.01	625.54	-1060.07	
1	2	252	104.03	86.11	96.86	93.28	-8.78	2123.03	-89.62	1871.71	161.70	-702.09	
1	2	253	96.70	91.36	91.94	96.12	-1.66	1109.38	-457.07	1021.53	-369.22	-360.42	
1	2	254	101.27	88.26	89.71	99.82	4.10	405.64	-844.54	402.88	-841.78	-58.71	
1	2	255	106.26	86.19	90.21	102.24	8.03	-125.82	-1238.70	-169.42	-1195.09	215.93	
1	2	256	109.88	86.33	92.15	104.07	10.16	-445.73	-1608.63	-716.82	-1337.54	491.69	
1	2	257	114.35	87.33	92.98	108.70	10.99	-336.34	-1866.56	-1023.93	-1178.98	761.17	
1	2	258	126.35	86.05	90.29	122.11	12.36	24.51	-1573.87	-755.54	-793.82	798.96	
1	2	259	147.29	92.00	92.10	147.19	2.31	-402.17	-683.19	-423.54	-661.82	74.48	
1	2	260	123.42	91.63	93.66	121.38	-7.78	-103.69	-1433.09	-652.03	-884.75	-654.44	
1	2	261	115.55	96.30	98.88	112.96	-6.56	-482.44	-1648.80	-801.62	-1329.62	-520.00	
1	2	262	114.94	97.25	99.63	112.56	-6.04	-397.14	-1587.45	-435.13	-1549.46	-209.21	
1	2	263	116.09	97.53	98.76	114.86	-4.62	-18.42	-1547.14	-22.00	-1543.55	73.95	
1	2	264	117.34	97.72	97.98	117.08	-2.24	214.87	-1482.18	153.64	-1420.96	316.48	
1	2	265	119.02	97.37	97.40	118.99	0.80	177.69	-1435.15	-3.04	-1254.42	508.75	
1	2	266	123.21	94.94	95.55	122.60	4.10	-107.71	-1427.65	-469.34	-1066.02	588.69	
1	2	267	134.13	89.58	90.84	132.86	7.41	-547.32	-1405.74	-1080.83	-872.24	416.34	
1	2	268	152.07	89.17	89.36	151.88	-3.47	-728.88	-1479.36	-1450.25	-757.99	-144.92	
1	2	269	133.78	83.29	87.78	129.28	-14.38	-96.68	-1643.40	-1109.10	-630.97	-735.48	
1	2	270	124.28	86.04	89.74	120.58	-11.31	438.94	-1290.29	-357.72	-493.64	-861.94	
1	2	271	119.70	86.08	88.31	117.47	-8.37	760.94	-837.58	256.52	-333.16	-742.89	
1	2	272	116.26	85.13	86.12	115.27	-5.46	913.47	-399.89	661.83	-148.25	-516.89	
1	2	273	111.99	84.73	84.94	111.79	-2.37	962.96	-17.30	902.32	43.34	-236.15	
1	2	274	106.46	85.69	85.79	106.35	1.50	1090.12	230.19	1082.44	237.88	80.92	
1	2	275	102.76	85.82	89.16	99.43	6.74	1509.13	271.89	1337.12	443.90	428.06	
1	2	276	107.39	80.89	94.83	93.46	13.23	2257.74	259.68	1853.02	664.40	803.03	
1	2	277	117.87	77.35	101.12	94.10	19.95	3472.83	299.16	2937.12	834.88	1188.78	
1	2	278	105.85	48.46	50.79	103.51	11.34	1899.28	-906.94	962.24	30.10	1323.44	
1	2	279	114.56	-1.58	-1.58	114.56	-0.50	-235.77	-2360.31	-1748.45	-847.63	962.06	
1	2	280	114.02	-0.78	-0.29	113.53	7.50	-947.79	-2210.14	-2085.46	-1072.47	-376.62	
1	2	281	97.69	56.21	56.43	97.46	-3.03	1399.72	-215.98	1081.48	102.26	-642.58	
1	2	282	114.96	85.87	111.81	89.02	-9.04	3852.99	977.67	3551.15	1279.51	-881.35	
1	2	283	104.20	86.39	104.05	86.55	-1.65	2839.11	899.87	2435.47	1303.51	-787.29	
1	2	284	98.26	90.10	97.10	91.26	2.85	2033.74	795.76	1697.50	1132.00	-550.63	
1	2	285	100.48	89.46	93.16	96.78	5.20	1283.10	726.30	1131.12	878.29	-248.04	
1	2	286	103.99	89.01	92.50	100.50	6.33	702.85	503.30	601.99	604.15	99.77	
1	2	287	107.09	89.66	93.87	102.89	7.46	713.26	-304.64	59.18	349.44	487.82	
1	2	288	112.79	89.08	95.01	106.87	10.27	672.39	-1079.95	-510.27	102.70	820.82	
1	2	289	125.46	85.15	93.77	116.84	16.53	237.57	-1635.47	-1191.16	-206.74	796.75	
1	2	290	135.07	95.74	95.77	135.04	1.13	-404.94	-1474.56	-1473.48	-406.02	33.91	
1	2	291	124.28	90.05	97.43	116.90	-14.08	237.31	-1406.09	-918.43	-250.35	-750.74	
1	2	292	115.56	97.09	101.32	111.32	-7.77	554.94	-826.46	-192.04	-79.48	-688.40	



M_G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
1	2	293	113.55	99.65	101.79	111.41	-5.02	521.01	-222.59	320.35	-21.93	-330.07
1	2	294	114.34	100.15	101.13	113.35	-3.61	669.24	-15.24	667.08	-13.08	38.40
1	2	295	115.03	100.37	100.65	114.75	-2.01	870.66	-182.69	740.78	-52.81	346.32
1	2	296	115.51	100.33	100.39	115.45	0.92	795.31	-525.75	433.87	-164.31	588.94
1	2	297	119.58	97.16	99.03	117.70	6.21	361.99	-1062.09	-345.47	-354.63	712.03
1	2	298	131.48	89.45	95.01	125.92	14.24	-342.44	-1835.28	-1586.15	-591.57	556.63
...												
1	68	496	-2.10	-2.46	-2.12	-2.44	8.27e-02	377.62	-50.79	169.55	157.28	-214.12
M_G			N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
				-96.31	-57.92	-94.40	-50.85		-1.556e+04	-1.450e+04	-1.555e+04	-4664.34
			152.07		136.55	151.88	58.67	7272.76		7198.13	5033.81	6005.09

Macro	Tipo	Angolo 1-X (gradi)
8	Guscio	0.0

M_G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
			daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
8	2	1211	14.53	6.07	12.04	8.57	3.86	1632.75	-113.16	1353.65	165.94	-639.83
8	2	1212	8.20	3.64	7.91	3.93	1.12	1358.52	-575.97	654.69	127.86	-930.69
8	2	1213	6.97	-3.81e-02	6.25	0.69	-2.13	866.03	-1076.20	-226.01	15.83	-963.56
8	2	1214	11.18	-0.61	10.75	-0.17	-2.21	660.37	-1053.50	-404.31	11.17	-831.37
8	2	1215	14.29	-0.50	14.23	-0.43	-0.98	522.24	-871.86	-380.62	31.00	-665.97
8	2	1216	14.52	-0.48	14.49	-0.46	0.60	406.71	-676.97	-332.20	61.93	-504.73
8	2	1217	11.85	-0.56	11.57	-0.28	1.84	305.93	-543.33	-330.45	93.05	-368.07
8	2	1218	7.59	-0.52	6.94	0.13	2.20	229.46	-488.14	-374.89	116.21	-261.61
8	2	1219	3.63	-0.12	2.90	0.61	1.48	181.62	-485.76	-433.09	128.95	-179.94
8	2	1220	1.56	0.85	1.56	0.86	5.34e-02	160.01	-493.36	-472.21	138.87	-115.63
8	2	1221	3.67	0.13	3.25	0.54	-1.14	132.46	-521.28	-520.64	131.82	-20.43
8	2	1222	5.66	-0.77	5.54	-0.65	-0.87	-7.55	-709.03	-671.74	-44.85	157.39
8	2	1223	5.94	-0.80	5.90	-0.76	0.50	97.93	-969.64	-800.95	-70.76	389.39
8	2	1224	4.56	-6.67e-02	4.19	0.31	1.26	284.34	-1128.46	-805.43	-38.70	593.32
8	2	1225	1.93	-1.46	0.76	-0.29	1.61	459.01	-1279.65	-684.05	-136.59	825.11
8	2	1226	-1.92e-02	-6.90	-4.98	-1.93	3.08	888.96	-1282.88	-343.81	-50.11	1075.94
8	2	1227	0.35	-14.68	-13.26	-1.07	4.40	1431.29	-917.87	367.91	145.50	1169.30
8	2	1228	1.75	-20.45	-20.22	1.52	2.27	2350.75	-118.89	1948.07	283.79	912.33
8	2	1229	8.21	-23.54	-23.53	8.20	-0.31	2690.16	368.67	2684.57	374.26	113.80
8	2	1230	-1.47	-25.86	-25.70	-1.63	-1.98	1553.09	-89.83	1258.61	204.64	-630.14
8	2	1231	0.61	-18.98	-17.98	-0.39	-4.30	650.72	-800.83	-132.59	-17.52	-723.49
8	2	1232	4.92	-8.53	-4.77	1.16	-6.04	255.56	-922.86	-572.96	-94.35	-538.42
8	2	1233	8.85	-4.76	7.33	-3.24	-4.29	68.60	-811.96	-678.62	-64.74	-315.64
8	2	1234	13.91	-0.24	13.90	-0.23	-0.37	-136.17	-688.33	-685.67	-138.84	-38.25
8	2	1235	12.60	0.33	12.42	0.50	1.44	71.12	-719.72	-645.96	-2.64	229.98
8	2	1236	8.23	-0.43	7.68	0.12	2.12	205.08	-908.21	-666.48	-36.65	459.00
8	2	1237	3.98	-0.52	2.93	0.53	1.91	404.48	-979.12	-543.27	-31.37	642.71
8	2	1238	4.17	2.24	3.51	2.90	-0.92	817.88	-566.83	198.12	52.93	688.54
8	2	1239	10.00	3.43	6.61	6.82	-3.29	1055.11	-125.24	811.51	118.36	477.69
8	2	1240	5.82	-10.62	-10.48	5.68	-1.51	1193.19	-181.43	828.34	183.43	-606.97
8	2	1241	4.24	-5.75	-4.89	3.38	-2.79	1203.39	-639.69	406.64	157.06	-913.05
8	2	1242	6.36	-2.73	3.10	0.54	-4.36	1002.17	-936.08	-109.00	175.09	-958.65
8	2	1243	8.40	-2.99	6.87	-1.46	-3.89	890.91	-834.34	-186.94	243.51	-835.35
8	2	1244	9.46	-2.73	9.17	-2.44	-1.85	806.28	-606.99	-130.97	330.26	-667.94
8	2	1245	9.91	-2.49	9.87	-2.45	0.74	712.10	-403.63	-92.40	400.87	-500.38
8	2	1246	9.62	-2.29	8.88	-1.55	2.86	619.27	-296.15	-122.42	445.54	-358.96
8	2	1247	8.36	-1.51	6.75	9.59e-02	3.65	555.22	-283.81	-199.70	471.12	-251.98
8	2	1248	6.22	0.24	4.54	1.91	2.69	519.65	-318.95	-281.28	481.98	-173.69
8	2	1249	3.39	2.27	3.12	2.54	0.48	503.57	-346.41	-331.71	488.86	-110.82
8	2	1250	3.73	0.36	2.86	1.24	-1.48	512.25	-318.38	-315.51	509.38	-48.76
8	2	1251	3.97	-1.89	3.59	-1.50	-1.45	442.75	-333.81	-323.44	432.38	89.13
8	2	1252	3.72	-2.92	3.67	-2.87	0.57	198.97	-666.66	-511.38	43.69	332.12
8	2	1253	3.68	-0.57	2.76	0.35	1.75	291.69	-949.31	-576.21	-81.41	569.05
8	2	1254	2.56	-3.26	0.94	-1.64	2.61	745.53	-1050.51	-350.45	45.48	875.93
8	2	1255	2.50	-8.42	-1.95	-3.97	5.36	1282.69	-1033.71	-59.18	308.16	1143.54
8	2	1256	4.54	-11.41	-6.43	-0.44	7.39	1445.13	-860.71	303.88	280.54	1152.86
8	2	1257	6.42	-13.99	-12.41	4.84	5.46	1764.70	-199.38	1242.25	323.07	867.86



Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
8	2	1258	13.72	-11.78	-11.77	13.72	0.22	1645.97	299.32	1633.37	311.92	129.66	
8	2	1259	4.42	-9.69	-7.90	2.63	-4.70	1167.70	-136.86	780.65	250.19	-595.92	
8	2	1260	7.71	-6.24	-0.58	2.06	-6.85	842.20	-702.01	-26.44	166.64	-766.04	
8	2	1261	12.60	-4.73	3.87	4.00	-8.66	479.27	-757.25	-263.74	-14.24	-605.54	
8	2	1262	4.30	-9.83	1.74	-7.28	-5.44	4.43	-575.54	-408.19	-162.93	-262.78	
8	2	1263	3.39	-2.38	3.24	-2.23	-0.94	299.68	-272.94	-272.88	299.62	-5.73	
8	2	1264	3.80	-2.23	3.42	-1.85	1.47	346.98	-411.64	-323.23	258.58	243.42	
8	2	1265	4.62	-2.69	2.94	-1.02	3.07	412.25	-648.53	-401.54	165.26	448.32	
8	2	1266	4.08	-2.35	1.02	0.70	3.21	543.98	-804.00	-359.40	99.38	633.75	
8	2	1267	3.45	-4.16	-3.90	3.19	1.39	756.59	-591.04	70.55	95.01	673.70	
8	2	1268	6.01	-7.30	-7.30	6.01	-2.80e-02	747.88	-233.00	427.22	87.65	460.12	
8	2	1269	16.13	-6.46	8.32	1.35	-10.74	1060.78	-474.79	11.20	574.79	-714.21	
8	2	1270	17.73	-5.30	9.60	2.83	-11.00	734.71	-619.68	65.99	49.04	-677.14	
8	2	1271	-1.07	-17.63	-5.62	-13.08	-7.39	758.26	75.36	81.05	752.57	-62.05	
8	2	1272	13.82	-5.73	-2.33	10.42	-7.41	736.11	-392.79	246.70	96.62	-559.44	
8	2	1273	11.83	-6.81	-1.92	6.94	-8.20	1105.61	-463.85	197.30	444.46	-774.94	
8	2	1274	9.67	-8.15	0.66	0.87	-8.91	1355.39	-413.69	114.56	827.14	-809.61	
8	2	1275	8.86	-8.19	4.46	-3.79	-7.46	1579.63	-167.76	192.10	1219.76	-706.63	
8	2	1276	8.31	-7.13	7.24	-6.06	-3.92	1752.55	87.78	314.89	1525.44	-571.41	
8	2	1277	8.62	-6.22	8.61	-6.21	0.48	1823.09	215.10	350.35	1687.84	-446.31	
8	2	1278	9.80	-5.63	8.45	-4.28	4.36	1789.26	204.16	279.31	1714.11	-336.84	
8	2	1279	10.52	-4.10	6.86	-0.43	6.33	1703.38	107.51	145.80	1665.09	-244.21	
8	2	1280	9.79	-1.15	4.50	4.14	5.46	1638.33	16.68	34.11	1620.90	-167.22	
8	2	1281	7.74	2.25	2.86	7.13	1.72	1619.33	-29.97	-24.60	1613.95	-94.00	
8	2	1282	3.73	0.22	1.49	2.46	-1.69	1713.06	-44.84	-44.80	1713.03	-8.32	
8	2	1283	1.26	-4.01	0.59	-3.34	-1.75	1860.72	78.42	86.88	1852.27	-122.50	
8	2	1284	8.14	-13.32	2.45	-7.63	9.47	1974.69	-472.93	204.07	1297.70	1094.85	
8	2	1285	10.25	-14.11	-2.36	-1.50	12.17	1543.09	-486.58	212.95	843.56	964.61	
8	2	1286	15.24	-11.63	-6.11	9.72	10.85	1189.80	-244.79	537.27	407.74	714.36	
8	2	1287	19.38	-5.32	-5.31	19.37	0.46	597.28	201.27	559.21	239.34	116.74	
8	2	1288	13.74	-8.22	-1.24	6.76	-10.23	753.93	-121.79	244.70	387.44	-432.00	
8	2	1289	13.98	-10.13	5.36	-1.52	-11.55	1207.35	-254.97	140.15	812.24	-649.36	
8	2	1290	-1.13	-8.94	-3.18	-6.90	-3.43	1528.39	131.35	132.44	1527.30	38.96	
8	2	1291	0.20	-5.68	-0.13	-5.36	1.35	1370.92	106.73	119.24	1358.41	125.15	
8	2	1292	3.33	-6.48	-0.26	-2.89	4.72	1183.34	-46.90	45.29	1091.15	323.90	
8	2	1293	5.77	-5.76	-1.55	1.56	5.55	973.15	-293.23	-51.02	730.94	498.06	
8	2	1294	8.46	-3.38	-1.92	7.00	3.89	738.31	-407.92	-21.76	352.16	541.76	
8	2	1295	11.21	-1.88	-1.36	10.68	2.57	425.03	-336.16	22.88	65.99	379.98	
8	2	1296	-0.17	-9.17	-0.20	-9.14	0.51	1773.72	205.03	228.62	1750.13	-190.92	
8	2	1297	6.85	0.41	5.95	1.31	2.23	559.03	-589.73	20.01	-50.71	573.29	
8	2	1298	7.84	-10.17	6.09	-8.43	5.32	2399.94	-343.36	432.01	1624.57	1235.26	
8	2	1299	14.22	-11.27	-9.21	12.17	-6.94	432.25	2.93	2.93	432.24	0.94	
8	2	1300	15.53	-10.85	-5.42	10.09	-10.67	887.98	46.46	101.25	833.19	-207.60	
8	2	1301	12.48	-14.00	-2.34	0.81	-13.14	2082.13	344.66	383.12	2043.66	-255.64	
8	2	1302	9.50	-14.84	1.92	-7.26	-11.27	3033.20	613.30	642.04	3004.47	-262.13	
8	2	1303	8.22	-13.05	6.00	-10.84	-6.50	3654.29	769.07	801.56	3621.80	-304.45	
8	2	1304	8.78	-11.23	8.75	-11.20	-0.73	3905.95	803.46	845.89	3863.52	-360.33	
8	2	1305	11.04	-9.57	9.85	-8.38	4.81	3829.32	727.91	776.35	3780.87	-384.57	
8	2	1306	13.84	-5.98	9.24	-1.39	8.36	3522.77	587.84	626.16	3484.44	-333.18	
8	2	1307	14.60	-3.02	6.13	5.46	8.80	3247.75	479.79	494.77	3232.77	-203.06	
8	2	1308	17.09	3.53	4.51	16.10	3.52	3276.08	484.70	485.11	3275.66	-34.08	
8	2	1309	4.64	1.07	2.54	3.17	-1.76	3461.62	475.50	484.48	3452.63	163.57	
8	2	1310	3.72	-5.80	3.49	-5.58	-1.44	4041.38	84.66	179.70	3946.33	605.83	
8	2	1311	6.38	-9.48	6.37	-9.48	-0.15	4764.28	145.55	547.94	4361.88	1302.54	
8	2	1312	9.70	2.06	7.70	4.05	3.36	958.50	182.18	904.50	236.18	197.50	
8	2	1313	-1.43	-22.85	-5.01	-19.28	7.99	4057.75	403.50	497.32	3963.93	-577.96	
8	2	1314	3.84	-19.10	-2.91	-12.36	10.45	2892.48	148.79	151.90	2889.36	92.35	
8	2	1315	15.10	-11.91	2.05	1.14	13.50	1472.10	253.51	283.11	1442.50	187.60	
8	2	1316	21.77	-7.18	1.81	12.78	13.39	661.02	37.92	115.15	583.80	205.32	
8	2	1317	20.39	3.60	3.62	20.37	0.56	151.09	-92.42	-17.28	75.96	112.48	
8	2	1318	19.86	-5.86	2.76	11.23	-12.14	529.89	3.43	9.61	523.71	56.69	
8	2	1319	8.15	-16.12	-2.30	-5.67	-12.02	1609.97	-20.55	0.19	1589.23	182.72	
8	2	1320	0.65	-27.32	-7.77	-18.90	-12.83	2096.40	-30.75	263.44	1802.20	734.34	
8	2	1321	11.86	-12.60	3.39	-4.13	-11.64	1511.07	414.47	870.99	1054.55	540.57	
8	2	1322	12.76	-5.66	11.12	-4.03	-5.24	3598.91	687.13	748.04	3538.00	-416.72	
8	2	1323	4.55	-12.52	4.23	-12.20	-2.31	3534.70	571.69	581.00	3525.40	-165.76	
8	2	1324	-8.98e-02	-10.06	-0.52	-9.63	2.03	3396.15	691.88	694.76	3393.27	-88.11	
8	2	1325	1.97	-10.94	-3.11	-5.86	6.31	2875.10	577.24	579.65	2872.68	-74.43	
8	2	1326	6.67	-10.39	-5.53	1.80	7.70	1973.78	330.44	330.82	1973.40	-25.20	
8	2	1327	13.07	-6.47	-5.69	12.29	3.82	867.70	37.62	38.33	866.99	24.24	
8	2	1328	11.42	-5.90	-5.90	11.42	0.26	67.26	-170.58	-164.75	61.43	36.80	
8	2	1329	-0.50	-16.85	-16.35	-1.00	-2.81	397.76	-301.65	-85.23	181.34	323.31	

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
8	2	1330	9.10	-13.44	-11.15	6.82	-6.80	980.60	-30.71	97.01	852.88	335.94	
8	2	1331	12.55	-10.03	-4.61	7.12	-9.65	2189.74	286.03	369.53	2106.24	389.87	
8	2	1332	13.36	-2.01	3.44	7.92	-7.35	2882.18	506.46	519.39	2869.24	174.79	
8	2	1333	11.82	6.02	9.47	8.37	-2.85	3310.39	626.71	629.53	3307.57	-86.90	
8	2	1334	14.02	7.77	13.32	8.47	1.97	3461.69	618.02	660.36	3419.35	-344.38	
8	2	1335	19.06	4.49	15.03	8.53	6.52	3365.77	538.94	641.06	3263.65	-527.50	
8	2	1336	21.82	2.26	14.40	9.68	9.49	3040.96	472.34	591.92	2921.39	-541.15	
8	2	1337	22.84	0.53	10.50	12.87	11.10	2610.81	483.14	523.89	2570.05	-291.64	
8	2	1338	27.60	8.10	8.73	26.97	3.45	2498.41	506.38	506.66	2498.13	23.63	
8	2	1339	13.43	3.09	5.26	11.26	-4.21	2849.87	484.56	558.91	2775.52	412.72	
8	2	1340	9.58	4.68	6.67	7.59	-2.41	3529.67	372.42	568.95	3333.15	762.80	
8	2	1341	9.69	7.31	7.32	9.67	-0.19	3190.57	206.13	557.55	2839.15	961.92	
8	2	1342	17.45	4.36	5.69	16.12	3.96	605.22	141.04	243.50	502.76	192.51	
8	2	1343	9.98	-6.59	3.85e-03	3.39	8.11	2625.77	338.97	452.43	2512.32	-496.56	
8	2	1344	12.61	-11.29	-1.48	2.81	11.75	2593.54	286.55	377.78	2502.31	-449.59	
8	2	1345	19.50	-12.59	2.73	4.17	16.03	1484.77	107.40	270.57	1321.60	-445.11	
8	2	1346	22.04	-10.80	8.36	2.88	16.19	853.46	116.13	199.45	770.14	-233.44	
8	2	1347	14.28	7.00	14.04	7.24	1.31	139.60	18.40	95.74	62.27	58.25	
8	2	1348	21.55	-6.85	10.32	4.39	-13.89	850.70	-282.67	130.72	437.31	545.56	
8	2	1349	18.29	-10.41	6.41	1.47	-14.13	1692.66	-135.67	242.18	1314.81	740.31	
8	2	1350	15.57	-11.02	2.24	2.31	-13.30	1692.12	-93.02	395.55	1203.54	795.91	
8	2	1351	22.54	1.72	6.88	17.37	-8.99	2528.43	484.09	489.63	2522.89	106.23	
8	2	1352	12.41	2.10	4.60	9.91	-4.41	3164.16	561.74	562.83	3163.07	-53.26	
8	2	1353	11.07	2.01	2.14	10.94	-1.08	3170.84	558.17	582.98	3146.03	-253.39	
8	2	1354	10.81	-2.24	-1.60	10.17	2.82	2882.47	414.70	507.90	2789.27	-470.44	
8	2	1355	10.11	-8.34	-6.97	8.75	4.83	2270.29	153.62	350.26	2073.65	-614.45	
8	2	1356	6.76	-12.61	-12.56	6.71	0.90	1351.29	-152.09	141.63	1057.57	-596.07	
8	2	1357	-2.16	-17.38	-16.69	-2.85	-3.17	459.96	-427.17	-51.59	84.38	-438.32	
8	2	1358	-10.03	-24.47	-17.63	-16.88	-7.21	992.83	-911.74	63.02	18.06	952.02	
8	2	1359	3.25	-14.87	-10.43	-1.20	-7.80	1174.95	-789.22	-36.59	422.32	954.91	
8	2	1360	15.19	-4.91	-1.95	12.23	-7.12	1035.30	-643.55	-238.01	629.76	718.60	
8	2	1361	22.87	2.54	3.24	22.17	-3.71	868.04	-403.52	-294.07	758.59	356.64	
8	2	1362	27.11	7.17	7.18	27.09	0.48	825.07	-280.57	-279.33	823.82	-37.06	
8	2	1363	28.94	9.27	10.24	27.98	4.24	974.48	-337.10	-200.54	837.92	-400.58	
8	2	1364	28.73	9.21	12.56	25.38	7.36	1179.01	-405.48	-40.09	813.63	-667.42	
8	2	1365	27.09	6.94	13.80	20.23	9.55	1312.03	-244.17	301.54	766.32	-742.59	
8	2	1366	28.74	3.17	13.33	18.58	12.51	1128.49	68.57	593.03	604.04	-529.93	
8	2	1367	24.16	11.42	12.13	23.46	2.92	685.60	426.82	676.93	435.48	46.55	
8	2	1368	22.03	6.72	10.17	18.58	-6.40	1314.73	-57.77	610.16	646.81	686.00	
8	2	1369	22.29	9.06	9.53	21.82	-2.45	1280.05	-408.51	195.21	676.33	809.28	
8	2	1370	25.71	7.64	7.70	25.65	1.02	735.79	-682.43	-340.32	393.69	606.75	
8	2	1371	27.79	5.18	6.44	26.53	5.19	236.82	-643.80	-608.12	201.14	173.63	
8	2	1372	27.26	1.65	5.71	23.20	9.35	358.22	-611.54	-501.09	247.76	-308.08	
8	2	1373	27.62	-2.30	6.64	18.68	13.70	777.72	-684.45	-234.15	327.42	-675.02	
8	2	1374	26.70	-8.14	9.49	9.07	17.42	1035.93	-654.85	104.58	276.51	-841.01	
8	2	1375	23.88	-15.18	12.59	-3.89	17.71	1052.73	-244.57	643.46	164.70	-602.86	
8	2	1376	13.99	-6.90	13.91	-6.82	1.28	1010.45	187.01	1005.19	192.27	65.59	
8	2	1377	22.08	-12.88	12.57	-3.37	-15.56	1222.15	-432.89	626.65	162.61	794.33	
8	2	1378	26.75	-7.89	10.48	8.38	-17.29	1054.90	-939.99	-10.07	124.99	995.16	
8	2	1379	32.08	-3.69	7.29	21.10	-16.50	781.07	-976.22	-344.80	149.65	843.15	
8	2	1380	37.40	7.93e-02	5.08	32.39	-12.72	592.40	-646.30	-389.89	336.00	501.87	
8	2	1381	35.66	1.32	3.27	33.71	-7.95	580.06	-334.90	-318.32	563.48	122.07	
8	2	1382	31.77	1.22	1.76	31.23	-4.00	741.13	-346.86	-279.69	673.96	-261.86	
8	2	1383	25.26	-0.82	-0.82	25.26	-8.20e-02	987.88	-550.63	-242.72	679.97	-615.56	
8	2	1384	14.79	-5.14	-4.68	14.32	3.00	1222.70	-786.04	-169.58	606.24	-926.43	
8	2	1385	-0.21	-13.12	-12.58	-0.75	2.59	1343.90	-867.18	53.23	423.49	-1089.93	
8	2	1386	-16.46	-20.12	-19.74	-16.83	1.11	1146.12	-915.02	177.09	54.01	-1028.73	
8	2	1387	13.27	-17.14	7.25	-11.12	-12.12	961.20	-1047.67	-30.74	-55.73	1004.35	
8	2	1388	16.11	-8.81	7.40	-0.10	-11.88	603.10	-1326.93	-394.70	-329.13	964.45	
8	2	1389	17.73	-2.26	6.22	9.25	-9.88	24.21	-1494.01	-882.32	-587.48	744.66	
8	2	1390	20.40	3.77	6.26	17.91	-5.93	-462.74	-1307.55	-1066.62	-703.66	381.43	
8	2	1391	23.43	6.54	6.71	23.26	-1.68	-703.08	-1063.22	-1063.17	-703.13	-4.04	
8	2	1392	24.97	7.69	7.97	24.69	2.16	-354.03	-1145.83	-897.56	-602.30	-367.34	
8	2	1393	24.55	7.79	9.78	22.56	5.43	179.78	-1125.11	-528.52	-416.81	-650.05	
8	2	1394	24.04	5.86	11.54	18.36	8.43	753.60	-846.52	95.38	-188.30	-787.38	
8	2	1395	26.56	1.41	13.50	14.47	12.57	1366.39	-268.28	1038.97	59.15	-654.23	
8	2	1396	14.81	6.34	12.80	8.36	3.61	1604.71	195.96	1603.99	196.68	31.89	
8	2	1397	18.77	7.67	11.28	15.16	-5.20	1303.93	-452.71	897.93	-46.71	740.51	
8	2	1398	18.85	8.82	8.88	18.80	-0.76	415.82	-1091.65	-249.18	-426.65	748.49	
8	2	1399	22.54	6.95	7.39	22.09	2.60	-330.35	-1334.40	-959.28	-705.47	485.72	
8	2	1400	24.60	4.55	6.53	22.62	5.98	-814.81	-1314.69	-1282.60	-846.89	122.52	
8	2	1401	24.68	2.24	6.91	20.01	9.11	-728.51	-1393.08	-1246.49	-875.10	-275.55	



M	G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
8	2		1402	23.86	-0.39	8.78	14.69	11.76	-126.10	-1396.27	-829.47	-692.90	-631.40
8	2		1403	22.92	-4.41	11.76	6.75	13.44	641.04	-971.27	2.86	-333.09	-788.46
8	2		1404	22.91	-9.44	15.14	-1.67	13.82	1538.81	-98.95	1302.15	137.70	-575.83
8	2		1405	15.86	-7.72	15.85	-7.71	0.55	2066.04	342.57	2065.05	343.56	41.11
8	2		1406	22.01	-8.33	14.37	-0.70	-13.17	1540.49	-309.59	1199.09	31.82	717.69
8	2		1407	23.83	-4.10	11.05	8.68	-13.92	634.89	-1246.80	-129.34	-482.57	924.12
8	2		1408	27.95	-1.15	7.43	19.38	-13.27	1.97	-1632.66	-811.33	-819.36	817.31
8	2		1409	31.72	0.22	4.39	27.54	-10.68	-502.49	-1596.71	-1087.45	-1011.75	545.80
8	2		1410	31.84	0.95	2.64	30.16	-7.01	-911.58	-1286.58	-1137.10	-1061.07	183.60
8	2		1411	28.03	1.88	2.26	27.66	-3.11	-835.68	-1255.89	-1090.00	-1001.56	-205.40
8	2		1412	21.28	2.85	2.90	21.23	0.93	-348.86	-1506.97	-984.07	-871.76	-576.32
8	2		1413	13.71	1.57	3.74	11.54	4.65	185.62	-1617.53	-763.98	-667.94	-900.29
8	2		1414	10.06	-3.18	5.42	1.46	6.32	793.73	-1361.85	-232.83	-335.28	-1076.57
8	2		1415	7.81	-11.73	5.48	-9.40	6.33	1158.93	-1011.24	169.78	-22.09	-1080.84
8	2		1416	28.19	-3.03	26.13	-0.97	-7.75	583.94	-824.55	-135.59	-105.02	704.08
8	2		1417	24.65	-3.57	22.15	-1.07	-8.01	39.22	-1324.85	-636.33	-649.31	682.00
8	2		1418	19.48	2.65	15.82	6.31	-6.94	-710.95	-1807.88	-1323.32	-1195.51	544.73
8	2		1419	17.19	8.19	10.98	14.39	-4.16	-1248.70	-1860.52	-1622.64	-1486.58	298.25
8	2		1420	20.26	8.19	8.36	20.09	-1.42	-1548.91	-1647.33	-1643.31	-1552.93	19.49
8	2		1421	21.99	7.73	7.80	21.91	1.04	-1158.72	-1665.72	-1418.80	-1405.64	-253.41
8	2		1422	20.96	7.87	8.86	19.98	3.45	-508.71	-1484.84	-920.47	-1073.09	-482.06
8	2		1423	19.96	6.42	10.89	15.49	6.37	370.17	-963.15	-14.92	-578.06	-604.28
8	2		1424	22.00	1.32	13.76	9.56	10.13	1686.68	-64.37	1551.77	70.55	-466.94
8	2		1425	14.54	-0.55	13.50	0.48	3.81	2483.52	424.33	2483.46	424.39	10.44
8	2		1426	14.07	8.95	12.25	10.78	-2.45	1425.22	-250.21	1260.34	-85.33	499.05
8	2		1427	16.07	9.05	9.27	15.85	1.22	-79.62	-1217.11	-496.13	-800.60	547.99
8	2		1428	20.40	6.47	7.70	19.16	3.96	-981.59	-1704.43	-1426.42	-1259.59	351.66
8	2		1429	22.46	4.72	7.19	19.99	6.14	-1474.99	-1853.90	-1837.83	-1491.06	76.37
8	2		1430	22.18	3.66	8.00	17.83	7.85	-1333.85	-1860.82	-1760.10	-1434.57	-207.20
8	2		1431	20.69	2.35	10.15	12.89	9.07	-708.41	-1592.27	-1188.64	-1112.04	-440.26
8	2		1432	20.06	-0.79	13.26	6.01	9.78	319.15	-874.32	-21.33	-533.84	-538.91
8	2		1433	21.06	-5.92	16.59	-1.45	10.03	1916.23	83.61	1829.93	169.91	-388.21
8	2		1434	17.26	-7.72	17.26	-7.72	5.02e-02	2894.16	504.17	2893.97	504.36	21.13
8	2		1435	20.69	-4.80	15.83	6.48e-02	-10.02	1816.08	-70.22	1690.21	55.64	470.72
8	2		1436	20.61	0.40	12.10	8.91	-9.97	267.71	-1123.21	-134.18	-721.32	630.46
8	2		1437	23.89	2.59	8.35	18.12	-9.46	-643.77	-1816.10	-1117.60	-1342.27	575.31
8	2		1438	28.02	2.39	5.43	24.98	-8.29	-1252.32	-2066.78	-1568.77	-1750.32	396.99
8	2		1439	29.05	2.51	4.22	27.34	-6.52	-1642.27	-2018.83	-1714.43	-1946.67	148.20
8	2		1440	25.62	4.33	5.24	24.72	-4.30	-1633.90	-1993.68	-1691.79	-1935.79	-132.20
8	2		1441	18.16	8.22	8.51	17.87	-1.68	-1210.29	-2041.03	-1529.70	-1721.62	-404.14
8	2		1442	14.12	8.49	13.90	8.71	1.08	-607.04	-1881.94	-1171.81	-1317.16	-633.30
8	2		1443	20.82	0.23	20.57	0.48	2.25	197.14	-1318.79	-434.31	-687.35	-747.33
8	2		1444	25.01	0.95	24.83	1.13	2.08	784.99	-723.40	114.18	-52.59	-749.57
8	2		1445	33.73	4.69	33.71	4.71	-0.72	91.17	-345.28	-139.92	-114.19	217.85
8	2		1446	28.35	-1.69	28.34	-1.68	-0.57	-491.97	-1007.74	-720.97	-778.74	256.26
8	2		1447	20.60	4.50	20.60	4.50	-7.06e-02	-1260.44	-1728.86	-1535.77	-1453.53	230.57
8	2		1448	13.88	12.70	13.69	12.90	0.44	-1732.68	-2030.46	-1920.52	-1842.61	143.71
8	2		1449	18.92	9.32	9.36	18.88	0.62	-1930.93	-1997.87	-1970.33	-1958.47	32.94
8	2		1450	20.86	7.85	7.89	20.81	0.75	-1667.29	-1845.39	-1726.64	-1786.05	-83.95
8	2		1451	18.51	8.54	8.77	18.29	1.47	-1036.10	-1472.47	-1153.91	-1354.67	-193.72
8	2		1452	15.44	8.29	11.28	12.46	3.53	45.95	-774.22	-42.89	-685.38	-254.89
8	2		1453	17.93	1.45	14.38	5.00	6.77	1895.57	113.33	1871.74	137.16	-204.69
8	2		1454	15.50	-3.12	14.62	-2.25	3.94	2959.12	500.61	2959.10	500.63	-6.23
8	2		1455	13.43	6.82	13.32	6.93	0.85	1527.82	-48.19	1503.90	-24.27	192.69
8	2		1456	15.60	7.96	10.28	13.28	3.51	-478.32	-1000.49	-594.57	-884.24	217.23
8	2		1457	19.80	5.96	8.38	17.38	5.26	-1427.19	-1761.27	-1694.93	-1493.52	133.27
8	2		1458	21.57	5.19	7.87	18.89	6.06	-1769.44	-2140.00	-2138.51	-1770.93	23.44
8	2		1459	20.46	5.52	8.81	17.17	6.19	-1681.18	-2054.13	-2036.32	-1698.99	-79.53
8	2		1460	17.95	5.75	11.21	12.50	6.06	-1160.41	-1499.10	-1372.60	-1286.91	-163.84
8	2		1461	17.64	2.67	14.57	5.73	6.04	42.66	-668.04	-20.33	-605.05	-201.99
8	2		1462	19.85	-3.63	18.01	-1.80	6.30	2135.39	216.19	2123.63	227.95	-149.75
8	2		1463	18.91	-7.51	18.91	-7.51	-0.25	3338.54	588.46	3338.54	588.46	-0.59
8	2		1464	19.55	-2.67	17.45	-0.57	-6.50	1981.56	79.32	1967.75	93.12	161.45
8	2		1465	17.44	4.88	13.68	8.63	-5.75	-49.63	-873.26	-114.15	-808.74	221.31
8	2		1466	20.77	6.88	9.76	17.89	-5.63	-1154.87	-1665.92	-1260.55	-1560.25	206.97
8	2		1467	26.41	5.04	6.91	24.54	-6.04	-1751.74	-2153.76	-1817.24	-2088.26	148.46
8	2		1468	28.58	4.16	6.09	26.65	-6.58	-2015.06	-2371.51	-2025.02	-2361.55	58.74
8	2		1469	26.17	5.25	7.82	23.60	-6.87	-2014.09	-2375.99	-2020.16	-2369.92	-46.47
8	2		1470	21.35	7.40	12.40	16.34	-6.69	-1758.73	-2175.92	-1826.32	-2108.33	-153.71
8	2		1471	21.84	4.38	19.43	6.78	-6.01	-1220.79	-1750.72	-1377.47	-1594.04	-241.83
8	2		1472	28.02	-1.43	27.10	-0.50	-5.13	-355.69	-985.02	-505.86	-834.84	-268.25
8	2		1473	33.34	5.20	32.53	6.01	-4.71	281.65	-211.59	131.46	-61.40	-226.99



M_G	Cmb	Nodo	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
8	2	1474	31.66	0.75	30.49	1.92	5.90	262.89	-338.11	1.35	-76.57	-297.96
8	2	1475	27.57	-4.82	25.92	-3.17	7.11	-479.90	-933.76	-640.90	-772.75	-217.15
8	2	1476	22.41	1.87	19.11	5.18	7.55	-1369.25	-1638.19	-1530.30	-1477.14	-131.82
8	2	1477	18.80	7.25	12.54	13.52	5.76	-1880.09	-1987.76	-1946.71	-1921.13	-52.29
8	2	1478	21.24	7.85	8.73	20.36	3.33	-1983.63	-2074.95	-2009.23	-2049.35	41.02
8	2	1479	22.13	7.32	7.35	22.10	0.68	-1705.23	-1953.43	-1782.63	-1876.04	114.98
8	2	1480	18.24	8.55	8.63	18.16	-0.89	-1129.44	-1504.28	-1209.76	-1423.97	153.81
8	2	1481	11.89	9.92	11.88	9.94	-0.17	-47.73	-753.42	-81.64	-719.52	150.92
8	2	1482	16.16	-5.30e-03	15.59	0.57	2.98	1901.87	120.07	1896.73	125.20	95.49
8	2	1483	16.73	-6.77	16.01	-6.06	4.05	3042.83	536.70	3042.57	536.97	-25.94
8	2	1484	16.09	2.96	14.59	4.46	4.18	1540.70	-20.53	1531.44	-11.28	-119.83
8	2	1485	17.40	5.08	11.32	11.15	6.16	-550.87	-986.61	-627.84	-909.64	-166.18
8	2	1486	20.89	5.05	9.16	16.78	6.94	-1484.11	-1809.98	-1733.48	-1560.62	-138.12
8	2	1487	22.43	5.79	8.37	19.86	6.02	-1850.51	-2162.23	-2157.00	-1855.74	-40.03
8	2	1488	19.93	7.73	9.37	18.29	4.16	-1760.70	-2071.34	-2052.86	-1779.18	73.48
8	2	1489	15.24	9.77	12.02	12.99	2.69	-1218.70	-1521.82	-1394.08	-1346.44	149.68
8	2	1490	16.45	5.80	16.09	6.16	1.91	14.03	-674.68	-32.49	-628.15	172.85
8	2	1491	19.86	-3.33	19.62	-3.09	2.37	2123.58	166.60	2118.18	172.00	102.65
8	2	1492	20.88	-9.24	20.88	-9.23	-0.43	3353.44	585.87	3353.25	586.07	-23.28
8	2	1493	19.94	-2.77	19.61	-2.44	-2.72	1986.42	71.18	1971.39	86.21	-169.00
8	2	1494	15.69	8.01	15.47	8.23	-1.28	-51.38	-909.13	-120.55	-839.96	-233.56
8	2	1495	19.23	10.95	11.36	18.82	-1.80	-1165.32	-1708.54	-1263.76	-1610.11	-209.24
8	2	1496	27.04	7.66	8.48	26.22	-3.91	-1775.38	-2198.54	-1825.99	-2147.93	-137.32
8	2	1497	30.53	5.58	7.61	28.49	-6.83	-2036.39	-2432.40	-2042.54	-2426.25	-48.96
8	2	1498	29.64	4.53	9.17	25.01	-9.74	-2039.31	-2443.47	-2044.10	-2438.69	43.70
8	2	1499	26.79	2.66	12.78	16.67	-11.91	-1804.12	-2220.19	-1854.24	-2170.07	135.43
8	2	1500	27.59	-1.51	18.89	7.19	-13.32	-1282.37	-1750.07	-1390.82	-1641.62	197.39
8	2	1501	29.89	-7.11	25.15	-2.37	-12.37	-304.14	-945.74	-435.72	-814.15	259.06
8	2	1502	33.09	-2.08	29.36	1.65	-10.82	481.02	-245.75	260.74	-25.47	334.02
8	2	1503	22.64	-10.81	19.99	-8.16	9.04	847.38	-779.08	161.54	-93.24	-803.19
8	2	1504	18.96	-11.45	12.63	-5.11	12.35	191.96	-1246.17	-440.45	-613.76	-713.83
8	2	1505	20.73	-4.37	11.42	4.93	12.12	-812.55	-1836.32	-1316.17	-1332.70	-511.82
8	2	1506	23.59	2.53	9.81	16.31	10.02	-1466.50	-1957.34	-1691.05	-1732.79	-244.53
8	2	1507	26.17	5.64	7.25	24.56	5.51	-1720.39	-1861.64	-1736.86	-1845.17	45.33
8	2	1508	25.83	6.65	6.66	25.83	0.29	-1343.71	-1957.56	-1578.09	-1723.18	298.23
...												
8	66	1625	-7.40	-42.37	-24.29	-25.48	17.48	524.90	-439.76	21.67	63.47	481.88
M_G			N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
				-66.32	-39.77	-51.38	-33.21		-2443.47	-2157.00	-2438.69	-1163.56
			64.58		59.99	62.19	55.38	4764.28		3353.25	4361.88	1302.54

Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
			daN/cm2	daN/cm	daN/cm	daN/cm	daN/cm	daN/cm	daN	daN	daN	daN	daN
1	2	1	8.07	35.31	12.86	21.88	26.30	-11.00	49.40	-4532.68	-2162.12	-2321.15	2289.66
		2	7.64	15.24	-25.99	12.06	-22.81	-11.00	-342.24	-4634.86	-2244.42	-2732.68	2132.38
		33	7.34	-4.91	-32.70	-10.32	-27.29	-11.00	-754.78	-4694.16	-2637.62	-2811.32	1967.77
		32	7.76	26.34	-5.01	-0.50	21.82	-11.00	-351.08	-4604.03	-2555.31	-2399.79	2125.05
1	6	1	5.80	25.42	9.27	15.77	18.92	-7.92	35.09	-3252.81	-1549.31	-1668.41	1642.87
		2	5.48	11.01	-18.63	8.72	-16.34	-7.92	-247.78	-3325.86	-1608.63	-1965.01	1528.69
		33	5.26	-3.59	-23.51	-7.51	-19.59	-7.92	-546.59	-3369.59	-1894.08	-2022.11	1410.05
		32	5.57	18.91	-3.70	-0.46	15.67	-7.92	-254.92	-3305.34	-1834.76	-1725.51	1524.23
1	7	1	5.52	24.12	8.80	14.95	17.97	-7.51	31.22	-3102.92	-1483.11	-1588.60	1566.18
		2	5.23	10.41	-17.75	8.24	-15.58	-7.51	-234.85	-3174.84	-1539.44	-1870.25	1460.66
		33	5.02	-3.40	-22.35	-7.10	-18.65	-7.51	-513.81	-3212.46	-1803.26	-1923.02	1347.99
		32	5.31	17.97	-3.46	-0.39	14.90	-7.51	-239.66	-3148.62	-1746.93	-1641.36	1453.52
1	8	1	5.52	24.12	8.80	14.95	17.97	-7.51	31.22	-3102.92	-1483.11	-1588.60	1566.18
		2	5.23	10.41	-17.75	8.24	-15.58	-7.51	-234.85	-3174.84	-1539.44	-1870.25	1460.66
		33	5.02	-3.40	-22.35	-7.10	-18.65	-7.51	-513.81	-3212.46	-1803.26	-1923.02	1347.99
		32	5.31	17.97	-3.46	-0.39	14.90	-7.51	-239.66	-3148.62	-1746.93	-1641.36	1453.52
1	36	1	10.34	36.89	27.18	30.94	33.12	-4.73	50.26	-5943.25	-2801.67	-3091.32	2993.25
		2	9.87	18.30	-40.91	16.09	-38.70	-11.21	-510.36	-6098.49	-2920.85	-3688.00	2767.62
		33	9.80	0.29	-60.46	-15.15	-45.02	-26.46	-1108.79	-6176.78	-3484.51	-3801.06	2529.05
		32	10.25	37.31	-10.97	-0.46	26.79	-19.93	-529.02	-6040.54	-3365.18	-3204.39	2754.59
1	68	1	9.26	34.01	23.05	27.35	29.71	-5.35	46.13	-5304.96	-2505.21	-2753.62	2672.66
		2	8.83	16.50	-35.69	14.35	-33.53	-10.38	-448.54	-5441.50	-2610.32	-3279.73	2473.94
		33	8.73	-0.55	-51.91	-13.34	-39.12	-22.21	-975.38	-5510.71	-3106.83	-3379.26	2263.57
		32	9.14	32.93	-9.27	-0.46	24.12	-17.15	-464.04	-5390.72	-3001.60	-2853.16	2462.22
2	2	2	8.06	11.59	-31.24	4.65	-24.29	15.79	-971.30	-4971.43	-3049.11	-2893.61	1998.55



Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		3	6.97	29.03	-2.60	12.33	14.11	15.79	-39.38	-4035.09	-2737.74	-1336.74	1871.02
		34	8.82	24.45	-8.29	3.76	12.39	15.79	399.11	-4856.18	-3056.57	-1400.50	2493.77
		33	9.74	4.31	-34.23	-3.92	-26.01	15.79	-533.33	-5791.99	-3367.94	-2957.38	2621.30
2	6	2	5.78	8.43	-22.33	3.49	-17.39	11.29	-699.58	-3564.72	-2184.17	-2080.12	1431.62
		3	4.99	20.84	-1.78	8.98	10.08	11.29	-30.96	-2892.46	-1960.69	-962.73	1340.92
		34	6.32	17.42	-6.01	2.60	8.80	11.29	284.84	-3480.39	-2187.47	-1008.08	1787.87
		33	6.98	3.00	-24.55	-2.89	-18.66	11.29	-384.21	-4152.21	-2410.94	-2125.48	1878.58
2	7	2	5.52	7.98	-21.36	3.21	-16.59	10.82	-665.63	-3404.87	-2090.11	-1980.39	1368.52
		3	4.77	19.90	-1.77	8.46	9.66	10.82	-30.65	-2762.37	-1877.19	-915.83	1278.48
		34	6.04	16.60	-5.90	2.28	8.43	10.82	265.75	-3328.90	-2102.30	-960.85	1704.30
		33	6.68	2.73	-23.52	-2.97	-17.83	10.82	-370.13	-3970.50	-2315.22	-2025.41	1794.35
2	8	2	5.52	7.98	-21.36	3.21	-16.59	10.82	-665.63	-3404.87	-2090.11	-1980.39	1368.52
		3	4.77	19.90	-1.77	8.46	9.66	10.82	-30.65	-2762.37	-1877.19	-915.83	1278.48
		34	6.04	16.60	-5.90	2.28	8.43	10.82	265.75	-3328.90	-2102.30	-960.85	1704.30
		33	6.68	2.73	-23.52	-2.97	-17.83	10.82	-370.13	-3970.50	-2315.22	-2025.41	1794.35
2	40	2	10.51	11.00	-50.29	3.23	-42.52	20.38	-1350.38	-6458.46	-3936.36	-3872.48	2553.84
		3	8.84	33.22	-3.60	14.28	15.33	18.40	-143.50	-5184.34	-3523.32	-1804.53	2369.38
		34	11.65	37.42	-25.59	-0.64	12.47	30.82	420.86	-6305.72	-3988.33	-1896.53	3196.53
		33	13.09	9.65	-67.27	-11.99	-45.63	34.59	-794.75	-7570.51	-4400.76	-3964.49	3380.85
2	72	2	9.39	10.29	-43.82	3.20	-36.73	18.25	-1196.65	-5772.23	-3521.48	-3447.39	2287.49
		3	7.92	30.23	-3.20	12.98	14.05	16.71	-118.15	-4640.03	-3153.38	-1604.81	2124.23
		34	10.39	32.76	-21.18	0.03	11.55	26.35	386.06	-5636.75	-3564.43	-1686.26	2861.24
		33	11.65	8.07	-57.46	-9.98	-39.42	29.27	-699.35	-6761.56	-3932.06	-3528.85	3024.39
3	2	3	7.83	8.99	-18.74	-17.83	8.08	4.94	2308.22	-3030.36	55.87	-778.01	2636.53
		4	9.09	2.54	-20.28	-19.16	1.41	4.94	2915.49	-3289.78	113.85	-488.14	3088.00
		35	9.65	6.61	-6.56	-4.33	4.38	4.94	3781.18	-2801.06	1242.52	-262.41	3203.95
		34	8.43	12.61	-4.56	-2.99	11.04	4.94	3202.36	-2570.09	1184.55	-552.28	2752.48
3	6	3	5.62	6.44	-13.32	-12.63	5.75	3.63	1657.01	-2171.83	46.47	-561.29	1890.15
		4	6.52	1.89	-14.43	-13.58	1.04	3.63	2092.10	-2357.53	88.03	-353.47	2213.83
		35	6.92	4.70	-5.03	-3.40	3.07	3.63	2713.42	-2007.79	897.25	-191.62	2296.96
		34	6.05	8.94	-3.61	-2.46	7.79	3.63	2298.78	-1842.56	855.68	-399.45	1973.28
3	7	3	5.35	6.17	-12.89	-12.24	5.52	3.45	1574.19	-2074.51	33.39	-533.71	1802.18
		4	6.22	1.79	-13.94	-13.14	1.00	3.45	1990.10	-2252.93	72.97	-335.80	2111.65
		35	6.60	4.47	-4.88	-3.36	2.96	3.45	2583.05	-1917.48	846.63	-181.06	2190.81
		34	5.76	8.56	-3.53	-2.46	7.48	3.45	2186.63	-1758.56	807.05	-378.98	1881.35
3	8	3	5.35	6.17	-12.89	-12.24	5.52	3.45	1574.19	-2074.51	33.39	-533.71	1802.18
		4	6.22	1.79	-13.94	-13.14	1.00	3.45	1990.10	-2252.93	72.97	-335.80	2111.65
		35	6.60	4.47	-4.88	-3.36	2.96	3.45	2583.05	-1917.48	846.63	-181.06	2190.81
		34	5.76	8.56	-3.53	-2.46	7.48	3.45	2186.63	-1758.56	807.05	-378.98	1881.35
3	36	3	10.16	6.93	-40.56	-38.08	4.45	10.58	3050.39	-3822.93	287.77	-1060.31	3369.91
		4	11.86	3.49	-44.06	-39.29	-1.28	14.29	3810.32	-4150.72	353.62	-694.01	3945.90
		35	12.57	9.04	-26.44	-19.88	2.48	13.77	4921.36	-3550.01	1777.59	-406.24	4092.52
		34	10.93	12.74	-21.84	-18.67	9.57	9.99	4194.22	-3262.18	1704.34	-772.30	3516.53
3	68	3	9.08	6.79	-34.38	-32.31	4.72	8.99	2718.41	-3429.89	230.49	-941.96	3017.74
		4	10.59	3.09	-37.32	-33.46	-0.77	11.88	3401.13	-3724.15	290.44	-613.46	3533.86
		35	11.23	8.03	-21.62	-16.19	2.60	11.47	4395.96	-3183.00	1568.52	-355.55	3665.33
		34	9.77	11.76	-17.76	-15.05	9.05	8.53	3743.08	-2924.14	1502.84	-683.89	3149.21
4	2	4	10.76	0.79	-23.20	-23.05	0.63	-1.91	4968.48	-2146.75	2777.20	44.53	3284.78
		5	10.54	-1.58	-23.69	-23.52	-1.74	-1.91	4907.32	-2047.66	2783.52	76.14	3203.19
		36	10.29	3.22	-2.81	-2.12	2.54	-1.91	4765.76	-2150.85	2579.57	35.35	3215.84
		35	10.52	5.43	-2.17	-1.65	4.91	-1.91	4827.36	-2250.38	2573.24	3.74	3297.42
4	6	4	7.72	0.51	-16.70	-16.62	0.43	-1.20	3565.96	-1538.87	1998.47	28.62	2354.73
		5	7.56	-1.07	-17.02	-16.93	-1.16	-1.20	3521.65	-1467.91	2002.92	50.83	2295.92
		36	7.38	2.13	-2.47	-2.13	1.80	-1.20	3419.28	-1541.95	1855.90	21.43	2304.81
		35	7.54	3.65	-2.07	-1.81	3.39	-1.20	3463.92	-1613.24	1851.46	-0.78	2363.61
4	7	4	7.36	0.52	-16.06	-15.97	0.43	-1.20	3397.74	-1469.05	1899.24	29.46	2246.64
		5	7.21	-1.04	-16.38	-16.29	-1.14	-1.20	3356.05	-1401.82	1903.49	50.74	2191.15
		36	7.04	2.07	-2.39	-2.04	1.71	-1.20	3259.69	-1471.91	1764.78	23.00	2199.67
		35	7.20	3.56	-2.00	-1.73	3.28	-1.20	3301.67	-1539.43	1760.53	1.71	2255.15
4	8	4	7.36	0.52	-16.06	-15.97	0.43	-1.20	3397.74	-1469.05	1899.24	29.46	2246.64
		5	7.21	-1.04	-16.38	-16.29	-1.14	-1.20	3356.05	-1401.82	1903.49	50.74	2191.15
		36	7.04	2.07	-2.39	-2.04	1.71	-1.20	3259.69	-1471.91	1764.78	23.00	2199.67
		35	7.20	3.56	-2.00	-1.73	3.28	-1.20	3301.67	-1539.43	1760.53	1.71	2255.15
4	36	4	14.16	-4.82	-57.30	-57.28	-4.83	-0.85	6552.26	-2659.98	3877.70	14.58	4181.56
		5	13.70	-4.47	-57.98	-57.34	-5.11	5.80	6449.33	-2538.26	3880.86	30.21	4060.46
		36	13.23	2.45	-27.47	-26.07	1.05	6.32	6222.72	-2675.02	3577.83	-30.13	4066.71
		35	13.71	1.37	-26.02	-26.02	1.37	-0.36	6326.75	-2797.89	3574.67	-45.81	4187.81
4	68	4	12.63	-3.64	-48.08	-48.07	-3.66	-0.93	5843.27	-2392.08	3433.26	17.93	3746.88
		5	12.24	-3.82	-48.59	-48.18	-4.22	4.24	5753.99	-2282.52	3436.66	34.81	3640.50
		36	11.83	2.15	-21.65	-20.71	1.20	4.64	5556.65	-2404.37	3170.50	-18.22	3647.26
		35	12.24	1.81	-20.61	-20.59	1.80	-0.55	5646.84	-2514.88	3167.10	-35.14	3753.64
5	2	5	10.74	0.52	-17.37	-16.51	-0.34	-3.83	5392.07	-1530.01	3618.85	243.21	3021.60



Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		6	10.31	-1.79	-17.96	-17.00	-2.76	-3.83	5252.00	-1346.14	3626.15	279.72	2843.28
		37	9.81	5.00	-2.68	1.40	0.92	-3.83	4910.69	-1539.79	3180.34	190.56	2857.88
		36	10.27	6.51	-1.29	1.89	3.34	-3.83	5054.28	-1727.20	3173.04	154.05	3036.20
5	6	5	7.71	0.29	-12.82	-12.30	-0.24	-2.56	3869.10	-1097.26	2601.32	170.51	2165.41
		6	7.40	-1.29	-13.20	-12.62	-1.87	-2.56	3768.58	-965.75	2606.48	196.34	2037.47
		37	7.04	2.95	-2.21	0.07	0.67	-2.56	3523.30	-1104.30	2286.63	132.37	2047.80
		36	7.37	4.08	-1.38	0.40	2.30	-2.56	3626.37	-1238.36	2281.46	106.54	2175.74
5	7	5	7.35	0.30	-12.24	-11.72	-0.22	-2.51	3689.95	-1046.96	2477.46	165.53	2067.20
		6	7.06	-1.24	-12.62	-12.04	-1.82	-2.51	3594.12	-921.43	2482.41	190.29	1945.28
		37	6.72	2.91	-2.13	0.16	0.62	-2.51	3360.62	-1053.70	2177.59	129.32	1955.18
		36	7.03	4.00	-1.30	0.48	2.22	-2.51	3458.86	-1181.65	2172.64	104.57	2077.10
5	8	5	7.35	0.30	-12.24	-11.72	-0.22	-2.51	3689.95	-1046.96	2477.46	165.53	2067.20
		6	7.06	-1.24	-12.62	-12.04	-1.82	-2.51	3594.12	-921.43	2482.41	190.29	1945.28
		37	6.72	2.91	-2.13	0.16	0.62	-2.51	3360.62	-1053.70	2177.59	129.32	1955.18
		36	7.03	4.00	-1.30	0.48	2.22	-2.51	3458.86	-1181.65	2172.64	104.57	2077.10
5	36	5	14.36	-4.86	-58.99	-58.50	-5.35	-5.15	7111.84	-1862.82	4995.38	253.63	3809.86
		6	13.68	-6.48	-58.81	-58.74	-6.55	1.93	6927.93	-1639.65	5001.91	286.37	3576.55
		37	12.87	-0.55	-29.48	-29.33	-0.70	2.09	6465.15	-1876.85	4418.36	169.95	3589.57
		36	13.59	1.33	-29.93	-29.09	0.49	-5.06	6654.27	-2105.40	4411.83	137.04	3822.89
5	68	5	12.78	-3.73	-48.53	-48.06	-4.20	-4.56	6342.50	-1679.04	4429.64	233.81	3418.34
		6	12.19	-5.47	-48.34	-48.32	-5.49	0.94	6178.31	-1477.77	4435.81	264.73	3210.05
		37	11.48	-0.35	-22.80	-22.75	-0.40	1.06	5767.03	-1691.38	3914.88	160.77	3222.36
		36	12.12	1.72	-23.32	-22.49	0.88	-4.49	5935.80	-1897.36	3908.71	129.72	3430.66
6	2	6	9.64	0.53	-9.67	-8.14	-0.99	-3.64	5103.28	-1021.67	3772.60	309.01	2525.79
		7	9.12	-0.85	-10.20	-8.46	-2.59	-3.64	4929.01	-808.54	3779.07	341.39	2296.83
		38	8.46	7.93	-1.40	6.19	0.35	-3.64	4465.40	-1031.82	3206.67	226.91	2309.79
		37	9.01	8.52	-0.07	6.51	1.94	-3.64	4647.57	-1252.85	3200.19	194.53	2538.75
6	6	6	6.92	0.22	-7.52	-6.63	-0.67	-2.46	3661.83	-733.56	2711.02	217.25	1809.74
		7	6.56	-0.75	-7.84	-6.85	-1.75	-2.46	3537.08	-581.10	2715.64	240.34	1645.62
		38	6.08	4.60	-1.14	3.21	0.26	-2.46	3204.38	-740.75	2305.34	158.28	1654.86
		37	6.47	5.06	-0.29	3.42	1.34	-2.46	3334.81	-898.89	2300.73	135.19	1818.97
6	7	6	6.60	0.23	-7.09	-6.21	-0.65	-2.38	3493.96	-698.91	2584.37	210.68	1728.13
		7	6.25	-0.71	-7.42	-6.42	-1.70	-2.38	3374.69	-553.37	2588.75	232.57	1571.47
		38	5.80	4.55	-1.09	3.23	0.23	-2.38	3057.28	-705.93	2197.11	154.24	1580.23
		37	6.17	4.98	-0.26	3.44	1.28	-2.38	3181.96	-856.88	2192.73	132.35	1736.88
6	8	6	6.60	0.23	-7.09	-6.21	-0.65	-2.38	3493.96	-698.91	2584.37	210.68	1728.13
		7	6.25	-0.71	-7.42	-6.42	-1.70	-2.38	3374.69	-553.37	2588.75	232.57	1571.47
		38	5.80	4.55	-1.09	3.23	0.23	-2.38	3057.28	-705.93	2197.11	154.24	1580.23
		37	6.17	4.98	-0.26	3.44	1.28	-2.38	3181.96	-856.88	2192.73	132.35	1736.88
6	40	6	13.09	-5.29	-57.15	-56.39	-6.06	-6.26	6698.30	-1258.40	5123.80	316.10	3169.98
		7	12.37	-7.23	-56.63	-56.63	-7.23	4.51e-03	6487.97	-993.61	5132.87	361.48	2881.32
		38	11.35	-2.00	-30.42	-30.42	-2.00	-0.09	5890.03	-1264.94	4408.42	216.67	2899.26
		37	12.13	0.47	-31.50	-30.18	-0.85	-6.35	6110.57	-1539.92	4399.35	171.30	3188.00
6	72	6	11.63	-4.14	-45.90	-45.19	-4.85	-5.39	5977.70	-1132.40	4552.96	292.34	2846.08
		7	10.99	-5.99	-45.43	-45.42	-6.00	-0.53	5787.84	-894.44	4560.97	332.43	2587.10
		38	10.10	-1.48	-22.93	-22.91	-1.50	-0.60	5252.93	-1139.01	3911.36	202.56	2602.97
		37	10.79	0.90	-23.95	-22.68	-0.37	-5.47	5451.92	-1386.09	3903.35	162.48	2862.01
7	2	7	8.12	1.67	-3.93	-1.14	-1.12	-2.80	4514.81	-584.18	3620.88	309.75	1938.83
		8	7.64	1.11	-4.55	-1.33	-2.10	-2.80	4344.98	-384.71	3625.82	334.45	1698.30
		39	7.00	11.60	-0.36	10.90	0.34	-2.80	3831.21	-592.52	3024.50	214.19	1708.18
		38	7.50	11.85	0.58	11.10	1.33	-2.80	4012.80	-803.74	3019.57	189.49	1948.70
7	6	7	5.84	0.71	-3.29	-1.83	-0.75	-1.93	3240.18	-420.69	2601.89	217.59	1388.99
		8	5.50	0.25	-3.64	-1.97	-1.43	-1.93	3118.79	-277.98	2605.45	235.36	1216.62
		39	5.01	6.92	-0.32	6.36	0.24	-1.93	2750.27	-426.55	2174.54	149.18	1223.73
		38	5.37	7.10	0.32	6.50	0.92	-1.93	2880.09	-577.68	2170.99	131.41	1396.09
7	7	7	5.57	0.71	-3.06	-1.61	-0.74	-1.83	3093.23	-399.27	2482.62	211.34	1326.54
		8	5.24	0.28	-3.40	-1.73	-1.38	-1.83	2977.04	-263.27	2485.92	227.85	1161.97
		39	4.79	6.78	-0.29	6.27	0.22	-1.83	2625.20	-405.15	2074.49	145.56	1168.57
		38	5.13	6.95	0.31	6.39	0.86	-1.83	2749.44	-549.20	2071.19	129.05	1333.15
7	8	7	5.57	0.71	-3.06	-1.61	-0.74	-1.83	3093.23	-399.27	2482.62	211.34	1326.54
		8	5.24	0.28	-3.40	-1.73	-1.38	-1.83	2977.04	-263.27	2485.92	227.85	1161.97
		39	4.79	6.78	-0.29	6.27	0.22	-1.83	2625.20	-405.15	2074.49	145.56	1168.57
		38	5.13	6.95	0.31	6.39	0.86	-1.83	2749.44	-549.20	2071.19	129.05	1333.15
7	36	7	11.13	-3.81	-45.61	-44.48	-4.95	-6.80	5890.63	-716.97	4869.36	304.30	2388.54
		8	10.51	-6.55	-44.88	-44.81	-6.62	-1.63	5705.31	-465.60	4880.38	359.33	2100.01
		39	9.40	-2.38	-24.58	-24.41	-2.55	-1.94	5045.75	-723.57	4115.73	206.45	2121.48
		38	10.14	1.14	-26.14	-24.07	-0.93	-7.21	5261.51	-1005.10	4104.71	151.69	2431.25
7	68	7	9.88	-2.99	-35.92	-34.91	-4.01	-5.69	5261.88	-645.52	4333.02	283.34	2150.44
		8	9.32	-5.36	-35.29	-35.20	-5.45	-1.68	5091.99	-419.97	4342.30	329.72	1889.50
		39	8.34	-1.70	-17.79	-17.56	-1.93	-1.92	4501.62	-651.88	3657.04	192.71	1907.68
		38	9.00	1.41	-19.21	-17.27	-0.52	-6.01	4696.53	-902.26	3647.76	146.51	2184.48
8	2	8	6.68	4.77	-1.80	4.00	-1.04	-2.10	3886.55	-207.07	3391.83	287.65	1334.34



Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		9	6.31	4.58	-2.41	3.87	-1.70	-2.10	3746.49	-40.88	3396.19	309.43	1097.28
		40	5.70	15.35	0.23	15.05	0.53	-2.10	3208.85	-214.41	2803.54	190.90	1105.99
		39	6.11	15.49	0.89	15.18	1.20	-2.10	3363.80	-395.50	2799.19	169.12	1343.05
8	6	8	4.79	2.44	-1.37	1.75	-0.68	-1.47	2790.41	-151.12	2437.52	201.77	955.78
		9	4.52	2.28	-1.79	1.65	-1.16	-1.47	2690.43	-32.23	2440.67	217.53	785.90
		40	4.08	9.42	0.11	9.19	0.35	-1.47	2304.87	-156.32	2015.96	132.59	792.20
		39	4.37	9.53	0.58	9.28	0.82	-1.47	2415.48	-285.84	2012.81	116.83	962.08
8	7	8	4.57	2.37	-1.29	1.76	-0.68	-1.37	2665.84	-141.22	2328.30	196.32	913.00
		9	4.32	2.23	-1.67	1.67	-1.11	-1.37	2570.15	-28.17	2331.19	210.78	750.86
		40	3.90	9.16	0.13	8.95	0.35	-1.37	2202.10	-146.54	1925.85	129.72	756.64
		39	4.18	9.25	0.55	9.03	0.78	-1.37	2307.94	-269.73	1922.95	115.25	918.78
8	8	8	4.57	2.37	-1.29	1.76	-0.68	-1.37	2665.84	-141.22	2328.30	196.32	913.00
		9	4.32	2.23	-1.67	1.67	-1.11	-1.37	2570.15	-28.17	2331.19	210.78	750.86
		40	3.90	9.16	0.13	8.95	0.35	-1.37	2202.10	-146.54	1925.85	129.72	756.64
		39	4.18	9.25	0.55	9.03	0.78	-1.37	2307.94	-269.73	1922.95	115.25	918.78
8	40	8	9.15	-3.92	-39.17	-37.99	-5.10	-6.34	4969.25	-306.73	4396.18	266.33	1641.67
		9	8.64	-6.87	-38.67	-38.40	-7.14	-2.92	4810.15	-74.92	4408.31	326.92	1342.21
		40	7.45	-2.95	-21.39	-20.76	-3.59	-3.36	4124.03	-297.01	3651.45	175.58	1366.01
		39	8.05	0.77	-22.66	-20.35	-1.55	-6.99	4301.38	-548.02	3639.32	114.04	1665.01
8	72	8	8.12	-3.06	-30.16	-29.11	-4.11	-5.23	4451.39	-269.56	3931.31	250.51	1478.09
		9	7.66	-5.51	-29.73	-29.45	-5.79	-2.57	4306.56	-64.43	3941.37	300.76	1209.50
		40	6.61	-2.01	-14.83	-14.13	-2.71	-2.92	3691.99	-263.24	3263.53	165.22	1229.26
		39	7.14	1.17	-15.99	-13.79	-1.03	-5.74	3853.25	-485.44	3253.47	114.33	1497.50
9	2	9	5.67	8.22	-1.23	7.89	-0.90	-1.74	3383.48	94.94	3206.86	271.56	741.38
		10	5.46	8.08	-1.83	7.77	-1.51	-1.74	3295.86	199.02	3209.60	285.28	509.61
		41	4.78	18.88	0.51	18.71	0.68	-1.74	2733.64	65.93	2630.17	169.40	515.09
		40	5.02	19.01	1.12	18.83	1.29	-1.74	2835.57	-52.47	2627.42	155.68	746.87
9	6	9	4.06	4.76	-0.87	4.49	-0.59	-1.22	2430.67	64.60	2304.90	190.37	530.82
		10	3.90	4.66	-1.30	4.40	-1.03	-1.22	2368.24	138.99	2306.89	200.34	364.70
		41	3.41	11.84	0.30	11.70	0.43	-1.22	1965.12	43.72	1891.56	117.28	368.68
		40	3.59	11.93	0.73	11.79	0.87	-1.22	2037.74	-40.86	1889.57	107.31	534.81
9	7	9	3.88	4.54	-0.83	4.29	-0.59	-1.13	2324.33	64.93	2203.93	185.33	507.47
		10	3.73	4.44	-1.22	4.21	-0.98	-1.13	2264.59	135.54	2205.74	194.39	349.04
		41	3.26	11.43	0.32	11.32	0.44	-1.13	1880.11	44.70	1809.65	115.17	352.66
		40	3.43	11.52	0.72	11.40	0.84	-1.13	1949.54	-35.59	1807.84	106.11	511.10
9	8	9	3.88	4.54	-0.83	4.29	-0.59	-1.13	2324.33	64.93	2203.93	185.33	507.47
		10	3.73	4.44	-1.22	4.21	-0.98	-1.13	2264.59	135.54	2205.74	194.39	349.04
		41	3.26	11.43	0.32	11.32	0.44	-1.13	1880.11	44.70	1809.65	115.17	352.66
		40	3.43	11.52	0.72	11.40	0.84	-1.13	1949.54	-35.59	1807.84	106.11	511.10
9	40	9	7.42	-3.91	-29.23	-28.06	-5.08	-5.32	4202.83	46.77	4003.60	246.00	887.88
		10	7.11	-6.71	-28.84	-28.46	-7.09	-2.88	4103.82	201.42	4012.88	292.36	588.73
		41	5.83	-3.13	-15.21	-14.13	-4.20	-3.44	3376.20	28.30	3262.23	142.27	607.09
		40	6.22	0.34	-16.26	-13.73	-2.19	-5.97	3494.57	-146.01	3252.95	95.60	906.22
9	72	9	6.60	-2.99	-21.91	-20.83	-4.07	-4.38	3780.54	50.78	3599.01	232.31	802.58
		10	6.32	-5.33	-21.55	-21.16	-5.72	-2.49	3690.32	186.61	3606.61	270.31	535.05
		41	5.18	-1.87	-9.74	-8.45	-3.17	-2.92	3039.84	31.93	2935.63	136.14	550.10
		40	5.52	1.09	-10.71	-8.12	-1.51	-4.89	3147.25	-121.29	2928.02	97.94	817.62
10	2	10	5.22	10.99	-1.11	10.79	-0.91	-1.55	3143.14	259.00	3132.32	269.83	176.34
		11	5.20	10.87	-1.70	10.67	-1.50	-1.55	3133.88	275.27	3133.48	275.67	-33.78
		42	4.48	22.03	0.63	21.92	0.75	-1.55	2550.22	158.53	2549.82	158.93	-31.18
		41	4.51	22.15	1.22	22.03	1.34	-1.55	2561.94	139.80	2548.65	153.09	178.94
10	6	10	3.73	6.68	-0.77	6.52	-0.61	-1.07	2259.14	181.61	2251.49	189.26	125.85
		11	3.72	6.59	-1.17	6.44	-1.02	-1.07	2252.62	193.16	2252.33	193.46	-24.77
		42	3.20	13.99	0.38	13.90	0.47	-1.07	1834.25	109.48	1833.94	109.78	-22.90
		41	3.21	14.07	0.80	13.99	0.88	-1.07	1842.49	96.20	1833.10	105.59	127.71
10	7	10	3.57	6.32	-0.74	6.18	-0.59	-1.01	2161.63	176.65	2154.21	184.08	121.21
		11	3.56	6.24	-1.12	6.10	-0.98	-1.01	2155.23	187.69	2154.98	187.95	-22.37
		42	3.06	13.48	0.41	13.40	0.48	-1.01	1756.40	107.92	1756.14	108.18	-20.65
		41	3.08	13.56	0.79	13.47	0.87	-1.01	1764.47	95.21	1755.37	104.31	122.93
10	8	10	3.57	6.32	-0.74	6.18	-0.59	-1.01	2161.63	176.65	2154.21	184.08	121.21
		11	3.56	6.24	-1.12	6.10	-0.98	-1.01	2155.23	187.69	2154.98	187.95	-22.37
		42	3.06	13.48	0.41	13.40	0.48	-1.01	1756.40	107.92	1756.14	108.18	-20.65
		41	3.08	13.56	0.79	13.47	0.87	-1.01	1764.47	95.21	1755.37	104.31	122.93
10	40	10	6.46	-4.76	-21.65	-20.84	-5.57	-3.61	3800.35	240.91	3792.88	248.38	162.89
		11	6.43	-6.35	-21.47	-21.08	-6.74	-2.40	3802.10	264.50	3797.11	269.49	-132.78
		42	5.08	-3.05	-9.63	-8.47	-4.21	-2.51	3043.00	112.20	3037.48	117.72	-127.06
		41	5.13	-0.89	-10.37	-8.24	-3.02	-3.96	3043.29	85.97	3033.25	96.01	171.97
10	72	10	5.76	-3.63	-15.62	-14.80	-4.45	-3.03	3431.89	226.51	3424.50	233.90	153.70
		11	5.73	-5.02	-15.44	-15.00	-5.46	-2.08	3431.61	247.49	3427.95	251.15	-107.85
		42	4.53	-1.19	-5.55	-3.58	-3.16	-2.17	2753.37	111.51	2749.35	115.54	-103.04
		41	4.57	0.59	-6.12	-3.38	-2.15	-3.30	2755.67	88.11	2745.90	97.87	161.13
11	2	11	5.39	14.37	-0.93	14.23	-0.79	-1.47	3195.38	228.31	3145.60	278.09	-381.08



Elem.	Cmb	Nodo	Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
		12	5.60	14.24	-1.56	14.10	-1.43	-1.47	3276.26	136.05	3143.70	268.61	-631.42
		43	4.94	24.89	0.62	24.80	0.71	-1.47	2731.20	-1.62	2574.75	154.82	-634.87
		42	4.71	25.02	1.26	24.93	1.35	-1.47	2636.46	104.49	2576.65	164.30	-384.53
11	6	11	3.86	8.94	-0.64	8.84	-0.54	-0.97	2296.63	159.55	2260.99	195.19	-273.67
		12	4.00	8.85	-1.06	8.75	-0.96	-0.97	2354.39	93.54	2259.62	188.31	-453.09
		43	3.53	15.91	0.40	15.85	0.46	-0.97	1963.63	-5.02	1851.85	106.76	-455.59
		42	3.36	16.00	0.81	15.94	0.88	-0.97	1896.02	70.85	1853.22	113.64	-276.17
11	7	11	3.68	8.52	-0.61	8.41	-0.51	-0.96	2196.86	155.98	2163.24	189.60	-259.77
		12	3.82	8.43	-1.02	8.33	-0.93	-0.96	2251.72	93.54	2161.98	183.27	-430.83
		43	3.37	15.33	0.40	15.27	0.46	-0.96	1878.98	-0.27	1773.19	105.52	-433.13
		42	3.21	15.42	0.81	15.36	0.88	-0.96	1814.79	71.51	1774.46	111.84	-262.07
11	8	11	3.68	8.52	-0.61	8.41	-0.51	-0.96	2196.86	155.98	2163.24	189.60	-259.77
		12	3.82	8.43	-1.02	8.33	-0.93	-0.96	2251.72	93.54	2161.98	183.27	-430.83
		43	3.37	15.33	0.40	15.27	0.46	-0.96	1878.98	-0.27	1773.19	105.52	-433.13
		42	3.21	15.42	0.81	15.36	0.88	-0.96	1814.79	71.51	1774.46	111.84	-262.07
11	36	11	6.48	-4.93	-14.97	-14.41	-5.48	-2.29	3860.65	167.34	3767.15	260.84	-580.15
		12	6.79	-5.43	-14.43	-14.41	-5.45	-0.41	3980.62	25.88	3763.56	242.94	-900.72
		43	5.65	-3.13	-3.71	-3.54	-3.30	-0.26	3290.74	-161.53	3033.11	96.09	-907.21
		42	5.26	-1.19	-5.68	-3.55	-3.32	-2.24	3150.07	1.60	3036.70	114.97	-586.59
11	68	11	5.78	-3.67	-10.01	-9.30	-4.37	-1.99	3486.36	165.18	3406.71	244.83	-508.12
		12	6.06	-4.38	-9.38	-9.32	-4.44	-0.54	3591.68	41.46	3403.64	229.50	-795.12
		43	5.09	0.72	-2.51	0.67	-2.46	-0.42	2972.91	-124.80	2749.90	98.21	-800.68
		42	4.78	1.63	-3.33	0.68	-2.38	-1.95	2849.42	17.79	2752.97	114.24	-513.64
12	2	12	6.23	17.08	-0.95	16.98	-0.85	-1.32	3569.51	-9.43	3266.84	293.24	-995.80
		13	6.57	16.94	-1.62	16.85	-1.52	-1.32	3701.91	-160.26	3263.77	277.88	-1224.83
		44	6.00	27.68	0.57	27.62	0.63	-1.32	3191.58	-337.03	2691.19	163.36	-1230.98
		43	5.62	27.82	1.24	27.75	1.30	-1.32	3044.55	-171.57	2694.26	178.72	-1001.94
12	6	12	4.45	10.69	-0.65	10.63	-0.59	-0.85	2564.10	-10.33	2347.82	205.95	-714.15
		13	4.70	10.60	-1.08	10.54	-1.01	-0.85	2658.61	-118.31	2345.58	194.73	-878.23
		44	4.29	17.76	0.38	17.71	0.42	-0.85	2292.79	-244.72	1935.38	112.69	-882.72
		43	4.01	17.84	0.81	17.80	0.85	-0.85	2187.84	-126.31	1937.62	123.91	-718.64
12	7	12	4.25	10.28	-0.62	10.21	-0.55	-0.86	2450.30	-5.57	2244.88	199.85	-679.93
		13	4.49	10.19	-1.06	10.12	-0.99	-0.86	2540.49	-107.97	2242.84	189.67	-836.49
		44	4.09	17.15	0.36	17.11	0.41	-0.86	2191.15	-228.33	1851.43	111.39	-840.56
		43	3.84	17.24	0.80	17.20	0.85	-0.86	2091.02	-115.98	1853.46	121.57	-684.00
12	8	12	4.25	10.28	-0.62	10.21	-0.55	-0.86	2450.30	-5.57	2244.88	199.85	-679.93
		13	4.49	10.19	-1.06	10.12	-0.99	-0.86	2540.49	-107.97	2242.84	189.67	-836.49
		44	4.09	17.15	0.36	17.11	0.41	-0.86	2191.15	-228.33	1851.43	111.39	-840.56
		43	3.84	17.24	0.80	17.20	0.85	-0.86	2091.02	-115.98	1853.46	121.57	-684.00
12	28	12	7.62	-4.17	-8.91	-8.51	-4.57	-1.31	4425.39	-203.99	3944.43	276.97	-1412.52
		13	8.12	-3.83	-8.36	-8.36	-3.83	8.39e-03	4596.62	-420.95	3936.81	238.86	-1695.67
		44	7.27	2.12	-1.81	2.06	-1.75	0.48	3982.08	-656.50	3228.65	96.93	-1710.90
		43	6.76	2.07	-2.65	1.91	-2.49	-0.86	3793.52	-421.84	3236.28	135.40	-1427.75
12	60	12	6.79	-2.74	-5.24	-4.31	-3.67	-1.21	3981.20	-158.90	3562.65	259.65	-1248.05
		13	7.23	-3.16	-4.25	-4.21	-3.19	-0.19	4134.36	-350.31	3556.27	227.78	-1502.78
		44	6.55	5.44	-1.27	5.44	-1.26	0.18	3579.39	-559.97	2919.24	100.17	-1515.52
		43	6.10	5.44	-1.84	5.34	-1.74	-0.86	3410.51	-352.60	2925.62	132.29	-1260.79
13	2	13	7.31	19.19	-1.11	19.15	-1.06	-0.95	4034.98	-360.57	3374.40	300.01	-1570.74
		14	7.74	19.07	-1.70	19.03	-1.66	-0.95	4195.29	-534.12	3372.19	288.97	-1793.11
		45	7.26	30.14	0.52	30.11	0.55	-0.95	3726.71	-732.66	2816.27	177.79	-1797.53
		44	6.81	30.26	1.12	30.23	1.15	-0.95	3555.45	-548.15	2818.48	188.82	-1575.16
13	6	13	5.23	11.99	-0.76	11.97	-0.73	-0.58	2896.73	-261.41	2424.76	210.57	-1125.97
		14	5.53	11.92	-1.13	11.89	-1.11	-0.58	3011.18	-385.60	2423.13	202.45	-1285.17
		45	5.19	19.36	0.36	19.35	0.38	-0.58	2675.45	-527.48	2025.12	122.84	-1288.42
		44	4.86	19.44	0.74	19.42	0.76	-0.58	2553.18	-395.47	2026.75	130.96	-1129.21
13	7	13	4.99	11.63	-0.73	11.60	-0.70	-0.61	2765.98	-245.07	2316.51	204.41	-1073.02
		14	5.28	11.55	-1.12	11.53	-1.09	-0.61	2875.47	-363.17	2315.07	197.22	-1225.10
...													
1667	57	1625	7.73	-2.25	-20.97	-19.90	-3.32	4.35	603.03	-646.10	-414.84	371.77	485.18
Elem.			Von Mises	N max	N min	N 1	N 2	N 1-2	M max	M min	M 1	M 2	M 1-2
					-1052.15	-238.63	-982.12	-287.26		-2.028e+04	-1.477e+04	-2.026e+04	-4846.96
			37.17	324.57		224.67	223.66	141.20	7486.06		7279.49	7180.27	6190.87



VERIFICHE ELEMENTI PARETE E GUSCIO IN C.A.

LEGENDA TABELLA VERIFICHE ELEMENTI PARETE E GUSCIO IN C.A.

Per le pareti in c.a., in ottemperanza al cap. 7 del DM 17-01-18, viene effettuata una doppia progettazione: sia come *Singolo Elemento* sia come *Parete Sismica o Parete Debolmente Armata*.

Per la progettazione come *Singolo Elemento* di ogni elemento vengono riportati il codice dello stato di verifica con le sigle **Ok e NV**, il rapporto x/d , la verifica per sollecitazioni ultime (verifica a compressione media gli sforzi membranali, verifica a presso-flessionale e verifica a sollecitazioni taglianti), gli sforzi membranali e flessionali, il quantitativo di armatura nella direzione principale e secondaria sia inferiore che superiore e il quantitativo di armatura a taglio.

Per la progettazione come *Parete Sismica o Parete Debolmente Armata* vengono riportate invece le caratteristiche geometriche della parete e delle zone dissipative (quest'ultime solo nel caso di parete sismica), i coefficienti di verifica a compressione assiale, pressoflessione e sollecitazioni taglianti.

Inoltre vengono riportate per ogni quota significativa l'armatura principale e secondaria, l'armatura in zona confinata (solo per parete sismica) e non confinata, l'armatura concentrata all'estremità (per pareti debolmente armate), lo sforzo assiale aggiuntivo per q superiore a 2 e i valori di involuppo di taglio e momento. Per le pareti debolmente armate viene riportato anche lo stato di verifica relativo alla snellezza.

Le azioni derivate dall'analisi, in ogni combinazione di calcolo, sono elaborate come previsto al punto 7.4.4.5.1: traslazione del momento, incremento e variazione diagramma taglio, incremento e decremento sforzo assiale.

La progettazione nel caso dei gusci viene effettuata una progettazione come *Singolo Elemento*, riportando in tabella il rapporto x/d , la verifica per sollecitazioni ultime, (verifica a compressione media gli sforzi membranali, verifica a presso-flessionale e verifica a sollecitazioni taglianti) di ogni elemento.

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

Nel caso dei gusci viene effettuata, inoltre, la verifica a punzonamento, riportando in tabella il codice dello stato di verifica, il coefficiente di verifica per piastre prive di armature a taglio lungo il perimetro resistente e lungo il perimetro del pilastro, coefficiente di incremento dovuto ai momenti flettenti, fattore di amplificazione per le fondazioni, il fattore di amplificazione dell'altezza utile per individuare il perimetro di verifica lungo il quale l'armatura a taglio non è richiesta, il quantitativo di armatura a punzonamento, il numero di serie di armature, il numero di braccia di armatura ed il riferimento alla combinazione più gravosa.

Per gli elementi di fondazione si fa riferimento al paragrafo 7.2.5 del D.M.17/01/2018 che prevede:

"Sia per CD"A" sia per CD"B" il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azione in fondazione, trasmessa dagli elementi soprastanti, una tra le seguenti:

- *quella derivante dall'analisi strutturale eseguita ipotizzando comportamento strutturale non dissipativo;*
- *[...];*
- *quella trasferita dagli elementi soprastanti nell'ipotesi di comportamento strutturale dissipativo, amplificata di un coefficiente pari a 1,30 in CD"A" e 1,10 in CD"B"*

[...]

Le strutture delle fondazioni superficiali devono essere progettate per le azioni definite al precedente capoverso, assumendo un comportamento non dissipativo; non sono quindi necessarie armature specifiche per ottenere un



comportamento duttile."

Nel caso di comportamento strutturale dissipativo l'incremento delle sollecitazioni sopracitato viene eseguito come previsto dall'Eurocodice

$$E_{Fd} = E_{F,G} + \gamma_{Rd} \Omega E_{F,E}$$

Nel contesto visualizzazione risultati e nella stampa della relazione sulle fondazioni PRO_SAP mostra le sollecitazioni che derivano dall'analisi non incrementate sia in termini di pressioni sul terreno che in termini di sollecitazioni.

Simbologia adottata nelle tabelle di verifica

Per gli elementi con progettazione di tipo "Singolo Elemento ..." è presente una tabella con i simboli di seguito descritti:

Macro Guscio	Numero del macroelemento di tipo guscio (elementi non verticali contigui ed analoghi per proprietà)
Macro Setto	Numero del macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà)
Spessore	Spessore della parete
Id Materiale	Codice del materiale assegnato all'elemento
Id Criterio	Codice del criterio di progetto assegnato all'elemento
Progettazione	Sigla tipo di Elemento: - Singolo Elemento; - Singolo Elemento FONDAZIONE; - Singolo Elemento NON DISSIPATIVO

Per gli elementi con progettazione di tipo "Parete Sismica" e "Parete Debolmente Armata" è presente una tabella con i simboli di seguito descritti:

Parete	Numero della PARETE SISMICA
Parete PDA	Numero della PARETE DEBOLMENTE ARMATA
H totale	Altezza complessiva della parete
Spessore	Spessore della parete
H critica	Altezza come da punto 7.4.4.5.1 per traslazione momento (solo in Parete Sismica)
H critica V	Altezza della zona dissipativa (solo in Parete Sismica)
L totale	Larghezza di base della parete
L confinata	Lunghezza della zona dissipativa (solo in Parete Sismica)
Verif. N	Verifica di cui al punto 7.4.4.5.1 compressione semplice
Verif. N-M	Verifica di cui al punto 7.4.4.5.1 pressoflessione
Fattore V	Fattore di amplificazione del taglio di cui al punto 7.4.4.5.1
Diagramma V	Diagramma elaborato per effetto modi superiori come da fig. 7.4.4
Verif. V	Verifica di cui al punto 7.4.4.5.1 taglio (compressione cls, trazione acciaio, scorrimento in zona critica) (solo in Parete Sismica)
Verifica Snellezza	Verifica di cui al punto 7.4.4.5.1 limitazione compressione per prevenire l'instabilità (solo in Parete Debolmente Armata)
Prog. composta	Sigla per la progettazione composta

Sia per le verifiche degli elementi con progettazione di tipo "Singolo Elemento ..." e "Parete ..." è presente una tabella con i simboli di seguito descritti:

Nodo	Numero del nodo
Stato	Codice di verifica dell'elemento ok o NV
x/d	Rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
V N/M	Verifica delle sollecitazioni Normali (momento e sforzo normale)
Ver. rid	Rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd)
Af pr+	Quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)



Af pr-	Quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec+	Quantità di armatura richiesta in direzione secondaria relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	Quantità di armatura richiesta in direzione secondaria relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Nz No Nzo	Sforzi membranali per pareti e/o setti verticali
Mz Mo Mzo	Sforzi flessionali per pareti e/o setti verticali
Nx Ny Nxy	Sforzi membranali per gusci orizzontali
Mx Mx Mxy	Sforzi flessionali per gusci orizzontali

Nodo	Numero del nodo
Stato	Codice di verifica dell'elemento ok, NV oppure ok Av (verificata, ma con richiesta di armatura a taglio)
Max tau	Tensione tangenziale Massima
Ver V pr	Verifica a taglio nella direzione principale lato calcestruzzo
Ver V sec	Verifica a taglio nella direzione secondaria lato calcestruzzo
Af V pr	Armatura nella direzione principale
V pr-	Verifica dell'armatura nella direzione principale
Af V sec	Armatura nella direzione secondaria
V sec-	Verifica dell'armatura nella direzione secondaria

Per le verifiche degli elementi con progettazione "*Parete Sismica o Parete Debolmente Armata*", oltre alla tabella con le verifiche per gli elementi con progettazione "*Singolo Elemento ...*", è presente una tabella con i simboli di seguito descritti:

Quota	Ascissa verticale di riferimento
Af conf.	Numero e diametro armatura presente in una zona confinata
Af std	Diametro e passo armatura in zona non confinata (doppia maglia)
Af estremi	Diametro dei ferri di estremità del pannello; se posto uguale 0, viene utilizzato il diametro standard
Af V (ori)	Diametro e passo armatura orizzontale (doppia maglia)
Ver. N	Rapporto tra azione di calcolo e resistenza a compressione (normalizzato a 1 in quanto da confrontare con 40% in CDB e 35 % in CDA)
Ver. N/M	Rapporto tra azione di calcolo e resistenza a pressoflessione
Ver. V acc(7)	Rapporto tra azione di calcolo e resistenza a taglio-trazione per alfaS minore di 2 secondo paragrafo 7.4.4.5.1
Ver. V cls	Rapporto tra azione di calcolo e resistenza a taglio-compressione
Ver. V acc	Rapporto tra azione di calcolo e resistenza a taglio-trazione
Ver. V scorr.	Rapporto tra azione di calcolo e resistenza a taglio scorrimento
N add	Sforzo assiale di cui al punto 7.4.4.5.1 da sommare e sottrarre nelle verifiche quando q supera 2
N invil M invil	Inviluppo del Momento e Sforzo Normale come al punto 7.4.4.5.1 (informativo) (solo in Parete Sismica)

Quota	Ascissa verticale di riferimento
N v.N	Valore dello sforzo assiale per cui Ver. N attinge il massimo valore
N v.M/N, M v.M/N	Valore dello sforzo assiale e momento per cui Ver. N/M attinge il massimo valore
N v.M/N, M v.M/N Mo v.M/N	Valore dello sforzo assiale e dei momenti per cui Ver. N/M attinge il massimo valore (per le pareti estese debolmente armate)
N v.Vcls, V v.Vcls,	Valore dello sforzo assiale e taglio per cui Ver. V. cls attinge il massimo valore



N v.Vacc, M v.Vacc, V v.Vacc,	Valore dello sforzo assiale, momento e taglio per cui Ver. V. acc attinge il massimo valore
N v.Vscorr, M v.Vscorr, V v.Vscorr,	Valore dello sforzo assiale, momento e taglio per cui Ver. V. scorr.e attinge il massimo valore
N v.N	Valore dello sforzo assiale per cui Ver. N attinge il massimo valore
N v.M/N, M v.M/N	Valore dello sforzo assiale e momento per cui Ver. N/M attinge il massimo valore
N v.M/N, M v.M/N Mo v.M/N	Valore dello sforzo assiale e dei momenti per cui Ver. N/M attinge il massimo valore (per le pareti estese debolmente armate)
N v.Vcls, V v.Vcls,	Valore dello sforzo assiale e taglio per cui Ver. V. cls attinge il massimo valore

Quota	Ascissa verticale di riferimento
CtgT Vcls	Valore di ctg(teta) adottato nella verifica V compressione cls
Vrsd Vcls	Valore della resistenza a taglio trazione (armatura di calcolo)
Vrcd Vcls	Valore della resistenza a taglio compressione
CtgT Vacc	Valore di ctg(teta) adottato nella verifica V trazione armatura
Vrsd Vacc	Valore della resistenza a taglio trazione (armatura presente)
Vrcd Vacc	Valore della resistenza a taglio compressione
Vdd	Valore del contributo alla resistenza allo scorrimento come da [7.4.20]
Vid	Valore del contributo alla resistenza allo scorrimento come da [7.4.21]
A s.i.	Somma delle aree di armature
Incli.	Angolo di inclinazione delle armature
Dist.	Distanza alla base tra le armature inclinate

Quota	Ascissa verticale di riferimento
V[7.4.16]	Verifica a taglio-trazione dell'armatura dell'anima (7.4.16)
N M V	Sollecitazioni di calcolo della condizione più gravosa
Alfas	Rapporto di Taglio
Vrd,c	Resistenza a taglio degli elementi non armati
VRd,s	Resistenza a taglio nei confronti dello scorrimento
V[7.4.17]	Verifica a taglio-trazione dell'armatura dell'anima (7.4.17)
roH	Rapporto tra l'armatura orizzontale e l'area della sezione relativa di calcestruzzo
roV	Rapporto tra l'armatura verticale e l'area della sezione relativa di calcestruzzo
roN	Sforzo normale adimensionalizzato Ned/(bw fyd)

Per la verifica a **Punzonamento** è presente una tabella con i simboli di seguito descritti:

Nodo	Numero del nodo
Stato	Codice di verifica dell'elemento ok o NV
V. 6.47	Fattore di sicurezza per la verifica per piastre prive di armature a taglio lungo il perimetro resistente U1
V. 6.53	Fattore di sicurezza per la verifica per piastre prive di armature a taglio lungo il perimetro del pilastro U0
Beta	Fattore di incremento dovuto ai momenti flettenti
f. a fon	Fattore di amplificazione per le fondazioni (solo per gusci di fondazione)
f. Uout	Fattore di amplificazione dell'altezza utile per individuare il perimetro di verifica lungo il quale l'armatura a taglio non è richiesta
Aw tot	Quantitativo di armatura per la verifica di piastre munite di armatura (formula 6.52 dell'EC2)
Asw,min	Quantitativo minimo di armatura previsto dai dettagli costruttivi (formula 9.11 dell'EC2)
n. x serie	Numero di serie di armature
n.ser 0(R)	Numero di braccia delle armature in direzione 0 (o numero di braccia radiale)
n.ser 90	Numero di braccia delle armature in direzione 90 (solo se armatura cruciforme)



Rif. cmb Riferimento combinazioni da cui si generano le verifiche più gravose

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
2	35.00	6	9	Singolo elemento NON DISSIPATIVO

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
33	ok	0.12	0.2	0.1	8.0	8.0	8.0	8.0	-667.6	-152.3	175.3	-2639.2	-350.0	756.5
64	ok	0.12	0.3	4.60e-02	8.0	8.0	8.0	8.0	-79.2	30.1	77.9	-1850.7	-433.1	741.9
95	ok	0.12	0.2	1.27e-02	8.0	8.0	8.0	8.0	-42.5	43.8	77.9	-1291.8	-321.3	723.1
126	ok	0.12	0.2	4.67e-03	8.0	8.0	8.0	8.0	11.2	59.5	52.4	-685.7	-96.8	646.3
157	ok	0.12	0.2	3.69e-03	8.0	8.0	8.0	8.0	28.5	67.1	39.8	-225.2	39.7	332.0
188	ok	0.12	0.3	6.39e-03	8.0	8.0	8.0	8.0	-1.6	60.1	-54.6	947.6	329.6	-516.4
219	ok	0.12	0.3	1.05e-02	8.0	8.0	8.0	8.0	-24.6	49.1	-69.7	2103.3	414.3	-550.9
250	ok	0.12	0.5	1.43e-02	8.0	8.0	8.0	8.0	-51.8	29.2	-77.0	2968.9	524.8	-399.2
281	ok	0.12	0.5	1.75e-02	8.0	8.0	8.0	8.0	-77.5	20.4	-82.5	3253.2	570.0	-170.5
312	ok	0.12	0.5	1.95e-02	8.0	8.0	8.0	8.0	-108.4	-1.6	-85.0	2987.5	517.6	202.4
343	ok	0.12	0.3	2.05e-02	8.0	8.0	8.0	8.0	-120.2	-14.8	-78.3	2224.7	382.9	475.2
374	ok	0.12	0.2	2.01e-02	8.0	8.0	8.0	8.0	-113.1	-24.5	-68.6	1140.8	308.9	640.1
405	ok	0.12	0.1	1.89e-02	8.0	8.0	8.0	8.0	-106.3	-21.0	-68.6	242.9	129.2	524.9
436	ok	0.12	5.99e-02	2.61e-02	8.0	8.0	8.0	8.0	-125.4	-32.2	-66.8	256.9	205.6	165.6
497	ok	0.12	0.1	0.1	8.0	8.0	8.0	8.0	-666.0	-129.7	175.3	-2636.0	-334.0	517.5
500	ok	0.12	0.3	4.53e-02	8.0	8.0	8.0	8.0	-91.4	-83.7	88.8	-2007.2	-439.5	537.3
503	ok	0.12	0.1	2.49e-02	8.0	8.0	8.0	8.0	-54.7	-69.9	88.8	-1395.9	-317.2	520.0
506	ok	0.12	0.2	1.28e-02	8.0	8.0	8.0	8.0	11.9	-3.5	39.8	-573.3	501.6	299.3
509	ok	0.12	0.3	7.64e-03	8.0	8.0	8.0	8.0	2.5	42.5	-54.6	309.2	953.1	-413.3
538	ok	0.12	0.3	7.16e-03	8.0	8.0	8.0	8.0	-6.2	42.9	-54.6	1097.7	1107.9	-778.8
542	ok	0.12	0.4	1.06e-02	8.0	8.0	8.0	8.0	-26.9	34.0	-69.7	2090.9	352.1	-969.3
546	ok	0.12	0.5	1.39e-02	8.0	8.0	8.0	8.0	-52.5	34.8	-77.0	2908.6	224.0	-695.6
550	ok	0.12	0.5	1.67e-02	8.0	8.0	8.0	8.0	-75.8	29.6	-85.8	3185.6	221.5	-274.2
554	ok	0.12	0.4	1.84e-02	8.0	8.0	8.0	8.0	-104.6	26.8	-85.0	2913.4	152.5	463.2
558	ok	0.12	0.4	1.94e-02	8.0	8.0	8.0	8.0	-115.0	23.2	-78.3	2175.5	139.1	854.3
562	ok	0.12	0.3	1.86e-02	8.0	8.0	8.0	8.0	-107.3	16.6	-68.6	1189.9	554.9	948.4
566	ok	0.12	0.2	1.70e-02	8.0	8.0	8.0	8.0	-88.4	12.5	-66.8	424.5	1317.4	420.4
570	ok	0.12	0.2	2.44e-02	8.0	8.0	8.0	8.0	-119.3	6.7	-66.8	481.3	1327.9	126.5
599	ok	0.12	8.87e-02	6.24e-02	8.0	8.0	8.0	8.0	-410.7	-62.2	98.8	-1575.6	-203.6	289.2
602	ok	0.12	0.1	3.69e-02	8.0	8.0	8.0	8.0	-165.9	-70.9	123.3	-1251.1	-254.4	327.9
605	ok	0.12	0.1	2.29e-02	8.0	8.0	8.0	8.0	-77.5	-37.1	123.3	-815.3	-167.6	308.6
608	ok	0.12	0.1	1.66e-02	8.0	8.0	8.0	8.0	5.5	-57.9	63.5	-182.8	839.6	112.0
611	ok	0.12	0.4	1.27e-02	8.0	8.0	8.0	8.0	4.5	38.0	-57.2	290.6	2025.8	-396.4
640	ok	0.12	0.4	7.77e-03	8.0	8.0	8.0	8.0	-6.3	35.7	-57.2	147.8	2001.0	-936.3
644	ok	0.12	0.3	1.05e-02	8.0	8.0	8.0	8.0	-33.5	40.3	-74.6	-1520.6	-1107.3	-883.5
648	ok	0.12	0.3	1.34e-02	8.0	8.0	8.0	8.0	-50.8	35.4	-73.7	-2063.5	-1222.3	-725.7
652	ok	0.12	0.4	1.58e-02	8.0	8.0	8.0	8.0	-70.1	38.4	-80.7	-2323.8	-1462.4	-257.1
656	ok	0.12	0.4	1.73e-02	8.0	8.0	8.0	8.0	-88.4	49.6	-77.4	-2240.8	-1421.7	549.1
660	ok	0.12	0.4	1.78e-02	8.0	8.0	8.0	8.0	-95.1	48.1	-77.4	-1851.7	-1343.8	743.2
664	ok	0.12	0.3	1.68e-02	8.0	8.0	8.0	8.0	-90.1	55.3	-71.5	-1134.7	-773.8	987.1
668	ok	0.12	0.5	1.45e-02	8.0	8.0	8.0	8.0	-70.0	65.8	-65.9	356.2	2890.2	478.3
672	ok	0.12	0.5	1.07e-02	8.0	8.0	8.0	8.0	-22.3	76.8	-55.4	437.3	2905.6	40.0
701	ok	0.12	5.33e-02	3.79e-02	8.0	8.0	8.0	8.0	-267.0	-30.8	56.0	-887.2	-114.4	36.6
704	ok	0.12	4.38e-02	3.00e-02	8.0	8.0	8.0	8.0	-206.5	-7.0	56.0	-690.5	-75.1	160.7
707	ok	0.12	9.63e-02	2.08e-02	8.0	8.0	8.0	8.0	-58.9	-66.7	76.3	-200.4	341.2	-12.4
710	ok	0.12	0.1	1.60e-02	8.0	8.0	8.0	8.0	-3.2	-68.6	67.8	-57.9	902.7	17.3
713	ok	0.12	0.4	1.45e-02	8.0	8.0	8.0	8.0	4.6	36.6	-53.6	434.2	2829.8	-196.5
742	ok	0.12	0.4	7.92e-03	8.0	8.0	8.0	8.0	-7.9	33.1	-56.1	-69.8	2711.9	-587.0
746	ok	0.12	0.3	1.01e-02	8.0	8.0	8.0	8.0	-34.0	39.4	-73.7	-1597.3	-1456.3	-706.6
750	ok	0.12	0.4	1.25e-02	8.0	8.0	8.0	8.0	-50.4	44.3	-72.2	-2513.2	-1971.2	-256.0
754	ok	0.12	0.4	1.44e-02	8.0	8.0	8.0	8.0	-64.5	40.6	-72.2	-2828.3	-2033.6	-153.7
758	ok	0.12	0.4	1.58e-02	8.0	8.0	8.0	8.0	-77.1	48.8	-73.3	-2724.8	-2076.7	145.6
762	ok	0.12	0.4	1.59e-02	8.0	8.0	8.0	8.0	-93.7	57.1	-77.4	-1935.0	-1759.8	610.4
766	ok	0.12	0.3	1.49e-02	8.0	8.0	8.0	8.0	-87.9	69.0	-71.5	-1169.7	-916.1	752.6
770	ok	0.12	0.7	1.05e-02	8.0	8.0	8.0	8.0	-50.1	77.3	-55.4	508.0	3982.1	236.5



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
774	ok	0.12	0.7	5.59e-03	8.0	8.0	8.0	8.0	-20.8	84.9	-55.4	659.9	4015.7	-59.0
803	ok	0.12	3.57e-02	2.43e-02	8.0	8.0	8.0	8.0	-179.2	-17.9	34.9	-603.8	-67.8	-7.2
806	ok	0.12	2.90e-02	2.26e-02	8.0	8.0	8.0	8.0	-153.7	-7.4	34.9	-440.7	-35.3	-3.0
809	ok	0.12	6.04e-02	1.70e-02	8.0	8.0	8.0	8.0	-53.5	-52.9	59.3	-138.9	410.3	-59.1
812	ok	0.12	0.1	1.41e-02	8.0	8.0	8.0	8.0	-20.5	-62.0	54.5	17.3	928.9	-35.5
815	ok	0.12	0.5	1.33e-02	8.0	8.0	8.0	8.0	10.1	13.6	66.2	522.9	3085.1	-2.5
844	ok	0.12	0.5	7.75e-03	8.0	8.0	8.0	8.0	-1.5	12.5	66.2	189.1	3016.5	136.4
848	ok	0.12	0.3	9.50e-03	8.0	8.0	8.0	8.0	-33.5	34.4	-68.2	-1760.3	-1580.4	-209.4
852	ok	0.12	0.4	1.13e-02	8.0	8.0	8.0	8.0	-50.8	41.3	-72.2	-2557.4	-2191.9	-151.1
856	ok	0.12	0.4	1.28e-02	8.0	8.0	8.0	8.0	-66.4	49.3	-73.3	-2891.4	-2345.1	-16.8
860	ok	0.12	0.4	1.40e-02	8.0	8.0	8.0	8.0	-77.4	46.5	-73.3	-2774.3	-2319.2	98.5
864	ok	0.12	0.4	1.41e-02	8.0	8.0	8.0	8.0	-82.9	58.1	-66.2	-2133.3	-1977.3	202.3
868	ok	0.12	0.3	1.22e-02	8.0	8.0	8.0	8.0	-73.5	71.0	-59.5	-1149.1	-916.9	197.9
872	ok	0.12	0.7	7.45e-03	8.0	8.0	8.0	8.0	-18.4	81.1	-44.9	730.4	4358.1	-139.4
876	ok	0.12	0.7	3.36e-03	8.0	8.0	8.0	8.0	24.8	114.7	-11.1	1054.5	6031.4	-17.8
905	ok	0.12	3.93e-02	1.63e-02	8.0	8.0	8.0	8.0	-88.4	-2.2	11.7	-589.0	-14.5	-129.6
908	ok	0.12	3.20e-02	1.60e-02	8.0	8.0	8.0	8.0	-71.7	-21.5	32.9	-443.2	25.2	-146.6
911	ok	0.12	4.23e-02	1.34e-02	8.0	8.0	8.0	8.0	-40.9	-40.2	44.7	-202.9	371.5	-131.2
914	ok	0.12	9.00e-02	1.15e-02	8.0	8.0	8.0	8.0	-17.1	-50.7	46.3	19.5	943.8	-63.4
917	ok	0.12	0.4	1.09e-02	8.0	8.0	8.0	8.0	8.1	13.8	62.6	478.3	2794.0	99.2
946	ok	0.12	0.4	7.31e-03	8.0	8.0	8.0	8.0	-2.3	12.3	62.6	243.1	2745.3	434.7
950	ok	0.12	0.3	8.64e-03	8.0	8.0	8.0	8.0	-31.4	29.3	-60.5	-1546.1	-1422.2	301.3
954	ok	0.12	0.4	1.00e-02	8.0	8.0	8.0	8.0	-46.2	34.3	-62.2	-2312.8	-2049.3	129.1
958	ok	0.12	0.4	1.13e-02	8.0	8.0	8.0	8.0	-59.0	41.6	-61.2	-2653.1	-2214.5	-33.2
962	ok	0.12	0.4	1.20e-02	8.0	8.0	8.0	8.0	-68.0	39.3	-61.2	-2462.9	-2188.1	-73.7
966	ok	0.12	0.3	1.21e-02	8.0	8.0	8.0	8.0	-71.2	49.7	-53.2	-1879.4	-1841.5	-230.8
970	ok	0.12	0.3	9.62e-03	8.0	8.0	8.0	8.0	-39.8	66.3	-38.1	-207.8	1362.3	-551.7
974	ok	0.12	0.6	5.37e-03	8.0	8.0	8.0	8.0	-16.3	87.3	-11.1	760.5	5461.4	-272.1
978	ok	0.12	0.6	2.32e-03	8.0	8.0	8.0	8.0	31.0	96.8	-10.4	985.1	5506.3	-129.8
1007	ok	0.12	8.21e-02	1.22e-02	8.0	8.0	8.0	8.0	-88.7	-7.9	11.7	-585.2	-12.9	-171.9
1010	ok	0.12	6.76e-02	1.10e-02	8.0	8.0	8.0	8.0	-71.3	-20.6	32.9	-445.1	21.8	-200.3
1013	ok	0.12	5.65e-02	1.01e-02	8.0	8.0	8.0	8.0	-39.6	-32.2	44.7	-214.2	315.5	-176.9
1016	ok	0.12	7.63e-02	9.26e-03	8.0	8.0	8.0	8.0	-11.6	-24.3	33.4	-103.5	335.5	-208.4
1019	ok	0.12	0.3	8.85e-03	8.0	8.0	8.0	8.0	8.8	19.6	59.0	356.2	2088.4	181.5
1048	ok	0.12	0.4	7.11e-03	8.0	8.0	8.0	8.0	-1.7	17.8	59.0	206.0	2058.5	663.5
1052	ok	0.12	0.3	8.05e-03	8.0	8.0	8.0	8.0	-27.8	14.1	-52.2	-1184.4	-1073.2	720.3
1056	ok	0.12	0.3	9.04e-03	8.0	8.0	8.0	8.0	-40.3	24.4	-51.9	-1796.8	-1589.0	372.8
1060	ok	0.12	0.3	9.62e-03	8.0	8.0	8.0	8.0	-49.5	22.6	-51.9	-2067.8	-1641.7	199.2
1064	ok	0.12	0.3	1.03e-02	8.0	8.0	8.0	8.0	-57.6	33.8	-40.4	-1877.4	-1534.6	-451.4
1068	ok	0.12	0.3	1.02e-02	8.0	8.0	8.0	8.0	-59.2	33.3	-40.4	-1446.7	-1377.8	-601.8
1072	ok	0.12	0.3	7.82e-03	8.0	8.0	8.0	8.0	-29.9	49.6	-25.8	-197.6	1065.1	-906.4
1076	ok	0.12	0.5	4.29e-03	8.0	8.0	8.0	8.0	-8.1	66.4	-10.4	596.6	4234.2	-543.2
1080	ok	0.12	0.5	1.65e-03	8.0	8.0	8.0	8.0	26.3	73.3	-10.4	736.2	4262.1	-214.4
1109	ok	0.12	0.2	1.23e-02	8.0	8.0	8.0	8.0	-75.6	-6.7	-6.7	-1859.8	-236.2	-337.2
1112	ok	0.12	0.1	7.56e-03	8.0	8.0	8.0	8.0	-26.5	3.1	-6.7	-1136.5	-91.5	-354.3
1115	ok	0.12	6.73e-02	6.87e-03	8.0	8.0	8.0	8.0	-22.9	-19.7	33.4	-87.4	184.6	-328.6
1118	ok	0.12	7.77e-02	7.25e-03	8.0	8.0	8.0	8.0	-11.3	-16.1	33.4	-151.2	225.0	-279.5
1121	ok	0.12	0.2	7.19e-03	8.0	8.0	8.0	8.0	12.2	22.9	47.8	198.5	1071.1	247.4
1150	ok	0.12	0.3	6.73e-03	8.0	8.0	8.0	8.0	2.3	21.2	47.8	63.2	1040.4	653.6
1154	ok	0.12	0.3	7.66e-03	8.0	8.0	8.0	8.0	-23.4	20.2	-30.3	-794.4	-595.7	1001.3
1158	ok	0.12	0.2	7.97e-03	8.0	8.0	8.0	8.0	-33.5	5.4	-42.4	-1210.4	-892.5	581.2
1162	ok	0.12	0.2	8.24e-03	8.0	8.0	8.0	8.0	-39.8	3.8	-42.4	-1254.8	-933.5	303.0
1166	ok	0.12	0.2	8.63e-03	8.0	8.0	8.0	8.0	-46.6	14.1	-30.0	-1240.5	-829.0	-637.8
1170	ok	0.12	0.3	8.40e-03	8.0	8.0	8.0	8.0	-46.5	14.3	-30.0	-996.6	-780.2	-894.4
1174	ok	0.12	0.2	6.69e-03	8.0	8.0	8.0	8.0	-15.1	28.7	9.0	-691.1	551.4	-1486.7
1178	ok	0.12	0.3	3.75e-03	8.0	8.0	8.0	8.0	-7.1	36.1	-8.4	215.9	2229.4	-784.3
1182	ok	0.12	0.3	1.05e-03	8.0	8.0	8.0	8.0	43.3	46.4	-1.9	382.9	2276.4	-253.1
1211	ok	0.12	0.2	1.24e-02	8.0	8.0	8.0	8.0	-75.9	-8.0	-6.7	-1852.5	-199.8	-583.6
1240	ok	0.12	0.1	4.58e-03	8.0	8.0	8.0	8.0	-26.8	1.8	-6.7	-1129.2	-55.1	-600.7
1272	ok	0.12	0.1	3.42e-03	8.0	8.0	8.0	8.0	-12.1	6.9	14.3	-67.7	-21.6	-630.1
1299	ok	0.12	0.1	3.93e-03	8.0	8.0	8.0	8.0	11.4	40.3	20.9	161.0	66.2	-327.1
1329	ok	0.12	0.2	7.44e-03	8.0	8.0	8.0	8.0	10.2	31.4	47.8	29.3	196.5	294.5
1358	ok	0.12	0.2	7.94e-03	8.0	8.0	8.0	8.0	-3.4	-31.7	35.6	-254.6	23.9	1017.0
1387	ok	0.12	0.2	7.75e-03	8.0	8.0	8.0	8.0	-16.1	-34.1	35.6	-387.2	-1.0	1151.7
1416	ok	0.12	0.2	7.46e-03	8.0	8.0	8.0	8.0	-26.1	-24.7	-34.0	-397.2	-190.9	751.1
1445	ok	0.12	0.1	7.22e-03	8.0	8.0	8.0	8.0	-32.1	-23.5	-18.2	-704.3	-185.0	269.7
1474	ok	0.12	0.1	7.36e-03	8.0	8.0	8.0	8.0	-35.4	-24.9	-26.9	-842.2	-186.1	-526.9
1503	ok	0.12	0.2	7.31e-03	8.0	8.0	8.0	8.0	-36.0	-33.9	-21.2	-914.0	-217.4	-1022.0
1532	ok	0.12	0.2	7.92e-03	8.0	8.0	8.0	8.0	-29.8	-44.8	9.0	-788.6	64.4	-1609.7
1564	ok	0.12	0.2	8.94e-03	8.0	8.0	8.0	8.0	-22.5	-55.2	-1.9	-403.5	255.9	-1019.6
1597	ok	0.12	7.41e-02	7.39e-03	8.0	8.0	8.0	8.0	24.9	-45.7	-1.9	-5.3	335.6	-484.0



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-667.56	-152.26	-85.80	-2891.43	-2345.11	-1609.74
		0.12	0.72	0.11	8.04	8.04	8.04	8.04	43.30	114.68	175.30	3253.22	6031.43	1151.69

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
33	ok	1.04						
64	ok	1.04						
95	ok	0.80						
126	ok	0.78						
157	ok	0.63						
188	ok	2.11						
219	ok	3.47						
250	ok	4.01						
281	ok	4.08						
312	ok	4.08						
343	ok	3.73						
374	ok	2.81						
405	ok	1.24						
436	ok	0.29						
497	ok	0.63						
500	ok	0.63						
503	ok	0.61						
506	ok	0.87						
509	ok	1.52						
538	ok	2.11						
542	ok	3.47						
546	ok	4.01						
550	ok	4.08						
554	ok	4.08						
558	ok	3.73						
562	ok	2.81						
566	ok	2.12						
570	ok	2.12						
599	ok	0.41						
602	ok	0.44						
605	ok	0.47						
608	ok	0.65						
611	ok	2.68						
640	ok	2.68						
644	ok	1.75						
648	ok	2.21						
652	ok	2.30						
656	ok	2.30						
660	ok	1.98						
664	ok	1.84						
668	ok	3.14						
672	ok	3.14						
701	ok	0.27						
704	ok	0.27						
707	ok	0.36						
710	ok	0.57						
713	ok	2.99						
742	ok	2.99						
746	ok	1.65						
750	ok	0.98						
754	ok	1.02						
758	ok	1.02						
762	ok	1.17						
766	ok	2.23						
770	ok	3.39						
774	ok	3.39						
803	ok	0.15						
806	ok	0.19						
809	ok	0.36						
812	ok	0.53						
815	ok	2.99						
844	ok	2.99						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
848	ok	1.65						
852	ok	0.94						
856	ok	0.52						
860	ok	0.67						
864	ok	1.25						
868	ok	2.23						
872	ok	3.39						
876	ok	3.39						
905	ok	0.12						
908	ok	0.18						
911	ok	0.36						
914	ok	0.57						
917	ok	2.76						
946	ok	2.76						
950	ok	1.65						
954	ok	0.94						
958	ok	0.74						
962	ok	0.75						
966	ok	1.25						
970	ok	2.16						
974	ok	3.12						
978	ok	3.12						
1007	ok	0.29						
1010	ok	0.35						
1013	ok	0.36						
1016	ok	0.53						
1019	ok	2.16						
1048	ok	2.16						
1052	ok	1.31						
1056	ok	0.90						
1060	ok	0.86						
1064	ok	0.84						
1068	ok	1.04						
1072	ok	1.75						
1076	ok	2.55						
1080	ok	2.55						
1109	ok	0.57						
1112	ok	0.57						
1115	ok	0.41						
1118	ok	0.48						
1121	ok	1.56						
1150	ok	1.56						
1154	ok	1.13						
1158	ok	0.97						
1162	ok	0.97						
1166	ok	0.95						
1170	ok	0.97						
1174	ok	1.46						
1178	ok	2.03						
1182	ok	2.03						
1211	ok	0.71						
1240	ok	0.71						
1272	ok	0.60						
1299	ok	0.44						
1329	ok	0.58						
1358	ok	0.78						
1387	ok	0.92						
1416	ok	0.97						
1445	ok	0.97						
1474	ok	0.95						
1503	ok	0.90						
1532	ok	0.90						
1564	ok	1.02						
1597	ok	1.02						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.08						



Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
3	35.00	6	9	Singolo elemento NON DISSIPATIVO

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
51	ok	0.12	0.2	0.2	8.0	8.0	8.0	8.0	-1004.1	-236.2	251.4	250.8	29.2	-142.1
82	ok	0.12	0.4	7.26e-02	8.0	8.0	8.0	8.0	-462.3	-34.2	251.4	61.1	-8.1	-140.5
113	ok	0.12	0.2	2.91e-02	8.0	8.0	8.0	8.0	-85.5	20.5	126.1	131.5	4.3	-93.0
144	ok	0.12	0.2	1.74e-02	8.0	8.0	8.0	8.0	-45.3	31.5	126.1	13.2	-18.1	-84.6
175	ok	0.12	0.2	1.14e-02	8.0	8.0	8.0	8.0	14.1	42.3	96.0	103.3	-5.1	-44.3
206	ok	0.12	0.2	8.09e-03	8.0	8.0	8.0	8.0	20.9	43.3	96.0	-59.1	-21.3	-69.1
237	ok	0.12	0.2	1.19e-02	8.0	8.0	8.0	8.0	-28.8	46.7	-97.0	-200.8	-42.9	-21.2
268	ok	0.12	0.2	1.80e-02	8.0	8.0	8.0	8.0	-53.6	39.1	-97.0	-234.4	-49.6	-19.7
299	ok	0.12	0.2	2.34e-02	8.0	8.0	8.0	8.0	-109.4	17.1	-125.0	-272.6	-61.3	-1.1
330	ok	0.12	0.2	2.75e-02	8.0	8.0	8.0	8.0	-143.1	-1.8	-129.0	-360.4	-80.6	11.3
361	ok	0.12	0.1	2.94e-02	8.0	8.0	8.0	8.0	-159.6	-20.8	-124.0	-326.9	-74.5	29.5
392	ok	0.12	0.1	3.01e-02	8.0	8.0	8.0	8.0	-153.8	-18.2	-124.0	-265.1	-62.1	30.6
423	ok	0.12	8.77e-02	2.57e-02	8.0	8.0	8.0	8.0	-119.0	-31.2	-111.8	-200.1	-47.7	14.0
454	ok	0.12	6.24e-02	2.11e-02	8.0	8.0	8.0	8.0	-78.3	-37.8	-94.5	112.1	-27.7	36.8
498	ok	0.12	0.1	0.2	8.0	8.0	8.0	8.0	-997.9	-175.3	251.4	250.1	25.7	-85.3
501	ok	0.12	0.4	7.07e-02	8.0	8.0	8.0	8.0	-306.2	-151.0	198.3	102.4	6.4	-104.4
504	ok	0.12	0.1	4.26e-02	8.0	8.0	8.0	8.0	-145.8	-102.4	156.6	133.6	15.1	-85.8
507	ok	0.12	0.2	2.67e-02	8.0	8.0	8.0	8.0	-30.3	-28.2	136.5	18.3	-67.9	-44.4
527	ok	0.12	0.2	1.99e-02	8.0	8.0	8.0	8.0	10.3	2.8	96.0	113.8	62.8	4.9
540	ok	0.12	0.2	1.48e-02	8.0	8.0	8.0	8.0	29.9	32.0	85.0	-57.5	-12.0	-50.9
544	ok	0.12	0.2	1.28e-02	8.0	8.0	8.0	8.0	-29.4	55.8	-97.0	-203.2	-54.9	-4.9
548	ok	0.12	0.2	1.79e-02	8.0	8.0	8.0	8.0	-66.6	54.7	-115.5	-237.1	-63.3	0.6
552	ok	0.12	0.2	2.22e-02	8.0	8.0	8.0	8.0	-105.3	54.4	-125.0	-274.9	-89.7	0.8
556	ok	0.12	0.2	2.53e-02	8.0	8.0	8.0	8.0	-135.9	51.8	-129.0	-361.4	-86.1	8.9
560	ok	0.12	0.2	2.71e-02	8.0	8.0	8.0	8.0	-151.3	48.0	-129.0	-327.8	-80.0	13.9
564	ok	0.12	0.2	2.69e-02	8.0	8.0	8.0	8.0	-143.6	50.6	-124.0	-265.9	-66.0	15.6
568	ok	0.12	0.2	2.11e-02	8.0	8.0	8.0	8.0	-106.4	48.4	-111.8	-199.2	-8.2	-5.1
588	ok	0.12	0.2	1.58e-02	8.0	8.0	8.0	8.0	-66.0	29.5	-94.5	131.0	66.5	-21.5
600	ok	0.12	8.70e-02	9.53e-02	8.0	8.0	8.0	8.0	-626.2	-85.7	142.2	118.3	11.9	-95.3
603	ok	0.12	0.1	6.05e-02	8.0	8.0	8.0	8.0	-424.0	-10.4	142.2	103.0	8.8	-89.8
606	ok	0.12	0.2	4.00e-02	8.0	8.0	8.0	8.0	-104.2	-107.8	155.4	46.0	-68.1	-70.6
609	ok	0.12	0.1	3.12e-02	8.0	8.0	8.0	8.0	-47.2	-101.0	139.3	-25.3	-187.9	7.6
629	ok	0.12	0.2	2.86e-02	8.0	8.0	8.0	8.0	-31.5	-95.0	136.5	-28.7	-189.7	21.2
642	ok	0.12	0.2	1.51e-02	8.0	8.0	8.0	8.0	7.2	24.2	121.6	20.4	110.3	-19.7
646	ok	0.12	0.2	1.31e-02	8.0	8.0	8.0	8.0	-40.8	65.5	-96.7	-76.8	-26.0	15.1
650	ok	0.12	0.2	1.72e-02	8.0	8.0	8.0	8.0	-64.3	58.5	-96.7	-102.3	-39.6	15.2
654	ok	0.12	0.2	2.12e-02	8.0	8.0	8.0	8.0	-106.5	78.2	-124.0	-118.1	-44.7	2.0
658	ok	0.12	0.2	2.38e-02	8.0	8.0	8.0	8.0	-129.4	72.1	-124.0	-138.2	-44.3	3.3
662	ok	0.12	0.3	2.51e-02	8.0	8.0	8.0	8.0	-143.7	84.5	-127.1	-116.4	-37.8	2.4
666	ok	0.12	0.3	2.34e-02	8.0	8.0	8.0	8.0	-107.4	147.7	-99.8	-40.9	52.0	7.6
670	ok	0.12	0.3	1.73e-02	8.0	8.0	8.0	8.0	-57.0	169.3	-75.1	39.0	165.9	-22.4
690	ok	0.12	0.3	1.11e-02	8.0	8.0	8.0	8.0	7.4	182.1	-75.1	36.0	165.3	-30.0
702	ok	0.12	5.68e-02	5.86e-02	8.0	8.0	8.0	8.0	-280.1	-12.7	53.7	170.8	11.2	-75.0
705	ok	0.12	4.87e-02	5.14e-02	8.0	8.0	8.0	8.0	-252.7	6.07e-02	53.7	125.1	6.0	-74.4
708	ok	0.12	0.1	3.83e-02	8.0	8.0	8.0	8.0	-125.7	-105.0	161.2	33.1	-104.4	-31.3
711	ok	0.12	0.1	3.14e-02	8.0	8.0	8.0	8.0	-61.1	-117.1	130.3	-44.9	-273.8	0.9
731	ok	0.12	0.2	3.10e-02	8.0	8.0	8.0	8.0	-56.4	-112.7	130.3	-43.7	-273.6	12.6
744	ok	0.12	0.2	1.48e-02	8.0	8.0	8.0	8.0	-20.1	30.1	120.4	32.4	169.2	-3.9
748	ok	0.12	0.2	1.29e-02	8.0	8.0	8.0	8.0	-52.0	63.7	-72.9	37.7	14.6	34.9
752	ok	0.12	0.2	1.68e-02	8.0	8.0	8.0	8.0	-78.7	64.3	-85.8	41.2	-3.2	21.1
756	ok	0.12	0.2	2.00e-02	8.0	8.0	8.0	8.0	-103.9	72.6	-96.0	91.2	15.6	9.3
760	ok	0.12	0.3	2.21e-02	8.0	8.0	8.0	8.0	-120.9	107.2	-98.0	96.1	28.6	-6.5
764	ok	0.12	0.3	2.33e-02	8.0	8.0	8.0	8.0	-127.1	106.0	-98.0	89.3	27.1	-9.8
768	ok	0.12	0.3	2.13e-02	8.0	8.0	8.0	8.0	-98.8	187.4	-57.3	40.5	96.8	-9.4
772	ok	0.12	0.3	1.40e-02	8.0	8.0	8.0	8.0	-36.6	211.9	-53.0	51.3	195.7	-15.4
792	ok	0.12	0.4	6.59e-03	8.0	8.0	8.0	8.0	15.4	222.3	-75.1	41.7	193.8	-28.1
804	ok	0.12	4.06e-02	3.78e-02	8.0	8.0	8.0	8.0	-197.8	-7.1	33.3	226.2	15.1	-37.4
807	ok	0.12	3.88e-02	3.87e-02	8.0	8.0	8.0	8.0	-169.4	-45.7	84.7	162.7	6.2	-44.4
810	ok	0.12	6.89e-02	3.29e-02	8.0	8.0	8.0	8.0	-123.1	-88.6	138.2	5.5	-122.6	-12.4
813	ok	0.12	0.1	2.90e-02	8.0	8.0	8.0	8.0	-59.8	-105.0	130.3	-55.5	-327.3	-2.3
833	ok	0.12	0.2	2.84e-02	8.0	8.0	8.0	8.0	-55.1	-100.6	130.3	-54.2	-327.4	11.0
846	ok	0.12	0.2	1.45e-02	8.0	8.0	8.0	8.0	-20.2	35.7	120.4	38.0	206.5	-4.5
850	ok	0.12	0.2	1.33e-02	8.0	8.0	8.0	8.0	-52.0	61.3	-72.9	37.9	15.5	24.6



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
854	ok	0.12	0.2	1.61e-02	8.0	8.0	8.0	8.0	-78.9	63.7	-78.0	54.2	8.4	11.2
858	ok	0.12	0.2	1.85e-02	8.0	8.0	8.0	8.0	-103.9	72.2	-96.0	93.4	26.9	6.8
862	ok	0.12	0.2	2.06e-02	8.0	8.0	8.0	8.0	-111.3	110.1	-79.0	123.1	48.5	-7.3
866	ok	0.12	0.3	2.19e-02	8.0	8.0	8.0	8.0	-113.7	109.6	-79.0	108.3	45.3	-9.1
870	ok	0.12	0.3	1.87e-02	8.0	8.0	8.0	8.0	-87.1	187.4	-33.7	46.2	107.9	-7.6
874	ok	0.12	0.3	1.07e-02	8.0	8.0	8.0	8.0	-37.8	205.8	-53.0	54.7	212.4	-10.6
894	ok	0.12	0.4	4.07e-03	8.0	8.0	8.0	8.0	26.0	218.6	-53.0	46.7	210.8	-15.0
906	ok	0.12	3.04e-02	2.58e-02	8.0	8.0	8.0	8.0	-148.9	-3.8	18.4	280.9	42.0	9.8
909	ok	0.12	2.96e-02	2.78e-02	8.0	8.0	8.0	8.0	-127.5	-32.7	56.4	210.6	44.5	9.7
912	ok	0.12	4.64e-02	2.53e-02	8.0	8.0	8.0	8.0	-83.6	-62.7	83.9	86.0	-102.1	-0.5
915	ok	0.12	9.65e-02	2.38e-02	8.0	8.0	8.0	8.0	-58.3	-83.7	113.3	-57.1	-346.2	-0.2
935	ok	0.12	0.2	2.32e-02	8.0	8.0	8.0	8.0	-46.3	-78.9	96.0	-55.1	-346.5	-7.7
948	ok	0.12	0.2	1.47e-02	8.0	8.0	8.0	8.0	-27.3	30.3	106.1	57.3	218.0	2.6
952	ok	0.12	0.2	1.36e-02	8.0	8.0	8.0	8.0	-56.3	47.6	-70.9	40.0	12.6	5.5
956	ok	0.12	0.2	1.52e-02	8.0	8.0	8.0	8.0	-80.4	52.1	-78.0	55.2	12.3	0.8
960	ok	0.12	0.2	1.77e-02	8.0	8.0	8.0	8.0	-101.4	61.3	-83.2	62.7	37.9	-4.7
964	ok	0.12	0.2	2.03e-02	8.0	8.0	8.0	8.0	-114.1	93.9	-79.0	124.3	54.8	-9.7
968	ok	0.12	0.2	2.04e-02	8.0	8.0	8.0	8.0	-116.5	93.4	-79.0	109.4	51.5	-11.6
972	ok	0.12	0.2	1.64e-02	8.0	8.0	8.0	8.0	-93.4	155.7	-33.7	44.9	101.7	-4.8
976	ok	0.12	0.3	8.37e-03	8.0	8.0	8.0	8.0	-20.7	136.1	-57.0	53.6	322.5	-2.1
996	ok	0.12	0.3	2.90e-03	8.0	8.0	8.0	8.0	33.0	185.1	-20.8	48.8	205.5	14.7
1008	ok	0.12	2.51e-02	2.02e-02	8.0	8.0	8.0	8.0	-124.0	-4.2	8.4	370.9	53.6	49.3
1011	ok	0.12	2.24e-02	1.98e-02	8.0	8.0	8.0	8.0	-93.6	-22.6	36.2	280.2	66.3	54.2
1014	ok	0.12	4.34e-02	1.88e-02	8.0	8.0	8.0	8.0	-63.2	-13.0	36.2	169.2	44.9	51.7
1017	ok	0.12	9.87e-02	1.85e-02	8.0	8.0	8.0	8.0	-26.0	-51.5	86.1	-38.2	-333.3	5.9
1037	ok	0.12	0.2	1.81e-02	8.0	8.0	8.0	8.0	-28.8	-51.4	86.1	-69.6	-339.7	-12.6
1050	ok	0.12	0.2	1.41e-02	8.0	8.0	8.0	8.0	-22.0	28.3	100.8	39.8	199.3	10.5
1054	ok	0.12	0.2	1.38e-02	8.0	8.0	8.0	8.0	-37.4	29.9	97.1	-36.0	4.1	46.9
1058	ok	0.12	0.1	1.56e-02	8.0	8.0	8.0	8.0	-78.4	32.6	-69.2	36.6	32.4	-12.3
1062	ok	0.12	0.1	1.83e-02	8.0	8.0	8.0	8.0	-97.9	55.0	-66.7	43.9	3.0	-8.4
1066	ok	0.12	0.1	1.99e-02	8.0	8.0	8.0	8.0	-105.8	65.7	-61.6	97.2	46.8	-11.2
1070	ok	0.12	0.2	1.91e-02	8.0	8.0	8.0	8.0	-100.6	77.0	-55.1	85.9	49.8	-8.6
1074	ok	0.12	0.2	1.47e-02	8.0	8.0	8.0	8.0	-56.3	90.3	-42.7	-21.4	65.2	-49.6
1078	ok	0.12	0.2	6.94e-03	8.0	8.0	8.0	8.0	-17.1	98.3	-46.2	51.6	291.5	-10.1
1098	ok	0.12	0.2	2.59e-03	8.0	8.0	8.0	8.0	21.8	129.3	-20.8	44.1	181.8	18.3
1110	ok	0.12	4.71e-02	2.12e-02	8.0	8.0	8.0	8.0	-130.3	-7.3	-8.6	533.3	70.2	92.4
1113	ok	0.12	4.16e-02	1.49e-02	8.0	8.0	8.0	8.0	-71.8	4.4	-8.6	401.2	43.8	95.1
1116	ok	0.12	8.55e-02	1.32e-02	8.0	8.0	8.0	8.0	-31.0	0.4	26.6	238.4	65.7	66.3
1119	ok	0.12	0.1	1.42e-02	8.0	8.0	8.0	8.0	-10.3	-29.8	72.0	96.9	-224.0	19.1
1139	ok	0.12	0.2	1.44e-02	8.0	8.0	8.0	8.0	-25.2	-32.1	86.1	-53.5	-255.9	-6.8
1152	ok	0.12	0.2	1.35e-02	8.0	8.0	8.0	8.0	-14.4	18.9	86.8	-91.0	126.6	21.5
1156	ok	0.12	0.1	1.46e-02	8.0	8.0	8.0	8.0	-37.7	9.2	90.9	-103.6	-39.4	60.2
1160	ok	0.12	0.1	1.65e-02	8.0	8.0	8.0	8.0	-54.0	3.5	81.1	-164.7	-32.3	1.5
1164	ok	0.12	8.66e-02	1.85e-02	8.0	8.0	8.0	8.0	-73.4	17.4	-51.0	-173.7	-30.3	-7.0
1168	ok	0.12	7.64e-02	1.94e-02	8.0	8.0	8.0	8.0	-77.7	24.2	-46.6	-160.3	-25.9	-5.3
1172	ok	0.12	7.97e-02	1.80e-02	8.0	8.0	8.0	8.0	-69.6	31.7	-41.5	-158.8	-25.5	-6.9
1176	ok	0.12	9.02e-02	1.39e-02	8.0	8.0	8.0	8.0	-50.6	37.7	-37.1	-147.6	-33.5	-72.1
1180	ok	0.12	0.1	6.53e-03	8.0	8.0	8.0	8.0	-12.2	50.5	-33.8	-16.8	203.6	-35.7
1200	ok	0.12	0.2	3.02e-03	8.0	8.0	8.0	8.0	16.0	56.9	-33.8	-15.0	206.2	1.1
1229	ok	0.12	4.88e-02	2.13e-02	8.0	8.0	8.0	8.0	-131.0	-11.1	-8.6	532.2	64.6	137.4
1258	ok	0.12	6.12e-02	1.19e-02	8.0	8.0	8.0	8.0	-72.5	0.6	-8.6	400.0	38.1	140.1
1287	ok	0.12	0.1	7.30e-03	8.0	8.0	8.0	8.0	-27.9	22.5	26.6	239.0	63.8	186.0
1317	ok	0.12	0.2	7.93e-03	8.0	8.0	8.0	8.0	-4.1	24.6	72.0	127.8	-63.1	94.5
1347	ok	0.12	0.1	1.04e-02	8.0	8.0	8.0	8.0	-5.1	25.2	72.0	77.0	-72.9	18.9
1376	ok	0.12	0.1	1.30e-02	8.0	8.0	8.0	8.0	-18.0	7.0	86.8	-101.5	69.8	33.8
1405	ok	0.12	0.1	1.50e-02	8.0	8.0	8.0	8.0	-44.0	-13.5	89.2	-138.7	-20.6	19.8
1434	ok	0.12	7.66e-02	1.71e-02	8.0	8.0	8.0	8.0	-56.9	-24.8	72.2	-162.9	-22.5	-11.6
1463	ok	0.12	5.28e-02	1.85e-02	8.0	8.0	8.0	8.0	-110.9	-35.7	11.7	-121.5	-25.9	-9.9
1492	ok	0.12	3.78e-02	1.89e-02	8.0	8.0	8.0	8.0	-116.2	-41.0	8.4	-102.2	-28.2	-15.7
1521	ok	0.12	3.21e-02	1.71e-02	8.0	8.0	8.0	8.0	-78.7	-20.8	-41.5	-159.2	-23.3	11.3
1552	ok	0.12	3.11e-02	1.34e-02	8.0	8.0	8.0	8.0	-81.9	-50.7	6.4	-192.4	-12.0	-80.3
1584	ok	0.12	3.21e-02	8.79e-03	8.0	8.0	8.0	8.0	-25.7	-34.7	-33.8	-36.4	91.1	-35.2
1615	ok	0.12	3.93e-02	7.17e-03	8.0	8.0	8.0	8.0	2.6	-28.9	-33.8	-37.0	93.7	-7.5
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-1004.08	-236.20	-128.99	-361.35	-346.54	-142.09
		0.12	0.37	0.17	8.04	8.04	8.04	8.04	32.99	222.29	251.40	533.33	322.54	185.96



Città di Fermo

Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
51	ok	0.55						
82	ok	0.55						
113	ok	0.34						
144	ok	0.48						
175	ok	0.50						
206	ok	0.50						
237	ok	0.31						
268	ok	0.32						
299	ok	0.32						
330	ok	0.32						
361	ok	0.31						
392	ok	0.35						
423	ok	0.50						
454	ok	0.50						
498	ok	0.48						
501	ok	0.48						
504	ok	0.34						
507	ok	0.56						
527	ok	0.56						
540	ok	0.53						
544	ok	0.29						
548	ok	0.32						
552	ok	0.32						
556	ok	0.32						
560	ok	0.31						
564	ok	0.35						
568	ok	0.53						
588	ok	0.53						
600	ok	0.35						
603	ok	0.35						
606	ok	0.23						
609	ok	0.18						
629	ok	0.14						
642	ok	0.17						
646	ok	0.21						
650	ok	0.22						
654	ok	0.23						
658	ok	0.23						
662	ok	0.22						
666	ok	0.21						
670	ok	0.21						
690	ok	0.21						
702	ok	0.23						
705	ok	0.23						
708	ok	0.13						
711	ok	0.25						
731	ok	0.25						
744	ok	0.24						
748	ok	0.13						
752	ok	0.15						
756	ok	0.15						
760	ok	0.15						
764	ok	0.14						
768	ok	0.14						
772	ok	0.25						
792	ok	0.25						
804	ok	0.13						
807	ok	0.13						
810	ok	0.19						
813	ok	0.31						
833	ok	0.31						
846	ok	0.28						
850	ok	0.15						
854	ok	0.08						
858	ok	0.08						
862	ok	0.08						
866	ok	0.09						
870	ok	0.18						
874	ok	0.29						
894	ok	0.29						
906	ok	0.09						

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

EdilAlta

Anaergia
Fueling a Sustainable World

OWAC
ENGINEERING COMPANY

TABULATO DI CALCOLO

REV. 00

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Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
909	ok	0.09						
912	ok	0.21						
915	ok	0.35						
935	ok	0.35						
948	ok	0.29						
952	ok	0.16						
956	ok	0.08						
960	ok	0.07						
964	ok	0.07						
968	ok	0.09						
972	ok	0.19						
976	ok	0.30						
996	ok	0.30						
1008	ok	0.22						
1011	ok	0.22						
1014	ok	0.22						
1017	ok	0.35						
1037	ok	0.35						
1050	ok	0.28						
1054	ok	0.15						
1058	ok	0.14						
1062	ok	0.15						
1066	ok	0.15						
1070	ok	0.14						
1074	ok	0.18						
1078	ok	0.28						
1098	ok	0.28						
1110	ok	0.39						
1113	ok	0.39						
1116	ok	0.23						
1119	ok	0.43						
1139	ok	0.43						
1152	ok	0.32						
1156	ok	0.21						
1160	ok	0.24						
1164	ok	0.24						
1168	ok	0.24						
1172	ok	0.23						
1176	ok	0.21						
1180	ok	0.28						
1200	ok	0.28						
1229	ok	0.39						
1258	ok	0.39						
1287	ok	0.28						
1317	ok	0.37						
1347	ok	0.37						
1376	ok	0.29						
1405	ok	0.23						
1434	ok	0.24						
1463	ok	0.24						
1492	ok	0.24						
1521	ok	0.26						
1552	ok	0.26						
1584	ok	0.18						
1615	ok	0.17						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		0.56						

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
4	35.00	6	9	Singolo elemento NON DISSIPATIVO



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
61	ok	0.12	0.1	8.87e-02	8.0	8.0	8.0	8.0	-557.6	-129.4	146.1	1785.6	239.3	-520.6
92	ok	0.12	0.2	4.05e-02	8.0	8.0	8.0	8.0	-88.0	8.5	81.3	1425.2	338.8	-524.0
123	ok	0.12	0.1	1.36e-02	8.0	8.0	8.0	8.0	-56.6	18.0	81.3	995.8	252.9	-513.3
154	ok	0.12	0.2	7.23e-03	8.0	8.0	8.0	8.0	-9.8	46.7	52.1	463.8	61.5	-456.6
185	ok	0.12	0.2	4.53e-03	8.0	8.0	8.0	8.0	-0.1	58.1	-58.3	-184.8	-183.8	181.8
216	ok	0.12	0.3	7.02e-03	8.0	8.0	8.0	8.0	-3.1	59.4	-58.3	-886.2	-325.9	558.8
247	ok	0.12	0.4	1.15e-02	8.0	8.0	8.0	8.0	-27.3	48.8	-74.3	-2024.5	-399.9	591.0
278	ok	0.12	0.4	1.51e-02	8.0	8.0	8.0	8.0	-54.9	35.3	-81.5	-2872.9	-504.1	428.5
309	ok	0.12	0.5	1.86e-02	8.0	8.0	8.0	8.0	-80.4	16.2	-90.6	-3148.5	-547.2	185.1
340	ok	0.12	0.4	2.06e-02	8.0	8.0	8.0	8.0	-114.0	-3.2	-89.5	-2868.5	-490.4	-215.2
371	ok	0.12	0.3	2.16e-02	8.0	8.0	8.0	8.0	-126.0	-16.9	-82.7	-2099.9	-357.0	-501.4
402	ok	0.12	0.2	2.11e-02	8.0	8.0	8.0	8.0	-117.6	-26.3	-70.4	-1018.9	-285.4	-673.7
433	ok	0.12	0.1	1.85e-02	8.0	8.0	8.0	8.0	-104.9	-21.3	-70.4	-158.6	-113.2	-550.6
464	ok	0.12	5.91e-02	2.36e-02	8.0	8.0	8.0	8.0	-114.8	-35.7	-68.3	-209.3	-203.1	-168.7
499	ok	0.12	0.1	8.82e-02	8.0	8.0	8.0	8.0	-555.8	-105.2	146.1	1782.8	225.5	-372.1
502	ok	0.12	0.2	3.98e-02	8.0	8.0	8.0	8.0	-97.0	-70.7	81.3	1420.8	316.9	-375.6
505	ok	0.12	8.76e-02	2.24e-02	8.0	8.0	8.0	8.0	-65.6	-58.9	81.3	991.5	231.0	-364.8
508	ok	0.12	0.1	1.27e-02	8.0	8.0	8.0	8.0	-4.5	-3.8	42.1	385.9	-357.1	-207.2
537	ok	0.12	0.3	8.50e-03	8.0	8.0	8.0	8.0	-3.6	46.1	-58.3	-339.3	-987.8	421.0
541	ok	0.12	0.4	7.90e-03	8.0	8.0	8.0	8.0	-6.6	47.6	-58.3	-1041.9	-1128.8	797.9
545	ok	0.12	0.4	1.14e-02	8.0	8.0	8.0	8.0	-28.9	34.8	-74.3	-2012.3	-338.6	997.9
549	ok	0.12	0.5	1.48e-02	8.0	8.0	8.0	8.0	-55.1	35.7	-81.5	-2810.6	-194.0	719.2
553	ok	0.12	0.5	1.77e-02	8.0	8.0	8.0	8.0	-79.4	29.9	-90.6	-3075.1	-184.3	283.4
557	ok	0.12	0.4	1.93e-02	8.0	8.0	8.0	8.0	-109.8	30.0	-89.5	-2791.8	-115.0	-478.0
561	ok	0.12	0.4	2.04e-02	8.0	8.0	8.0	8.0	-120.2	24.4	-82.7	-2049.4	-108.1	-879.6
565	ok	0.12	0.3	1.95e-02	8.0	8.0	8.0	8.0	-111.2	17.6	-70.4	-1071.2	-548.1	-969.3
569	ok	0.12	0.2	1.64e-02	8.0	8.0	8.0	8.0	-86.7	14.1	-68.3	-358.5	-1371.2	-421.2
598	ok	0.12	0.2	2.16e-02	8.0	8.0	8.0	8.0	-107.7	10.1	-68.3	-446.8	-1388.0	-110.2
601	ok	0.12	7.04e-02	5.12e-02	8.0	8.0	8.0	8.0	-345.5	-50.4	82.2	1124.8	145.1	-217.5
604	ok	0.12	8.10e-02	3.21e-02	8.0	8.0	8.0	8.0	-151.8	-58.9	107.3	900.6	190.1	-232.7
607	ok	0.12	0.1	2.09e-02	8.0	8.0	8.0	8.0	-80.8	-31.4	107.3	598.0	129.8	-218.9
610	ok	0.12	9.34e-02	1.53e-02	8.0	8.0	8.0	8.0	-8.3	-53.8	63.7	157.8	-571.6	-82.8
639	ok	0.12	0.4	1.23e-02	8.0	8.0	8.0	8.0	0.3	40.4	-61.5	-302.9	-2094.3	392.9
643	ok	0.12	0.4	8.18e-03	8.0	8.0	8.0	8.0	-9.2	38.1	-61.5	-149.1	-2065.6	945.2
647	ok	0.12	0.3	1.13e-02	8.0	8.0	8.0	8.0	-37.2	41.9	-79.6	1533.8	1129.0	899.7
651	ok	0.12	0.3	1.43e-02	8.0	8.0	8.0	8.0	-53.9	36.8	-78.5	2086.7	1246.1	740.5
655	ok	0.12	0.4	1.67e-02	8.0	8.0	8.0	8.0	-73.9	40.0	-85.7	2354.8	1501.2	261.5
659	ok	0.12	0.4	1.82e-02	8.0	8.0	8.0	8.0	-93.3	51.8	-81.3	2268.6	1455.6	-562.7
663	ok	0.12	0.4	1.86e-02	8.0	8.0	8.0	8.0	-98.9	50.4	-81.3	1869.7	1375.7	-759.6
667	ok	0.12	0.3	1.73e-02	8.0	8.0	8.0	8.0	-91.8	58.2	-74.6	1136.1	779.5	-999.4
671	ok	0.12	0.5	1.39e-02	8.0	8.0	8.0	8.0	-67.2	66.7	-68.0	-368.2	-3009.6	-464.2
700	ok	0.12	0.5	1.01e-02	8.0	8.0	8.0	8.0	-17.7	78.2	-58.6	-461.0	-3027.3	-11.4
703	ok	0.12	4.40e-02	3.12e-02	8.0	8.0	8.0	8.0	-226.2	-25.2	46.8	665.4	82.4	-120.7
706	ok	0.12	3.57e-02	2.57e-02	8.0	8.0	8.0	8.0	-180.1	-6.5	46.8	523.1	54.0	-130.9
709	ok	0.12	7.67e-02	1.87e-02	8.0	8.0	8.0	8.0	-86.3	-23.3	88.4	343.6	43.5	-43.3
712	ok	0.12	8.33e-02	1.49e-02	8.0	8.0	8.0	8.0	-13.9	-61.4	63.8	82.3	-611.3	-23.1
741	ok	0.12	0.5	1.37e-02	8.0	8.0	8.0	8.0	3.9	39.1	-58.8	-452.0	-2914.0	192.6
745	ok	0.12	0.5	8.17e-03	8.0	8.0	8.0	8.0	-12.0	35.3	-61.2	55.6	-2795.4	589.2
749	ok	0.12	0.3	1.09e-02	8.0	8.0	8.0	8.0	-37.1	41.3	-79.6	1602.0	1469.7	718.4
753	ok	0.12	0.4	1.34e-02	8.0	8.0	8.0	8.0	-54.5	46.4	-77.1	2525.2	2016.1	260.7
757	ok	0.12	0.4	1.53e-02	8.0	8.0	8.0	8.0	-67.9	42.6	-77.1	2842.1	2078.9	155.8
761	ok	0.12	0.4	1.66e-02	8.0	8.0	8.0	8.0	-80.7	51.1	-77.8	2735.4	2125.1	-150.3
765	ok	0.12	0.4	1.66e-02	8.0	8.0	8.0	8.0	-97.4	59.8	-81.3	1954.1	1797.4	-623.4
769	ok	0.12	0.4	1.51e-02	8.0	8.0	8.0	8.0	-89.6	72.0	-74.6	1131.8	913.6	-761.6
773	ok	0.12	0.7	1.05e-02	8.0	8.0	8.0	8.0	-47.4	78.8	-58.6	-544.1	-4145.8	-221.3
802	ok	0.12	0.7	5.34e-03	8.0	8.0	8.0	8.0	-16.1	86.9	-58.6	-691.5	-4178.6	85.3
805	ok	0.12	3.10e-02	1.98e-02	8.0	8.0	8.0	8.0	-151.6	-14.8	29.3	493.4	53.6	-3.4
808	ok	0.12	2.59e-02	1.91e-02	8.0	8.0	8.0	8.0	-133.5	-6.9	29.3	370.6	29.2	-5.5
811	ok	0.12	4.80e-02	1.51e-02	8.0	8.0	8.0	8.0	-56.5	-46.9	67.0	196.9	-135.9	28.1
814	ok	0.12	8.18e-02	1.29e-02	8.0	8.0	8.0	8.0	-24.4	-55.5	48.4	17.1	-700.1	19.2
843	ok	0.12	0.5	1.24e-02	8.0	8.0	8.0	8.0	4.8	32.6	-55.2	-522.3	-3156.3	-5.1
847	ok	0.12	0.5	8.09e-03	8.0	8.0	8.0	8.0	-11.1	29.2	-55.9	-79.1	-3045.1	-143.3
851	ok	0.12	0.3	1.02e-02	8.0	8.0	8.0	8.0	-36.8	37.9	-73.3	1763.7	1606.5	216.0
855	ok	0.12	0.4	1.22e-02	8.0	8.0	8.0	8.0	-54.8	43.2	-77.1	2570.4	2242.3	154.8
859	ok	0.12	0.4	1.36e-02	8.0	8.0	8.0	8.0	-70.8	51.5	-77.8	2906.8	2400.0	16.5
863	ok	0.12	0.4	1.47e-02	8.0	8.0	8.0	8.0	-81.0	48.6	-77.8	2785.9	2373.1	-101.4
867	ok	0.12	0.4	1.47e-02	8.0	8.0	8.0	8.0	-85.9	60.6	-69.8	2134.8	2012.4	-206.8
871	ok	0.12	0.3	1.23e-02	8.0	8.0	8.0	8.0	-74.7	73.8	-62.6	1131.3	906.7	-201.2
875	ok	0.12	0.7	7.53e-03	8.0	8.0	8.0	8.0	-17.0	82.9	-49.0	-782.9	-4553.2	141.3
904	ok	0.12	0.8	3.31e-03	8.0	8.0	8.0	8.0	29.0	117.6	-13.3	-1110.5	-6295.5	20.6
907	ok	0.12	2.90e-02	1.34e-02	8.0	8.0	8.0	8.0	-73.8	-2.0	9.3	480.0	10.1	88.2



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
910	ok	0.12	2.48e-02	1.35e-02	8.0	8.0	8.0	8.0	-62.3	-18.4	26.9	369.4	7.8	99.0
913	ok	0.12	3.15e-02	1.19e-02	8.0	8.0	8.0	8.0	-38.1	-35.1	37.5	188.7	-124.7	92.2
916	ok	0.12	6.48e-02	1.05e-02	8.0	8.0	8.0	8.0	-19.5	-44.8	40.0	9.9	-330.4	45.9
945	ok	0.12	0.5	1.02e-02	8.0	8.0	8.0	8.0	3.0	29.6	56.4	-505.3	-2897.9	-92.7
949	ok	0.12	0.5	8.09e-03	8.0	8.0	8.0	8.0	-8.8	27.3	56.4	-270.0	-2849.0	-435.0
953	ok	0.12	0.3	9.40e-03	8.0	8.0	8.0	8.0	-34.5	31.6	-65.7	1551.9	1450.7	-300.0
957	ok	0.12	0.4	1.10e-02	8.0	8.0	8.0	8.0	-49.9	35.9	-66.9	2328.9	2100.7	-129.5
961	ok	0.12	0.4	1.20e-02	8.0	8.0	8.0	8.0	-62.9	43.1	-65.4	2669.6	2269.6	35.1
965	ok	0.12	0.4	1.27e-02	8.0	8.0	8.0	8.0	-71.2	40.8	-65.4	2481.6	2242.0	75.7
969	ok	0.12	0.3	1.27e-02	8.0	8.0	8.0	8.0	-73.9	51.5	-56.6	1881.4	1876.1	234.7
973	ok	0.12	0.3	9.84e-03	8.0	8.0	8.0	8.0	-41.1	68.2	-41.6	186.4	-1458.1	554.4
977	ok	0.12	0.7	5.88e-03	8.0	8.0	8.0	8.0	-14.1	90.4	-13.3	-830.5	-5735.0	265.3
1006	ok	0.12	0.7	2.37e-03	8.0	8.0	8.0	8.0	34.8	100.1	-12.7	-1050.2	-5779.0	107.9
1009	ok	0.12	5.85e-02	9.65e-03	8.0	8.0	8.0	8.0	-74.0	-6.5	9.3	477.7	11.4	121.6
1012	ok	0.12	5.11e-02	9.36e-03	8.0	8.0	8.0	8.0	-61.9	-17.6	26.9	370.3	-14.2	141.4
1015	ok	0.12	5.12e-02	8.82e-03	8.0	8.0	8.0	8.0	-36.9	-28.2	37.5	195.5	-121.4	130.3
1018	ok	0.12	5.53e-02	8.35e-03	8.0	8.0	8.0	8.0	-7.8	-31.8	33.2	1.3	-301.4	80.6
1047	ok	0.12	0.3	8.07e-03	8.0	8.0	8.0	8.0	6.5	26.2	51.8	-363.8	-2174.9	-175.6
1051	ok	0.12	0.4	7.73e-03	8.0	8.0	8.0	8.0	-4.9	24.5	51.8	-207.6	-2143.8	-673.6
1055	ok	0.12	0.3	8.83e-03	8.0	8.0	8.0	8.0	-30.4	15.5	-57.4	1208.0	1103.6	-711.8
1059	ok	0.12	0.3	9.79e-03	8.0	8.0	8.0	8.0	-43.3	20.5	-56.6	1837.0	1639.0	-377.5
1063	ok	0.12	0.3	1.05e-02	8.0	8.0	8.0	8.0	-52.2	18.3	-56.6	2111.3	1692.7	-200.4
1067	ok	0.12	0.3	1.10e-02	8.0	8.0	8.0	8.0	-60.4	27.1	-50.2	1955.9	1770.8	234.2
1071	ok	0.12	0.3	1.08e-02	8.0	8.0	8.0	8.0	-61.7	33.9	-43.6	1473.8	1416.2	615.8
1075	ok	0.12	0.3	8.11e-03	8.0	8.0	8.0	8.0	-31.2	50.9	-28.8	227.7	-1130.7	921.3
1079	ok	0.12	0.5	4.53e-03	8.0	8.0	8.0	8.0	-6.9	69.5	-12.7	-650.8	-4470.3	532.9
1108	ok	0.12	0.5	1.77e-03	8.0	8.0	8.0	8.0	30.1	76.9	-12.7	-794.2	-4499.0	194.8
1111	ok	0.12	0.1	9.97e-03	8.0	8.0	8.0	8.0	-61.0	-4.9	-6.4	1353.0	172.7	231.3
1114	ok	0.12	9.53e-02	6.22e-03	8.0	8.0	8.0	8.0	-23.8	2.5	-6.4	782.1	58.5	242.6
1117	ok	0.12	5.44e-02	5.22e-03	8.0	8.0	8.0	8.0	0.7	-11.1	-13.4	292.9	40.6	77.8
1120	ok	0.12	6.04e-02	6.19e-03	8.0	8.0	8.0	8.0	0.4	-22.3	24.3	-124.7	-213.4	106.8
1149	ok	0.12	0.2	6.74e-03	8.0	8.0	8.0	8.0	9.9	27.5	40.9	-236.9	-1132.3	-248.5
1153	ok	0.12	0.3	7.59e-03	8.0	8.0	8.0	8.0	-6.8	25.1	51.8	-3.1	-1083.5	-723.7
1157	ok	0.12	0.3	8.55e-03	8.0	8.0	8.0	8.0	-25.4	20.0	-34.8	855.5	624.5	-1033.3
1161	ok	0.12	0.3	8.76e-03	8.0	8.0	8.0	8.0	-35.9	5.4	-47.1	1297.7	934.5	-596.4
1165	ok	0.12	0.2	8.97e-03	8.0	8.0	8.0	8.0	-42.0	3.7	-47.1	1515.1	977.8	-308.6
1169	ok	0.12	0.2	9.28e-03	8.0	8.0	8.0	8.0	-49.3	8.5	-33.2	1329.5	866.5	663.9
1173	ok	0.12	0.3	8.88e-03	8.0	8.0	8.0	8.0	-48.6	8.5	-33.2	1063.2	813.0	926.7
1177	ok	0.12	0.3	7.03e-03	8.0	8.0	8.0	8.0	-14.5	29.7	8.9	794.2	-581.1	1539.6
1181	ok	0.12	0.3	4.07e-03	8.0	8.0	8.0	8.0	-7.2	35.4	-10.4	-239.5	-2352.6	762.9
1210	ok	0.12	0.3	1.34e-03	8.0	8.0	8.0	8.0	48.2	46.7	-5.8	-478.1	-2414.6	205.9
1239	ok	0.12	0.1	1.00e-02	8.0	8.0	8.0	8.0	-61.2	-5.8	-6.4	1348.2	148.8	425.8
1268	ok	0.12	0.1	4.12e-03	8.0	8.0	8.0	8.0	-24.0	1.6	-6.4	777.3	34.6	437.0
1295	ok	0.12	9.65e-02	3.73e-03	8.0	8.0	8.0	8.0	-9.3	19.8	9.5	-3.7	-17.4	343.1
1328	ok	0.12	0.1	5.29e-03	8.0	8.0	8.0	8.0	9.6	40.8	16.3	-135.5	-47.4	212.1
1357	ok	0.12	0.2	8.38e-03	8.0	8.0	8.0	8.0	1.8	-46.3	-37.4	43.5	-191.6	-500.4
1386	ok	0.12	0.2	8.86e-03	8.0	8.0	8.0	8.0	-6.9	-32.0	-36.6	254.7	24.6	-1174.3
1415	ok	0.12	0.2	8.18e-03	8.0	8.0	8.0	8.0	-17.6	-23.9	-39.1	456.1	192.1	-936.1
1444	ok	0.12	0.2	8.05e-03	8.0	8.0	8.0	8.0	-24.2	-25.8	-39.1	565.1	223.6	-787.2
1473	ok	0.12	0.1	8.26e-03	8.0	8.0	8.0	8.0	-32.8	-19.7	-39.0	936.3	284.5	-318.5
1502	ok	0.12	0.2	8.10e-03	8.0	8.0	8.0	8.0	-37.4	-28.5	-30.3	1019.9	218.4	558.3
1531	ok	0.12	0.2	7.94e-03	8.0	8.0	8.0	8.0	-38.2	-37.9	-24.3	1075.3	240.6	1084.4
1563	ok	0.12	0.2	8.68e-03	8.0	8.0	8.0	8.0	-24.1	-35.2	-24.3	774.9	188.5	1171.9
1596	ok	0.12	0.2	9.26e-03	8.0	8.0	8.0	8.0	-26.0	-56.2	-5.8	522.0	-215.5	1119.0
1625	ok	0.12	8.57e-02	7.36e-03	8.0	8.0	8.0	8.0	29.8	-45.1	-5.8	-61.6	-332.2	544.3
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-557.55	-129.41	-90.61	-3148.47	-6295.50	-1174.31
		0.12	0.76	0.09	8.04	8.04	8.04	8.04	48.16	117.59	146.10	2906.81	2400.03	1539.57

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
61	ok	0.74						
92	ok	0.74						
123	ok	0.58						
154	ok	0.56						
185	ok	0.50						
216	ok	2.05						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
247	ok	3.43						
278	ok	3.98						
309	ok	4.05						
340	ok	4.05						
371	ok	3.70						
402	ok	2.77						
433	ok	1.16						
464	ok	0.36						
499	ok	0.54						
502	ok	0.54						
505	ok	0.43						
508	ok	0.68						
537	ok	1.60						
541	ok	2.05						
545	ok	3.43						
549	ok	3.98						
553	ok	4.05						
557	ok	4.05						
561	ok	3.70						
565	ok	2.77						
569	ok	2.20						
598	ok	2.20						
601	ok	0.36						
604	ok	0.36						
607	ok	0.32						
610	ok	0.51						
639	ok	2.73						
643	ok	2.73						
647	ok	1.72						
651	ok	2.19						
655	ok	2.27						
659	ok	2.27						
663	ok	1.95						
667	ok	1.90						
671	ok	3.20						
700	ok	3.20						
703	ok	0.24						
706	ok	0.24						
709	ok	0.28						
712	ok	0.48						
741	ok	3.05						
745	ok	3.05						
749	ok	1.69						
753	ok	0.97						
757	ok	1.01						
761	ok	1.01						
765	ok	1.21						
769	ok	2.29						
773	ok	3.46						
802	ok	3.46						
805	ok	0.13						
808	ok	0.15						
811	ok	0.30						
814	ok	0.45						
843	ok	3.05						
847	ok	3.05						
851	ok	1.70						
855	ok	0.96						
859	ok	0.52						
863	ok	0.69						
867	ok	1.29						
871	ok	2.29						
875	ok	3.46						
904	ok	3.46						
907	ok	0.11						
910	ok	0.15						
913	ok	0.30						
916	ok	0.50						
945	ok	2.82						
949	ok	2.82						
953	ok	1.70						
957	ok	0.96						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
961	ok	0.72						
965	ok	0.75						
969	ok	1.29						
973	ok	2.23						
977	ok	3.20						
1006	ok	3.20						
1009	ok	0.26						
1012	ok	0.26						
1015	ok	0.28						
1018	ok	0.47						
1047	ok	2.23						
1051	ok	2.23						
1055	ok	1.35						
1059	ok	0.91						
1063	ok	0.83						
1067	ok	0.81						
1071	ok	1.08						
1075	ok	1.82						
1079	ok	2.63						
1108	ok	2.63						
1111	ok	0.49						
1114	ok	0.49						
1117	ok	0.31						
1120	ok	0.42						
1149	ok	1.66						
1153	ok	1.66						
1157	ok	1.19						
1161	ok	0.93						
1165	ok	0.93						
1169	ok	0.91						
1173	ok	1.02						
1177	ok	1.53						
1181	ok	2.14						
1210	ok	2.14						
1239	ok	0.61						
1268	ok	0.61						
1295	ok	0.52						
1328	ok	0.45						
1357	ok	0.60						
1386	ok	0.80						
1415	ok	0.91						
1444	ok	0.93						
1473	ok	0.93						
1502	ok	0.91						
1531	ok	0.92						
1563	ok	0.92						
1596	ok	1.03						
1625	ok	1.03						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.05						

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
5	35.00	6	9	Singolo elemento NON DISSIPATIVO

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
157	ok	0.12	7.26e-02	9.83e-03	8.0	8.0	8.0	8.0	-17.7	-27.1	-55.8	12.7	121.3	-81.4
158	ok	0.12	0.2	2.03e-02	8.0	8.0	8.0	8.0	-123.0	-36.7	-69.3	1401.0	287.0	106.1
159	ok	0.12	0.3	2.49e-02	8.0	8.0	8.0	8.0	-148.2	-44.7	-69.3	2905.1	587.8	64.9
160	ok	0.12	0.5	2.76e-02	8.0	8.0	8.0	8.0	-179.2	-34.4	-86.9	4208.7	814.4	-66.2
161	ok	0.12	0.6	2.88e-02	8.0	8.0	8.0	8.0	-186.6	-36.1	-86.9	4965.3	965.7	-156.8
162	ok	0.12	0.6	2.90e-02	8.0	8.0	8.0	8.0	-187.6	-32.8	-92.8	5211.5	1018.3	-216.3



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
163	ok	0.12	0.5	2.90e-02	8.0	8.0	8.0	8.0	-183.0	-29.3	-98.3	4980.0	981.9	-261.0
164	ok	0.12	0.5	3.00e-02	8.0	8.0	8.0	8.0	-208.9	-21.2	-81.7	5201.9	1205.1	-120.6
165	ok	0.12	0.3	3.58e-02	8.0	8.0	8.0	8.0	-223.0	-27.4	-81.7	4500.9	1064.9	54.0
166	ok	0.12	0.3	4.19e-02	8.0	8.0	8.0	8.0	-278.5	-13.9	-110.2	4053.1	706.7	98.8
167	ok	0.12	0.4	3.15e-02	8.0	8.0	8.0	8.0	-196.6	-18.4	59.4	4574.3	1093.2	36.2
168	ok	0.12	0.5	2.64e-02	8.0	8.0	8.0	8.0	-182.3	-12.5	59.4	5350.9	1248.5	193.9
169	ok	0.12	0.6	2.46e-02	8.0	8.0	8.0	8.0	-130.5	-10.5	-92.0	5032.9	991.4	287.8
170	ok	0.12	0.6	2.29e-02	8.0	8.0	8.0	8.0	-123.5	-7.7	-92.0	5201.2	1025.1	213.4
171	ok	0.12	0.6	2.04e-02	8.0	8.0	8.0	8.0	-94.5	2.6	-102.8	4865.5	943.4	145.9
172	ok	0.12	0.5	1.79e-02	8.0	8.0	8.0	8.0	-72.3	8.1	-102.8	4005.7	771.4	44.8
173	ok	0.12	0.4	1.45e-02	8.0	8.0	8.0	8.0	-29.1	22.7	-93.4	2672.1	568.3	-90.1
174	ok	0.12	0.3	1.10e-02	8.0	8.0	8.0	8.0	-5.7	28.5	-93.4	1164.0	266.7	-99.6
175	ok	0.12	0.2	1.00e-02	8.0	8.0	8.0	8.0	0.9	12.3	86.5	423.4	150.9	-10.0
176	ok	0.12	0.3	1.48e-02	8.0	8.0	8.0	8.0	-20.1	6.9	86.5	1287.4	329.0	266.9
177	ok	0.12	0.4	1.95e-02	8.0	8.0	8.0	8.0	-59.7	4.3	105.9	2764.9	570.8	240.0
178	ok	0.12	0.5	2.37e-02	8.0	8.0	8.0	8.0	-122.2	-12.0	108.3	4048.5	784.0	126.4
179	ok	0.12	0.6	2.65e-02	8.0	8.0	8.0	8.0	-157.2	-22.5	101.0	4830.1	942.4	50.7
180	ok	0.12	0.6	2.80e-02	8.0	8.0	8.0	8.0	-170.4	-27.1	101.0	5099.8	996.3	-22.2
181	ok	0.12	0.6	2.85e-02	8.0	8.0	8.0	8.0	-182.3	-31.7	93.2	4873.8	952.9	-76.3
182	ok	0.12	0.5	2.78e-02	8.0	8.0	8.0	8.0	-180.3	-33.7	85.8	4131.8	800.6	-141.5
183	ok	0.12	0.3	2.52e-02	8.0	8.0	8.0	8.0	-151.6	-42.4	67.2	2863.5	571.8	-217.5
184	ok	0.12	0.2	1.99e-02	8.0	8.0	8.0	8.0	-122.1	-33.3	67.2	1249.8	257.3	-249.8
185	ok	0.12	7.24e-02	1.08e-02	8.0	8.0	8.0	8.0	-8.8	-15.7	35.5	279.3	229.3	20.6
509	ok	0.12	0.2	5.62e-03	8.0	8.0	8.0	8.0	21.8	63.1	-31.8	305.0	902.4	422.1
510	ok	0.12	0.2	1.78e-02	8.0	8.0	8.0	8.0	-89.5	40.8	-31.8	1976.8	1236.8	767.7
511	ok	0.12	0.4	2.31e-02	8.0	8.0	8.0	8.0	-139.1	23.4	-69.3	2887.6	495.4	574.8
512	ok	0.12	0.5	2.63e-02	8.0	8.0	8.0	8.0	-168.4	12.6	-80.5	4164.0	591.0	369.2
513	ok	0.12	0.6	2.77e-02	8.0	8.0	8.0	8.0	-182.1	-0.9	-92.8	4935.4	816.9	-51.2
514	ok	0.12	0.6	2.83e-02	8.0	8.0	8.0	8.0	-181.0	-6.9	-98.3	5187.1	896.8	-277.7
515	ok	0.12	0.6	2.83e-02	8.0	8.0	8.0	8.0	-176.2	-10.1	-103.5	4966.4	914.4	-434.7
516	ok	0.12	0.5	2.97e-02	8.0	8.0	8.0	8.0	-207.7	-6.5	-81.7	5276.6	1578.7	-355.5
517	ok	0.12	0.4	3.58e-02	8.0	8.0	8.0	8.0	-221.8	-12.6	-81.7	4575.7	1438.6	-181.7
518	ok	0.12	0.3	4.19e-02	8.0	8.0	8.0	8.0	-262.5	-5.3	87.5	3993.7	800.5	117.4
519	ok	0.12	0.4	3.15e-02	8.0	8.0	8.0	8.0	-195.8	-8.1	59.4	4642.2	1432.3	297.4
520	ok	0.12	0.5	2.63e-02	8.0	8.0	8.0	8.0	-181.4	-2.1	59.4	5418.7	1587.5	454.4
521	ok	0.12	0.6	2.44e-02	8.0	8.0	8.0	8.0	-137.5	-5.3	-79.5	5009.2	873.0	481.3
522	ok	0.12	0.6	2.28e-02	8.0	8.0	8.0	8.0	-122.6	-1.1	-92.0	5169.5	866.9	271.2
523	ok	0.12	0.6	2.02e-02	8.0	8.0	8.0	8.0	-94.4	2.6	-102.8	4822.3	727.4	-146.1
524	ok	0.12	0.5	1.79e-02	8.0	8.0	8.0	8.0	-66.9	4.5	-102.8	3962.5	555.3	-424.0
525	ok	0.12	0.4	1.49e-02	8.0	8.0	8.0	8.0	-31.8	8.4	-93.4	2668.2	549.9	-601.5
526	ok	0.12	0.3	1.45e-02	8.0	8.0	8.0	8.0	-23.2	-15.8	81.8	1030.6	910.1	-499.5
527	ok	0.12	0.3	1.38e-02	8.0	8.0	8.0	8.0	-1.7	10.0	86.5	541.7	740.2	296.0
528	ok	0.12	0.3	1.53e-02	8.0	8.0	8.0	8.0	-22.6	4.7	86.5	1405.9	911.7	558.9
529	ok	0.12	0.4	1.94e-02	8.0	8.0	8.0	8.0	-61.8	-4.1	105.9	2754.3	526.4	743.4
530	ok	0.12	0.5	2.29e-02	8.0	8.0	8.0	8.0	-106.8	-3.5	111.6	4005.1	567.0	561.7
531	ok	0.12	0.6	2.55e-02	8.0	8.0	8.0	8.0	-143.6	-1.3	108.3	4791.8	750.9	302.7
532	ok	0.12	0.6	2.69e-02	8.0	8.0	8.0	8.0	-173.8	7.1	93.2	5069.3	844.3	-82.0
533	ok	0.12	0.6	2.72e-02	8.0	8.0	8.0	8.0	-179.7	10.0	85.8	4837.7	772.9	-327.1
534	ok	0.12	0.5	2.62e-02	8.0	8.0	8.0	8.0	-170.4	14.8	74.9	4091.2	597.9	-560.9
535	ok	0.12	0.4	2.30e-02	8.0	8.0	8.0	8.0	-143.1	21.2	67.2	2849.5	504.2	-757.4
536	ok	0.12	0.2	1.76e-02	8.0	8.0	8.0	8.0	-89.2	37.5	35.5	1903.4	1405.6	-885.8
537	ok	0.12	0.2	7.07e-03	8.0	8.0	8.0	8.0	5.6	56.5	35.5	456.7	1116.3	-443.5
611	ok	0.12	0.4	2.52e-03	8.0	8.0	8.0	8.0	33.2	106.6	-29.3	517.7	2396.9	355.0
612	ok	0.12	0.3	1.38e-02	8.0	8.0	8.0	8.0	-71.7	85.6	-29.3	365.4	2366.5	1065.4
613	ok	0.12	0.3	2.08e-02	8.0	8.0	8.0	8.0	-127.3	56.2	-52.5	-1120.4	-803.7	783.8
614	ok	0.12	0.3	2.44e-02	8.0	8.0	8.0	8.0	-143.6	51.3	-52.5	-1489.6	-877.6	661.0
615	ok	0.12	0.3	2.62e-02	8.0	8.0	8.0	8.0	-157.2	37.9	-65.1	-1640.7	-917.8	310.5
616	ok	0.12	0.3	2.67e-02	8.0	8.0	8.0	8.0	-158.7	16.0	-82.9	-1567.6	-753.3	-226.6
617	ok	0.12	0.3	2.67e-02	8.0	8.0	8.0	8.0	-156.0	17.4	-82.9	-1372.5	-714.3	-393.9
618	ok	0.12	0.2	2.77e-02	8.0	8.0	8.0	8.0	-189.0	6.7	-85.2	1190.8	533.2	-878.7
619	ok	0.12	0.3	3.27e-02	8.0	8.0	8.0	8.0	-200.6	-1.4	-124.8	660.8	935.3	-757.2
620	ok	0.12	0.3	3.24e-02	8.0	8.0	8.0	8.0	-183.7	1.2	101.5	-55.4	799.6	382.6
621	ok	0.12	0.3	2.85e-02	8.0	8.0	8.0	8.0	-182.8	3.4	101.5	768.6	965.1	857.9
622	ok	0.12	0.3	2.42e-02	8.0	8.0	8.0	8.0	-164.2	8.0	62.3	1198.3	419.7	877.0
623	ok	0.12	0.3	2.27e-02	8.0	8.0	8.0	8.0	-106.8	4.4	-91.7	-1433.6	-793.6	373.4
624	ok	0.12	0.3	2.10e-02	8.0	8.0	8.0	8.0	-99.2	7.1	-91.7	-1612.9	-829.3	215.6
625	ok	0.12	0.3	1.92e-02	8.0	8.0	8.0	8.0	-75.4	3.1	-99.3	-1656.8	-1003.2	-369.8
626	ok	0.12	0.3	1.73e-02	8.0	8.0	8.0	8.0	-56.5	-0.1	-97.4	-1455.7	-856.0	-708.7
627	ok	0.12	0.3	1.52e-02	8.0	8.0	8.0	8.0	-37.4	4.3	-97.4	-1045.7	-767.2	-814.9
628	ok	0.12	0.3	1.37e-02	8.0	8.0	8.0	8.0	-23.3	1.9	96.6	290.7	1852.4	-657.9
629	ok	0.12	0.3	1.33e-02	8.0	8.0	8.0	8.0	-13.7	3.9	96.6	357.9	1864.6	-225.7
630	ok	0.12	0.4	1.55e-02	8.0	8.0	8.0	8.0	-28.9	-12.8	90.9	316.8	1822.9	802.6



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
631	ok	0.12	0.3	1.85e-02	8.0	8.0	8.0	8.0	-67.7	9.4	98.4	-1276.9	-802.4	903.5
632	ok	0.12	0.3	2.12e-02	8.0	8.0	8.0	8.0	-90.8	2.4	98.4	-1700.7	-903.4	795.3
633	ok	0.12	0.3	2.36e-02	8.0	8.0	8.0	8.0	-119.9	12.4	95.4	-1976.3	-1018.3	467.5
634	ok	0.12	0.3	2.49e-02	8.0	8.0	8.0	8.0	-141.7	22.3	87.9	-2051.3	-936.2	100.9
635	ok	0.12	0.3	2.57e-02	8.0	8.0	8.0	8.0	-152.5	43.5	63.5	-1985.2	-956.5	-468.1
636	ok	0.12	0.3	2.47e-02	8.0	8.0	8.0	8.0	-144.1	53.1	55.0	-1728.3	-884.0	-805.0
637	ok	0.12	0.3	2.12e-02	8.0	8.0	8.0	8.0	-129.6	57.5	55.0	-1304.0	-789.6	-918.8
638	ok	0.12	0.3	1.44e-02	8.0	8.0	8.0	8.0	-77.4	83.4	33.6	419.0	2653.2	-1208.9
639	ok	0.12	0.4	3.80e-03	8.0	8.0	8.0	8.0	20.3	103.0	33.6	523.2	2674.0	-406.7
713	ok	0.12	0.5	7.98e-04	8.0	8.0	8.0	8.0	30.4	122.2	-11.8	618.4	3536.1	151.2
714	ok	0.12	0.4	1.07e-02	8.0	8.0	8.0	8.0	-59.6	104.2	-21.3	43.6	3421.2	697.2
715	ok	0.12	0.3	1.87e-02	8.0	8.0	8.0	8.0	-109.9	76.0	-37.3	-1436.8	-1139.3	433.4
716	ok	0.12	0.3	2.29e-02	8.0	8.0	8.0	8.0	-134.7	58.9	-50.0	-2107.2	-1403.2	290.6
717	ok	0.12	0.3	2.47e-02	8.0	8.0	8.0	8.0	-140.9	57.3	-50.0	-2453.6	-1473.1	215.8
718	ok	0.12	0.3	2.52e-02	8.0	8.0	8.0	8.0	-143.4	44.3	-60.5	-2465.1	-1420.4	4.9
719	ok	0.12	0.3	2.52e-02	8.0	8.0	8.0	8.0	-139.1	33.0	-71.7	-2171.1	-1135.8	-200.3
720	ok	0.12	0.2	2.55e-02	8.0	8.0	8.0	8.0	-129.5	24.9	-84.1	-1542.6	-785.9	-368.3
721	ok	0.12	0.3	2.77e-02	8.0	8.0	8.0	8.0	-157.6	-1.3	-118.1	-251.9	1696.1	-582.3
722	ok	0.12	0.3	2.50e-02	8.0	8.0	8.0	8.0	-120.0	5.6	98.1	247.1	2128.6	205.5
723	ok	0.12	0.3	2.43e-02	8.0	8.0	8.0	8.0	-144.0	-0.3	98.1	-362.6	1610.9	693.0
724	ok	0.12	0.3	2.18e-02	8.0	8.0	8.0	8.0	-100.9	11.0	-75.6	-1669.9	-919.5	412.9
725	ok	0.12	0.3	2.08e-02	8.0	8.0	8.0	8.0	-94.6	8.5	-87.7	-2244.2	-1326.4	204.6
726	ok	0.12	0.3	1.93e-02	8.0	8.0	8.0	8.0	-84.1	5.6	-92.0	-2496.8	-1467.9	-25.5
727	ok	0.12	0.3	1.81e-02	8.0	8.0	8.0	8.0	-68.2	1.3	-93.0	-2440.3	-1469.7	-253.9
728	ok	0.12	0.3	1.66e-02	8.0	8.0	8.0	8.0	-53.5	5.1	-93.0	-2058.9	-1393.1	-326.6
729	ok	0.12	0.3	1.49e-02	8.0	8.0	8.0	8.0	-37.0	-0.4	-90.3	-1336.1	-1035.9	-442.0
730	ok	0.12	0.4	1.37e-02	8.0	8.0	8.0	8.0	-25.7	2.4	96.6	148.8	2552.4	-414.9
731	ok	0.12	0.4	1.34e-02	8.0	8.0	8.0	8.0	-24.9	-10.8	83.2	460.1	2641.3	135.2
732	ok	0.12	0.4	1.48e-02	8.0	8.0	8.0	8.0	-34.8	-13.7	83.2	47.9	2558.6	532.4
733	ok	0.12	0.3	1.69e-02	8.0	8.0	8.0	8.0	-62.4	11.3	85.2	-1568.7	-1077.8	485.4
734	ok	0.12	0.3	1.92e-02	8.0	8.0	8.0	8.0	-88.4	25.4	81.9	-2355.3	-1388.2	362.0
735	ok	0.12	0.4	2.12e-02	8.0	8.0	8.0	8.0	-107.4	19.6	81.9	-2831.5	-1483.2	289.4
736	ok	0.12	0.4	2.32e-02	8.0	8.0	8.0	8.0	-129.4	49.9	65.0	-2993.0	-1501.5	-78.3
737	ok	0.12	0.4	2.42e-02	8.0	8.0	8.0	8.0	-135.5	61.5	50.5	-2846.5	-1489.5	-301.8
738	ok	0.12	0.3	2.31e-02	8.0	8.0	8.0	8.0	-133.0	62.1	50.5	-2380.6	-1395.9	-374.5
739	ok	0.12	0.3	1.93e-02	8.0	8.0	8.0	8.0	-112.4	77.1	41.7	-1602.2	-1110.1	-504.1
740	ok	0.12	0.4	1.17e-02	8.0	8.0	8.0	8.0	-68.0	102.6	25.6	18.8	3730.3	-791.5
741	ok	0.12	0.5	1.88e-03	8.0	8.0	8.0	8.0	23.9	121.0	25.6	681.9	3862.9	-190.4
815	ok	0.12	0.5	6.32e-04	8.0	8.0	8.0	8.0	29.6	118.3	-11.8	688.6	3887.3	-57.8
816	ok	0.12	0.5	8.53e-03	8.0	8.0	8.0	8.0	-43.7	103.7	-4.3	236.9	3796.9	-249.6
817	ok	0.12	0.3	1.67e-02	8.0	8.0	8.0	8.0	-109.9	78.5	-37.3	-1451.7	-1209.8	216.2
818	ok	0.12	0.3	2.12e-02	8.0	8.0	8.0	8.0	-134.5	63.2	-50.0	-2138.5	-1554.2	175.6
819	ok	0.12	0.3	2.31e-02	8.0	8.0	8.0	8.0	-140.6	61.6	-50.0	-2484.6	-1624.1	100.9
820	ok	0.12	0.3	2.36e-02	8.0	8.0	8.0	8.0	-143.2	49.2	-60.5	-2498.9	-1585.4	-4.0
821	ok	0.12	0.3	2.33e-02	8.0	8.0	8.0	8.0	-138.9	37.8	-71.7	-2200.9	-1383.0	-105.7
822	ok	0.12	0.2	2.28e-02	8.0	8.0	8.0	8.0	-129.6	27.9	-84.1	-1566.8	-1000.0	-176.6
823	ok	0.12	0.4	2.30e-02	8.0	8.0	8.0	8.0	-124.8	0.3	-103.3	-193.0	2507.3	-181.5
824	ok	0.12	0.4	2.00e-02	8.0	8.0	8.0	8.0	-76.1	12.7	-87.5	241.9	2592.3	-4.9
825	ok	0.12	0.3	2.02e-02	8.0	8.0	8.0	8.0	-113.5	-1.0	87.5	-374.5	2251.7	245.0
826	ok	0.12	0.3	1.94e-02	8.0	8.0	8.0	8.0	-101.3	11.9	-75.6	-1702.2	-1124.1	235.2
827	ok	0.12	0.3	1.89e-02	8.0	8.0	8.0	8.0	-94.9	8.0	-87.7	-2281.9	-1500.8	126.9
828	ok	0.12	0.3	1.79e-02	8.0	8.0	8.0	8.0	-84.5	3.9	-92.0	-2535.6	-1657.4	-4.7
829	ok	0.12	0.3	1.68e-02	8.0	8.0	8.0	8.0	-68.6	-1.4	-93.0	-2470.7	-1621.1	-124.7
830	ok	0.12	0.3	1.55e-02	8.0	8.0	8.0	8.0	-53.9	2.4	-93.0	-2089.3	-1544.6	-197.4
831	ok	0.12	0.3	1.41e-02	8.0	8.0	8.0	8.0	-37.3	-3.7	-90.3	-1343.9	-1076.3	-212.0
832	ok	0.12	0.4	1.33e-02	8.0	8.0	8.0	8.0	-26.1	6.4	90.0	236.4	2774.3	158.1
833	ok	0.12	0.4	1.32e-02	8.0	8.0	8.0	8.0	-32.5	-11.0	67.3	503.2	2910.1	-22.2
834	ok	0.12	0.4	1.34e-02	8.0	8.0	8.0	8.0	-36.1	-12.2	67.3	123.6	2834.7	-157.3
835	ok	0.12	0.3	1.48e-02	8.0	8.0	8.0	8.0	-62.7	12.8	85.2	-1579.5	-1132.7	229.0
836	ok	0.12	0.3	1.69e-02	8.0	8.0	8.0	8.0	-88.7	26.3	81.9	-2385.3	-1534.3	200.0
837	ok	0.12	0.4	1.87e-02	8.0	8.0	8.0	8.0	-107.8	20.6	81.9	-2861.4	-1629.5	127.1
838	ok	0.12	0.4	2.14e-02	8.0	8.0	8.0	8.0	-129.5	52.4	65.0	-3029.7	-1678.9	-28.6
839	ok	0.12	0.4	2.24e-02	8.0	8.0	8.0	8.0	-135.5	64.3	50.5	-2876.2	-1631.8	-144.6
840	ok	0.12	0.3	2.13e-02	8.0	8.0	8.0	8.0	-133.1	64.9	50.5	-2410.5	-1550.2	-217.3
841	ok	0.12	0.3	1.75e-02	8.0	8.0	8.0	8.0	-112.6	79.2	41.7	-1614.1	-1166.0	-248.4
842	ok	0.12	0.5	1.00e-02	8.0	8.0	8.0	8.0	-51.0	102.7	9.2	179.4	4127.3	256.9
843	ok	0.12	0.5	1.07e-03	8.0	8.0	8.0	8.0	20.9	117.1	16.5	745.1	4240.4	43.8
917	ok	0.12	0.4	1.17e-03	8.0	8.0	8.0	8.0	19.6	90.0	-22.4	436.6	2224.9	-115.0
918	ok	0.12	0.4	7.61e-03	8.0	8.0	8.0	8.0	-40.0	88.7	1.5	411.7	3421.3	-652.7
919	ok	0.12	0.3	1.52e-02	8.0	8.0	8.0	8.0	-82.8	79.0	10.7	-1127.6	-1429.9	-719.9
920	ok	0.12	0.3	1.95e-02	8.0	8.0	8.0	8.0	-105.8	74.4	10.7	-1721.8	-1548.8	-565.5
921	ok	0.12	0.3	2.14e-02	8.0	8.0	8.0	8.0	-125.2	59.0	-35.7	-2259.0	-1494.5	-82.8



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
922	ok	0.12	0.3	2.17e-02	8.0	8.0	8.0	8.0	-126.8	48.9	-47.1	-2282.5	-1468.5	24.2
923	ok	0.12	0.3	2.10e-02	8.0	8.0	8.0	8.0	-121.4	38.9	-59.9	-1972.8	-1257.2	128.3
924	ok	0.12	0.2	1.98e-02	8.0	8.0	8.0	8.0	-110.6	29.3	-73.7	-1344.0	-842.0	260.3
925	ok	0.12	0.3	1.90e-02	8.0	8.0	8.0	8.0	-101.4	1.4	-87.5	-144.4	2201.8	224.6
926	ok	0.12	0.3	1.66e-02	8.0	8.0	8.0	8.0	-76.8	9.1	-87.5	285.3	2266.1	125.8
927	ok	0.12	0.3	1.70e-02	8.0	8.0	8.0	8.0	-78.3	2.3	65.8	-102.2	2085.1	-468.0
928	ok	0.12	0.3	1.71e-02	8.0	8.0	8.0	8.0	-86.6	12.5	-71.2	-1491.6	-996.8	-183.0
929	ok	0.12	0.3	1.70e-02	8.0	8.0	8.0	8.0	-83.0	8.8	-82.2	-2093.8	-1429.1	-75.9
930	ok	0.12	0.3	1.63e-02	8.0	8.0	8.0	8.0	-75.2	4.5	-85.7	-2350.3	-1582.4	-16.3
931	ok	0.12	0.3	1.55e-02	8.0	8.0	8.0	8.0	-62.6	-1.8	-85.5	-2265.8	-1501.3	83.0
932	ok	0.12	0.3	1.43e-02	8.0	8.0	8.0	8.0	-50.4	2.0	-85.5	-1877.2	-1423.5	120.5
933	ok	0.12	0.3	1.31e-02	8.0	8.0	8.0	8.0	-36.1	-5.3	-81.9	-1152.4	-911.3	274.2
934	ok	0.12	0.4	1.26e-02	8.0	8.0	8.0	8.0	-19.3	9.2	84.4	299.7	2438.1	404.2
935	ok	0.12	0.4	1.26e-02	8.0	8.0	8.0	8.0	-27.4	-7.4	59.3	468.0	2625.5	-154.8
936	ok	0.12	0.4	1.16e-02	8.0	8.0	8.0	8.0	-31.1	-8.5	59.3	224.6	2576.2	-488.0
937	ok	0.12	0.3	1.28e-02	8.0	8.0	8.0	8.0	-56.4	14.2	70.9	-1371.8	-992.3	-310.6
938	ok	0.12	0.3	1.44e-02	8.0	8.0	8.0	8.0	-78.7	26.8	67.3	-2159.2	-1420.7	-184.4
939	ok	0.12	0.4	1.71e-02	8.0	8.0	8.0	8.0	-95.8	21.7	67.3	-2649.7	-1518.7	-155.4
940	ok	0.12	0.4	1.97e-02	8.0	8.0	8.0	8.0	-112.8	34.9	60.3	-2832.2	-1611.1	-58.8
941	ok	0.12	0.3	2.07e-02	8.0	8.0	8.0	8.0	-120.6	60.3	37.2	-2663.9	-1524.4	128.0
942	ok	0.12	0.3	1.96e-02	8.0	8.0	8.0	8.0	-117.9	60.9	37.2	-2202.7	-1426.7	162.8
943	ok	0.12	0.3	1.59e-02	8.0	8.0	8.0	8.0	-98.6	72.8	29.2	-1408.9	-1021.7	296.8
944	ok	0.12	0.5	8.88e-03	8.0	8.0	8.0	8.0	-45.6	87.7	3.6	371.8	3754.9	732.6
945	ok	0.12	0.5	1.18e-03	8.0	8.0	8.0	8.0	17.8	89.6	26.1	466.7	2490.4	135.3
1019	ok	0.12	0.3	1.96e-03	8.0	8.0	8.0	8.0	21.6	75.9	6.1	530.4	2508.2	-249.7
1020	ok	0.12	0.3	7.32e-03	8.0	8.0	8.0	8.0	-38.6	63.9	6.1	510.2	2504.2	-847.9
1021	ok	0.12	0.3	1.43e-02	8.0	8.0	8.0	8.0	-75.1	58.4	17.8	-292.3	-947.4	-1082.5
1022	ok	0.12	0.3	1.81e-02	8.0	8.0	8.0	8.0	-110.5	51.3	10.7	-1656.1	-1220.1	-767.9
1023	ok	0.12	0.2	1.96e-02	8.0	8.0	8.0	8.0	-109.5	48.5	-23.6	-1456.8	-1070.4	-213.9
1024	ok	0.12	0.2	1.96e-02	8.0	8.0	8.0	8.0	-109.7	42.3	-35.2	-1447.1	-1041.4	67.0
1025	ok	0.12	0.2	1.86e-02	8.0	8.0	8.0	8.0	-103.2	35.3	-48.6	-1191.8	-863.6	332.7
1026	ok	0.12	0.2	1.69e-02	8.0	8.0	8.0	8.0	-92.0	27.4	-62.8	-772.1	-520.3	574.4
1027	ok	0.12	0.3	1.59e-02	8.0	8.0	8.0	8.0	-61.8	9.2	-71.8	398.1	1302.1	586.8
1028	ok	0.12	0.3	1.41e-02	8.0	8.0	8.0	8.0	-59.6	3.2	57.8	301.5	1540.9	-274.2
1029	ok	0.12	0.3	1.47e-02	8.0	8.0	8.0	8.0	-70.1	-2.1	57.8	282.9	1544.1	-692.2
1030	ok	0.12	0.2	1.50e-02	8.0	8.0	8.0	8.0	-73.7	11.8	-66.1	-922.0	-663.0	-507.2
1031	ok	0.12	0.2	1.51e-02	8.0	8.0	8.0	8.0	-71.2	7.5	-76.1	-1350.2	-1121.3	-284.7
1032	ok	0.12	0.3	1.48e-02	8.0	8.0	8.0	8.0	-68.8	8.6	-76.1	-1546.7	-1158.9	-182.0
1033	ok	0.12	0.3	1.42e-02	8.0	8.0	8.0	8.0	-59.5	8.9	72.4	-1557.4	-1099.5	230.2
1034	ok	0.12	0.3	1.32e-02	8.0	8.0	8.0	8.0	-49.8	10.6	72.4	-1282.0	-1044.4	375.1
1035	ok	0.12	0.2	1.25e-02	8.0	8.0	8.0	8.0	-35.6	11.7	77.2	-742.3	-593.1	646.6
1036	ok	0.12	0.3	1.14e-02	8.0	8.0	8.0	8.0	-12.3	9.9	78.5	382.1	1675.2	524.4
1037	ok	0.12	0.3	1.14e-02	8.0	8.0	8.0	8.0	-27.6	-2.5	59.3	327.8	1923.4	-238.5
1038	ok	0.12	0.3	1.01e-02	8.0	8.0	8.0	8.0	-13.5	-4.9	-64.8	304.3	1755.4	-646.7
1039	ok	0.12	0.2	1.08e-02	8.0	8.0	8.0	8.0	-49.0	16.2	57.4	-904.2	-706.0	-725.4
1040	ok	0.12	0.3	1.25e-02	8.0	8.0	8.0	8.0	-68.8	25.4	53.7	-1468.5	-1078.4	-498.6
1041	ok	0.12	0.3	1.57e-02	8.0	8.0	8.0	8.0	-83.9	21.2	53.7	-1832.6	-1152.6	-386.3
1042	ok	0.12	0.3	1.82e-02	8.0	8.0	8.0	8.0	-99.1	30.8	46.9	-1972.9	-1196.9	-111.6
1043	ok	0.12	0.3	1.92e-02	8.0	8.0	8.0	8.0	-106.5	48.3	25.5	-1883.3	-1083.9	369.4
1044	ok	0.12	0.3	1.82e-02	8.0	8.0	8.0	8.0	-103.4	48.9	25.5	-1505.7	-1010.4	499.0
1045	ok	0.12	0.3	1.47e-02	8.0	8.0	8.0	8.0	-77.3	56.4	-10.2	-492.9	-876.8	1326.0
1046	ok	0.12	0.4	8.25e-03	8.0	8.0	8.0	8.0	-41.8	63.2	-1.7	515.5	2804.5	1012.9
1047	ok	0.12	0.4	1.99e-03	8.0	8.0	8.0	8.0	13.0	74.1	3.6	509.5	2803.3	333.6
1121	ok	0.12	0.2	2.94e-03	8.0	8.0	8.0	8.0	7.2	23.2	27.3	-23.9	895.0	-255.5
1122	ok	0.12	0.2	7.80e-03	8.0	8.0	8.0	8.0	-31.4	12.5	27.3	331.6	922.3	-592.0
1123	ok	0.12	0.2	1.37e-02	8.0	8.0	8.0	8.0	-65.5	27.6	19.4	472.6	-361.6	-958.6
1124	ok	0.12	0.2	1.69e-02	8.0	8.0	8.0	8.0	-86.0	23.5	19.4	1178.4	-220.4	-779.5
1125	ok	0.12	0.2	1.80e-02	8.0	8.0	8.0	8.0	-91.3	22.5	17.8	1657.2	-243.3	-284.1
1126	ok	0.12	0.2	1.75e-02	8.0	8.0	8.0	8.0	-72.9	31.9	-33.6	1237.9	-56.4	326.3
1127	ok	0.12	0.2	1.61e-02	8.0	8.0	8.0	8.0	-66.0	25.8	-44.2	1362.2	140.6	573.7
1128	ok	0.12	0.3	1.41e-02	8.0	8.0	8.0	8.0	-57.1	19.0	-55.7	1396.1	470.6	627.5
1129	ok	0.12	0.2	1.38e-02	8.0	8.0	8.0	8.0	-50.7	20.3	-55.7	1155.7	413.7	557.8
1130	ok	0.12	0.2	1.30e-02	8.0	8.0	8.0	8.0	-58.3	-7.1	47.8	507.6	815.1	-252.5
1131	ok	0.12	0.3	1.34e-02	8.0	8.0	8.0	8.0	-42.9	-6.8	62.8	1204.7	397.0	-694.4
1132	ok	0.12	0.3	1.37e-02	8.0	8.0	8.0	8.0	-55.3	-9.0	62.8	1323.3	435.5	-782.1
1133	ok	0.12	0.2	1.32e-02	8.0	8.0	8.0	8.0	-36.4	-2.4	66.9	757.3	-64.5	-607.5
1134	ok	0.12	0.2	1.34e-02	8.0	8.0	8.0	8.0	-60.2	6.5	-69.9	-525.2	-595.2	-273.3
1135	ok	0.12	0.2	1.31e-02	8.0	8.0	8.0	8.0	-54.8	7.6	67.6	-487.7	-488.1	327.5
1136	ok	0.12	0.2	1.33e-02	8.0	8.0	8.0	8.0	-53.5	10.8	70.6	832.7	8.0	655.0
1137	ok	0.12	0.3	1.19e-02	8.0	8.0	8.0	8.0	-28.9	10.8	74.7	681.9	331.8	747.1
1138	ok	0.12	0.3	1.04e-02	8.0	8.0	8.0	8.0	-12.2	17.1	78.5	195.2	792.9	503.2
1139	ok	0.12	0.2	1.01e-02	8.0	8.0	8.0	8.0	-5.7	3.7	41.2	107.3	958.6	-257.2



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1140	ok	0.12	0.2	9.24e-03	8.0	8.0	8.0	8.0	-13.2	0.8	41.2	268.0	991.0	-607.9
1141	ok	0.12	0.2	1.03e-02	8.0	8.0	8.0	8.0	-41.7	19.2	46.2	-361.7	-326.7	-949.6
1142	ok	0.12	0.2	1.17e-02	8.0	8.0	8.0	8.0	-59.9	23.2	43.2	-583.1	-544.4	-661.6
1143	ok	0.12	0.2	1.43e-02	8.0	8.0	8.0	8.0	-71.6	19.9	43.2	-651.8	-570.2	-497.2
1144	ok	0.12	0.1	1.70e-02	8.0	8.0	8.0	8.0	-86.3	23.6	36.2	-763.6	-562.7	-126.6
1145	ok	0.12	0.2	1.79e-02	8.0	8.0	8.0	8.0	-94.1	17.4	-11.4	1274.5	-249.3	662.3
1146	ok	0.12	0.2	1.68e-02	8.0	8.0	8.0	8.0	-103.0	16.9	-10.2	-693.9	-527.9	1231.7
1147	ok	0.12	0.2	1.38e-02	8.0	8.0	8.0	8.0	-84.4	20.6	-10.2	-411.8	-471.5	1422.1
1148	ok	0.12	0.2	8.06e-03	8.0	8.0	8.0	8.0	-38.2	25.6	-5.8	227.3	1392.3	876.9
1149	ok	0.12	0.2	2.85e-03	8.0	8.0	8.0	8.0	17.3	36.7	-5.8	269.9	1400.8	292.9
1329	ok	0.12	6.00e-02	4.46e-03	8.0	8.0	8.0	8.0	2.7	-15.3	25.9	-76.6	141.9	-133.4
1330	ok	0.12	0.1	9.51e-03	8.0	8.0	8.0	8.0	-48.9	-22.0	19.1	89.0	28.7	-851.8
1331	ok	0.12	0.1	1.34e-02	8.0	8.0	8.0	8.0	-76.6	-27.5	19.1	569.9	124.9	-867.2
1332	ok	0.12	0.1	1.61e-02	8.0	8.0	8.0	8.0	-94.9	-20.9	19.4	1254.6	160.9	-539.1
1333	ok	0.12	0.2	1.65e-02	8.0	8.0	8.0	8.0	-98.5	-13.5	17.8	1753.2	236.8	-112.6
1334	ok	0.12	0.2	1.58e-02	8.0	8.0	8.0	8.0	-75.4	22.9	-33.6	1288.9	198.4	370.6
1335	ok	0.12	0.2	1.40e-02	8.0	8.0	8.0	8.0	-67.5	24.0	-44.2	1384.3	251.9	538.7
1336	ok	0.12	0.2	1.14e-02	8.0	8.0	8.0	8.0	-57.6	20.6	-55.7	1350.1	329.9	544.1
1337	ok	0.12	0.2	1.22e-02	8.0	8.0	8.0	8.0	-51.3	21.4	-55.7	1109.7	280.4	462.6
1338	ok	0.12	0.2	1.22e-02	8.0	8.0	8.0	8.0	-59.7	-17.9	-50.1	474.9	343.2	109.3
1339	ok	0.12	0.2	1.29e-02	8.0	8.0	8.0	8.0	-44.4	-18.2	62.8	1157.7	278.3	-626.3
1340	ok	0.12	0.3	1.39e-02	8.0	8.0	8.0	8.0	-54.9	-12.5	66.9	1257.6	220.8	-864.1
1341	ok	0.12	0.2	1.15e-02	8.0	8.0	8.0	8.0	-37.3	-9.4	66.9	795.3	135.9	-779.6
1342	ok	0.12	0.1	1.37e-02	8.0	8.0	8.0	8.0	-57.2	6.4	-65.4	400.7	-49.2	-408.5
1343	ok	0.12	0.2	1.20e-02	8.0	8.0	8.0	8.0	-40.6	-18.8	-64.5	630.3	117.2	380.9
1344	ok	0.12	0.2	1.38e-02	8.0	8.0	8.0	8.0	-55.4	2.8	70.6	974.6	146.0	576.2
1345	ok	0.12	0.2	1.09e-02	8.0	8.0	8.0	8.0	-32.7	7.1	70.6	632.9	100.4	638.3
1346	ok	0.12	0.2	8.54e-03	8.0	8.0	8.0	8.0	4.3	31.5	64.7	122.3	183.0	346.9
1347	ok	0.12	0.2	7.47e-03	8.0	8.0	8.0	8.0	-3.7	26.2	41.2	-43.3	212.5	-207.0
1348	ok	0.12	0.2	8.38e-03	8.0	8.0	8.0	8.0	-11.1	23.9	41.2	120.2	245.6	-555.6
1349	ok	0.12	0.2	1.03e-02	8.0	8.0	8.0	8.0	-23.8	-14.0	-59.4	380.3	104.1	-744.4
1350	ok	0.12	0.1	1.15e-02	8.0	8.0	8.0	8.0	-47.2	-25.6	-54.0	360.7	24.8	-698.3
1351	ok	0.12	0.1	1.23e-02	8.0	8.0	8.0	8.0	-37.4	-27.6	-48.6	704.3	92.8	-323.5
1352	ok	0.12	0.1	1.64e-02	8.0	8.0	8.0	8.0	-99.9	-18.3	-10.2	1400.9	183.9	154.7
1353	ok	0.12	0.1	1.67e-02	8.0	8.0	8.0	8.0	-102.0	-22.2	-11.4	1359.0	172.9	545.0
1354	ok	0.12	0.1	1.57e-02	8.0	8.0	8.0	8.0	-94.5	-25.6	-13.9	1018.6	124.3	911.8
1355	ok	0.12	0.1	1.34e-02	8.0	8.0	8.0	8.0	-79.7	-29.6	-12.6	482.2	126.4	1131.3
1356	ok	0.12	0.1	8.62e-03	8.0	8.0	8.0	8.0	-48.0	-23.2	-12.6	-47.0	20.5	1096.8
1357	ok	0.12	5.61e-02	4.14e-03	8.0	8.0	8.0	8.0	6.4	-17.5	-5.8	35.7	229.8	306.6
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-278.52	-44.71	-124.78	-3029.71	-1678.92	-1208.94
		0.12	0.61	0.04	8.04	8.04	8.04	8.04	33.17	122.24	111.63	5418.69	4240.44	1422.07

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
157	ok	0.65						
158	ok	2.21						
159	ok	3.47						
160	ok	4.12						
161	ok	4.31						
162	ok	4.31						
163	ok	4.18						
164	ok	3.64						
165	ok	3.90						
166	ok	3.90						
167	ok	3.79						
168	ok	3.79						
169	ok	4.28						
170	ok	4.33						
171	ok	4.33						
172	ok	4.06						
173	ok	3.32						
174	ok	1.95						
175	ok	0.72						
176	ok	2.14						
177	ok	3.50						
178	ok	4.19						



Città di Fermo

Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
179	ok	4.46						
180	ok	4.47						
181	ok	4.47						
182	ok	4.21						
183	ok	3.57						
184	ok	2.19						
185	ok	0.62						
509	ok	1.33						
510	ok	2.21						
511	ok	3.47						
512	ok	4.12						
513	ok	4.31						
514	ok	4.31						
515	ok	4.18						
516	ok	3.64						
517	ok	4.20						
518	ok	4.20						
519	ok	4.04						
520	ok	3.79						
521	ok	4.28						
522	ok	4.33						
523	ok	4.33						
524	ok	4.06						
525	ok	3.32						
526	ok	1.95						
527	ok	1.35						
528	ok	2.14						
529	ok	3.50						
530	ok	4.19						
531	ok	4.46						
532	ok	4.47						
533	ok	4.47						
534	ok	4.21						
535	ok	3.57						
536	ok	2.19						
537	ok	1.35						
611	ok	2.42						
612	ok	2.42						
613	ok	1.82						
614	ok	2.33						
615	ok	2.53						
616	ok	2.53						
617	ok	2.40						
618	ok	2.07						
619	ok	2.00						
620	ok	2.00						
621	ok	1.88						
622	ok	2.19						
623	ok	2.47						
624	ok	2.55						
625	ok	2.55						
626	ok	2.29						
627	ok	1.70						
628	ok	2.54						
629	ok	2.54						
630	ok	2.50						
631	ok	1.83						
632	ok	2.40						
633	ok	2.67						
634	ok	2.68						
635	ok	2.68						
636	ok	2.42						
637	ok	1.86						
638	ok	2.48						
639	ok	2.48						
713	ok	2.70						
714	ok	2.70						
715	ok	1.40						
716	ok	1.04						
717	ok	1.16						
718	ok	1.16						
719	ok	1.12						

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PROGETTISTA INDICATO

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TABULATO DI CALCOLO

REV. 00

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Città di Fermo

Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
720	ok	1.30						
721	ok	2.55						
722	ok	2.55						
723	ok	2.44						
724	ok	1.13						
725	ok	1.17						
726	ok	1.19						
727	ok	1.19						
728	ok	1.03						
729	ok	1.59						
730	ok	2.83						
731	ok	2.83						
732	ok	2.80						
733	ok	1.48						
734	ok	1.11						
735	ok	1.28						
736	ok	1.28						
737	ok	1.28						
738	ok	1.11						
739	ok	1.43						
740	ok	2.79						
741	ok	2.79						
815	ok	2.70						
816	ok	2.70						
817	ok	1.40						
818	ok	0.79						
819	ok	0.53						
820	ok	0.59						
821	ok	0.79						
822	ok	1.30						
823	ok	2.55						
824	ok	2.55						
825	ok	2.44						
826	ok	1.19						
827	ok	0.74						
828	ok	0.52						
829	ok	0.56						
830	ok	0.89						
831	ok	1.59						
832	ok	2.83						
833	ok	2.83						
834	ok	2.80						
835	ok	1.48						
836	ok	0.87						
837	ok	0.58						
838	ok	0.49						
839	ok	0.58						
840	ok	0.85						
841	ok	1.44						
842	ok	2.79						
843	ok	2.79						
917	ok	2.44						
918	ok	2.44						
919	ok	1.39						
920	ok	0.88						
921	ok	0.96						
922	ok	0.97						
923	ok	0.97						
924	ok	1.30						
925	ok	2.29						
926	ok	2.29						
927	ok	2.23						
928	ok	1.19						
929	ok	0.93						
930	ok	0.89						
931	ok	0.88						
932	ok	0.89						
933	ok	1.53						
934	ok	2.54						
935	ok	2.55						
936	ok	2.55						
937	ok	1.47						

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TABULATO DI CALCOLO

REV. 00

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Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
938	ok	0.90						
939	ok	0.96						
940	ok	0.98						
941	ok	0.98						
942	ok	0.91						
943	ok	1.44						
944	ok	2.54						
945	ok	2.54						
1019	ok	1.83						
1020	ok	1.83						
1021	ok	1.06						
1022	ok	1.09						
1023	ok	1.25						
1024	ok	1.25						
1025	ok	1.23						
1026	ok	1.10						
1027	ok	1.54						
1028	ok	1.54						
1029	ok	1.52						
1030	ok	1.19						
1031	ok	1.19						
1032	ok	1.09						
1033	ok	1.08						
1034	ok	1.08						
1035	ok	1.16						
1036	ok	1.85						
1037	ok	1.92						
1038	ok	1.92						
1039	ok	1.14						
1040	ok	1.09						
1041	ok	1.26						
1042	ok	1.30						
1043	ok	1.30						
1044	ok	1.15						
1045	ok	1.12						
1046	ok	1.93						
1047	ok	1.93						
1121	ok	1.17						
1122	ok	1.17						
1123	ok	0.96						
1124	ok	1.28						
1125	ok	1.42						
1126	ok	1.42						
1127	ok	1.42						
1128	ok	1.21						
1129	ok	1.13						
1130	ok	1.13						
1131	ok	1.13						
1132	ok	1.23						
1133	ok	1.23						
1134	ok	1.09						
1135	ok	1.29						
1136	ok	1.29						
1137	ok	1.15						
1138	ok	1.10						
1139	ok	1.21						
1140	ok	1.21						
1141	ok	1.05						
1142	ok	1.23						
1143	ok	1.48						
1144	ok	1.57						
1145	ok	1.57						
1146	ok	1.42						
1147	ok	1.13						
1148	ok	1.32						
1149	ok	1.32						
1329	ok	0.61						
1330	ok	0.62						
1331	ok	0.99						
1332	ok	1.28						
1333	ok	1.42						
1334	ok	1.42						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1335	ok	1.42						
1336	ok	1.21						
1337	ok	1.10						
1338	ok	1.10						
1339	ok	1.09						
1340	ok	1.23						
1341	ok	1.23						
1342	ok	1.08						
1343	ok	1.29						
1344	ok	1.29						
1345	ok	1.15						
1346	ok	0.72						
1347	ok	0.72						
1348	ok	0.75						
1349	ok	1.05						
1350	ok	1.23						
1351	ok	1.48						
1352	ok	1.57						
1353	ok	1.57						
1354	ok	1.42						
1355	ok	1.13						
1356	ok	0.72						
1357	ok	0.63						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.47						

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
6	35.00	6	9	Singolo elemento NON DISSIPATIVO

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
166	ok	0.12	0.2	5.08e-02	8.0	8.0	8.0	8.0	-193.9	-34.2	215.2	73.7	26.4	-4.0
197	ok	0.12	0.5	1.51e-02	8.0	8.0	8.0	8.0	228.2	106.9	83.8	103.7	29.6	0.4
228	ok	0.12	0.4	7.39e-03	8.0	8.0	8.0	8.0	157.6	86.6	83.8	147.3	39.5	-1.0
259	ok	0.12	0.2	1.50e-02	8.0	8.0	8.0	8.0	-49.4	35.6	-104.5	251.4	57.2	0.3
290	ok	0.12	0.2	2.16e-02	8.0	8.0	8.0	8.0	-99.5	18.2	-117.7	288.9	64.2	-4.6
321	ok	0.12	0.1	2.60e-02	8.0	8.0	8.0	8.0	-137.9	-0.8	-119.4	305.2	68.9	-9.3
352	ok	0.12	0.1	2.80e-02	8.0	8.0	8.0	8.0	-155.5	-19.1	-115.4	272.3	63.0	-15.1
383	ok	0.12	0.1	2.89e-02	8.0	8.0	8.0	8.0	-141.5	-35.5	-103.0	218.9	55.9	-17.9
414	ok	0.12	9.41e-02	2.45e-02	8.0	8.0	8.0	8.0	-95.3	-48.8	-94.7	-81.2	26.8	-25.3
445	ok	0.12	5.62e-02	2.28e-02	8.0	8.0	8.0	8.0	-81.8	-43.3	-94.7	-99.9	21.5	-11.4
518	ok	0.12	0.2	6.03e-02	8.0	8.0	8.0	8.0	-214.7	-238.6	215.2	74.8	34.4	-9.2
539	ok	0.12	0.4	4.78e-02	8.0	8.0	8.0	8.0	212.2	-52.1	83.8	104.7	34.7	-16.8
543	ok	0.12	0.3	2.24e-02	8.0	8.0	8.0	8.0	141.5	-72.5	83.8	148.6	44.8	-19.2
547	ok	0.12	0.2	1.51e-02	8.0	8.0	8.0	8.0	-48.4	59.0	-104.5	250.7	54.2	-10.8
551	ok	0.12	0.2	2.04e-02	8.0	8.0	8.0	8.0	-96.1	50.0	-104.5	288.1	61.0	-8.9
555	ok	0.12	0.2	2.38e-02	8.0	8.0	8.0	8.0	-130.3	54.3	-119.4	304.7	67.1	-0.3
559	ok	0.12	0.2	2.57e-02	8.0	8.0	8.0	8.0	-145.2	50.1	-115.4	273.0	67.0	-0.5
563	ok	0.12	0.2	2.61e-02	8.0	8.0	8.0	8.0	-141.9	52.4	-115.4	219.1	56.5	-1.6
567	ok	0.12	0.2	2.10e-02	8.0	8.0	8.0	8.0	-82.3	24.0	-94.7	-90.3	-22.5	-9.9
579	ok	0.12	0.2	1.63e-02	8.0	8.0	8.0	8.0	-68.9	29.2	-94.7	-109.7	-26.4	1.3
620	ok	0.12	0.4	4.60e-02	8.0	8.0	8.0	8.0	-90.8	11.3	219.5	12.1	38.4	-32.4
641	ok	0.12	0.5	3.15e-02	8.0	8.0	8.0	8.0	18.1	55.3	287.3	34.1	42.3	-21.8
645	ok	0.12	0.3	2.32e-02	8.0	8.0	8.0	8.0	-14.4	72.4	-82.2	76.0	20.8	-14.7
649	ok	0.12	0.2	1.50e-02	8.0	8.0	8.0	8.0	-65.4	63.8	-82.2	95.4	21.9	-32.6
653	ok	0.12	0.2	1.94e-02	8.0	8.0	8.0	8.0	-101.3	68.6	-104.1	101.4	15.2	-16.8
657	ok	0.12	0.2	2.28e-02	8.0	8.0	8.0	8.0	-126.0	90.4	-118.1	104.6	19.0	8.7
661	ok	0.12	0.2	2.42e-02	8.0	8.0	8.0	8.0	-134.8	98.0	-115.1	88.6	16.6	16.4
665	ok	0.12	0.3	2.24e-02	8.0	8.0	8.0	8.0	-130.0	100.9	-115.1	53.9	6.7	19.9
669	ok	0.12	0.3	1.66e-02	8.0	8.0	8.0	8.0	-59.0	169.0	-73.4	-13.1	-55.6	11.3
681	ok	0.12	0.3	1.10e-02	8.0	8.0	8.0	8.0	-16.9	177.4	-93.3	-16.8	-56.4	8.5
722	ok	0.12	0.4	2.95e-02	8.0	8.0	8.0	8.0	-81.5	78.1	219.5	11.1	39.6	-27.5



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
743	ok	0.12	0.4	2.48e-02	8.0	8.0	8.0	8.0	-42.4	112.3	219.5	4.7	75.3	-22.7
747	ok	0.12	0.4	1.77e-02	8.0	8.0	8.0	8.0	28.6	55.2	180.6	31.6	17.0	31.3
751	ok	0.12	0.2	1.49e-02	8.0	8.0	8.0	8.0	-80.6	85.6	-87.8	-35.9	-18.2	-20.1
755	ok	0.12	0.2	1.83e-02	8.0	8.0	8.0	8.0	-102.8	80.4	-87.8	-44.5	-19.8	-12.5
759	ok	0.12	0.3	2.13e-02	8.0	8.0	8.0	8.0	-122.6	92.2	-91.4	-105.9	-22.0	7.7
763	ok	0.12	0.3	2.21e-02	8.0	8.0	8.0	8.0	-127.0	109.0	-91.5	-92.5	-15.7	18.4
767	ok	0.12	0.3	2.06e-02	8.0	8.0	8.0	8.0	-120.5	127.2	-104.2	-36.7	-26.9	29.0
771	ok	0.12	0.3	1.36e-02	8.0	8.0	8.0	8.0	-38.9	210.6	-51.8	-12.1	-40.6	7.5
783	ok	0.12	0.3	6.51e-03	8.0	8.0	8.0	8.0	21.3	222.6	-51.8	-11.5	-40.5	3.1
824	ok	0.12	0.4	1.88e-02	8.0	8.0	8.0	8.0	-53.1	116.5	160.1	5.4	70.3	-16.2
845	ok	0.12	0.3	1.92e-02	8.0	8.0	8.0	8.0	-57.6	115.8	160.1	-11.7	67.5	-20.9
849	ok	0.12	0.3	1.52e-02	8.0	8.0	8.0	8.0	-62.7	84.5	-75.5	-26.6	-22.2	-29.6
853	ok	0.12	0.2	1.47e-02	8.0	8.0	8.0	8.0	-81.7	86.9	-75.7	-67.0	-43.9	-6.3
857	ok	0.12	0.2	1.72e-02	8.0	8.0	8.0	8.0	-98.0	82.5	-75.7	-78.7	-46.2	-2.8
861	ok	0.12	0.2	1.96e-02	8.0	8.0	8.0	8.0	-113.1	94.8	-76.7	-138.4	-37.8	6.6
865	ok	0.12	0.3	2.07e-02	8.0	8.0	8.0	8.0	-113.5	112.6	-74.1	-115.7	-28.0	14.4
869	ok	0.12	0.3	1.82e-02	8.0	8.0	8.0	8.0	-96.8	184.2	-56.2	-8.3	-9.1	13.5
873	ok	0.12	0.3	1.05e-02	8.0	8.0	8.0	8.0	-40.2	203.8	-51.8	-8.7	-23.9	7.2
885	ok	0.12	0.3	4.05e-03	8.0	8.0	8.0	8.0	19.9	215.9	-51.8	-8.1	-23.8	2.7
926	ok	0.12	0.3	1.36e-02	8.0	8.0	8.0	8.0	-43.1	95.5	115.3	8.6	82.2	-3.6
947	ok	0.12	0.3	1.50e-02	8.0	8.0	8.0	8.0	-37.0	96.7	81.5	-16.5	77.8	6.9
951	ok	0.12	0.2	1.37e-02	8.0	8.0	8.0	8.0	-66.6	69.8	-73.9	-36.0	-34.0	-10.6
955	ok	0.12	0.2	1.42e-02	8.0	8.0	8.0	8.0	-75.8	75.7	-65.8	-79.8	-55.7	5.5
959	ok	0.12	0.2	1.61e-02	8.0	8.0	8.0	8.0	-90.7	71.8	-65.8	-88.4	-57.4	3.8
963	ok	0.12	0.2	1.86e-02	8.0	8.0	8.0	8.0	-101.6	83.7	-62.7	-137.3	-44.9	8.2
967	ok	0.12	0.2	1.94e-02	8.0	8.0	8.0	8.0	-93.1	113.9	-52.1	-101.9	-53.2	7.2
971	ok	0.12	0.2	1.59e-02	8.0	8.0	8.0	8.0	-77.2	118.1	-52.1	-72.2	-46.8	-4.4
975	ok	0.12	0.3	8.22e-03	8.0	8.0	8.0	8.0	-32.9	170.0	-34.2	-8.9	-7.9	1.7
987	ok	0.12	0.3	2.90e-03	8.0	8.0	8.0	8.0	20.6	180.7	-34.2	-3.3	-6.8	-2.7
1028	ok	0.12	0.2	1.14e-02	8.0	8.0	8.0	8.0	-24.2	55.6	63.1	-29.8	-37.6	-23.8
1049	ok	0.12	0.2	1.16e-02	8.0	8.0	8.0	8.0	-46.5	50.7	81.5	-19.7	64.6	14.3
1053	ok	0.12	0.2	1.22e-02	8.0	8.0	8.0	8.0	-17.7	49.5	92.7	-81.4	-41.4	36.1
1057	ok	0.12	0.2	1.42e-02	8.0	8.0	8.0	8.0	-42.6	45.1	92.7	-75.8	-44.9	28.5
1061	ok	0.12	0.1	1.68e-02	8.0	8.0	8.0	8.0	-94.0	47.6	-65.8	-88.0	-55.1	12.4
1065	ok	0.12	0.1	1.87e-02	8.0	8.0	8.0	8.0	-105.5	56.6	-62.7	-135.5	-44.5	6.2
1069	ok	0.12	0.2	1.84e-02	8.0	8.0	8.0	8.0	-99.4	77.8	-52.1	-100.8	-48.7	3.8
1073	ok	0.12	0.2	1.42e-02	8.0	8.0	8.0	8.0	-83.4	82.0	-52.1	-70.6	-42.1	-0.6
1077	ok	0.12	0.2	6.77e-03	8.0	8.0	8.0	8.0	-16.1	97.5	-42.2	-49.0	-172.3	15.8
1089	ok	0.12	0.2	2.50e-03	8.0	8.0	8.0	8.0	25.9	128.6	-11.4	25.2	6.8	0.1
1130	ok	0.12	0.1	1.72e-02	8.0	8.0	8.0	8.0	-52.1	-69.7	-48.1	-78.4	90.4	2.8
1151	ok	0.12	0.2	1.46e-02	8.0	8.0	8.0	8.0	11.5	-45.3	-48.1	-76.1	91.9	18.9
1155	ok	0.12	0.2	1.54e-02	8.0	8.0	8.0	8.0	-21.7	26.1	92.7	-78.1	-31.5	43.6
1159	ok	0.12	0.1	1.54e-02	8.0	8.0	8.0	8.0	-73.7	16.5	-54.7	-107.4	-39.6	12.1
1163	ok	0.12	0.1	1.75e-02	8.0	8.0	8.0	8.0	-86.1	14.1	-54.7	-78.2	-39.3	5.3
1167	ok	0.12	8.80e-02	1.88e-02	8.0	8.0	8.0	8.0	-95.3	22.2	-51.0	-60.0	-30.8	-7.4
1171	ok	0.12	7.80e-02	1.77e-02	8.0	8.0	8.0	8.0	-76.9	33.2	-37.3	35.0	-11.2	-42.2
1175	ok	0.12	9.16e-02	1.30e-02	8.0	8.0	8.0	8.0	-35.6	41.7	-28.7	60.8	22.1	42.3
1179	ok	0.12	0.1	6.22e-03	8.0	8.0	8.0	8.0	-19.4	46.3	-28.7	177.1	41.1	50.9
1191	ok	0.12	0.1	2.68e-03	8.0	8.0	8.0	8.0	15.6	56.9	-30.3	5.0	-137.7	0.3
1338	ok	0.12	0.2	1.07e-02	8.0	8.0	8.0	8.0	-21.6	60.2	78.8	50.5	-72.0	1.5
1367	ok	0.12	0.2	7.90e-03	8.0	8.0	8.0	8.0	42.0	80.7	78.8	-24.2	-87.6	17.2
1396	ok	0.12	0.2	1.47e-02	8.0	8.0	8.0	8.0	-36.4	1.2	83.4	-39.6	-27.5	40.6
1425	ok	0.12	0.1	1.59e-02	8.0	8.0	8.0	8.0	-89.4	-22.4	17.2	-151.5	-31.9	3.1
1454	ok	0.12	6.49e-02	1.79e-02	8.0	8.0	8.0	8.0	-107.8	-29.1	9.5	-141.7	-36.1	-14.5
1483	ok	0.12	4.17e-02	1.81e-02	8.0	8.0	8.0	8.0	-109.7	-29.5	9.5	-117.0	-31.1	-17.5
1512	ok	0.12	2.20e-02	1.86e-02	8.0	8.0	8.0	8.0	-114.7	-44.7	-3.1	-54.7	-27.9	-63.6
1542	ok	0.12	2.84e-02	1.09e-02	8.0	8.0	8.0	8.0	-65.8	-48.4	5.8	69.3	0.3	-33.0
1574	ok	0.12	2.47e-02	8.43e-03	8.0	8.0	8.0	8.0	-25.8	-34.6	-30.3	141.6	-100.4	82.6
1606	ok	0.12	4.62e-02	6.66e-03	8.0	8.0	8.0	8.0	2.4	-28.3	-30.3	7.0	-128.1	76.6
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-214.71	-238.63	-119.38	-151.49	-172.34	-63.63
		0.12	0.52	0.06	8.04	8.04	8.04	8.04	228.25	222.64	287.26	305.16	91.93	82.63

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
166	ok	0.50						
197	ok	0.50						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
228	ok	0.26						
259	ok	0.31						
290	ok	0.32						
321	ok	0.32						
352	ok	0.30						
383	ok	0.29						
414	ok	0.48						
445	ok	0.48						
518	ok	0.53						
539	ok	0.53						
543	ok	0.26						
547	ok	0.31						
551	ok	0.32						
555	ok	0.32						
559	ok	0.30						
563	ok	0.30						
567	ok	0.50						
579	ok	0.50						
620	ok	0.10						
641	ok	0.17						
645	ok	0.20						
649	ok	0.22						
653	ok	0.23						
657	ok	0.23						
661	ok	0.21						
665	ok	0.19						
669	ok	0.18						
681	ok	0.18						
722	ok	0.18						
743	ok	0.18						
747	ok	0.13						
751	ok	0.14						
755	ok	0.15						
759	ok	0.15						
763	ok	0.14						
767	ok	0.12						
771	ok	0.23						
783	ok	0.23						
824	ok	0.23						
845	ok	0.23						
849	ok	0.12						
853	ok	0.08						
857	ok	0.08						
861	ok	0.08						
865	ok	0.08						
869	ok	0.15						
873	ok	0.26						
885	ok	0.26						
926	ok	0.24						
947	ok	0.24						
951	ok	0.13						
955	ok	0.07						
959	ok	0.07						
963	ok	0.07						
967	ok	0.08						
971	ok	0.16						
975	ok	0.26						
987	ok	0.26						
1028	ok	0.23						
1049	ok	0.23						
1053	ok	0.12						
1057	ok	0.15						
1061	ok	0.16						
1065	ok	0.16						
1069	ok	0.13						
1073	ok	0.14						
1077	ok	0.27						
1089	ok	0.27						
1130	ok	0.31						
1151	ok	0.31						
1155	ok	0.23						
1159	ok	0.25						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1163	ok	0.25						
1167	ok	0.25						
1171	ok	0.24						
1175	ok	0.17						
1179	ok	0.30						
1191	ok	0.30						
1338	ok	0.24						
1367	ok	0.24						
1396	ok	0.24						
1425	ok	0.26						
1454	ok	0.26						
1483	ok	0.25						
1512	ok	0.32						
1542	ok	0.32						
1574	ok	0.26						
1606	ok	0.18						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		0.53						

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
7	35.00	6	9	Singolo elemento NON DISSIPATIVO

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
436	ok	0.12	6.84e-02	2.52e-02	8.0	8.0	8.0	8.0	-152.0	-25.0	-22.6	-669.8	-373.4	-246.4
437	ok	0.12	0.2	1.77e-02	8.0	8.0	8.0	8.0	-102.5	-15.1	-22.6	-1315.3	-502.5	-797.1
438	ok	0.12	0.3	2.17e-02	8.0	8.0	8.0	8.0	-125.3	-28.6	-47.8	-1663.6	-337.3	-610.0
439	ok	0.12	0.4	2.25e-02	8.0	8.0	8.0	8.0	-149.0	-27.9	-45.8	-3021.4	-536.6	-332.8
440	ok	0.12	0.5	2.17e-02	8.0	8.0	8.0	8.0	-147.0	-27.7	-45.8	-3565.8	-645.3	-158.6
441	ok	0.12	0.5	2.05e-02	8.0	8.0	8.0	8.0	-135.9	-15.0	-59.3	-3603.9	-656.2	213.7
442	ok	0.12	0.4	1.94e-02	8.0	8.0	8.0	8.0	-104.0	2.5	-80.6	-2824.9	-504.6	429.1
443	ok	0.12	0.3	1.75e-02	8.0	8.0	8.0	8.0	-79.3	16.9	-86.0	-1954.3	-404.7	559.4
444	ok	0.12	0.3	1.41e-02	8.0	8.0	8.0	8.0	-56.6	45.6	-71.3	-998.3	-329.2	462.4
445	ok	0.12	0.2	1.21e-02	8.0	8.0	8.0	8.0	-42.5	51.0	77.7	-478.7	-225.5	-93.8
446	ok	0.12	0.3	1.28e-02	8.0	8.0	8.0	8.0	-44.6	52.2	77.7	-1287.7	-387.2	-445.0
447	ok	0.12	0.3	1.60e-02	8.0	8.0	8.0	8.0	-103.3	6.7	56.6	-2609.6	-465.4	-499.9
448	ok	0.12	0.4	1.74e-02	8.0	8.0	8.0	8.0	-113.2	2.8	56.6	-3574.8	-658.4	-360.2
449	ok	0.12	0.5	1.79e-02	8.0	8.0	8.0	8.0	-123.8	-4.3	45.4	-4011.4	-744.6	-126.7
450	ok	0.12	0.5	1.78e-02	8.0	8.0	8.0	8.0	-91.5	14.4	-72.0	-3726.3	-687.9	185.5
451	ok	0.12	0.4	1.69e-02	8.0	8.0	8.0	8.0	-81.6	21.4	-79.1	-3187.0	-585.7	376.2
452	ok	0.12	0.3	1.52e-02	8.0	8.0	8.0	8.0	-62.1	35.8	-83.9	-2188.1	-482.4	484.4
453	ok	0.12	0.3	1.18e-02	8.0	8.0	8.0	8.0	-39.9	55.5	-80.0	-1009.1	-331.9	371.8
454	ok	0.12	0.2	1.16e-02	8.0	8.0	8.0	8.0	-50.0	49.5	76.6	-437.3	-225.3	-132.6
455	ok	0.12	0.3	1.43e-02	8.0	8.0	8.0	8.0	-53.1	48.7	76.6	-1119.4	-361.1	-533.1
456	ok	0.12	0.3	1.78e-02	8.0	8.0	8.0	8.0	-90.0	17.0	81.0	-2359.3	-505.4	-651.6
457	ok	0.12	0.5	1.95e-02	8.0	8.0	8.0	8.0	-118.1	-2.7	71.9	-3378.7	-622.7	-529.4
458	ok	0.12	0.5	2.01e-02	8.0	8.0	8.0	8.0	-133.8	-14.3	62.0	-3964.3	-737.2	-324.0
459	ok	0.12	0.5	2.07e-02	8.0	8.0	8.0	8.0	-142.4	-21.5	54.3	-4120.0	-762.8	-85.4
460	ok	0.12	0.5	2.18e-02	8.0	8.0	8.0	8.0	-148.8	-31.3	44.2	-3868.2	-711.3	276.8
461	ok	0.12	0.4	2.25e-02	8.0	8.0	8.0	8.0	-150.5	-31.3	44.2	-3195.6	-576.9	435.3
462	ok	0.12	0.3	2.18e-02	8.0	8.0	8.0	8.0	-126.4	-29.8	47.3	-1731.1	-342.3	695.6
463	ok	0.12	0.2	1.72e-02	8.0	8.0	8.0	8.0	-97.5	-16.3	20.1	-1369.4	-525.9	872.7
464	ok	0.12	6.99e-02	2.24e-02	8.0	8.0	8.0	8.0	-135.3	-23.9	20.1	-615.4	-375.1	283.4
570	ok	0.12	0.2	2.36e-02	8.0	8.0	8.0	8.0	-142.5	22.3	-22.6	-904.2	-1545.7	-466.3
571	ok	0.12	0.3	1.71e-02	8.0	8.0	8.0	8.0	-93.1	32.2	-22.6	-1549.8	-1674.9	-1017.0
572	ok	0.12	0.3	2.03e-02	8.0	8.0	8.0	8.0	-119.5	12.6	-47.8	-1657.1	-305.2	-1017.3
573	ok	0.12	0.4	2.12e-02	8.0	8.0	8.0	8.0	-129.6	13.0	-54.4	-2560.2	-165.1	-745.5
574	ok	0.12	0.5	2.06e-02	8.0	8.0	8.0	8.0	-128.9	11.6	-64.6	-3093.7	-230.6	-332.9
575	ok	0.12	0.5	1.98e-02	8.0	8.0	8.0	8.0	-117.3	11.0	-73.9	-3170.7	-266.3	383.5
576	ok	0.12	0.4	1.89e-02	8.0	8.0	8.0	8.0	-103.1	12.5	-80.6	-2774.2	-251.0	766.0
577	ok	0.12	0.4	1.71e-02	8.0	8.0	8.0	8.0	-80.5	13.1	-86.0	-1958.7	-427.3	971.3
578	ok	0.12	0.3	1.43e-02	8.0	8.0	8.0	8.0	-50.6	18.7	-81.6	-1017.5	-1158.9	690.6



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
579	ok	0.12	0.3	1.32e-02	8.0	8.0	8.0	8.0	-46.8	28.6	77.7	-616.5	-919.2	-346.1
580	ok	0.12	0.3	1.30e-02	8.0	8.0	8.0	8.0	-48.8	29.7	77.7	-1425.2	-1080.0	-697.1
581	ok	0.12	0.4	1.58e-02	8.0	8.0	8.0	8.0	-69.4	22.6	81.9	-2499.3	-430.7	-902.2
582	ok	0.12	0.5	1.73e-02	8.0	8.0	8.0	8.0	-112.6	13.0	56.6	-3514.7	-358.9	-681.6
583	ok	0.12	0.5	1.77e-02	8.0	8.0	8.0	8.0	-122.8	11.5	45.4	-3942.0	-403.7	-268.0
584	ok	0.12	0.5	1.76e-02	8.0	8.0	8.0	8.0	-90.5	21.4	-72.0	-3665.0	-384.6	343.6
585	ok	0.12	0.4	1.68e-02	8.0	8.0	8.0	8.0	-81.3	23.0	-79.1	-3140.6	-356.6	698.4
586	ok	0.12	0.4	1.50e-02	8.0	8.0	8.0	8.0	-64.0	23.9	-83.9	-2202.9	-549.1	894.8
587	ok	0.12	0.3	1.24e-02	8.0	8.0	8.0	8.0	-44.7	30.1	-80.0	-1171.0	-1144.5	604.6
588	ok	0.12	0.3	1.29e-02	8.0	8.0	8.0	8.0	-54.3	18.2	76.6	-607.0	-1076.7	-370.5
589	ok	0.12	0.4	1.46e-02	8.0	8.0	8.0	8.0	-57.4	17.5	76.6	-1288.3	-1213.4	-768.9
590	ok	0.12	0.4	1.74e-02	8.0	8.0	8.0	8.0	-91.0	10.4	81.0	-2364.6	-534.9	-1084.9
591	ok	0.12	0.5	1.89e-02	8.0	8.0	8.0	8.0	-117.0	8.8	71.9	-3329.9	-380.5	-888.0
592	ok	0.12	0.5	1.96e-02	8.0	8.0	8.0	8.0	-132.1	4.9	62.0	-3904.7	-451.7	-528.7
593	ok	0.12	0.5	1.99e-02	8.0	8.0	8.0	8.0	-122.2	7.5	70.3	-3631.5	-384.6	-156.7
594	ok	0.12	0.5	2.06e-02	8.0	8.0	8.0	8.0	-130.4	9.6	63.8	-3359.1	-312.5	485.3
595	ok	0.12	0.4	2.11e-02	8.0	8.0	8.0	8.0	-130.5	12.4	54.3	-2707.3	-209.5	866.7
596	ok	0.12	0.3	2.03e-02	8.0	8.0	8.0	8.0	-120.2	13.1	47.3	-1722.9	-301.9	1125.6
597	ok	0.12	0.3	1.65e-02	8.0	8.0	8.0	8.0	-90.4	34.3	20.3	-1588.2	-1726.0	1131.7
598	ok	0.12	0.2	2.07e-02	8.0	8.0	8.0	8.0	-125.2	26.6	20.1	-851.7	-1556.8	525.4
672	ok	0.12	0.4	9.90e-03	8.0	8.0	8.0	8.0	-13.5	96.4	-2.3	-456.8	-3183.2	-444.9
673	ok	0.12	0.4	1.56e-02	8.0	8.0	8.0	8.0	-89.0	81.3	-15.7	-353.8	-3162.5	-1287.0
674	ok	0.12	0.3	1.83e-02	8.0	8.0	8.0	8.0	-101.8	61.3	-26.2	2084.0	1509.5	-1370.9
675	ok	0.12	0.3	1.98e-02	8.0	8.0	8.0	8.0	-107.6	60.1	-26.2	2870.2	1666.7	-1169.0
676	ok	0.12	0.3	1.96e-02	8.0	8.0	8.0	8.0	-106.2	37.9	-53.2	2384.4	1456.1	-394.5
677	ok	0.12	0.3	1.88e-02	8.0	8.0	8.0	8.0	-95.1	25.1	-67.2	2363.6	1393.3	338.9
678	ok	0.12	0.3	1.76e-02	8.0	8.0	8.0	8.0	-89.9	17.9	-66.1	2062.6	1101.8	826.6
679	ok	0.12	0.3	1.56e-02	8.0	8.0	8.0	8.0	-75.7	22.4	-66.1	1502.5	990.0	961.4
680	ok	0.12	0.4	1.38e-02	8.0	8.0	8.0	8.0	-48.4	8.9	-84.7	-176.6	-2084.9	881.0
681	ok	0.12	0.3	1.30e-02	8.0	8.0	8.0	8.0	-38.3	10.7	-71.9	-223.5	-2264.1	306.7
682	ok	0.12	0.4	1.26e-02	8.0	8.0	8.0	8.0	-43.5	15.8	81.7	-170.9	-1863.4	-916.3
683	ok	0.12	0.3	1.42e-02	8.0	8.0	8.0	8.0	-50.3	25.5	71.6	1544.2	1053.2	-874.0
684	ok	0.12	0.3	1.52e-02	8.0	8.0	8.0	8.0	-60.5	23.0	71.6	2022.1	1148.8	-718.2
685	ok	0.12	0.3	1.57e-02	8.0	8.0	8.0	8.0	-66.5	25.5	65.7	2251.0	1322.3	-275.3
686	ok	0.12	0.3	1.56e-02	8.0	8.0	8.0	8.0	-66.4	26.0	-68.2	2221.9	1295.9	401.2
687	ok	0.12	0.3	1.51e-02	8.0	8.0	8.0	8.0	-59.4	27.8	-68.2	1934.3	1238.6	599.8
688	ok	0.12	0.3	1.37e-02	8.0	8.0	8.0	8.0	-63.6	22.8	-58.5	1422.8	915.0	1009.3
689	ok	0.12	0.4	1.25e-02	8.0	8.0	8.0	8.0	-38.5	14.7	-83.9	-232.0	-2185.5	789.4
690	ok	0.12	0.4	1.32e-02	8.0	8.0	8.0	8.0	-46.0	8.9	82.1	-235.2	-2264.9	-366.3
691	ok	0.12	0.4	1.42e-02	8.0	8.0	8.0	8.0	-54.8	6.6	82.1	-193.1	-2256.9	-1003.4
692	ok	0.12	0.3	1.61e-02	8.0	8.0	8.0	8.0	-73.6	21.4	71.9	1616.5	961.6	-1129.9
693	ok	0.12	0.3	1.75e-02	8.0	8.0	8.0	8.0	-93.5	23.0	62.7	2259.6	1295.7	-765.0
694	ok	0.12	0.3	1.81e-02	8.0	8.0	8.0	8.0	-103.6	19.9	62.7	2620.1	1367.8	-574.6
695	ok	0.12	0.3	1.89e-02	8.0	8.0	8.0	8.0	-104.8	31.9	57.3	2690.7	1416.0	146.7
696	ok	0.12	0.4	1.96e-02	8.0	8.0	8.0	8.0	-109.7	37.1	46.0	2587.2	1406.0	584.3
697	ok	0.12	0.4	1.98e-02	8.0	8.0	8.0	8.0	-109.3	60.6	22.4	3057.5	1631.9	1378.9
698	ok	0.12	0.3	1.82e-02	8.0	8.0	8.0	8.0	-102.1	62.1	22.4	2205.3	1461.4	1558.6
699	ok	0.12	0.4	1.50e-02	8.0	8.0	8.0	8.0	-86.5	82.1	12.9	-362.4	-3229.6	1426.9
700	ok	0.12	0.4	8.10e-03	8.0	8.0	8.0	8.0	-48.5	89.8	12.9	-444.3	-3246.0	518.5
774	ok	0.12	0.5	4.80e-03	8.0	8.0	8.0	8.0	-23.6	76.2	40.9	-481.7	-3118.7	-310.8
775	ok	0.12	0.5	1.27e-02	8.0	8.0	8.0	8.0	-75.2	99.3	-2.3	-55.3	-4302.7	-810.1
776	ok	0.12	0.3	1.65e-02	8.0	8.0	8.0	8.0	-98.3	78.7	-26.2	2169.9	1939.2	-1103.1
777	ok	0.12	0.4	1.80e-02	8.0	8.0	8.0	8.0	-94.3	79.5	-14.8	3495.5	2204.3	-652.4
778	ok	0.12	0.4	1.81e-02	8.0	8.0	8.0	8.0	-91.2	52.4	-42.8	3049.1	2043.2	-232.1
779	ok	0.12	0.4	1.72e-02	8.0	8.0	8.0	8.0	-81.9	33.2	-58.2	3013.7	1953.2	200.0
780	ok	0.12	0.3	1.57e-02	8.0	8.0	8.0	8.0	-71.1	36.6	-58.2	2579.9	1868.4	284.8
781	ok	0.12	0.3	1.39e-02	8.0	8.0	8.0	8.0	-75.9	24.9	-66.1	1561.5	1284.1	774.7
782	ok	0.12	0.5	1.26e-02	8.0	8.0	8.0	8.0	-52.2	6.2	-71.9	-4.6	-3149.0	572.1
783	ok	0.12	0.5	1.14e-02	8.0	8.0	8.0	8.0	-30.2	11.0	-64.9	-424.1	-3230.3	150.5
784	ok	0.12	0.4	1.18e-02	8.0	8.0	8.0	8.0	-37.1	8.8	76.2	176.3	-2565.8	-606.3
785	ok	0.12	0.3	1.25e-02	8.0	8.0	8.0	8.0	-57.1	23.1	49.9	1956.7	1520.5	-523.9
786	ok	0.12	0.4	1.32e-02	8.0	8.0	8.0	8.0	-66.0	20.5	49.9	2695.3	1668.3	-457.1
787	ok	0.12	0.4	1.36e-02	8.0	8.0	8.0	8.0	-55.1	25.1	61.2	2910.6	1906.5	-165.3
788	ok	0.12	0.4	1.34e-02	8.0	8.0	8.0	8.0	-54.9	25.0	-63.1	2835.6	1824.9	236.3
789	ok	0.12	0.3	1.32e-02	8.0	8.0	8.0	8.0	-64.6	25.9	-45.3	2564.4	1869.2	373.4
790	ok	0.12	0.3	1.24e-02	8.0	8.0	8.0	8.0	-64.3	19.8	-58.5	1478.6	1194.5	821.0
791	ok	0.12	0.5	1.16e-02	8.0	8.0	8.0	8.0	-31.9	8.3	-77.9	-62.7	-3050.5	508.9
792	ok	0.12	0.5	1.18e-02	8.0	8.0	8.0	8.0	-34.9	9.0	77.9	-406.9	-3239.0	-201.3
793	ok	0.12	0.5	1.31e-02	8.0	8.0	8.0	8.0	-49.5	5.6	77.9	72.9	-3144.8	-670.9
794	ok	0.12	0.3	1.44e-02	8.0	8.0	8.0	8.0	-60.8	25.0	65.3	1946.0	1284.5	-597.7
795	ok	0.12	0.4	1.56e-02	8.0	8.0	8.0	8.0	-77.4	31.0	57.1	2905.3	1822.0	-443.4
796	ok	0.12	0.4	1.65e-02	8.0	8.0	8.0	8.0	-87.9	28.0	57.1	3473.2	1935.1	-354.6



Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
797	ok	0.12	0.4	1.76e-02	8.0	8.0	8.0	8.0	-90.7	44.7	48.3	3612.4	2036.8	100.1
798	ok	0.12	0.4	1.82e-02	8.0	8.0	8.0	8.0	-95.2	52.7	36.2	3433.3	1980.3	357.2
799	ok	0.12	0.4	1.81e-02	8.0	8.0	8.0	8.0	-96.5	80.6	10.9	3855.9	2158.7	800.4
800	ok	0.12	0.4	1.64e-02	8.0	8.0	8.0	8.0	-87.6	82.3	10.9	2631.9	1913.9	854.0
801	ok	0.12	0.5	1.23e-02	8.0	8.0	8.0	8.0	-67.5	66.2	-45.0	102.0	-3074.0	807.2
802	ok	0.12	0.6	4.60e-03	8.0	8.0	8.0	8.0	-19.0	77.5	-45.0	-492.9	-3190.4	363.6
876	ok	0.12	0.6	3.28e-03	8.0	8.0	8.0	8.0	24.9	114.7	11.2	-820.0	-4853.4	7.4
877	ok	0.12	0.6	9.21e-03	8.0	8.0	8.0	8.0	-37.6	102.3	11.2	-284.2	-4746.3	193.7
878	ok	0.12	0.3	1.42e-02	8.0	8.0	8.0	8.0	-86.5	84.0	-14.8	2439.9	2127.4	-349.0
879	ok	0.12	0.4	1.60e-02	8.0	8.0	8.0	8.0	-93.7	82.6	-14.8	3523.5	2344.1	-283.3
880	ok	0.12	0.4	1.61e-02	8.0	8.0	8.0	8.0	-91.2	44.7	-50.7	3106.1	2333.0	-58.9
881	ok	0.12	0.4	1.51e-02	8.0	8.0	8.0	8.0	-83.9	46.8	-50.7	3089.7	2331.4	49.3
882	ok	0.12	0.3	1.35e-02	8.0	8.0	8.0	8.0	-71.3	38.2	-58.2	2622.0	2077.1	159.4
883	ok	0.12	0.3	1.20e-02	8.0	8.0	8.0	8.0	-63.3	28.8	-58.4	1767.9	1414.2	244.3
884	ok	0.12	0.5	1.11e-02	8.0	8.0	8.0	8.0	-35.4	10.0	-57.2	-189.8	-3499.6	-137.4
885	ok	0.12	0.5	9.78e-03	8.0	8.0	8.0	8.0	-22.9	12.8	-57.2	-530.9	-3567.1	-3.6
886	ok	0.12	0.4	1.05e-02	8.0	8.0	8.0	8.0	-41.9	7.1	56.8	128.5	-3205.8	-184.9
887	ok	0.12	0.3	1.11e-02	8.0	8.0	8.0	8.0	-57.8	22.0	49.9	1985.0	1662.9	-281.3
888	ok	0.12	0.4	1.14e-02	8.0	8.0	8.0	8.0	-51.6	22.5	61.2	2626.6	2058.5	-155.2
889	ok	0.12	0.4	1.15e-02	8.0	8.0	8.0	8.0	-58.3	24.8	-57.7	2933.0	2175.2	-57.9
890	ok	0.12	0.4	1.14e-02	8.0	8.0	8.0	8.0	-72.1	23.0	-45.3	3073.2	2181.0	113.2
891	ok	0.12	0.3	1.14e-02	8.0	8.0	8.0	8.0	-65.4	24.3	-45.3	2608.1	2088.1	215.1
892	ok	0.12	0.3	1.09e-02	8.0	8.0	8.0	8.0	-52.3	21.7	-52.9	1681.1	1321.2	281.7
893	ok	0.12	0.5	1.02e-02	8.0	8.0	8.0	8.0	-27.8	7.3	-51.4	-281.8	-3801.4	-115.0
894	ok	0.12	0.5	1.02e-02	8.0	8.0	8.0	8.0	-17.8	9.7	-51.4	-567.7	-3858.7	-2.3
895	ok	0.12	0.5	1.17e-02	8.0	8.0	8.0	8.0	-42.2	7.3	71.2	48.2	-3495.1	-191.7
896	ok	0.12	0.3	1.26e-02	8.0	8.0	8.0	8.0	-61.1	28.1	65.3	1962.9	1368.3	-303.9
897	ok	0.12	0.4	1.34e-02	8.0	8.0	8.0	8.0	-77.4	34.0	57.1	2944.6	2018.2	-257.1
898	ok	0.12	0.4	1.46e-02	8.0	8.0	8.0	8.0	-88.0	31.2	57.1	3512.5	2131.4	-169.4
899	ok	0.12	0.5	1.57e-02	8.0	8.0	8.0	8.0	-90.3	49.1	48.3	3661.5	2280.9	31.4
900	ok	0.12	0.4	1.64e-02	8.0	8.0	8.0	8.0	-95.5	47.6	48.3	3484.9	2243.7	132.7
901	ok	0.12	0.4	1.61e-02	8.0	8.0	8.0	8.0	-95.7	84.5	10.9	3878.7	2272.9	383.5
902	ok	0.12	0.3	1.41e-02	8.0	8.0	8.0	8.0	-86.8	86.3	10.9	2654.8	2028.2	437.1
903	ok	0.12	0.6	9.16e-03	8.0	8.0	8.0	8.0	-37.9	103.5	-13.9	-167.1	-4846.7	-179.4
904	ok	0.12	0.6	3.31e-03	8.0	8.0	8.0	8.0	28.9	116.8	-13.9	-834.7	-4980.2	8.4
978	ok	0.12	0.5	2.62e-03	8.0	8.0	8.0	8.0	31.4	99.0	11.7	-780.8	-4464.7	191.5
979	ok	0.12	0.5	7.15e-03	8.0	8.0	8.0	8.0	-25.8	60.0	40.8	-101.8	-3059.4	522.2
980	ok	0.12	0.3	1.18e-02	8.0	8.0	8.0	8.0	-56.7	80.8	7.0	1703.2	1849.5	804.6
981	ok	0.12	0.4	1.37e-02	8.0	8.0	8.0	8.0	-82.0	75.7	-2.9	3189.1	2146.7	376.3
982	ok	0.12	0.4	1.38e-02	8.0	8.0	8.0	8.0	-76.9	54.5	-31.8	2474.5	2162.1	146.1
983	ok	0.12	0.4	1.28e-02	8.0	8.0	8.0	8.0	-70.2	47.0	-40.3	2896.0	2225.4	2.0
984	ok	0.12	0.4	1.13e-02	8.0	8.0	8.0	8.0	-58.8	39.4	-48.1	2409.7	1952.0	-149.5
985	ok	0.12	0.3	1.01e-02	8.0	8.0	8.0	8.0	-51.0	30.7	-49.8	1566.3	1271.9	-320.4
986	ok	0.12	0.5	9.28e-03	8.0	8.0	8.0	8.0	-25.8	13.6	-49.3	-245.9	-3227.2	-482.2
987	ok	0.12	0.5	8.11e-03	8.0	8.0	8.0	8.0	-15.0	16.2	-49.3	-507.3	-3278.7	-150.1
988	ok	0.12	0.4	9.14e-03	8.0	8.0	8.0	8.0	-24.0	10.4	45.4	-82.4	-3007.8	522.4
989	ok	0.12	0.3	9.68e-03	8.0	8.0	8.0	8.0	-45.8	21.2	44.7	1790.9	1531.9	283.5
990	ok	0.12	0.3	9.92e-03	8.0	8.0	8.0	8.0	-54.2	19.1	44.7	2531.4	1680.0	237.8
991	ok	0.12	0.4	9.79e-03	8.0	8.0	8.0	8.0	-47.9	23.5	-53.4	2719.7	2062.1	6.8
992	ok	0.12	0.4	9.89e-03	8.0	8.0	8.0	8.0	-46.5	24.0	-53.4	2693.6	2066.0	-20.6
993	ok	0.12	0.3	9.85e-03	8.0	8.0	8.0	8.0	-39.2	20.8	-57.1	2228.1	1814.2	-153.3
994	ok	0.12	0.3	9.47e-03	8.0	8.0	8.0	8.0	-41.0	19.4	-47.2	1491.7	1189.5	-314.3
995	ok	0.12	0.5	8.79e-03	8.0	8.0	8.0	8.0	-19.8	10.9	-45.8	-323.1	-3523.5	-447.6
996	ok	0.12	0.5	8.49e-03	8.0	8.0	8.0	8.0	-12.3	12.0	-45.8	-539.6	-3566.9	-121.1
997	ok	0.12	0.5	9.97e-03	8.0	8.0	8.0	8.0	-24.9	11.7	56.1	-152.1	-3266.0	538.8
998	ok	0.12	0.3	1.06e-02	8.0	8.0	8.0	8.0	-48.9	30.0	57.6	1792.1	1238.7	338.4
999	ok	0.12	0.4	1.12e-02	8.0	8.0	8.0	8.0	-62.6	37.6	49.8	2798.8	1922.1	199.9
1000	ok	0.12	0.4	1.25e-02	8.0	8.0	8.0	8.0	-72.7	35.0	49.8	3408.7	2043.7	163.8
1001	ok	0.12	0.4	1.36e-02	8.0	8.0	8.0	8.0	-76.5	50.8	38.8	3575.4	2219.1	-63.0
1002	ok	0.12	0.4	1.42e-02	8.0	8.0	8.0	8.0	-63.3	65.8	-16.7	3050.6	2186.1	-312.6
1003	ok	0.12	0.4	1.40e-02	8.0	8.0	8.0	8.0	-67.7	82.0	-9.7	2971.5	1964.6	-729.8
1004	ok	0.12	0.4	1.19e-02	8.0	8.0	8.0	8.0	-71.4	68.8	-23.9	1975.5	1518.4	-339.3
1005	ok	0.12	0.5	7.52e-03	8.0	8.0	8.0	8.0	-26.8	89.3	-14.4	-261.3	-4504.2	-739.1
1006	ok	0.12	0.5	2.76e-03	8.0	8.0	8.0	8.0	35.1	101.7	-14.4	-795.0	-4610.9	-224.4
1080	ok	0.12	0.4	1.93e-03	8.0	8.0	8.0	8.0	26.7	75.4	11.7	-575.4	-3437.7	332.3
1081	ok	0.12	0.4	5.90e-03	8.0	8.0	8.0	8.0	-19.0	47.4	33.5	-78.1	-2367.6	895.7
1082	ok	0.12	0.4	9.88e-03	8.0	8.0	8.0	8.0	-54.9	59.8	24.4	1417.3	1261.0	836.6
1083	ok	0.12	0.4	1.14e-02	8.0	8.0	8.0	8.0	-60.7	58.0	24.4	2072.8	1391.4	712.7
1084	ok	0.12	0.3	1.14e-02	8.0	8.0	8.0	8.0	-62.6	47.9	-22.1	1908.5	1710.2	331.3
1085	ok	0.12	0.3	1.05e-02	8.0	8.0	8.0	8.0	-55.4	36.6	-38.6	2239.3	1590.7	-275.5
1086	ok	0.12	0.3	9.03e-03	8.0	8.0	8.0	8.0	-46.7	38.9	-38.6	1857.2	1515.1	-428.4
1087	ok	0.12	0.3	8.07e-03	8.0	8.0	8.0	8.0	-38.7	31.8	-41.2	1195.6	960.3	-797.9

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

Pag. 183 di 237



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1088	ok	0.12	0.4	7.52e-03	8.0	8.0	8.0	8.0	-15.3	14.5	-41.3	-251.1	-2478.4	-754.9
1089	ok	0.12	0.4	7.29e-03	8.0	8.0	8.0	8.0	-15.6	15.3	-49.3	-351.5	-2499.4	-249.9
1090	ok	0.12	0.4	8.13e-03	8.0	8.0	8.0	8.0	-3.4	18.6	-46.8	-192.9	-2025.4	672.4
1091	ok	0.12	0.3	8.38e-03	8.0	8.0	8.0	8.0	-34.4	21.0	39.2	1389.9	1184.8	749.1
1092	ok	0.12	0.3	8.49e-03	8.0	8.0	8.0	8.0	-42.9	19.2	39.2	1982.6	1303.4	620.3
1093	ok	0.12	0.3	8.40e-03	8.0	8.0	8.0	8.0	-40.1	24.1	-47.0	2084.4	1573.8	254.8
1094	ok	0.12	0.3	8.43e-03	8.0	8.0	8.0	8.0	-38.2	22.2	46.9	2026.0	1469.3	-351.7
1095	ok	0.12	0.3	8.37e-03	8.0	8.0	8.0	8.0	-31.8	23.3	46.9	1636.4	1391.5	-493.4
1096	ok	0.12	0.3	8.13e-03	8.0	8.0	8.0	8.0	-29.8	18.0	-41.1	1148.5	901.2	-793.0
1097	ok	0.12	0.4	7.63e-03	8.0	8.0	8.0	8.0	-20.3	8.3	-45.8	-153.9	-2678.6	-536.4
1098	ok	0.12	0.4	7.03e-03	8.0	8.0	8.0	8.0	-12.8	9.4	-45.8	-370.4	-2721.9	-209.3
1099	ok	0.12	0.4	8.12e-03	8.0	8.0	8.0	8.0	-14.9	15.9	48.5	-192.8	-2519.9	872.1
1100	ok	0.12	0.3	8.75e-03	8.0	8.0	8.0	8.0	-37.0	32.4	49.2	1403.2	942.9	892.2
1101	ok	0.12	0.4	9.02e-03	8.0	8.0	8.0	8.0	-48.6	41.1	41.9	2236.5	1516.2	607.6
1102	ok	0.12	0.4	1.03e-02	8.0	8.0	8.0	8.0	-57.5	38.8	41.9	2767.3	1622.2	465.5
1103	ok	0.12	0.4	1.13e-02	8.0	8.0	8.0	8.0	-62.3	49.2	30.4	2907.1	1779.4	-121.7
1104	ok	0.12	0.4	1.19e-02	8.0	8.0	8.0	8.0	-65.2	62.9	-16.7	2986.2	1860.5	-495.0
1105	ok	0.12	0.4	1.17e-02	8.0	8.0	8.0	8.0	-65.3	63.2	-16.7	2467.0	1753.4	-648.1
1106	ok	0.12	0.4	1.01e-02	8.0	8.0	8.0	8.0	-55.7	64.6	-28.1	1616.3	1215.1	-938.6
1107	ok	0.12	0.4	6.26e-03	8.0	8.0	8.0	8.0	-21.5	68.5	-13.9	-190.5	-3499.3	-1235.6
1108	ok	0.12	0.4	2.05e-03	8.0	8.0	8.0	8.0	30.5	78.9	-14.4	-588.6	-3578.9	-395.7
1182	ok	0.12	0.2	1.17e-03	8.0	8.0	8.0	8.0	43.3	46.7	13.5	-322.1	-1853.1	420.9
1183	ok	0.12	0.3	5.00e-03	8.0	8.0	8.0	8.0	-14.2	35.1	13.5	354.1	-1717.9	1126.1
1184	ok	0.12	0.3	8.55e-03	8.0	8.0	8.0	8.0	-41.5	50.5	25.2	1008.1	765.5	1239.0
1185	ok	0.12	0.3	9.40e-03	8.0	8.0	8.0	8.0	-45.9	49.0	25.2	1426.9	849.2	1036.2
1186	ok	0.12	0.3	9.00e-03	8.0	8.0	8.0	8.0	-46.5	55.6	16.2	1648.5	1100.0	449.1
1187	ok	0.12	0.2	8.18e-03	8.0	8.0	8.0	8.0	-42.2	36.7	-31.1	1177.2	902.6	-422.6
1188	ok	0.12	0.3	6.90e-03	8.0	8.0	8.0	8.0	-35.2	38.5	-31.1	947.4	846.6	-662.8
1189	ok	0.12	0.3	6.00e-03	8.0	8.0	8.0	8.0	-24.2	34.1	-35.9	707.1	501.9	-1012.0
1190	ok	0.12	0.2	5.75e-03	8.0	8.0	8.0	8.0	-10.6	18.0	-42.4	11.0	-1084.4	-782.0
1191	ok	0.12	0.2	6.62e-03	8.0	8.0	8.0	8.0	9.3	20.9	-40.9	-226.4	-1093.8	212.4
1192	ok	0.12	0.3	7.11e-03	8.0	8.0	8.0	8.0	8.1	20.7	-40.9	-115.8	-1075.5	637.0
1193	ok	0.12	0.3	7.06e-03	8.0	8.0	8.0	8.0	-21.8	25.0	-44.3	705.2	577.2	1035.4
1194	ok	0.12	0.3	7.21e-03	8.0	8.0	8.0	8.0	-30.6	23.2	-44.3	1085.8	665.1	861.2
1195	ok	0.12	0.2	7.21e-03	8.0	8.0	8.0	8.0	-33.2	22.0	-43.4	1311.3	865.6	361.6
1196	ok	0.12	0.2	7.10e-03	8.0	8.0	8.0	8.0	-31.8	21.1	43.9	1285.0	837.5	-517.5
1197	ok	0.12	0.3	6.85e-03	8.0	8.0	8.0	8.0	-25.1	22.3	43.9	1010.6	776.4	-756.8
1198	ok	0.12	0.3	6.79e-03	8.0	8.0	8.0	8.0	-10.1	20.2	48.2	450.7	380.8	-996.1
1199	ok	0.12	0.3	6.75e-03	8.0	8.0	8.0	8.0	1.0	24.6	47.5	-65.4	-1203.7	-590.2
1200	ok	0.12	0.2	6.40e-03	8.0	8.0	8.0	8.0	0.9	19.2	47.5	-106.9	-1118.4	376.4
1201	ok	0.12	0.2	6.80e-03	8.0	8.0	8.0	8.0	-9.2	17.1	47.5	80.5	-1084.9	912.8
1202	ok	0.12	0.3	6.64e-03	8.0	8.0	8.0	8.0	-22.4	37.2	41.9	843.3	497.7	1161.8
1203	ok	0.12	0.3	6.84e-03	8.0	8.0	8.0	8.0	-36.0	46.5	34.1	1396.0	872.6	947.7
1204	ok	0.12	0.3	8.20e-03	8.0	8.0	8.0	8.0	-43.2	44.6	34.1	1757.1	948.5	713.1
1205	ok	0.12	0.3	9.06e-03	8.0	8.0	8.0	8.0	-47.2	66.6	-8.6	2081.1	1153.8	-107.0
1206	ok	0.12	0.3	9.64e-03	8.0	8.0	8.0	8.0	-49.6	63.9	-18.1	2112.8	1115.3	-707.9
1207	ok	0.12	0.4	9.80e-03	8.0	8.0	8.0	8.0	-48.5	64.4	-18.1	1795.0	1051.8	-981.4
1208	ok	0.12	0.3	8.71e-03	8.0	8.0	8.0	8.0	-41.5	57.0	-27.5	1156.4	779.4	-1420.4
1209	ok	0.12	0.3	5.34e-03	8.0	8.0	8.0	8.0	-15.1	37.1	-15.2	339.8	-1814.7	-1293.7
1210	ok	0.12	0.2	1.30e-03	8.0	8.0	8.0	8.0	48.8	49.9	-15.2	-355.8	-1953.9	-519.4
1597	ok	0.12	0.1	5.02e-03	8.0	8.0	8.0	8.0	28.4	-28.0	13.5	-21.8	-351.7	651.2
1598	ok	0.12	0.2	7.88e-03	8.0	8.0	8.0	8.0	-29.1	-39.5	13.5	654.3	-216.5	1356.4
1599	ok	0.12	0.2	8.23e-03	8.0	8.0	8.0	8.0	-40.5	-24.5	16.6	973.7	134.5	1696.7
1600	ok	0.12	0.2	7.44e-03	8.0	8.0	8.0	8.0	-26.7	43.2	18.3	560.7	333.5	989.6
1601	ok	0.12	0.2	7.17e-03	8.0	8.0	8.0	8.0	-25.8	59.4	13.6	474.7	293.9	391.3
1602	ok	0.12	0.2	6.11e-03	8.0	8.0	8.0	8.0	-30.5	48.6	-20.1	211.2	252.6	-535.5
1603	ok	0.12	0.2	5.12e-03	8.0	8.0	8.0	8.0	-23.5	39.0	-23.0	109.5	178.6	-991.1
1604	ok	0.12	0.2	4.99e-03	8.0	8.0	8.0	8.0	-14.7	41.2	-23.0	273.9	153.1	-1127.4
1605	ok	0.12	0.2	4.67e-03	8.0	8.0	8.0	8.0	-9.03e-02	31.6	-30.9	68.6	-31.4	-1053.6
1606	ok	0.12	0.2	6.20e-03	8.0	8.0	8.0	8.0	8.7	28.9	-40.9	-61.0	-265.4	239.2
1607	ok	0.12	0.2	6.28e-03	8.0	8.0	8.0	8.0	5.1	29.4	-44.1	145.7	94.8	1086.8
1608	ok	0.12	0.2	6.34e-03	8.0	8.0	8.0	8.0	-18.3	24.5	-44.1	338.9	133.2	1121.5
1609	ok	0.12	0.2	6.84e-03	8.0	8.0	8.0	8.0	-24.9	16.8	-40.4	361.8	197.5	863.7
1610	ok	0.12	0.1	6.97e-03	8.0	8.0	8.0	8.0	-23.8	19.4	-40.4	400.9	217.0	363.4
1611	ok	0.12	0.2	6.79e-03	8.0	8.0	8.0	8.0	-30.2	28.1	28.7	259.7	230.7	-568.5
1612	ok	0.12	0.2	6.04e-03	8.0	8.0	8.0	8.0	-19.1	22.0	40.3	287.6	236.1	-979.2
1613	ok	0.12	0.2	5.12e-03	8.0	8.0	8.0	8.0	-9.1	23.8	40.3	240.0	207.4	-1071.0
1614	ok	0.12	0.2	6.77e-03	8.0	8.0	8.0	8.0	9.6	33.0	44.7	-14.0	-74.5	-835.3
1615	ok	0.12	0.1	6.68e-03	8.0	8.0	8.0	8.0	10.9	41.9	29.4	-17.4	-114.1	362.0
1616	ok	0.12	0.2	5.13e-03	8.0	8.0	8.0	8.0	2.2	34.6	35.2	73.3	-30.6	1220.2
1617	ok	0.12	0.3	4.59e-03	8.0	8.0	8.0	8.0	-14.5	44.2	28.7	331.0	158.6	1346.0
1618	ok	0.12	0.2	5.24e-03	8.0	8.0	8.0	8.0	-23.8	41.7	28.7	196.0	193.2	1217.7



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
1619	ok	0.12	0.2	6.39e-03	8.0	8.0	8.0	8.0	-31.3	54.8	26.4	319.8	268.3	759.6
1620	ok	0.12	0.2	6.95e-03	8.0	8.0	8.0	8.0	-34.5	61.6	22.3	418.8	304.7	235.5
1621	ok	0.12	0.2	7.63e-03	8.0	8.0	8.0	8.0	-27.6	69.0	-14.1	665.6	319.8	-666.1
1622	ok	0.12	0.3	7.85e-03	8.0	8.0	8.0	8.0	-28.7	50.6	-18.7	700.4	367.0	-1216.5
1623	ok	0.12	0.3	7.94e-03	8.0	8.0	8.0	8.0	-18.9	53.2	-18.7	669.0	349.4	-1394.0
1624	ok	0.12	0.3	8.38e-03	8.0	8.0	8.0	8.0	-30.7	-40.9	-15.2	650.4	-262.0	-1516.9
1625	ok	0.12	0.1	5.12e-03	8.0	8.0	8.0	8.0	33.2	-28.1	-15.2	-45.2	-401.1	-742.6
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									-152.00	-40.87	-85.95	-4119.98	-4980.21	-1516.86
		0.12	0.60	0.03	8.04	8.04	8.04	8.04	48.80	116.82	82.07	3878.72	2344.15	1696.70

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
436	ok	0.56						
437	ok	1.95						
438	ok	3.36						
439	ok	3.99						
440	ok	4.17						
441	ok	4.17						
442	ok	3.99						
443	ok	3.34						
444	ok	1.99						
445	ok	0.64						
446	ok	2.27						
447	ok	3.53						
448	ok	4.07						
449	ok	4.19						
450	ok	4.19						
451	ok	3.96						
452	ok	3.25						
453	ok	1.89						
454	ok	0.59						
455	ok	2.13						
456	ok	3.47						
457	ok	4.13						
458	ok	4.39						
459	ok	4.39						
460	ok	4.38						
461	ok	4.12						
462	ok	3.47						
463	ok	2.04						
464	ok	0.53						
570	ok	1.72						
571	ok	1.95						
572	ok	3.36						
573	ok	3.99						
574	ok	4.17						
575	ok	4.17						
576	ok	3.99						
577	ok	3.34						
578	ok	1.99						
579	ok	1.57						
580	ok	2.27						
581	ok	3.53						
582	ok	4.07						
583	ok	4.19						
584	ok	4.19						
585	ok	3.96						
586	ok	3.25						
587	ok	1.89						
588	ok	1.59						
589	ok	2.13						
590	ok	3.47						
591	ok	4.13						
592	ok	4.39						
593	ok	4.39						
594	ok	4.38						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
595	ok	4.12						
596	ok	3.47						
597	ok	2.04						
598	ok	1.74						
672	ok	2.76						
673	ok	2.76						
674	ok	1.68						
675	ok	2.21						
676	ok	2.40						
677	ok	2.40						
678	ok	2.21						
679	ok	1.68						
680	ok	2.73						
681	ok	2.73						
682	ok	2.56						
683	ok	1.83						
684	ok	2.29						
685	ok	2.42						
686	ok	2.42						
687	ok	2.19						
688	ok	1.62						
689	ok	2.79						
690	ok	2.79						
691	ok	2.69						
692	ok	1.79						
693	ok	2.35						
694	ok	2.62						
695	ok	2.62						
696	ok	2.62						
697	ok	2.34						
698	ok	1.76						
699	ok	2.76						
700	ok	2.76						
774	ok	3.06						
775	ok	3.06						
776	ok	1.70						
777	ok	1.00						
778	ok	1.09						
779	ok	1.09						
780	ok	1.01						
781	ok	1.75						
782	ok	3.06						
783	ok	3.06						
784	ok	2.91						
785	ok	1.52						
786	ok	1.04						
787	ok	1.11						
788	ok	1.11						
789	ok	1.00						
790	ok	1.83						
791	ok	3.12						
792	ok	3.12						
793	ok	3.04						
794	ok	1.68						
795	ok	1.12						
796	ok	1.28						
797	ok	1.28						
798	ok	1.28						
799	ok	1.11						
800	ok	1.69						
801	ok	3.08						
802	ok	3.08						
876	ok	3.06						
877	ok	3.06						
878	ok	1.72						
879	ok	0.97						
880	ok	0.53						
881	ok	0.58						
882	ok	1.02						
883	ok	1.75						
884	ok	3.06						
885	ok	3.06						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
886	ok	2.91						
887	ok	1.56						
888	ok	0.89						
889	ok	0.51						
890	ok	0.60						
891	ok	1.05						
892	ok	1.83						
893	ok	3.12						
894	ok	3.12						
895	ok	3.04						
896	ok	1.71						
897	ok	1.01						
898	ok	0.61						
899	ok	0.41						
900	ok	0.57						
901	ok	1.00						
902	ok	1.73						
903	ok	3.08						
904	ok	3.08						
978	ok	2.85						
979	ok	2.85						
980	ok	1.72						
981	ok	0.97						
982	ok	0.75						
983	ok	0.79						
984	ok	1.02						
985	ok	1.75						
986	ok	2.83						
987	ok	2.83						
988	ok	2.71						
989	ok	1.56						
990	ok	0.89						
991	ok	0.77						
992	ok	0.79						
993	ok	1.05						
994	ok	1.82						
995	ok	2.88						
996	ok	2.88						
997	ok	2.84						
998	ok	1.71						
999	ok	1.01						
1000	ok	0.84						
1001	ok	0.82						
1002	ok	0.80						
1003	ok	1.00						
1004	ok	1.73						
1005	ok	2.89						
1006	ok	2.89						
1080	ok	2.32						
1081	ok	2.32						
1082	ok	1.39						
1083	ok	0.88						
1084	ok	0.93						
1085	ok	0.94						
1086	ok	0.95						
1087	ok	1.38						
1088	ok	2.23						
1089	ok	2.23						
1090	ok	2.15						
1091	ok	1.24						
1092	ok	0.91						
1093	ok	0.93						
1094	ok	0.93						
1095	ok	0.96						
1096	ok	1.43						
1097	ok	2.29						
1098	ok	2.29						
1099	ok	2.26						
1100	ok	1.36						
1101	ok	1.03						
1102	ok	1.06						
1103	ok	1.06						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1104	ok	1.02						
1105	ok	0.92						
1106	ok	1.39						
1107	ok	2.37						
1108	ok	2.37						
1182	ok	1.88						
1183	ok	1.88						
1184	ok	1.22						
1185	ok	0.98						
1186	ok	1.03						
1187	ok	1.06						
1188	ok	1.06						
1189	ok	1.15						
1190	ok	1.58						
1191	ok	1.58						
1192	ok	1.53						
1193	ok	1.11						
1194	ok	1.02						
1195	ok	1.02						
1196	ok	1.02						
1197	ok	1.02						
1198	ok	1.18						
1199	ok	1.57						
1200	ok	1.61						
1201	ok	1.61						
1202	ok	1.18						
1203	ok	1.21						
1204	ok	1.21						
1205	ok	1.19						
1206	ok	1.16						
1207	ok	1.13						
1208	ok	1.29						
1209	ok	1.95						
1210	ok	1.95						
1597	ok	0.83						
1598	ok	0.83						
1599	ok	0.98						
1600	ok	0.98						
1601	ok	1.03						
1602	ok	1.06						
1603	ok	1.06						
1604	ok	0.99						
1605	ok	0.79						
1606	ok	0.65						
1607	ok	0.79						
1608	ok	0.97						
1609	ok	1.02						
1610	ok	1.02						
1611	ok	1.02						
1612	ok	1.02						
1613	ok	0.99						
1614	ok	0.64						
1615	ok	0.68						
1616	ok	0.93						
1617	ok	1.13						
1618	ok	1.21						
1619	ok	1.21						
1620	ok	1.19						
1621	ok	1.16						
1622	ok	1.14						
1623	ok	1.14						
1624	ok	0.95						
1625	ok	0.83						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.39						



Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
1	60.00	6	8	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1	ok	0.07	0.4	7.23e-04	7.9	7.9	7.9	7.9	30.9	33.1	-4.7	-2801.7	-3091.3	2993.3
2	ok	0.07	0.4	3.80e-03	7.9	7.9	7.9	7.9	3.2	-42.5	20.4	-3936.4	-3872.5	2553.8
3	ok	0.07	0.3	3.11e-03	7.9	7.9	7.9	7.9	14.3	15.3	18.4	-3523.3	-1804.5	2369.4
4	ok	0.07	0.4	4.47e-03	7.9	7.9	7.9	7.9	-57.3	-4.8	-0.9	3877.7	14.6	4181.6
5	ok	0.07	0.4	4.66e-03	7.9	7.9	7.9	7.9	-58.5	-5.3	-5.1	4995.4	253.6	3809.9
6	ok	0.07	0.4	4.65e-03	7.9	7.9	7.9	7.9	-58.7	-6.5	1.9	5001.9	286.4	3576.6
7	ok	0.07	0.4	4.27e-03	7.9	7.9	7.9	7.9	-53.3	-6.7	-0.3	5174.8	365.4	2869.4
8	ok	0.07	0.3	3.65e-03	7.9	7.9	7.9	7.9	-48.3	-7.2	-1.3	4847.0	356.5	2090.6
9	ok	0.07	0.3	2.92e-03	7.9	7.9	7.9	7.9	-35.0	-6.6	-3.3	4434.6	328.8	1329.8
10	ok	0.07	0.2	2.18e-03	7.9	7.9	7.9	7.9	-25.4	-6.6	-3.2	4033.4	293.5	570.9
11	ok	0.07	0.2	1.62e-03	7.9	7.9	7.9	7.9	-6.7	-4.3	-2.3	3781.7	262.0	-639.8
12	ok	0.07	0.3	1.24e-03	7.9	7.9	7.9	7.9	-8.5	-4.6	-1.3	3944.4	277.0	-1412.5
13	ok	0.07	0.3	1.30e-03	7.9	7.9	7.9	7.9	-12.1	-4.6	-2.0	4122.9	276.0	-2115.4
14	ok	0.07	0.3	1.44e-03	7.9	7.9	7.9	7.9	-15.9	-4.6	-2.5	4111.1	241.7	-2773.3
15	ok	0.07	0.3	1.50e-03	7.9	7.9	7.9	7.9	-15.8	-4.2	1.2	4111.1	241.7	-3007.7
16	ok	0.07	0.3	1.46e-03	7.9	7.9	7.9	7.9	-18.1	-4.3	0.6	3586.7	183.7	-3504.7
17	ok	0.07	0.3	1.26e-03	7.9	7.9	7.9	7.9	-16.4	-3.6	-1.9	2042.1	29.2	-3730.4
18	ok	0.07	0.6	8.68e-04	7.9	7.9	7.9	7.9	37.9	6.5	-23.0	-7963.5	-1884.4	-2667.4
19	ok	0.07	0.8	4.72e-04	11.0	7.9	11.0	7.9	119.9	27.5	-19.6	-1.419e+04	-2769.6	231.5
20	ok	0.07	0.8	5.33e-03	11.0	7.9	11.0	7.9	102.8	-58.6	-33.5	-1.476e+04	-5619.5	191.1
21	ok	0.07	0.7	9.44e-04	11.0	7.9	11.0	7.9	101.9	29.5	24.0	-1.324e+04	-2769.8	-1324.9
22	ok	0.07	0.3	2.45e-03	11.0	7.9	11.0	7.9	20.3	5.4	23.1	-5829.9	-1434.7	1352.8
23	ok	0.07	0.3	3.60e-03	7.9	7.9	7.9	7.9	-43.9	-5.7	1.5	4681.1	432.8	1683.8
24	ok	0.07	0.4	4.20e-03	7.9	7.9	7.9	7.9	-51.9	-6.9	-0.7	6524.1	649.3	991.0
25	ok	0.07	0.4	4.54e-03	7.9	7.9	7.9	7.9	-56.5	-7.1	-1.8	7279.5	727.2	57.5
26	ok	0.07	0.4	4.68e-03	7.9	7.9	7.9	7.9	-58.8	-6.8	-3.1	7125.5	654.4	-1013.9
27	ok	0.07	0.4	4.68e-03	7.9	7.9	7.9	7.9	-58.6	-6.0	4.7	7122.1	637.5	-1391.1
28	ok	0.07	0.4	4.37e-03	7.9	7.9	7.9	7.9	-55.8	-5.4	0.9	5915.0	415.5	-2154.4
29	ok	0.07	0.2	3.09e-03	7.9	7.9	7.9	7.9	-38.3	2.9	-8.9	2452.3	-453.1	-1900.8
30	ok	0.07	0.3	3.36e-03	7.9	7.9	7.9	7.9	12.9	-34.3	8.9	-2025.8	-2886.8	-1930.6
31	ok	0.07	0.3	6.60e-04	7.9	7.9	7.9	7.9	25.8	26.1	3.7	-1908.4	-2299.0	-2209.1
32	ok	0.07	0.6	8.41e-04	7.9	7.9	7.9	7.9	1.1	34.5	-15.3	-3917.7	-5967.2	2764.0
33	ok	0.07	0.6	5.08e-03	7.9	7.9	7.9	7.9	2.4	36.4	55.9	-4815.1	-6042.9	4411.0
34	ok	0.07	0.5	3.42e-03	7.9	7.9	7.9	7.9	-0.3	14.2	51.7	-4332.1	-3619.8	4935.7
35	ok	0.07	0.4	2.65e-03	7.9	7.9	7.9	7.9	-26.0	1.3	6.2	3435.8	-730.8	5294.5
36	ok	0.07	0.4	2.48e-03	7.9	7.9	7.9	7.9	-30.5	-6.8	-3.6	4373.7	-54.1	4844.3
37	ok	0.07	0.4	2.72e-03	7.9	7.9	7.9	7.9	-31.2	-10.2	-0.2	4395.4	53.8	4407.8
38	ok	0.07	0.4	2.60e-03	7.9	7.9	7.9	7.9	-30.4	-11.9	-5.3	4402.0	7.3	3506.2
39	ok	0.07	0.3	2.50e-03	7.9	7.9	7.9	7.9	-26.5	-12.8	-9.9	4043.7	-154.2	2559.1
40	ok	0.07	0.2	2.28e-03	7.9	7.9	7.9	7.9	-20.9	-14.6	-10.9	3581.1	-288.0	1623.0
41	ok	0.07	0.2	2.03e-03	7.9	7.9	7.9	7.9	-16.9	-18.1	-9.4	3161.6	-361.2	701.8
42	ok	0.07	0.2	1.73e-03	7.9	7.9	7.9	7.9	-0.3	-13.4	-7.3	2954.4	-391.1	-737.9
43	ok	0.07	0.2	1.25e-03	7.9	7.9	7.9	7.9	-3.06e-02	-12.2	-3.9	3140.3	-344.9	-1720.1
44	ok	0.07	0.3	1.14e-03	7.9	7.9	7.9	7.9	-0.3	-10.1	-3.6	3374.8	-288.6	-2586.5
45	ok	0.07	0.4	1.02e-03	7.9	7.9	7.9	7.9	-3.21e-02	-8.7	-5.9	3453.7	-233.0	-3382.4
46	ok	0.07	0.4	9.73e-04	7.9	7.9	7.9	7.9	2.0	-7.6	-8.8	3091.0	-259.0	-4071.3
47	ok	0.07	0.4	1.13e-03	7.9	7.9	7.9	7.9	2.3	-6.0	-6.8	3083.3	-297.4	-4373.2
48	ok	0.07	0.4	1.35e-03	7.9	7.9	7.9	7.9	8.0	-0.6	-13.0	1802.5	-816.9	-4640.8
49	ok	0.07	0.5	1.71e-03	7.9	7.9	7.9	7.9	26.6	11.0	-40.7	-5727.0	-2866.9	-3430.4
50	ok	0.07	0.8	3.46e-03	11.0	7.9	11.0	7.9	38.7	18.4	-65.3	-1.534e+04	-7439.1	-1500.9
51	ok	0.07	0.8	7.54e-03	11.0	7.9	11.0	7.9	38.7	18.4	-65.3	-1.534e+04	-7439.1	-1500.9
52	ok	0.07	0.7	2.76e-03	11.0	7.9	11.0	7.9	40.8	24.1	68.5	-1.396e+04	-5866.1	861.5
53	ok	0.07	0.2	2.33e-03	11.0	7.9	11.0	7.9	21.2	9.3	41.8	-3608.3	-2007.7	1811.8
54	ok	0.07	0.3	2.35e-03	7.9	7.9	7.9	7.9	-13.5	-4.7	15.3	4126.7	243.5	2159.2
55	ok	0.07	0.4	2.38e-03	7.9	7.9	7.9	7.9	-23.1	-10.1	10.0	5712.0	910.7	1310.2
56	ok	0.07	0.4	2.50e-03	7.9	7.9	7.9	7.9	-28.4	-12.0	3.9	6385.3	1212.8	113.3
57	ok	0.07	0.4	2.66e-03	7.9	7.9	7.9	7.9	-29.8	-11.3	-0.8	6330.4	1209.4	-1212.7
58	ok	0.07	0.4	2.40e-03	7.9	7.9	7.9	7.9	-29.2	-8.2	3.2	6295.1	1033.2	-1876.4
59	ok	0.07	0.4	2.53e-03	7.9	7.9	7.9	7.9	-25.2	-1.3	-5.5	5232.1	309.9	-2792.8
60	ok	0.07	0.3	3.15e-03	7.9	7.9	7.9	7.9	-1.2	9.8	-41.8	-2283.4	-2376.3	-3126.2
61	ok	0.07	0.5	4.43e-03	7.9	7.9	7.9	7.9	-0.4	19.2	-48.1	-2835.3	-4509.5	-2860.0
62	ok	0.07	0.4	6.85e-04	7.9	7.9	7.9	7.9	1.4	27.9	12.7	-3045.7	-4567.9	-1881.7
63	ok	0.07	0.5	8.37e-04	7.9	7.9	7.9	7.9	-2.1	33.8	-17.3	-1903.8	-5564.4	2794.5



Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
64	ok	0.07	0.6	4.39e-03	7.9	7.9	7.9	7.9	-21.3	22.3	54.5	-3510.4	-5780.5	5380.1
65	ok	0.07	0.5	4.51e-03	7.9	7.9	7.9	7.9	-24.5	10.2	44.7	-2873.5	-3357.5	5904.9
66	ok	0.07	0.4	2.52e-03	7.9	7.9	7.9	7.9	-11.8	7.4	7.1	2714.3	-1870.4	5588.8
67	ok	0.07	0.4	1.86e-03	7.9	7.9	7.9	7.9	-14.3	-5.1	7.9	2704.7	-1918.4	5145.6
68	ok	0.07	0.4	2.23e-03	7.9	7.9	7.9	7.9	-14.6	-12.4	-2.2	2896.2	-2201.0	4252.8
69	ok	0.07	0.3	2.37e-03	7.9	7.9	7.9	7.9	-13.8	-15.5	-8.6	2686.9	-2661.8	3285.1
70	ok	0.07	0.3	2.41e-03	7.9	7.9	7.9	7.9	-11.6	-17.2	-15.1	2275.8	-3153.9	2362.9
71	ok	0.07	0.2	2.57e-03	7.9	7.9	7.9	7.9	-7.7	-21.4	-17.6	1795.1	-3542.6	1529.8
72	ok	0.07	0.2	2.96e-03	7.9	7.9	7.9	7.9	-2.5	-29.9	-17.5	1367.8	-3659.4	683.3
73	ok	0.07	0.2	2.94e-03	7.9	7.9	7.9	7.9	9.6	-26.8	-11.4	1172.3	-3625.8	-708.7
74	ok	0.07	0.2	2.10e-03	7.9	7.9	7.9	7.9	9.6	-21.4	-6.1	1432.7	-3504.1	-1657.4
75	ok	0.07	0.3	1.56e-03	7.9	7.9	7.9	7.9	10.2	-14.2	-6.8	1777.3	-3270.0	-2438.9
76	ok	0.07	0.3	1.43e-03	7.9	7.9	7.9	7.9	12.0	-11.1	-11.2	2015.4	-2851.6	-3174.3
77	ok	0.07	0.4	1.39e-03	7.9	7.9	7.9	7.9	15.1	-9.4	-15.2	1923.9	-2471.5	-3893.2
78	ok	0.07	0.4	1.35e-03	7.9	7.9	7.9	7.9	15.8	-5.8	-14.4	1986.4	-2159.0	-4236.2
79	ok	0.07	0.4	1.49e-03	7.9	7.9	7.9	7.9	20.5	3.7	-20.9	1247.6	-2197.4	-4706.2
80	ok	0.07	0.5	1.94e-03	7.9	7.9	7.9	7.9	20.4	16.9	-44.1	-4638.3	-3665.0	-4679.0
81	ok	0.07	0.6	3.47e-03	11.0	7.9	7.9	7.9	20.7	16.0	-63.1	-1.218e+04	-6602.4	-2806.3
82	ok	0.07	0.8	4.45e-03	11.0	7.9	7.9	7.9	38.7	18.4	-65.3	-1.534e+04	-7439.1	-1500.9
83	ok	0.07	0.5	4.11e-03	11.0	7.9	7.9	7.9	11.5	15.3	68.0	-1.068e+04	-5210.1	1405.6
84	ok	0.07	0.3	2.67e-03	11.0	7.9	7.9	7.9	19.8	14.8	49.5	-2798.4	-2612.0	2881.4
85	ok	0.07	0.3	2.42e-03	7.9	7.9	7.9	7.9	4.8	-1.0	25.2	2919.1	-945.1	2398.1
86	ok	0.07	0.3	2.35e-03	7.9	7.9	7.9	7.9	-1.6	-5.8	10.0	4174.5	603.3	1380.0
87	ok	0.07	0.3	2.31e-03	7.9	7.9	7.9	7.9	-1.8	-6.8	12.9	4209.4	777.7	765.6
88	ok	0.07	0.3	2.21e-03	7.9	7.9	7.9	7.9	-9.6	-7.3	-1.0	4669.4	877.2	-1283.2
89	ok	0.07	0.4	1.75e-03	7.9	7.9	7.9	7.9	-11.3	-4.7	-8.4	4229.6	620.2	-2562.4
90	ok	0.07	0.4	2.34e-03	7.9	7.9	7.9	7.9	-9.6	3.6	-5.5	4004.6	-506.4	-3182.3
91	ok	0.07	0.4	3.91e-03	7.9	7.9	7.9	7.9	-16.4	17.3	-38.7	-1659.1	-2006.2	-4248.8
92	ok	0.07	0.4	3.82e-03	7.9	7.9	7.9	7.9	-16.2	16.8	-41.9	-2095.7	-4388.1	-3662.9
93	ok	0.07	0.4	7.84e-04	7.9	7.9	7.9	7.9	-1.8	27.1	15.3	-1694.4	-4297.6	-1876.6
94	ok	0.07	0.4	9.90e-04	7.9	7.9	7.9	7.9	-8.9	52.1	-13.9	-357.6	-2969.6	3471.9
95	ok	0.07	0.5	2.40e-03	7.9	7.9	7.9	7.9	-12.6	66.9	38.5	-980.3	-2513.7	5388.1
96	ok	0.07	0.5	3.58e-03	7.9	7.9	7.9	7.9	-18.4	33.1	34.1	-1122.8	-3236.0	5671.0
97	ok	0.07	0.5	2.34e-03	7.9	7.9	7.9	7.9	-4.0	13.8	3.6	1173.2	-4256.1	5246.9
98	ok	0.07	0.5	2.12e-03	7.9	7.9	7.9	7.9	-7.8	-4.7	3.1	839.0	-5928.9	4825.9
99	ok	0.07	0.6	2.43e-03	7.9	7.9	7.9	7.9	-4.9	-13.9	-5.8	740.3	-7169.0	3822.9
100	ok	0.07	0.6	2.71e-03	7.9	7.9	7.9	7.9	-2.7	-18.1	-12.2	389.6	-8210.2	2858.9
101	ok	0.07	0.6	2.78e-03	7.9	7.9	7.9	7.9	-0.3	-19.6	-19.8	30.7	-9048.6	1975.4
102	ok	0.07	0.6	2.98e-03	7.9	7.9	7.9	7.9	13.9	-21.3	-30.2	-828.7	-9870.2	924.8
103	ok	0.07	0.6	4.33e-03	7.9	7.9	7.9	7.9	21.2	-41.3	-26.3	-1345.0	-1.043e+04	248.7
104	ok	0.07	0.6	5.43e-03	7.9	7.9	7.9	7.9	18.1	-64.2	-7.7	-1251.6	-1.020e+04	-572.1
105	ok	0.07	0.6	3.15e-03	7.9	7.9	7.9	7.9	23.8	-35.4	-1.9	-1225.9	-1.007e+04	-993.0
106	ok	0.07	0.6	1.81e-03	7.9	7.9	7.9	7.9	20.6	-16.9	0.1	-630.5	-9159.2	-1671.1
107	ok	0.07	0.5	2.01e-03	7.9	7.9	7.9	7.9	20.1	-11.6	-17.0	75.4	-8040.1	-2739.8
108	ok	0.07	0.5	2.10e-03	7.9	7.9	7.9	7.9	23.4	-10.3	-21.6	186.5	-7044.1	-3495.6
109	ok	0.07	0.5	1.87e-03	7.9	7.9	7.9	7.9	26.0	-5.5	-27.4	-51.2	-6003.3	-4173.2
110	ok	0.07	0.5	1.56e-03	7.9	7.9	7.9	7.9	26.6	4.5	-34.0	-1084.2	-5024.8	-4609.0
111	ok	0.07	0.5	1.67e-03	7.9	7.9	7.9	7.9	25.2	20.8	-44.4	-3542.3	-4166.7	-4346.1
112	ok	0.07	0.5	2.91e-03	7.9	7.9	7.9	7.9	16.1	28.7	-59.6	-7023.7	-3880.1	-3188.2
113	ok	0.07	0.5	2.07e-03	7.9	7.9	7.9	7.9	21.7	65.3	-60.0	-7088.1	-4136.1	-1646.2
114	ok	0.07	0.4	3.54e-03	7.9	7.9	7.9	7.9	13.9	26.6	65.8	-6579.9	-3913.9	2063.3
115	ok	0.07	0.3	2.54e-03	7.9	7.9	7.9	7.9	22.5	19.4	52.0	-2557.3	-3592.6	3048.9
116	ok	0.07	0.3	2.51e-03	7.9	7.9	7.9	7.9	15.9	2.81e-02	32.9	1266.0	-3735.2	2443.3
117	ok	0.07	0.3	2.64e-03	7.9	7.9	7.9	7.9	13.9	-9.8	33.0	1139.6	-4369.1	1982.0
118	ok	0.07	0.3	2.76e-03	7.9	7.9	7.9	7.9	9.1	-13.9	25.5	1620.4	-4589.4	831.3
119	ok	0.07	0.3	2.54e-03	7.9	7.9	7.9	7.9	-0.1	-13.7	8.2	1952.0	-4438.9	-1200.4
120	ok	0.07	0.3	2.31e-03	7.9	7.9	7.9	7.9	-4.1	-6.8	-1.2	1846.1	-3948.8	-2530.2
121	ok	0.07	0.3	2.19e-03	7.9	7.9	7.9	7.9	-0.9	8.7	-1.7	2040.5	-2975.1	-3109.0
122	ok	0.07	0.3	3.37e-03	7.9	7.9	7.9	7.9	-3.8	29.2	-14.9	1373.0	-1803.1	-3897.1
123	ok	0.07	0.3	2.58e-03	7.9	7.9	7.9	7.9	-9.9	39.1	-34.8	-551.5	-1788.8	-3757.1
124	ok	0.07	0.3	8.15e-04	7.9	7.9	7.9	7.9	-6.7	44.5	12.3	-471.7	-2373.4	-2415.9
125	ok	0.07	0.3	7.29e-04	7.9	7.9	7.9	7.9	-2.9	59.1	-4.8	1046.4	1321.1	2811.0
126	ok	0.07	0.5	2.35e-03	7.9	7.9	7.9	7.9	-19.7	45.6	24.4	-140.0	-3976.9	3893.1
127	ok	0.07	0.5	2.98e-03	7.9	7.9	7.9	7.9	-6.2	48.2	8.4	93.7	-3930.3	4250.4
128	ok	0.07	0.7	2.77e-03	7.9	7.9	7.9	7.9	-13.2	13.4	7.3	-866.1	-8766.1	4156.6
129	ok	0.07	0.8	3.05e-03	7.9	7.9	7.9	7.9	-4.8	-5.6	-3.0	-1340.8	-1.176e+04	3549.2
130	ok	0.07	0.9	3.07e-03	7.9	7.9	7.9	7.9	0.3	-15.2	-10.1	-1785.0	-1.402e+04	2860.1
131	ok	0.07	0.7	3.24e-03	11.0	7.9	11.0	7.9	3.8	-19.5	-16.2	-2150.9	-1.550e+04	2108.2
132	ok	0.07	0.7	3.22e-03	11.0	7.9	11.0	7.9	7.4	-20.8	-24.9	-2436.0	-1.645e+04	1371.5
133	ok	0.07	0.8	3.28e-03	11.0	7.9	11.0	7.9	26.6	-15.2	-44.8	-2979.9	-1.729e+04	425.2
134	ok	0.07	0.8	5.16e-03	11.0	7.9	11.0	7.9	49.7	-39.6	-46.2	-3959.0	-1.868e+04	214.2
135	ok	0.07	0.8	1.07e-02	11.0	7.9	11.0	7.9	30.7	-129.7	4.3	-4165.7	-2.017e+04	-485.1

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Città di Fermo
Settore IV e V

Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e Appalti

PROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"

CIG: 9880245C18 CUP: F62F18000070004

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
136	ok	0.07	0.8	3.35e-03	11.0	7.9	11.0	7.9	51.5	-28.3	11.5	-3707.4	-1.788e+04	-634.4
137	ok	0.07	0.7	2.01e-03	11.0	7.9	11.0	7.9	22.1	-11.3	-7.3	-2407.6	-1.605e+04	-1161.4
138	ok	0.07	0.9	2.58e-03	7.9	7.9	7.9	7.9	22.8	-14.3	-14.1	-2168.5	-1.478e+04	-1856.3
139	ok	0.07	0.9	2.66e-03	7.9	7.9	7.9	7.9	25.9	-10.8	-23.2	-1906.9	-1.326e+04	-2499.5
140	ok	0.07	0.7	2.50e-03	7.9	7.9	7.9	7.9	30.3	-4.9	-29.5	-1720.6	-1.126e+04	-3059.4
141	ok	0.07	0.6	2.02e-03	7.9	7.9	7.9	7.9	34.3	4.0	-39.4	-1860.8	-8657.0	-3459.0
142	ok	0.07	0.5	1.36e-03	7.9	7.9	7.9	7.9	33.8	21.8	-43.3	-2659.2	-5821.9	-3192.1
143	ok	0.07	0.4	1.48e-03	7.9	7.9	7.9	7.9	30.6	41.9	-55.6	-3061.8	-2839.6	-2467.6
144	ok	0.07	0.3	2.03e-03	7.9	7.9	7.9	7.9	29.5	53.6	64.2	-2803.5	-3033.2	842.1
145	ok	0.07	0.3	2.24e-03	7.9	7.9	7.9	7.9	27.3	38.5	62.1	-2737.7	-2701.7	1536.5
146	ok	0.07	0.4	2.45e-03	7.9	7.9	7.9	7.9	25.6	18.0	54.0	-2295.0	-5791.9	2150.7
147	ok	0.07	0.5	2.95e-03	7.9	7.9	7.9	7.9	25.2	0.3	47.2	-1333.5	-8172.5	2056.1
148	ok	0.07	0.6	3.35e-03	7.9	7.9	7.9	7.9	58.6	-4.7	23.0	-1569.8	-1.043e+04	894.5
149	ok	0.07	0.7	3.45e-03	7.9	7.9	7.9	7.9	53.1	-9.3	25.8	-1593.9	-1.134e+04	374.5
150	ok	0.07	0.7	3.23e-03	7.9	7.9	7.9	7.9	37.9	-8.6	32.3	-1418.9	-1.122e+04	-542.4
151	ok	0.07	0.7	3.23e-03	7.9	7.9	7.9	7.9	26.5	1.5	35.6	-1122.1	-1.002e+04	-1138.6
152	ok	0.07	0.6	3.00e-03	7.9	7.9	7.9	7.9	-8.0	9.6	-6.3	-448.1	-7450.7	-2520.5
153	ok	0.07	0.5	2.98e-03	7.9	7.9	7.9	7.9	-16.4	33.7	-25.1	-267.4	-4320.4	-2820.2
154	ok	0.07	0.3	2.33e-03	7.9	7.9	7.9	7.9	-12.8	48.9	-30.3	494.4	-625.4	-3112.7
155	ok	0.07	0.2	7.65e-04	7.9	7.9	7.9	7.9	-3.0	46.9	5.2	619.3	783.8	-1773.0
156	ok	0.07	0.3	1.53e-03	7.9	7.9	7.9	7.9	-0.9	59.2	-5.7	1213.7	1355.5	2007.1
157	ok	0.07	0.3	2.15e-03	7.9	7.9	7.9	7.9	-18.2	68.3	19.2	984.4	-1461.4	2846.3
158	ok	0.07	0.5	2.50e-03	7.9	7.9	7.9	7.9	-19.7	45.6	24.4	-140.0	-3976.9	3893.1
159	ok	0.07	0.7	3.29e-03	7.9	7.9	7.9	7.9	0.5	16.2	-2.5	-1202.4	-8830.8	2940.2
160	ok	0.07	0.8	3.26e-03	7.9	7.9	7.9	7.9	-3.8	-5.3	-3.5	-1807.1	-1.186e+04	2679.8
161	ok	0.07	0.9	3.22e-03	7.9	7.9	7.9	7.9	1.2	-15.0	-10.5	-2370.8	-1.414e+04	2209.4
162	ok	0.07	0.7	3.34e-03	11.0	7.9	11.0	7.9	5.3	-19.2	-16.7	-2764.1	-1.562e+04	1687.8
163	ok	0.07	0.8	3.26e-03	11.0	7.9	11.0	7.9	10.0	-20.3	-25.8	-3051.7	-1.658e+04	1111.9
164	ok	0.07	0.8	3.71e-03	11.0	7.9	11.0	7.9	17.2	-17.1	-33.2	-3304.0	-1.736e+04	435.8
165	ok	0.07	0.8	5.52e-03	11.0	7.9	11.0	7.9	79.8	-33.5	-65.0	-4307.2	-1.875e+04	-293.4
166	ok	0.07	0.8	1.08e-02	11.0	7.9	11.0	7.9	61.7	-124.5	-58.4	-4609.7	-2.026e+04	-467.2
167	ok	0.07	0.8	3.66e-03	11.0	7.9	11.0	7.9	78.3	-22.9	29.0	-3958.7	-1.793e+04	-29.0
168	ok	0.07	0.7	2.16e-03	11.0	7.9	11.0	7.9	23.0	-11.2	-6.0	-3062.1	-1.618e+04	-806.1
169	ok	0.07	0.9	2.54e-03	7.9	7.9	7.9	7.9	20.7	-14.7	-13.2	-2724.0	-1.490e+04	-1417.1
170	ok	0.07	0.8	2.74e-03	7.9	7.9	7.9	7.9	22.9	-11.4	-22.7	-2402.0	-1.336e+04	-1908.7
171	ok	0.07	0.7	2.58e-03	7.9	7.9	7.9	7.9	28.8	-5.2	-29.0	-2082.8	-1.133e+04	-2295.9
172	ok	0.07	0.6	2.03e-03	7.9	7.9	7.9	7.9	39.5	5.0	-39.4	-1824.6	-8649.8	-2557.8
173	ok	0.07	0.5	8.43e-04	7.9	7.9	7.9	7.9	51.2	24.7	-45.3	-1667.1	-5624.9	-2341.0
174	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.8	49.9	-41.6	-1075.4	-2645.4	-1789.1
175	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	32.4	69.1	-28.1	-2828.0	-2309.0	-882.7
176	ok	0.07	0.3	2.03e-03	7.9	7.9	7.9	7.9	29.5	53.6	64.2	-2803.5	-3033.2	842.1
177	ok	0.07	0.4	1.94e-03	7.9	7.9	7.9	7.9	42.2	21.0	54.8	-1345.3	-5602.4	1293.1
178	ok	0.07	0.5	3.05e-03	7.9	7.9	7.9	7.9	29.1	1.1	46.8	-1611.0	-8228.1	1286.7
179	ok	0.07	0.6	3.52e-03	7.9	7.9	7.9	7.9	60.3	-4.3	23.0	-1913.0	-1.050e+04	337.8
180	ok	0.07	0.7	3.64e-03	7.9	7.9	7.9	7.9	54.5	-9.0	25.8	-1991.7	-1.142e+04	103.2
181	ok	0.07	0.7	3.44e-03	7.9	7.9	7.9	7.9	49.3	-6.4	28.8	-1920.6	-1.132e+04	-166.9
182	ok	0.07	0.7	3.49e-03	7.9	7.9	7.9	7.9	-2.2	-6.9	4.5	-1347.7	-9865.0	-1146.9
183	ok	0.07	0.6	3.37e-03	7.9	7.9	7.9	7.9	-8.1	9.6	-7.8	-747.4	-7518.2	-1594.7
184	ok	0.07	0.4	3.05e-03	7.9	7.9	7.9	7.9	-2.7	36.4	-8.9	-139.7	-4294.5	-1782.8
185	ok	0.07	0.3	1.80e-03	7.9	7.9	7.9	7.9	-10.6	60.6	-23.0	825.1	-565.0	-1617.7
186	ok	0.07	0.2	1.64e-03	7.9	7.9	7.9	7.9	-3.1	46.8	5.9	805.8	820.2	-1348.3
187	ok	0.07	0.2	2.05e-05	7.9	7.9	7.9	7.9	1.2	62.9	-4.0	368.9	752.0	1043.4
188	ok	0.07	0.3	1.83e-04	7.9	7.9	7.9	7.9	37.1	115.1	-21.3	2159.4	143.4	-877.7
189	ok	0.07	0.4	5.20e-04	7.9	7.9	7.9	7.9	21.1	100.3	18.7	1422.0	-2618.8	969.7
190	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	33.0	96.3	21.0	-438.3	-4296.0	1350.3
191	ok	0.07	0.5	0.0	7.9	7.9	7.9	7.9	37.2	91.6	24.5	-1092.8	-5938.4	1272.9
192	ok	0.07	0.6	0.0	7.9	7.9	7.9	7.9	40.9	86.8	26.8	-1612.4	-7233.3	1005.9
193	ok	0.07	0.7	0.0	7.9	7.9	7.9	7.9	45.2	82.0	28.4	-2084.6	-8355.7	580.0
194	ok	0.07	0.7	0.0	7.9	7.9	7.9	7.9	43.8	71.7	31.6	-2277.8	-9318.9	310.8
195	ok	0.07	0.8	0.0	7.9	7.9	7.9	7.9	59.1	63.9	12.0	-2814.7	-1.030e+04	-561.7
196	ok	0.07	0.8	0.0	7.9	7.9	7.9	7.9	59.3	60.6	13.1	-2932.6	-1.089e+04	-1008.4
197	ok	0.07	0.8	2.99e-04	7.9	7.9	7.9	7.9	52.9	59.3	-14.5	-1212.0	-1.055e+04	-493.2
198	ok	0.07	0.8	0.0	7.9	7.9	7.9	7.9	64.3	59.0	11.8	-2892.4	-1.039e+04	947.7
199	ok	0.07	0.7	0.0	7.9	7.9	7.9	7.9	65.0	64.2	12.7	-2669.2	-9277.8	450.9
200	ok	0.07	0.6	0.0	7.9	7.9	7.9	7.9	57.3	78.0	20.7	-2086.2	-7774.1	-177.7
201	ok	0.07	0.6	0.0	7.9	7.9	7.9	7.9	53.7	84.9	19.1	-1568.1	-6282.6	-665.9
202	ok	0.07	0.5	0.0	7.9	7.9	7.9	7.9	53.4	87.4	1.2	-1069.1	-4744.7	-991.0
203	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	57.5	88.0	4.6	-670.7	-3195.3	-1211.1
204	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	56.4	78.0	5.1	-398.6	-1790.0	-1184.2
205	ok	0.07	0.2	0.0	7.9	7.9	7.9	7.9	84.8	120.2	-13.0	-480.2	-1060.3	-556.7
206	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	53.0	98.6	-24.8	-1039.4	-895.1	-379.6
207	ok	0.07	0.2	0.0	7.9	7.9	7.9	7.9	45.2	68.3	-23.1	-1079.3	-1147.6	-687.9

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PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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**Città di Fermo****Settore IV e V**Lavori Pubblici, Protezione
Civile, Ambiente, Urbanistica,
Patrimonio, Contratti e AppaltiPROGETTAZIONE ESECUTIVA "IMPIANTO DI TRATTAMENTO ANAEROBICO
DELLA FRAZIONE ORGANICA DEI RIFIUTI SOLIDI URBANI PER LA
PRODUZIONE DI BIOMETANO"**CIG: 9880245C18 CUP: F62F18000070004**

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
208	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	44.5	82.0	-51.8	-788.1	-1832.0	-631.5
209	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	48.7	91.1	-12.3	-539.4	-2702.5	357.2
210	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	40.3	87.7	-38.4	-500.1	-3950.8	-255.3
211	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	37.8	87.6	-34.3	-501.9	-4574.1	-217.3
212	ok	0.07	0.5	0.0	7.9	7.9	7.9	7.9	35.3	88.1	-33.3	-462.1	-4789.6	-156.9
213	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	32.8	90.5	-18.4	-415.0	-4082.7	-445.1
214	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	28.6	86.0	-5.3	375.5	-3287.9	730.9
215	ok	0.07	0.3	6.54e-04	7.9	7.9	7.9	7.9	18.3	88.9	2.2	970.4	-2265.6	1068.5
216	ok	0.07	0.3	2.59e-04	7.9	7.9	7.9	7.9	37.3	109.5	24.4	1768.9	117.2	1424.2
217	ok	0.07	0.2	5.27e-05	7.9	7.9	7.9	7.9	3.7	93.8	-6.1	-157.6	-197.9	1309.2
218	ok	0.07	0.2	4.81e-04	7.9	7.9	7.9	7.9	-1.7	94.8	6.4	-859.2	-495.7	-1146.5
219	ok	0.07	0.4	5.73e-04	7.9	7.9	7.9	7.9	81.8	118.4	-22.0	3321.3	477.2	-1356.3
220	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	77.6	97.3	-22.0	3287.6	308.9	-1061.2
221	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	49.6	79.6	-5.6	1524.1	-1264.6	-844.1
222	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	49.0	83.8	19.0	-688.1	-3421.4	404.5
223	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	49.9	80.5	21.6	-1302.3	-4399.9	337.9
224	ok	0.07	0.5	0.0	7.9	7.9	7.9	7.9	55.4	77.2	10.3	-1820.9	-5132.1	155.1
225	ok	0.07	0.5	0.0	7.9	7.9	7.9	7.9	58.6	69.7	12.1	-2198.6	-5529.1	-70.2
226	ok	0.07	0.5	0.0	7.9	7.9	7.9	7.9	58.1	67.1	12.4	-2160.1	-5334.5	-261.2
227	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	60.4	71.7	4.2	-1642.7	-4352.3	-244.0
228	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	65.1	86.2	-25.4	1260.7	-2480.1	30.9
229	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	65.7	70.2	14.7	-1705.0	-4354.5	448.9
230	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	64.3	66.2	7.6	-1917.9	-4964.4	466.9
231	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	65.5	73.2	7.1	-1901.7	-4878.3	286.6
232	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	62.8	78.1	16.8	-1492.4	-4252.4	-15.0
233	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	60.3	83.7	-1.3	-1044.5	-3436.8	-193.0
234	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	60.5	85.4	-0.2	-666.9	-2538.5	-288.2
235	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	91.4	125.0	0.8	-784.3	-1884.2	87.5
236	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.1	78.4	46.4	-1736.0	-984.2	242.0
237	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.4	106.4	-30.7	-1863.0	-816.8	-496.1
238	ok	0.07	0.2	0.0	7.9	7.9	7.9	7.9	49.0	77.0	-30.4	-1887.6	-956.1	-842.5
239	ok	0.07	0.2	0.0	7.9	7.9	7.9	7.9	55.5	78.0	-50.9	-940.8	-1165.6	-1124.0
240	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	87.8	122.2	-13.5	-363.3	-1649.0	-701.4
241	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	45.3	80.1	-36.8	384.1	-1426.2	-789.9
242	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	48.2	86.0	-5.5	-404.0	-2232.7	-180.6
243	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	53.1	83.6	-2.2	-597.4	-2009.8	-167.7
244	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	47.0	78.1	-4.1	1156.7	-1192.3	694.8
245	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	46.1	63.4	9.9	1768.4	794.7	1239.8
246	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	76.8	94.1	25.8	2871.5	512.1	1356.1
247	ok	0.07	0.4	5.40e-04	7.9	7.9	7.9	7.9	80.6	113.4	25.8	2849.7	403.2	1675.6
248	ok	0.07	0.2	5.80e-04	7.9	7.9	7.9	7.9	-0.6	114.1	2.8	-1046.4	-502.1	1130.1
249	ok	0.07	0.2	4.15e-04	7.9	7.9	7.9	7.9	-1.3	121.1	4.6	-1637.9	-911.0	-738.0
250	ok	0.07	0.4	7.24e-04	7.9	7.9	7.9	7.9	110.1	124.0	-22.0	4058.9	624.7	-1423.6
251	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	103.7	92.1	-16.9	4161.0	1135.2	-1159.9
252	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	61.4	54.8	-7.1	2666.2	1657.1	-1015.6
253	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.8	58.5	1.0	2386.8	1712.9	-634.6
254	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	50.0	62.3	7.0	2029.1	1559.4	-219.2
255	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	66.7	73.2	-4.4	-1629.6	-2757.2	-53.0
256	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	66.5	67.1	-5.1	-1610.5	-2661.5	-95.2
257	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	92.0	108.7	10.3	-1261.6	-1962.7	746.3
258	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	48.9	87.3	29.1	-2504.2	-785.7	737.7
259	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	52.4	109.5	29.1	-2502.0	-794.6	350.6
260	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.1	84.9	-26.3	-2085.6	-828.1	-581.4
261	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	97.5	112.8	-4.9	-1107.2	-2074.8	-508.5
262	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	68.6	72.5	7.0	-1345.4	-2521.0	127.6
263	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	67.8	75.8	-10.1	-1187.2	-2517.1	229.7
264	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	66.5	81.3	-14.6	-875.5	-2215.3	236.9
265	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	95.4	120.1	2.4	-352.5	-1827.2	440.2
266	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	93.8	124.2	3.7	-870.9	-1469.5	512.9
267	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	55.5	85.7	33.0	-2687.3	-912.5	428.2
268	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.0	95.6	-33.6	-2878.0	-834.5	-434.2
269	ok	0.07	0.3	2.38e-04	7.9	7.9	7.9	7.9	50.8	79.3	-33.8	-2867.8	-784.5	-855.2
270	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	89.9	122.3	-12.6	-787.3	-915.3	-865.9
271	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	52.1	70.6	-12.6	1365.9	1222.9	-793.9
272	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	53.4	69.6	1.9	1896.6	1706.0	-465.2
273	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	46.4	70.3	-7.7	2094.8	2111.7	-96.0
274	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	49.3	66.3	-3.7	2308.2	2294.9	299.6
275	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	54.2	61.0	2.0	2455.2	2273.2	717.8
276	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	60.8	55.8	9.7	2549.5	2018.3	1105.7
277	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	102.6	89.5	20.5	3752.9	1307.7	1257.1
278	ok	0.07	0.4	6.94e-04	7.9	7.9	7.9	7.9	108.5	119.0	25.8	3602.1	553.7	1634.6
279	ok	0.07	0.2	4.27e-04	7.9	7.9	7.9	7.9	-1.4	115.3	-3.8	-1791.2	-1061.3	846.5

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO

REV. 00

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Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
280	ok	0.07	0.2	4.47e-04	7.9	7.9	7.9	7.9	1.3	121.6	4.6	-2070.5	-997.5	-564.0
281	ok	0.07	0.4	8.58e-04	7.9	7.9	7.9	7.9	120.3	117.2	-16.9	4124.9	659.2	-989.3
282	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	113.8	84.7	-10.2	4333.5	1702.3	-792.9
283	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	67.5	54.1	-6.1	3117.3	2525.2	-719.9
284	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	59.1	56.9	1.3	3051.2	2902.3	-556.2
285	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	53.2	62.3	6.9	2748.6	2910.5	-315.6
286	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	53.2	67.8	10.3	2494.4	2566.5	23.7
287	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	51.5	63.3	11.9	1865.3	2031.0	337.5
288	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	52.4	64.0	12.8	789.0	1248.5	590.2
289	ok	0.07	0.3	1.26e-04	7.9	7.9	7.9	7.9	52.1	73.6	32.3	-3463.7	-552.9	636.9
290	ok	0.07	0.4	0.0	7.9	7.9	7.9	7.9	54.6	86.4	32.2	-3495.6	-714.0	256.0
291	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	57.0	83.7	-31.0	-2942.5	-622.6	-590.2
292	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	59.4	74.1	-7.9	1058.2	973.6	-581.6
293	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	59.6	74.7	12.1	1811.1	1439.0	-323.6
294	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	60.2	76.3	10.6	2002.6	1624.7	-66.1
295	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	60.2	77.8	9.9	1992.6	1569.8	38.2
296	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	60.6	72.1	12.1	1635.8	1252.8	412.1
297	ok	0.07	0.3	0.0	7.9	7.9	7.9	7.9	98.1	121.2	7.8	-937.9	-836.6	717.3
298	ok	0.07	0.4	4.73e-05	7.9	7.9	7.9	7.9	58.5	82.2	38.3	-3688.6	-830.1	448.9
...														
496	ok	0.07	5.14e-02	3.15e-04	7.9	7.9	7.9	7.9	-1.6	-1.2	1.5	348.9	321.6	-440.3
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
		0.07	0.94	0.01	11.00	7.85	11.00	7.85	-58.76	-129.71	-65.31	-1.534e+04	-2.026e+04	-4706.23
		0.07	0.94	0.01	11.00	7.85	11.00	7.85	126.13	131.75	68.54	7279.49	5145.67	5904.87

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
1	ok	1.07						
2	ok	2.82						
3	ok	2.82						
4	ok	2.21						
5	ok	1.72						
6	ok	1.30						
7	ok	0.94						
8	ok	0.66						
9	ok	0.43						
10	ok	0.26						
11	ok	0.28						
12	ok	0.46						
13	ok	0.69						
14	ok	0.97						
15	ok	1.29						
16	ok	1.67						
17	ok	2.08						
18	ok	2.52						
19	ok	3.19						
20	ok	3.19						
21	ok	2.91						
22	ok	2.12						
23	ok	1.57						
24	ok	1.05						
25	ok	0.54						
26	ok	0.52						
27	ok	1.06						
28	ok	1.63						
29	ok	2.26						
30	ok	2.26						
31	ok	0.89						
32	ok	2.22						
33	ok	2.82						
34	ok	2.82						
35	ok	2.21						
36	ok	1.72						
37	ok	1.30						
38	ok	0.94						
39	ok	0.66						
40	ok	0.64						
41	ok	0.64						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
42	ok	0.64						
43	ok	0.63						
44	ok	0.69						
45	ok	0.97						
46	ok	1.29						
47	ok	1.67						
48	ok	2.08						
49	ok	2.52						
50	ok Av	4.90	0.13	0.07	4.9	2.7	230.2	125.9
51	ok Av	4.90	0.13	0.07	4.9	2.7	230.2	125.9
52	ok	3.57						
53	ok	2.12						
54	ok	1.57						
55	ok	1.05						
56	ok	0.54						
57	ok	0.52						
58	ok	1.06						
59	ok	1.63						
60	ok	2.26						
61	ok	2.26						
62	ok	1.67						
63	ok	2.22						
64	ok	2.23						
65	ok	2.23						
66	ok	0.70						
67	ok	0.95						
68	ok	1.11						
69	ok	1.19						
70	ok	1.26						
71	ok	1.31						
72	ok	1.33						
73	ok	1.33						
74	ok	1.30						
75	ok	1.24						
76	ok	1.14						
77	ok	1.01						
78	ok	0.85						
79	ok	0.72						
80	ok	1.60						
81	ok	2.97						
82	ok Av	4.90	0.13	0.07	4.9	2.7	230.2	125.9
83	ok	3.57						
84	ok	1.49						
85	ok	0.80						
86	ok	0.89						
87	ok	0.95						
88	ok	0.95						
89	ok	0.89						
90	ok	0.72						
91	ok	2.01						
92	ok	2.01						
93	ok	1.67						
94	ok	2.14						
95	ok	2.14						
96	ok	1.05						
97	ok	1.26						
98	ok	1.64						
99	ok	1.82						
100	ok	1.89						
101	ok	1.92						
102	ok	2.05						
103	ok	2.17						
104	ok	2.17						
105	ok	2.13						
106	ok	1.94						
107	ok	1.76						
108	ok	1.65						
109	ok	1.47						
110	ok	1.18						
111	ok	1.23						
112	ok	2.37						
113	ok	2.37						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
114	ok	2.26						
115	ok	1.20						
116	ok	1.26						
117	ok	1.55						
118	ok	1.65						
119	ok	1.65						
120	ok	1.58						
121	ok	1.30						
122	ok	1.05						
123	ok	1.57						
124	ok	1.57						
125	ok	1.51						
126	ok	1.51						
127	ok	1.45						
128	ok	2.06						
129	ok	2.36						
130	ok	2.52						
131	ok	2.56						
132	ok	2.56						
133	ok	2.52						
134	ok	3.24						
135	ok	3.24						
136	ok	3.17						
137	ok	2.39						
138	ok	2.39						
139	ok	2.39						
140	ok	2.24						
141	ok	1.91						
142	ok	1.35						
143	ok	1.23						
144	ok	1.23						
145	ok	0.88						
146	ok	1.48						
147	ok	2.02						
148	ok	2.32						
149	ok	2.43						
150	ok	2.43						
151	ok	2.36						
152	ok	2.09						
153	ok	1.54						
154	ok	1.05						
155	ok	1.05						
156	ok	0.89						
157	ok	0.89						
158	ok	1.45						
159	ok	2.06						
160	ok	2.36						
161	ok	2.52						
162	ok	2.56						
163	ok	2.56						
164	ok	2.52						
165	ok	3.24						
166	ok	3.24						
167	ok	3.17						
168	ok	2.39						
169	ok	2.39						
170	ok	2.39						
171	ok	2.24						
172	ok	1.91						
173	ok	1.35						
174	ok	0.65						
175	ok	1.23						
176	ok	0.71						
177	ok	1.48						
178	ok	2.02						
179	ok	2.32						
180	ok	2.43						
181	ok	2.43						
182	ok	2.36						
183	ok	2.09						
184	ok	1.54						
185	ok	0.88						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
186	ok	0.59						
187	ok	0.53						
188	ok	0.79						
189	ok	0.98						
190	ok	0.98						
191	ok	0.91						
192	ok	0.90						
193	ok	0.87						
194	ok	0.98						
195	ok	1.45						
196	ok	2.70						
197	ok	2.70						
198	ok	2.59						
199	ok	1.26						
200	ok	0.82						
201	ok	0.62						
202	ok	0.50						
203	ok	0.43						
204	ok	0.37						
205	ok	0.32						
206	ok	0.45						
207	ok	0.28						
208	ok	0.35						
209	ok	0.51						
210	ok	0.65						
211	ok	0.75						
212	ok	0.81						
213	ok	0.84						
214	ok	0.86						
215	ok	0.86						
216	ok	0.73						
217	ok	0.59						
218	ok	0.71						
219	ok	0.71						
220	ok	0.70						
221	ok	0.71						
222	ok	0.74						
223	ok	0.76						
224	ok	0.76						
225	ok	0.82						
226	ok	1.10						
227	ok	1.62						
228	ok	1.62						
229	ok	1.50						
230	ok	0.98						
231	ok	0.68						
232	ok	0.52						
233	ok	0.41						
234	ok	0.32						
235	ok	0.27						
236	ok	0.36						
237	ok	0.40						
238	ok	0.40						
239	ok	0.35						
240	ok	0.43						
241	ok	0.55						
242	ok	0.63						
243	ok	0.65						
244	ok	0.65						
245	ok	0.63						
246	ok	0.56						
247	ok	0.78						
248	ok	0.78						
249	ok	0.80						
250	ok	0.80						
251	ok	0.59						
252	ok	0.54						
253	ok	0.59						
254	ok	0.63						
255	ok	0.63						
256	ok	0.62						
257	ok	0.64						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
258	ok	0.94						
259	ok	0.94						
260	ok	0.83						
261	ok	0.57						
262	ok	0.50						
263	ok	0.46						
264	ok	0.41						
265	ok	0.37						
266	ok	0.46						
267	ok	0.64						
268	ok	0.71						
269	ok	0.71						
270	ok	0.53						
271	ok	0.45						
272	ok	0.50						
273	ok	0.54						
274	ok	0.54						
275	ok	0.54						
276	ok	0.49						
277	ok	0.49						
278	ok	0.83						
279	ok	0.83						
280	ok	0.84						
281	ok	0.84						
282	ok	0.53						
283	ok	0.43						
284	ok	0.49						
285	ok	0.52						
286	ok	0.52						
287	ok	0.51						
288	ok	0.67						
289	ok	0.95						
290	ok	0.95						
291	ok	0.85						
292	ok	0.55						
293	ok	0.44						
294	ok	0.44						
295	ok	0.41						
296	ok	0.46						
297	ok	0.65						
298	ok	0.93						
...								
496	ok	0.66						
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		4.90	0.13	0.07	4.89	2.67	230.21	125.95

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
8	30.00	6	9	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1211	ok	0.16	0.2	2.24e-03	10.5	10.5	10.2	10.2	12.0	8.6	3.9	1353.7	165.9	-639.8
1212	ok	0.16	0.2	2.98e-03	10.5	10.5	10.2	10.2	11.2	4.6	3.9	1374.8	271.9	-860.2
1213	ok	0.16	0.1	3.76e-03	10.5	10.5	10.2	10.2	8.5	1.1	-2.7	-399.9	-19.0	-934.7
1214	ok	0.16	0.1	4.04e-03	10.5	10.5	10.2	10.2	8.2	-0.7	-2.7	-393.4	13.3	-872.5
1215	ok	0.16	9.80e-02	4.06e-03	10.5	10.5	10.2	10.2	-15.5	-1.9	-8.15e-02	-457.4	10.2	-698.5
1216	ok	0.16	7.66e-02	4.04e-03	10.5	10.5	10.2	10.2	-13.1	-1.8	-0.3	-424.0	25.4	-543.7
1217	ok	0.16	6.17e-02	3.85e-03	10.5	10.5	10.2	10.2	-10.9	-1.7	-0.9	-384.7	44.2	-404.6
1218	ok	0.16	8.06e-02	3.48e-03	10.5	10.5	10.2	10.2	4.3	-0.4	2.1	-408.8	109.4	-236.4
1219	ok	0.16	8.02e-02	3.02e-03	10.5	10.5	10.2	10.2	1.2	0.3	0.9	-462.5	123.1	-161.1
1220	ok	0.16	7.72e-02	2.64e-03	10.5	10.5	10.2	10.2	1.3	0.8	0.9	-458.8	141.5	-134.1
1221	ok	0.16	9.26e-02	2.51e-03	10.5	10.5	10.2	10.2	4.9	0.9	-1.5	-556.2	124.7	24.7
1222	ok	0.16	9.44e-02	2.87e-03	10.5	10.5	10.2	10.2	-19.8	-3.0	-0.3	-727.2	-53.4	252.7



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1223	ok	0.16	0.1	2.91e-03	10.5	10.5	10.2	10.2	5.3	-0.9	1.2	-845.1	-79.6	434.9
1224	ok	0.16	0.1	3.06e-03	10.5	10.5	10.2	10.2	2.8	3.07e-02	1.3	-772.6	-32.1	664.3
1225	ok	0.16	0.1	3.26e-03	10.5	10.5	10.2	10.2	2.8	0.1	1.3	-798.0	-159.4	770.3
1226	ok	0.16	0.1	3.32e-03	10.5	10.5	10.2	10.2	-1.4	-1.2	1.9	-566.2	-94.6	1020.5
1227	ok	0.16	0.2	3.53e-03	10.5	10.5	10.2	10.2	-18.5	-2.1	4.6	846.1	241.1	1169.5
1228	ok	0.16	0.3	5.51e-03	10.5	10.5	10.2	10.2	-22.8	1.0	-3.14e-02	3087.1	511.6	768.7
1229	ok	0.16	0.3	5.85e-03	10.5	10.5	10.2	10.2	-21.2	8.7	-3.14e-02	3075.2	452.4	374.3
1230	ok	0.16	0.3	5.88e-03	10.5	10.5	10.2	10.2	-27.8	-2.0	-0.6	2318.0	416.5	-531.2
1231	ok	0.16	9.60e-02	4.42e-03	10.5	10.5	10.2	10.2	-12.3	0.7	-5.2	-476.1	-86.2	-696.4
1232	ok	0.16	9.13e-02	5.33e-03	10.5	10.5	10.2	10.2	3.0	2.7	-6.8	-672.2	-114.2	-480.0
1233	ok	0.16	8.53e-02	5.82e-03	10.5	10.5	10.2	10.2	1.6	-4.4	-6.8	-661.6	-61.3	-382.8
1234	ok	0.16	8.66e-02	5.91e-03	10.5	10.5	10.2	10.2	-22.9	-2.3	3.4	-766.2	-141.9	-96.4
1235	ok	0.16	9.35e-02	5.58e-03	10.5	10.5	10.2	10.2	-13.0	-1.6	-2.4	-714.6	-32.3	257.8
1236	ok	0.16	9.82e-02	4.82e-03	10.5	10.5	10.2	10.2	5.0	-0.4	2.4	-668.6	-37.1	510.4
1237	ok	0.16	0.1	4.20e-03	10.5	10.5	10.2	10.2	5.2	1.0	2.4	-672.7	-57.3	597.6
1238	ok	0.16	0.1	3.29e-03	10.5	10.5	10.2	10.2	5.9	3.4	-3.3	823.4	178.0	645.0
1239	ok	0.16	0.1	2.59e-03	10.5	10.5	10.2	10.2	6.6	6.8	-3.3	811.5	118.4	477.7
1240	ok	0.16	0.1	2.74e-03	10.5	10.5	10.2	10.2	-10.1	7.4	-6.9	853.9	311.1	-616.5
1241	ok	0.16	0.1	2.63e-03	10.5	10.5	10.2	10.2	-10.8	4.2	-6.9	856.8	325.9	-851.6
1242	ok	0.16	0.1	2.61e-03	10.5	10.5	10.2	10.2	5.8	1.6	-6.6	-187.8	295.2	-951.6
1243	ok	0.16	0.1	2.89e-03	10.5	10.5	10.2	10.2	5.0	-2.3	-6.6	-159.3	437.9	-886.7
1244	ok	0.16	0.1	3.07e-03	10.5	10.5	10.2	10.2	8.1	-3.7	-4.5	-107.6	584.3	-722.8
1245	ok	0.16	9.75e-02	3.02e-03	10.5	10.5	10.2	10.2	9.8	-3.5	-0.9	-28.7	704.6	-548.1
1246	ok	0.16	9.18e-02	2.88e-03	10.5	10.5	10.2	10.2	9.8	-2.1	2.7	-20.2	776.9	-395.2
1247	ok	0.16	9.48e-02	2.72e-03	10.5	10.5	10.2	10.2	5.2	-0.2	5.1	-181.4	794.6	-230.5
1248	ok	0.16	0.1	2.49e-03	10.5	10.5	10.2	10.2	3.6	2.7	2.7	-252.9	810.3	-158.8
1249	ok	0.16	0.1	2.21e-03	10.5	10.5	10.2	10.2	3.8	4.1	2.7	-249.6	827.2	-125.5
1250	ok	0.16	0.1	1.94e-03	10.5	10.5	10.2	10.2	2.6	2.0	-0.9	-273.1	854.4	-61.2
1251	ok	0.16	9.67e-02	2.36e-03	10.5	10.5	10.2	10.2	4.5	-1.9	-1.3	-264.5	844.0	142.1
1252	ok	0.16	8.69e-02	3.38e-03	10.5	10.5	10.2	10.2	3.6	-1.2	1.2	-626.6	-35.9	448.6
1253	ok	0.16	9.85e-02	2.10e-03	10.5	10.5	10.2	10.2	4.0	0.9	2.4	-641.6	-183.0	522.2
1254	ok	0.16	0.1	3.03e-03	10.5	10.5	10.2	10.2	1.0	-3.0	2.1	-472.8	153.3	871.1
1255	ok	0.16	0.2	3.42e-03	10.5	10.5	10.2	10.2	-4.6	-7.3	10.3	99.4	645.6	1261.4
1256	ok	0.16	0.2	3.98e-03	10.5	10.5	10.2	10.2	-9.9	-1.9	10.5	623.8	492.4	1114.4
1257	ok	0.16	0.2	4.10e-03	10.5	10.5	10.2	10.2	-16.0	5.9	6.8	1959.4	646.9	753.9
1258	ok	0.16	0.2	3.47e-03	10.5	10.5	10.2	10.2	-13.9	16.5	6.8	1934.0	519.9	357.9
1259	ok	0.16	0.2	3.43e-03	10.5	10.5	10.2	10.2	-11.3	2.6	-5.3	1415.7	518.3	-486.1
1260	ok	0.16	0.2	4.33e-03	10.5	10.5	10.2	10.2	-5.8	-4.0	-9.5	234.7	427.6	-778.3
1261	ok	0.16	0.2	6.83e-03	10.5	10.5	10.2	10.2	2.3	1.4	-11.2	-431.4	-50.5	-543.3
1262	ok	0.16	7.52e-02	4.28e-03	10.5	10.5	10.2	10.2	-0.3	-11.5	-11.2	-494.4	-365.2	-251.9
1263	ok	0.16	9.28e-02	4.56e-03	10.5	10.5	10.2	10.2	2.9	-1.5	-2.8	-194.4	690.1	-88.9
1264	ok	0.16	6.80e-02	3.55e-03	10.5	10.5	10.2	10.2	3.5	-2.4	3.2	-326.3	454.6	281.1
1265	ok	0.16	7.63e-02	3.40e-03	10.5	10.5	10.2	10.2	2.1	-1.4	4.9	-388.6	316.8	501.5
1266	ok	0.16	9.16e-02	3.06e-03	10.5	10.5	10.2	10.2	2.7	1.6	4.9	-415.5	182.1	606.3
1267	ok	0.16	0.1	2.80e-03	10.5	10.5	10.2	10.2	-7.7	4.2	3.2	457.7	240.0	642.0
1268	ok	0.16	8.60e-02	2.90e-03	10.5	10.5	10.2	10.2	-6.9	8.1	3.2	436.8	135.7	465.0
1269	ok	0.16	0.2	6.83e-03	10.5	10.5	10.2	10.2	3.6	-8.7	-16.0	362.9	1865.9	-513.9
1270	ok	0.16	0.2	6.83e-03	10.5	10.5	10.2	10.2	-4.76e-02	0.9	-11.2	153.0	66.4	-644.3
1271	ok	0.16	0.3	5.29e-03	10.5	10.5	10.2	10.2	-4.8	-14.5	-7.9	364.7	2707.9	-57.4
1272	ok	0.16	0.1	3.98e-03	10.5	10.5	10.2	10.2	-2.6	8.9	-6.9	266.1	193.5	-610.6
1273	ok	0.16	0.2	2.93e-03	10.5	10.5	10.2	10.2	-2.9	7.7	-7.9	373.4	730.1	-615.8
1274	ok	0.16	0.2	3.08e-03	10.5	10.5	10.2	10.2	-2.1	0.7	-11.4	254.8	1326.7	-724.7
1275	ok	0.16	0.2	3.23e-03	10.5	10.5	10.2	10.2	6.3	-4.8	-7.6	381.3	1969.2	-583.6
1276	ok	0.16	0.3	3.12e-03	10.5	10.5	10.2	10.2	5.5	-8.6	-7.6	470.1	2413.2	-554.2
1277	ok	0.16	0.3	3.02e-03	10.5	10.5	10.2	10.2	7.9	-8.8	-2.6	559.5	2637.1	-456.4
1278	ok	0.16	0.3	2.80e-03	10.5	10.5	10.2	10.2	8.8	-6.1	2.8	521.4	2639.9	-363.9
1279	ok	0.16	0.3	2.74e-03	10.5	10.5	10.2	10.2	8.4	-0.7	6.9	383.0	2517.5	-270.4
1280	ok	0.16	0.2	2.99e-03	10.5	10.5	10.2	10.2	6.5	5.8	8.2	228.6	2413.0	-183.1
1281	ok	0.16	0.2	3.41e-03	10.5	10.5	10.2	10.2	4.1	10.7	5.9	152.0	2391.0	-104.3
1282	ok	0.16	0.3	3.08e-03	10.5	10.5	10.2	10.2	1.5	3.2	-0.8	144.1	2563.8	14.9
1283	ok	0.16	0.3	4.56e-03	10.5	10.5	10.2	10.2	-3.73e-02	-4.5	-0.4	384.4	2824.7	-274.6
1284	ok	0.16	0.3	5.27e-03	10.5	10.5	10.2	10.2	5.8	-9.0	9.8	374.7	1945.5	1072.7
1285	ok	0.16	0.2	5.32e-03	10.5	10.5	10.2	10.2	-5.7	-3.3	14.8	508.0	1335.9	826.5
1286	ok	0.16	0.1	4.59e-03	10.5	10.5	10.2	10.2	-9.7	7.1	6.8	751.7	405.4	691.9
1287	ok	0.16	0.1	4.04e-03	10.5	10.5	10.2	10.2	-7.6	17.7	6.8	726.3	278.4	295.9
1288	ok	0.16	0.1	3.59e-03	10.5	10.5	10.2	10.2	-5.7	8.0	-11.0	458.7	533.5	-215.8
1289	ok	0.16	0.2	4.46e-03	10.5	10.5	10.2	10.2	6.5	7.45e-02	-14.7	357.6	1270.0	-509.8
1290	ok	0.16	0.2	3.89e-03	10.5	10.5	10.2	10.2	-5.2	-10.7	-8.4	307.8	2361.4	-47.8
1291	ok	0.16	0.2	3.18e-03	10.5	10.5	10.2	10.2	-0.3	-7.6	3.9	296.2	2208.5	130.1
1292	ok	0.16	0.2	3.12e-03	10.5	10.5	10.2	10.2	-1.4	-4.1	6.9	160.0	1801.7	305.7
1293	ok	0.16	0.1	3.31e-03	10.5	10.5	10.2	10.2	-2.7	2.1	6.2	51.4	1227.3	443.7
1294	ok	0.16	0.1	3.57e-03	10.5	10.5	10.2	10.2	-1.8	8.7	1.9	127.7	590.1	407.3



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1295	ok	0.16	9.08e-02	4.52e-03	10.5	10.5	10.2	10.2	-1.7	9.1	3.2	20.2	52.4	425.7
1296	ok	0.16	0.5	7.95e-03	10.5	10.5	10.2	10.2	-3.1	-17.8	0.4	939.4	5075.3	-691.1
1297	ok	0.16	9.61e-02	3.41e-03	10.5	10.5	10.2	10.2	9.4	2.0	2.1	165.5	-21.6	737.2
1298	ok	0.16	0.5	6.71e-03	10.5	10.5	10.2	10.2	3.8	-22.0	9.0	971.5	4397.9	-1523.1
1299	ok	0.16	0.1	6.63e-03	10.5	10.5	10.2	10.2	-6.9	12.7	-8.7	135.0	997.4	-3.4
1300	ok	0.16	0.1	4.42e-03	10.5	10.5	10.2	10.2	-2.8	13.5	-14.6	133.2	997.1	-129.9
1301	ok	0.16	0.3	4.38e-03	10.5	10.5	10.2	10.2	0.8	1.7	-15.4	569.5	2772.3	-78.9
1302	ok	0.16	0.4	4.27e-03	10.5	10.5	10.2	10.2	4.6	-8.4	-10.9	874.1	4034.0	-156.4
1303	ok	0.16	0.5	4.00e-03	10.5	10.5	10.2	10.2	7.5	-12.8	-4.8	1049.9	4813.8	-255.6
1304	ok	0.16	0.5	4.06e-03	10.5	10.5	10.2	10.2	7.2	-14.1	-4.8	1104.0	5084.3	-337.5
1305	ok	0.16	0.5	3.65e-03	10.5	10.5	10.2	10.2	9.8	-10.9	1.8	1044.1	4924.4	-416.7
1306	ok	0.16	0.5	3.17e-03	10.5	10.5	10.2	10.2	10.7	-2.0	7.8	871.5	4451.8	-400.1
1307	ok	0.16	0.4	3.95e-03	10.5	10.5	10.2	10.2	9.1	5.8	10.5	684.9	4037.4	-250.2
1308	ok	0.16	0.4	6.42e-03	10.5	10.5	10.2	10.2	6.5	21.9	10.7	644.1	4125.5	-72.8
1309	ok	0.16	0.4	4.54e-03	10.5	10.5	10.2	10.2	1.0	2.6	-1.7	704.4	4317.4	174.8
1310	ok	0.16	0.5	4.91e-03	10.5	10.5	10.2	10.2	1.7	-8.5	-2.3	789.0	5210.1	412.3
1311	ok	0.16	0.5	7.41e-03	10.5	10.5	10.2	10.2	11.5	-7.0	-0.1	1779.7	4104.1	1830.5
1312	ok	0.16	0.2	5.04e-03	10.5	10.5	10.2	10.2	14.0	5.3	-0.1	1010.4	257.4	1277.8
1313	ok	0.16	0.4	9.32e-03	10.5	10.5	10.2	10.2	-2.5	-16.8	6.9	1535.2	3897.7	-1332.4
1314	ok	0.16	0.4	6.31e-03	10.5	10.5	10.2	10.2	-2.0	-14.5	10.9	764.6	3977.8	159.9
1315	ok	0.16	0.2	5.80e-03	10.5	10.5	10.2	10.2	5.9	-0.8	14.1	425.6	1927.5	-231.8
1316	ok	0.16	0.1	4.80e-03	10.5	10.5	10.2	10.2	0.3	12.1	12.9	161.0	808.2	92.7
1317	ok	0.16	8.74e-02	3.72e-03	10.5	10.5	10.2	10.2	2.3	22.1	11.3	24.7	126.8	148.5
1318	ok	0.16	8.19e-02	4.22e-03	10.5	10.5	10.2	10.2	3.8	13.0	-11.0	58.4	613.5	187.2
1319	ok	0.16	0.2	6.21e-03	10.5	10.5	10.2	10.2	-1.4	-6.2	-11.5	283.5	2047.3	263.9
1320	ok	0.16	0.3	1.11e-02	10.5	10.5	10.2	10.2	-9.8	-36.2	-7.5	36.3	2582.1	816.8
1321	ok	0.16	0.2	6.03e-03	10.5	10.5	10.2	10.2	-9.3	-6.7	-15.5	941.5	1068.6	1406.2
1322	ok	0.16	0.4	9.06e-03	10.5	10.5	10.2	10.2	17.0	2.7	-7.7	1409.6	4085.9	-704.8
1323	ok	0.16	0.5	4.29e-03	10.5	10.5	10.2	10.2	-0.3	-16.6	0.5	929.5	4710.5	-100.8
1324	ok	0.16	0.4	3.97e-03	10.5	10.5	10.2	10.2	-2.6	-12.0	5.2	954.9	4550.4	-132.3
1325	ok	0.16	0.4	3.90e-03	10.5	10.5	10.2	10.2	-1.6	-6.9	5.2	826.7	3909.1	-194.1
1326	ok	0.16	0.3	4.11e-03	10.5	10.5	10.2	10.2	-3.2	2.5	9.1	505.1	2698.4	-186.5
1327	ok	0.16	0.1	4.63e-03	10.5	10.5	10.2	10.2	-4.7	16.9	8.5	143.4	1182.8	-141.2
1328	ok	0.16	8.78e-02	7.15e-03	10.5	10.5	10.2	10.2	-5.9	11.3	1.9	-168.9	40.7	116.7
1329	ok	0.16	9.78e-02	6.63e-03	10.5	10.5	10.2	10.2	-3.0	45.9	-32.5	-72.9	308.1	209.0
1330	ok	0.16	0.1	6.63e-03	10.5	10.5	10.2	10.2	-10.7	-1.4	-5.1	162.0	960.5	677.8
1331	ok	0.16	0.3	5.28e-03	10.5	10.5	10.2	10.2	-10.6	-0.6	-14.6	522.4	2762.9	308.9
1332	ok	0.16	0.4	4.62e-03	10.5	10.5	10.2	10.2	-3.6	-10.0	-15.4	727.7	4004.7	152.4
1333	ok	0.16	0.5	4.27e-03	10.5	10.5	10.2	10.2	7.7	-12.8	-4.8	929.6	4789.8	-192.0
1334	ok	0.16	0.5	4.27e-03	10.5	10.5	10.2	10.2	10.3	-13.5	1.8	993.8	5062.2	-397.6
1335	ok	0.16	0.5	3.85e-03	10.5	10.5	10.2	10.2	11.6	-10.5	7.8	977.6	4911.1	-517.4
1336	ok	0.16	0.5	4.30e-03	10.5	10.5	10.2	10.2	13.4	-1.4	7.8	886.3	4454.7	-507.3
1337	ok	0.16	0.4	5.76e-03	10.5	10.5	10.2	10.2	12.6	6.5	10.5	833.3	4067.1	-342.5
1338	ok	0.16	0.4	6.57e-03	10.5	10.5	10.2	10.2	6.4	21.9	-1.7	847.4	4166.1	79.6
1339	ok	0.16	0.5	5.37e-03	10.5	10.5	10.2	10.2	4.6	3.4	-2.3	863.2	4349.1	452.0
1340	ok	0.16	0.5	4.96e-03	10.5	10.5	10.2	10.2	2.3	-8.4	-2.3	1045.7	5261.4	626.7
1341	ok	0.16	0.5	5.76e-03	10.5	10.5	10.2	10.2	2.3	-11.0	-0.1	1102.6	4615.0	1023.3
1342	ok	0.16	0.1	3.97e-03	10.5	10.5	10.2	10.2	10.2	29.5	2.1	341.0	921.1	383.8
1343	ok	0.16	0.4	6.84e-03	10.5	10.5	10.2	10.2	-3.1	-18.3	6.9	930.0	4041.8	-500.7
1344	ok	0.16	0.4	6.19e-03	10.5	10.5	10.2	10.2	-5.2	-15.1	10.9	768.1	3978.5	-325.4
1345	ok	0.16	0.2	6.32e-03	10.5	10.5	10.2	10.2	-2.7	-2.5	10.9	355.1	1913.4	-323.1
1346	ok	0.16	0.2	7.47e-03	10.5	10.5	10.2	10.2	5.9	-0.8	14.1	425.6	1927.5	-231.8
1347	ok	0.16	9.38e-02	6.80e-03	10.5	10.5	10.2	10.2	10.7	-6.6	-14.5	105.9	70.5	200.6
1348	ok	0.16	0.1	7.15e-03	10.5	10.5	10.2	10.2	9.7	14.2	-11.5	119.8	625.8	518.3
1349	ok	0.16	0.2	6.13e-03	10.5	10.5	10.2	10.2	4.7	-5.0	-7.5	394.2	2069.4	633.3
1350	ok	0.16	0.3	7.03e-03	10.5	10.5	10.2	10.2	1.3	-21.8	-7.5	463.3	2415.0	818.7
1351	ok	0.16	0.4	6.09e-03	10.5	10.5	10.2	10.2	2.9	-0.3	-7.7	816.9	3800.0	32.6
1352	ok	0.16	0.5	4.65e-03	10.5	10.5	10.2	10.2	-1.9	-16.9	0.5	890.4	4702.7	-141.2
1353	ok	0.16	0.4	4.37e-03	10.5	10.5	10.2	10.2	-4.0	-12.3	5.2	864.2	4532.3	-283.0
1354	ok	0.16	0.4	4.39e-03	10.5	10.5	10.2	10.2	-7.4	-8.1	9.1	719.9	3887.8	-450.8
1355	ok	0.16	0.3	4.50e-03	10.5	10.5	10.2	10.2	-11.5	0.8	8.5	466.9	2690.8	-510.0
1356	ok	0.16	0.1	5.65e-03	10.5	10.5	10.2	10.2	-12.1	-1.8	1.4	114.1	927.2	-827.6
1357	ok	0.16	9.85e-02	8.14e-03	10.5	10.5	10.2	10.2	-19.2	-15.6	-4.9	-55.7	64.0	-593.8
1358	ok	0.16	0.1	8.01e-03	10.5	10.5	10.2	10.2	-18.1	-19.3	-13.0	58.6	-3.8	1065.7
1359	ok	0.16	0.2	6.33e-03	10.5	10.5	10.2	10.2	-14.7	-2.2	-1.4	255.2	979.2	913.7
1360	ok	0.16	0.2	3.62e-03	10.5	10.5	10.2	10.2	-3.3	13.9	-5.1	-21.1	1402.1	763.9
1361	ok	0.16	0.2	2.52e-03	10.5	10.5	10.2	10.2	2.2	24.2	-3.4	-95.9	1652.4	434.2
1362	ok	0.16	0.2	2.61e-03	10.5	10.5	10.2	10.2	9.1	29.1	4.0	-74.1	1744.7	-146.9
1363	ok	0.16	0.2	2.82e-03	10.5	10.5	10.2	10.2	12.0	29.5	7.0	30.2	1717.1	-479.8
1364	ok	0.16	0.2	3.24e-03	10.5	10.5	10.2	10.2	14.3	26.7	9.5	227.8	1600.8	-696.6
1365	ok	0.16	0.2	4.23e-03	10.5	10.5	10.2	10.2	14.7	20.7	10.1	681.9	1464.9	-699.3
1366	ok	0.16	0.2	6.15e-03	10.5	10.5	10.2	10.2	12.7	20.1	13.1	793.2	1188.8	-348.7



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1367	ok	0.16	0.2	6.35e-03	10.5	10.5	10.2	10.2	12.7	32.4	-8.3	816.2	960.2	228.0
1368	ok	0.16	0.2	4.24e-03	10.5	10.5	10.2	10.2	10.3	20.0	-8.3	890.0	1329.0	507.6
1369	ok	0.16	0.2	4.04e-03	10.5	10.5	10.2	10.2	11.4	23.6	-4.6	640.3	1514.5	852.1
1370	ok	0.16	0.2	4.28e-03	10.5	10.5	10.2	10.2	6.9	27.2	2.1	-414.0	1033.1	598.1
1371	ok	0.16	0.1	3.88e-03	10.5	10.5	10.2	10.2	7.2	28.9	2.1	-468.8	759.1	274.2
1372	ok	0.16	0.1	4.18e-03	10.5	10.5	10.2	10.2	6.4	25.2	11.2	-231.4	968.9	-483.3
1373	ok	0.16	0.2	5.02e-03	10.5	10.5	10.2	10.2	8.9	22.1	17.6	33.0	1035.3	-737.4
1374	ok	0.16	0.2	6.06e-03	10.5	10.5	10.2	10.2	13.3	11.9	21.6	428.3	778.3	-802.2
1375	ok	0.16	0.1	7.37e-03	10.5	10.5	10.2	10.2	14.8	-5.0	17.8	1014.7	331.4	-436.9
1376	ok	0.16	0.1	7.71e-03	10.5	10.5	10.2	10.2	13.5	-6.1	-14.5	1036.4	256.5	272.0
1377	ok	0.16	0.2	7.23e-03	10.5	10.5	10.2	10.2	13.7	-4.9	-14.5	1072.0	435.0	644.2
1378	ok	0.16	0.2	5.88e-03	10.5	10.5	10.2	10.2	13.6	9.0	-18.6	324.6	607.1	986.5
1379	ok	0.16	0.2	4.85e-03	10.5	10.5	10.2	10.2	4.2	19.7	-14.1	-565.2	-445.4	811.8
1380	ok	0.16	0.2	4.11e-03	10.5	10.5	10.2	10.2	7.5	35.7	-16.8	-247.8	1141.8	535.8
1381	ok	0.16	0.2	3.39e-03	10.5	10.5	10.2	10.2	4.0	35.3	-10.3	-127.9	1550.8	196.1
1382	ok	0.16	0.2	3.25e-03	10.5	10.5	10.2	10.2	1.4	32.8	-3.4	-67.8	1685.9	-367.2
1383	ok	0.16	0.2	3.11e-03	10.5	10.5	10.2	10.2	-1.1	27.4	0.2	-27.2	1626.1	-688.5
1384	ok	0.16	0.2	3.17e-03	10.5	10.5	10.2	10.2	-5.3	16.1	1.4	54.9	1420.8	-972.4
1385	ok	0.16	0.2	5.69e-03	10.5	10.5	10.2	10.2	-16.9	-2.7	-4.9	361.6	976.7	-1023.1
1386	ok	0.16	0.1	8.15e-03	10.5	10.5	10.2	10.2	-20.0	-18.0	7.2	165.3	-4.9	-1138.2
1387	ok	0.16	0.1	6.59e-03	10.5	10.5	10.2	10.2	7.4	-14.4	-12.0	-116.3	-43.5	968.5
1388	ok	0.16	0.2	4.87e-03	10.5	10.5	10.2	10.2	4.7	-3.3	-11.6	-754.6	-582.5	918.3
1389	ok	0.16	0.2	3.74e-03	10.5	10.5	10.2	10.2	4.6	6.3	-8.0	-1089.2	-988.3	626.3
1390	ok	0.16	0.2	2.22e-03	10.5	10.5	10.2	10.2	6.4	15.3	-8.0	-1125.3	-1169.0	468.5
1391	ok	0.16	0.2	2.32e-03	10.5	10.5	10.2	10.2	6.2	21.1	-4.0	-1204.6	-1221.8	102.1
1392	ok	0.16	0.2	2.59e-03	10.5	10.5	10.2	10.2	6.7	22.8	-0.3	-1107.2	-1112.0	-262.8
1393	ok	0.16	0.2	3.23e-03	10.5	10.5	10.2	10.2	8.1	21.0	2.9	-845.2	-879.3	-565.9
1394	ok	0.16	0.2	4.33e-03	10.5	10.5	10.2	10.2	10.0	16.9	5.9	-333.9	-565.0	-763.3
1395	ok	0.16	0.2	6.26e-03	10.5	10.5	10.2	10.2	15.6	17.4	16.3	1620.2	264.8	-578.0
1396	ok	0.16	0.2	7.06e-03	10.5	10.5	10.2	10.2	10.5	1.5	-6.6	1616.4	271.8	262.3
1397	ok	0.16	0.2	4.36e-03	10.5	10.5	10.2	10.2	13.7	17.9	-9.4	1606.0	219.8	699.4
1398	ok	0.16	0.2	3.56e-03	10.5	10.5	10.2	10.2	7.3	17.0	1.9	-738.1	-789.4	672.3
1399	ok	0.16	0.2	3.46e-03	10.5	10.5	10.2	10.2	6.1	20.1	4.8	-1274.1	-1089.6	389.6
1400	ok	0.16	0.2	3.55e-03	10.5	10.5	10.2	10.2	6.2	20.8	4.8	-1303.0	-1234.0	218.6
1401	ok	0.16	0.2	3.92e-03	10.5	10.5	10.2	10.2	5.6	18.2	7.5	-1413.3	-1215.0	-182.9
1402	ok	0.16	0.2	4.97e-03	10.5	10.5	10.2	10.2	6.4	12.8	9.7	-1174.4	-1008.7	-522.1
1403	ok	0.16	0.2	5.94e-03	10.5	10.5	10.2	10.2	8.9	5.5	11.3	-527.4	-591.4	-745.4
1404	ok	0.16	0.2	6.79e-03	10.5	10.5	10.2	10.2	17.7	-1.3	15.5	2072.8	358.1	-505.7
1405	ok	0.16	0.2	7.76e-03	10.5	10.5	10.2	10.2	15.4	-7.3	-13.7	2060.6	345.3	236.7
1406	ok	0.16	0.2	7.02e-03	10.5	10.5	10.2	10.2	16.7	-0.8	-13.7	2044.1	262.8	656.0
1407	ok	0.16	0.2	5.98e-03	10.5	10.5	10.2	10.2	8.1	8.3	-12.0	-609.0	-747.0	883.5
1408	ok	0.16	0.2	4.72e-03	10.5	10.5	10.2	10.2	4.2	17.8	-10.7	-1074.7	-1196.8	726.8
1409	ok	0.16	0.2	3.81e-03	10.5	10.5	10.2	10.2	5.9	26.0	-10.7	-1125.4	-1450.2	606.5
1410	ok	0.16	0.2	3.09e-03	10.5	10.5	10.2	10.2	2.7	28.2	-8.2	-1254.0	-1596.0	284.8
1411	ok	0.16	0.2	2.80e-03	10.5	10.5	10.2	10.2	2.5	25.6	-1.5	-1177.0	-1562.9	-288.7
1412	ok	0.16	0.2	2.70e-03	10.5	10.5	10.2	10.2	3.7	18.8	2.4	-1031.3	-1381.6	-637.2
1413	ok	0.16	0.2	3.00e-03	10.5	10.5	10.2	10.2	1.7	8.5	2.4	-974.1	-1095.6	-780.2
1414	ok	0.16	0.2	4.43e-03	10.5	10.5	10.2	10.2	2.6	-1.6	5.9	-630.7	-624.9	-1027.4
1415	ok	0.16	0.1	5.78e-03	10.5	10.5	10.2	10.2	4.7	-13.1	7.2	173.6	-3.2	-1122.2
1416	ok	0.16	0.1	4.87e-03	10.5	10.5	10.2	10.2	26.5	-3.7	-10.3	-289.2	-135.1	759.3
1417	ok	0.16	0.2	3.96e-03	10.5	10.5	10.2	10.2	17.8	-3.3	-4.9	-1063.4	-825.2	583.4
1418	ok	0.16	0.2	2.92e-03	10.5	10.5	10.2	10.2	11.3	3.2	-3.3	-1550.3	-1401.3	420.8
1419	ok	0.16	0.2	1.81e-03	10.5	10.5	10.2	10.2	7.9	12.0	-1.5	-1725.6	-1725.3	200.2
1420	ok	0.16	0.2	1.87e-03	10.5	10.5	10.2	10.2	9.3	18.9	-1.5	-1743.9	-1816.4	97.5
1421	ok	0.16	0.2	2.38e-03	10.5	10.5	10.2	10.2	7.3	20.7	1.63e-02	-1620.3	-1677.3	-149.9
1422	ok	0.16	0.2	3.13e-03	10.5	10.5	10.2	10.2	7.4	18.5	1.5	-1254.2	-1318.6	-372.6
1423	ok	0.16	0.1	4.64e-03	10.5	10.5	10.2	10.2	8.8	13.5	3.5	-574.6	-766.8	-530.0
1424	ok	0.16	0.3	6.30e-03	10.5	10.5	10.2	10.2	16.7	12.6	14.2	2505.3	263.1	-451.5
1425	ok	0.16	0.3	7.11e-03	10.5	10.5	10.2	10.2	14.7	2.4	14.2	2544.2	457.4	-119.4
1426	ok	0.16	0.2	4.47e-03	10.5	10.5	10.2	10.2	15.4	13.7	-6.6	2369.0	122.6	507.4
1427	ok	0.16	0.2	3.58e-03	10.5	10.5	10.2	10.2	7.4	13.9	3.6	-1077.7	-976.5	453.0
1428	ok	0.16	0.2	3.04e-03	10.5	10.5	10.2	10.2	6.6	17.7	5.5	-1759.8	-1465.8	237.4
1429	ok	0.16	0.2	3.24e-03	10.5	10.5	10.2	10.2	7.1	18.9	6.7	-1945.1	-1662.6	-8.1
1430	ok	0.16	0.2	3.95e-03	10.5	10.5	10.2	10.2	6.6	16.7	6.7	-1936.6	-1620.1	-108.8
1431	ok	0.16	0.2	4.80e-03	10.5	10.5	10.2	10.2	7.9	11.8	7.4	-1592.4	-1293.3	-334.1
1432	ok	0.16	0.2	5.78e-03	10.5	10.5	10.2	10.2	10.7	5.9	11.3	-724.8	-630.9	-625.4
1433	ok	0.16	0.3	6.58e-03	10.5	10.5	10.2	10.2	19.1	-0.8	11.9	2900.6	391.1	-375.5
1434	ok	0.16	0.3	7.63e-03	10.5	10.5	10.2	10.2	17.7	-7.5	8.2	2924.0	508.0	-103.6
1435	ok	0.16	0.3	6.98e-03	10.5	10.5	10.2	10.2	18.5	0.7	-11.5	2822.8	294.5	467.6
1436	ok	0.16	0.2	5.86e-03	10.5	10.5	10.2	10.2	9.1	8.5	-12.0	-728.3	-770.9	734.9
1437	ok	0.16	0.2	4.69e-03	10.5	10.5	10.2	10.2	5.5	17.0	-7.4	-1432.6	-1542.2	463.4



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1438	ok	0.16	0.2	3.50e-03	10.5	10.5	10.2	10.2	3.6	23.7	-6.9	-1711.3	-1990.3	288.8
1439	ok	0.16	0.2	2.79e-03	10.5	10.5	10.2	10.2	4.0	26.1	-6.9	-1756.0	-2213.6	200.0
1440	ok	0.16	0.2	2.35e-03	10.5	10.5	10.2	10.2	6.6	23.5	-4.7	-1714.4	-2210.3	-185.0
1441	ok	0.16	0.2	2.37e-03	10.5	10.5	10.2	10.2	5.0	15.3	-4.7	-1670.4	-1990.1	-285.5
1442	ok	0.16	0.2	2.53e-03	10.5	10.5	10.2	10.2	9.1	5.5	-2.9	-1407.7	-1546.3	-495.3
1443	ok	0.16	0.2	4.12e-03	10.5	10.5	10.2	10.2	16.0	-1.9	-1.1	-894.6	-881.1	-643.7
1444	ok	0.16	0.1	4.23e-03	10.5	10.5	10.2	10.2	24.2	-2.1	5.5	114.4	-51.3	-872.8
1445	ok	0.16	0.1	3.64e-03	10.5	10.5	10.2	10.2	34.8	5.0	-3.4	-326.6	-131.4	334.9
1446	ok	0.16	0.2	3.35e-03	10.5	10.5	10.2	10.2	24.2	-2.0	-4.9	-1183.2	-849.2	383.9
1447	ok	0.16	0.2	2.38e-03	10.5	10.5	10.2	10.2	15.6	4.1	-3.3	-1765.6	-1444.3	300.4
1448	ok	0.16	0.2	1.62e-03	10.5	10.5	10.2	10.2	9.8	11.9	2.6	-2015.2	-1939.9	73.1
1449	ok	0.16	0.2	1.78e-03	10.5	10.5	10.2	10.2	11.2	19.2	2.6	-2041.1	-2069.4	65.9
1450	ok	0.16	0.2	2.37e-03	10.5	10.5	10.2	10.2	7.9	20.8	1.3	-1912.2	-1910.7	-5.2
1451	ok	0.16	0.2	3.59e-03	10.5	10.5	10.2	10.2	7.4	18.6	1.5	-1481.6	-1364.1	-253.7
1452	ok	0.16	0.1	4.75e-03	10.5	10.5	10.2	10.2	9.2	13.6	3.5	-716.1	-795.1	-356.7
1453	ok	0.16	0.3	6.27e-03	10.5	10.5	10.2	10.2	17.3	7.8	10.3	3015.4	361.5	-243.1
1454	ok	0.16	0.3	6.99e-03	10.5	10.5	10.2	10.2	15.0	-3.5	6.9	3047.2	520.2	-65.5
1455	ok	0.16	0.3	4.36e-03	10.5	10.5	10.2	10.2	16.3	9.2	-2.6	2823.0	241.0	250.2
1456	ok	0.16	0.2	3.48e-03	10.5	10.5	10.2	10.2	8.7	14.2	3.6	-1281.6	-1017.3	306.0
1457	ok	0.16	0.2	2.80e-03	10.5	10.5	10.2	10.2	7.6	17.9	5.5	-2017.8	-1517.4	170.8
1458	ok	0.16	0.2	3.15e-03	10.5	10.5	10.2	10.2	7.9	18.7	5.7	-2225.9	-1858.1	-20.7
1459	ok	0.16	0.2	3.93e-03	10.5	10.5	10.2	10.2	7.6	16.9	5.7	-2213.0	-1793.3	-17.9
1460	ok	0.16	0.2	4.81e-03	10.5	10.5	10.2	10.2	9.0	12.0	7.4	-1805.9	-1336.0	-226.6
1461	ok	0.16	0.1	5.62e-03	10.5	10.5	10.2	10.2	11.9	5.4	7.8	-839.9	-741.2	-295.9
1462	ok	0.16	0.3	6.29e-03	10.5	10.5	10.2	10.2	20.6	-0.8	8.2	3356.7	468.2	-189.9
1463	ok	0.16	0.3	7.43e-03	10.5	10.5	10.2	10.2	19.2	-7.7	4.8	3382.0	594.7	-47.6
1464	ok	0.16	0.3	6.74e-03	10.5	10.5	10.2	10.2	20.3	0.8	-8.4	3249.7	355.2	219.3
1465	ok	0.16	0.1	5.70e-03	10.5	10.5	10.2	10.2	10.6	8.4	-7.7	-809.5	-925.6	341.1
1466	ok	0.16	0.2	4.65e-03	10.5	10.5	10.2	10.2	6.9	17.3	-7.4	-1587.2	-1573.1	299.9
1467	ok	0.16	0.2	3.60e-03	10.5	10.5	10.2	10.2	5.4	24.4	-5.8	-1965.5	-2194.7	58.9
1468	ok	0.16	0.2	2.64e-03	10.5	10.5	10.2	10.2	6.4	26.8	-7.7	-2071.9	-2465.1	6.8
1469	ok	0.16	0.2	2.21e-03	10.5	10.5	10.2	10.2	5.6	23.0	-7.7	-2074.7	-2479.4	4.0
1470	ok	0.16	0.2	2.11e-03	10.5	10.5	10.2	10.2	8.2	15.1	-9.1	-1957.8	-2221.7	-57.4
1471	ok	0.16	0.2	2.39e-03	10.5	10.5	10.2	10.2	14.4	6.5	-2.9	-1613.3	-1587.5	-332.3
1472	ok	0.16	0.2	4.06e-03	10.5	10.5	10.2	10.2	23.0	-0.5	-1.1	-1002.1	-902.6	-409.3
1473	ok	0.16	0.1	4.12e-03	10.5	10.5	10.2	10.2	33.9	6.9	-2.0	-83.0	-86.2	-351.2
1474	ok	0.16	9.66e-02	4.16e-03	10.5	10.5	10.2	10.2	31.2	-5.99e-02	9.7	-190.5	-86.5	-410.9
1475	ok	0.16	0.2	3.23e-03	10.5	10.5	10.2	10.2	22.1	-4.4	12.5	-1162.4	-865.1	-331.1
1476	ok	0.16	0.2	2.05e-03	10.5	10.5	10.2	10.2	14.3	5.8	9.7	-1779.7	-1496.6	-197.3
1477	ok	0.16	0.2	1.79e-03	10.5	10.5	10.2	10.2	9.3	13.9	6.8	-2031.2	-1933.0	-88.5
1478	ok	0.16	0.2	2.06e-03	10.5	10.5	10.2	10.2	10.3	19.1	2.6	-2059.2	-2073.0	14.1
1479	ok	0.16	0.2	2.73e-03	10.5	10.5	10.2	10.2	7.5	23.5	2.6	-1933.6	-1897.5	150.6
1480	ok	0.16	0.2	3.78e-03	10.5	10.5	10.2	10.2	6.7	18.2	-1.3	-1559.9	-1496.0	242.0
1481	ok	0.16	0.1	4.78e-03	10.5	10.5	10.2	10.2	8.6	8.2	-3.1	-760.6	-856.8	259.5
1482	ok	0.16	0.3	6.21e-03	10.5	10.5	10.2	10.2	17.8	-1.5	3.3	3098.5	344.2	161.9
1483	ok	0.16	0.3	6.74e-03	10.5	10.5	10.2	10.2	16.4	-8.8	3.3	3144.6	575.1	-8.8
1484	ok	0.16	0.3	4.36e-03	10.5	10.5	10.2	10.2	17.1	4.0	4.8	2894.8	270.3	-190.1
1485	ok	0.16	0.2	3.57e-03	10.5	10.5	10.2	10.2	9.0	9.6	8.3	-1331.5	-1064.8	-276.2
1486	ok	0.16	0.2	3.02e-03	10.5	10.5	10.2	10.2	7.8	16.4	7.6	-2052.8	-1643.2	-194.6
1487	ok	0.16	0.2	3.20e-03	10.5	10.5	10.2	10.2	8.5	20.9	4.5	-2223.6	-1880.5	-27.4
1488	ok	0.16	0.2	3.72e-03	10.5	10.5	10.2	10.2	8.1	19.0	4.5	-2213.4	-1829.2	88.9
1489	ok	0.16	0.2	4.59e-03	10.5	10.5	10.2	10.2	9.7	12.8	1.6	-1837.1	-1452.7	224.9
1490	ok	0.16	0.1	5.45e-03	10.5	10.5	10.2	10.2	12.9	5.8	0.2	-860.4	-786.7	271.1
1491	ok	0.16	0.3	5.91e-03	10.5	10.5	10.2	10.2	22.2	-1.4	4.8	3375.2	484.6	2.5
1492	ok	0.16	0.3	7.07e-03	10.5	10.5	10.2	10.2	21.0	-7.4	4.8	3397.8	597.8	7.7
1493	ok	0.16	0.3	6.43e-03	10.5	10.5	10.2	10.2	22.3	-3.4	-2.3	3262.3	342.4	-232.5
1494	ok	0.16	0.2	5.47e-03	10.5	10.5	10.2	10.2	11.9	7.1	1.2	-817.0	-987.0	-359.4
1495	ok	0.16	0.2	4.58e-03	10.5	10.5	10.2	10.2	8.5	18.9	-1.0	-1598.6	-1673.8	-302.3
1496	ok	0.16	0.2	3.73e-03	10.5	10.5	10.2	10.2	7.1	27.2	-4.7	-1960.1	-2155.9	-188.3
1497	ok	0.16	0.3	2.93e-03	10.5	10.5	10.2	10.2	7.5	27.1	-7.7	-2078.9	-2466.5	1.1
1498	ok	0.16	0.3	2.41e-03	10.5	10.5	10.2	10.2	6.8	23.2	-7.7	-2081.8	-2480.8	-1.7
1499	ok	0.16	0.2	2.18e-03	10.5	10.5	10.2	10.2	9.5	16.7	-13.1	-1959.1	-2160.1	190.1
1500	ok	0.16	0.2	2.59e-03	10.5	10.5	10.2	10.2	14.2	7.5	-15.4	-1650.3	-1684.7	293.2
1501	ok	0.16	0.2	4.40e-03	10.5	10.5	10.2	10.2	21.5	-3.8	-17.8	-988.9	-886.7	383.7
1502	ok	0.16	9.00e-02	5.00e-03	10.5	10.5	10.2	10.2	28.5	-2.5	-13.6	265.1	-3.5	479.7
1503	ok	0.16	0.1	4.67e-03	10.5	10.5	10.2	10.2	19.8	-13.2	9.1	119.3	-173.8	-928.1
1504	ok	0.16	0.2	4.55e-03	10.5	10.5	10.2	10.2	12.5	4.6	12.4	-988.4	-1002.6	-647.8
1505	ok	0.16	0.2	2.73e-03	10.5	10.5	10.2	10.2	10.2	4.5	13.8	-1571.6	-1312.6	-572.2
1506	ok	0.16	0.2	1.92e-03	10.5	10.5	10.2	10.2	12.2	14.5	9.7	-1681.7	-1863.1	-286.8
1507	ok	0.16	0.2	2.58e-03	10.5	10.5	10.2	10.2	5.2	21.3	2.6	-1752.6	-1984.4	119.2
1508	ok	0.16	0.2	3.23e-03	10.5	10.5	10.2	10.2	5.5	23.1	2.6	-1727.0	-1856.2	201.9
...														



Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
1625	ok	0.16	8.44e-02	1.17e-02	10.5	10.5	10.2	10.2	-25.8	-48.9	25.0	115.1	213.2	714.1
Nodo		x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									-39.77	-51.38	-32.50	-2225.92	-2480.77	-1332.43
		0.16	0.53	0.01	10.47	10.47	10.18	10.18	49.98	45.91	25.01	3397.82	5261.40	1830.53

Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		daN/cm2					daN/cm	daN/cm
1211	ok	1.54						
1212	ok	1.54						
1213	ok	0.93						
1214	ok	0.66						
1215	ok	0.49						
1216	ok	0.40						
1217	ok	0.34						
1218	ok	0.30						
1219	ok	0.26						
1220	ok	0.22						
1221	ok	0.20						
1222	ok	0.17						
1223	ok	0.41						
1224	ok	0.62						
1225	ok	0.90						
1226	ok	1.00						
1227	ok	1.36						
1228	ok	1.97						
1229	ok	1.97						
1230	ok	1.56						
1231	ok	0.95						
1232	ok	0.60						
1233	ok	0.42						
1234	ok	0.13						
1235	ok	0.23						
1236	ok	0.40						
1237	ok	0.68						
1238	ok	1.24						
1239	ok	1.24						
1240	ok	1.54						
1241	ok	1.54						
1242	ok	0.93						
1243	ok	0.66						
1244	ok	0.68						
1245	ok	0.68						
1246	ok	0.68						
1247	ok	0.65						
1248	ok	0.63						
1249	ok	0.62						
1250	ok	0.82						
1251	ok	0.82						
1252	ok	0.71						
1253	ok	0.70						
1254	ok	0.90						
1255	ok	1.00						
1256	ok	1.36						
1257	ok	1.97						
1258	ok	1.97						
1259	ok	1.56						
1260	ok	1.02						
1261	ok	0.73						
1262	ok	0.73						
1263	ok	0.76						
1264	ok	0.76						
1265	ok	0.56						
1266	ok	0.68						
1267	ok	1.24						
1268	ok	1.24						
1269	ok	1.79						
1270	ok	0.73						

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

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Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1271	ok	1.74						
1272	ok	0.61						
1273	ok	0.67						
1274	ok	0.94						
1275	ok	1.20						
1276	ok	1.27						
1277	ok	1.27						
1278	ok	1.27						
1279	ok	1.18						
1280	ok	1.08						
1281	ok	1.15						
1282	ok	1.15						
1283	ok	2.78						
1284	ok	2.40						
1285	ok	0.49						
1286	ok	0.76						
1287	ok	0.76						
1288	ok	0.72						
1289	ok	1.79						
1290	ok	1.74						
1291	ok	1.24						
1292	ok	1.24						
1293	ok	1.00						
1294	ok	0.67						
1295	ok	0.46						
1296	ok	2.78						
1297	ok	0.70						
1298	ok	2.40						
1299	ok	1.10						
1300	ok	1.10						
1301	ok	1.51						
1302	ok	1.74						
1303	ok	1.83						
1304	ok	1.83						
1305	ok	1.79						
1306	ok	1.63						
1307	ok	1.37						
1308	ok	1.41						
1309	ok	1.58						
1310	ok	2.78						
1311	ok	2.78						
1312	ok	2.74						
1313	ok	2.66						
1314	ok	2.40						
1315	ok	1.54						
1316	ok	1.19						
1317	ok	0.36						
1318	ok	0.72						
1319	ok	1.79						
1320	ok Av	8.93	0.22	0.15	8.4	5.7	174.0	119.1
1321	ok Av	8.93	0.22	0.15	8.4	5.7	174.0	119.1
1322	ok	1.92						
1323	ok	1.91						
1324	ok	1.91						
1325	ok	1.78						
1326	ok	1.52						
1327	ok	1.08						
1328	ok	0.69						
1329	ok	0.56						
1330	ok	1.21						
1331	ok	1.51						
1332	ok	1.74						
1333	ok	1.83						
1334	ok	1.83						
1335	ok	1.79						
1336	ok	1.63						
1337	ok	1.37						
1338	ok	1.41						
1339	ok	1.58						
1340	ok	1.58						
1341	ok	2.74						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1342	ok	2.74						
1343	ok	2.66						
1344	ok	1.54						
1345	ok	1.54						
1346	ok	1.41						
1347	ok	0.51						
1348	ok	0.72						
1349	ok	0.82						
1350	ok Av	8.93	0.22	0.15	8.4	5.7	174.0	119.1
1351	ok	1.92						
1352	ok	1.91						
1353	ok	1.91						
1354	ok	1.78						
1355	ok	1.52						
1356	ok	1.17						
1357	ok	0.69						
1358	ok	0.61						
1359	ok	1.21						
1360	ok	1.34						
1361	ok	1.47						
1362	ok	1.47						
1363	ok	1.41						
1364	ok	1.26						
1365	ok	0.98						
1366	ok	1.12						
1367	ok	1.13						
1368	ok	1.13						
1369	ok	1.25						
1370	ok	1.32						
1371	ok	1.32						
1372	ok	1.27						
1373	ok	1.27						
1374	ok	0.96						
1375	ok	0.98						
1376	ok	0.99						
1377	ok	0.99						
1378	ok	0.82						
1379	ok	1.20						
1380	ok	1.49						
1381	ok	1.56						
1382	ok	1.56						
1383	ok	1.51						
1384	ok	1.35						
1385	ok	1.17						
1386	ok	0.69						
1387	ok	0.91						
1388	ok	0.91						
1389	ok	0.83						
1390	ok	0.97						
1391	ok	0.97						
1392	ok	0.95						
1393	ok	0.83						
1394	ok	0.72						
1395	ok	1.28						
1396	ok	1.34						
1397	ok	1.34						
1398	ok	0.78						
1399	ok	0.79						
1400	ok	0.82						
1401	ok	0.82						
1402	ok	0.70						
1403	ok	0.99						
1404	ok	1.49						
1405	ok	1.50						
1406	ok	1.50						
1407	ok	0.94						
1408	ok	0.77						
1409	ok	0.94						
1410	ok	1.04						
1411	ok	1.04						
1412	ok	1.03						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1413	ok	0.84						
1414	ok	0.95						
1415	ok	0.95						
1416	ok	0.96						
1417	ok	0.96						
1418	ok	0.63						
1419	ok	0.59						
1420	ok	0.60						
1421	ok	0.60						
1422	ok	0.67						
1423	ok	1.09						
1424	ok	1.65						
1425	ok	1.72						
1426	ok	1.72						
1427	ok	1.10						
1428	ok	0.68						
1429	ok	0.52						
1430	ok	0.52						
1431	ok	0.81						
1432	ok	1.26						
1433	ok	1.79						
1434	ok	1.79						
1435	ok	1.78						
1436	ok	1.18						
1437	ok	0.75						
1438	ok	0.58						
1439	ok	0.63						
1440	ok	0.64						
1441	ok	0.64						
1442	ok	0.66						
1443	ok	1.02						
1444	ok	1.02						
1445	ok	1.01						
1446	ok	1.01						
1447	ok	0.64						
1448	ok	0.37						
1449	ok	0.34						
1450	ok	0.46						
1451	ok	0.76						
1452	ok	1.19						
1453	ok	1.75						
1454	ok	1.82						
1455	ok	1.82						
1456	ok	1.22						
1457	ok	0.74						
1458	ok	0.37						
1459	ok	0.47						
1460	ok	0.86						
1461	ok	1.34						
1462	ok	1.96						
1463	ok	1.96						
1464	ok	1.87						
1465	ok	1.26						
1466	ok	0.80						
1467	ok	0.46						
1468	ok	0.32						
1469	ok	0.35						
1470	ok	0.44						
1471	ok	0.72						
1472	ok	1.07						
1473	ok	1.07						
1474	ok	1.12						
1475	ok	1.12						
1476	ok	0.76						
1477	ok	0.37						
1478	ok	0.24						
1479	ok	0.43						
1480	ok	0.76						
1481	ok	1.20						
1482	ok	2.00						
1483	ok	2.00						



Nodo	Stato	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
1484	ok	1.84						
1485	ok	1.22						
1486	ok	0.74						
1487	ok	0.32						
1488	ok	0.47						
1489	ok	0.88						
1490	ok	1.34						
1491	ok	1.96						
1492	ok	1.96						
1493	ok	1.87						
1494	ok	1.26						
1495	ok	0.80						
1496	ok	0.46						
1497	ok	0.28						
1498	ok	0.30						
1499	ok	0.42						
1500	ok	0.72						
1501	ok	1.15						
1502	ok	1.15						
1503	ok	1.12						
1504	ok	1.52						
1505	ok	0.76						
1506	ok	0.50						
1507	ok	0.50						
1508	ok	0.43						
...								
1625	ok	2.01	0.13	0.14	5.0	5.2	103.8	107.2
Nodo		Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
		8.93	0.22	0.15	8.37	5.73	173.97	119.12

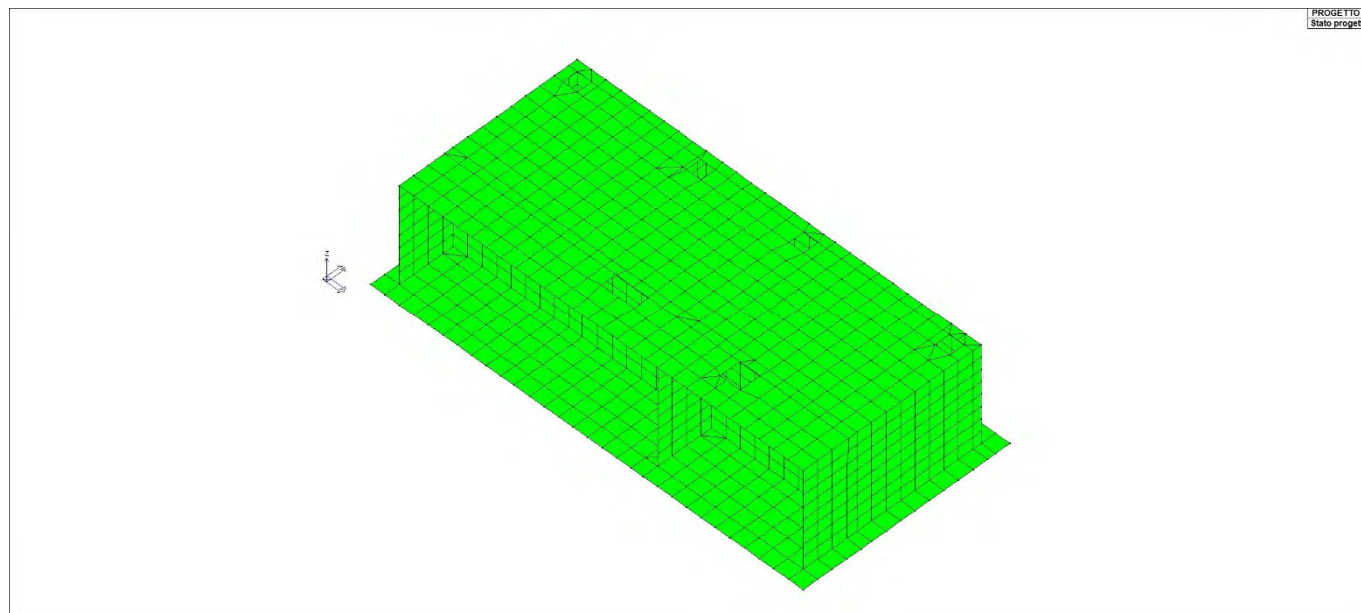


Figura 90 - CA_D3_01_Stato progetto

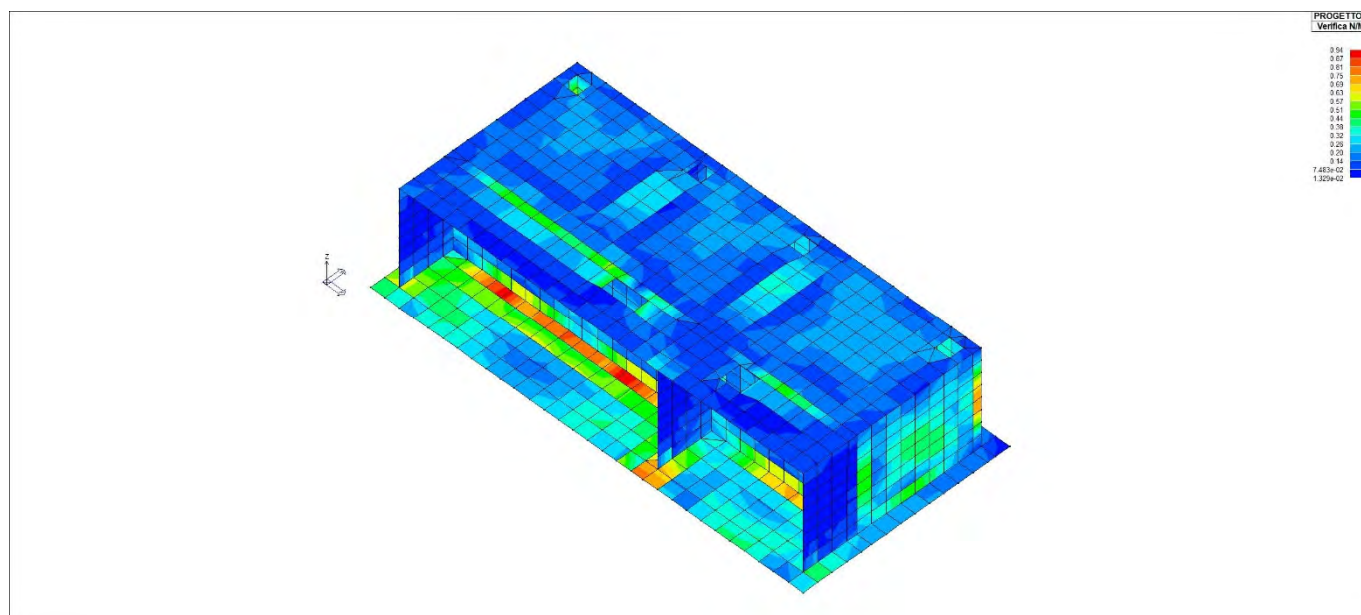


Figura 91 - CA_D3_02_Verifica NM

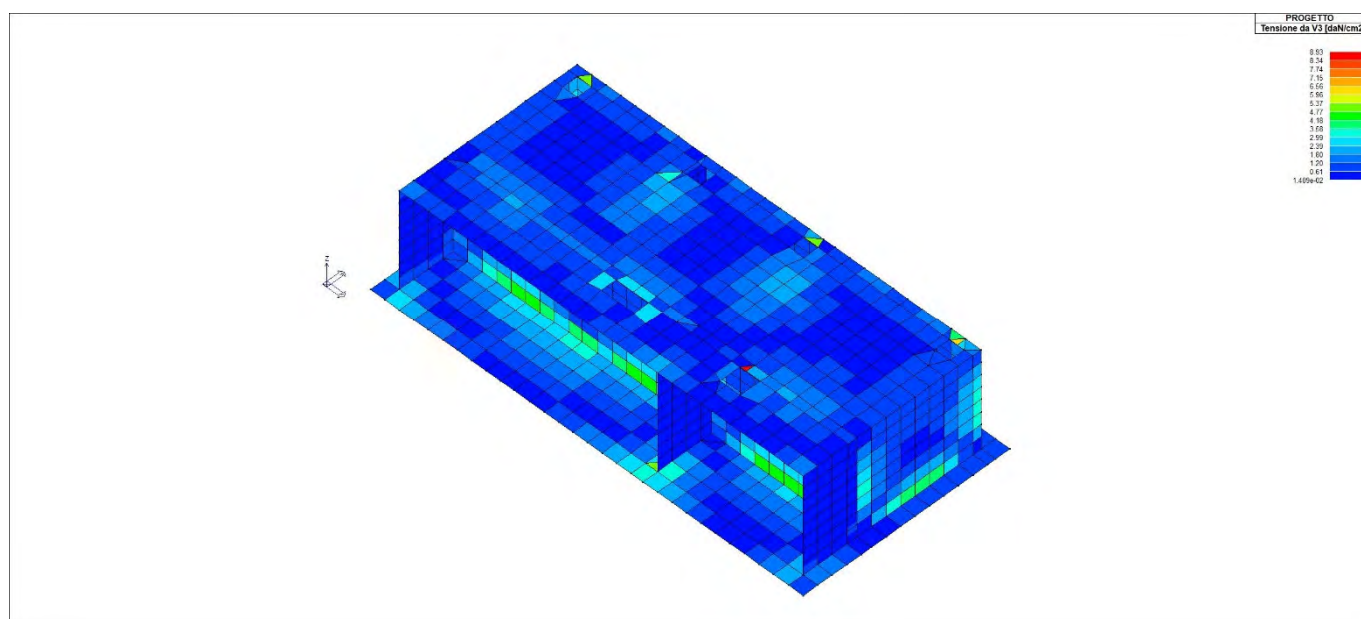


Figura 92 - CA_D3_05_Tensione da V3

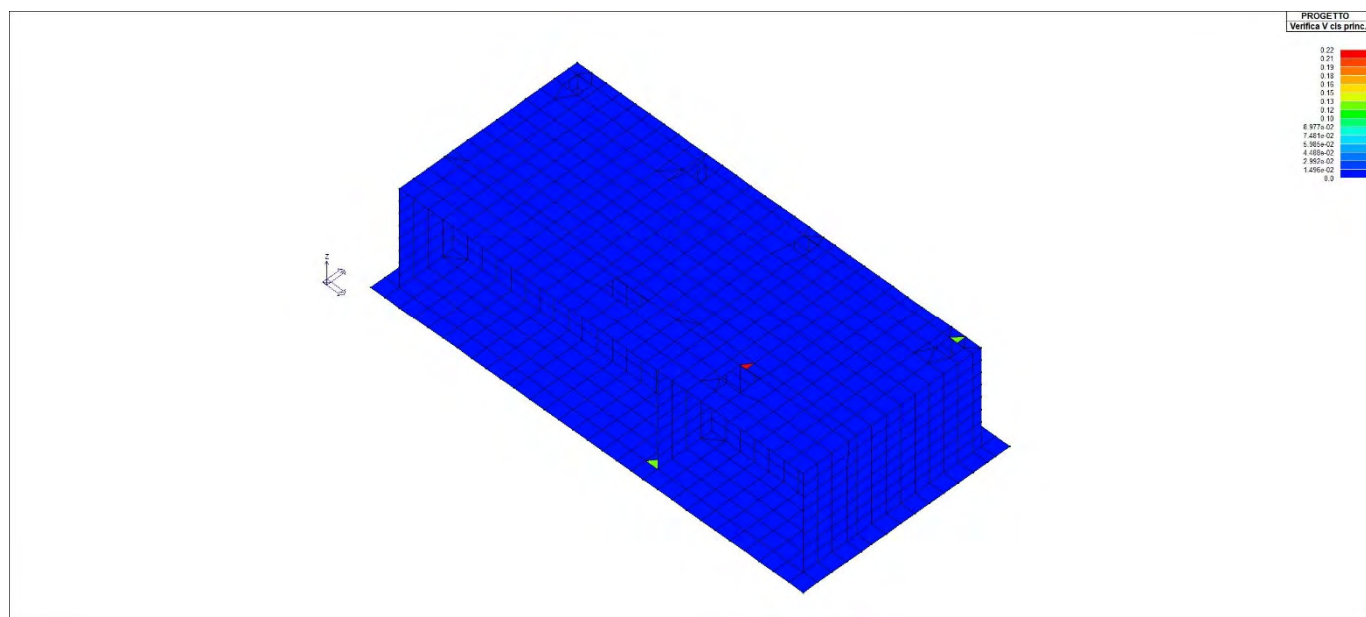


Figura 93 - CA_D3_06_Verifica V cls princ

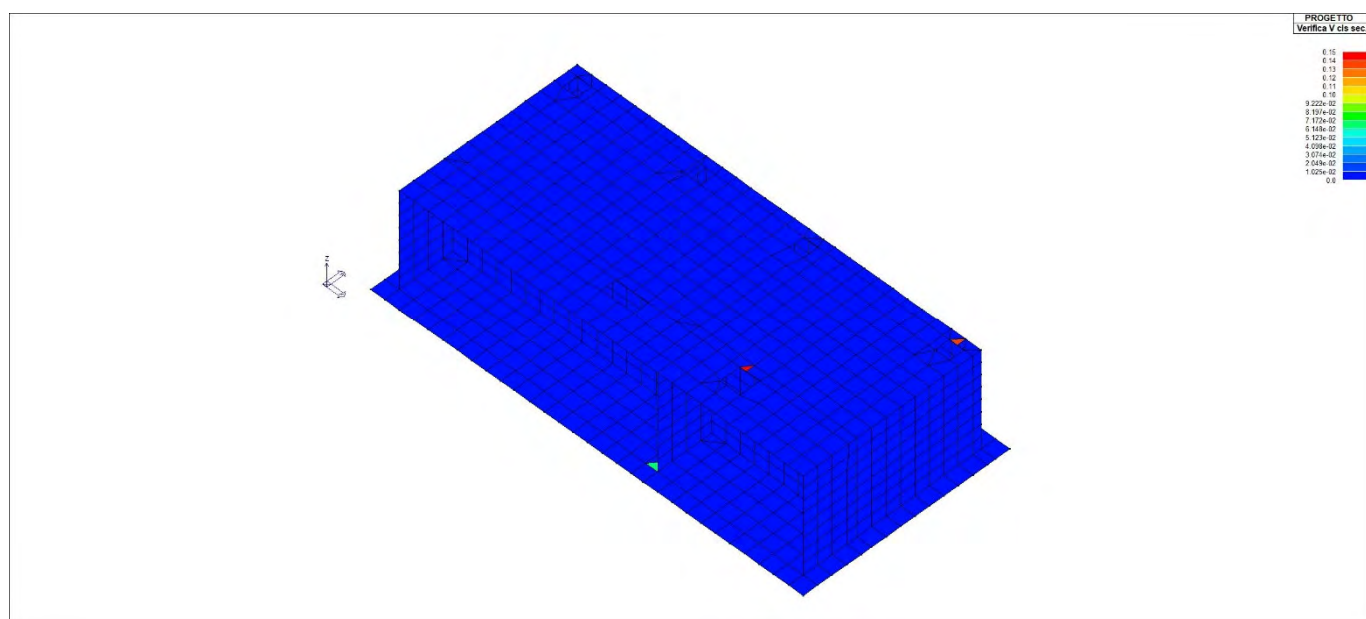


Figura 94 - CA_D3_07_Verifica V cls sec



PROGETTO
Stato verif. SLD (G)

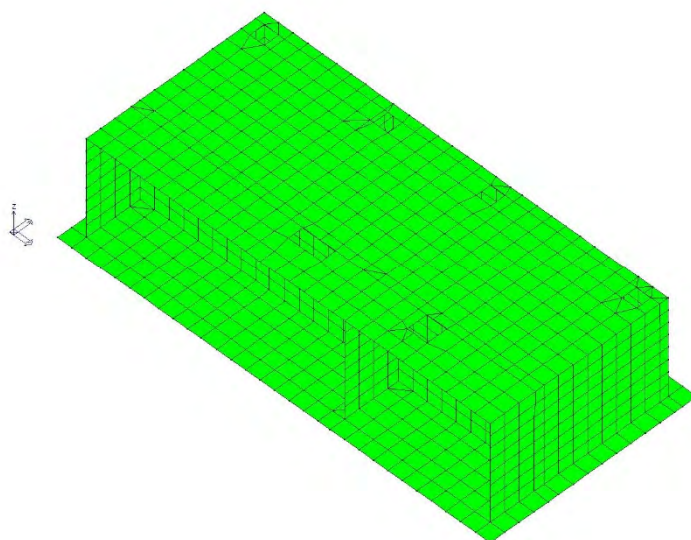


Figura 95 - CA_D3_12_Stato verif SLD G

PROGETTO
Verifica NM SE

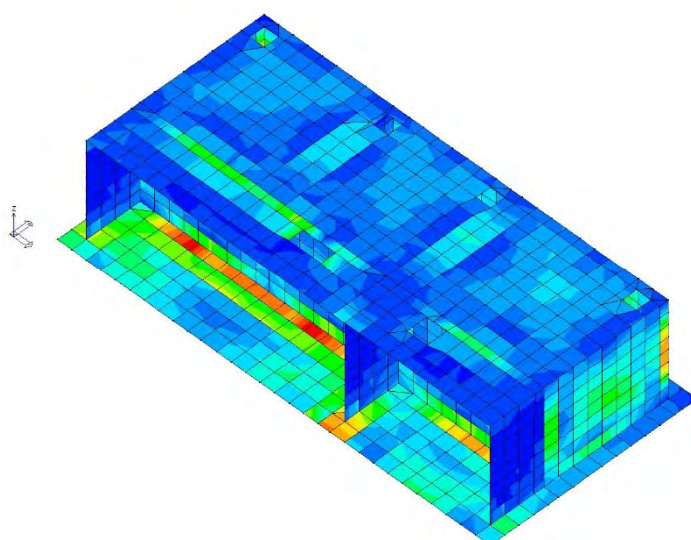


Figura 96 - CA_D3_13_Verifica NM SE

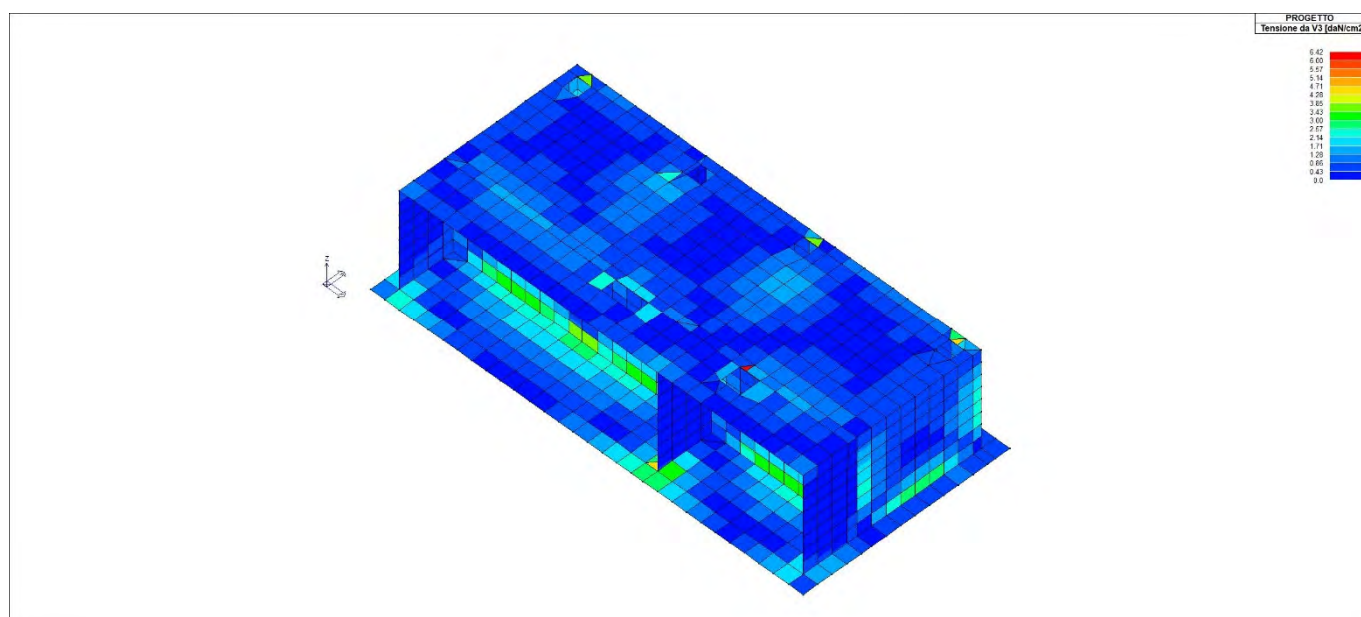


Figura 97 - CA_D3_14_Tensione da V3

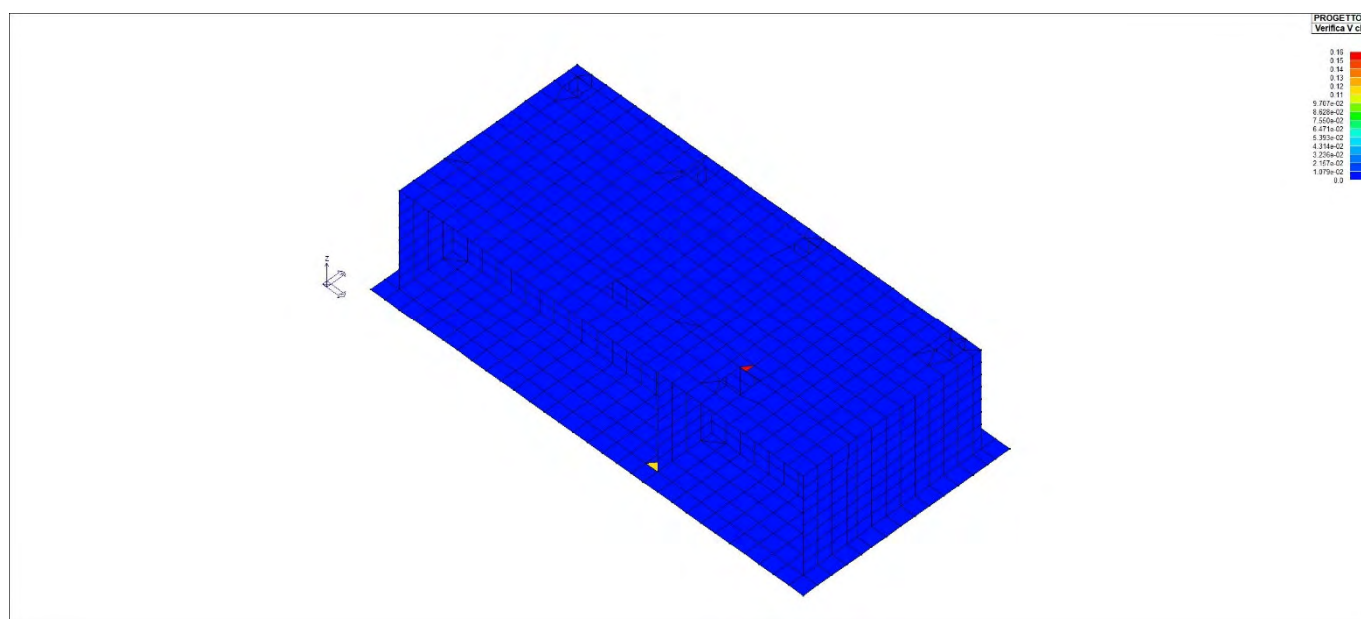


Figura 98 - CA_D3_15_Verifica V cls

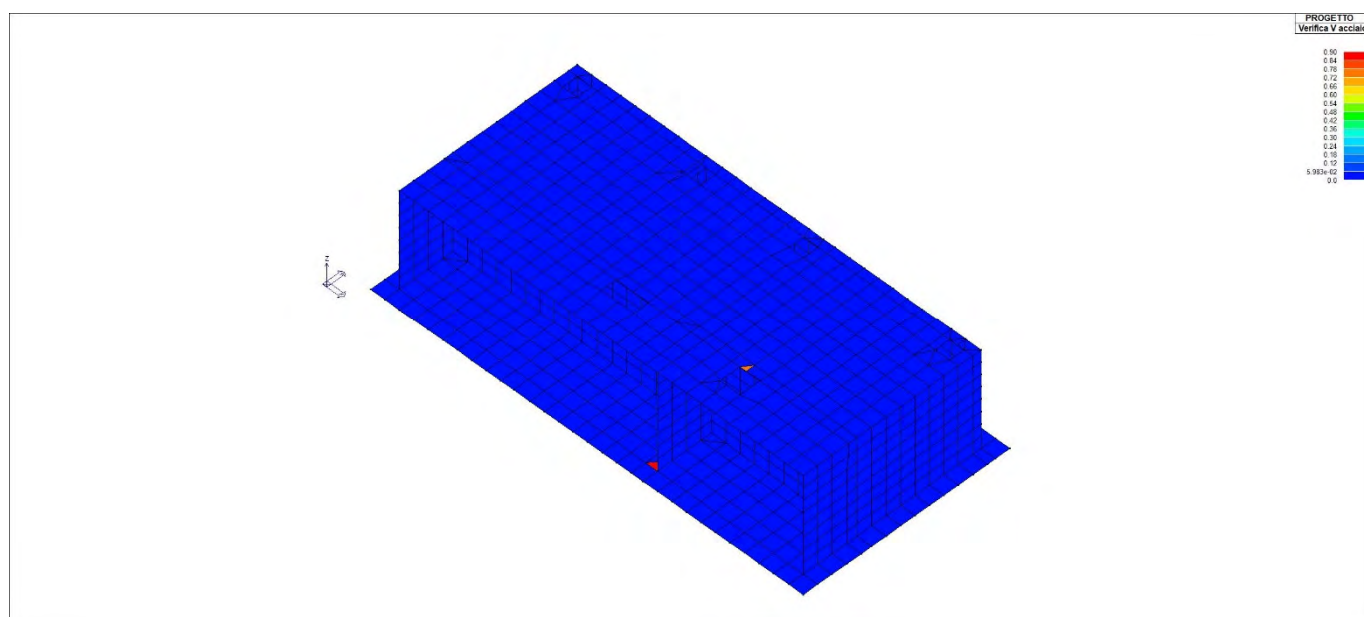


Figura 99 - CA_D3_16_Verifica V acciaio

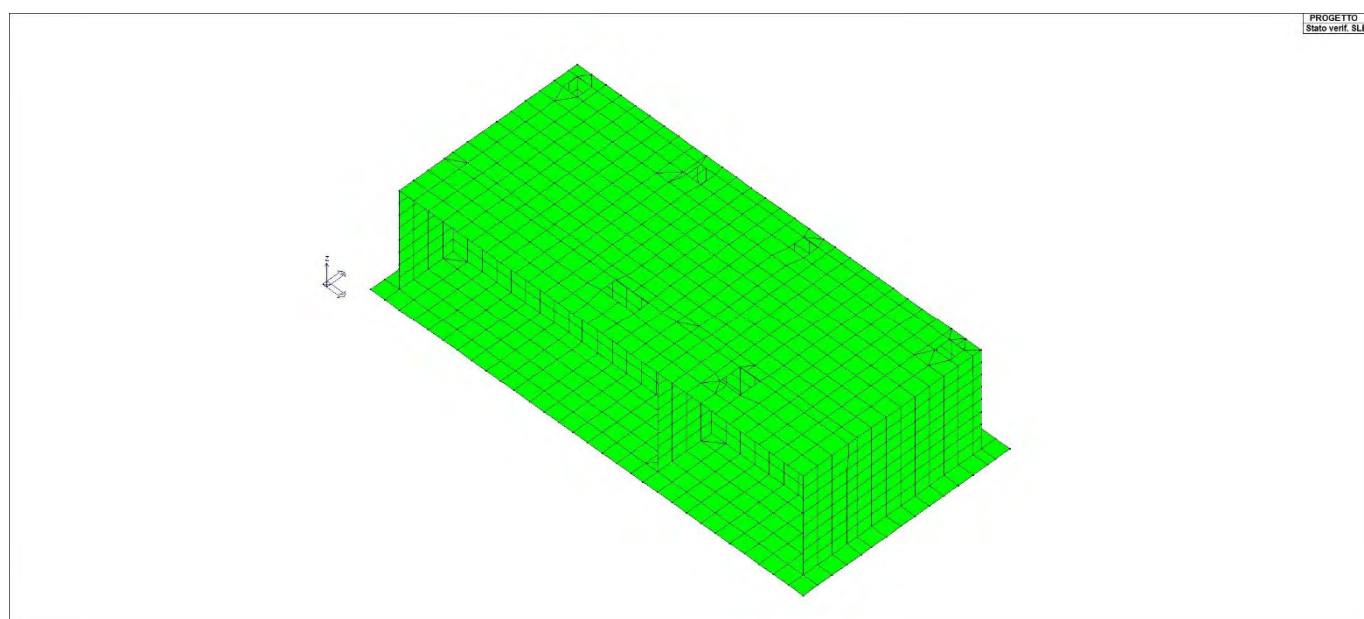


Figura 100 - CA_D3_17_Stato verif SLE

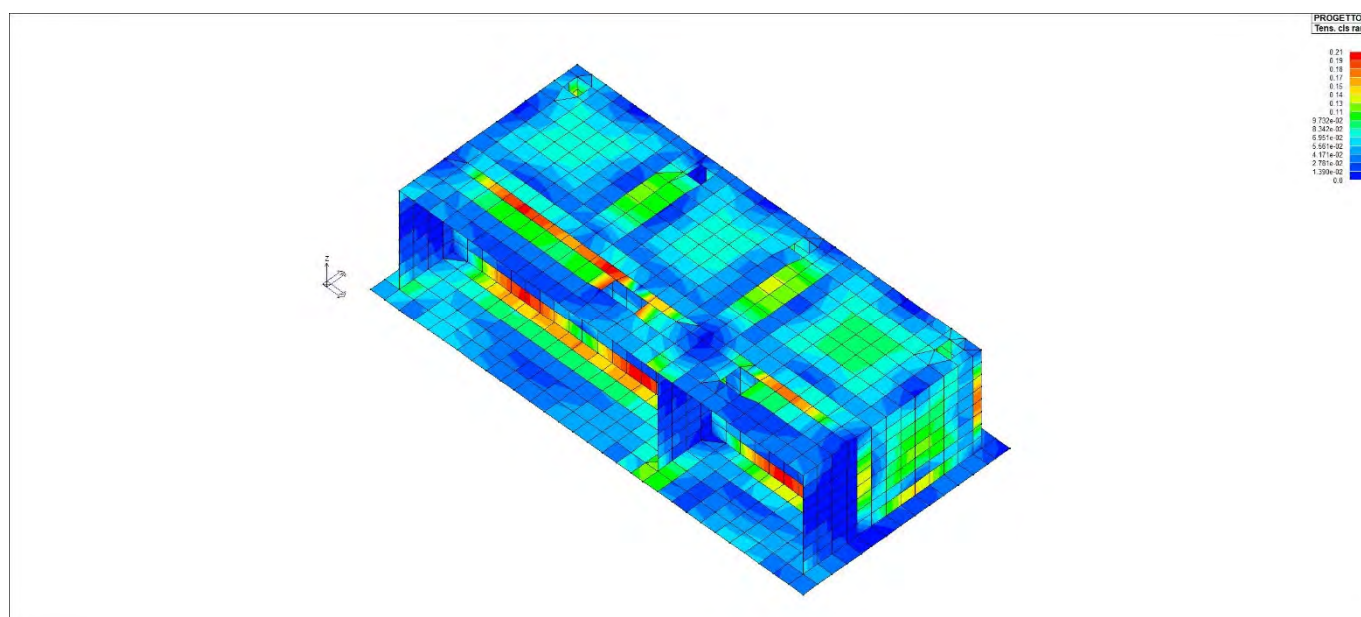


Figura 101 - CA_D3_21_Tens cls rare

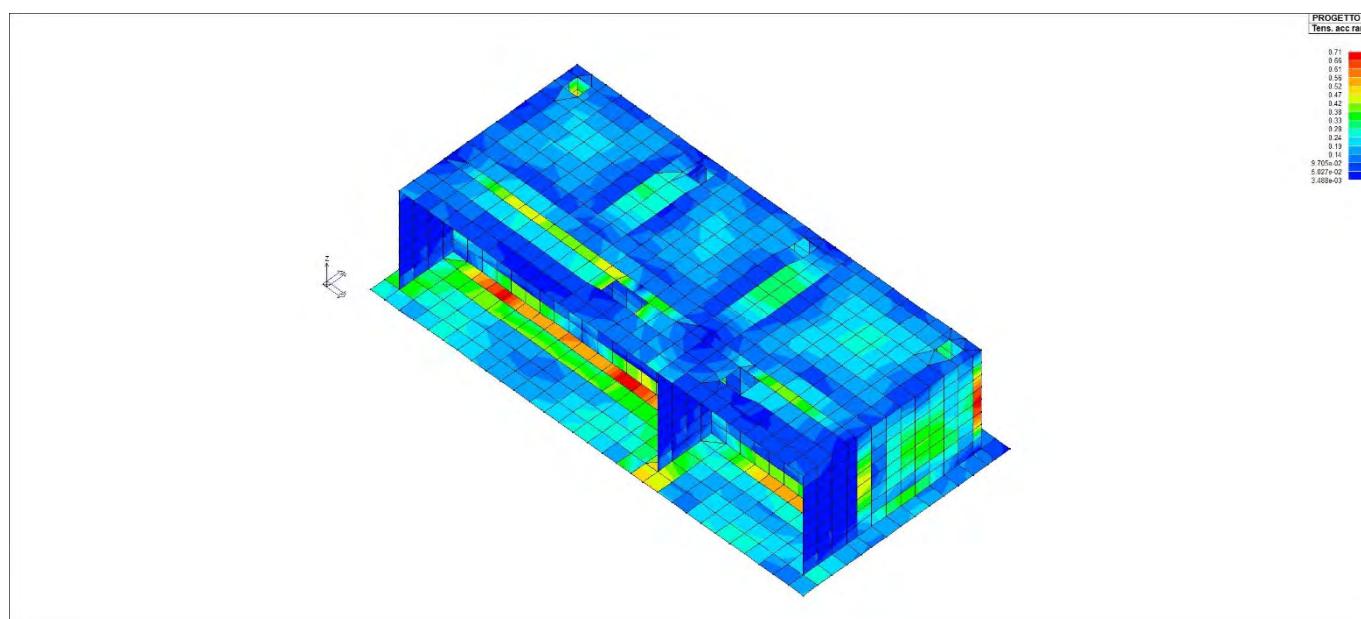


Figura 102 - CA_D3_22_Tens acc rare

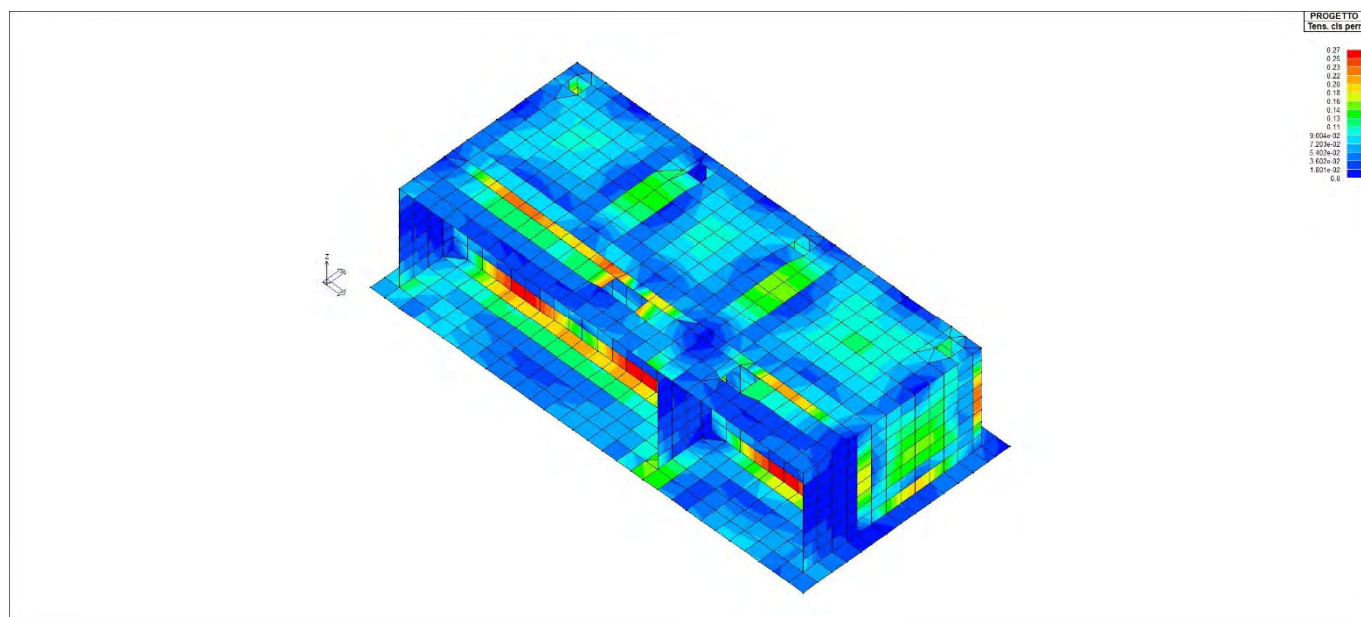


Figura 103 - CA_D3_23_Tens cls perm

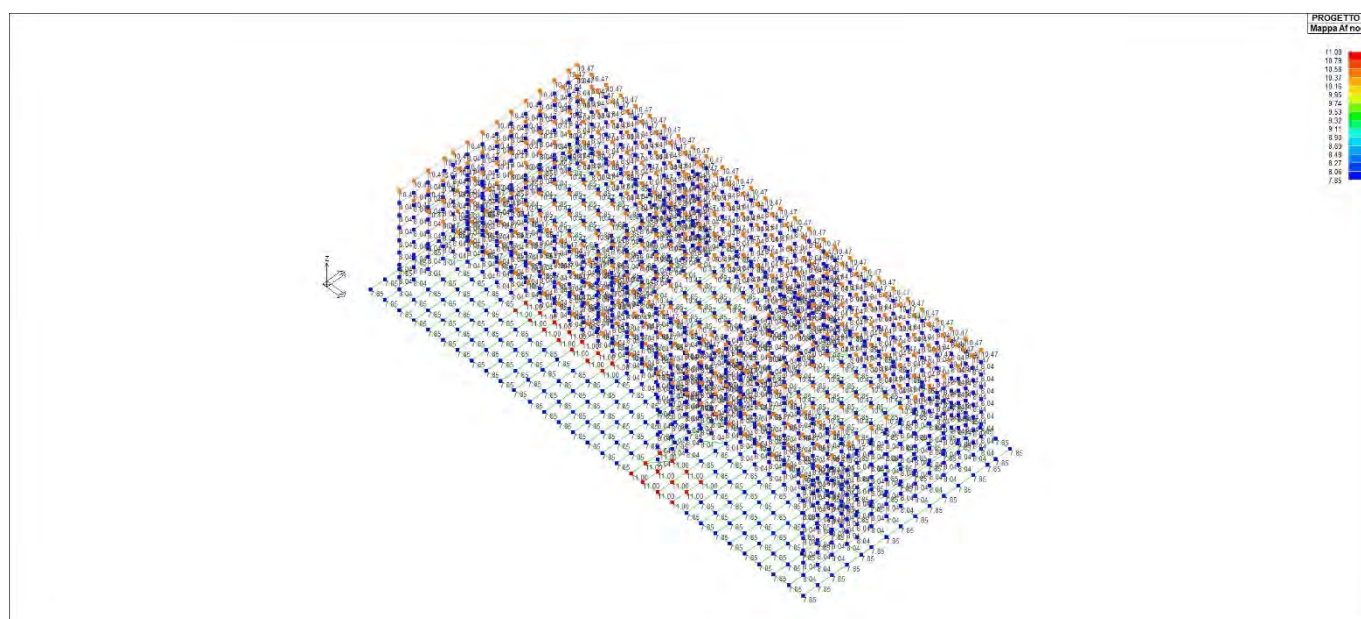


Figura 104 - CA_D3_25_Mappa Af nodi

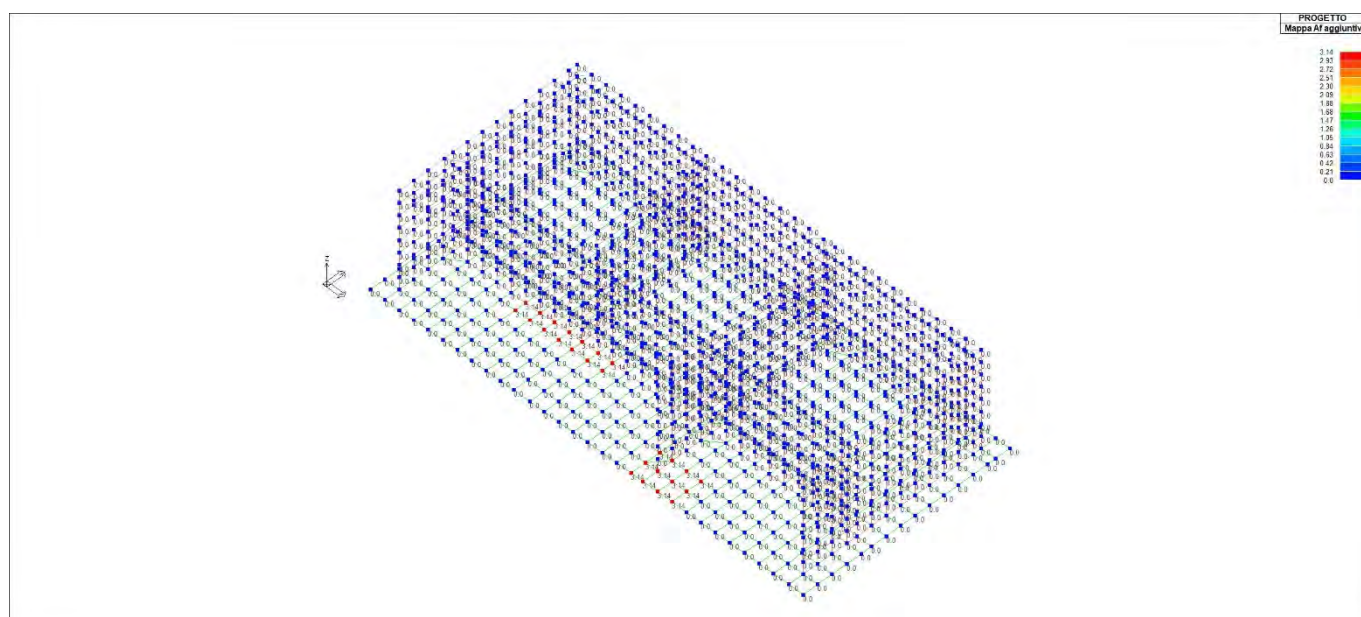


Figura 105 - CA_D3_26_Mappa Af aggiuntiva

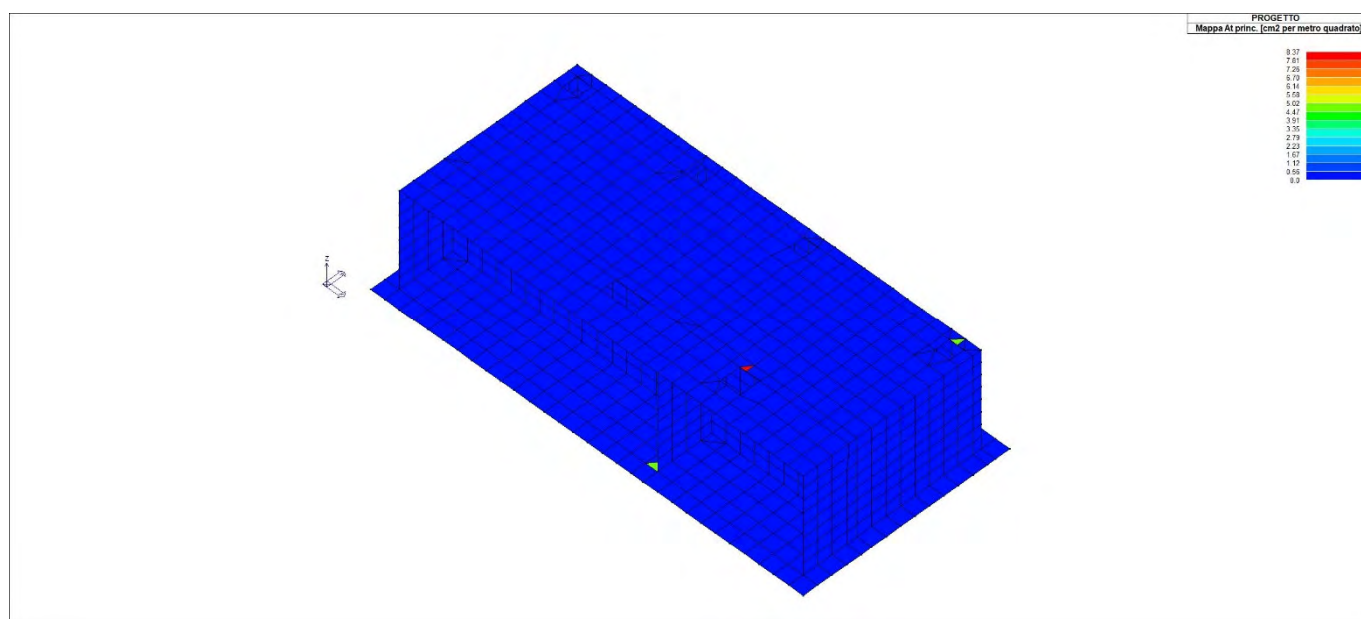


Figura 106 - CA_D3_34_Mappa At princ cm2 per metro quadrato

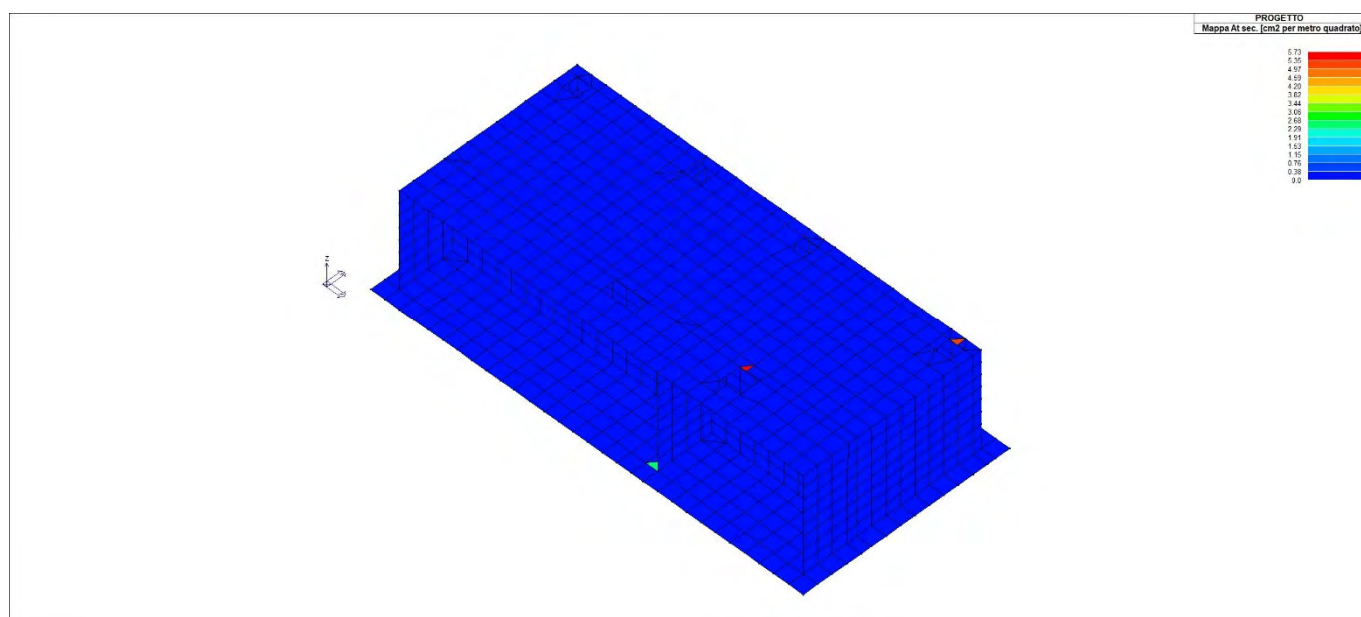


Figura 107 - CA_D3_35_Mappa At sec cm2 per metro quadrato



STATI LIMITE D' ESERCIZIO

LEGENDA TABELLA STATI LIMITE D' ESERCIZIO

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

In particolare vengono riportati, in relazione al tipo di elemento strutturale, i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

I valori di interesse sono i seguenti:

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

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

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

pilastr	rRfck	rRfyk	rPfck	per sezioni significative
travi	rRfck	rRfyk	rPfck	per sezioni significative
	wR	wF	wP	per sezioni significative
	dR	dF	dP	massimi in campata
setti e gusci	rRfck	rRfyk	rPfck	massimi nei nodi dell'elemento
	wR	wF	wP	massimi nei nodi dell'elemento

Si precisa che i valori di massima deformazione per travi sono riferiti al piano verticale (piano locale 1-2 con momenti flettenti 3-3).



Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
					mm	mm	mm	
459	0.09	0.16	0.11	6,6,8	0.0	0.0	0.0	0,0,0
460	0.09	0.18	0.12	6,6,8	0.0	0.0	0.0	0,0,0
461	0.07	0.11	0.09	6,6,8	0.0	0.0	0.0	0,0,0
462	0.05	0.09	0.06	6,6,8	0.0	0.0	0.0	0,0,0
463	0.03	0.13	0.04	6,6,8	0.0	0.0	0.0	0,0,0
464	0.03	0.07	0.04	6,6,8	0.0	0.0	0.0	0,0,0
465	0.04	0.12	0.05	6,6,8	0.0	0.0	0.0	0,0,0
466	0.02	0.15	0.02	6,6,8	0.0	0.0	0.0	0,0,0
467	0.02	0.10	0.03	6,6,8	0.0	0.0	0.0	0,0,0
468	0.02	0.11	0.03	6,6,8	0.0	0.0	0.0	0,0,0
469	9.34e-03	0.15	0.01	6,6,8	0.0	0.0	0.0	0,0,0
470	0.01	0.10	0.02	6,6,8	0.0	0.0	0.0	0,0,0
471	0.07	0.17	0.09	5,5,8	0.0	0.0	0.0	0,0,0
472	0.12	0.20	0.15	5,5,8	0.0	0.0	0.0	0,0,0
473	0.16	0.31	0.21	5,5,8	0.0	0.0	0.0	0,0,0
474	0.19	0.39	0.25	5,5,8	0.0	0.0	0.0	0,0,0
475	0.20	0.41	0.26	6,5,8	0.0	0.0	0.0	0,0,0
476	0.20	0.42	0.26	6,5,8	0.0	0.0	0.0	0,0,0
477	0.19	0.39	0.25	6,5,8	0.0	0.0	0.0	0,0,0
478	0.16	0.34	0.21	6,5,8	0.0	0.0	0.0	0,0,0
479	0.12	0.24	0.16	6,5,8	0.0	0.0	0.0	0,0,0
480	0.13	0.23	0.17	6,5,8	0.0	0.0	0.0	0,0,0
481	0.17	0.33	0.23	6,5,8	0.0	0.0	0.0	0,0,0
482	0.19	0.40	0.26	6,5,8	0.0	0.0	0.0	0,0,0
483	0.20	0.44	0.27	6,5,8	0.0	0.0	0.0	0,0,0
484	0.20	0.43	0.27	6,5,8	0.0	0.0	0.0	0,0,0
485	0.19	0.42	0.25	6,5,8	0.0	0.0	0.0	0,0,0
486	0.16	0.38	0.21	6,5,8	0.0	0.0	0.0	0,0,0
487	0.11	0.28	0.15	6,5,8	0.0	0.0	0.0	0,0,0
488	0.06	0.17	0.09	5,5,8	0.0	0.0	0.0	0,0,0
489	0.07	0.22	0.10	6,5,8	0.0	0.0	0.0	0,0,0
490	0.12	0.32	0.16	6,5,8	0.0	0.0	0.0	0,0,0
491	0.16	0.39	0.22	6,5,8	0.0	0.0	0.0	0,0,0
492	0.19	0.43	0.26	6,5,8	0.0	0.0	0.0	0,0,0
493	0.20	0.43	0.27	5,5,8	0.0	0.0	0.0	0,0,0
494	0.20	0.42	0.27	5,5,8	0.0	0.0	0.0	0,0,0
495	0.19	0.38	0.26	5,5,8	0.0	0.0	0.0	0,0,0
496	0.16	0.31	0.22	5,5,8	0.0	0.0	0.0	0,0,0
497	0.12	0.21	0.16	5,5,8	0.0	0.0	0.0	0,0,0
498	0.07	0.18	0.10	5,5,8	0.0	0.0	0.0	0,0,0
499	0.07	0.25	0.10	6,6,8	0.0	0.0	0.0	0,0,0
500	0.03	0.37	0.04	6,6,8	0.0	0.0	0.0	0,0,0
501	3.40e-03	0.12	4.31e-03	6,5,8	0.0	0.0	0.0	0,0,0
502	0.07	0.25	0.10	6,6,8	0.0	0.0	0.0	0,0,0
503	0.11	0.33	0.14	6,6,8	0.0	0.0	0.0	0,0,0
504	2.56e-03	0.27	3.01e-03	6,6,8	0.0	0.0	0.0	0,0,0
505	5.75e-03	0.10	6.86e-03	6,5,8	0.0	0.0	0.0	0,0,0
506	0.11	0.31	0.14	6,5,8	0.0	0.0	0.0	0,0,0
507	0.14	0.37	0.18	6,5,8	0.0	0.0	0.0	0,0,0
508	1.98e-03	0.16	2.49e-03	6,6,8	0.0	0.0	0.0	0,0,0
509	6.75e-03	0.10	7.86e-03	6,6,8	0.0	0.0	0.0	0,0,0
510	0.13	0.35	0.18	5,5,8	0.0	0.0	0.0	0,0,0
511	0.15	0.37	0.20	5,5,8	0.0	0.0	0.0	0,0,0
512	7.82e-03	0.13	9.26e-03	6,6,8	0.0	0.0	0.0	0,0,0
513	0.01	0.12	0.01	6,6,8	0.0	0.0	0.0	0,0,0
514	0.14	0.35	0.19	5,5,8	0.0	0.0	0.0	0,0,0
515	0.15	0.37	0.20	5,5,8	0.0	0.0	0.0	0,0,0
516	0.01	0.14	0.02	6,6,8	0.0	0.0	0.0	0,0,0
517	0.01	0.13	0.02	6,6,8	0.0	0.0	0.0	0,0,0
518	0.14	0.35	0.19	5,5,8	0.0	0.0	0.0	0,0,0
519	0.14	0.30	0.19	5,5,8	0.0	0.0	0.0	0,0,0
520	0.02	0.14	0.02	6,6,8	0.0	0.0	0.0	0,0,0
521	0.02	0.14	0.02	6,5,8	0.0	0.0	0.0	0,0,0
522	0.13	0.28	0.18	5,5,8	0.0	0.0	0.0	0,0,0
523	0.11	0.21	0.15	5,5,8	0.0	0.0	0.0	0,0,0
524	0.02	0.14	0.02	6,6,8	0.0	0.0	0.0	0,0,0
525	0.02	0.14	0.02	6,6,8	0.0	0.0	0.0	0,0,0
526	0.11	0.19	0.15	5,5,8	0.0	0.0	0.0	0,0,0



Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
527	0.08	0.15	0.11	5,6,8	0.0	0.0	0.0	0,0,0
528	0.02	0.13	0.02	6,6,8	0.0	0.0	0.0	0,0,0
529	0.02	0.14	0.02	6,6,8	0.0	0.0	0.0	0,0,0
530	0.08	0.15	0.11	5,6,8	0.0	0.0	0.0	0,0,0
531	0.07	0.20	0.09	6,6,8	0.0	0.0	0.0	0,0,0
532	0.01	0.11	0.02	6,6,8	0.0	0.0	0.0	0,0,0
533	0.01	0.12	0.02	6,6,8	0.0	0.0	0.0	0,0,0
534	0.07	0.21	0.09	6,6,8	0.0	0.0	0.0	0,0,0
535	0.07	0.20	0.10	6,6,8	0.0	0.0	0.0	0,0,0
536	0.10	0.18	0.13	5,5,8	0.0	0.0	0.0	0,0,0
537	0.13	0.24	0.17	5,5,8	0.0	0.0	0.0	0,0,0
538	0.15	0.30	0.20	5,5,8	0.0	0.0	0.0	0,0,0
539	0.15	0.32	0.20	5,5,8	0.0	0.0	0.0	0,0,0
540	0.15	0.33	0.20	5,5,8	0.0	0.0	0.0	0,0,0
541	0.14	0.33	0.18	6,5,8	0.0	0.0	0.0	0,0,0
542	0.11	0.30	0.14	6,6,8	0.0	0.0	0.0	0,0,0
543	0.07	0.27	0.10	6,6,8	0.0	0.0	0.0	0,0,0
544	0.08	0.25	0.10	6,6,8	0.0	0.0	0.0	0,0,0
545	0.11	0.28	0.15	6,5,8	0.0	0.0	0.0	0,0,0
546	0.14	0.31	0.19	6,5,8	0.0	0.0	0.0	0,0,0
547	0.16	0.33	0.21	5,5,8	0.0	0.0	0.0	0,0,0
548	0.16	0.33	0.21	5,5,8	0.0	0.0	0.0	0,0,0
549	0.15	0.33	0.21	5,5,8	0.0	0.0	0.0	0,0,0
550	0.14	0.31	0.18	6,5,8	0.0	0.0	0.0	0,0,0
551	0.11	0.27	0.14	6,6,8	0.0	0.0	0.0	0,0,0
552	0.07	0.24	0.09	6,6,8	0.0	0.0	0.0	0,0,0
553	0.08	0.28	0.10	6,6,8	0.0	0.0	0.0	0,0,0
554	0.12	0.32	0.15	6,6,8	0.0	0.0	0.0	0,0,0
555	0.15	0.36	0.20	6,5,8	0.0	0.0	0.0	0,0,0
556	0.17	0.38	0.22	6,5,8	0.0	0.0	0.0	0,0,0
557	0.17	0.37	0.23	6,5,8	0.0	0.0	0.0	0,0,0
558	0.17	0.37	0.23	6,5,8	0.0	0.0	0.0	0,0,0
559	0.16	0.33	0.22	6,5,8	0.0	0.0	0.0	0,0,0
560	0.14	0.27	0.19	5,5,8	0.0	0.0	0.0	0,0,0
561	0.11	0.20	0.14	6,5,8	0.0	0.0	0.0	0,0,0
562	0.08	0.22	0.11	6,6,8	0.0	0.0	0.0	0,0,0
563	0.05	0.05	0.06	6,6,8	0.0	0.0	0.0	0,0,0
564	0.05	0.06	0.07	6,6,8	0.0	0.0	0.0	0,0,0
565	0.04	0.04	0.05	6,6,8	0.0	0.0	0.0	0,0,0
566	0.03	0.08	0.04	6,6,8	0.0	0.0	0.0	0,0,0
567	0.04	0.11	0.04	6,6,8	0.0	0.0	0.0	0,0,0
568	0.03	0.06	0.03	6,5,8	0.0	0.0	0.0	0,0,0
569	0.02	0.07	0.02	6,6,8	0.0	0.0	0.0	0,0,0
570	0.02	0.11	0.02	6,6,8	0.0	0.0	0.0	0,0,0
571	0.01	0.06	0.02	6,6,8	0.0	0.0	0.0	0,0,0
572	0.02	0.07	0.02	6,6,8	0.0	0.0	0.0	0,0,0
573	0.02	0.10	0.02	6,5,8	0.0	0.0	0.0	0,0,0
574	0.01	0.06	0.01	6,6,8	0.0	0.0	0.0	0,0,0
575	0.08	0.34	0.11	5,6,8	0.0	0.0	0.0	0,0,0
576	0.04	0.22	0.06	5,6,8	0.0	0.0	0.0	0,0,0
577	0.05	0.22	0.07	5,6,8	0.0	0.0	0.0	0,0,0
578	0.03	0.17	0.05	5,6,8	0.0	0.0	0.0	0,0,0
579	0.02	0.12	0.03	6,6,8	0.0	0.0	0.0	0,0,0
580	0.03	0.09	0.04	5,5,8	0.0	0.0	0.0	0,0,0
581	0.04	0.08	0.05	5,5,8	0.0	0.0	0.0	0,0,0
582	0.05	0.14	0.07	6,5,8	0.0	0.0	0.0	0,0,0
583	0.07	0.25	0.10	5,5,8	0.0	0.0	0.0	0,0,0
584	0.07	0.22	0.10	5,5,8	0.0	0.0	0.0	0,0,0
585	0.05	0.10	0.06	6,5,8	0.0	0.0	0.0	0,0,0
586	0.03	0.08	0.04	5,5,8	0.0	0.0	0.0	0,0,0
587	0.03	0.09	0.04	5,5,8	0.0	0.0	0.0	0,0,0
588	0.02	0.09	0.03	5,5,8	0.0	0.0	0.0	0,0,0
589	0.04	0.11	0.05	5,5,8	0.0	0.0	0.0	0,0,0
590	0.05	0.13	0.07	5,5,8	0.0	0.0	0.0	0,0,0
591	0.04	0.11	0.05	5,5,8	0.0	0.0	0.0	0,0,0
592	0.09	0.24	0.12	5,5,8	0.0	0.0	0.0	0,0,0
593	0.09	0.27	0.12	6,5,8	0.0	0.0	0.0	0,0,0
594	0.05	0.15	0.06	5,6,8	0.0	0.0	0.0	0,0,0
595	0.06	0.13	0.08	5,5,8	0.0	0.0	0.0	0,0,0
596	0.04	0.11	0.06	5,6,8	0.0	0.0	0.0	0,0,0
597	0.03	0.12	0.04	5,6,8	0.0	0.0	0.0	0,0,0
598	0.02	0.14	0.03	6,6,8	0.0	0.0	0.0	0,0,0



Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
599	0.04	0.19	0.06	6,6,8	0.0	0.0	0.0	0,0,0
600	0.06	0.23	0.08	6,6,8	0.0	0.0	0.0	0,0,0
601	0.05	0.22	0.06	6,6,8	0.0	0.0	0.0	0,0,0
602	0.09	0.36	0.12	6,6,8	0.0	0.0	0.0	0,0,0
603	0.10	0.33	0.13	6,6,8	0.0	0.0	0.0	0,0,0
604	0.03	0.36	0.04	6,6,8	0.0	0.0	0.0	0,0,0
605	3.94e-03	0.12	5.08e-03	6,5,8	0.0	0.0	0.0	0,0,0
606	0.10	0.34	0.13	6,6,8	0.0	0.0	0.0	0,0,0
607	0.06	0.18	0.08	6,5,8	0.0	0.0	0.0	0,0,0
608	7.41e-03	0.17	9.42e-03	6,5,8	0.0	0.0	0.0	0,0,0
609	3.28e-03	0.09	3.74e-03	6,5,8	0.0	0.0	0.0	0,0,0
610	0.06	0.17	0.08	6,5,8	0.0	0.0	0.0	0,0,0
611	0.07	0.21	0.09	6,5,8	0.0	0.0	0.0	0,0,0
612	1.76e-03	0.09	1.88e-03	6,6,8	0.0	0.0	0.0	0,0,0
613	6.77e-03	0.10	7.97e-03	6,6,8	0.0	0.0	0.0	0,0,0
614	0.07	0.22	0.10	6,5,8	0.0	0.0	0.0	0,0,0
615	0.06	0.19	0.08	6,6,8	0.0	0.0	0.0	0,0,0
616	7.82e-03	0.13	9.34e-03	6,6,8	0.0	0.0	0.0	0,0,0
617	0.01	0.13	0.01	6,6,8	0.0	0.0	0.0	0,0,0
618	0.06	0.20	0.08	6,6,8	0.0	0.0	0.0	0,0,0
619	0.05	0.23	0.06	6,6,8	0.0	0.0	0.0	0,0,0
620	0.01	0.16	0.02	6,6,8	0.0	0.0	0.0	0,0,0
621	0.01	0.16	0.02	6,6,8	0.0	0.0	0.0	0,0,0
622	0.05	0.24	0.06	6,6,8	0.0	0.0	0.0	0,0,0
623	0.07	0.28	0.09	6,6,8	0.0	0.0	0.0	0,0,0
624	0.01	0.17	0.02	6,6,8	0.0	0.0	0.0	0,0,0
625	0.02	0.18	0.02	6,6,8	0.0	0.0	0.0	0,0,0
626	0.07	0.29	0.09	6,6,8	0.0	0.0	0.0	0,0,0
627	0.07	0.28	0.09	6,6,8	0.0	0.0	0.0	0,0,0
628	0.01	0.19	0.02	6,6,8	0.0	0.0	0.0	0,0,0
629	0.02	0.20	0.02	6,6,8	0.0	0.0	0.0	0,0,0
630	0.07	0.29	0.09	6,6,8	0.0	0.0	0.0	0,0,0
631	0.06	0.19	0.07	6,6,8	0.0	0.0	0.0	0,0,0
632	0.01	0.22	0.02	6,6,8	0.0	0.0	0.0	0,0,0
633	0.01	0.23	0.02	6,6,8	0.0	0.0	0.0	0,0,0
634	0.06	0.20	0.08	6,6,8	0.0	0.0	0.0	0,0,0
635	0.12	0.46	0.16	6,6,8	0.0	0.0	0.0	0,0,0
636	0.01	0.25	0.01	6,6,8	0.0	0.0	0.0	0,0,0
637	0.01	0.27	0.01	6,6,8	0.0	0.0	0.0	0,0,0
638	0.12	0.48	0.16	6,6,8	0.0	0.0	0.0	0,0,0
639	0.10	0.39	0.14	6,6,8	0.0	0.0	0.0	0,0,0
640	0.06	0.21	0.08	6,6,8	0.0	0.0	0.0	0,0,0
641	0.07	0.26	0.10	6,6,8	0.0	0.0	0.0	0,0,0
642	0.06	0.24	0.08	6,6,8	0.0	0.0	0.0	0,0,0
643	0.04	0.20	0.06	6,6,8	0.0	0.0	0.0	0,0,0
644	0.06	0.18	0.08	6,6,8	0.0	0.0	0.0	0,0,0
645	0.07	0.17	0.09	6,6,8	0.0	0.0	0.0	0,0,0
646	0.05	0.19	0.07	6,6,8	0.0	0.0	0.0	0,0,0
647	0.10	0.36	0.13	6,6,8	0.0	0.0	0.0	0,0,0
648	0.10	0.32	0.13	6,6,8	0.0	0.0	0.0	0,0,0
649	0.06	0.15	0.08	6,6,8	0.0	0.0	0.0	0,0,0
650	0.07	0.19	0.09	6,6,8	0.0	0.0	0.0	0,0,0
651	0.06	0.18	0.07	6,6,8	0.0	0.0	0.0	0,0,0
652	0.04	0.17	0.06	6,6,8	0.0	0.0	0.0	0,0,0
653	0.06	0.19	0.08	6,6,8	0.0	0.0	0.0	0,0,0
654	0.07	0.18	0.09	6,6,8	0.0	0.0	0.0	0,0,0
655	0.05	0.16	0.07	6,6,8	0.0	0.0	0.0	0,0,0
656	0.10	0.35	0.14	6,6,8	0.0	0.0	0.0	0,0,0
657	0.10	0.37	0.14	6,6,8	0.0	0.0	0.0	0,0,0
658	0.06	0.20	0.08	6,6,8	0.0	0.0	0.0	0,0,0
659	0.07	0.17	0.10	6,6,8	0.0	0.0	0.0	0,0,0
660	0.06	0.17	0.08	6,6,8	0.0	0.0	0.0	0,0,0
661	0.05	0.16	0.06	6,6,8	0.0	0.0	0.0	0,0,0
662	0.04	0.19	0.06	6,6,8	0.0	0.0	0.0	0,0,0
663	0.07	0.23	0.09	6,6,8	0.0	0.0	0.0	0,0,0
664	0.08	0.27	0.10	6,6,8	0.0	0.0	0.0	0,0,0
665	0.07	0.22	0.09	6,6,8	0.0	0.0	0.0	0,0,0
666	0.11	0.40	0.14	6,6,8	0.0	0.0	0.0	0,0,0
667	0.03	0.02	0.04	6,6,8	0.0	0.0	0.0	0,0,0
668	0.03	0.03	0.04	6,6,8	0.0	0.0	0.0	0,0,0
669	0.02	0.02	0.03	6,6,8	0.0	0.0	0.0	0,0,0
670	0.02	0.05	0.03	6,5,8	0.0	0.0	0.0	0,0,0



Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
671	0.03	0.07	0.04	6,6,8	0.0	0.0	0.0	0,0,0
672	0.02	0.04	0.02	6,5,8	0.0	0.0	0.0	0,0,0
673	0.01	0.05	0.02	6,6,8	0.0	0.0	0.0	0,0,0
674	0.02	0.07	0.03	6,6,8	0.0	0.0	0.0	0,0,0
675	0.01	0.04	0.01	6,6,8	0.0	0.0	0.0	0,0,0
676	0.02	0.04	0.02	6,6,8	0.0	0.0	0.0	0,0,0
677	0.02	0.05	0.02	6,5,8	0.0	0.0	0.0	0,0,0
678	0.01	0.02	0.02	6,6,8	0.0	0.0	0.0	0,0,0
679	0.10	0.45	0.13	5,6,8	0.0	0.0	0.0	0,0,0
680	0.07	0.22	0.09	5,5,8	0.0	0.0	0.0	0,0,0
681	0.08	0.28	0.11	5,6,8	0.0	0.0	0.0	0,0,0
682	0.08	0.27	0.11	5,6,8	0.0	0.0	0.0	0,0,0
683	0.07	0.23	0.10	5,5,8	0.0	0.0	0.0	0,0,0
684	0.07	0.19	0.09	5,5,8	0.0	0.0	0.0	0,0,0
685	0.07	0.14	0.09	5,5,8	0.0	0.0	0.0	0,0,0
686	0.05	0.09	0.07	5,5,8	0.0	0.0	0.0	0,0,0
687	0.09	0.31	0.12	5,5,8	0.0	0.0	0.0	0,0,0
688	0.08	0.27	0.11	5,5,8	0.0	0.0	0.0	0,0,0
689	0.06	0.11	0.08	5,5,8	0.0	0.0	0.0	0,0,0
690	0.07	0.17	0.10	5,5,8	0.0	0.0	0.0	0,0,0
691	0.07	0.19	0.10	5,5,8	0.0	0.0	0.0	0,0,0
692	0.08	0.19	0.10	5,5,8	0.0	0.0	0.0	0,0,0
693	0.08	0.20	0.11	5,5,8	0.0	0.0	0.0	0,0,0
694	0.08	0.18	0.11	5,5,8	0.0	0.0	0.0	0,0,0
695	0.06	0.14	0.08	5,5,8	0.0	0.0	0.0	0,0,0
696	0.11	0.33	0.15	5,5,8	0.0	0.0	0.0	0,0,0
697	0.11	0.33	0.15	6,5,8	0.0	0.0	0.0	0,0,0
698	0.07	0.15	0.10	5,5,8	0.0	0.0	0.0	0,0,0
699	0.09	0.19	0.12	5,5,8	0.0	0.0	0.0	0,0,0
700	0.09	0.21	0.12	5,5,8	0.0	0.0	0.0	0,0,0
701	0.09	0.23	0.12	5,6,8	0.0	0.0	0.0	0,0,0
702	0.09	0.26	0.12	5,6,8	0.0	0.0	0.0	0,0,0
703	0.09	0.29	0.13	5,6,8	0.0	0.0	0.0	0,0,0
704	0.09	0.29	0.13	5,6,8	0.0	0.0	0.0	0,0,0
705	0.08	0.23	0.10	5,5,8	0.0	0.0	0.0	0,0,0
706	0.11	0.48	0.14	6,6,8	0.0	0.0	0.0	0,0,0
707	0.12	0.40	0.16	6,6,8	0.0	0.0	0.0	0,0,0
708	0.01	0.28	0.02	6,6,8	0.0	0.0	0.0	0,0,0
709	4.65e-03	0.13	5.72e-03	6,5,8	0.0	0.0	0.0	0,0,0
710	0.13	0.43	0.16	6,6,8	0.0	0.0	0.0	0,0,0
711	0.08	0.22	0.11	6,5,8	0.0	0.0	0.0	0,0,0
712	0.01	0.20	0.01	6,5,8	0.0	0.0	0.0	0,0,0
713	4.14e-03	0.10	4.98e-03	6,5,8	0.0	0.0	0.0	0,0,0
714	0.08	0.22	0.11	6,5,8	0.0	0.0	0.0	0,0,0
715	0.10	0.26	0.13	6,6,8	0.0	0.0	0.0	0,0,0
716	4.28e-03	0.11	5.06e-03	6,5,8	0.0	0.0	0.0	0,0,0
717	6.93e-03	0.10	8.27e-03	6,5,8	0.0	0.0	0.0	0,0,0
718	0.10	0.27	0.14	6,6,8	0.0	0.0	0.0	0,0,0
719	0.10	0.30	0.13	6,6,8	0.0	0.0	0.0	0,0,0
720	7.78e-03	0.12	9.39e-03	6,6,8	0.0	0.0	0.0	0,0,0
721	0.01	0.13	0.01	6,6,8	0.0	0.0	0.0	0,0,0
722	0.10	0.31	0.14	6,6,8	0.0	0.0	0.0	0,0,0
723	0.10	0.35	0.13	6,6,8	0.0	0.0	0.0	0,0,0
724	0.01	0.16	0.01	6,6,8	0.0	0.0	0.0	0,0,0
725	0.01	0.16	0.02	6,6,8	0.0	0.0	0.0	0,0,0
726	0.10	0.36	0.13	6,6,8	0.0	0.0	0.0	0,0,0
727	0.10	0.37	0.14	6,6,8	0.0	0.0	0.0	0,0,0
728	0.01	0.19	0.02	6,6,8	0.0	0.0	0.0	0,0,0
729	0.01	0.19	0.02	6,6,8	0.0	0.0	0.0	0,0,0
730	0.10	0.38	0.14	6,6,8	0.0	0.0	0.0	0,0,0
731	0.10	0.32	0.13	6,6,8	0.0	0.0	0.0	0,0,0
732	0.01	0.21	0.02	6,6,8	0.0	0.0	0.0	0,0,0
733	0.01	0.22	0.02	6,6,8	0.0	0.0	0.0	0,0,0
734	0.10	0.33	0.13	6,6,8	0.0	0.0	0.0	0,0,0
735	0.05	0.26	0.07	6,6,8	0.0	0.0	0.0	0,0,0
736	0.01	0.26	0.01	6,6,8	0.0	0.0	0.0	0,0,0
737	0.01	0.27	0.02	6,6,8	0.0	0.0	0.0	0,0,0
738	0.05	0.27	0.07	6,6,8	0.0	0.0	0.0	0,0,0
739	0.16	0.62	0.21	6,6,8	0.0	0.0	0.0	0,0,0
740	6.96e-03	0.28	8.89e-03	6,6,8	0.0	0.0	0.0	0,0,0
741	7.27e-03	0.30	9.28e-03	6,6,8	0.0	0.0	0.0	0,0,0

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

Pag. 220 di
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Setto	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
742	0.16	0.64	0.21	6,6,8	0.0	0.0	0.0	0,0,0
743	0.12	0.52	0.16	6,6,8	0.0	0.0	0.0	0,0,0
744	0.08	0.23	0.11	6,6,8	0.0	0.0	0.0	0,0,0
745	0.10	0.33	0.14	6,6,8	0.0	0.0	0.0	0,0,0
746	0.10	0.34	0.14	6,6,8	0.0	0.0	0.0	0,0,0
747	0.10	0.32	0.13	6,6,8	0.0	0.0	0.0	0,0,0
748	0.10	0.28	0.13	6,6,8	0.0	0.0	0.0	0,0,0
749	0.10	0.22	0.13	6,6,8	0.0	0.0	0.0	0,0,0
750	0.07	0.15	0.10	6,6,8	0.0	0.0	0.0	0,0,0
751	0.13	0.43	0.17	6,6,8	0.0	0.0	0.0	0,0,0
752	0.12	0.38	0.15	6,6,8	0.0	0.0	0.0	0,0,0
753	0.08	0.20	0.11	6,5,8	0.0	0.0	0.0	0,0,0
754	0.10	0.25	0.13	6,6,8	0.0	0.0	0.0	0,0,0
755	0.10	0.28	0.13	6,6,8	0.0	0.0	0.0	0,0,0
756	0.10	0.28	0.13	6,6,8	0.0	0.0	0.0	0,0,0
...								
1290	0.07	0.24	0.09	6,6,8	0.0	0.0	0.0	0,0,0
Setto	rRfck	rRfyk	rPfck		wR	wF	wP	
	0.20	0.69	0.27		0.0	0.0	0.0	

Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
					mm	mm	mm	
1	0.05	0.27	0.07	6,6,8	0.0	0.0	0.0	0,0,0
2	0.07	0.25	0.09	6,6,8	0.0	0.0	0.0	0,0,0
3	0.04	0.19	0.06	6,6,8	0.0	0.0	0.0	0,0,0
4	0.06	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
5	0.06	0.25	0.08	6,6,8	0.0	0.0	0.0	0,0,0
6	0.06	0.24	0.08	6,6,8	0.0	0.0	0.0	0,0,0
7	0.05	0.22	0.07	6,6,8	0.0	0.0	0.0	0,0,0
8	0.05	0.19	0.06	6,6,8	0.0	0.0	0.0	0,0,0
9	0.04	0.17	0.05	6,6,8	0.0	0.0	0.0	0,0,0
10	0.04	0.17	0.05	6,6,8	0.0	0.0	0.0	0,0,0
11	0.04	0.18	0.05	6,6,8	0.0	0.0	0.0	0,0,0
12	0.04	0.20	0.05	6,6,8	0.0	0.0	0.0	0,0,0
13	0.05	0.23	0.06	6,6,8	0.0	0.0	0.0	0,0,0
14	0.05	0.25	0.07	6,6,8	0.0	0.0	0.0	0,0,0
15	0.05	0.25	0.07	6,6,8	0.0	0.0	0.0	0,0,0
16	0.05	0.22	0.06	6,6,8	0.0	0.0	0.0	0,0,0
17	0.04	0.19	0.05	6,6,8	0.0	0.0	0.0	0,0,0
18	0.08	0.40	0.10	6,6,8	0.0	0.0	0.0	0,0,0
19	0.12	0.51	0.15	6,6,8	0.0	0.0	0.0	0,0,0
20	0.11	0.48	0.14	6,6,8	0.0	0.0	0.0	0,0,0
21	0.05	0.20	0.06	6,6,8	0.0	0.0	0.0	0,0,0
22	0.02	0.12	0.03	6,6,8	0.0	0.0	0.0	0,0,0
23	0.04	0.20	0.06	6,6,8	0.0	0.0	0.0	0,0,0
24	0.06	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
25	0.06	0.26	0.08	6,6,8	0.0	0.0	0.0	0,0,0
26	0.06	0.25	0.08	6,6,8	0.0	0.0	0.0	0,0,0
27	0.06	0.22	0.07	6,6,8	0.0	0.0	0.0	0,0,0
28	0.04	0.17	0.05	6,6,8	0.0	0.0	0.0	0,0,0
29	0.04	0.15	0.05	6,6,8	0.0	0.0	0.0	0,0,0
30	0.04	0.19	0.05	6,6,8	0.0	0.0	0.0	0,0,0
31	0.13	0.48	0.16	6,6,8	0.0	0.0	0.0	0,0,0
32	0.07	0.37	0.09	6,6,8	0.0	0.0	0.0	0,0,0
33	0.09	0.37	0.11	6,6,8	0.0	0.0	0.0	0,0,0
34	0.06	0.27	0.08	6,6,8	0.0	0.0	0.0	0,0,0
35	0.06	0.27	0.08	6,6,8	0.0	0.0	0.0	0,0,0
36	0.07	0.28	0.09	6,6,8	0.0	0.0	0.0	0,0,0
37	0.06	0.25	0.08	6,6,8	0.0	0.0	0.0	0,0,0
38	0.05	0.22	0.07	6,6,8	0.0	0.0	0.0	0,0,0
39	0.04	0.18	0.05	6,6,8	0.0	0.0	0.0	0,0,0
40	0.03	0.16	0.04	6,6,8	0.0	0.0	0.0	0,0,0
41	0.03	0.15	0.04	6,6,8	0.0	0.0	0.0	0,0,0
42	0.03	0.17	0.04	6,6,8	0.0	0.0	0.0	0,0,0
43	0.04	0.20	0.05	6,6,8	0.0	0.0	0.0	0,0,0
44	0.05	0.23	0.06	6,6,8	0.0	0.0	0.0	0,0,0
45	0.05	0.26	0.07	6,6,8	0.0	0.0	0.0	0,0,0
46	0.06	0.27	0.07	6,6,8	0.0	0.0	0.0	0,0,0



Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
47	0.05	0.26	0.06	6,6,8	0.0	0.0	0.0	0,0,0
48	0.05	0.25	0.07	6,6,8	0.0	0.0	0.0	0,0,0
49	0.08	0.33	0.10	6,6,8	0.0	0.0	0.0	0,0,0
50	0.11	0.47	0.14	6,6,8	0.0	0.0	0.0	0,0,0
51	0.05	0.19	0.06	6,6,8	0.0	0.0	0.0	0,0,0
52	0.03	0.17	0.03	6,6,8	0.0	0.0	0.0	0,0,0
53	0.04	0.22	0.05	6,6,8	0.0	0.0	0.0	0,0,0
54	0.05	0.24	0.06	6,6,8	0.0	0.0	0.0	0,0,0
55	0.05	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
56	0.06	0.25	0.08	6,6,8	0.0	0.0	0.0	0,0,0
57	0.06	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
58	0.04	0.20	0.06	6,6,8	0.0	0.0	0.0	0,0,0
59	0.06	0.26	0.08	6,6,8	0.0	0.0	0.0	0,0,0
60	0.05	0.27	0.07	6,6,8	0.0	0.0	0.0	0,0,0
61	0.11	0.40	0.14	6,6,8	0.0	0.0	0.0	0,0,0
62	0.05	0.30	0.06	6,6,8	0.0	0.0	0.0	0,0,0
63	0.08	0.35	0.10	6,6,8	0.0	0.0	0.0	0,0,0
64	0.06	0.31	0.08	6,6,8	0.0	0.0	0.0	0,0,0
65	0.06	0.28	0.07	6,6,8	0.0	0.0	0.0	0,0,0
66	0.05	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
67	0.04	0.21	0.05	6,6,8	0.0	0.0	0.0	0,0,0
68	0.04	0.19	0.05	6,6,8	0.0	0.0	0.0	0,0,0
69	0.04	0.18	0.05	6,6,8	0.0	0.0	0.0	0,0,0
70	0.04	0.17	0.05	6,6,8	0.0	0.0	0.0	0,0,0
71	0.03	0.15	0.04	6,6,8	0.0	0.0	0.0	0,0,0
72	0.04	0.15	0.04	6,6,8	0.0	0.0	0.0	0,0,0
73	0.04	0.16	0.05	6,6,8	0.0	0.0	0.0	0,0,0
74	0.04	0.17	0.05	6,6,8	0.0	0.0	0.0	0,0,0
75	0.04	0.20	0.05	6,6,8	0.0	0.0	0.0	0,0,0
76	0.05	0.23	0.06	6,6,8	0.0	0.0	0.0	0,0,0
77	0.05	0.26	0.07	6,6,8	0.0	0.0	0.0	0,0,0
78	0.06	0.31	0.08	6,6,8	0.0	0.0	0.0	0,0,0
79	0.08	0.37	0.10	6,6,8	0.0	0.0	0.0	0,0,0
80	0.10	0.40	0.13	6,6,8	0.0	0.0	0.0	0,0,0
81	0.09	0.37	0.11	6,6,8	0.0	0.0	0.0	0,0,0
82	0.05	0.24	0.06	6,6,8	0.0	0.0	0.0	0,0,0
83	0.04	0.18	0.05	6,6,8	0.0	0.0	0.0	0,0,0
84	0.03	0.20	0.04	6,6,8	0.0	0.0	0.0	0,0,0
85	0.03	0.20	0.04	6,6,8	0.0	0.0	0.0	0,0,0
86	0.03	0.18	0.04	6,6,8	0.0	0.0	0.0	0,0,0
87	0.04	0.20	0.05	6,6,8	0.0	0.0	0.0	0,0,0
88	0.05	0.21	0.06	6,6,8	0.0	0.0	0.0	0,0,0
89	0.04	0.21	0.06	6,6,8	0.0	0.0	0.0	0,0,0
90	0.05	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
91	0.03	0.22	0.04	6,6,8	0.0	0.0	0.0	0,0,0
92	0.03	0.23	0.04	6,6,8	0.0	0.0	0.0	0,0,0
93	0.07	0.35	0.09	6,6,8	0.0	0.0	0.0	0,0,0
94	0.08	0.37	0.10	6,6,8	0.0	0.0	0.0	0,0,0
95	0.08	0.39	0.11	6,6,8	0.0	0.0	0.0	0,0,0
96	0.09	0.40	0.11	6,6,8	0.0	0.0	0.0	0,0,0
97	0.09	0.40	0.12	6,6,8	0.0	0.0	0.0	0,0,0
98	0.10	0.41	0.12	6,6,8	0.0	0.0	0.0	0,0,0
99	0.10	0.42	0.12	6,6,8	0.0	0.0	0.0	0,0,0
100	0.10	0.42	0.12	6,6,8	0.0	0.0	0.0	0,0,0
101	0.10	0.42	0.12	6,6,8	0.0	0.0	0.0	0,0,0
102	0.10	0.41	0.12	6,6,8	0.0	0.0	0.0	0,0,0
103	0.10	0.41	0.12	6,6,8	0.0	0.0	0.0	0,0,0
104	0.09	0.40	0.12	6,6,8	0.0	0.0	0.0	0,0,0
105	0.09	0.39	0.12	6,6,8	0.0	0.0	0.0	0,0,0
106	0.09	0.38	0.11	6,6,8	0.0	0.0	0.0	0,0,0
107	0.08	0.37	0.11	6,6,8	0.0	0.0	0.0	0,0,0
108	0.08	0.37	0.10	6,6,8	0.0	0.0	0.0	0,0,0
109	0.08	0.37	0.10	6,6,8	0.0	0.0	0.0	0,0,0
110	0.08	0.37	0.10	6,6,8	0.0	0.0	0.0	0,0,0
111	0.07	0.32	0.08	6,6,8	0.0	0.0	0.0	0,0,0
112	0.06	0.27	0.07	6,6,8	0.0	0.0	0.0	0,0,0
113	0.06	0.25	0.07	6,6,8	0.0	0.0	0.0	0,0,0
114	0.06	0.24	0.07	6,6,8	0.0	0.0	0.0	0,0,0
115	0.06	0.24	0.08	6,6,8	0.0	0.0	0.0	0,0,0
116	0.06	0.25	0.07	6,6,8	0.0	0.0	0.0	0,0,0
117	0.06	0.26	0.07	6,6,8	0.0	0.0	0.0	0,0,0



Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
118	0.05	0.26	0.07	6,6,8	0.0	0.0	0.0	0,0,0
119	0.05	0.26	0.06	6,6,8	0.0	0.0	0.0	0,0,0
120	0.05	0.25	0.06	6,6,8	0.0	0.0	0.0	0,0,0
121	0.02	0.19	0.03	6,6,8	0.0	0.0	0.0	0,0,0
122	0.06	0.35	0.07	6,6,8	0.0	0.0	0.0	0,0,0
123	0.03	0.27	0.04	6,6,8	0.0	0.0	0.0	0,0,0
124	0.03	0.27	0.04	6,6,8	0.0	0.0	0.0	0,0,0
125	0.03	0.26	0.04	6,6,8	0.0	0.0	0.0	0,0,0
126	0.11	0.53	0.14	6,6,8	0.0	0.0	0.0	0,0,0
127	0.14	0.63	0.18	6,6,8	0.0	0.0	0.0	0,0,0
128	0.16	0.70	0.21	6,6,8	0.0	0.0	0.0	0,0,0
129	0.16	0.69	0.21	6,6,8	0.0	0.0	0.0	0,0,0
130	0.15	0.54	0.20	6,6,8	0.0	0.0	0.0	0,0,0
131	0.15	0.55	0.20	6,6,8	0.0	0.0	0.0	0,0,0
132	0.16	0.56	0.20	6,6,8	0.0	0.0	0.0	0,0,0
133	0.17	0.57	0.22	6,6,8	0.0	0.0	0.0	0,0,0
134	0.17	0.56	0.21	6,6,8	0.0	0.0	0.0	0,0,0
135	0.15	0.55	0.19	6,6,8	0.0	0.0	0.0	0,0,0
136	0.17	0.71	0.21	6,6,8	0.0	0.0	0.0	0,0,0
137	0.17	0.71	0.21	6,6,8	0.0	0.0	0.0	0,0,0
138	0.16	0.67	0.20	6,6,8	0.0	0.0	0.0	0,0,0
139	0.14	0.60	0.18	6,6,8	0.0	0.0	0.0	0,0,0
140	0.12	0.51	0.15	6,6,8	0.0	0.0	0.0	0,0,0
141	0.08	0.41	0.11	6,6,8	0.0	0.0	0.0	0,0,0
142	0.08	0.35	0.10	6,6,8	0.0	0.0	0.0	0,0,0
143	0.10	0.44	0.13	6,6,8	0.0	0.0	0.0	0,0,0
144	0.12	0.52	0.16	6,6,8	0.0	0.0	0.0	0,0,0
145	0.13	0.56	0.17	6,6,8	0.0	0.0	0.0	0,0,0
146	0.13	0.56	0.17	6,6,8	0.0	0.0	0.0	0,0,0
147	0.13	0.56	0.17	6,6,8	0.0	0.0	0.0	0,0,0
148	0.12	0.52	0.15	6,6,8	0.0	0.0	0.0	0,0,0
149	0.09	0.45	0.12	6,6,8	0.0	0.0	0.0	0,0,0
150	0.05	0.33	0.07	6,6,8	0.0	0.0	0.0	0,0,0
151	0.01	0.20	0.02	6,6,8	0.0	0.0	0.0	0,0,0
152	0.02	0.25	0.03	6,6,8	0.0	0.0	0.0	0,0,0
153	0.04	0.27	0.04	6,6,8	0.0	0.0	0.0	0,0,0
154	0.0	0.28	0.0	0,6,0	0.0	0.0	0.0	0,0,0
155	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
156	0.01	0.16	0.02	6,6,8	0.0	0.0	0.0	0,0,0
157	0.02	0.26	0.03	6,6,8	0.0	0.0	0.0	0,0,0
158	0.04	0.33	0.04	6,6,8	0.0	0.0	0.0	0,0,0
159	0.05	0.39	0.06	6,6,8	0.0	0.0	0.0	0,0,0
160	0.07	0.44	0.08	6,6,8	0.0	0.0	0.0	0,0,0
161	0.07	0.47	0.09	6,6,8	0.0	0.0	0.0	0,0,0
162	0.08	0.51	0.10	6,6,8	0.0	0.0	0.0	0,0,0
163	0.09	0.54	0.12	6,6,8	0.0	0.0	0.0	0,0,0
164	0.10	0.58	0.13	6,6,8	0.0	0.0	0.0	0,0,0
165	0.10	0.57	0.13	6,6,8	0.0	0.0	0.0	0,0,0
166	0.10	0.58	0.13	6,6,8	0.0	0.0	0.0	0,0,0
167	0.10	0.56	0.12	6,6,8	0.0	0.0	0.0	0,0,0
168	0.08	0.51	0.10	6,6,8	0.0	0.0	0.0	0,0,0
169	0.07	0.47	0.09	6,6,8	0.0	0.0	0.0	0,0,0
170	0.06	0.42	0.07	6,6,8	0.0	0.0	0.0	0,0,0
171	0.04	0.37	0.05	6,6,8	0.0	0.0	0.0	0,0,0
172	0.02	0.32	0.03	6,6,8	0.0	0.0	0.0	0,0,0
173	8.52e-03	0.26	5.56e-03	6,6,8	0.0	0.0	0.0	0,0,0
174	0.0	0.22	0.0	0,6,0	0.0	0.0	0.0	0,0,0
175	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
176	0.01	0.27	4.94e-03	6,6,8	0.0	0.0	0.0	0,0,0
177	0.02	0.30	0.02	6,6,8	0.0	0.0	0.0	0,0,0
178	0.03	0.32	0.03	6,6,8	0.0	0.0	0.0	0,0,0
179	0.03	0.33	0.03	6,6,8	0.0	0.0	0.0	0,0,0
180	0.03	0.33	0.03	6,6,8	0.0	0.0	0.0	0,0,0
181	0.03	0.32	0.03	6,6,8	0.0	0.0	0.0	0,0,0
182	0.02	0.29	0.03	6,6,8	0.0	0.0	0.0	0,0,0
183	0.02	0.23	0.02	6,6,8	0.0	0.0	0.0	0,0,0
184	7.99e-03	0.18	0.01	6,6,8	0.0	0.0	0.0	0,0,0
185	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
186	0.02	0.17	0.02	6,6,8	0.0	0.0	0.0	0,0,0
187	0.03	0.31	0.04	6,6,8	0.0	0.0	0.0	0,0,0
188	3.94e-03	0.22	2.36e-03	6,6,8	0.0	0.0	0.0	0,0,0



Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
189	0.02	0.27	0.03	6,6,8	0.0	0.0	0.0	0,0,0
190	0.03	0.31	0.04	6,6,8	0.0	0.0	0.0	0,0,0
191	0.04	0.34	0.05	6,6,8	0.0	0.0	0.0	0,0,0
192	0.05	0.36	0.06	6,6,8	0.0	0.0	0.0	0,0,0
193	0.05	0.36	0.06	6,6,8	0.0	0.0	0.0	0,0,0
194	0.05	0.36	0.06	6,6,8	0.0	0.0	0.0	0,0,0
195	0.03	0.32	0.04	6,6,8	0.0	0.0	0.0	0,0,0
196	0.03	0.32	0.04	6,6,8	0.0	0.0	0.0	0,0,0
197	0.04	0.35	0.05	6,6,8	0.0	0.0	0.0	0,0,0
198	0.04	0.35	0.05	6,6,8	0.0	0.0	0.0	0,0,0
199	0.04	0.35	0.05	6,6,8	0.0	0.0	0.0	0,0,0
200	0.03	0.33	0.04	6,6,8	0.0	0.0	0.0	0,0,0
201	0.02	0.30	0.03	6,6,8	0.0	0.0	0.0	0,0,0
202	7.79e-03	0.28	6.99e-03	6,6,8	0.0	0.0	0.0	0,0,0
203	0.0	0.25	0.0	0,6,0	0.0	0.0	0.0	0,0,0
204	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
205	6.67e-03	0.23	1.38e-04	6,6,8	0.0	0.0	0.0	0,0,0
206	8.06e-03	0.23	6.52e-03	6,6,8	0.0	0.0	0.0	0,0,0
207	4.36e-03	0.23	3.38e-04	6,6,8	0.0	0.0	0.0	0,0,0
208	0.0	0.24	0.0	0,6,0	0.0	0.0	0.0	0,0,0
209	0.0	0.24	0.0	0,6,0	0.0	0.0	0.0	0,0,0
210	0.0	0.24	0.0	0,6,0	0.0	0.0	0.0	0,0,0
211	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
212	0.0	0.22	0.0	0,6,0	0.0	0.0	0.0	0,0,0
213	4.19e-03	0.22	4.42e-05	6,6,8	0.0	0.0	0.0	0,0,0
214	0.03	0.31	0.04	6,6,8	0.0	0.0	0.0	0,0,0
215	0.02	0.18	0.03	6,6,8	0.0	0.0	0.0	0,0,0
216	0.03	0.19	0.03	6,6,8	0.0	0.0	0.0	0,0,0
217	0.04	0.37	0.05	6,6,8	0.0	0.0	0.0	0,0,0
218	0.02	0.28	0.02	6,6,8	0.0	0.0	0.0	0,0,0
219	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
220	0.0	0.20	0.0	0,5,0	0.0	0.0	0.0	0,0,0
221	3.68e-03	0.22	4.90e-03	5,5,8	0.0	0.0	0.0	0,0,0
222	0.01	0.23	0.01	6,6,8	0.0	0.0	0.0	0,0,0
223	0.02	0.23	0.02	6,6,8	0.0	0.0	0.0	0,0,0
224	0.02	0.24	0.02	6,6,8	0.0	0.0	0.0	0,0,0
225	4.88e-03	0.23	0.0	6,6,0	0.0	0.0	0.0	0,0,0
226	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
227	9.20e-03	0.24	0.01	6,6,8	0.0	0.0	0.0	0,0,0
228	6.99e-03	0.25	9.32e-03	5,6,8	0.0	0.0	0.0	0,0,0
229	1.12e-03	0.24	1.49e-03	5,5,8	0.0	0.0	0.0	0,0,0
230	0.0	0.24	0.0	0,5,0	0.0	0.0	0.0	0,0,0
231	0.0	0.24	0.0	0,5,0	0.0	0.0	0.0	0,0,0
232	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
233	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
234	0.01	0.23	0.01	6,6,8	0.0	0.0	0.0	0,0,0
235	0.02	0.23	0.02	6,6,8	0.0	0.0	0.0	0,0,0
236	2.23e-03	0.21	0.0	6,6,0	0.0	0.0	0.0	0,0,0
237	0.0	0.19	0.0	0,6,0	0.0	0.0	0.0	0,0,0
238	0.0	0.18	0.0	0,5,0	0.0	0.0	0.0	0,0,0
239	0.0	0.17	0.0	0,6,0	0.0	0.0	0.0	0,0,0
240	0.0	0.16	0.0	0,6,0	0.0	0.0	0.0	0,0,0
241	0.0	0.18	0.0	0,6,0	0.0	0.0	0.0	0,0,0
242	4.78e-03	0.23	0.0	6,6,0	0.0	0.0	0.0	0,0,0
243	0.02	0.28	0.02	6,6,8	0.0	0.0	0.0	0,0,0
244	0.03	0.36	0.04	6,6,8	0.0	0.0	0.0	0,0,0
245	0.03	0.19	0.04	6,6,8	0.0	0.0	0.0	0,0,0
246	0.03	0.21	0.03	6,6,8	0.0	0.0	0.0	0,0,0
247	0.04	0.36	0.05	6,6,8	0.0	0.0	0.0	0,0,0
248	0.02	0.30	0.03	6,6,8	0.0	0.0	0.0	0,0,0
249	0.02	0.25	0.02	6,6,8	0.0	0.0	0.0	0,0,0
250	5.97e-03	0.20	0.0	6,6,0	0.0	0.0	0.0	0,0,0
251	0.0	0.17	0.0	0,6,0	0.0	0.0	0.0	0,0,0
252	0.0	0.16	0.0	0,6,0	0.0	0.0	0.0	0,0,0
253	0.0	0.17	0.0	0,6,0	0.0	0.0	0.0	0,0,0
254	2.53e-03	0.20	0.0	6,6,0	0.0	0.0	0.0	0,0,0
255	0.02	0.23	0.02	6,6,8	0.0	0.0	0.0	0,0,0
256	0.01	0.22	0.01	6,6,8	0.0	0.0	0.0	0,0,0
257	0.0	0.19	0.0	0,6,0	0.0	0.0	0.0	0,0,0
258	0.0	0.17	0.0	0,6,0	0.0	0.0	0.0	0,0,0
259	0.0	0.17	0.0	0,6,0	0.0	0.0	0.0	0,0,0



Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR	wF	wP	Rif. cmb
260	0.0	0.17	0.0	0,6,0	0.0	0.0	0.0	0,0,0
261	0.0	0.18	0.0	0,6,0	0.0	0.0	0.0	0,0,0
262	0.0	0.18	0.0	0,6,0	0.0	0.0	0.0	0,0,0
263	0.0	0.20	0.0	0,6,0	0.0	0.0	0.0	0,0,0
264	0.03	0.26	0.03	6,6,8	0.0	0.0	0.0	0,0,0
265	0.03	0.26	0.03	6,6,8	0.0	0.0	0.0	0,0,0
266	0.0	0.18	0.0	0,6,0	0.0	0.0	0.0	0,0,0
267	0.0	0.20	0.0	0,6,0	0.0	0.0	0.0	0,0,0
268	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
269	5.52e-03	0.21	0.0	6,6,0	0.0	0.0	0.0	0,0,0
270	0.01	0.20	8.57e-03	6,6,8	0.0	0.0	0.0	0,0,0
271	0.02	0.23	0.02	6,6,8	0.0	0.0	0.0	0,0,0
272	0.02	0.26	0.02	6,6,8	0.0	0.0	0.0	0,0,0
273	0.02	0.30	0.03	6,6,8	0.0	0.0	0.0	0,0,0
274	0.04	0.34	0.05	6,6,8	0.0	0.0	0.0	0,0,0
275	0.03	0.21	0.04	6,6,8	0.0	0.0	0.0	0,0,0
276	0.03	0.19	0.04	6,6,8	0.0	0.0	0.0	0,0,0
277	0.04	0.35	0.05	5,6,8	0.0	0.0	0.0	0,0,0
278	0.03	0.30	0.04	6,6,8	0.0	0.0	0.0	0,0,0
279	0.03	0.26	0.03	6,6,8	0.0	0.0	0.0	0,0,0
280	0.02	0.23	0.03	6,6,8	0.0	0.0	0.0	0,0,0
281	0.02	0.22	0.02	6,6,8	0.0	0.0	0.0	0,0,0
282	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
283	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
284	0.0	0.19	0.0	0,6,0	0.0	0.0	0.0	0,0,0
285	0.03	0.28	0.03	6,6,8	0.0	0.0	0.0	0,0,0
286	0.02	0.27	0.03	6,6,8	0.0	0.0	0.0	0,0,0
287	0.0	0.19	0.0	0,6,0	0.0	0.0	0.0	0,0,0
288	0.0	0.20	0.0	0,6,0	0.0	0.0	0.0	0,0,0
289	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
290	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
291	0.0	0.21	0.0	0,6,0	0.0	0.0	0.0	0,0,0
292	0.0	0.19	0.0	0,6,0	0.0	0.0	0.0	0,0,0
293	0.0	0.18	0.0	0,6,0	0.0	0.0	0.0	0,0,0
294	0.04	0.31	0.04	6,6,8	0.0	0.0	0.0	0,0,0
295	0.03	0.31	0.04	6,6,8	0.0	0.0	0.0	0,0,0
296	0.0	0.19	0.0	0,6,0	0.0	0.0	0.0	0,0,0
297	0.0	0.23	0.0	0,6,0	0.0	0.0	0.0	0,0,0
298	0.01	0.25	8.11e-03	6,6,8	0.0	0.0	0.0	0,0,0
...								
1667	0.03	0.06	0.04	6,6,8	0.0	0.0	0.0	0,0,0
Guscio	rRfck	rRfyk	rPfck		wR	wF	wP	
	0.21	0.71	0.24		0.0	0.0	0.0	



STATO LIMITE D' ESERCIZIO: SLD DANNO SISMICO

LEGENDA TABELLA STATI LIMITE DI DANNO (VERIFICHE RES)

Le verifiche RES per SLD sono effettuate in accordo alle Norme Tecniche 17 Gennaio 2018 e alla circolare n.7 del 21 gennaio 2019 nonché alle linee guida del Consiglio Superiore LL.PP. "Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP".

Le verifiche RES per SLD, sono riportate nelle successive tabelle nella forma di rapporto "domanda" su "capacità" e hanno esito positivo quando il rapporto è non superiore al valore unitario.

La "domanda" è ottenuta direttamente dall'analisi per le previste combinazioni SLD (NTC18 2.5.3. COMBINAZIONI DELLE AZIONI formula [2.5.5]).

Per "capacità" si intende qui il valore della sollecitazione corrispondente al raggiungimento dello stato limite di danno per la sezione: per la resistenza flessionale questo stato limite si identifica con la tensione di snervamento dell'acciaio o la resistenza massima a compressione per il calcestruzzo e la muratura. Lo stato limite di danno si ritiene attinto anche in caso di superamento della resistenza a taglio.

Le resistenze flessionali sono valutate utilizzando i legami costitutivi del materiale limitati al solo tratto elastico, ottenendo così resistenze sostanzialmente elastiche come previsto dalla norma.

La seguente tabella identifica per quali configurazioni (materiale nuovo, esistente, con rinforzi e metodo di analisi) sono state condotte le verifiche di seguito riportate.

Configurazione	Verifica SLD	NOTE
1) c.a. nuovo e esist. Verifica SLU con $q > 1$	Verifica N/M SE Verifica V/T	Sono verifiche per struttura non dissipativa condotte secondo il cap.4 NTC18 in regime sostanzialmente elastico; si verificano travi, pilastri, setti e gusci.
2) Muratura nuova Verifica SLU con $q > 1$	Verifica N/M SE Verifica V	Per N/M identificato SL elastico, per V formulazione secondo cap.7
3) Muratura esis. AO Verifica SLU con $q > 1$	Verifica N/M SE Verifica V	Per N/M identificato SL elastico, per V formulazione secondo cap. 7 e 8
4) Muratura esis. PO Verifica SLU con $q > 1$	Verifica N/M SE Verifica V	Per N/M identificato SL elastico, per V formulazione secondo cap. 7 e 8; Anche per rinforzi FRP è prevista verifica N/M SE e V

Simbologia adottata nelle tabelle di verifica

Per le verifiche agli SLD di pilastri, travi setti e gusci in c.a. è presente una tabella con i simboli di seguito descritti:

Pilas./Trave/ Setto/Guscio	numero identificativo dell'elemento D2 o D3
Stato	Codici relativi all'esito delle verifiche effettuate appresso descritte
Pos.	Posizione nell'elemento della sezione per la quale si riporta la verifica
V N/M	Verifica a pressoflessione con rapporto E_d/R_d : valore minore o uguale a 1 per verifica positiva
V V/T cls	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} lato cls: valore minore o uguale a 1 per verifica positiva
V V/T acc	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} lato acciaio: valore minore o uguale a 1 per verifica



	positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il pilastro

Per le verifiche agli SLD di maschi e fasce in **muratura**, è presente una tabella con i simboli di seguito descritti:

Setto/Fascia/Elem.	numero del macroelemento (D3) o elemento (D2) considerato	
Mat.	Materiale	
s=m=	Indice della sezione e del materiale assegnati all' elemento (per D2)	
Spessore	spessore dell'elemento	
Stato	ok	elemento verificato (SLD)
	NV	elemento non verificato (SLD)

e a seguire:

Nodo/Pos.	numero del nodo appartenente al setto / posizione relativa al nodo I per D2
h0/t	valore della snellezza convenzionale
P/Ap	tensione verticale media utilizzata per la verifica a pressoflessione nel piano del muro
P/Acv	tensione verticale media nella parte compressa, utilizzata nella verifica a taglio nel piano del muro
Ver. Mp	rapporto tra il momento di progetto e il momento Mrd in relazione alla verifica Par. 7.8.2.2.1 (pressoflessione complanare) effettuato per tutte le combinazioni
Ver. V	rapporto il taglio di progetto e il taglio ultimo in relazione alla verifica Par. 7.8.2.2.2 (taglio complanare) o C8.7.1.16 della circolare 21-01-19 per edifici esistenti effettuato per tutte le combinazioni (solo per elementi maschi)
Ver. V	rapporto tra il taglio di progetto e il minore dei tagli resistenti Vp e Vt in relazione alla verifica del par. 7.8.2.2.3 (solo per elementi fasce)
Rif. cmb	Combinazioni in cui si hanno i massimi valori dei rapporti Ver. Mp, Ver. V

Per elementi consolidati secondo il paragrafo C8.5.3.1 il programma opera come per gli elementi non rinforzati, considerando ai fini delle analisi e delle verifiche gli opportuni coefficienti correttivi delle rigidezze e delle resistenze.

Per elementi consolidati con FRP il programma implementa le verifiche previste dalle "Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP" approvate dal CSLLPP il 24/07/2009.

Per elementi consolidati con FRCM il programma implementa le verifiche previste dalle CNR-DT 215/2018 "Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati a Matrice Inorganica"

Per semplicità la simbologia adottata nelle tabelle è uniformata a quella degli elementi non rinforzati.

Le tabelle riportano inoltre i seguenti parametri:

Fibra	Tipo di fibra del fibrorinforzo
E fibra	Modulo elastico del fibrorinforzo
epsr	Dilatazione di rottura del fibrorinforzo
epsd	Dilatazione di calcolo
epsd(s)	Dilatazione di calcolo per combinazioni sismiche
Spess.	Spessore del fibrorinforzo, il programma prevede l' applicazione di uno strato di spessore s su entrambe le facce della parete (o sui quattro lati della sezione in caso di confinamento)
AO fib.	Area orizzontale complessiva di fibrorinforzo per metro lineare
AV fib.	Area verticale complessiva di fibrorinforzo per metro lineare



Affinché l'elemento sia verificato deve essere:

Ver. Mp, Ver.V non superiore a 1

TABELLA VERIFICHE ELEMENTI D3 SETTI C.A.

Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
459	ok	33	0.14	0.0	0.0	72,0,0	64	0.24	0.0	0.0	57,0,0
		500	0.25	0.0	0.0	57,0,0	497	0.13	0.0	0.0	72,0,0
460	ok	51	0.14	0.0	0.0	60,0,0	82	0.25	0.0	0.0	67,0,0
		501	0.26	0.0	0.0	67,0,0	498	0.14	0.0	0.0	60,0,0
461	ok	61	0.11	0.0	0.0	62,0,0	92	0.18	0.0	0.0	67,0,0
		502	0.19	0.0	0.0	47,0,0	499	0.10	0.0	0.0	62,0,0
462	ok	64	0.14	0.0	0.0	66,0,0	95	0.14	0.0	0.0	66,0,0
		503	0.11	0.0	0.0	66,0,0	500	0.12	0.0	0.0	66,0,0
463	ok	82	0.12	0.0	0.0	60,0,0	113	0.17	0.0	0.0	60,0,0
		504	0.08	0.0	0.0	44,0,0	501	0.05	0.0	0.0	60,0,0
464	ok	92	0.10	0.0	0.0	60,0,0	123	0.11	0.0	0.0	46,0,0
		505	0.07	0.0	0.0	60,0,0	502	0.07	0.0	0.0	60,0,0
465	ok	95	0.13	0.0	0.0	44,0,0	126	0.17	0.0	0.0	60,0,0
		506	0.09	0.0	0.0	66,0,0	503	0.12	0.0	0.0	66,0,0
466	ok	113	0.16	0.0	0.0	66,0,0	144	0.20	0.0	0.0	66,0,0
		507	0.12	0.0	0.0	66,0,0	504	0.08	0.0	0.0	46,0,0
467	ok	123	0.12	0.0	0.0	46,0,0	154	0.14	0.0	0.0	46,0,0
		508	0.07	0.0	0.0	42,0,0	505	0.07	0.0	0.0	60,0,0
468	ok	126	0.16	0.0	0.0	60,0,0	157	0.16	0.0	0.0	64,0,0
		509	0.11	0.0	0.0	68,0,0	506	0.11	0.0	0.0	72,0,0
469	ok	144	0.18	0.0	0.0	66,0,0	175	0.20	0.0	0.0	66,0,0
		527	0.15	0.0	0.0	66,0,0	507	0.13	0.0	0.0	66,0,0
470	ok	154	0.14	0.0	0.0	66,0,0	185	0.14	0.0	0.0	70,0,0
		537	0.09	0.0	0.0	58,0,0	508	0.09	0.0	0.0	62,0,0
471	ok	509	0.18	0.0	0.0	46,0,0	510	0.20	0.0	0.0	46,0,0
		158	0.10	0.0	0.0	66,0,0	157	0.07	0.0	0.0	47,0,0
472	ok	510	0.18	0.0	0.0	46,0,0	511	0.28	0.0	0.0	46,0,0
		159	0.24	0.0	0.0	66,0,0	158	0.10	0.0	0.0	46,0,0
473	ok	511	0.27	0.0	0.0	46,0,0	512	0.38	0.0	0.0	66,0,0
		160	0.37	0.0	0.0	66,0,0	159	0.24	0.0	0.0	46,0,0
474	ok	512	0.37	0.0	0.0	46,0,0	513	0.45	0.0	0.0	66,0,0
		161	0.45	0.0	0.0	66,0,0	160	0.36	0.0	0.0	66,0,0
475	ok	513	0.44	0.0	0.0	66,0,0	514	0.47	0.0	0.0	66,0,0
		162	0.47	0.0	0.0	66,0,0	161	0.44	0.0	0.0	66,0,0
476	ok	514	0.47	0.0	0.0	72,0,0	515	0.44	0.0	0.0	72,0,0
		163	0.43	0.0	0.0	72,0,0	162	0.46	0.0	0.0	66,0,0
477	ok	515	0.44	0.0	0.0	72,0,0	516	0.37	0.0	0.0	68,0,0
		164	0.34	0.0	0.0	68,0,0	163	0.43	0.0	0.0	72,0,0
478	ok	516	0.39	0.0	0.0	48,0,0	517	0.31	0.0	0.0	44,0,0
		165	0.25	0.0	0.0	44,0,0	164	0.35	0.0	0.0	44,0,0
479	ok	517	0.32	0.0	0.0	44,0,0	518	0.24	0.0	0.0	44,0,0
		166	0.20	0.0	0.0	44,0,0	165	0.28	0.0	0.0	44,0,0
480	ok	518	0.23	0.0	0.0	46,0,0	519	0.33	0.0	0.0	46,0,0
		167	0.29	0.0	0.0	46,0,0	166	0.18	0.0	0.0	46,0,0
481	ok	519	0.32	0.0	0.0	46,0,0	520	0.42	0.0	0.0	46,0,0
		168	0.38	0.0	0.0	46,0,0	167	0.26	0.0	0.0	46,0,0
482	ok	520	0.39	0.0	0.0	46,0,0	521	0.46	0.0	0.0	66,0,0
		169	0.45	0.0	0.0	66,0,0	168	0.37	0.0	0.0	66,0,0
483	ok	521	0.45	0.0	0.0	66,0,0	522	0.48	0.0	0.0	66,0,0
		170	0.48	0.0	0.0	66,0,0	169	0.45	0.0	0.0	66,0,0
484	ok	522	0.47	0.0	0.0	66,0,0	523	0.45	0.0	0.0	60,0,0
		171	0.45	0.0	0.0	66,0,0	170	0.48	0.0	0.0	66,0,0
485	ok	523	0.48	0.0	0.0	60,0,0	524	0.42	0.0	0.0	44,0,0
		172	0.40	0.0	0.0	44,0,0	171	0.46	0.0	0.0	60,0,0
486	ok	524	0.44	0.0	0.0	44,0,0	525	0.36	0.0	0.0	44,0,0
		173	0.33	0.0	0.0	44,0,0	172	0.41	0.0	0.0	60,0,0



Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
487	ok	525	0.38	0.0	0.0	44,0,0	526	0.28	0.0	0.0	44,0,0
		174	0.24	0.0	0.0	44,0,0	173	0.34	0.0	0.0	44,0,0
488	ok	526	0.27	0.0	0.0	44,0,0	527	0.22	0.0	0.0	44,0,0
		175	0.15	0.0	0.0	46,0,0	174	0.21	0.0	0.0	44,0,0
489	ok	527	0.24	0.0	0.0	46,0,0	528	0.30	0.0	0.0	46,0,0
		176	0.23	0.0	0.0	46,0,0	175	0.16	0.0	0.0	46,0,0
490	ok	528	0.30	0.0	0.0	46,0,0	529	0.38	0.0	0.0	42,0,0
		177	0.34	0.0	0.0	46,0,0	176	0.26	0.0	0.0	46,0,0
491	ok	529	0.36	0.0	0.0	42,0,0	530	0.44	0.0	0.0	58,0,0
		178	0.42	0.0	0.0	62,0,0	177	0.33	0.0	0.0	46,0,0
492	ok	530	0.42	0.0	0.0	62,0,0	531	0.48	0.0	0.0	62,0,0
		179	0.46	0.0	0.0	60,0,0	178	0.40	0.0	0.0	62,0,0
493	ok	531	0.46	0.0	0.0	60,0,0	532	0.48	0.0	0.0	60,0,0
		180	0.47	0.0	0.0	60,0,0	179	0.46	0.0	0.0	60,0,0
494	ok	532	0.47	0.0	0.0	60,0,0	533	0.44	0.0	0.0	60,0,0
		181	0.44	0.0	0.0	60,0,0	180	0.47	0.0	0.0	60,0,0
495	ok	533	0.45	0.0	0.0	44,0,0	534	0.38	0.0	0.0	44,0,0
		182	0.36	0.0	0.0	44,0,0	181	0.44	0.0	0.0	60,0,0
496	ok	534	0.39	0.0	0.0	44,0,0	535	0.28	0.0	0.0	44,0,0
		183	0.25	0.0	0.0	52,0,0	182	0.36	0.0	0.0	60,0,0
497	ok	535	0.30	0.0	0.0	44,0,0	536	0.20	0.0	0.0	44,0,0
		184	0.11	0.0	0.0	44,0,0	183	0.24	0.0	0.0	52,0,0
498	ok	536	0.22	0.0	0.0	44,0,0	537	0.18	0.0	0.0	44,0,0
		185	0.06	0.0	0.0	57,0,0	184	0.09	0.0	0.0	44,0,0
499	ok	537	0.16	0.0	0.0	67,0,0	188	0.25	0.0	0.0	67,0,0
		538	0.32	0.0	0.0	71,0,0	509	0.25	0.0	0.0	71,0,0
500	ok	539	0.16	0.0	0.0	72,0,0	197	0.46	0.0	0.0	72,0,0
		540	0.34	0.0	0.0	66,0,0	518	0.05	0.0	0.0	72,0,0
501	ok	541	0.18	0.0	0.0	58,0,0	206	0.20	0.0	0.0	58,0,0
		542	0.16	0.0	0.0	58,0,0	527	0.15	0.0	0.0	64,0,0
502	ok	543	0.17	0.0	0.0	61,0,0	216	0.25	0.0	0.0	61,0,0
		544	0.33	0.0	0.0	61,0,0	537	0.25	0.0	0.0	61,0,0
503	ok	545	0.26	0.0	0.0	71,0,0	219	0.33	0.0	0.0	71,0,0
		546	0.36	0.0	0.0	67,0,0	538	0.30	0.0	0.0	71,0,0
504	ok	547	0.40	0.0	0.0	68,0,0	228	0.31	0.0	0.0	66,0,0
		548	0.25	0.0	0.0	68,0,0	539	0.35	0.0	0.0	66,0,0
505	ok	549	0.19	0.0	0.0	58,0,0	237	0.17	0.0	0.0	58,0,0
		550	0.16	0.0	0.0	58,0,0	540	0.17	0.0	0.0	58,0,0
506	ok	551	0.27	0.0	0.0	61,0,0	247	0.33	0.0	0.0	61,0,0
		552	0.36	0.0	0.0	57,0,0	541	0.31	0.0	0.0	61,0,0
507	ok	553	0.32	0.0	0.0	71,0,0	250	0.37	0.0	0.0	71,0,0
		554	0.38	0.0	0.0	71,0,0	542	0.34	0.0	0.0	71,0,0
508	ok	555	0.24	0.0	0.0	66,0,0	259	0.17	0.0	0.0	66,0,0
		556	0.14	0.0	0.0	71,0,0	543	0.23	0.0	0.0	66,0,0
509	ok	557	0.17	0.0	0.0	61,0,0	268	0.15	0.0	0.0	61,0,0
		558	0.16	0.0	0.0	61,0,0	544	0.17	0.0	0.0	61,0,0
510	ok	559	0.32	0.0	0.0	61,0,0	278	0.36	0.0	0.0	61,0,0
		560	0.38	0.0	0.0	61,0,0	545	0.34	0.0	0.0	61,0,0
511	ok	561	0.37	0.0	0.0	58,0,0	281	0.39	0.0	0.0	66,0,0
		562	0.38	0.0	0.0	66,0,0	546	0.37	0.0	0.0	58,0,0
512	ok	563	0.17	0.0	0.0	71,0,0	290	0.14	0.0	0.0	71,0,0
		564	0.16	0.0	0.0	71,0,0	547	0.19	0.0	0.0	71,0,0
513	ok	565	0.17	0.0	0.0	61,0,0	299	0.15	0.0	0.0	61,0,0
		566	0.17	0.0	0.0	61,0,0	548	0.19	0.0	0.0	61,0,0
514	ok	567	0.35	0.0	0.0	61,0,0	309	0.36	0.0	0.0	60,0,0
		568	0.36	0.0	0.0	60,0,0	549	0.35	0.0	0.0	61,0,0
515	ok	569	0.39	0.0	0.0	66,0,0	312	0.35	0.0	0.0	66,0,0
		570	0.35	0.0	0.0	66,0,0	550	0.39	0.0	0.0	66,0,0
516	ok	571	0.15	0.0	0.0	71,0,0	321	0.12	0.0	0.0	71,0,0
		572	0.17	0.0	0.0	71,0,0	551	0.19	0.0	0.0	71,0,0
517	ok	573	0.15	0.0	0.0	57,0,0	330	0.13	0.0	0.0	57,0,0
		574	0.18	0.0	0.0	57,0,0	552	0.19	0.0	0.0	57,0,0
518	ok	575	0.37	0.0	0.0	60,0,0	340	0.33	0.0	0.0	64,0,0
		576	0.33	0.0	0.0	64,0,0	553	0.37	0.0	0.0	60,0,0
519	ok	577	0.36	0.0	0.0	66,0,0	343	0.27	0.0	0.0	66,0,0
		578	0.28	0.0	0.0	66,0,0	554	0.37	0.0	0.0	66,0,0
520	ok	579	0.13	0.0	0.0	53,0,0	352	0.11	0.0	0.0	53,0,0
		580	0.17	0.0	0.0	67,0,0	555	0.18	0.0	0.0	67,0,0
521	ok	581	0.13	0.0	0.0	57,0,0	361	0.11	0.0	0.0	57,0,0
		582	0.18	0.0	0.0	57,0,0	556	0.19	0.0	0.0	57,0,0
522	ok	583	0.34	0.0	0.0	60,0,0	371	0.26	0.0	0.0	60,0,0



Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		561	0.27	0.0	0.0	60,0,0	557	0.35	0.0	0.0	60,0,0
523	ok	343	0.27	0.0	0.0	72,0,0	374	0.16	0.0	0.0	72,0,0
		562	0.21	0.0	0.0	72,0,0	558	0.30	0.0	0.0	72,0,0
524	ok	352	0.10	0.0	0.0	53,0,0	383	0.09	0.0	0.0	53,0,0
		563	0.17	0.0	0.0	69,0,0	559	0.17	0.0	0.0	67,0,0
525	ok	361	0.09	0.0	0.0	57,0,0	392	0.10	0.0	0.0	63,0,0
		564	0.18	0.0	0.0	57,0,0	560	0.17	0.0	0.0	57,0,0
526	ok	371	0.25	0.0	0.0	62,0,0	402	0.16	0.0	0.0	62,0,0
		565	0.20	0.0	0.0	62,0,0	561	0.29	0.0	0.0	62,0,0
527	ok	374	0.17	0.0	0.0	72,0,0	405	0.08	0.0	0.0	72,0,0
		566	0.16	0.0	0.0	72,0,0	562	0.24	0.0	0.0	72,0,0
528	ok	383	0.06	0.0	0.0	53,0,0	414	0.08	0.0	0.0	53,0,0
		567	0.16	0.0	0.0	69,0,0	563	0.14	0.0	0.0	69,0,0
529	ok	392	0.06	0.0	0.0	57,0,0	423	0.08	0.0	0.0	63,0,0
		568	0.17	0.0	0.0	63,0,0	564	0.15	0.0	0.0	57,0,0
530	ok	402	0.16	0.0	0.0	62,0,0	433	0.08	0.0	0.0	62,0,0
		569	0.17	0.0	0.0	62,0,0	565	0.24	0.0	0.0	62,0,0
531	ok	405	0.08	0.0	0.0	72,0,0	436	0.03	0.0	0.0	72,0,0
		570	0.19	0.0	0.0	56,0,0	566	0.22	0.0	0.0	56,0,0
532	ok	414	0.04	0.0	0.0	69,0,0	445	0.05	0.0	0.0	69,0,0
		579	0.13	0.0	0.0	69,0,0	567	0.12	0.0	0.0	69,0,0
533	ok	423	0.04	0.0	0.0	63,0,0	454	0.05	0.0	0.0	63,0,0
		588	0.14	0.0	0.0	63,0,0	568	0.12	0.0	0.0	63,0,0
534	ok	433	0.08	0.0	0.0	62,0,0	464	0.03	0.0	0.0	62,0,0
		598	0.21	0.0	0.0	50,0,0	569	0.23	0.0	0.0	50,0,0
535	ok	570	0.17	0.0	0.0	69,0,0	571	0.24	0.0	0.0	69,0,0
		437	0.12	0.0	0.0	53,0,0	436	0.03	0.0	0.0	67,0,0
536	ok	571	0.18	0.0	0.0	53,0,0	572	0.26	0.0	0.0	53,0,0
		438	0.20	0.0	0.0	53,0,0	437	0.11	0.0	0.0	53,0,0
537	ok	572	0.23	0.0	0.0	50,0,0	573	0.32	0.0	0.0	50,0,0
		439	0.30	0.0	0.0	50,0,0	438	0.20	0.0	0.0	50,0,0
538	ok	573	0.31	0.0	0.0	50,0,0	574	0.36	0.0	0.0	50,0,0
		440	0.36	0.0	0.0	50,0,0	439	0.30	0.0	0.0	50,0,0
539	ok	574	0.35	0.0	0.0	50,0,0	575	0.36	0.0	0.0	50,0,0
		441	0.36	0.0	0.0	50,0,0	440	0.36	0.0	0.0	50,0,0
540	ok	575	0.35	0.0	0.0	50,0,0	576	0.30	0.0	0.0	50,0,0
		442	0.30	0.0	0.0	50,0,0	441	0.36	0.0	0.0	50,0,0
541	ok	576	0.32	0.0	0.0	51,0,0	577	0.28	0.0	0.0	51,0,0
		443	0.25	0.0	0.0	51,0,0	442	0.29	0.0	0.0	50,0,0
542	ok	577	0.33	0.0	0.0	51,0,0	578	0.27	0.0	0.0	51,0,0
		444	0.22	0.0	0.0	51,0,0	443	0.28	0.0	0.0	51,0,0
543	ok	578	0.31	0.0	0.0	51,0,0	579	0.24	0.0	0.0	51,0,0
		445	0.17	0.0	0.0	51,0,0	444	0.24	0.0	0.0	51,0,0
544	ok	579	0.24	0.0	0.0	53,0,0	580	0.31	0.0	0.0	53,0,0
		446	0.26	0.0	0.0	53,0,0	445	0.18	0.0	0.0	53,0,0
545	ok	580	0.29	0.0	0.0	53,0,0	581	0.35	0.0	0.0	53,0,0
		447	0.31	0.0	0.0	53,0,0	446	0.25	0.0	0.0	53,0,0
546	ok	581	0.30	0.0	0.0	53,0,0	582	0.36	0.0	0.0	53,0,0
		448	0.34	0.0	0.0	53,0,0	447	0.28	0.0	0.0	53,0,0
547	ok	582	0.34	0.0	0.0	50,0,0	583	0.36	0.0	0.0	50,0,0
		449	0.36	0.0	0.0	50,0,0	448	0.34	0.0	0.0	50,0,0
548	ok	583	0.34	0.0	0.0	62,0,0	584	0.34	0.0	0.0	72,0,0
		450	0.34	0.0	0.0	72,0,0	449	0.35	0.0	0.0	62,0,0
549	ok	584	0.36	0.0	0.0	56,0,0	585	0.33	0.0	0.0	56,0,0
		451	0.32	0.0	0.0	56,0,0	450	0.35	0.0	0.0	56,0,0
550	ok	585	0.36	0.0	0.0	51,0,0	586	0.30	0.0	0.0	51,0,0
		452	0.28	0.0	0.0	51,0,0	451	0.34	0.0	0.0	51,0,0
551	ok	586	0.35	0.0	0.0	51,0,0	587	0.28	0.0	0.0	51,0,0
		453	0.24	0.0	0.0	51,0,0	452	0.30	0.0	0.0	51,0,0
552	ok	587	0.31	0.0	0.0	51,0,0	588	0.25	0.0	0.0	51,0,0
		454	0.18	0.0	0.0	51,0,0	453	0.24	0.0	0.0	51,0,0
553	ok	588	0.26	0.0	0.0	53,0,0	589	0.33	0.0	0.0	53,0,0
		455	0.26	0.0	0.0	53,0,0	454	0.18	0.0	0.0	53,0,0
554	ok	589	0.29	0.0	0.0	53,0,0	590	0.35	0.0	0.0	53,0,0
		456	0.30	0.0	0.0	53,0,0	455	0.25	0.0	0.0	53,0,0
555	ok	590	0.31	0.0	0.0	53,0,0	591	0.36	0.0	0.0	53,0,0
		457	0.33	0.0	0.0	53,0,0	456	0.27	0.0	0.0	53,0,0
556	ok	591	0.32	0.0	0.0	56,0,0	592	0.39	0.0	0.0	56,0,0
		458	0.39	0.0	0.0	56,0,0	457	0.32	0.0	0.0	56,0,0
557	ok	592	0.39	0.0	0.0	56,0,0	593	0.41	0.0	0.0	56,0,0
		459	0.42	0.0	0.0	56,0,0	458	0.40	0.0	0.0	56,0,0



Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
558	ok	593	0.42	0.0	0.0	56,0,0	594	0.40	0.0	0.0	56,0,0
		460	0.40	0.0	0.0	56,0,0	459	0.42	0.0	0.0	56,0,0
559	ok	594	0.41	0.0	0.0	56,0,0	595	0.34	0.0	0.0	56,0,0
		461	0.33	0.0	0.0	56,0,0	460	0.40	0.0	0.0	56,0,0
560	ok	595	0.35	0.0	0.0	56,0,0	596	0.25	0.0	0.0	56,0,0
		462	0.22	0.0	0.0	56,0,0	461	0.32	0.0	0.0	56,0,0
561	ok	596	0.28	0.0	0.0	51,0,0	597	0.20	0.0	0.0	51,0,0
		463	0.13	0.0	0.0	51,0,0	462	0.22	0.0	0.0	51,0,0
562	ok	597	0.25	0.0	0.0	63,0,0	598	0.19	0.0	0.0	63,0,0
		464	0.04	0.0	0.0	51,0,0	463	0.13	0.0	0.0	51,0,0
563	ok	497	0.08	0.0	0.0	68,0,0	500	0.07	0.0	0.0	57,0,0
		602	0.07	0.0	0.0	57,0,0	599	0.08	0.0	0.0	68,0,0
564	ok	498	0.08	0.0	0.0	60,0,0	501	0.07	0.0	0.0	66,0,0
		603	0.06	0.0	0.0	67,0,0	600	0.08	0.0	0.0	60,0,0
565	ok	499	0.06	0.0	0.0	58,0,0	502	0.05	0.0	0.0	66,0,0
		604	0.05	0.0	0.0	67,0,0	601	0.06	0.0	0.0	58,0,0
566	ok	500	0.06	0.0	0.0	68,0,0	503	0.08	0.0	0.0	66,0,0
		605	0.12	0.0	0.0	66,0,0	602	0.05	0.0	0.0	68,0,0
567	ok	501	0.05	0.0	0.0	62,0,0	504	0.11	0.0	0.0	46,0,0
		606	0.15	0.0	0.0	66,0,0	603	0.05	0.0	0.0	58,0,0
568	ok	502	0.04	0.0	0.0	58,0,0	505	0.07	0.0	0.0	46,0,0
		607	0.09	0.0	0.0	60,0,0	604	0.04	0.0	0.0	58,0,0
569	ok	503	0.08	0.0	0.0	72,0,0	506	0.12	0.0	0.0	68,0,0
		608	0.09	0.0	0.0	48,0,0	605	0.08	0.0	0.0	72,0,0
570	ok	504	0.11	0.0	0.0	66,0,0	507	0.15	0.0	0.0	58,0,0
		609	0.12	0.0	0.0	58,0,0	606	0.08	0.0	0.0	66,0,0
571	ok	505	0.07	0.0	0.0	46,0,0	508	0.10	0.0	0.0	42,0,0
		610	0.07	0.0	0.0	46,0,0	607	0.05	0.0	0.0	62,0,0
572	ok	506	0.13	0.0	0.0	72,0,0	509	0.14	0.0	0.0	72,0,0
		611	0.11	0.0	0.0	68,0,0	608	0.10	0.0	0.0	68,0,0
573	ok	507	0.16	0.0	0.0	58,0,0	527	0.17	0.0	0.0	60,0,0
		629	0.11	0.0	0.0	58,0,0	609	0.11	0.0	0.0	66,0,0
574	ok	508	0.11	0.0	0.0	62,0,0	537	0.12	0.0	0.0	62,0,0
		639	0.08	0.0	0.0	58,0,0	610	0.08	0.0	0.0	58,0,0
575	ok	611	0.34	0.0	0.0	67,0,0	612	0.32	0.0	0.0	63,0,0
		510	0.17	0.0	0.0	46,0,0	509	0.17	0.0	0.0	46,0,0
576	ok	612	0.25	0.0	0.0	47,0,0	613	0.22	0.0	0.0	47,0,0
		511	0.17	0.0	0.0	67,0,0	510	0.19	0.0	0.0	47,0,0
577	ok	613	0.25	0.0	0.0	47,0,0	614	0.22	0.0	0.0	47,0,0
		512	0.16	0.0	0.0	67,0,0	511	0.18	0.0	0.0	59,0,0
578	ok	614	0.20	0.0	0.0	47,0,0	615	0.18	0.0	0.0	67,0,0
		513	0.12	0.0	0.0	67,0,0	512	0.14	0.0	0.0	67,0,0
579	ok	615	0.16	0.0	0.0	67,0,0	616	0.14	0.0	0.0	67,0,0
		514	0.08	0.0	0.0	67,0,0	513	0.09	0.0	0.0	67,0,0
580	ok	616	0.13	0.0	0.0	41,0,0	617	0.14	0.0	0.0	41,0,0
		515	0.11	0.0	0.0	44,0,0	514	0.09	0.0	0.0	44,0,0
581	ok	617	0.14	0.0	0.0	44,0,0	618	0.15	0.0	0.0	57,0,0
		516	0.14	0.0	0.0	44,0,0	515	0.13	0.0	0.0	44,0,0
582	ok	618	0.21	0.0	0.0	44,0,0	619	0.19	0.0	0.0	44,0,0
		517	0.18	0.0	0.0	44,0,0	516	0.20	0.0	0.0	44,0,0
583	ok	619	0.30	0.0	0.0	44,0,0	620	0.25	0.0	0.0	47,0,0
		518	0.16	0.0	0.0	47,0,0	517	0.21	0.0	0.0	44,0,0
584	ok	620	0.24	0.0	0.0	41,0,0	621	0.30	0.0	0.0	46,0,0
		519	0.23	0.0	0.0	46,0,0	518	0.17	0.0	0.0	41,0,0
585	ok	621	0.18	0.0	0.0	46,0,0	622	0.19	0.0	0.0	46,0,0
		520	0.20	0.0	0.0	46,0,0	519	0.19	0.0	0.0	46,0,0
586	ok	622	0.18	0.0	0.0	67,0,0	623	0.16	0.0	0.0	67,0,0
		521	0.14	0.0	0.0	46,0,0	520	0.15	0.0	0.0	67,0,0
587	ok	623	0.16	0.0	0.0	47,0,0	624	0.15	0.0	0.0	47,0,0
		522	0.11	0.0	0.0	47,0,0	521	0.12	0.0	0.0	47,0,0
588	ok	624	0.13	0.0	0.0	47,0,0	625	0.14	0.0	0.0	41,0,0
		523	0.10	0.0	0.0	41,0,0	522	0.10	0.0	0.0	47,0,0
589	ok	625	0.16	0.0	0.0	41,0,0	626	0.19	0.0	0.0	41,0,0
		524	0.16	0.0	0.0	44,0,0	523	0.13	0.0	0.0	44,0,0
590	ok	626	0.19	0.0	0.0	41,0,0	627	0.23	0.0	0.0	41,0,0
		525	0.20	0.0	0.0	41,0,0	524	0.17	0.0	0.0	44,0,0
591	ok	627	0.21	0.0	0.0	44,0,0	628	0.22	0.0	0.0	44,0,0
		526	0.22	0.0	0.0	44,0,0	525	0.21	0.0	0.0	44,0,0
592	ok	628	0.31	0.0	0.0	47,0,0	629	0.27	0.0	0.0	47,0,0
		527	0.20	0.0	0.0	47,0,0	526	0.23	0.0	0.0	47,0,0
593	ok	629	0.29	0.0	0.0	46,0,0	630	0.33	0.0	0.0	46,0,0
		528	0.25	0.0	0.0	46,0,0	527	0.21	0.0	0.0	46,0,0



Setto	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
594	ok	630	0.23	0.0	0.0	46,0,0	631	0.21	0.0	0.0	46,0,0
		529	0.21	0.0	0.0	46,0,0	528	0.24	0.0	0.0	46,0,0
595	ok	631	0.23	0.0	0.0	47,0,0	632	0.19	0.0	0.0	47,0,0
		530	0.16	0.0	0.0	46,0,0	529	0.20	0.0	0.0	46,0,0
596	ok	632	0.19	0.0	0.0	47,0,0	633	0.15	0.0	0.0	47,0,0
		531	0.12	0.0	0.0	46,0,0	530	0.15	0.0	0.0	46,0,0
597	ok	633	0.14	0.0	0.0	47,0,0	634	0.14	0.0	0.0	41,0,0
		532	0.08	0.0	0.0	47,0,0	531	0.10	0.0	0.0	46,0,0
598	ok	634	0.17	0.0	0.0	41,0,0	635	0.18	0.0	0.0	41,0,0
		533	0.11	0.0	0.0	57,0,0	532	0.10	0.0	0.0	57,0,0
599	ok	635	0.20	0.0	0.0	41,0,0	636	0.22	0.0	0.0	41,0,0
		534	0.16	0.0	0.0	57,0,0	533	0.13	0.0	0.0	57,0,0
600	ok	636	0.24	0.0	0.0	57,0,0	637	0.27	0.0	0.0	41,0,0
		535	0.20	0.0	0.0	57,0,0	534	0.18	0.0	0.0	57,0,0
601	ok	637	0.23	0.0	0.0	41,0,0	638	0.25	0.0	0.0	41,0,0
		536	0.21	0.0	0.0	57,0,0	535	0.20	0.0	0.0	57,0,0
602	ok	638	0.33	0.0	0.0	69,0,0	639	0.36	0.0	0.0	41,0,0
		537	0.18	0.0	0.0	44,0,0	536	0.18	0.0	0.0	44,0,0
603	ok	509	0.24	0.0	0.0	71,0,0	538	0.28	0.0	0.0	71,0,0
		640	0.38	0.0	0.0	67,0,0	611	0.34	0.0	0.0	67,0,0
604	ok	518	0.13	0.0	0.0	66,0,0	539	0.31	0.0	0.0	66,0,0
		641	0.47	0.0	0.0	72,0,0	620	0.32	0.0	0.0	66,0,0
605	ok	527	0.17	0.0	0.0	64,0,0	540	0.17	0.0	0.0	64,0,0
		642	0.20	0.0	0.0	64,0,0	629	0.20	0.0	0.0	64,0,0
606	ok	537	0.25	0.0	0.0	61,0,0	541	0.29	0.0	0.0	61,0,0
		643	0.39	0.0	0.0	57,0,0	639	0.35	0.0	0.0	57,0,0
607	ok	538	0.24	0.0	0.0	71,0,0	542	0.22	0.0	0.0	70,0,0
		644	0.21	0.0	0.0	70,0,0	640	0.23	0.0	0.0	70,0,0
...											
1290	ok	1210	0.24	0.0	0.0	57,0,0	1209	0.24	0.0	0.0	61,0,0
Setto			V N/M	V V/T cls	V V/T acc			V N/M	V V/T cls	V V/T acc	
			0.69	0.0	0.0						

TABELLA VERIFICHE ELEMENTI D3 GUSCI C.A.

Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
1	ok	1	0.39	0.0	0.0	68,0,0	2	0.35	0.0	0.0	68,0,0
		33	0.35	0.0	0.0	68,0,0	32	0.39	0.0	0.0	68,0,0
2	ok	2	0.31	0.0	0.0	72,0,0	3	0.29	0.0	0.0	68,0,0
		34	0.33	0.0	0.0	72,0,0	33	0.35	0.0	0.0	72,0,0
3	ok	3	0.19	0.0	0.0	64,0,0	4	0.21	0.0	0.0	68,0,0
		35	0.28	0.0	0.0	68,0,0	34	0.24	0.0	0.0	68,0,0
4	ok	4	0.32	0.0	0.0	60,0,0	5	0.32	0.0	0.0	68,0,0
		36	0.34	0.0	0.0	68,0,0	35	0.34	0.0	0.0	68,0,0
5	ok	5	0.34	0.0	0.0	60,0,0	6	0.34	0.0	0.0	60,0,0
		37	0.34	0.0	0.0	68,0,0	36	0.35	0.0	0.0	68,0,0
6	ok	6	0.33	0.0	0.0	60,0,0	7	0.32	0.0	0.0	60,0,0
		38	0.31	0.0	0.0	60,0,0	37	0.32	0.0	0.0	60,0,0
7	ok	7	0.29	0.0	0.0	60,0,0	8	0.28	0.0	0.0	60,0,0
		39	0.26	0.0	0.0	60,0,0	38	0.27	0.0	0.0	60,0,0
8	ok	8	0.25	0.0	0.0	60,0,0	9	0.24	0.0	0.0	60,0,0
		40	0.22	0.0	0.0	60,0,0	39	0.23	0.0	0.0	60,0,0
9	ok	9	0.22	0.0	0.0	60,0,0	10	0.22	0.0	0.0	60,0,0
		41	0.19	0.0	0.0	60,0,0	40	0.20	0.0	0.0	60,0,0
10	ok	10	0.21	0.0	0.0	60,0,0	11	0.21	0.0	0.0	60,0,0
		42	0.18	0.0	0.0	60,0,0	41	0.18	0.0	0.0	60,0,0
11	ok	11	0.22	0.0	0.0	60,0,0	12	0.23	0.0	0.0	60,0,0
		43	0.20	0.0	0.0	60,0,0	42	0.19	0.0	0.0	60,0,0
12	ok	12	0.25	0.0	0.0	60,0,0	13	0.26	0.0	0.0	60,0,0
		44	0.24	0.0	0.0	60,0,0	43	0.23	0.0	0.0	60,0,0
13	ok	13	0.28	0.0	0.0	60,0,0	14	0.29	0.0	0.0	60,0,0



Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		45	0.27	0.0	0.0	60,0,0	44	0.27	0.0	0.0	60,0,0
14	ok	14	0.31	0.0	0.0	60,0,0	15	0.32	0.0	0.0	60,0,0
		46	0.31	0.0	0.0	60,0,0	45	0.30	0.0	0.0	60,0,0
15	ok	15	0.31	0.0	0.0	60,0,0	16	0.32	0.0	0.0	60,0,0
		47	0.32	0.0	0.0	60,0,0	46	0.32	0.0	0.0	60,0,0
16	ok	16	0.27	0.0	0.0	60,0,0	17	0.27	0.0	0.0	60,0,0
		48	0.29	0.0	0.0	60,0,0	47	0.29	0.0	0.0	60,0,0
17	ok	17	0.24	0.0	0.0	60,0,0	18	0.23	0.0	0.0	60,0,0
		49	0.23	0.0	0.0	60,0,0	48	0.24	0.0	0.0	60,0,0
18	ok	18	0.55	0.0	0.0	64,0,0	19	0.37	0.0	0.0	64,0,0
		50	0.26	0.0	0.0	64,0,0	49	0.39	0.0	0.0	64,0,0
19	ok	19	0.71	0.0	0.0	58,0,0	20	0.72	0.0	0.0	58,0,0
		51	0.64	0.0	0.0	62,0,0	50	0.64	0.0	0.0	62,0,0
20	ok	20	0.68	0.0	0.0	66,0,0	21	0.67	0.0	0.0	66,0,0
		52	0.60	0.0	0.0	66,0,0	51	0.60	0.0	0.0	66,0,0
21	ok	21	0.27	0.0	0.0	72,0,0	22	0.27	0.0	0.0	66,0,0
		53	0.17	0.0	0.0	72,0,0	52	0.17	0.0	0.0	72,0,0
22	ok	22	0.14	0.0	0.0	66,0,0	23	0.14	0.0	0.0	66,0,0
		54	0.16	0.0	0.0	66,0,0	53	0.17	0.0	0.0	66,0,0
23	ok	23	0.27	0.0	0.0	66,0,0	24	0.26	0.0	0.0	66,0,0
		55	0.27	0.0	0.0	66,0,0	54	0.27	0.0	0.0	66,0,0
24	ok	24	0.33	0.0	0.0	66,0,0	25	0.33	0.0	0.0	66,0,0
		56	0.31	0.0	0.0	66,0,0	55	0.32	0.0	0.0	66,0,0
25	ok	25	0.36	0.0	0.0	66,0,0	26	0.36	0.0	0.0	66,0,0
		57	0.33	0.0	0.0	66,0,0	56	0.33	0.0	0.0	66,0,0
26	ok	26	0.35	0.0	0.0	66,0,0	27	0.36	0.0	0.0	66,0,0
		58	0.34	0.0	0.0	66,0,0	57	0.33	0.0	0.0	66,0,0
27	ok	27	0.31	0.0	0.0	66,0,0	28	0.32	0.0	0.0	66,0,0
		59	0.32	0.0	0.0	66,0,0	58	0.31	0.0	0.0	58,0,0
28	ok	28	0.19	0.0	0.0	58,0,0	29	0.17	0.0	0.0	58,0,0
		60	0.23	0.0	0.0	58,0,0	59	0.25	0.0	0.0	58,0,0
29	ok	29	0.15	0.0	0.0	62,0,0	30	0.17	0.0	0.0	62,0,0
		61	0.21	0.0	0.0	66,0,0	60	0.18	0.0	0.0	58,0,0
30	ok	30	0.25	0.0	0.0	58,0,0	31	0.29	0.0	0.0	58,0,0
		62	0.30	0.0	0.0	58,0,0	61	0.26	0.0	0.0	58,0,0
31	ok	50	0.68	0.12	0.90	62,58,58	51	0.68	0.12	0.90	62,58,58
		82	0.68	0.12	0.90	62,58,58					
32	ok	32	0.51	0.0	0.0	68,0,0	33	0.55	0.0	0.0	68,0,0
		64	0.50	0.0	0.0	68,0,0	63	0.46	0.0	0.0	68,0,0
33	ok	33	0.53	0.0	0.0	60,0,0	34	0.46	0.0	0.0	60,0,0
		65	0.45	0.0	0.0	64,0,0	64	0.54	0.0	0.0	60,0,0
34	ok	34	0.34	0.0	0.0	64,0,0	35	0.34	0.0	0.0	68,0,0
		66	0.37	0.0	0.0	68,0,0	65	0.38	0.0	0.0	60,0,0
35	ok	35	0.39	0.0	0.0	68,0,0	36	0.39	0.0	0.0	68,0,0
		67	0.39	0.0	0.0	68,0,0	66	0.39	0.0	0.0	68,0,0
36	ok	36	0.39	0.0	0.0	68,0,0	37	0.37	0.0	0.0	68,0,0
		68	0.35	0.0	0.0	68,0,0	67	0.37	0.0	0.0	68,0,0
37	ok	37	0.35	0.0	0.0	60,0,0	38	0.32	0.0	0.0	68,0,0
		69	0.29	0.0	0.0	68,0,0	68	0.31	0.0	0.0	68,0,0
38	ok	38	0.29	0.0	0.0	60,0,0	39	0.26	0.0	0.0	60,0,0
		70	0.22	0.0	0.0	70,0,0	69	0.24	0.0	0.0	68,0,0
39	ok	39	0.23	0.0	0.0	62,0,0	40	0.21	0.0	0.0	60,0,0
		71	0.17	0.0	0.0	62,0,0	70	0.19	0.0	0.0	62,0,0
40	ok	40	0.19	0.0	0.0	62,0,0	41	0.18	0.0	0.0	60,0,0
		72	0.13	0.0	0.0	62,0,0	71	0.15	0.0	0.0	62,0,0
41	ok	41	0.17	0.0	0.0	60,0,0	42	0.18	0.0	0.0	60,0,0
		73	0.13	0.0	0.0	60,0,0	72	0.13	0.0	0.0	62,0,0
42	ok	42	0.19	0.0	0.0	60,0,0	43	0.20	0.0	0.0	60,0,0
		74	0.16	0.0	0.0	60,0,0	73	0.14	0.0	0.0	60,0,0
43	ok	43	0.23	0.0	0.0	60,0,0	44	0.25	0.0	0.0	60,0,0
		75	0.20	0.0	0.0	60,0,0	74	0.19	0.0	0.0	60,0,0
44	ok	44	0.28	0.0	0.0	60,0,0	45	0.30	0.0	0.0	60,0,0
		76	0.26	0.0	0.0	60,0,0	75	0.24	0.0	0.0	60,0,0
45	ok	45	0.32	0.0	0.0	60,0,0	46	0.34	0.0	0.0	60,0,0
		77	0.31	0.0	0.0	60,0,0	76	0.29	0.0	0.0	60,0,0
46	ok	46	0.35	0.0	0.0	60,0,0	47	0.36	0.0	0.0	60,0,0
		78	0.35	0.0	0.0	60,0,0	77	0.33	0.0	0.0	60,0,0
47	ok	47	0.33	0.0	0.0	60,0,0	48	0.34	0.0	0.0	60,0,0
		79	0.34	0.0	0.0	60,0,0	78	0.34	0.0	0.0	60,0,0
48	ok	48	0.31	0.0	0.0	60,0,0	49	0.32	0.0	0.0	60,0,0
		80	0.32	0.0	0.0	60,0,0	79	0.30	0.0	0.0	60,0,0



Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
49	ok	49	0.45	0.0	0.0	64,0,0	50	0.35	0.0	0.0	72,0,0
		81	0.43	0.0	0.0	62,0,0	80	0.44	0.0	0.0	64,0,0
50	ok	51	0.66	0.0	0.0	66,0,0	52	0.62	0.0	0.0	66,0,0
		83	0.46	0.0	0.0	66,0,0	82	0.52	0.0	0.0	58,0,0
51	ok	52	0.20	0.0	0.0	66,0,0	53	0.19	0.0	0.0	72,0,0
		84	0.20	0.0	0.0	66,0,0	83	0.26	0.0	0.0	58,0,0
52	ok	53	0.19	0.0	0.0	66,0,0	54	0.21	0.0	0.0	66,0,0
		85	0.24	0.0	0.0	66,0,0	84	0.22	0.0	0.0	66,0,0
53	ok	54	0.31	0.0	0.0	66,0,0	55	0.30	0.0	0.0	66,0,0
		86	0.28	0.0	0.0	66,0,0	85	0.29	0.0	0.0	66,0,0
54	ok	55	0.34	0.0	0.0	66,0,0	56	0.33	0.0	0.0	66,0,0
		87	0.27	0.0	0.0	66,0,0	86	0.29	0.0	0.0	66,0,0
55	ok	56	0.34	0.0	0.0	66,0,0	57	0.34	0.0	0.0	66,0,0
		88	0.27	0.0	0.0	66,0,0	87	0.27	0.0	0.0	66,0,0
56	ok	57	0.34	0.0	0.0	66,0,0	58	0.36	0.0	0.0	66,0,0
		89	0.30	0.0	0.0	58,0,0	88	0.28	0.0	0.0	58,0,0
57	ok	58	0.34	0.0	0.0	58,0,0	59	0.35	0.0	0.0	58,0,0
		90	0.32	0.0	0.0	58,0,0	89	0.31	0.0	0.0	58,0,0
58	ok	59	0.29	0.0	0.0	58,0,0	60	0.28	0.0	0.0	58,0,0
		91	0.28	0.0	0.0	58,0,0	90	0.30	0.0	0.0	58,0,0
59	ok	60	0.26	0.0	0.0	66,0,0	61	0.36	0.0	0.0	66,0,0
		92	0.38	0.0	0.0	70,0,0	91	0.28	0.0	0.0	70,0,0
60	ok	61	0.41	0.0	0.0	66,0,0	62	0.38	0.0	0.0	58,0,0
		93	0.35	0.0	0.0	58,0,0	92	0.37	0.0	0.0	66,0,0
61	ok	81	0.55	0.0	0.0	64,0,0	50	0.54	0.0	0.0	64,0,0
		82	0.55	0.0	0.0	64,0,0					
62	ok	63	0.41	0.0	0.0	60,0,0	64	0.43	0.0	0.0	60,0,0
		95	0.40	0.0	0.0	60,0,0	94	0.39	0.0	0.0	60,0,0
63	ok	64	0.47	0.0	0.0	60,0,0	65	0.48	0.0	0.0	64,0,0
		96	0.44	0.0	0.0	64,0,0	95	0.44	0.0	0.0	60,0,0
64	ok	65	0.41	0.0	0.0	60,0,0	66	0.36	0.0	0.0	64,0,0
		97	0.38	0.0	0.0	60,0,0	96	0.43	0.0	0.0	60,0,0
65	ok	66	0.37	0.0	0.0	68,0,0	67	0.34	0.0	0.0	68,0,0
		98	0.33	0.0	0.0	60,0,0	97	0.37	0.0	0.0	60,0,0
66	ok	67	0.32	0.0	0.0	68,0,0	68	0.28	0.0	0.0	68,0,0
		99	0.29	0.0	0.0	60,0,0	98	0.31	0.0	0.0	60,0,0
67	ok	68	0.25	0.0	0.0	60,0,0	69	0.24	0.0	0.0	60,0,0
		100	0.27	0.0	0.0	60,0,0	99	0.28	0.0	0.0	60,0,0
68	ok	69	0.23	0.0	0.0	60,0,0	70	0.23	0.0	0.0	60,0,0
		101	0.25	0.0	0.0	60,0,0	100	0.26	0.0	0.0	60,0,0
69	ok	70	0.22	0.0	0.0	60,0,0	71	0.22	0.0	0.0	60,0,0
		102	0.23	0.0	0.0	60,0,0	101	0.24	0.0	0.0	60,0,0
70	ok	71	0.21	0.0	0.0	60,0,0	72	0.19	0.0	0.0	60,0,0
		103	0.21	0.0	0.0	60,0,0	102	0.23	0.0	0.0	60,0,0
71	ok	72	0.18	0.0	0.0	60,0,0	73	0.17	0.0	0.0	60,0,0
		104	0.19	0.0	0.0	60,0,0	103	0.21	0.0	0.0	60,0,0
72	ok	73	0.18	0.0	0.0	60,0,0	74	0.19	0.0	0.0	60,0,0
		105	0.21	0.0	0.0	60,0,0	104	0.19	0.0	0.0	60,0,0
73	ok	74	0.20	0.0	0.0	60,0,0	75	0.21	0.0	0.0	60,0,0
		106	0.24	0.0	0.0	60,0,0	105	0.22	0.0	0.0	60,0,0
74	ok	75	0.22	0.0	0.0	60,0,0	76	0.22	0.0	0.0	60,0,0
		107	0.24	0.0	0.0	68,0,0	106	0.24	0.0	0.0	64,0,0
75	ok	76	0.23	0.0	0.0	68,0,0	77	0.26	0.0	0.0	60,0,0
		108	0.26	0.0	0.0	60,0,0	107	0.25	0.0	0.0	60,0,0
76	ok	77	0.28	0.0	0.0	60,0,0	78	0.30	0.0	0.0	60,0,0
		109	0.28	0.0	0.0	60,0,0	108	0.27	0.0	0.0	60,0,0
77	ok	78	0.29	0.0	0.0	60,0,0	79	0.31	0.0	0.0	60,0,0
		110	0.33	0.0	0.0	70,0,0	109	0.31	0.0	0.0	68,0,0
78	ok	79	0.35	0.0	0.0	68,0,0	80	0.38	0.0	0.0	62,0,0
		111	0.39	0.0	0.0	62,0,0	110	0.36	0.0	0.0	70,0,0
79	ok	80	0.48	0.0	0.0	58,0,0	81	0.39	0.0	0.0	66,0,0
		112	0.42	0.0	0.0	66,0,0	111	0.44	0.0	0.0	58,0,0
80	ok	81	0.54	0.0	0.0	64,0,0	82	0.52	0.0	0.0	64,0,0
		113	0.44	0.0	0.0	64,0,0	112	0.48	0.0	0.0	64,0,0
81	ok	82	0.51	0.0	0.0	66,0,0	83	0.46	0.0	0.0	66,0,0
		114	0.40	0.0	0.0	66,0,0	113	0.46	0.0	0.0	58,0,0
82	ok	83	0.27	0.0	0.0	66,0,0	84	0.24	0.0	0.0	66,0,0
		115	0.28	0.0	0.0	66,0,0	114	0.31	0.0	0.0	66,0,0
83	ok	84	0.23	0.0	0.0	66,0,0	85	0.23	0.0	0.0	66,0,0
		116	0.22	0.0	0.0	66,0,0	115	0.23	0.0	0.0	66,0,0
84	ok	85	0.28	0.0	0.0	66,0,0	86	0.26	0.0	0.0	66,0,0



Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
		117	0.23	0.0	0.0	66,0,0	116	0.25	0.0	0.0	66,0,0
85	ok	86	0.28	0.0	0.0	66,0,0	87	0.26	0.0	0.0	66,0,0
		118	0.19	0.0	0.0	66,0,0	117	0.21	0.0	0.0	66,0,0
86	ok	87	0.25	0.0	0.0	66,0,0	88	0.25	0.0	0.0	66,0,0
		119	0.17	0.0	0.0	66,0,0	118	0.18	0.0	0.0	66,0,0
87	ok	88	0.26	0.0	0.0	58,0,0	89	0.28	0.0	0.0	58,0,0
		120	0.21	0.0	0.0	58,0,0	119	0.18	0.0	0.0	58,0,0
88	ok	89	0.29	0.0	0.0	58,0,0	90	0.32	0.0	0.0	58,0,0
		121	0.26	0.0	0.0	58,0,0	120	0.23	0.0	0.0	58,0,0
89	ok	90	0.29	0.0	0.0	58,0,0	91	0.32	0.0	0.0	58,0,0
		122	0.28	0.0	0.0	58,0,0	121	0.26	0.0	0.0	58,0,0
90	ok	91	0.31	0.0	0.0	70,0,0	92	0.33	0.0	0.0	66,0,0
		123	0.31	0.0	0.0	66,0,0	122	0.28	0.0	0.0	70,0,0
91	ok	92	0.32	0.0	0.0	66,0,0	93	0.31	0.0	0.0	66,0,0
		124	0.30	0.0	0.0	66,0,0	123	0.30	0.0	0.0	66,0,0
92	ok	94	0.30	0.0	0.0	60,0,0	95	0.33	0.0	0.0	60,0,0
		126	0.31	0.0	0.0	60,0,0	125	0.28	0.0	0.0	60,0,0
93	ok	95	0.38	0.0	0.0	60,0,0	96	0.47	0.0	0.0	60,0,0
		127	0.39	0.0	0.0	60,0,0	126	0.33	0.0	0.0	68,0,0
94	ok	96	0.46	0.0	0.0	60,0,0	97	0.48	0.0	0.0	60,0,0
		128	0.45	0.0	0.0	60,0,0	127	0.43	0.0	0.0	60,0,0
95	ok	97	0.46	0.0	0.0	60,0,0	98	0.50	0.0	0.0	60,0,0
		129	0.49	0.0	0.0	60,0,0	128	0.46	0.0	0.0	60,0,0
96	ok	98	0.48	0.0	0.0	60,0,0	99	0.51	0.0	0.0	60,0,0
		130	0.51	0.0	0.0	60,0,0	129	0.49	0.0	0.0	60,0,0
97	ok	99	0.50	0.0	0.0	60,0,0	100	0.52	0.0	0.0	60,0,0
		131	0.38	0.0	0.0	60,0,0	130	0.50	0.0	0.0	60,0,0
98	ok	100	0.51	0.0	0.0	60,0,0	101	0.54	0.0	0.0	60,0,0
		132	0.40	0.0	0.0	60,0,0	131	0.38	0.0	0.0	60,0,0
99	ok	101	0.54	0.0	0.0	60,0,0	102	0.56	0.0	0.0	60,0,0
		133	0.41	0.0	0.0	60,0,0	132	0.39	0.0	0.0	60,0,0
100	ok	102	0.56	0.0	0.0	60,0,0	103	0.55	0.0	0.0	60,0,0
		134	0.41	0.0	0.0	60,0,0	133	0.41	0.0	0.0	68,0,0
101	ok	103	0.56	0.0	0.0	60,0,0	104	0.51	0.0	0.0	60,0,0
		135	0.38	0.0	0.0	60,0,0	134	0.42	0.0	0.0	60,0,0
102	ok	104	0.51	0.0	0.0	60,0,0	105	0.55	0.0	0.0	60,0,0
		136	0.41	0.0	0.0	60,0,0	135	0.38	0.0	0.0	60,0,0
103	ok	105	0.55	0.0	0.0	64,0,0	106	0.53	0.0	0.0	72,0,0
		137	0.39	0.0	0.0	72,0,0	136	0.40	0.0	0.0	60,0,0
104	ok	106	0.53	0.0	0.0	60,0,0	107	0.49	0.0	0.0	68,0,0
		138	0.49	0.0	0.0	72,0,0	137	0.38	0.0	0.0	60,0,0
105	ok	107	0.50	0.0	0.0	68,0,0	108	0.46	0.0	0.0	68,0,0
		139	0.46	0.0	0.0	68,0,0	138	0.50	0.0	0.0	68,0,0
106	ok	108	0.47	0.0	0.0	68,0,0	109	0.43	0.0	0.0	68,0,0
		140	0.43	0.0	0.0	66,0,0	139	0.47	0.0	0.0	68,0,0
107	ok	109	0.45	0.0	0.0	72,0,0	110	0.42	0.0	0.0	66,0,0
		141	0.42	0.0	0.0	66,0,0	140	0.45	0.0	0.0	66,0,0
108	ok	110	0.46	0.0	0.0	66,0,0	111	0.42	0.0	0.0	66,0,0
		142	0.40	0.0	0.0	66,0,0	141	0.43	0.0	0.0	66,0,0
109	ok	111	0.46	0.0	0.0	66,0,0	112	0.41	0.0	0.0	58,0,0
		143	0.35	0.0	0.0	58,0,0	142	0.40	0.0	0.0	66,0,0
110	ok	112	0.48	0.0	0.0	58,0,0	113	0.43	0.0	0.0	64,0,0
		144	0.24	0.0	0.0	66,0,0	143	0.30	0.0	0.0	58,0,0
111	ok	113	0.42	0.0	0.0	58,0,0	114	0.40	0.0	0.0	66,0,0
		145	0.23	0.0	0.0	58,0,0	144	0.31	0.0	0.0	66,0,0
112	ok	114	0.29	0.0	0.0	66,0,0	115	0.32	0.0	0.0	66,0,0
		146	0.29	0.0	0.0	66,0,0	145	0.25	0.0	0.0	66,0,0
113	ok	115	0.27	0.0	0.0	66,0,0	116	0.29	0.0	0.0	66,0,0
		147	0.29	0.0	0.0	66,0,0	146	0.27	0.0	0.0	66,0,0
114	ok	116	0.26	0.0	0.0	66,0,0	117	0.27	0.0	0.0	66,0,0
		148	0.28	0.0	0.0	66,0,0	147	0.27	0.0	0.0	66,0,0
115	ok	117	0.25	0.0	0.0	46,0,0	118	0.27	0.0	0.0	46,0,0
		149	0.28	0.0	0.0	46,0,0	148	0.27	0.0	0.0	46,0,0
116	ok	118	0.27	0.0	0.0	46,0,0	119	0.28	0.0	0.0	46,0,0
		150	0.30	0.0	0.0	46,0,0	149	0.28	0.0	0.0	46,0,0
117	ok	119	0.29	0.0	0.0	46,0,0	120	0.29	0.0	0.0	46,0,0
		151	0.30	0.0	0.0	46,0,0	150	0.31	0.0	0.0	46,0,0
118	ok	120	0.31	0.0	0.0	46,0,0	121	0.30	0.0	0.0	46,0,0
		152	0.31	0.0	0.0	46,0,0	151	0.31	0.0	0.0	46,0,0
119	ok	121	0.32	0.0	0.0	46,0,0	122	0.30	0.0	0.0	46,0,0
		153	0.29	0.0	0.0	46,0,0	152	0.31	0.0	0.0	46,0,0

MANDATARIA

MANDANTE

PROGETTISTA INDICATO

TABULATO DI CALCOLO



REV. 00

Pag. 235 di
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Guscio	Stato	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb	Nodo	V N/M	V V/T cls	V V/T acc	Rif. cmb
120	ok	122	0.31	0.0	0.0	66,0,0	123	0.29	0.0	0.0	66,0,0
		154	0.25	0.0	0.0	58,0,0	153	0.27	0.0	0.0	66,0,0
121	ok	123	0.27	0.0	0.0	66,0,0	124	0.23	0.0	0.0	66,0,0
		155	0.21	0.0	0.0	66,0,0	154	0.25	0.0	0.0	66,0,0
122	ok	126	0.44	0.0	0.0	60,0,0	127	0.44	0.0	0.0	60,0,0
		158	0.44	0.0	0.0	60,0,0					
123	ok	143	0.28	0.0	0.0	46,0,0	144	0.28	0.0	0.0	46,0,0
		175	0.28	0.0	0.0	46,0,0					
124	ok	144	0.30	0.0	0.0	42,0,0	145	0.30	0.0	0.0	42,0,0
		176	0.30	0.0	0.0	42,0,0					
125	ok	125	0.31	0.0	0.0	60,0,0	126	0.34	0.0	0.0	44,0,0
		157	0.31	0.0	0.0	44,0,0	156	0.27	0.0	0.0	60,0,0
126	ok	127	0.48	0.0	0.0	60,0,0	128	0.66	0.0	0.0	60,0,0
		159	0.60	0.0	0.0	60,0,0	158	0.42	0.0	0.0	60,0,0
127	ok	128	0.64	0.0	0.0	60,0,0	129	0.76	0.0	0.0	60,0,0
		160	0.74	0.0	0.0	60,0,0	159	0.62	0.0	0.0	60,0,0
128	ok	129	0.76	0.0	0.0	60,0,0	130	0.86	0.0	0.0	60,0,0
		161	0.85	0.0	0.0	60,0,0	160	0.75	0.0	0.0	60,0,0
129	ok	130	0.85	0.0	0.0	60,0,0	131	0.66	0.0	0.0	60,0,0
		162	0.66	0.0	0.0	60,0,0	161	0.85	0.0	0.0	60,0,0
130	ok	131	0.66	0.0	0.0	68,0,0	132	0.69	0.0	0.0	68,0,0
		163	0.69	0.0	0.0	68,0,0	162	0.66	0.0	0.0	68,0,0
131	ok	132	0.68	0.0	0.0	68,0,0	133	0.71	0.0	0.0	60,0,0
		164	0.72	0.0	0.0	68,0,0	163	0.69	0.0	0.0	68,0,0
132	ok	133	0.72	0.0	0.0	68,0,0	134	0.74	0.0	0.0	60,0,0
		165	0.74	0.0	0.0	60,0,0	164	0.72	0.0	0.0	68,0,0
133	ok	134	0.75	0.0	0.0	60,0,0	135	0.73	0.0	0.0	60,0,0
		166	0.74	0.0	0.0	60,0,0	165	0.76	0.0	0.0	60,0,0
134	ok	135	0.73	0.0	0.0	60,0,0	136	0.73	0.0	0.0	60,0,0
		167	0.73	0.0	0.0	60,0,0	166	0.73	0.0	0.0	60,0,0
135	ok	136	0.72	0.0	0.0	60,0,0	137	0.67	0.0	0.0	68,0,0
		168	0.68	0.0	0.0	68,0,0	167	0.72	0.0	0.0	60,0,0
136	ok	137	0.67	0.0	0.0	68,0,0	138	0.86	0.0	0.0	68,0,0
		169	0.87	0.0	0.0	68,0,0	168	0.68	0.0	0.0	68,0,0
137	ok	138	0.86	0.0	0.0	68,0,0	139	0.79	0.0	0.0	68,0,0
		170	0.79	0.0	0.0	68,0,0	169	0.86	0.0	0.0	68,0,0
138	ok	139	0.79	0.0	0.0	72,0,0	140	0.69	0.0	0.0	72,0,0
		171	0.68	0.0	0.0	72,0,0	170	0.79	0.0	0.0	68,0,0
139	ok	140	0.70	0.0	0.0	72,0,0	141	0.58	0.0	0.0	66,0,0
		172	0.56	0.0	0.0	66,0,0	171	0.69	0.0	0.0	72,0,0
140	ok	141	0.59	0.0	0.0	66,0,0	142	0.46	0.0	0.0	66,0,0
		173	0.43	0.0	0.0	66,0,0	172	0.56	0.0	0.0	66,0,0
141	ok	142	0.47	0.0	0.0	66,0,0	143	0.35	0.0	0.0	66,0,0
		174	0.29	0.0	0.0	46,0,0	173	0.42	0.0	0.0	66,0,0
142	ok	145	0.27	0.0	0.0	66,0,0	146	0.39	0.0	0.0	66,0,0
		177	0.38	0.0	0.0	42,0,0	176	0.28	0.0	0.0	42,0,0
143	ok	146	0.38	0.0	0.0	58,0,0	147	0.49	0.0	0.0	42,0,0
		178	0.50	0.0	0.0	42,0,0	177	0.37	0.0	0.0	42,0,0
144	ok	147	0.49	0.0	0.0	42,0,0	148	0.59	0.0	0.0	42,0,0
		179	0.59	0.0	0.0	42,0,0	178	0.49	0.0	0.0	42,0,0
145	ok	148	0.59	0.0	0.0	42,0,0	149	0.64	0.0	0.0	42,0,0
		180	0.65	0.0	0.0	42,0,0	179	0.59	0.0	0.0	42,0,0
146	ok	149	0.64	0.0	0.0	42,0,0	150	0.65	0.0	0.0	42,0,0
		181	0.65	0.0	0.0	42,0,0	180	0.64	0.0	0.0	42,0,0
147	ok	150	0.65	0.0	0.0	46,0,0	151	0.61	0.0	0.0	46,0,0
		182	0.61	0.0	0.0	46,0,0	181	0.65	0.0	0.0	42,0,0
148	ok	151	0.62	0.0	0.0	46,0,0	152	0.53	0.0	0.0	46,0,0
		183	0.52	0.0	0.0	46,0,0	182	0.61	0.0	0.0	46,0,0
149	ok	152	0.54	0.0	0.0	46,0,0	153	0.42	0.0	0.0	46,0,0
		184	0.40	0.0	0.0	46,0,0	183	0.51	0.0	0.0	46,0,0
...											
1667	ok	1625	0.06	0.0	0.0	57,0,0	1595	0.06	0.0	0.0	57,0,0
Guscio			V N/M	V V/T cls	V V/T acc			V N/M	V V/T cls	V V/T acc	
			0.87	0.16	0.90						