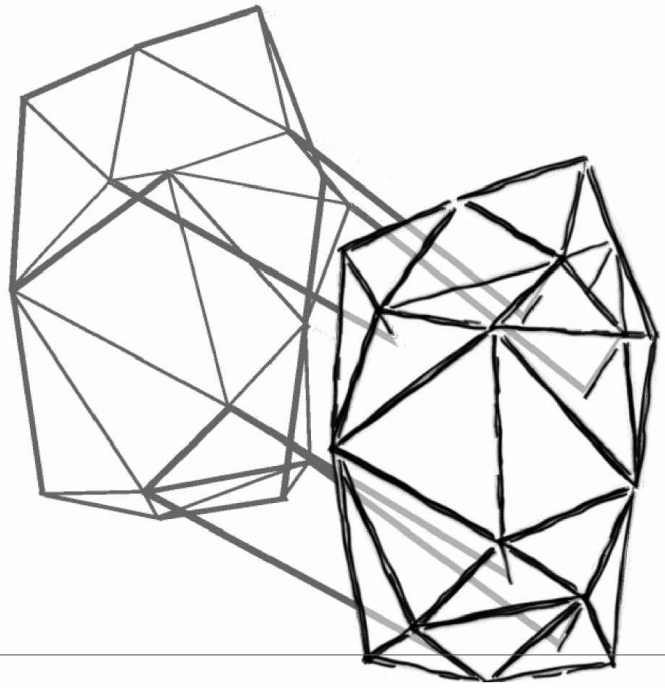
Unione Europea

REGIONE CAMPANI

POR CAMPANIA FESR 2014-2020

Comune di Cava de' Tirreni

Provincia di Salerno



Recupero complesso edilizio San Lorenzo denominato "ex asilo di Mendicità"

II Lotto

Dirigente del 4°Settore Lavori Pubblici
ing. Antonino Attanasio

Responsabile Unico del Procedimento
ing. Gabriele De Pascale

Supporto al RUP
ing. Angelo D'Amico

GRUPPO DI PROGETTAZIONE

Architettura	Strutture e impianti	Geologia	Sicurezza	Restauro artistico
arch. Giosuè Gerardo Saturno	Studio Paris Engineering	dott.ssa geol. Rosanna Miglionico	ing. Gianluigi Accarino	dott. Fabio Sinisclachi

Fascicolo dei calcoli piattaforma elevatrice

STR.30

Revisione n.	data	oggetto
1		
2		
3		

SCALA
-

DATA
marzo 2022

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 2022-02-195)
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 dsi5703

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/

6 maggio 2022

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.

Descrizione generale dell'opera

La presente relazione riguarda la progettazione di una struttura autoportante per una piattaforma elevatrice da posizionare esternamente all'edificio esistente, denominato "ex Asilo di Mendicità", realizzato con giunto sismico. La struttura in esame ha un'altezza complessiva di 8.8m e dovrà essere in grado di contenere una cabina di 1.2mx1.2m con un carico massimo di 400kg. L'ascensore sarà parzialmente interrato con le aperture realizzate a livello L1 a quota 251.05m s.l.m. e a livello L2 a quota 254.31m s.l.m. questa parte verrà realizzata in cemento armato con setti controterra di 35cm. La parte fuori terra, essendo l'ascensore panoramico, verrà realizzata in acciaio e avrà un solo sbarco, realizzato su una parete adiacente rispetto alle aperture sottostanti a quota L3 pari a 255.60m s.l.m. L'altezza complessiva della struttura in acciaio è di 5.2m

Descrizione generale dell'opera	
Fabbricato ad uso	Classe III
Ubicazione	Comune di CAVA DE' TIRRENI (SA) (Regione CAMPANIA)
	Località CAVA DE' TIRRENI (SA)
	Longitudine 14.706, Latitudine 40.700
Numero di piani	Fuori terra: 1
	Interrati: 1
Numero vani scale	0
Numero vani ascensore	1
Tipo di fondazione	Piastra in c.a.

Principali caratteristiche della struttura	
Struttura regolare in pianta	No
Struttura regolare in altezza	No
Classe di duttilità	Non dissipativa
Travi: ricalate o in spessore	no
Pilastri	si
Pilastri in falso	no
Tipo di fondazione	Piastra di base in c.a.
Condizioni per cui è necessario considerare la componente verticale del sisma	no

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
q=1

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:

K * u = F dove **K** = matrice di rigidezza

u = vettore spostamenti nodali

F = vettore forze nodali

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

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

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

Elemento tipo ***TRUSS*** (biella-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

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)	SI
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 2022-02-195)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Codice Licenza:	Licenza dsi5703

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	145
elementi D2 (per aste, travi, pilastri…)	44
elementi D3 (per pareti, platee, gusci…)	100
elementi solaio	23
elementi solidi	0
Dimensione del modello strutturale [cm]:	
X min =	0.00
Xmax =	180.00
Ymin =	0.00
Ymax =	198.00
Zmin =	-360.00
Zmax =	520.00
Strutture verticali:	
Elementi di tipo asta	NO
Pilastri	SI
Pareti	SI
Setti (a comportamento membranale)	NO
Strutture non verticali:	
Elementi di tipo asta	NO
Travi	SI
Gusci	NO
Membrane	NO
Orizzontamenti:	
Solai con la proprietà piano rigido	NO
Solai senza la proprietà piano rigido	SI

Tipo di vincoli:	
Nodi vincolati rigidamente	SI
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
Tensioni ammissibili	NO
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 compresione 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

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 inviluppi 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

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.

RELAZIONE SUI MATERIALI

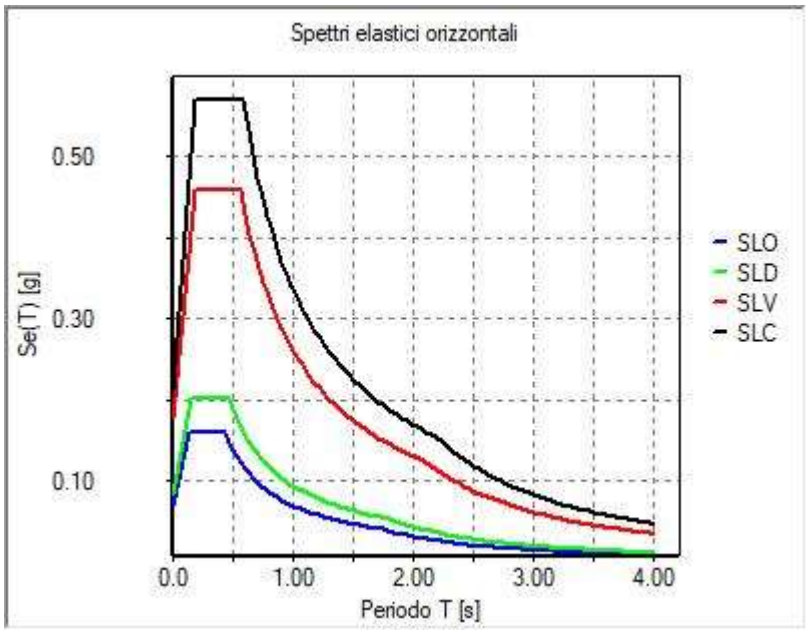
Il capitolo Materiali riportata informazioni esaustive relative all'elenco dei materiali impiegati e loro modalità di posa in opera e ai valori di calcolo.

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.

NOTA il capitolo "normativa di riferimento": 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 norme antecedenti al DM 17.01.18 è dovuto o a progettazione simulata di edifico esistente.



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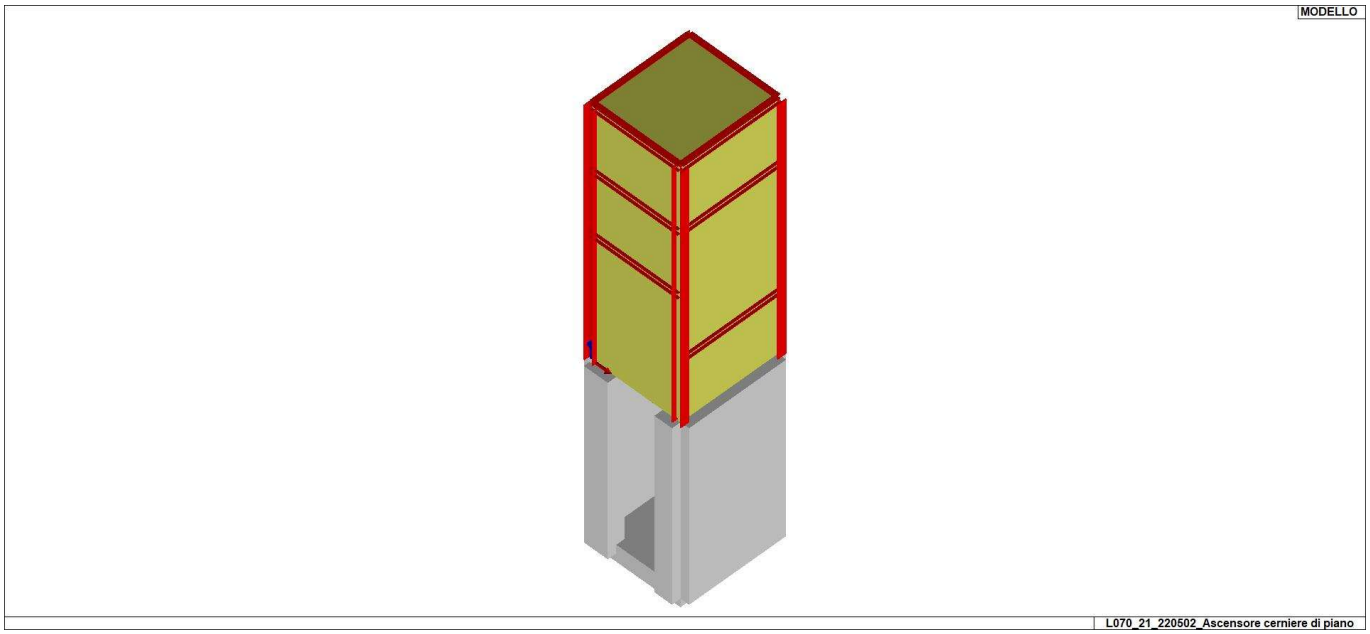
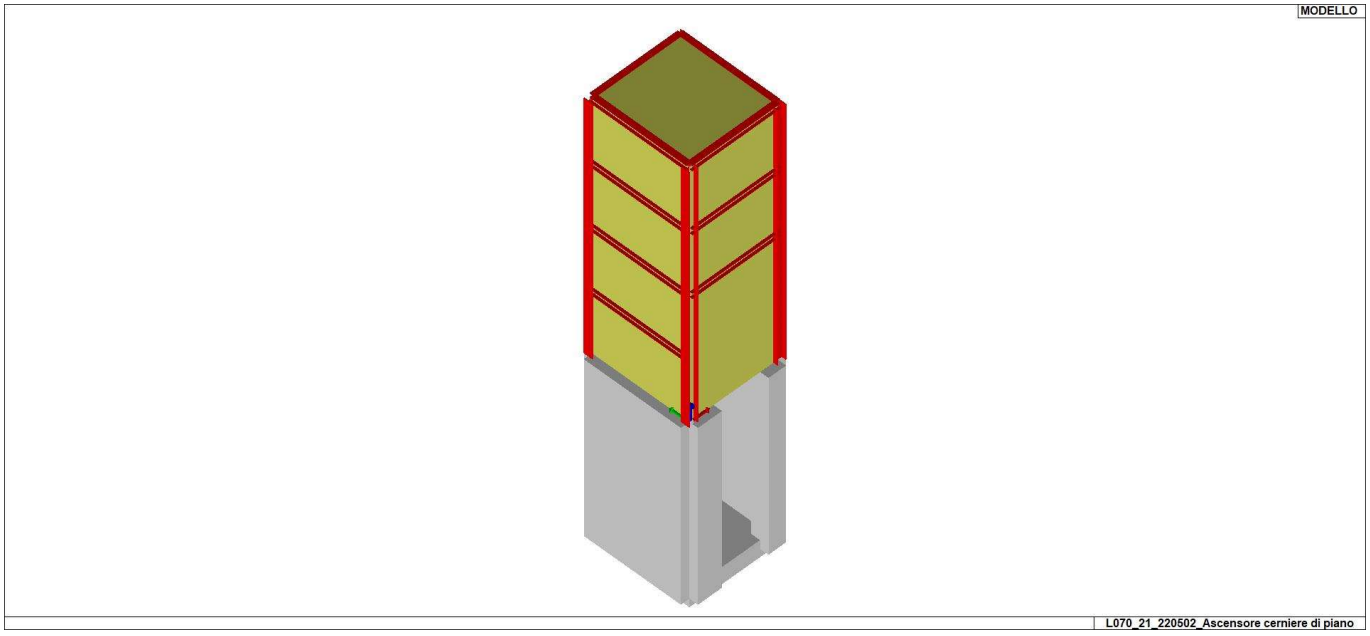


01_INT_VISTA_SOLIDA_001



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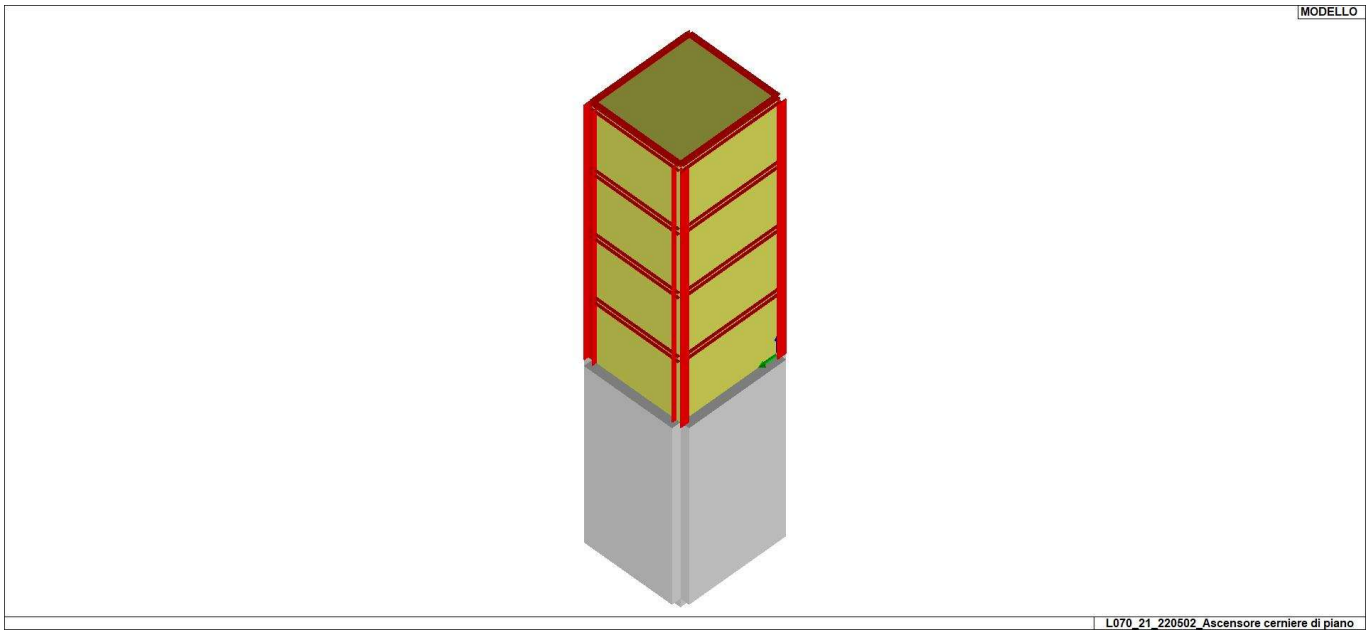

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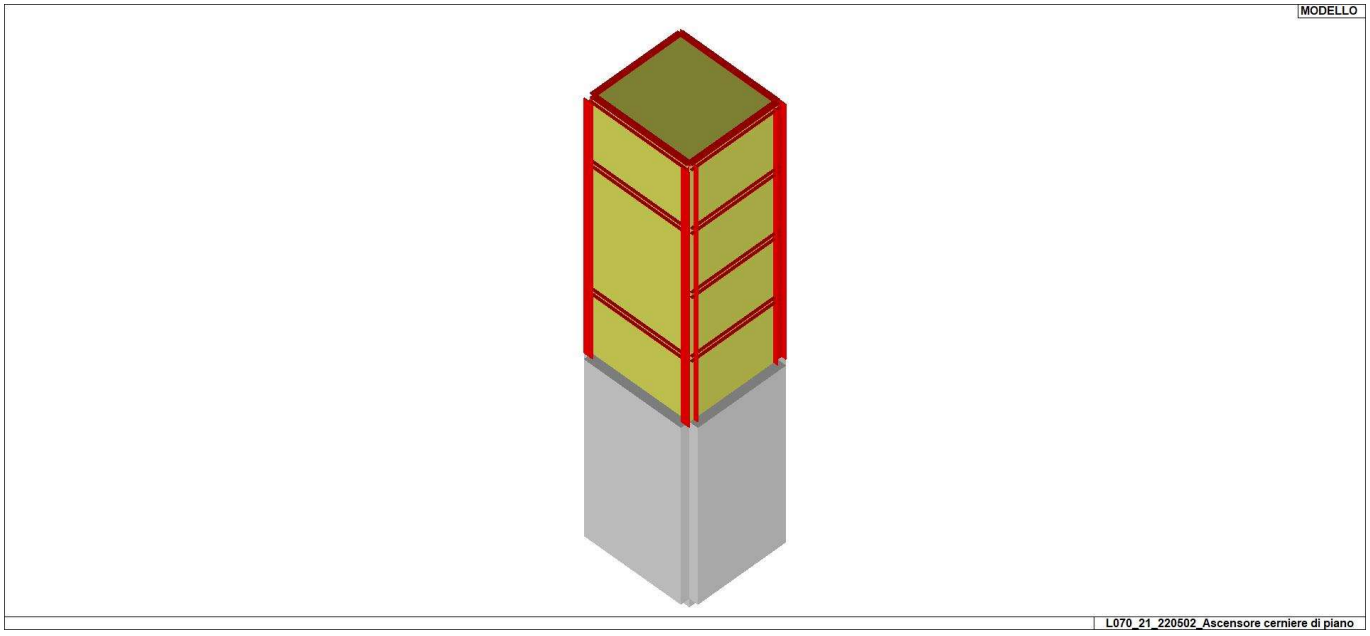


01_INT_VISTA_SOLIDA_004

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 ni
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	Coefficinete 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 cmpressione 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		

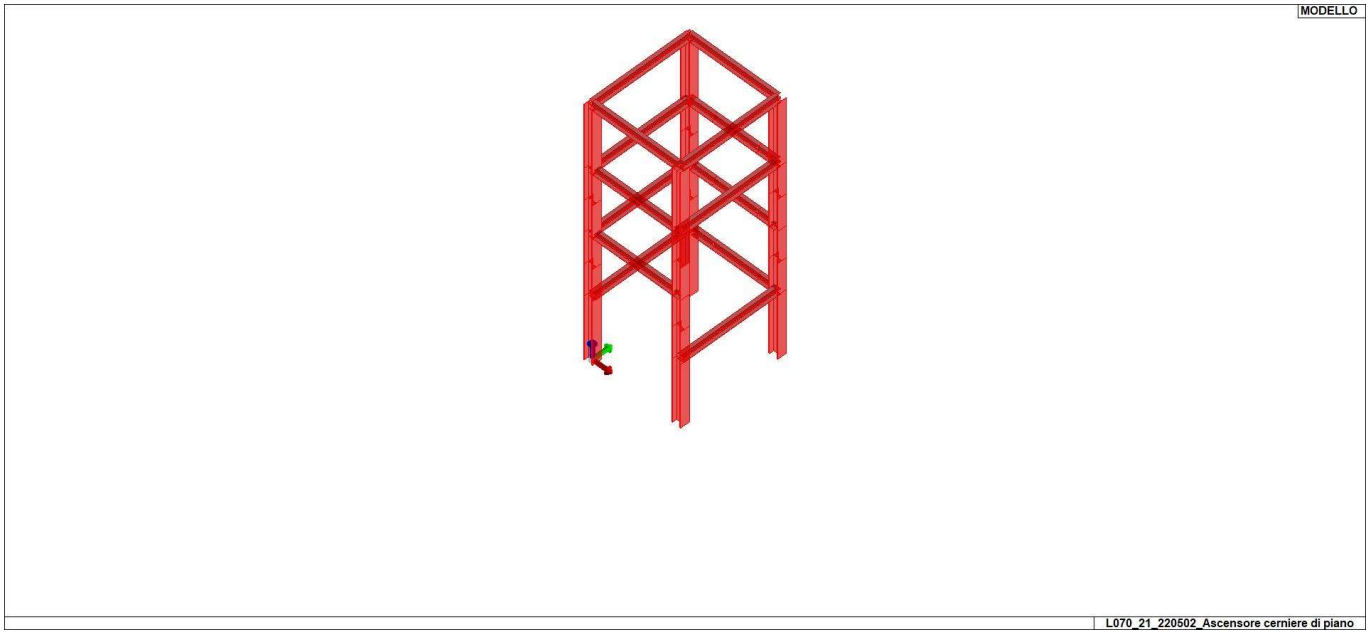
	Muratura consolidata	Muratura per la quale si prevedono interventi di rinforzo"
	Incremento resistenza	Incremento conseguito in termini di resistenza
	Incremento rigidezza	Incremento conseguito in termini di rigidezza
	Resistenza f	Valore della resistenza a compressione
	Resistenza fv0	Valore della resistenza 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 fvlim	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 (tipicamente 0.4)
	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)

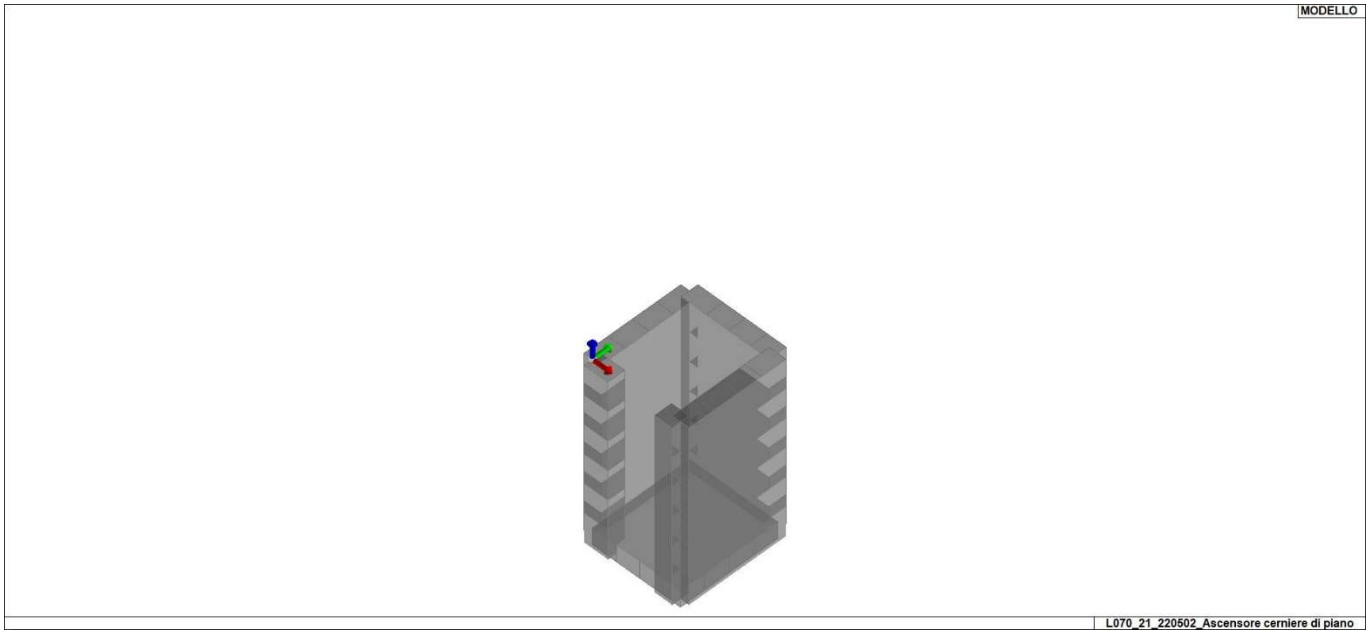
Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/cm2	daN/cm2	daN/cm2		daN/cm2	daN/cm3		
1	Calcestruzzo Classe C25/30			3.145e+05	0.20	1.310e+05	2.50e-03	1.00e-05	
	Resistenza Rc	300.0							
	Resistenza fctm		25.6						
	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
12	Acciaio Fe430 - S275-acciaio Fe430-S275			2.100e+06	0.30	8.077e+05	7.85e-03	1.20e-05	
	Tensione ft	4300.0							
	Resistenza fd	2750.0							
	Resistenza fd (>40)	2500.0							
	Tensione ammissibile	1900.0							
	Tensione ammissibile (>40)	1700.0							
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05

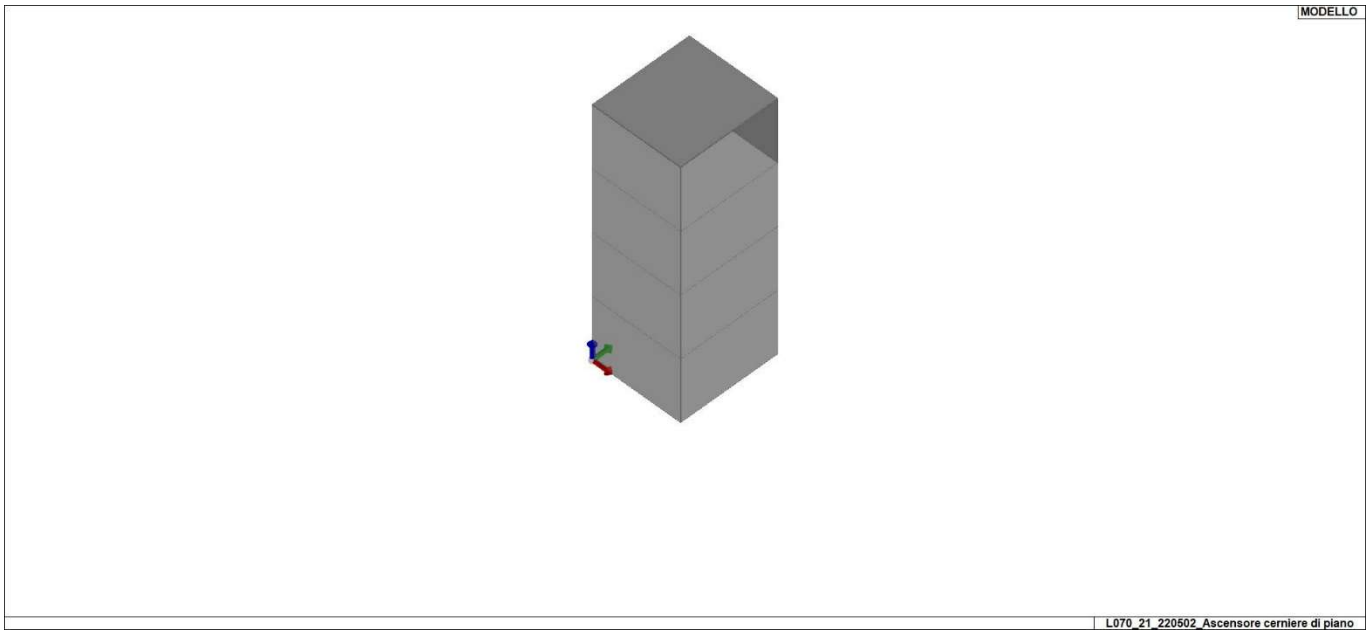
Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
158	Vetro strutturale-materiale E = 7.000e+05			7.000e+05	0.22	2.869e+05	2.50e-03	0.0	
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05



11_MOD_MATERIALI_D2



11_MOD_MATERIALI_D3



11_MOD_MATERIALI_SOLAI

Pilastri acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
Metodo di calcolo 2-2	Assegnato					
2-2 Beta assegnato	2.00					
2-2 Beta * L assegnato [cm]	0.0					
Metodo di calcolo 3-3	Assegnato					
3-3 Beta assegnato	2.00					
3-3 Beta * L assegnato [cm]	0.0					
1-1 Beta assegnato	1.00					
1-1 Beta * L assegnato [cm]	0.0					
Generalità						
Coefficiente gamma M0	1.05					
Coefficiente gamma M1	1.05					
Coefficiente gamma M2	1.25					
Effetti del 2 ordine	SI					
Momenti equivalenti	SI					
Usa condizioni I e II	SI					

Travi acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
3-3 Beta * L automatico	SI					
3-3 Beta assegnato	1.00					
3-3 Beta assegnato [cm]	0.0					
2-2 Beta * L automatico	SI					
2-2 Beta assegnato	1.00					
2-2 Beta * L assegnato [cm]	0.0					
1-1 Beta * L automatico	SI					
1-1 Beta assegnato	1.00					
1-1 Beta * L assegnato [cm]	0.0					
Generalità						
Coefficiente gamma M0	1.05					
Coefficiente gamma M1	1.05					
Coefficiente gamma M2	1.25					
Luce di taglio per GR [cm]	1.00					
Usa condizioni I e II	SI					
Momenti equivalenti	SI					

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetto armatura	Singolo elemento					
Armatura						
Inclinazione Av [gradi]	90.00					
Angolo Av-Ao [gradi]	90.00					
Minima tesa	0.20					
Massima tesa	4.00					
Maglia unica centrale	NO					
Unico strato verticale	NO					
Unico strato orizzontale	NO					
Copriferro [cm]	3.50					
Maglia V						
diametro	16					
passo	15					
diametro aggiuntivi	16					
Maglia O						
diametro	16					
passo	15					
diametro aggiuntivi	16					
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00					
Tipo acciaio	tipo C					
Coefficiente gamma s	1.15					
Coefficiente gamma c	1.50					
Verifiche con N costante	SI					
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50					
Tensione amm. acciaio [daN/cm2]	2600.00					
Rapporto omogeneizzazione N	15.00					
Massimo rapporto area compressa/tesa	1.00					
Parete estesa debolmente armata						
Fattore amplificazione taglio V	0.0					
Hcrit. par. 7.4.4.5.1 [cm]	0.0					
Hcrit. par. 7.4.6.1.4 [cm]	0.0					
Diagramma inviluppo taglio	NO					
Vincolo lati	nessun lato					
Verifica come fascia	NO					
Diametro di estremità	0					
Zona confinata						
Minima tesa	1.00					
Massima tesa	4.00					
Distanza barre [cm]	2.00					
Interferro	2					
Armatura inclinata						
Area barre [cm2]	0.0					
Angolo orizzontale [gradi]	0.0					
Distanza di base [cm]	0.0					
Resistenza al fuoco						
3- intradosso	NO					
3+ estradosso	NO					
Tempo di esposizione R	15					

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Armatura						
Inclinazione Ax [gradi]	0.0					
Angolo Ax-Ay [gradi]	90.00					
Minima tesa	0.31					
Massima tesa	0.78					
Maglia unica centrale	NO					
Copriferro [cm]	3.50					
Maglia x						
diametro	16					
passo	15					
diametro aggiuntivi	16					
Maglia y						
diametro	16					
passo	15					
diametro aggiuntivi	16					
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00					

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Tipo acciaio	tipo C					
Coefficiente gamma s	1.15					
Coefficiente gamma c	1.50					
Verifiche con N costante	SI					
Applica SLU da DIN	NO					
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50					
Tensione amm. acciaio [daN/cm2]	2600.00					
Rapporto omogeneizzazione N	15.00					
Massimo rapporto area compressa/tesa	1.00					
Resistenza al fuoco						
3- intradosso	NO					
3+ estradosso	NO					
Tempo di esposizione R	15					

Solai e pannelli	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Usa tensioni ammissibili	NO					
Af inf: da traliccio	SI					
Consenti armatura a taglio	NO					
Incrementa armatura longitudinale per taglio	SI					
Af inf: da q*L*L /	20.00					
Incremento fascia piena [cm]	5.00					
Armatura						
Minima tesa	0.15					
Massima tesa	3.00					
Minima compressa	0.0					
Af/h [cm]	7.000e-02					
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00					
Tipo acciaio	tipo C					
Coefficiente gamma s	1.15					
Coefficiente gamma c	1.50					
Fattore di ridistribuzione	0.0					
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	85.00					
Tensione amm. acciaio [daN/cm2]	2600.00					
Rapporto omogeneizzazione N	15.00					
Massimo rapporto area compressa/tesa	1.00					
Verifica freccia						
Infinita	250.00					
Istantanea	500.00					
Fattore viscosità	3.00					
Usa J non fessurato	NO					
Elementi non strutturali						
Tamponatura antiespulsione	NO					
Tamponatura con armatura	NO					
Fattore di struttura/comportamento	2.00					
Coefficiente gamma m	0.0					
Periodo Ta	0.0					
Altezza pannello	0.0					

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

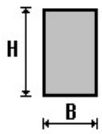
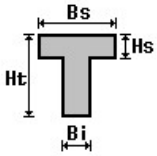
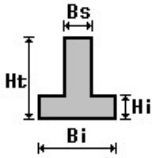
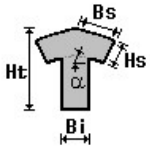
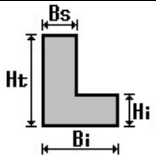
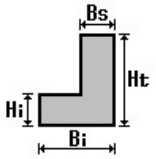
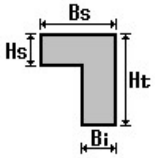
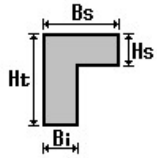
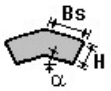
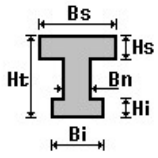
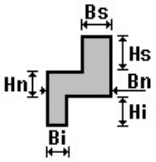
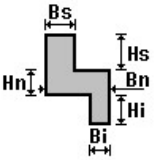
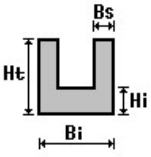
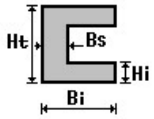
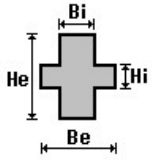
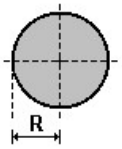
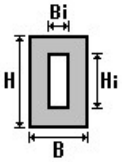
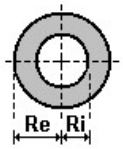
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

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

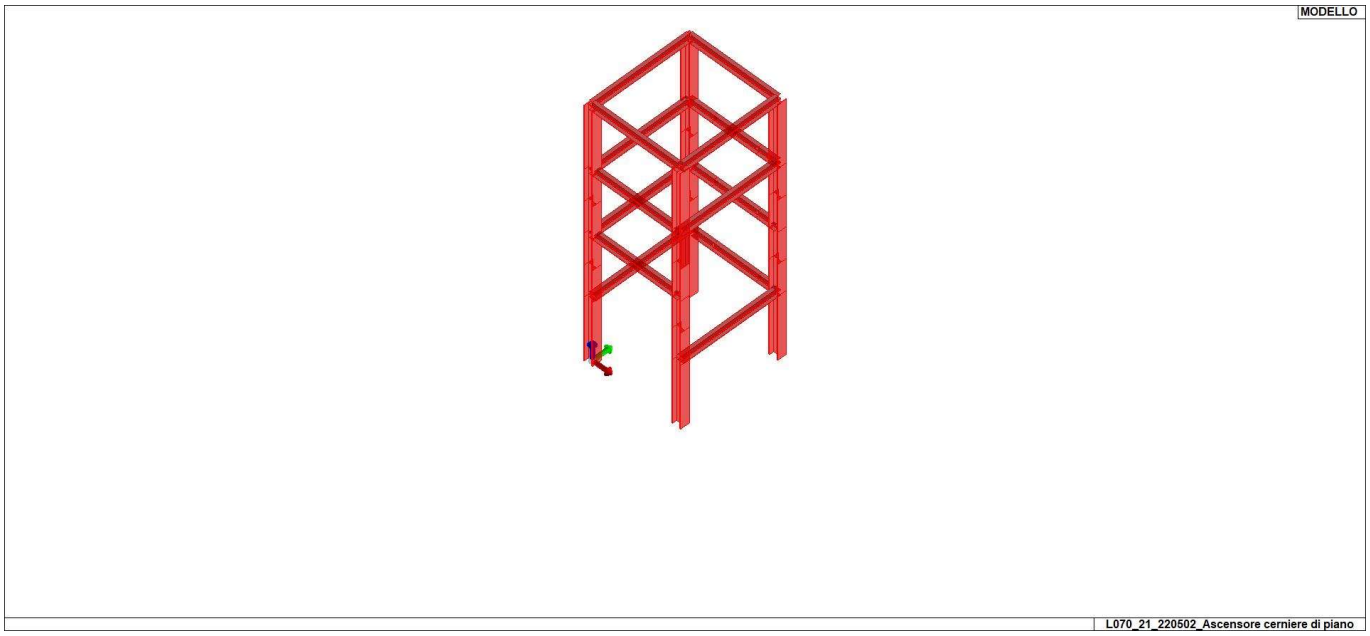
I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali 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 profilatari.

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
1	Rettangolare: b=30.00 h =30.00	900.00	750.00	750.00	1.139e+05	6.750e+04	6.750e+04	4500.00	4500.00	6750.00	6750.00
8	HEB 180	65.30	0.0	0.0	42.20	1363.00	3831.00	151.40	425.70	231.00	481.40
9	HEA 120	25.30	0.0	0.0	6.00	231.00	606.00	38.50	106.30	58.90	119.50



13_MOD_SEZIONI

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).

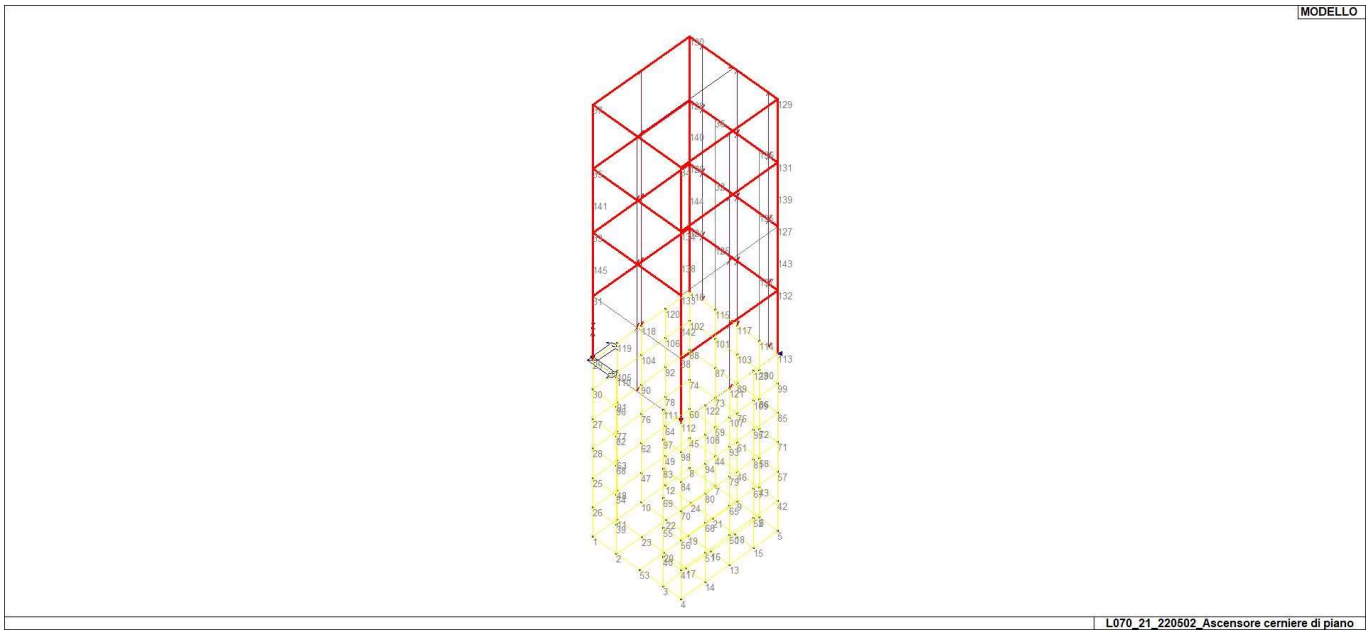
Per strutture sismicamente isolate viene inoltre inserita la tabella delle caratteristiche per gli isolatori utilizzati; le caratteristiche sono indicate in conformità al cap. 7.10 del D.M. 17/01/18

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	0.0	0.0	-360.0	2	49.0	0.0	-360.0	3	144.0	0.0	-360.0
4	180.0	0.0	-360.0	5	180.0	198.0	-360.0	6	141.5	198.0	-360.0
7	51.5	198.0	-360.0	8	0.0	198.0	-360.0	9	96.5	198.0	-360.0
10	0.0	99.0	-360.0	11	0.0	49.5	-360.0	12	0.0	148.5	-360.0
13	180.0	99.0	-360.0	14	180.0	49.5	-360.0	15	180.0	148.5	-360.0
16	141.5	99.0	-360.0	17	141.5	49.5	-360.0	18	141.5	148.5	-360.0
19	96.5	99.0	-360.0	20	96.5	49.5	-360.0	21	96.5	148.5	-360.0
22	51.5	99.0	-360.0	23	51.5	49.5	-360.0	24	51.5	148.5	-360.0
25	0.0	0.0	-240.0	26	0.0	0.0	-300.0	27	0.0	0.0	-120.0
28	0.0	0.0	-180.0	30	0.0	0.0	-60.0	31	0.0	0.0	130.0
32	51.5	198.0	260.0	33	0.0	0.0	260.0	34	180.0	0.0	520.0
35	0.0	0.0	390.0	36	51.5	198.0	390.0	37	0.0	0.0	520.0
38	180.0	0.0	130.0	39	49.0	0.0	-300.0	40	144.0	0.0	-300.0
41	180.0	0.0	-300.0	42	180.0	198.0	-300.0	43	141.5	198.0	-300.0
44	51.5	198.0	-300.0	45	0.0	198.0	-300.0	46	96.5	198.0	-300.0
47	0.0	99.0	-300.0	48	0.0	49.5	-300.0	49	0.0	148.5	-300.0
50	180.0	99.0	-300.0	51	180.0	49.5	-300.0	52	180.0	148.5	-300.0
53	96.5	0.0	-360.0	54	49.0	0.0	-240.0	55	144.0	0.0	-240.0
56	180.0	0.0	-240.0	57	180.0	198.0	-240.0	58	141.5	198.0	-240.0
59	51.5	198.0	-240.0	60	0.0	198.0	-240.0	61	96.5	198.0	-240.0

62	0.0	99.0	-240.0	63	0.0	49.5	-240.0	64	0.0	148.5	-240.0
65	180.0	99.0	-240.0	66	180.0	49.5	-240.0	67	180.0	148.5	-240.0
68	49.0	0.0	-180.0	69	144.0	0.0	-180.0	70	180.0	0.0	-180.0
71	180.0	198.0	-180.0	72	141.5	198.0	-180.0	73	51.5	198.0	-180.0
74	0.0	198.0	-180.0	75	96.5	198.0	-180.0	76	0.0	99.0	-180.0
77	0.0	49.5	-180.0	78	0.0	148.5	-180.0	79	180.0	99.0	-180.0
80	180.0	49.5	-180.0	81	180.0	148.5	-180.0	82	49.0	0.0	-120.0
83	144.0	0.0	-120.0	84	180.0	0.0	-120.0	85	180.0	198.0	-120.0
86	141.5	198.0	-120.0	87	51.5	198.0	-120.0	88	0.0	198.0	-120.0
89	96.5	198.0	-120.0	90	0.0	99.0	-120.0	91	0.0	49.5	-120.0
92	0.0	148.5	-120.0	93	180.0	99.0	-120.0	94	180.0	49.5	-120.0
95	180.0	148.5	-120.0	96	49.0	0.0	-60.0	97	144.0	0.0	-60.0
98	180.0	0.0	-60.0	99	180.0	198.0	-60.0	100	141.5	198.0	-60.0
101	51.5	198.0	-60.0	102	0.0	198.0	-60.0	103	96.5	198.0	-60.0
104	0.0	99.0	-60.0	105	0.0	49.5	-60.0	106	0.0	148.5	-60.0
107	180.0	99.0	-60.0	108	180.0	49.5	-60.0	109	180.0	148.5	-60.0
110	49.0	0.0	0.0	111	144.0	0.0	0.0	114	141.5	198.0	0.0
115	51.5	198.0	0.0	116	0.0	198.0	0.0	117	96.5	198.0	0.0
118	0.0	99.0	0.0	119	0.0	49.5	0.0	120	0.0	148.5	0.0
121	180.0	99.0	0.0	122	180.0	49.5	0.0	123	180.0	148.5	0.0
124	0.0	198.0	130.0	125	51.5	198.0	130.0	126	0.0	198.0	260.0
127	180.0	198.0	260.0	128	0.0	198.0	390.0	129	180.0	198.0	520.0
130	0.0	198.0	520.0	131	180.0	198.0	390.0	132	180.0	198.0	130.0
133	180.0	0.0	260.0	134	180.0	0.0	390.0	135	141.5	198.0	260.0
136	141.5	198.0	390.0	137	141.5	198.0	130.0	138	180.0	0.0	325.0
139	180.0	198.0	325.0	140	0.0	198.0	325.0	141	0.0	0.0	325.0
142	180.0	0.0	195.0	143	180.0	198.0	195.0	144	0.0	198.0	195.0
145	0.0	0.0	195.0								

Nodo	**X**	**Y**	**Z**	**Note**	**Rig. TX**	**Rig. TY**	**Rig. TZ**	**Rig. RX**	**Rig. RY**	**Rig. RZ**
	cm	cm	cm		daN/cm	daN/cm	daN/cm	daN cm/rad	daN cm/rad	daN cm/rad
29	0.0	0.0	0.0	v=010000						
112	180.0	0.0	0.0	v=010000						
113	180.0	198.0	0.0	v=100000						

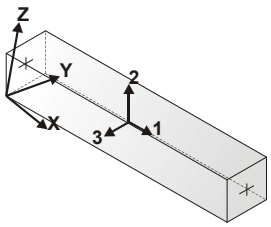


14_MOD_NUMERAZIONE_NODI

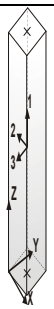
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

TABELLA DATI TRAVI

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi.
Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale.
Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



orientamento elementi 2D non verticali

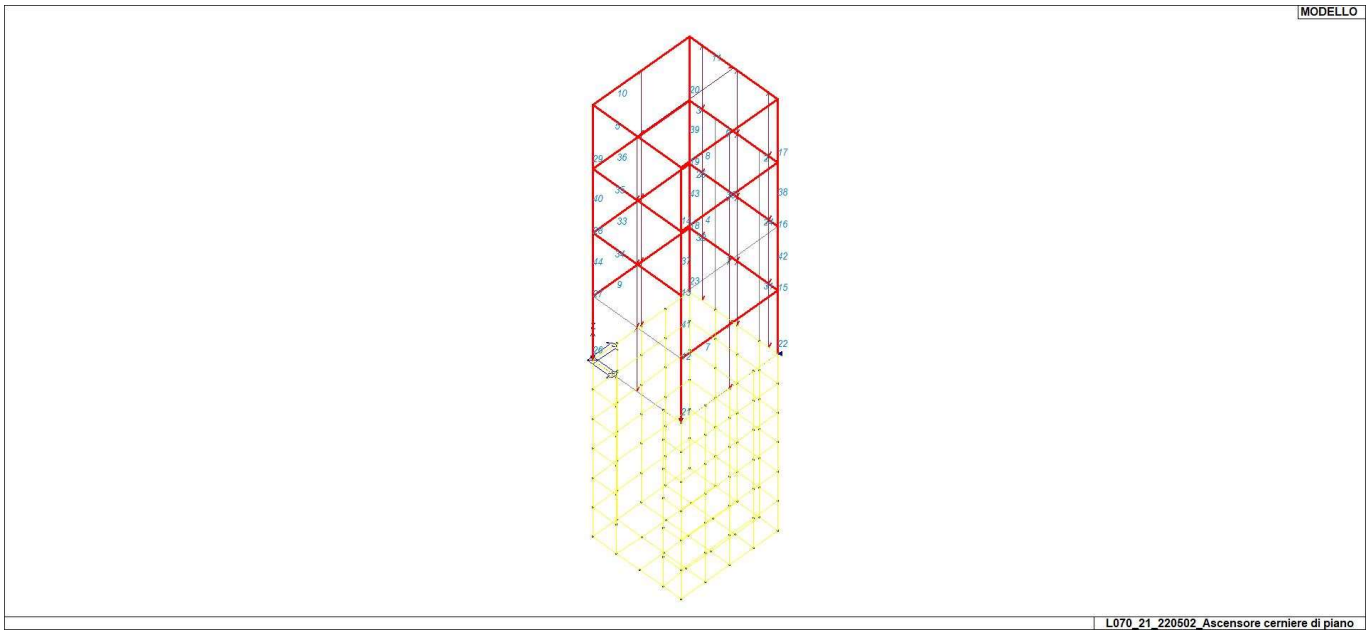


orientamento elementi 2D verticali

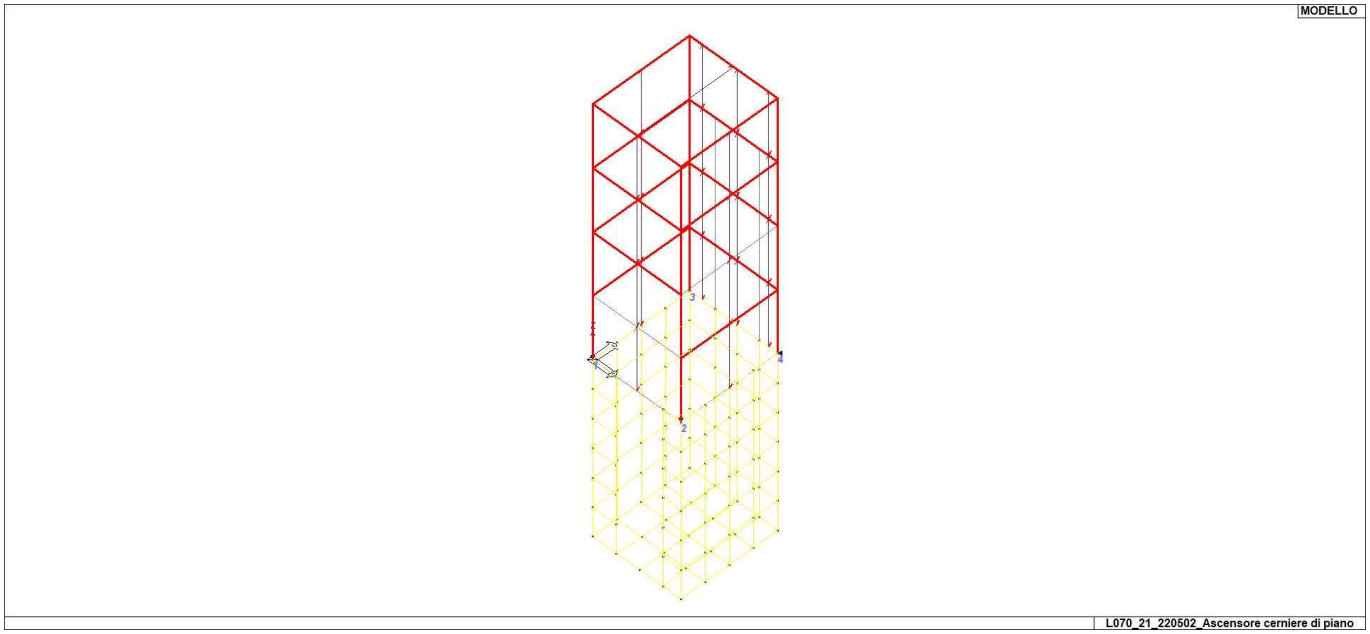
In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
Nodo I (J)	numero del nodo iniziale (finale)
Mat.	codice del materiale assegnato all'elemento
Sez.	codice della sezione assegnata all'elemento
Rotaz.	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
Svincolo I (J)	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

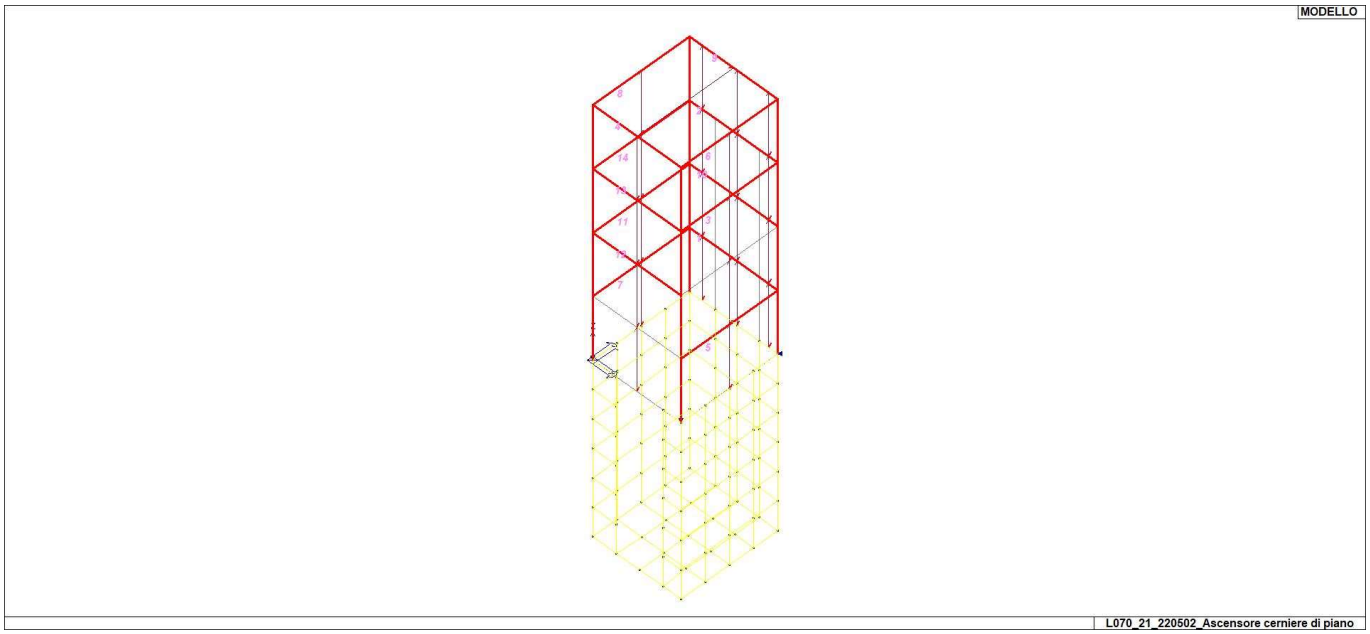
Elem.	Note	Nodo I	Nodo J	Mat.	Sez.	Crit.	Rotaz. gradi	Svincolo I	Svincolo J	Wink V daN/cm3	Wink O daN/cm3
1	Trave	125	137	12	9	1					
2	Trave	136	131	12	9	1					
3	Trave	128	36	12	9	1					
4	Trave	134	131	12	9	1					
5	Trave	37	34	12	9	1					
6	Trave	36	136	12	9	1					
7	Trave	38	132	12	9	1					
8	Trave	34	129	12	9	1					
9	Trave	31	124	12	9	1					
10	Trave	37	130	12	9	1					
11	Trave	130	129	12	9	1					
12	Pilas.	38	142	12	8	1					
13	Pilas.	133	138	12	8	1					
14	Pilas.	134	34	12	8	1					
15	Pilas.	132	143	12	8	1					
16	Pilas.	127	139	12	8	1					
17	Pilas.	131	129	12	8	1					
18	Pilas.	124	144	12	8	1					
19	Pilas.	126	140	12	8	1					
20	Pilas.	128	130	12	8	1					
21	Pilas.	112	38	12	8	1					
22	Pilas.	113	132	12	8	1					
23	Pilas.	116	124	12	8	1					
24	Trave	135	127	12	9	1					
25	Trave	126	32	12	9	1					
26	Pilas.	29	31	12	8	1					
27	Pilas.	31	145	12	8	1					
28	Pilas.	33	141	12	8	1					
29	Pilas.	35	37	12	8	1					
30	Trave	32	135	12	9	1					
31	Trave	137	132	12	9	1					
32	Trave	124	125	12	9	1					
33	Trave	33	126	12	9	1					
34	Trave	33	133	12	9	1					
35	Trave	35	134	12	9	1					
36	Trave	35	128	12	9	1					
37	Pilas.	138	134	12	8	1					
38	Pilas.	139	131	12	8	1					
39	Pilas.	140	128	12	8	1					
40	Pilas.	141	35	12	8	1					
41	Pilas.	142	133	12	8	1					
42	Pilas.	143	127	12	8	1					
43	Pilas.	144	126	12	8	1					
44	Pilas.	145	33	12	8	1					



15_MOD_NUMERAZIONE_D2



15_MOD_NUMERAZIONE_D2_PILASTRATE

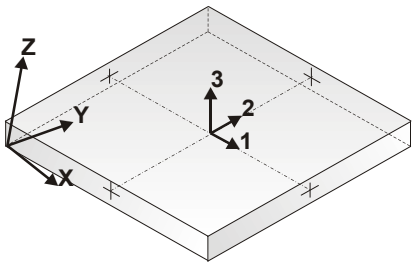


15_MOD_NUMERAZIONE_D2_TRAVATE

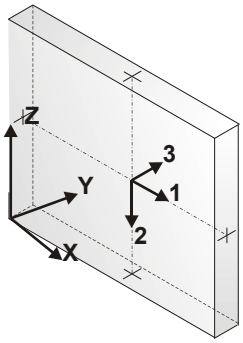
MODELLAZIONE STRUTTURA: ELEMENTI SHELL

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.



orientamento elementi 3D non verticali



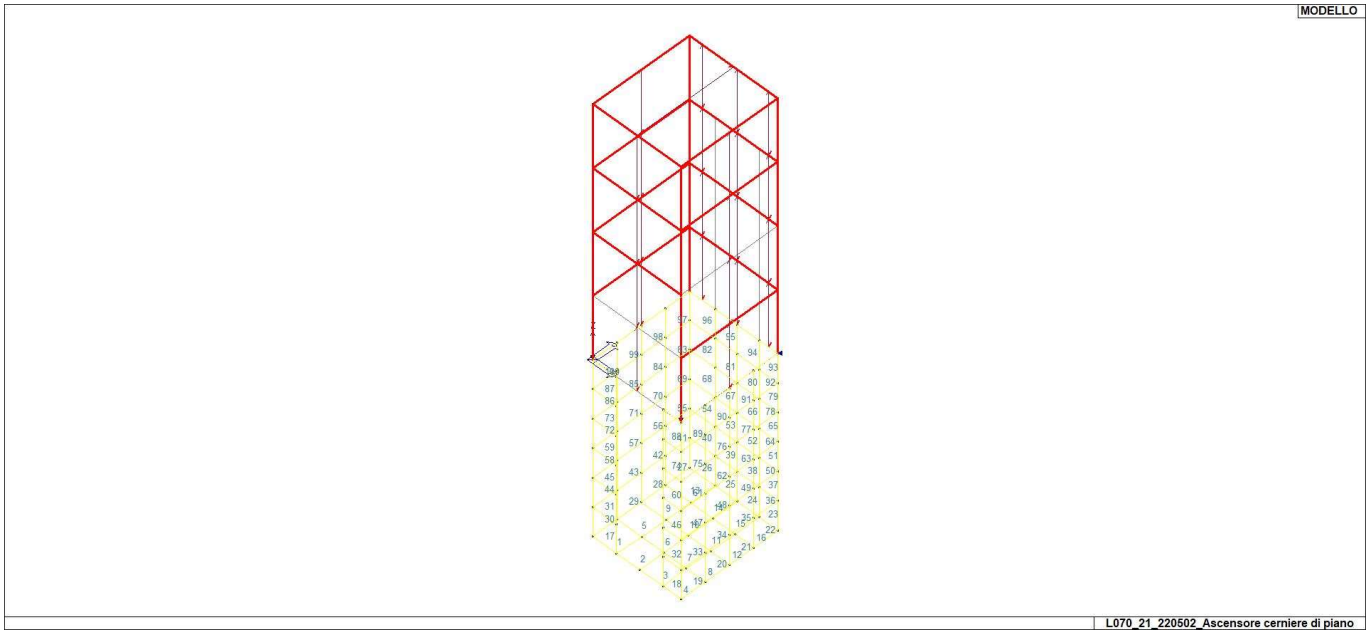
orientamento elementi 3D verticali

In particolare per ogni elemento viene indicato in tabella:

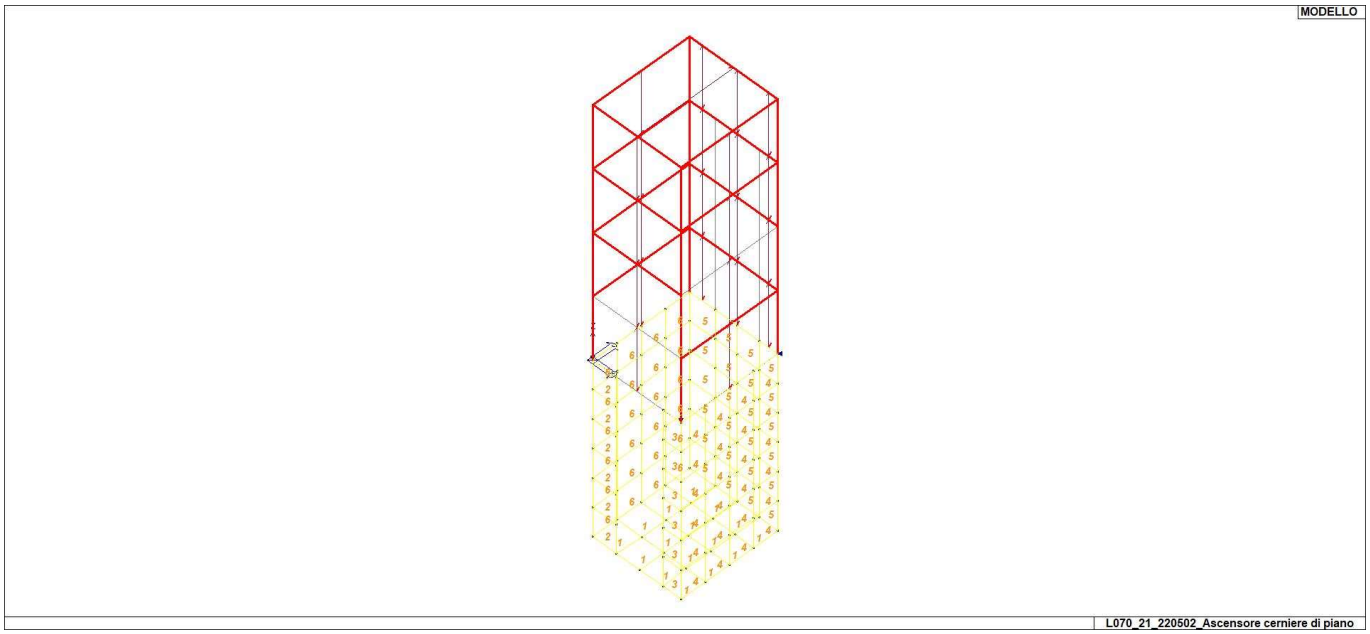
Elem.	numero dell'elemento
Note	codice di comportamento: *Guscio* (elemento guscio in elevazione non verticale) *Guscio fond.* (elemento guscio su suolo elastico) *Setto* (elemento guscio in elevazione verticale) *Membrana* (elemento guscio con comportamento membranale)
Nodo I (J, K, L)	numero del nodo 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

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	23	11	1	1	35.0		10.00	5.02
2	Guscio fond.	2	53	20	23	1	1	35.0		10.00	5.02
3	Guscio fond.	53	3	17	20	1	1	35.0		10.00	5.02
4	Guscio fond.	3	4	14	17	1	1	35.0		10.00	5.02
5	Guscio fond.	11	23	22	10	1	1	35.0		10.00	5.02
6	Guscio fond.	23	20	19	22	1	1	35.0		10.00	5.02
7	Guscio fond.	20	17	16	19	1	1	35.0		10.00	5.02
8	Guscio fond.	17	14	13	16	1	1	35.0		10.00	5.02
9	Guscio fond.	10	22	24	12	1	1	35.0		10.00	5.02
10	Guscio fond.	22	19	21	24	1	1	35.0		10.00	5.02
11	Guscio fond.	19	16	18	21	1	1	35.0		10.00	5.02
12	Guscio fond.	16	13	15	18	1	1	35.0		10.00	5.02
13	Guscio fond.	12	24	7	8	1	1	35.0		10.00	5.02
14	Guscio fond.	24	21	9	7	1	1	35.0		10.00	5.02
15	Guscio fond.	21	18	6	9	1	1	35.0		10.00	5.02
16	Guscio fond.	18	15	5	6	1	1	35.0		10.00	5.02
17	Setto	26	39	2	1	1	1	35.0			
18	Setto	40	41	4	3	1	1	35.0			
19	Setto	4	14	51	41	1	1	35.0			
20	Setto	14	13	50	51	1	1	35.0			
21	Setto	13	15	52	50	1	1	35.0			
22	Setto	15	5	42	52	1	1	35.0			
23	Setto	43	42	5	6	1	1	35.0			
24	Setto	46	43	6	9	1	1	35.0			
25	Setto	44	46	9	7	1	1	35.0			
26	Setto	45	44	7	8	1	1	35.0			
27	Setto	12	8	45	49	1	1	35.0			
28	Setto	10	12	49	47	1	1	35.0			
29	Setto	11	10	47	48	1	1	35.0			
30	Setto	1	11	48	26	1	1	35.0			
31	Setto	25	54	39	26	1	1	35.0			
32	Setto	55	56	41	40	1	1	35.0			
33	Setto	41	51	66	56	1	1	35.0			
34	Setto	51	50	65	66	1	1	35.0			
35	Setto	50	52	67	65	1	1	35.0			
36	Setto	52	42	57	67	1	1	35.0			
37	Setto	58	57	42	43	1	1	35.0			
38	Setto	61	58	43	46	1	1	35.0			
39	Setto	59	61	46	44	1	1	35.0			
40	Setto	60	59	44	45	1	1	35.0			
41	Setto	49	45	60	64	1	1	35.0			
42	Setto	47	49	64	62	1	1	35.0			
43	Setto	48	47	62	63	1	1	35.0			
44	Setto	26	48	63	25	1	1	35.0			
45	Setto	28	68	54	25	1	1	35.0			
46	Setto	69	70	56	55	1	1	35.0			
47	Setto	56	66	80	70	1	1	35.0			
48	Setto	66	65	79	80	1	1	35.0			
49	Setto	65	67	81	79	1	1	35.0			
50	Setto	67	57	71	81	1	1	35.0			
51	Setto	72	71	57	58	1	1	35.0			
52	Setto	75	72	58	61	1	1	35.0			
53	Setto	73	75	61	59	1	1	35.0			
54	Setto	74	73	59	60	1	1	35.0			
55	Setto	64	60	74	78	1	1	35.0			
56	Setto	62	64	78	76	1	1	35.0			
57	Setto	63	62	76	77	1	1	35.0			
58	Setto	25	63	77	28	1	1	35.0			
59	Setto	27	82	68	28	1	1	35.0			
60	Setto	83	84	70	69	1	1	35.0			
61	Setto	70	80	94	84	1	1	35.0			
62	Setto	80	79	93	94	1	1	35.0			
63	Setto	79	81	95	93	1	1	35.0			
64	Setto	81	71	85	95	1	1	35.0			
65	Setto	86	85	71	72	1	1	35.0			
66	Setto	89	86	72	75	1	1	35.0			
67	Setto	87	89	75	73	1	1	35.0			
68	Setto	88	87	73	74	1	1	35.0			
69	Setto	78	74	88	92	1	1	35.0			
70	Setto	76	78	92	90	1	1	35.0			
71	Setto	77	76	90	91	1	1	35.0			
72	Setto	28	77	91	27	1	1	35.0			
73	Setto	30	96	82	27	1	1	35.0			

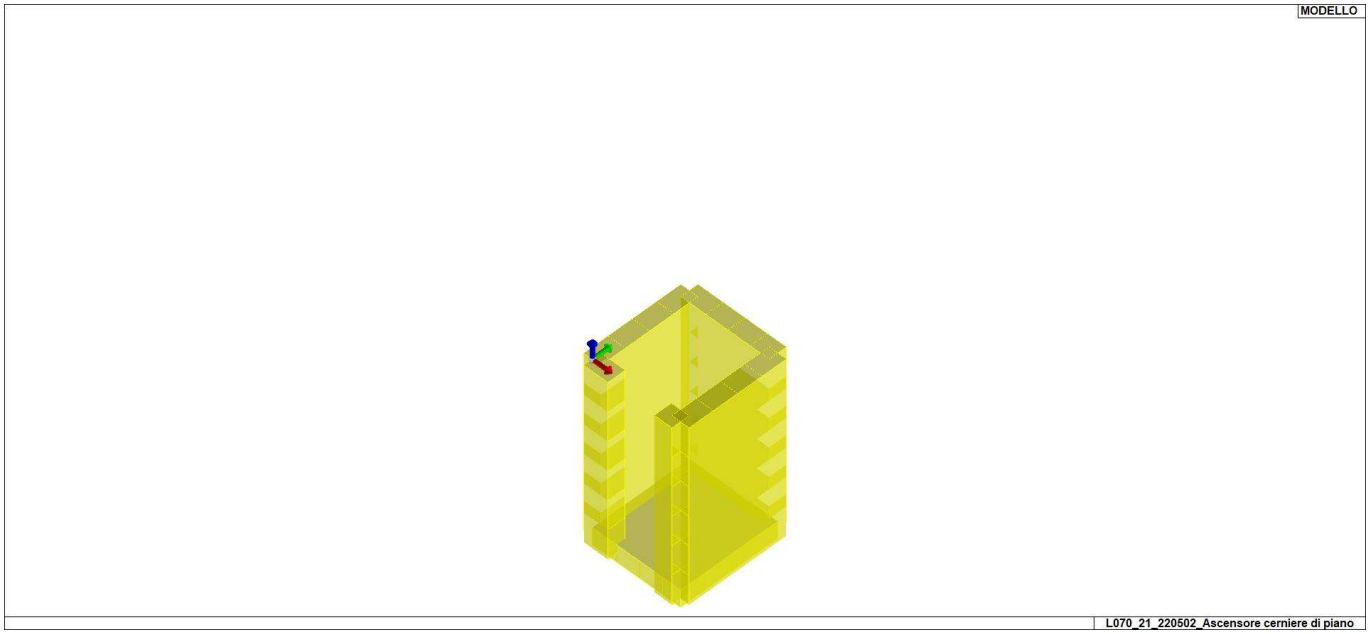
74	Setto	97	98	84	83	1	1	35.0
75	Setto	84	94	108	98	1	1	35.0
76	Setto	94	93	107	108	1	1	35.0
77	Setto	93	95	109	107	1	1	35.0
78	Setto	95	85	99	109	1	1	35.0
79	Setto	100	99	85	86	1	1	35.0
80	Setto	103	100	86	89	1	1	35.0
81	Setto	101	103	89	87	1	1	35.0
82	Setto	102	101	87	88	1	1	35.0
83	Setto	92	88	102	106	1	1	35.0
84	Setto	90	92	106	104	1	1	35.0
85	Setto	91	90	104	105	1	1	35.0
86	Setto	27	91	105	30	1	1	35.0
87	Setto	29	110	96	30	1	1	35.0
88	Setto	111	112	98	97	1	1	35.0
89	Setto	98	108	122	112	1	1	35.0
90	Setto	108	107	121	122	1	1	35.0
91	Setto	107	109	123	121	1	1	35.0
92	Setto	109	99	113	123	1	1	35.0
93	Setto	114	113	99	100	1	1	35.0
94	Setto	117	114	100	103	1	1	35.0
95	Setto	115	117	103	101	1	1	35.0
96	Setto	116	115	101	102	1	1	35.0
97	Setto	106	102	116	120	1	1	35.0
98	Setto	104	106	120	118	1	1	35.0
99	Setto	105	104	118	119	1	1	35.0
100	Setto	30	105	119	29	1	1	35.0



16_MOD_NUMERAZIONE_D3



16_MOD_NUMERAZIONE_D3_PARETI



16_MOD_SPESSORI_D3

MODELLAZIONE DELLA STRUTTURA: ELEMENTI SOLAIO-PANNELLO

LEGENDA TABELLA DATI SOLAI-PANNELLI

Il programma utilizza per la modellazione elementi a tre o più nodi denominati in generale solaio o pannello.
Ogni elemento solaio-pannello è individuato da una poligonale di nodi 1,2, ..., N.
L'elemento solaio è utilizzato in primo luogo per la modellazione dei carichi agenti sugli elementi strutturali. In secondo luogo può essere utilizzato per la corretta ripartizione delle forze orizzontali agenti nel proprio piano. L'elemento balcone è derivato dall'elemento solaio.
I carichi agenti sugli elementi solaio, raccolti in un archivio, sono direttamente assegnati agli elementi utilizzando le informazioni raccolte nell' archivio (es. i coefficienti combinatori). La tabella seguente riporta i dati utilizzati per la definizione dei carichi e delle masse.
L'elemento pannello è utilizzato solo per l'applicazione dei carichi, quali pesi delle tamponature o spinte dovute al vento o terre. In questo caso i carichi sono applicati in analogia agli altri elementi strutturali (si veda il cap. SCHEMATIZZAZIONE DEI CASI DI CARICO).

Id.Arch.	Identificativo dell' archivio
Tipo	Tipo di carico ***Variab.*** Carico variabile generico ***Var. rid.*** Carico variabile generico con riduzione in funzione dell' area (c.5.5. …) ***Neve*** Carico di neve
G1k	carico permanente (comprensivo del peso proprio)
G2k	carico permanente non strutturale e non compiutamente definito
Qk	carico variabile
Fatt. A	fattore di riduzione del carico variabile (0.5 o 0.75) per tipo "Var.rid."
S sis.	fattore di riduzione del carico variabile per la definizione delle masse sismiche per D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento")
Psi 0	Coefficiente combinatorio dei valori caratteristici delle azioni variabili: ***per valore raro***
Psi 1	Coefficiente combinatorio dei valori caratteristici delle azioni variabili: ***per valore frequente***
Psi 2	Coefficiente combinatorio dei valori caratteristici delle azioni variabili: ***per valore quasi permanente***
Psi S 2	Coefficiente di combinazione che fornisce il valore quasi-permanente dell'azione variabile: ***per la definizione delle masse sismiche***
Fatt. Fi	Coefficiente di correlazione dei carichi per edifici

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
Tipo	codice di comportamento ***S*** elemento utilizzato solo per scarico ***C*** elemento utilizzato per scarico e per modellazione piano rigido ***P*** elemento utilizzato come pannello ***M*** scarico monodirezionale ***B*** scarico bidirezionale
Id.Arch.	Identificativo dell' archivio
Mat	codice del materiale assegnato all'elemento
Spessore	spessore dell'elemento (costante)
Orditura	angolo (rispetto all'asse X) della direzione dei travetti principali

Gk	carico permanente solaio (comprensivo del peso proprio)
Qk	carico variabile solaio
Nodi	numero dei nodi che definiscono l'elemento (5 per riga)

Nel caso in cui si sia proceduto alla progettazione dei solai con le tensioni ammissibili vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima tensione nell'acciaio, massima tensione tangenziale); nel caso in cui si sia proceduto alla progettazione con il metodo degli stati limite vengono riportati il rapporto x/d e le verifiche per sollecitazioni proporzionali nonché le verifiche in esercizio.

In particolare i simboli utilizzati in tabella assumono il seguente significato:

Elem.	numero identificativo dell'elemento
Stato	Codici di verifica relativi alle tensioni normali e alle tensioni tangenziali
Note	Viene riportato il codice relativo alla sezione(s) e relativo al materiale(m);
Pos.	Ascissa del punto di verifica
F ist, F infi	Frecce instantanee e a tempo infinito
Momento	Momento flettente
Taglio	Sollecitazione di taglio
Af inf.	Area di armatura longitudinale posta all'intradosso della trave
Af sup.	Area di armatura longitudinale posta all'estradosso della trave
AfV	Area dell'armatura atta ad assorbire le azioni di taglio
Beff	Base della sezione di cls per l'assorbimento del taglio
	simboli utilizzati con il metodo delle tensioni ammissibili:
sc max	Massima tensione di compressione del calcestruzzo
sf max	Massima tensione nell'acciaio
tau max	Massima tensione tangenziale nel cls
	simboli utilizzati con il metodo degli stati limite:
x/d	rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
verif.	rapporto Sd/Su con sollecitazioni ultime proporzionali: valore minore o uguale a 1 per verifica positiva
Verif.V	rapporto Sd/Su con sollecitazioni taglianti proporzionali valore minore o uguale a 1 per verifica positiva
rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare [normalizzato a 1]
rFfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni frequenti [normalizzato a 1]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti [normalizzato a 1]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni frequenti [normalizzato a 1]
rFyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare [normalizzato a 1]
rPfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk 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]

Nel caso in cui si sia proceduto alla verifica delle tamponature secondo il D.M. 17.01.2018 - §7.2.3 viene riportata una tabella riassuntiva delle verifiche degli elementi pannello. La verifica confronta i momenti sollecitanti indotti dal sisma con i momenti resistenti, secondo tre ipotesi, due basate sulla resistenza a pressoflessione della tamponatura ed una basata sul cinematismo a seguito della formazione di tre cerniere plastiche sulla tamponatura (rif. Ufficio di

Vigilanza sulle Costruzioni, Provincia di Terni).
Qualora la tamponatura sia di tipo antiespulsione (nelle due possibili varianti ordinaria o armata) viene condotta una verifica con meccanismo ad arco con degrado di resistenza. La verifica confronta le pressioni sollecitanti indotte dal sisma con le pressioni resistenti che la tamponatura sviluppa attraverso il meccanismo ad arco. La verifica considera anche il degrado di resistenza dovuto al danneggiamento nel piano della tamponatura.
Per quest'ultima tamponatura sono disponibili, in funzione del materiale impiegato (materiale [52] o materiale [53]):

- **Tamponatura Antiespulsione ordinaria Poroton® Cis Edil** sp.30 cm; con metodo di verifica per meccanismo ad arco con degrado di resistenza, sviluppato attraverso i risultati di un progetto di ricerca sperimentale condotto dall'Università degli Studi di Padova.
  Utilizzabile per il materiale [52].
- **Tamponatura Antiespulsione armata Poroton® Cis Edil** sp.30 cm; con metodo di verifica per meccanismo ad arco con degrado di resistenza, sviluppato attraverso i risultati di un progetto di ricerca sperimentale condotto dall'Università degli Studi di Padova.
  Utilizzabile per il materiale [53].

La verifica è stata calibrata sulla base di prove sperimentali sul sistema di Tamponatura Antiespulsione anche in presenza di aperture.
(rif. Rapporti di Prova redatti dal Dipartimento ICEA - Università degli Studi di Padova di test sperimentali condotti sul sistema Tamponatura Antiespulsione di Cis Edil)

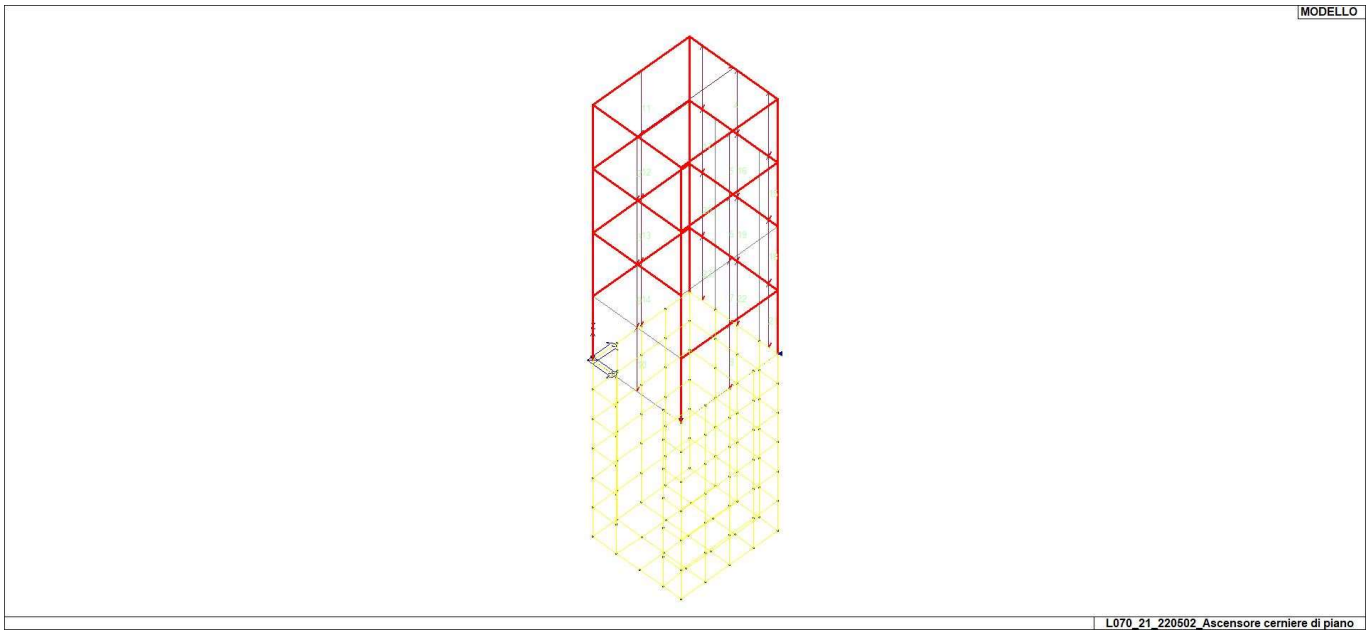
In particolare i simboli utilizzati in tabella assumono il seguente significato:

Elem.	Numero identificativo dell'elemento
Stato	Codice di verifica
Ver. c.c.	Verifica nell'ipotesi di trave appoggiata con carico concentrato in mezzeria
Ver. c.d.	Verifica nell'ipotesi di trave appoggiata con carico distribuito
Ver. c.cin.	Verifica nell'ipotesi di cinematismo con formazione di cerniere plastiche in appoggio e mezzeria
Ver. CIS	Rapporto pa/pr (valore minore o uguale a 1 per verifica positiva)
Z	Quota del baricentro dell'elemento
T1	Periodo proprio dell'edificio nella direzione di interesse (ortogonale al pannello)
Ta	Periodo proprio della parete
Sa	Accelerazione massima, adimensionalizzata allo SLV
pa	Pressione sulla parete causata dall'azione sismica
pr	Pressione resistente del meccanismo ad arco
Drift	Spostamento relativo interpiano allo SLV valutato secondo il D.M. 14.01.2018 - § 7.3.3.3
Beta a	Coef. riduttivo per tener conto del danneggiamento del piano dipendente dallo spostamento, ottenuto sperimentalmente

ID Arch.	Tipo	G1k	G2k	Qk	Fatt. A	s sis.	Psi 0	Psi 1	Psi 2	Psi S 2	Fatt. Fi
		daN/cm2	daN/cm2	daN/cm2							
1	Variab.	4.50e-02	1.00e-02	2.00e-02		1.00	0.70	0.50	0.30	0.30	1.00

Elem.	Tipo	ID Arch.	Mat.	Spessore	Orditura	G1k	G2k	Qk	Nodo 1/6..	Nodo 2/7..	Nodo 3/8..	Nodo..	Nodo..
						daN/cm2	daN/cm2	daN/cm2					
1	PM		m=158	2.0	90.0				34	129	130	37	
2	PM		m=158	1.0	90.0				37	34	134	35	
3	PM		m=158	1.0	90.0				33	35	134	133	
4	PM		m=158	1.0	90.0				128	130	129	131	136
									36				
5	PM		m=158	1.0	90.0				134	131	129	34	
6	PM		m=158	1.0	90.0				127	131	134	133	
7	PM		m=158	1.0	90.0				132	127	133	38	
8	PM		m=158	1.0	90.0				113	132	38	112	
9	PM		m=158	1.0	90.0				31	33	133	38	
10	PM		m=158	1.0	90.0				29	31	38	112	
11	PM		m=158	1.0	90.0				35	128	130	37	
12	PM		m=158	1.0	90.0				33	126	128	35	

13	PM	m=158	1.0	90.0	31	124	126	33
14	PM	m=158	1.0	90.0	29	116	124	31
15	PM	m=158	1.0	90.0	135	136	131	127
16	PM	m=158	1.0	90.0	32	36	136	135
17	PM	m=158	1.0	90.0	126	128	36	32
18	PM	m=158	1.0	90.0	137	135	127	132
19	PM	m=158	1.0	90.0	125	32	135	137
20	PM	m=158	1.0	90.0	124	126	32	125
21	PM	m=158	1.0	90.0	114	137	132	113
22	PM	m=158	1.0	90.0	115	125	137	114
23	PM	m=158	1.0	90.0	116	124	125	115



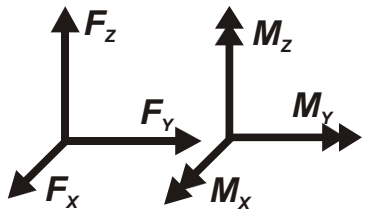
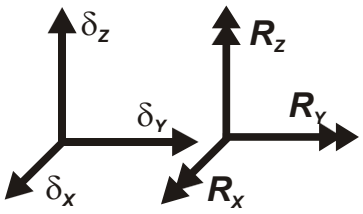
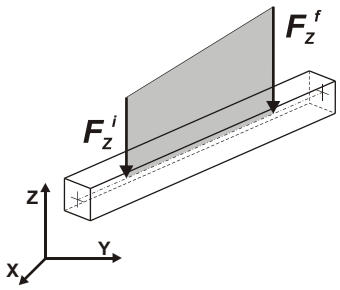
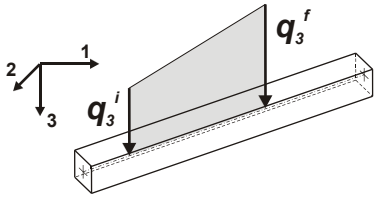
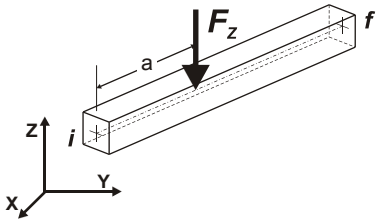
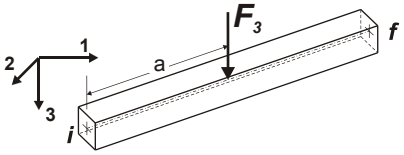
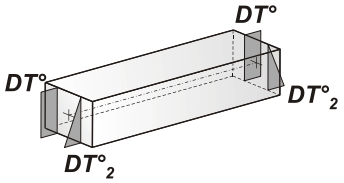
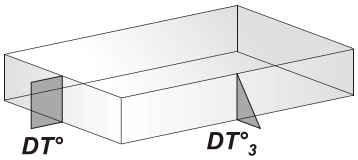
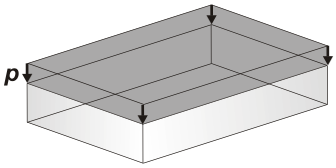
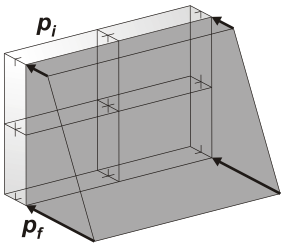
17_MOD_NUMERAZIONE_SOLAI

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

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

Tipo	carico concentrato nodale

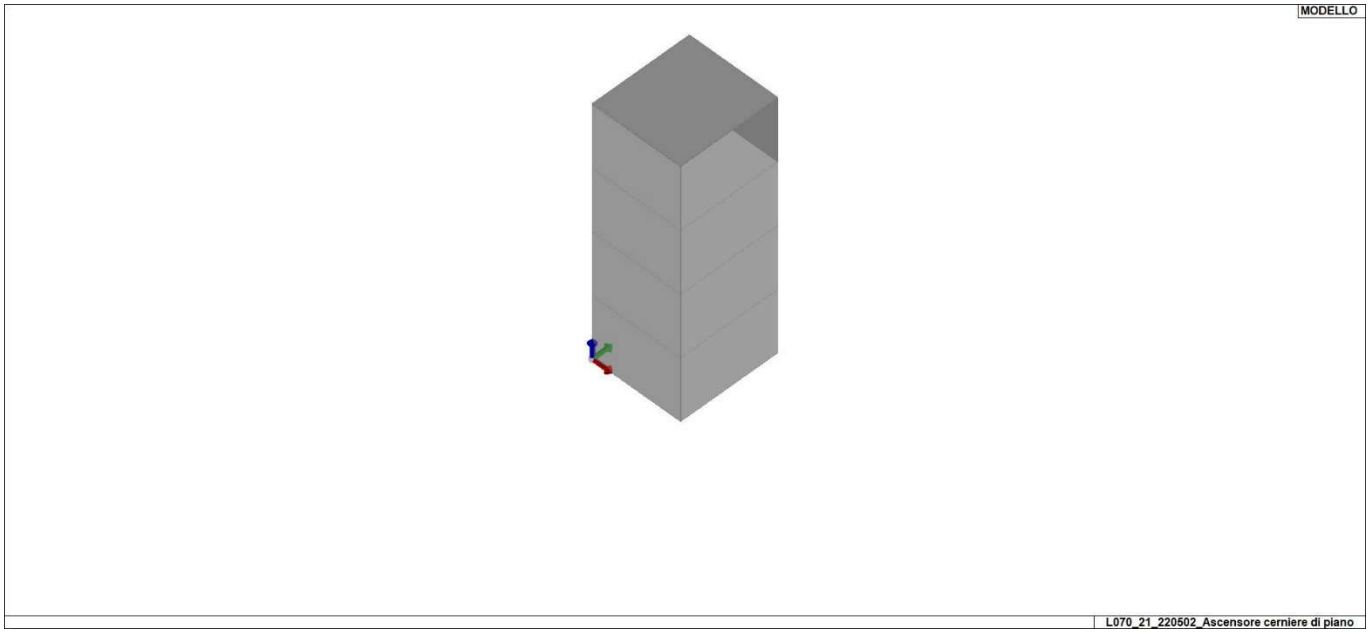
Id	Tipo	Fx	Fy	Fz	Mx	My	Mz
		daN	daN	daN	daN cm	daN cm	daN cm
9	F1+-CN:Fy=430.00	0.0	430.00	0.0	0.0	0.0	0.0
10	F1--CN:Fy=-430.00	0.0	-430.00	0.0	0.0	0.0	0.0
11	F2+-CN:Fx=70.00	70.00	0.0	0.0	0.0	0.0	0.0
13	P esercizio normale-CN:Fz=-2030.00 Mx= 2.538e+04	0.0	0.0	-2030.00	2.538e+04	0.0	0.0
14	N esercizio normale-CN:Fz=-50.00 Mx=625.00	0.0	0.0	-50.00	625.00	0.0	0.0
15	P sicurezza-CN:Fz=-170.00 Mx=2125.00	0.0	0.0	-170.00	2125.00	0.0	0.0
16	N1 sicurezza-CN:Fz=-140.00 Mx=1750.00	0.0	0.0	-140.00	1750.00	0.0	0.0
17	N2 sicurezza-CN:Fz=-2340.00 Mx= 2.925e+04	0.0	0.0	-2340.00	2.925e+04	0.0	0.0

Tipo	carico di pressione uniforme su piastra

Id	Tipo	pressione
		daN/cm2
5	ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02	0.08
6	ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02	0.08
18	Peso Variabile-P3:p=-5.000e-03	-5.00e-03
19	Peso Portato-P3:p=-5.000e-03	-5.00e-03
20	neve-P3:p=-5.000e-03	-5.00e-03
33	vento +-P3:p= 9.300e-03	9.30e-03
34	vento --P3:p=-9.300e-03	-9.30e-03

Tipo	carico di pressione variabile su piastra

Id	Tipo	pressione	quota	pressione	quota
		daN/cm2	cm	daN/cm2	cm
21	spinta terreno x 3.6m-PL3:pi=0.21 qi=0.0 pf=0.18 qf=60.00	0.21	0.0	0.18	60.00
22	spinta terreno x 3m-PL3:pi=0.18 qi=60.00 pf=0.14 qf=120.00	0.18	60.00	0.14	120.00
23	spinta terreno x 2.4m-PL3:pi=0.14 qi=120.00 pf=0.12 qf=180.00	0.14	120.00	0.12	180.00
24	spinta terreno x 1.8m-PL3:pi=0.12 qi=180.00 pf= 8.400e-02 qf=240.00	0.12	180.00	0.08	240.00
25	spinta terreno x 1.2m-PL3:pi= 8.400e-02 qi=240.00 pf= 5.300e-02 qf=300.00	0.08	240.00	0.05	300.00
26	spinta terreno x 0.6m-PL3:pi= 5.300e-02 qi=300.00 pf= 2.200e-02 qf=360.00	0.05	300.00	0.02	360.00
27	spinta terreno y 3.6m-PL3:pi=-0.21 qi=0.0 pf=-0.18 qf=60.00	-0.21	0.0	-0.18	60.00
28	spinta terreno y 3m-PL3:pi=-0.18 qi=60.00 pf=-0.14 qf=120.00	-0.18	60.00	-0.14	120.00
29	spinta terreno y 2.4m-PL3:pi=-0.14 qi=120.00 pf=-0.12 qf=180.00	-0.14	120.00	-0.12	180.00
30	spinta terreno y 1.8m-PL3:pi=-0.12 qi=180.00 pf=-8.400e-02 qf=240.00	-0.12	180.00	-0.08	240.00
31	spinta terreno y 1.2m-PL3:pi=-8.400e-02 qi=240.00 pf=-5.300e-02 qf=300.00	-0.08	240.00	-0.05	300.00
32	spinta terreno y 0.6m-PL3:pi=-5.300e-02 qi=300.00 pf=-2.200e-02 qf=360.00	-0.05	300.00	-0.02	360.00



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).

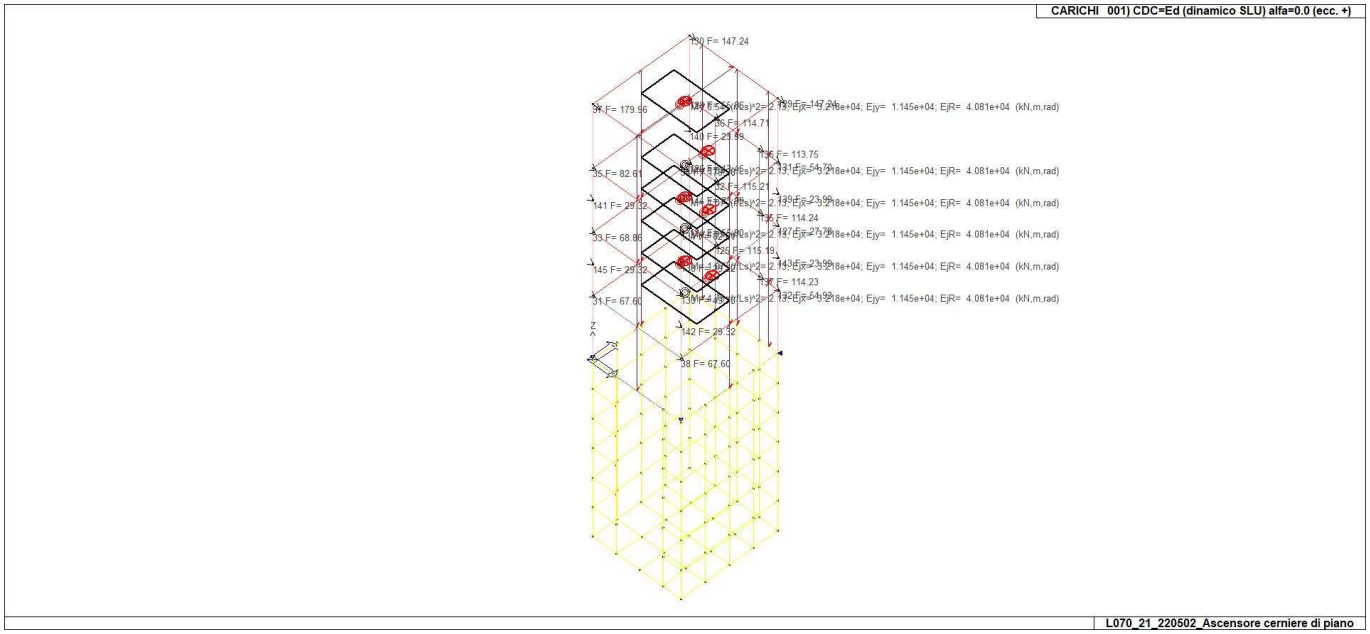
In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

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.

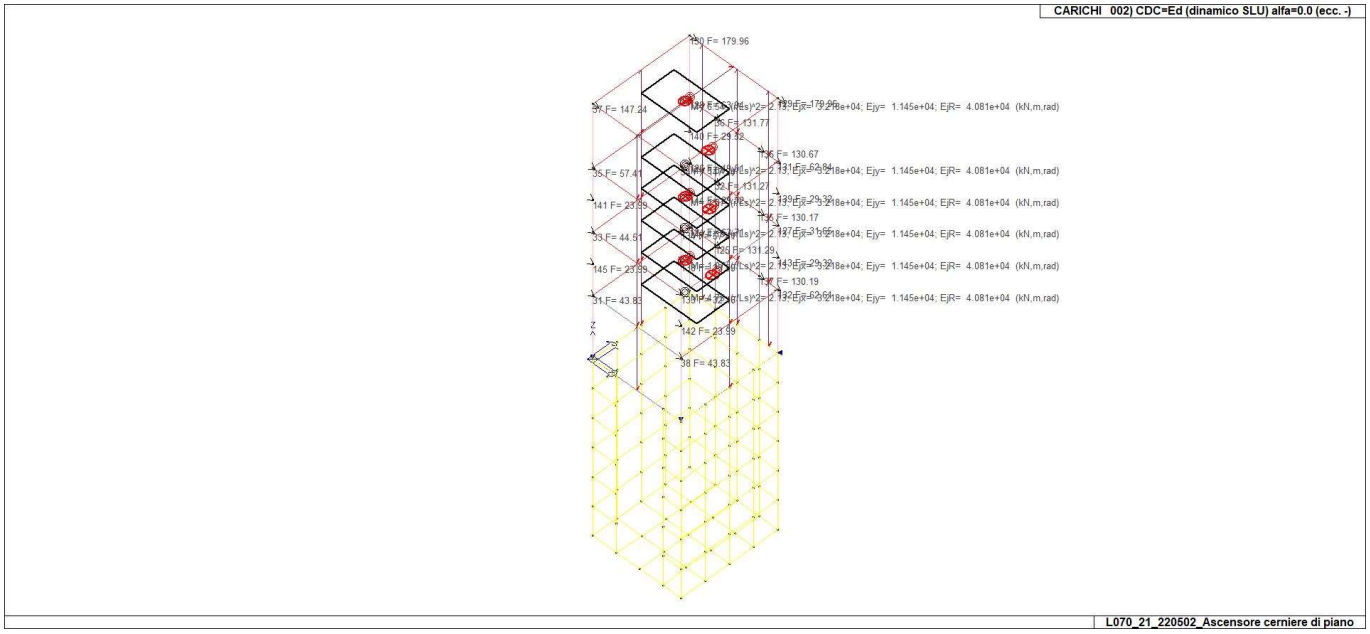
CDC	Tipo	Sigla Id	Note
1	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione:0.80 per 9 CDC=caso 1-1
			partecipazione:0.80 per 10 CDC=caso 1-2
			partecipazione:0.80 per 11 CDC=caso 2-1
			partecipazione:0.80 per 12 CDC=caso 2-2
			partecipazione:0.80 per 13 CDC=G2k permanente copertura
			partecipazione:0.80 per 14 CDC=Qk carico neve
			partecipazione:0.80 per 15 CDC=Qk variabile copertura

CDC	Tipo	Sigla Id	Note
			partecipazione:0.80 per 16 CDC=Qk vento x+
			partecipazione:0.80 per 17 CDC=Qk vento y-
			partecipazione:0.80 per 18 CDC=G1k carico terreno
			partecipazione:0.80 per 19 CDC=Ggk (peso proprio della struttura)
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico
3	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
5	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
7	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico
9	Qk	CDC=caso 1-1	Azioni applicate:
			Nodo:da 6 a 7 Azione : N esercizio normale-CN:Fz=-50.00 Mx=625.00
			Nodo: 9 Azione : P esercizio normale-CN:Fz=-2030.00 Mx= 2.538e+04
10	Qk	CDC=caso 1-2	Azioni applicate:
			Nodo: 6 Azione : N1 sicurezza-CN:Fz=-140.00 Mx=1750.00
			Nodo: 7 Azione : N2 sicurezza-CN:Fz=-2340.00 Mx= 2.925e+04
			Nodo: 9 Azione : P sicurezza-CN:Fz=-170.00 Mx=2125.00
11	Qk	CDC=caso 2-1	Azioni applicate:
			Nodo: 32 Azione : F2+-CN:Fx=70.00
			Nodo: 32 Azione : F1+-CN:Fy=430.00
			Nodo: 36 Azione : F2+-CN:Fx=70.00
			Nodo: 36 Azione : F1+-CN:Fy=430.00
			Nodo:da 58 a 59 Azione : F2+-CN:Fx=70.00
			Nodo:da 58 a 59 Azione : F1+-CN:Fy=430.00
			Nodo:da 86 a 87 Azione : F2+-CN:Fx=70.00
			Nodo:da 86 a 87 Azione : F1+-CN:Fy=430.00
			Nodo:da 114 a 115 Azione : F1+-CN:Fy=430.00
			Nodo:da 114 a 115 Azione : F2+-CN:Fx=70.00
			Nodo: 125 Azione : F2+-CN:Fx=70.00
			Nodo: 125 Azione : F1+-CN:Fy=430.00
			Nodo:da 135 a 137 Azione : F2+-CN:Fx=70.00
			Nodo:da 135 a 137 Azione : F1+-CN:Fy=430.00
12	Qk	CDC=caso 2-2	Azioni applicate:
			Nodo: 32 Azione : F2+-CN:Fx=70.00
			Nodo: 32 Azione : F1--CN:Fy=-430.00
			Nodo: 36 Azione : F2+-CN:Fx=70.00
			Nodo: 36 Azione : F1--CN:Fy=-430.00
			Nodo:da 58 a 59 Azione : F2+-CN:Fx=70.00
			Nodo:da 58 a 59 Azione : F1--CN:Fy=-430.00
			Nodo:da 86 a 87 Azione : F1--CN:Fy=-430.00
			Nodo:da 86 a 87 Azione : F2+-CN:Fx=70.00
			Nodo:da 114 a 115 Azione : F2+-CN:Fx=70.00
			Nodo:da 114 a 115 Azione : F1--CN:Fy=-430.00
			Nodo: 125 Azione : F2+-CN:Fx=70.00
			Nodo: 125 Azione : F1--CN:Fy=-430.00
			Nodo:da 135 a 137 Azione : F1--CN:Fy=-430.00
			Nodo:da 135 a 137 Azione : F2+-CN:Fx=70.00
13	Gk	CDC=G2k permanente copertura	Azioni applicate:
			Pannello: 1 Azione : Peso Portato-P3:p=-5.000e-03
14	Qk	CDC=Qk carico neve	Azioni applicate:
			Pannello: 1 Azione : neve-P3:p=-5.000e-03
15	Qk	CDC=Qk variabile copertura	Azioni applicate:
			Pannello: 1 Azione : Peso Variabile-P3:p=-5.000e-03
16	Qk	CDC=Qk vento x+	Azioni applicate:
			Pannello: 1 Azione : vento +-P3:p= 9.300e-03
			Pannello:da 11 a 14 Azione : vento +-P3:p= 9.300e-03
17	Qk	CDC=Qk vento y-	Azioni applicate:
			Pannello: 1 Azione : vento --P3:p=-9.300e-03
			Pannello: 4 Azione : vento --P3:p=-9.300e-03
			Pannello:da 15 a 23 Azione : vento --P3:p=-9.300e-03
18	Gk	CDC=G1k carico terreno	Azioni applicate:
			D3 :da 23 a 26 Azione : spinta terreno y 3.6m-PL3:pi=-0.21 qi=0.0 pf=-0.18 qf=60.00
			D3 :da 27 a 30 Azione : spinta terreno x 3.6m-PL3:pi=0.21 qi=0.0 pf=0.18 qf=60.00
			D3 :da 37 a 40 Azione : spinta terreno y 3m-PL3:pi=-0.18 qi=60.00 pf=-0.14 qf=120.00
			D3 :da 41 a 44 Azione : spinta terreno x 3m-PL3:pi=0.18 qi=60.00 pf=0.14 qf=120.00
			D3 :da 51 a 54 Azione : spinta terreno y 2.4m-PL3:pi=-0.14 qi=120.00 pf=-0.12 qf=180.00
			D3 :da 55 a 58 Azione : spinta terreno x 2.4m-PL3:pi=0.14 qi=120.00 pf=0.12 qf=180.00

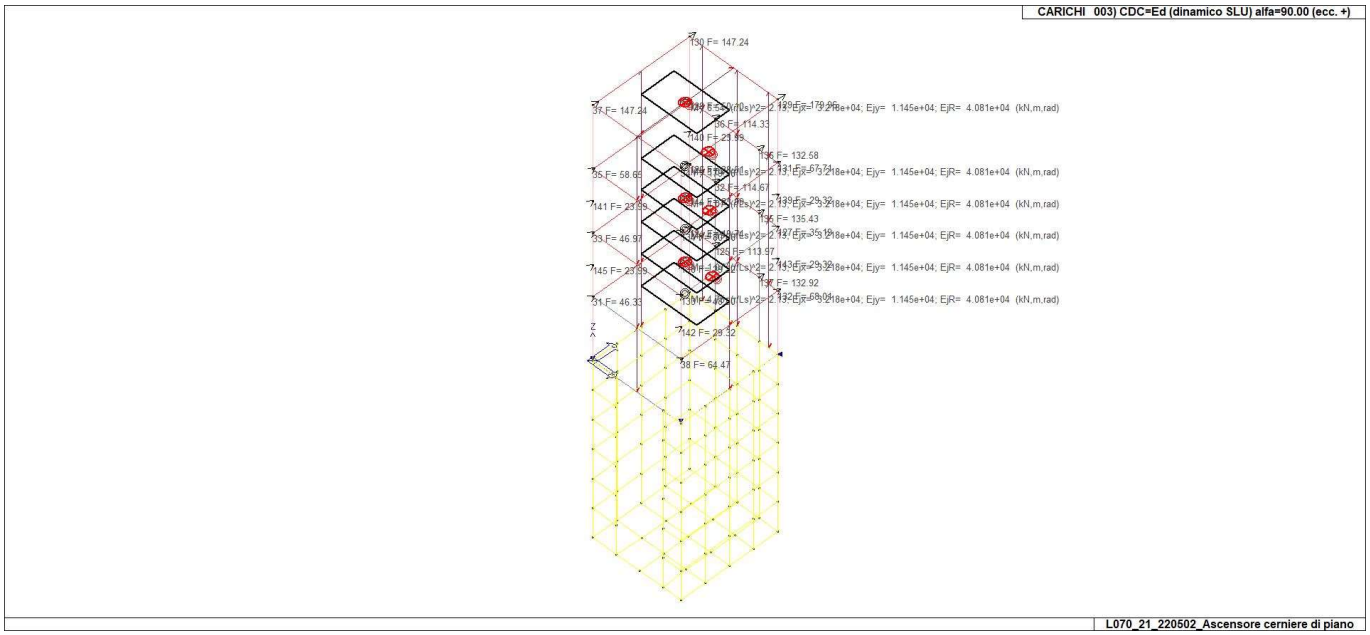
CDC	Tipo	Sigla Id	Note
			D3 :da 65 a 68 Azione : spinta terreno y 1.8m-PL3:pi=-0.12 qi=180.00 pf=-8.400e-02 qf=240.00
			D3 :da 69 a 72 Azione : spinta terreno x 1.8m-PL3:pi=0.12 qi=180.00 pf= 8.400e-02 qf=240.00
			D3 :da 79 a 82 Azione : spinta terreno y 1.2m-PL3:pi=-8.400e-02 qi=240.00 pf=-5.300e-02 qf=300.00
			D3 :da 83 a 86 Azione : spinta terreno x 1.2m-PL3:pi= 8.400e-02 qi=240.00 pf= 5.300e-02 qf=300.00
			D3 :da 93 a 96 Azione : spinta terreno y 0.6m-PL3:pi=-5.300e-02 qi=300.00 pf=-2.200e-02 qf=360.00
			D3 :da 97 a 100 Azione : spinta terreno x 0.6m-PL3:pi= 5.300e-02 qi=300.00 pf= 2.200e-02 qf=360.00
19	Ggk	CDC=Ggk (peso proprio della struttura)	
20	Etk	CDC=Etk (inc. sp. terreno) SLV dir + alfa=0.0	Azioni applicate:
			D3 :da 27 a 30 Azione : ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 41 a 44 Azione : ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 55 a 58 Azione : ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 69 a 72 Azione : ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 83 a 86 Azione : ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 97 a 100 Azione : ETK PAN ++ sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
21	Etk	CDC=Etk (inc. sp. terreno) SLV dir - alfa=0.0	Azioni applicate:
22	Etk	CDC=Etk (inc. sp. terreno) SLV dir + alfa=90.00	Azioni applicate:
23	Etk	CDC=Etk (inc. sp. terreno) SLV dir - alfa=90.00	Azioni applicate:
			D3 :da 23 a 26 Azione : ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 37 a 40 Azione : ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 51 a 54 Azione : ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 65 a 68 Azione : ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 79 a 82 Azione : ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02
			D3 :da 93 a 96 Azione : ETK PAN -- sovraspinta sismica terreno (da personalizzare)-P3:p=8.000e-02



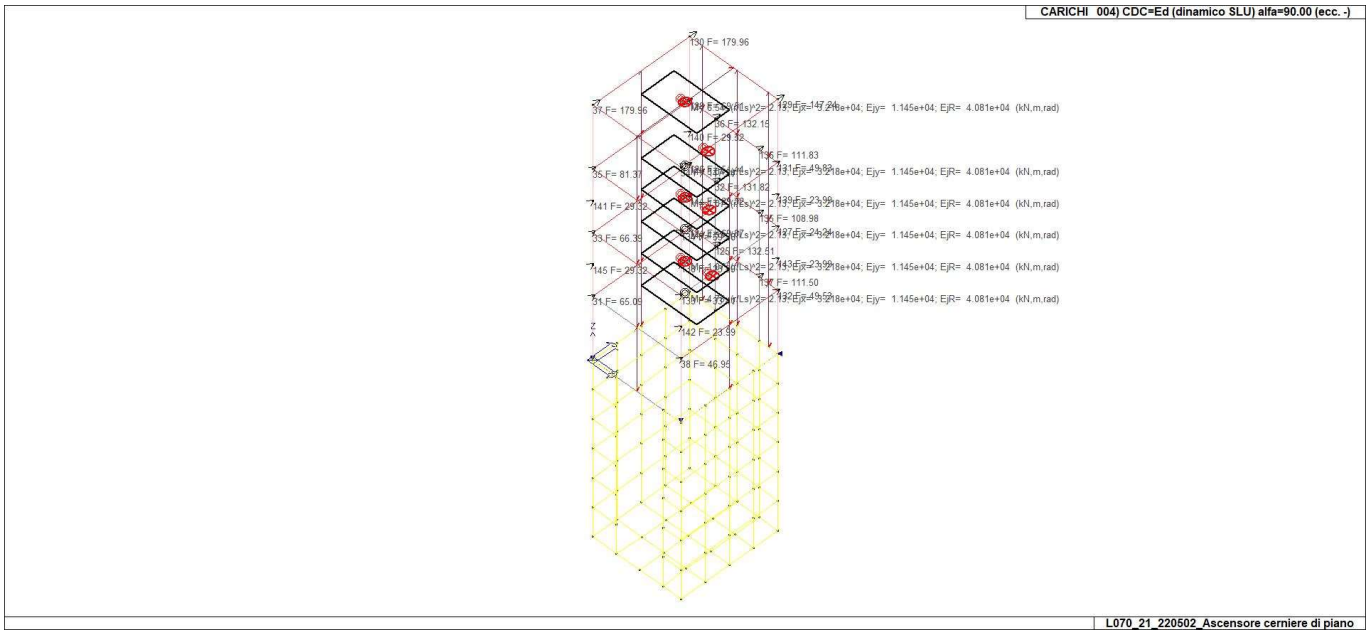
22_CDC_001_CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)



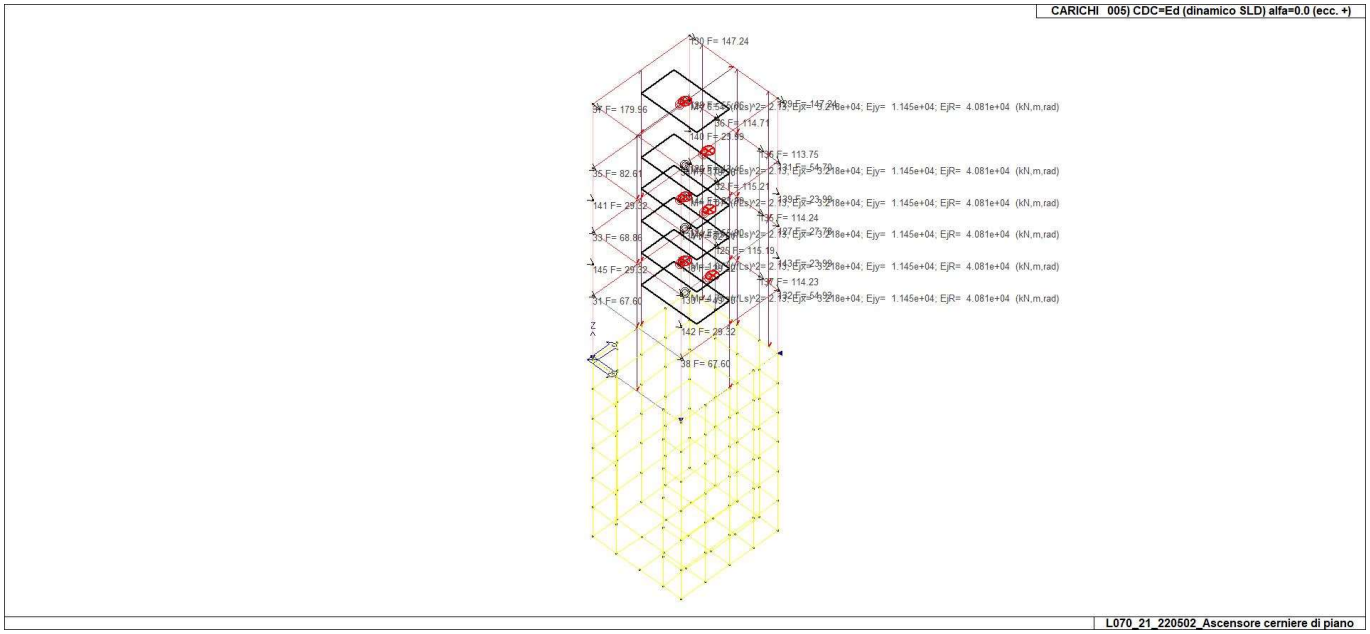
22_CDC_002_CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)



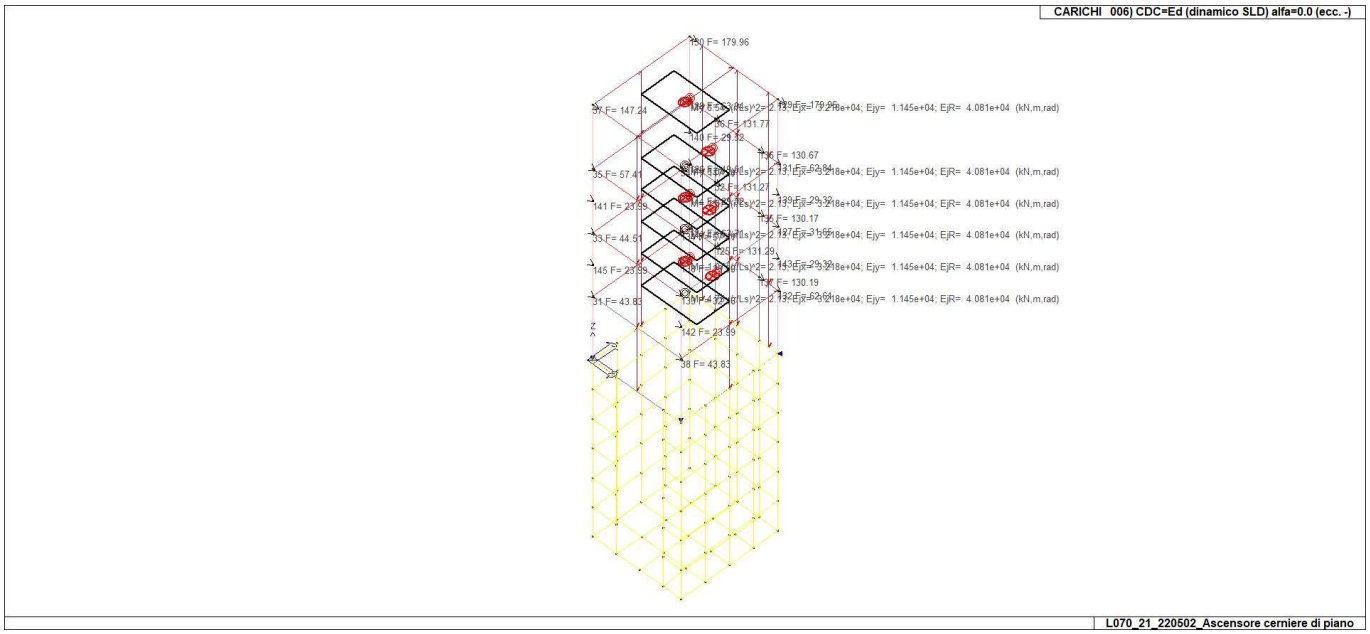
22_CDC_003_CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)



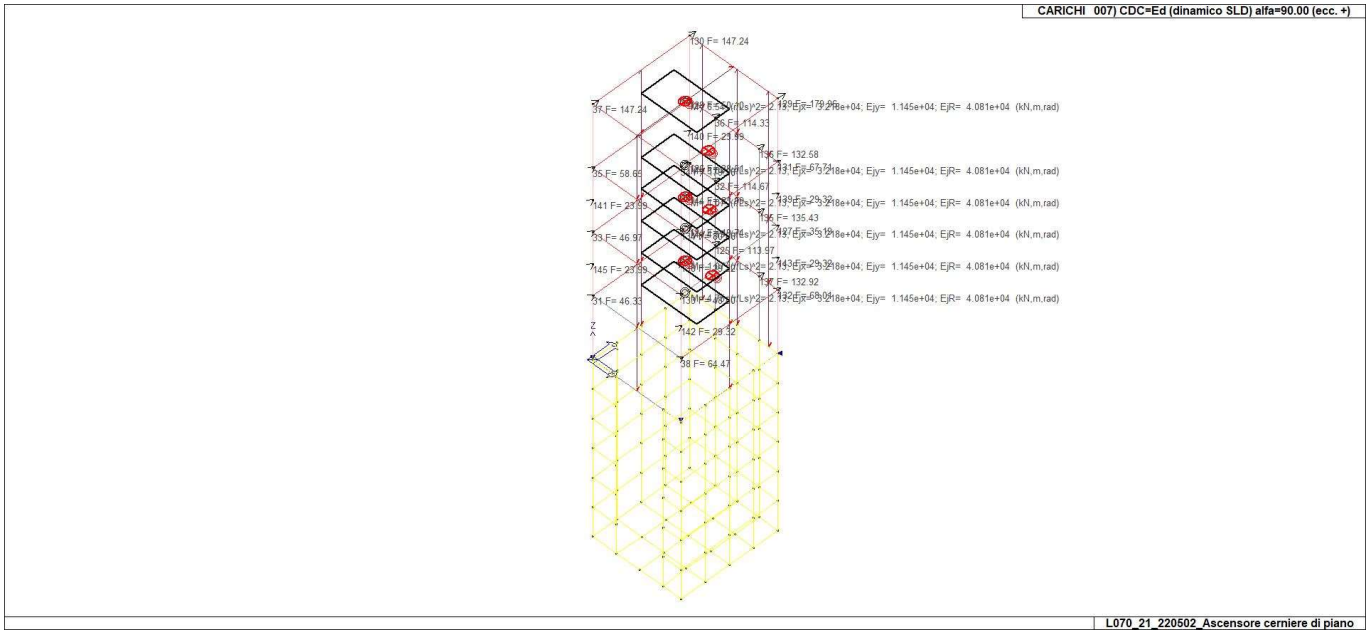
22_CDC_004_CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)



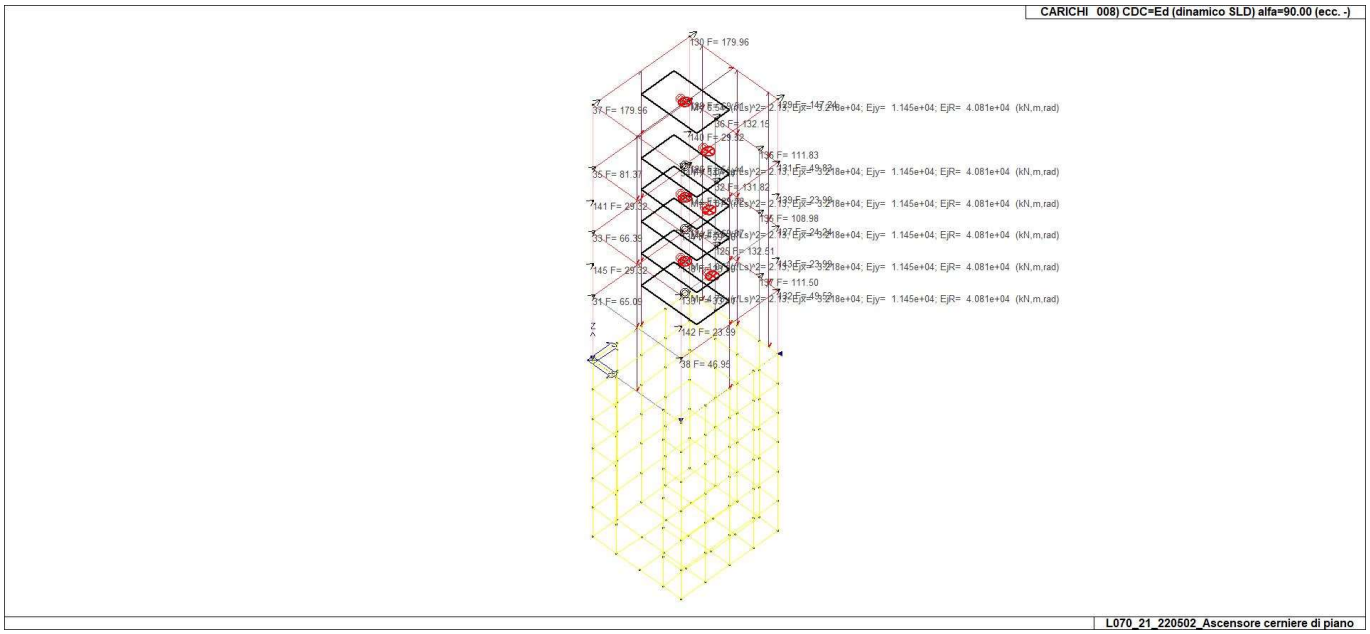
22_CDC_005_CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)



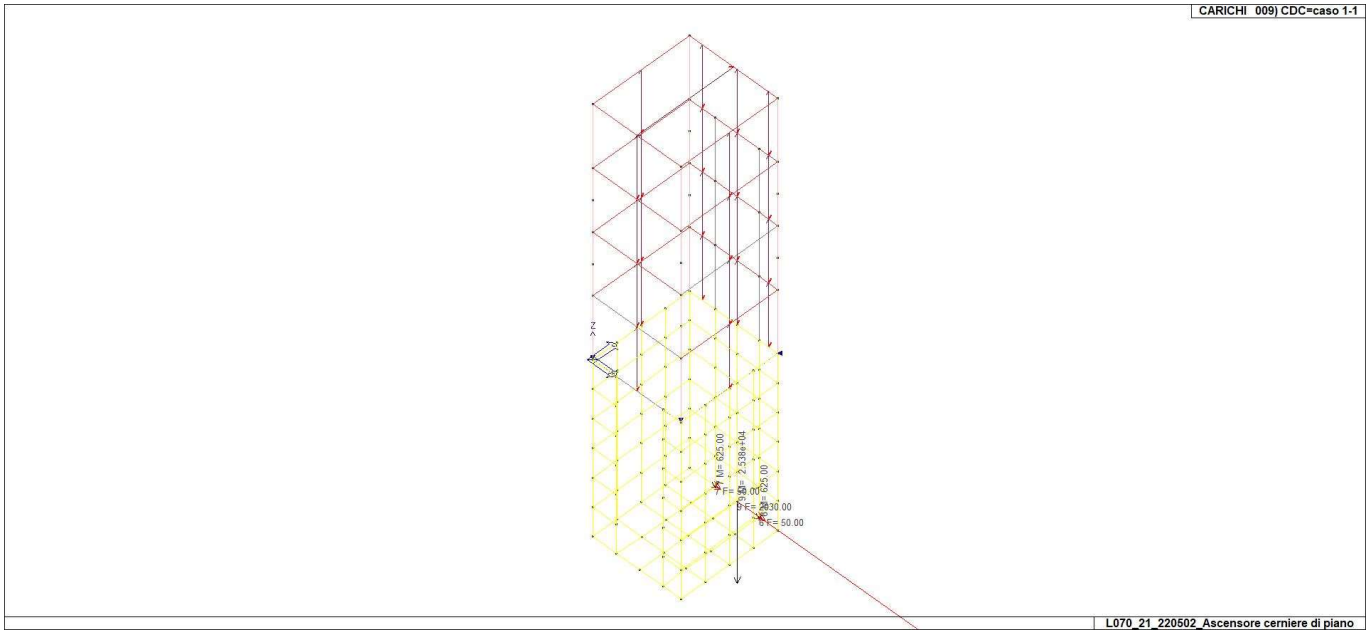
22_CDC_006_CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)



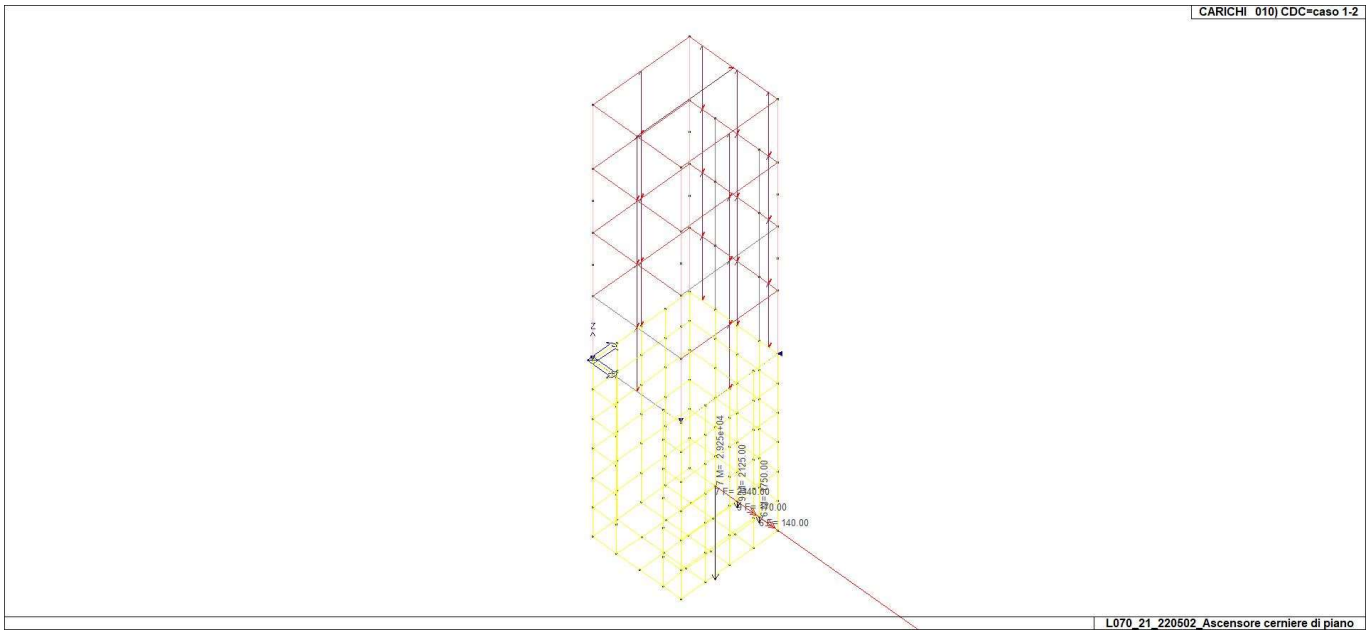
22_CDC_007_CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)



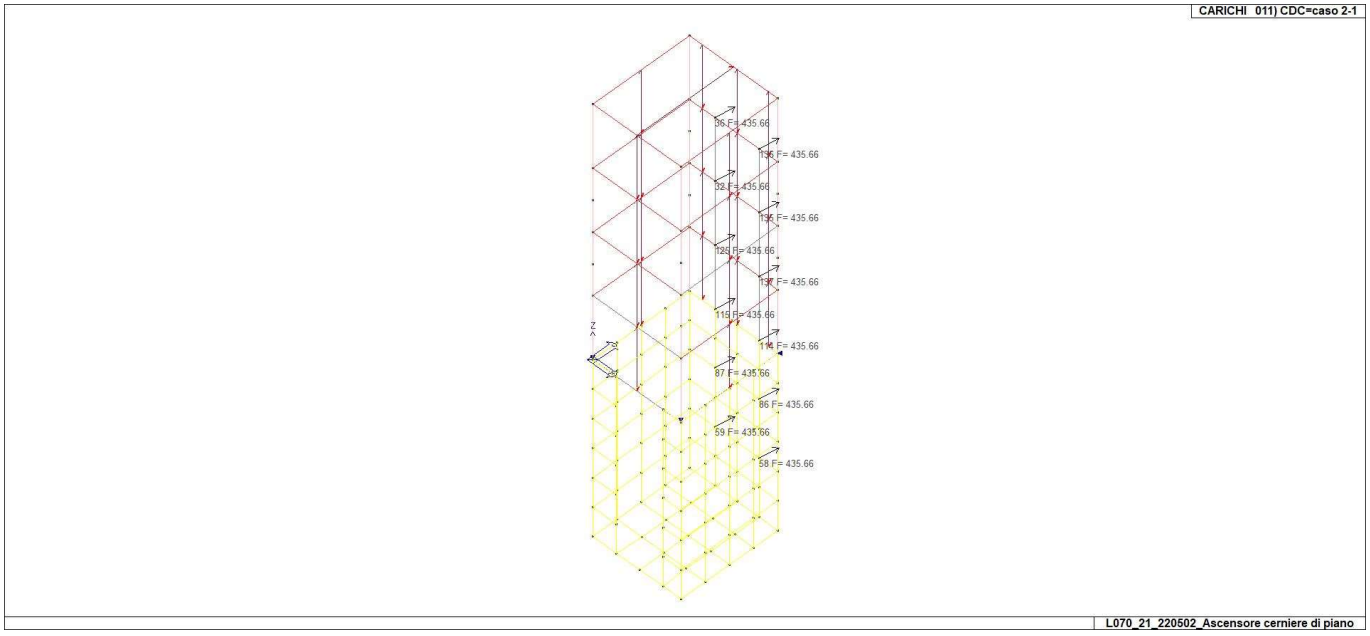
22_CDC_008_CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)



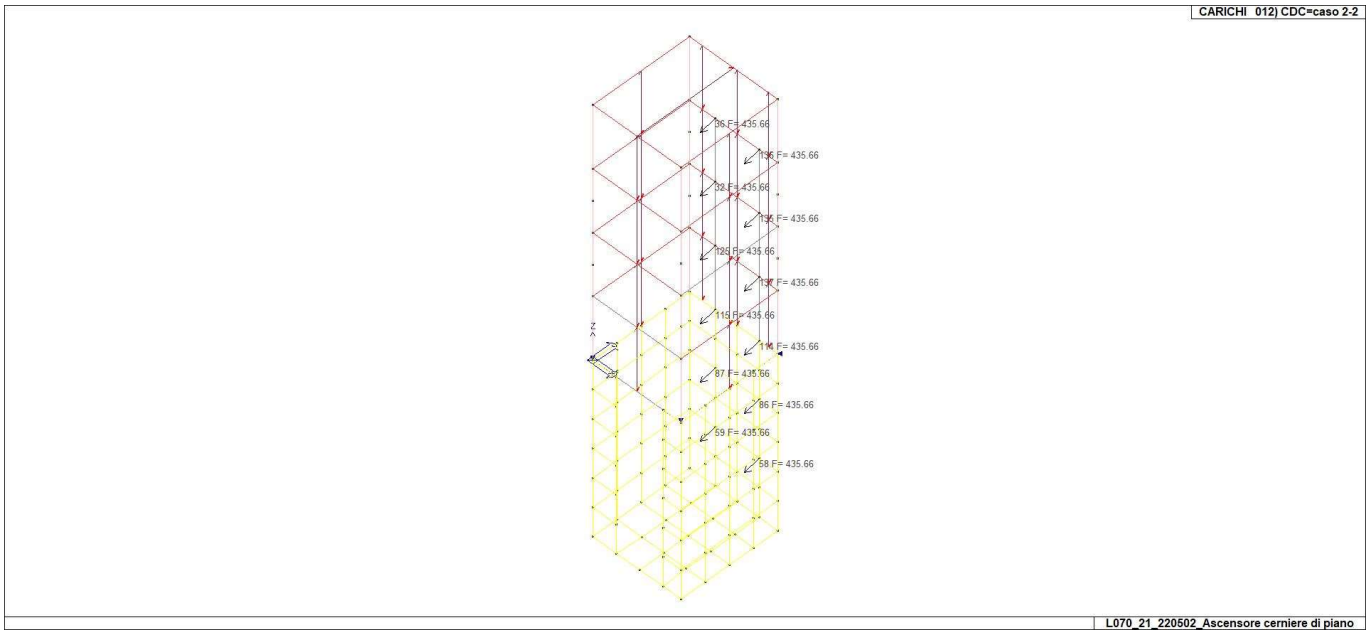
22_CDC_009_CDC=caso 1-1



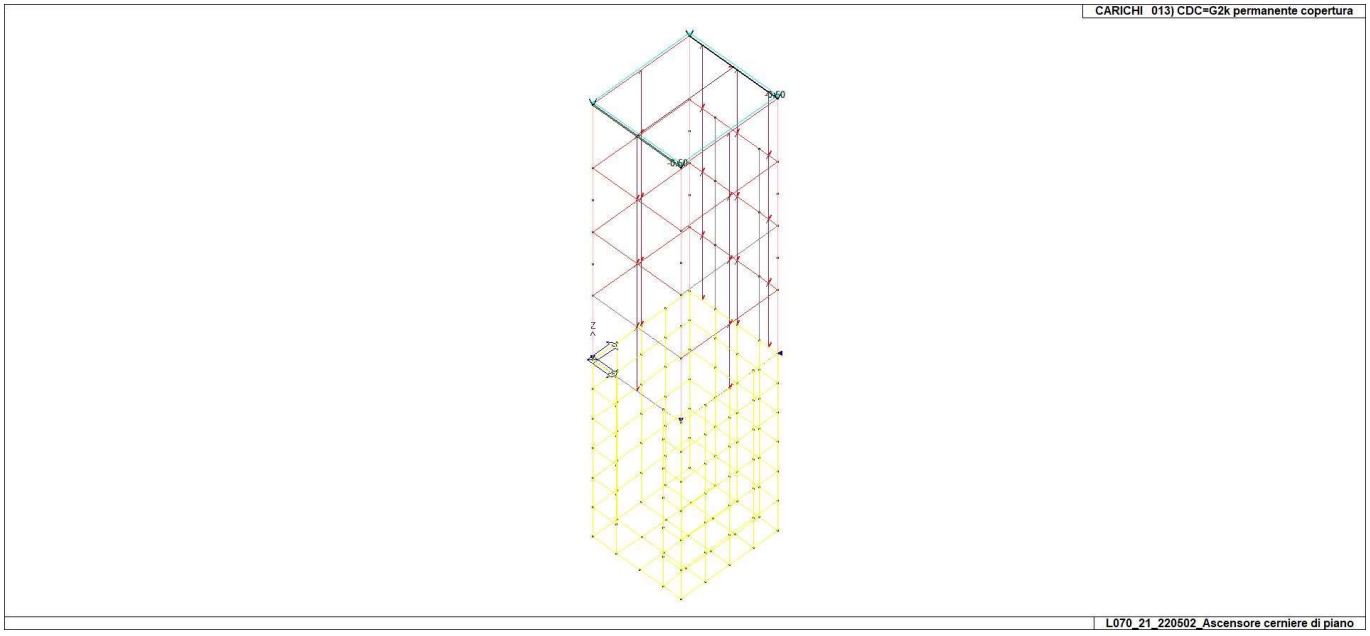
22_CDC_010_CDC=caso 1-2



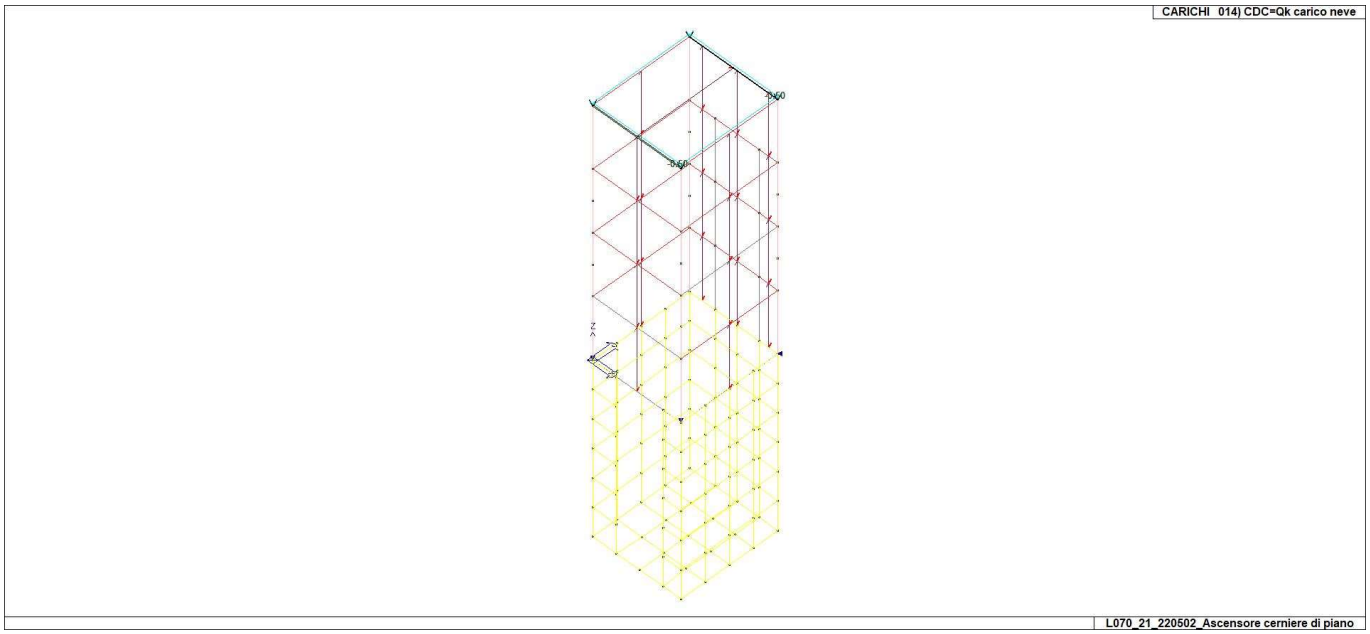
22_CDC_011_CDC=caso 2-1



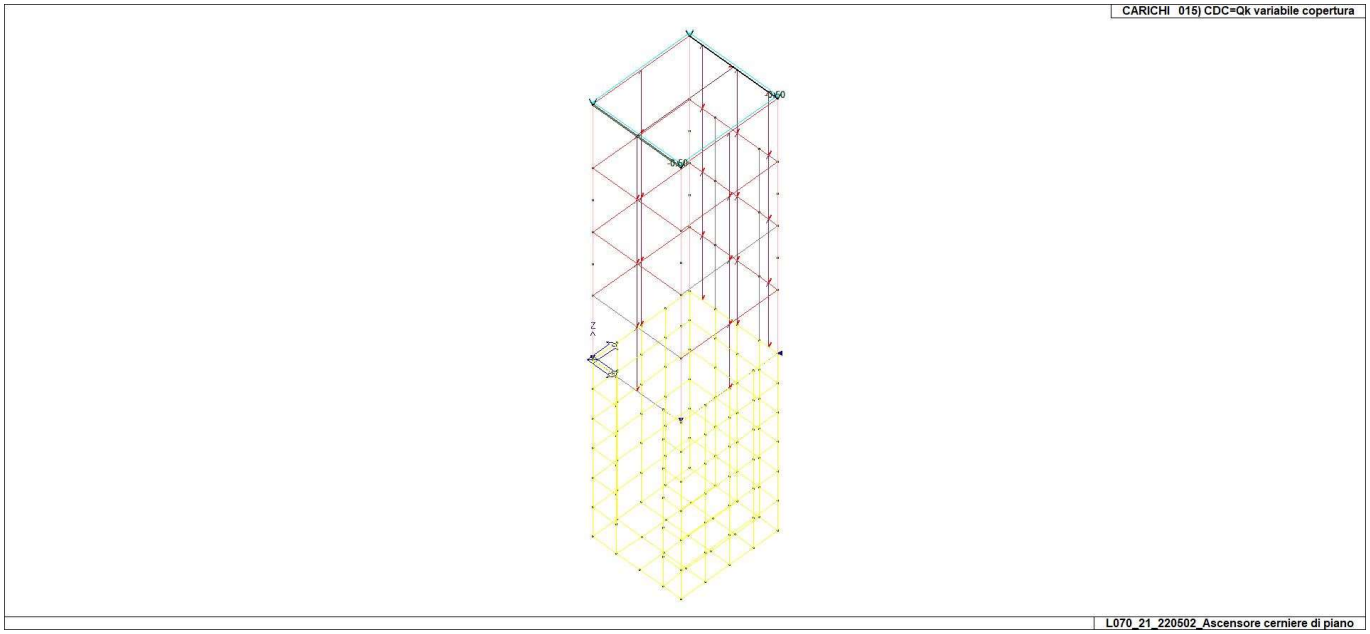
22_CDC_012_CDC=caso 2-2



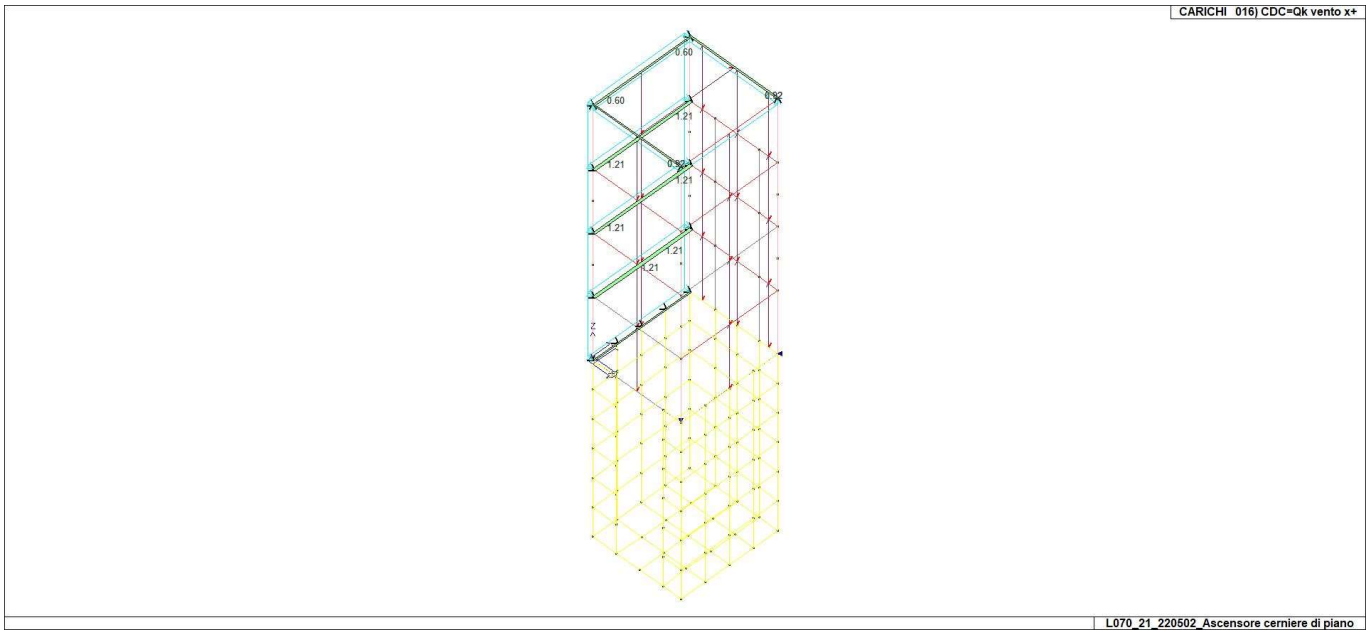
22_CDC_013_CDC=G2k permanente copertura



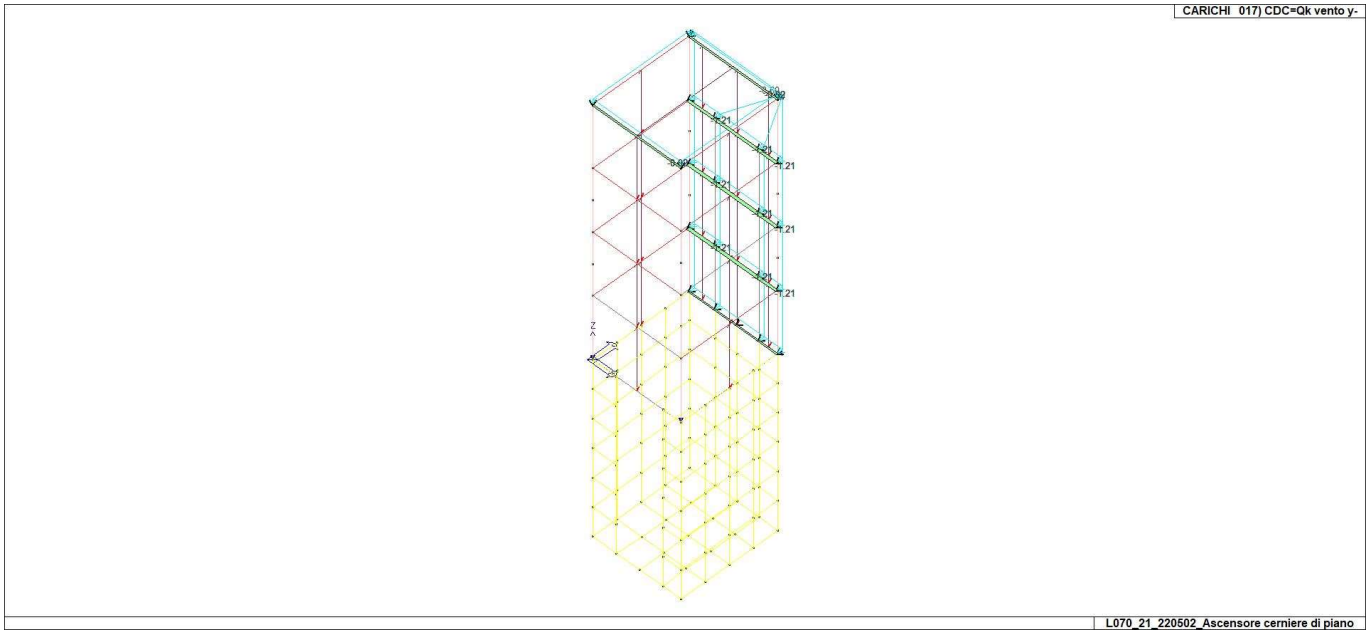
22_CDC_014_CDC=Qk carico neve



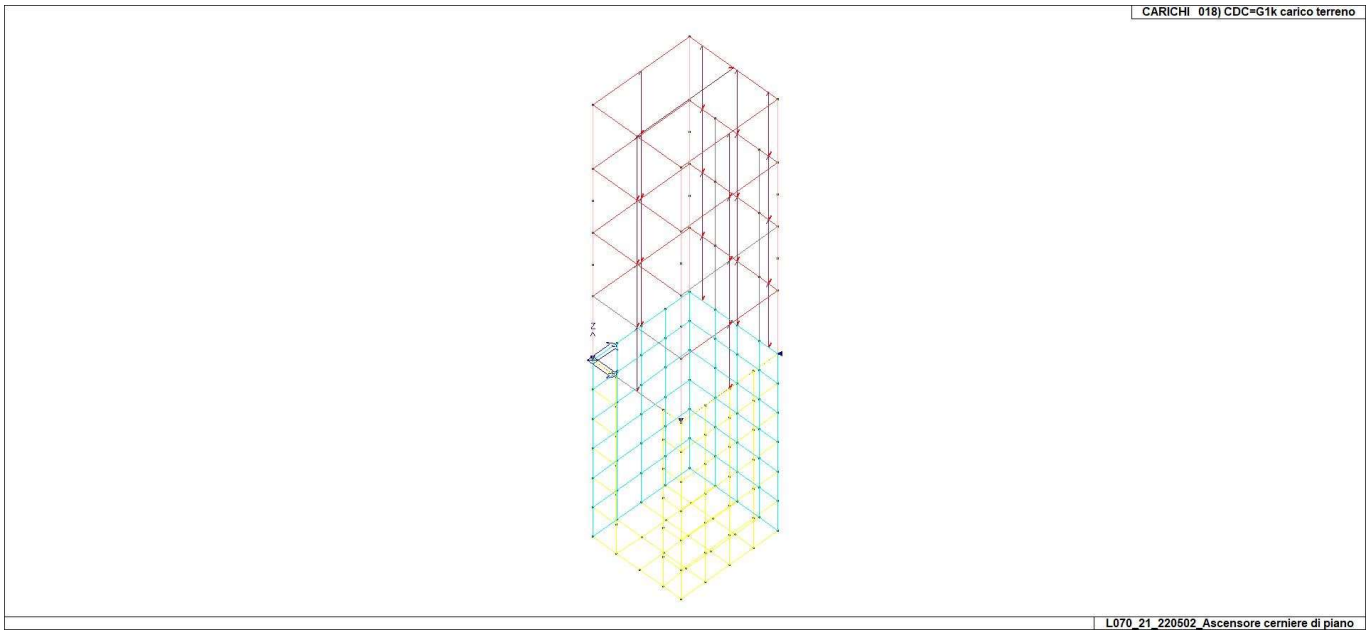
22_CDC_015_CDC=Qk variabile copertura



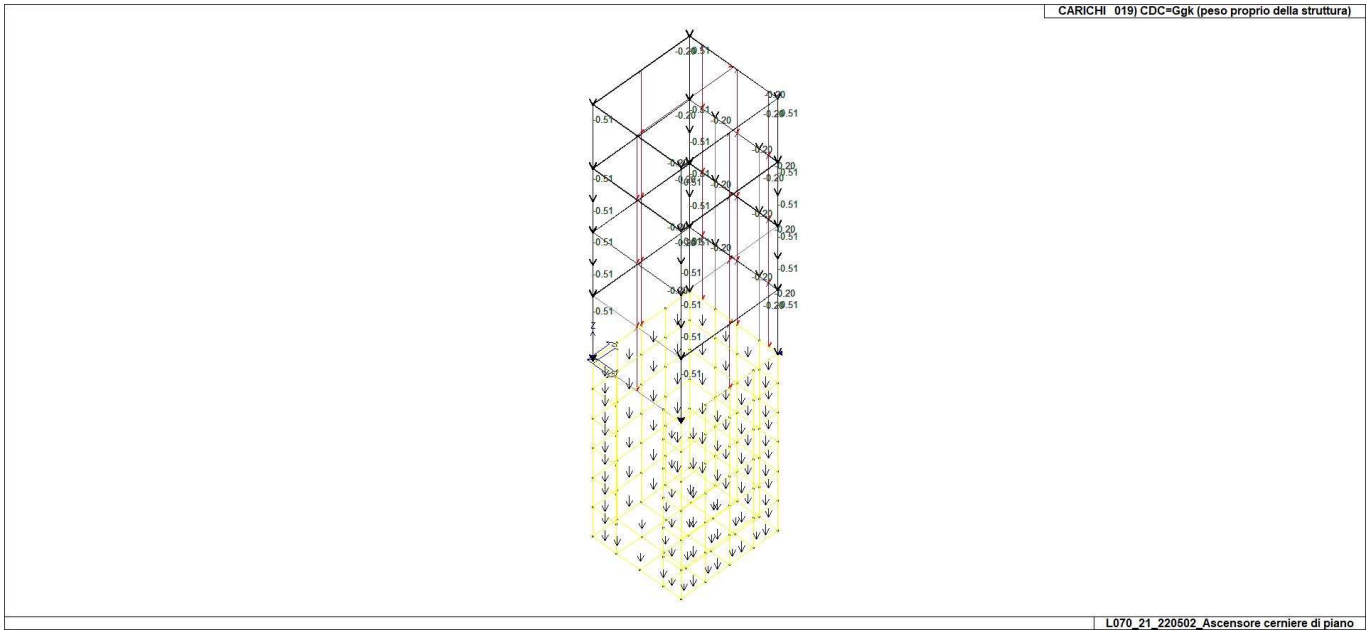
22_CDC_016_CDC=Qk vento x+



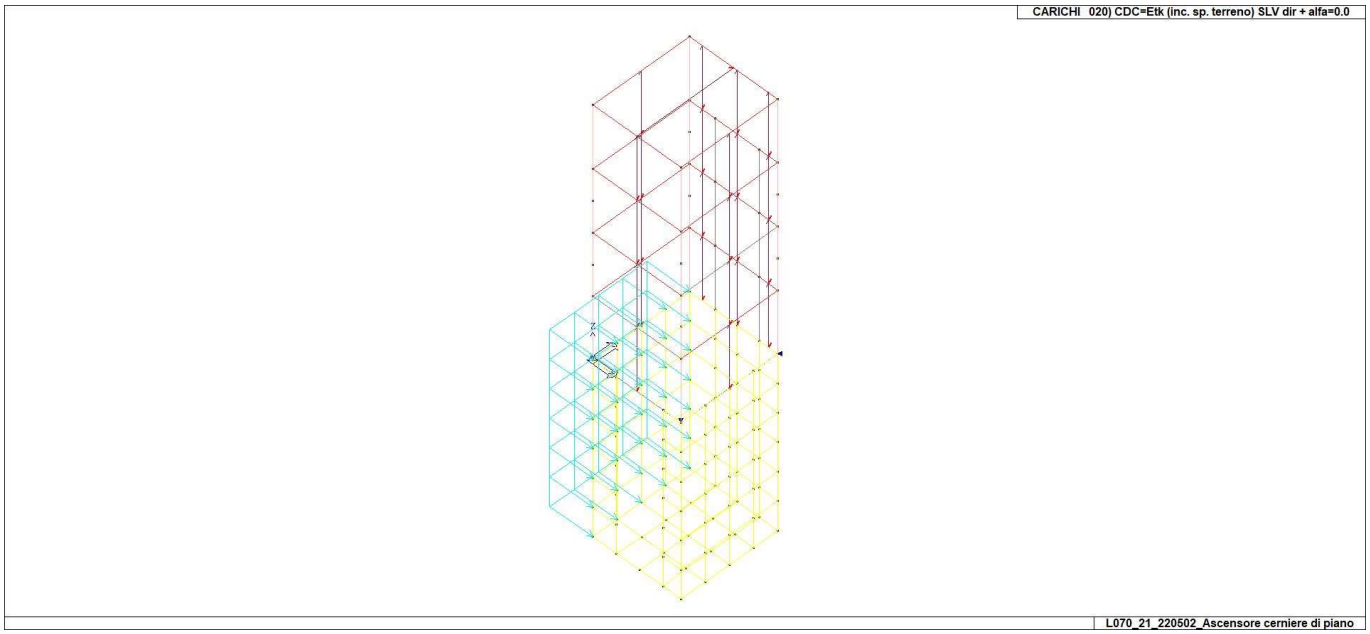
22_CDC_017_CDC=Qk vento y-



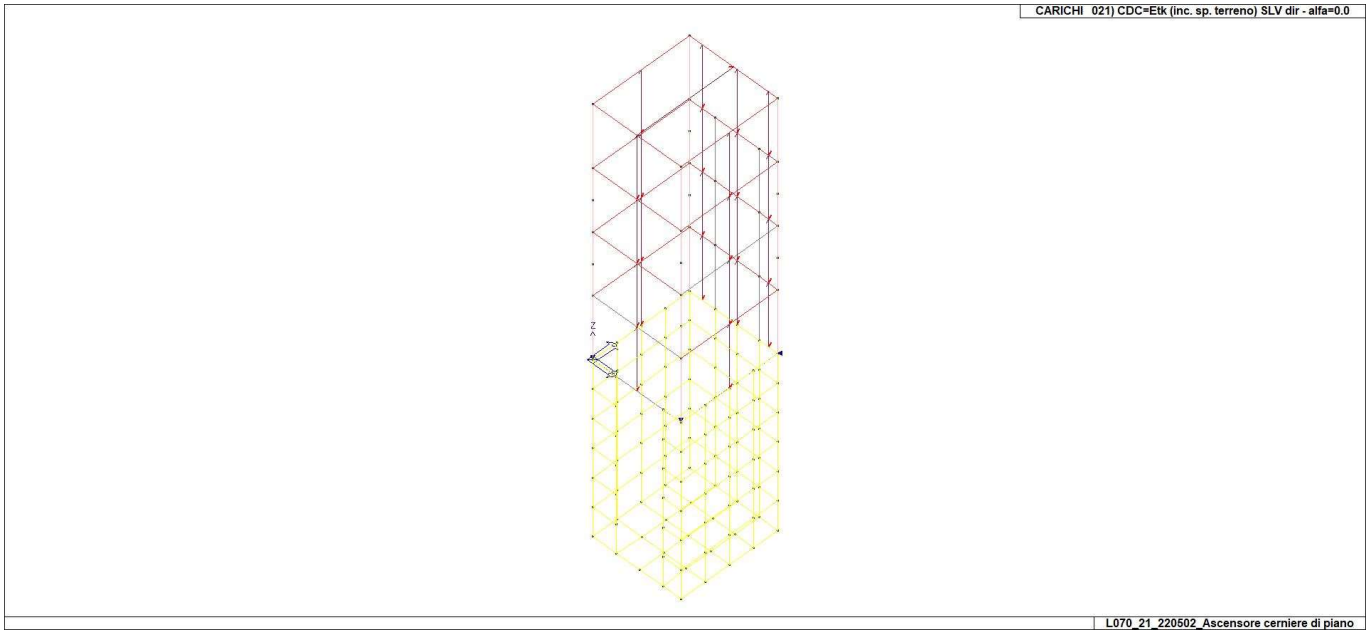
22_CDC_018_CDC=G1k carico terreno



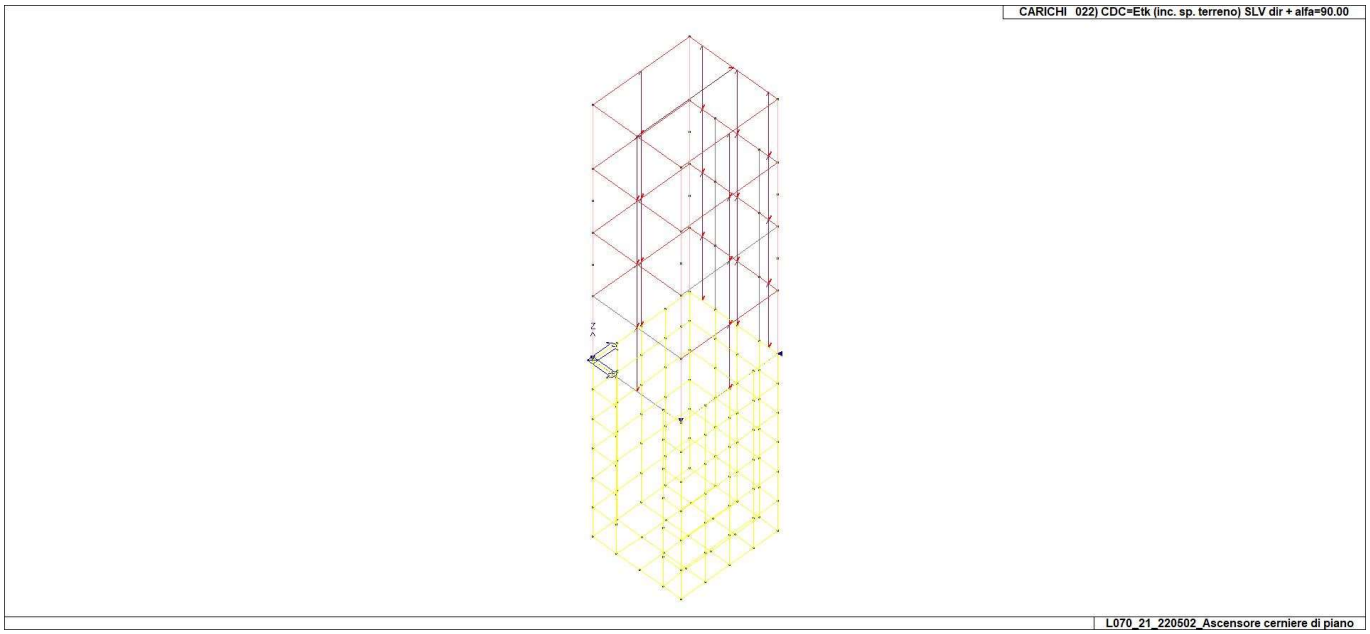
22_CDC_019_CDC=Ggk (peso proprio della struttura)



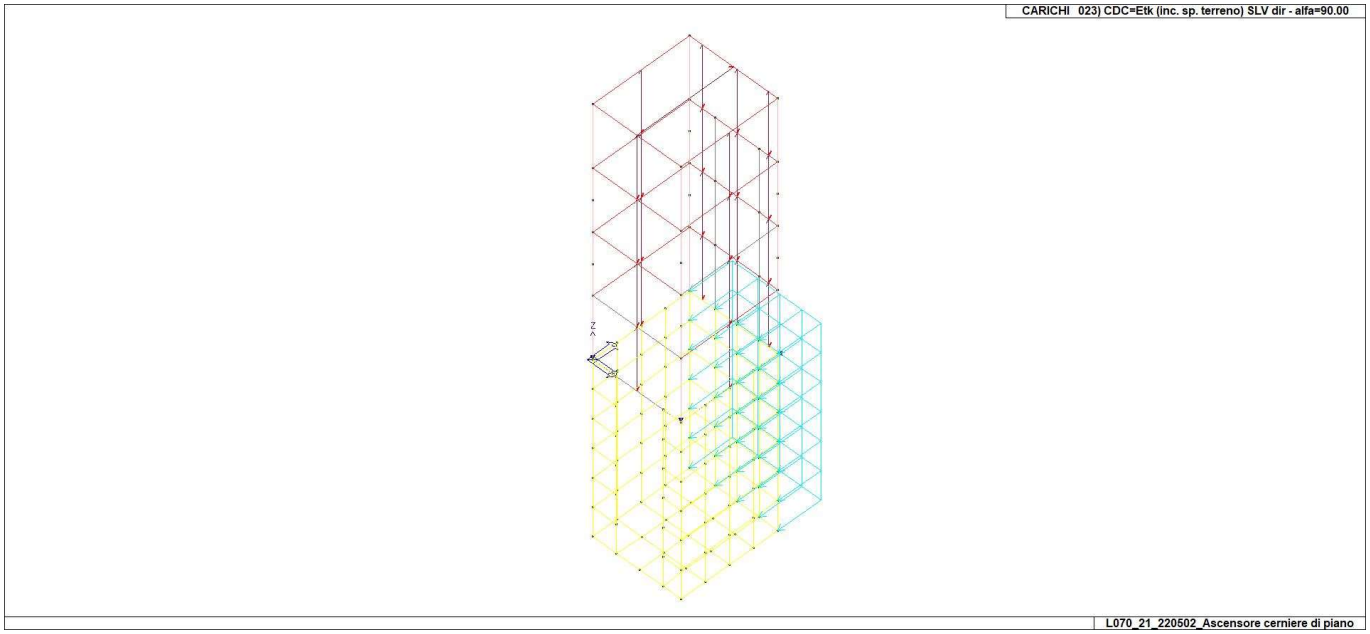
22_CDC_020_CDC=Etk (inc. sp. terreno) SLV dir + alfa=0.0



22_CDC_021_CDC=Etk (inc. sp. terreno) SLV dir - alfa=0.0



22_CDC_022_CDC=Etk (inc. sp. terreno) SLV dir + alfa=90.00



22_CDC_023_CDC=Etk (inc. sp. terreno) SLV dir - alfa=90.00

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*

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

***Combinazione caratteristica** (rara) SLE*

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

***Combinazione frequente** SLE*

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

***Combinazione quasi permanente** SLE*

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

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

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

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

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

Dove:

NTC 2018 Tabella 2.5.I

Destinazione d'uso/azione	***ψ0***	***ψ1***	***ψ2***
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 <= 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 γf	***EQU***	***A1***	***A2***

Carichi permanenti	*Favorevoli*	*γG1*	*0,9*	*1,0*	*1,0*
	Sfavorevoli		*1,1*	*1,3*	*1,0*
Carichi permanenti non strutturali (Non compiutamente definiti)	*Favorevoli*	*γG2*	*0,8*	*0,8*	*0,8*
	Sfavorevoli		*1,5*	*1,5*	*1,3*
Carichi variabili	*Favorevoli*	*γQi*	*0,0*	*0,0*	*0,0*
	Sfavorevoli		*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	SLU	Comb. SLU A1 5	
6	SLU	Comb. SLU A1 6	
7	SLU	Comb. SLU A1 7	
8	SLU	Comb. SLU A1 8	
9	SLU	Comb. SLU A1 9	
10	SLU	Comb. SLU A1 10	
11	SLU	Comb. SLU A1 11	
12	SLU	Comb. SLU A1 12	
13	SLU	Comb. SLU A1 13	
14	SLU	Comb. SLU A1 14	
15	SLU	Comb. SLU A1 15	
16	SLU	Comb. SLU A1 16	
17	SLU	Comb. SLU A1 17	
18	SLU	Comb. SLU A1 18	
19	SLU	Comb. SLU A1 19	
20	SLU	Comb. SLU A1 20	
21	SLU	Comb. SLU A1 21	
22	SLU	Comb. SLU A1 22	
23	SLU	Comb. SLU A1 23	
24	SLU	Comb. SLU A1 24	
25	SLU	Comb. SLU A1 25	
26	SLU	Comb. SLU A1 26	
27	SLU	Comb. SLU A1 27	
28	SLU	Comb. SLU A1 28	
29	SLU	Comb. SLU A1 29	
30	SLU	Comb. SLU A1 30	
31	SLU	Comb. SLU A1 31	
32	SLU	Comb. SLU A1 32	
33	SLU	Comb. SLU A1 33	
34	SLU	Comb. SLU A1 34	
35	SLU	Comb. SLU A1 35	
36	SLU	Comb. SLU A1 36	
37	SLU	Comb. SLU A1 37	
38	SLU	Comb. SLU A1 38	
39	SLU	Comb. SLU A1 39	
40	SLU	Comb. SLU A1 40	
41	SLU	Comb. SLU A1 41	
42	SLU	Comb. SLU A1 42	
43	SLU	Comb. SLU A1 43	
44	SLU	Comb. SLU A1 44	
45	SLU	Comb. SLU A1 45	
46	SLU	Comb. SLU A1 46	
47	SLU	Comb. SLU A1 47	
48	SLU	Comb. SLU A1 48	
49	SLU	Comb. SLU A1 49	
50	SLU	Comb. SLU A1 50	
51	SLU	Comb. SLU A1 51	
52	SLU	Comb. SLU A1 52	
53	SLU	Comb. SLU A1 53	
54	SLU	Comb. SLU A1 54	
55	SLU	Comb. SLU A1 55	
56	SLU	Comb. SLU A1 56	
57	SLU	Comb. SLU A1 57	
58	SLU	Comb. SLU A1 58	

Cmb	Tipo	Sigla Id	effetto P-delta
59	SLU	Comb. SLU A1 59	
60	SLU	Comb. SLU A1 60	
61	SLU	Comb. SLU A1 61	
62	SLU	Comb. SLU A1 62	
63	SLU	Comb. SLU A1 63	
64	SLU	Comb. SLU A1 64	
65	SLU	Comb. SLU A1 65	
66	SLU	Comb. SLU A1 66	
67	SLU	Comb. SLU A1 67	
68	SLU	Comb. SLU A1 68	
69	SLU	Comb. SLU A1 69	
70	SLU	Comb. SLU A1 70	
71	SLU	Comb. SLU A1 71	
72	SLU	Comb. SLU A1 72	
73	SLU	Comb. SLU A1 73	
74	SLU	Comb. SLU A1 74	
75	SLU	Comb. SLU A1 75	
76	SLU	Comb. SLU A1 76	
77	SLU	Comb. SLU A1 77	
78	SLU	Comb. SLU A1 78	
79	SLU	Comb. SLU A1 79	
80	SLU	Comb. SLU A1 80	
81	SLU	Comb. SLU A1 81	
82	SLU	Comb. SLU A1 82	
83	SLU	Comb. SLU A1 83	
84	SLU	Comb. SLU A1 84	
85	SLU	Comb. SLU A1 85	
86	SLU	Comb. SLU A1 86	
87	SLU	Comb. SLU A1 87	
88	SLU	Comb. SLU A1 88	
89	SLU	Comb. SLU A1 89	
90	SLU	Comb. SLU A1 90	
91	SLU	Comb. SLU A1 91	
92	SLU	Comb. SLU A1 92	
93	SLU	Comb. SLU A1 93	
94	SLU	Comb. SLU A1 94	
95	SLU	Comb. SLU A1 95	
96	SLU	Comb. SLU A1 96	
97	SLU	Comb. SLU A1 97	
98	SLU	Comb. SLU A1 98	
99	SLU	Comb. SLU A1 99	
100	SLU	Comb. SLU A1 100	
101	SLU	Comb. SLU A1 101	
102	SLU	Comb. SLU A1 102	
103	SLU	Comb. SLU A1 103	
104	SLU	Comb. SLU A1 104	
105	SLU	Comb. SLU A1 105	
106	SLU	Comb. SLU A1 106	
107	SLU	Comb. SLU A1 107	
108	SLU	Comb. SLU A1 108	
109	SLU	Comb. SLU A1 109	
110	SLU	Comb. SLU A1 110	
111	SLU	Comb. SLU A1 111	
112	SLU	Comb. SLU A1 112	
113	SLU	Comb. SLU A1 113	
114	SLU	Comb. SLU A1 114	
115	SLU	Comb. SLU A1 115	
116	SLU	Comb. SLU A1 116	
117	SLU	Comb. SLU A1 117	
118	SLU	Comb. SLU A1 118	
119	SLU	Comb. SLU A1 119	
120	SLU	Comb. SLU A1 120	
121	SLU	Comb. SLU A1 121	
122	SLU	Comb. SLU A1 122	
123	SLU	Comb. SLU A1 123	
124	SLU	Comb. SLU A1 124	
125	SLU	Comb. SLU A1 125	
126	SLU	Comb. SLU A1 126	
127	SLU	Comb. SLU A1 127	
128	SLU	Comb. SLU A1 128	
129	SLU	Comb. SLU A1 129	
130	SLU	Comb. SLU A1 130	
131	SLU	Comb. SLU A1 131	
132	SLU	Comb. SLU A1 132	

Cmb	Tipo	Sigla Id	effetto P-delta
133	SLU	Comb. SLU A1 133	
134	SLU	Comb. SLU A1 134	
135	SLU	Comb. SLU A1 135	
136	SLU	Comb. SLU A1 136	
137	SLU	Comb. SLU A1 137	
138	SLU	Comb. SLU A1 138	
139	SLU	Comb. SLU A1 139	
140	SLU	Comb. SLU A1 140	
141	SLU	Comb. SLU A1 141	
142	SLU	Comb. SLU A1 142	
143	SLU	Comb. SLU A1 143	
144	SLU	Comb. SLU A1 144	
145	SLU	Comb. SLU A1 145	
146	SLU	Comb. SLU A1 146	
147	SLU	Comb. SLU A1 147	
148	SLU	Comb. SLU A1 148	
149	SLU	Comb. SLU A1 149	
150	SLU	Comb. SLU A1 150	
151	SLU	Comb. SLU A1 151	
152	SLU	Comb. SLU A1 152	
153	SLU	Comb. SLU A1 153	
154	SLU	Comb. SLU A1 154	
155	SLU	Comb. SLU A1 155	
156	SLU	Comb. SLU A1 156	
157	SLU	Comb. SLU A1 157	
158	SLU	Comb. SLU A1 158	
159	SLU	Comb. SLU A1 159	
160	SLU	Comb. SLU A1 160	
161	SLU	Comb. SLU A1 161	
162	SLU	Comb. SLU A1 162	
163	SLU	Comb. SLU A1 163	
164	SLU	Comb. SLU A1 164	
165	SLU	Comb. SLU A1 165	
166	SLU	Comb. SLU A1 166	
167	SLU	Comb. SLU A1 167	
168	SLU	Comb. SLU A1 168	
169	SLU	Comb. SLU A1 169	
170	SLU	Comb. SLU A1 170	
171	SLU	Comb. SLU A1 171	
172	SLU	Comb. SLU A1 172	
173	SLU	Comb. SLU A1 173	
174	SLU	Comb. SLU A1 174	
175	SLU	Comb. SLU A1 175	
176	SLU	Comb. SLU A1 176	
177	SLU	Comb. SLU A1 177	
178	SLU	Comb. SLU A1 178	
179	SLU	Comb. SLU A1 179	
180	SLU	Comb. SLU A1 180	
181	SLU	Comb. SLU A1 181	
182	SLU	Comb. SLU A1 182	
183	SLU	Comb. SLU A1 183	
184	SLU	Comb. SLU A1 184	
185	SLU	Comb. SLU A1 185	
186	SLU	Comb. SLU A1 186	
187	SLU	Comb. SLU A1 187	
188	SLU	Comb. SLU A1 188	
189	SLU	Comb. SLU A1 189	
190	SLU	Comb. SLU A1 190	
191	SLU	Comb. SLU A1 191	
192	SLU	Comb. SLU A1 192	
193	SLU	Comb. SLU A1 193	
194	SLU	Comb. SLU A1 194	
195	SLU	Comb. SLU A1 195	
196	SLU	Comb. SLU A1 196	
197	SLU	Comb. SLU A1 197	
198	SLU	Comb. SLU A1 198	
199	SLU	Comb. SLU A1 199	
200	SLU	Comb. SLU A1 200	
201	SLU	Comb. SLU A1 (SLV sism.) 201	SI
202	SLU	Comb. SLU A1 (SLV sism.) 202	SI
203	SLU	Comb. SLU A1 (SLV sism.) 203	SI
204	SLU	Comb. SLU A1 (SLV sism.) 204	SI
205	SLU	Comb. SLU A1 (SLV sism.) 205	SI
206	SLU	Comb. SLU A1 (SLV sism.) 206	SI

Cmb	Tipo	Sigla Id	effetto P-delta
207	SLU	Comb. SLU A1 (SLV sism.) 207	SI
208	SLU	Comb. SLU A1 (SLV sism.) 208	SI
209	SLU	Comb. SLU A1 (SLV sism.) 209	SI
210	SLU	Comb. SLU A1 (SLV sism.) 210	SI
211	SLU	Comb. SLU A1 (SLV sism.) 211	SI
212	SLU	Comb. SLU A1 (SLV sism.) 212	SI
213	SLU	Comb. SLU A1 (SLV sism.) 213	SI
214	SLU	Comb. SLU A1 (SLV sism.) 214	SI
215	SLU	Comb. SLU A1 (SLV sism.) 215	SI
216	SLU	Comb. SLU A1 (SLV sism.) 216	SI
217	SLU	Comb. SLU A1 (SLV sism.) 217	SI
218	SLU	Comb. SLU A1 (SLV sism.) 218	SI
219	SLU	Comb. SLU A1 (SLV sism.) 219	SI
220	SLU	Comb. SLU A1 (SLV sism.) 220	SI
221	SLU	Comb. SLU A1 (SLV sism.) 221	SI
222	SLU	Comb. SLU A1 (SLV sism.) 222	SI
223	SLU	Comb. SLU A1 (SLV sism.) 223	SI
224	SLU	Comb. SLU A1 (SLV sism.) 224	SI
225	SLU	Comb. SLU A1 (SLV sism.) 225	SI
226	SLU	Comb. SLU A1 (SLV sism.) 226	SI
227	SLU	Comb. SLU A1 (SLV sism.) 227	SI
228	SLU	Comb. SLU A1 (SLV sism.) 228	SI
229	SLU	Comb. SLU A1 (SLV sism.) 229	SI
230	SLU	Comb. SLU A1 (SLV sism.) 230	SI
231	SLU	Comb. SLU A1 (SLV sism.) 231	SI
232	SLU	Comb. SLU A1 (SLV sism.) 232	SI
233	SLE(sis)	Comb. SLE (SLD Danno sism.) 233	SI
234	SLE(sis)	Comb. SLE (SLD Danno sism.) 234	SI
235	SLE(sis)	Comb. SLE (SLD Danno sism.) 235	SI
236	SLE(sis)	Comb. SLE (SLD Danno sism.) 236	SI
237	SLE(sis)	Comb. SLE (SLD Danno sism.) 237	SI
238	SLE(sis)	Comb. SLE (SLD Danno sism.) 238	SI
239	SLE(sis)	Comb. SLE (SLD Danno sism.) 239	SI
240	SLE(sis)	Comb. SLE (SLD Danno sism.) 240	SI
241	SLE(sis)	Comb. SLE (SLD Danno sism.) 241	SI
242	SLE(sis)	Comb. SLE (SLD Danno sism.) 242	SI
243	SLE(sis)	Comb. SLE (SLD Danno sism.) 243	SI
244	SLE(sis)	Comb. SLE (SLD Danno sism.) 244	SI
245	SLE(sis)	Comb. SLE (SLD Danno sism.) 245	SI
246	SLE(sis)	Comb. SLE (SLD Danno sism.) 246	SI
247	SLE(sis)	Comb. SLE (SLD Danno sism.) 247	SI
248	SLE(sis)	Comb. SLE (SLD Danno sism.) 248	SI
249	SLE(sis)	Comb. SLE (SLD Danno sism.) 249	SI
250	SLE(sis)	Comb. SLE (SLD Danno sism.) 250	SI
251	SLE(sis)	Comb. SLE (SLD Danno sism.) 251	SI
252	SLE(sis)	Comb. SLE (SLD Danno sism.) 252	SI
253	SLE(sis)	Comb. SLE (SLD Danno sism.) 253	SI
254	SLE(sis)	Comb. SLE (SLD Danno sism.) 254	SI
255	SLE(sis)	Comb. SLE (SLD Danno sism.) 255	SI
256	SLE(sis)	Comb. SLE (SLD Danno sism.) 256	SI
257	SLE(sis)	Comb. SLE (SLD Danno sism.) 257	SI
258	SLE(sis)	Comb. SLE (SLD Danno sism.) 258	SI
259	SLE(sis)	Comb. SLE (SLD Danno sism.) 259	SI
260	SLE(sis)	Comb. SLE (SLD Danno sism.) 260	SI
261	SLE(sis)	Comb. SLE (SLD Danno sism.) 261	SI
262	SLE(sis)	Comb. SLE (SLD Danno sism.) 262	SI
263	SLE(sis)	Comb. SLE (SLD Danno sism.) 263	SI
264	SLE(sis)	Comb. SLE (SLD Danno sism.) 264	SI
265	SLE(r)	Comb. SLE(rara) 265	
266	SLE(r)	Comb. SLE(rara) 266	
267	SLE(r)	Comb. SLE(rara) 267	
268	SLE(r)	Comb. SLE(rara) 268	
269	SLE(r)	Comb. SLE(rara) 269	
270	SLE(r)	Comb. SLE(rara) 270	
271	SLE(r)	Comb. SLE(rara) 271	
272	SLE(r)	Comb. SLE(rara) 272	
273	SLE(r)	Comb. SLE(rara) 273	
274	SLE(r)	Comb. SLE(rara) 274	
275	SLE(r)	Comb. SLE(rara) 275	
276	SLE(r)	Comb. SLE(rara) 276	
277	SLE(r)	Comb. SLE(rara) 277	
278	SLE(r)	Comb. SLE(rara) 278	
279	SLE(r)	Comb. SLE(rara) 279	
280	SLE(r)	Comb. SLE(rara) 280	

Cmb	Tipo	Sigla Id	effetto P-delta
281	SLE(r)	Comb. SLE(rara) 281	
282	SLE(r)	Comb. SLE(rara) 282	
283	SLE(r)	Comb. SLE(rara) 283	
284	SLE(r)	Comb. SLE(rara) 284	
285	SLE(r)	Comb. SLE(rara) 285	
286	SLE(r)	Comb. SLE(rara) 286	
287	SLE(r)	Comb. SLE(rara) 287	
288	SLE(r)	Comb. SLE(rara) 288	
289	SLE(r)	Comb. SLE(rara) 289	
290	SLE(r)	Comb. SLE(rara) 290	
291	SLE(r)	Comb. SLE(rara) 291	
292	SLE(r)	Comb. SLE(rara) 292	
293	SLE(r)	Comb. SLE(rara) 293	
294	SLE(r)	Comb. SLE(rara) 294	
295	SLE(r)	Comb. SLE(rara) 295	
296	SLE(r)	Comb. SLE(rara) 296	
297	SLE(r)	Comb. SLE(rara) 297	
298	SLE(r)	Comb. SLE(rara) 298	
299	SLE(r)	Comb. SLE(rara) 299	
300	SLE(r)	Comb. SLE(rara) 300	
301	SLE(r)	Comb. SLE(rara) 301	
302	SLE(r)	Comb. SLE(rara) 302	
303	SLE(r)	Comb. SLE(rara) 303	
304	SLE(r)	Comb. SLE(rara) 304	
305	SLE(r)	Comb. SLE(rara) 305	
306	SLE(r)	Comb. SLE(rara) 306	
307	SLE(r)	Comb. SLE(rara) 307	
308	SLE(r)	Comb. SLE(rara) 308	
309	SLE(r)	Comb. SLE(rara) 309	
310	SLE(r)	Comb. SLE(rara) 310	
311	SLE(r)	Comb. SLE(rara) 311	
312	SLE(r)	Comb. SLE(rara) 312	
313	SLE(r)	Comb. SLE(rara) 313	
314	SLE(r)	Comb. SLE(rara) 314	
315	SLE(r)	Comb. SLE(rara) 315	
316	SLE(r)	Comb. SLE(rara) 316	
317	SLE(r)	Comb. SLE(rara) 317	
318	SLE(r)	Comb. SLE(rara) 318	
319	SLE(r)	Comb. SLE(rara) 319	
320	SLE(r)	Comb. SLE(rara) 320	
321	SLE(r)	Comb. SLE(rara) 321	
322	SLE(r)	Comb. SLE(rara) 322	
323	SLE(r)	Comb. SLE(rara) 323	
324	SLE(r)	Comb. SLE(rara) 324	
325	SLE(r)	Comb. SLE(rara) 325	
326	SLE(r)	Comb. SLE(rara) 326	
327	SLE(r)	Comb. SLE(rara) 327	
328	SLE(r)	Comb. SLE(rara) 328	
329	SLE(r)	Comb. SLE(rara) 329	
330	SLE(r)	Comb. SLE(rara) 330	
331	SLE(r)	Comb. SLE(rara) 331	
332	SLE(r)	Comb. SLE(rara) 332	
333	SLE(r)	Comb. SLE(rara) 333	
334	SLE(r)	Comb. SLE(rara) 334	
335	SLE(r)	Comb. SLE(rara) 335	
336	SLE(r)	Comb. SLE(rara) 336	
337	SLE(r)	Comb. SLE(rara) 337	
338	SLE(r)	Comb. SLE(rara) 338	
339	SLE(r)	Comb. SLE(rara) 339	
340	SLE(r)	Comb. SLE(rara) 340	
341	SLE(r)	Comb. SLE(rara) 341	
342	SLE(r)	Comb. SLE(rara) 342	
343	SLE(r)	Comb. SLE(rara) 343	
344	SLE(r)	Comb. SLE(rara) 344	
345	SLE(r)	Comb. SLE(rara) 345	
346	SLE(r)	Comb. SLE(rara) 346	
347	SLE(r)	Comb. SLE(rara) 347	
348	SLE(r)	Comb. SLE(rara) 348	
349	SLE(r)	Comb. SLE(rara) 349	
350	SLE(r)	Comb. SLE(rara) 350	
351	SLE(r)	Comb. SLE(rara) 351	
352	SLE(r)	Comb. SLE(rara) 352	
353	SLE(r)	Comb. SLE(rara) 353	
354	SLE(r)	Comb. SLE(rara) 354	

Cmb	Tipo	Sigla Id	effetto P-delta
355	SLE(r)	Comb. SLE(rara) 355	
356	SLE(r)	Comb. SLE(rara) 356	
357	SLE(r)	Comb. SLE(rara) 357	
358	SLE(r)	Comb. SLE(rara) 358	
359	SLE(r)	Comb. SLE(rara) 359	
360	SLE(r)	Comb. SLE(rara) 360	
361	SLE(r)	Comb. SLE(rara) 361	
362	SLE(r)	Comb. SLE(rara) 362	
363	SLE(r)	Comb. SLE(rara) 363	
364	SLE(r)	Comb. SLE(rara) 364	
365	SLE(f)	Comb. SLE(freq.) 365	
366	SLE(f)	Comb. SLE(freq.) 366	
367	SLE(f)	Comb. SLE(freq.) 367	
368	SLE(f)	Comb. SLE(freq.) 368	
369	SLE(f)	Comb. SLE(freq.) 369	
370	SLE(f)	Comb. SLE(freq.) 370	
371	SLE(f)	Comb. SLE(freq.) 371	
372	SLE(f)	Comb. SLE(freq.) 372	
373	SLE(f)	Comb. SLE(freq.) 373	
374	SLE(f)	Comb. SLE(freq.) 374	
375	SLE(f)	Comb. SLE(freq.) 375	
376	SLE(f)	Comb. SLE(freq.) 376	
377	SLE(f)	Comb. SLE(freq.) 377	
378	SLE(f)	Comb. SLE(freq.) 378	
379	SLE(f)	Comb. SLE(freq.) 379	
380	SLE(f)	Comb. SLE(freq.) 380	
381	SLE(f)	Comb. SLE(freq.) 381	
382	SLE(f)	Comb. SLE(freq.) 382	
383	SLE(f)	Comb. SLE(freq.) 383	
384	SLE(f)	Comb. SLE(freq.) 384	
385	SLE(f)	Comb. SLE(freq.) 385	
386	SLE(f)	Comb. SLE(freq.) 386	
387	SLE(f)	Comb. SLE(freq.) 387	
388	SLE(f)	Comb. SLE(freq.) 388	
389	SLE(f)	Comb. SLE(freq.) 389	
390	SLE(f)	Comb. SLE(freq.) 390	
391	SLE(f)	Comb. SLE(freq.) 391	
392	SLE(f)	Comb. SLE(freq.) 392	
393	SLE(f)	Comb. SLE(freq.) 393	
394	SLE(f)	Comb. SLE(freq.) 394	
395	SLE(f)	Comb. SLE(freq.) 395	
396	SLE(f)	Comb. SLE(freq.) 396	
397	SLE(f)	Comb. SLE(freq.) 397	
398	SLE(f)	Comb. SLE(freq.) 398	
399	SLE(f)	Comb. SLE(freq.) 399	
400	SLE(f)	Comb. SLE(freq.) 400	
401	SLE(f)	Comb. SLE(freq.) 401	
402	SLE(f)	Comb. SLE(freq.) 402	
403	SLE(f)	Comb. SLE(freq.) 403	
404	SLE(f)	Comb. SLE(freq.) 404	
405	SLE(f)	Comb. SLE(freq.) 405	
406	SLE(f)	Comb. SLE(freq.) 406	
407	SLE(f)	Comb. SLE(freq.) 407	
408	SLE(f)	Comb. SLE(freq.) 408	
409	SLE(p)	Comb. SLE(perm.) 409	
410	SLE(p)	Comb. SLE(perm.) 410	
411	SLE(p)	Comb. SLE(perm.) 411	
412	SLE(p)	Comb. SLE(perm.) 412	
413	SLE(p)	Comb. SLE(perm.) 413	
414	SLE(p)	Comb. SLE(perm.) 414	
415	SLE(p)	Comb. SLE(perm.) 415	
416	SLE(p)	Comb. SLE(perm.) 416	
417	SLE(p)	Comb. SLE(perm.) 417	
418	SLE(p)	Comb. SLE(perm.) 418	
419	SLE(p)	Comb. SLE(perm.) 419	
420	SLE(p)	Comb. SLE(perm.) 420	

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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0

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...
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.50	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.50	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	1.50	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					

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...
38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	1.50	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	1.05	0.0	1.50	0.0
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	1.05	0.0	0.80	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
71	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	1.05	1.50	0.0
	0.0	0.0	0.90	1.30	1.30	0.0	0.0	0.0	0.0					
72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	1.05	0.80	0.0
	0.0	0.0	0.90	1.00	1.00	0.0	0.0	0.0	0.0					
73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0

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...
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
76	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
79	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.50	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	1.50	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
81	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	1.50	1.50	0.0
	0.0	0.0	1.50	1.30	1.30	0.0	0.0	0.0	0.0					
88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	1.50	0.80	0.0
	0.0	0.0	1.50	1.00	1.00	0.0	0.0	0.0	0.0					
89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
102	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.75
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
104	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.75
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.50
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
106	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	1.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
107	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	1.50
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
108	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	1.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
109	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	1.50
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	1.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					

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...
111	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	1.50
	0.0	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
112	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	1.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
113	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
114	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
116	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
117	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
118	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
119	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
121	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.75
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
122	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.75
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
123	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.75
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
124	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.75
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.75
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
126	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.75
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
127	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.75
	1.50	0.0	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
128	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.75
	1.50	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
129	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
131	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
132	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
133	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
134	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
136	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
137	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
138	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
139	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
141	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
142	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
143	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
144	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
146	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0

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...
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
148	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
149	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
151	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
152	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
153	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
154	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
156	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
157	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
158	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
159	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.05	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
161	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
162	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
163	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
164	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
166	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.50	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
167	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.75
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
168	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.75
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
169	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	1.50
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	1.50
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
171	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	1.50
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
172	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	1.50
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
173	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	1.50
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
174	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	1.50
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	1.50
	0.0	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
176	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	1.50
	0.0	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
177	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.75
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
178	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.75
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
179	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.75
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.75
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
181	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.75
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
182	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.75
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
183	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.75
	0.0	1.50	0.0	1.30	1.30	0.0	0.0	0.0	0.0					

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...
184	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.75
	0.0	1.50	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
186	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.0
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
187	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.0
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
188	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.0
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
189	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.0
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.0
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
191	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.0
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
192	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.0
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
193	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.75
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
194	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.75
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	1.50	0.75
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
196	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.80	0.75
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
197	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	1.50	0.75
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
198	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	0.0	0.0	0.0	0.80	0.75
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
199	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	1.50	0.75
	1.50	0.90	0.0	1.30	1.30	0.0	0.0	0.0	0.0					
200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.05	0.0	0.0	0.80	0.75
	1.50	0.90	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
201	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.0	0.30					
202	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.30	0.0					
203	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.30					
204	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.30	0.0					
205	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.0	0.30					
206	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.30	0.0					
207	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.30					
208	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.30	0.0					
209	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.0	0.30					
210	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.30	0.0					
211	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.30					
212	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.30	0.0					
213	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.0	0.30					
214	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	1.00	0.30	0.0					
215	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.30					
216	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	1.00	0.0	0.30	0.0					
217	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	0.0	1.00					
218	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	1.00	0.0					
219	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	0.0	1.00					
220	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0

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...
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	1.00	0.0					
221	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	0.0	1.00					
222	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	1.00	0.0					
223	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	0.0	1.00					
224	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	1.00	0.0					
225	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	0.0	1.00					
226	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	1.00	0.0					
227	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	0.0	1.00					
228	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	1.00	0.0					
229	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	0.0	1.00					
230	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.30	1.00	0.0					
231	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	0.0	1.00					
232	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.30	0.0	1.00	0.0					
233	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
234	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
235	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
236	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
237	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
238	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
239	0.0	0.0	0.0	0.0	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
240	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
241	0.0	0.0	0.0	0.0	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
242	0.0	0.0	0.0	0.0	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
243	0.0	0.0	0.0	0.0	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
244	0.0	0.0	0.0	0.0	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
245	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
246	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
247	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
248	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
249	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
250	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
251	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
252	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
253	0.0	0.0	0.0	0.0	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
254	0.0	0.0	0.0	0.0	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
255	0.0	0.0	0.0	0.0	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
256	0.0	0.0	0.0	0.0	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					

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...
257	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
258	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
259	0.0	0.0	0.0	0.0	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
260	0.0	0.0	0.0	0.0	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
261	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
262	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
263	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
264	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
266	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
267	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
268	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
269	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
271	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
272	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
274	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
276	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
277	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
278	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
279	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
281	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
282	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	1.00	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
283	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	1.00	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
284	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
286	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
287	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
288	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
289	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
291	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
292	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
293	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.0

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...
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
294	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
296	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
297	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
298	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
299	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.70	1.00	0.0
	0.0	0.0	0.60	1.00	1.00	0.0	0.0	0.0	0.0					
301	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
302	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
303	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
304	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	1.00	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
306	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
307	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
308	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	1.00	1.00	0.0
	0.0	0.0	1.00	1.00	1.00	0.0	0.0	0.0	0.0					
309	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
311	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
312	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
313	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
314	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
316	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.50
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
317	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
318	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
319	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
321	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
322	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
323	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
324	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
326	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.50
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
327	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.50
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
328	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.50
	1.00	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
329	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					

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...
330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
331	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
332	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
333	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
334	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
336	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
337	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
338	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
339	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
341	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
342	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
343	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
344	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.70	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
346	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
347	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
348	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.50
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
349	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	1.00
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
351	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	1.00
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
352	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	1.00
	0.0	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
353	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
354	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.50
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.50
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
356	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.50
	0.0	1.00	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
357	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
358	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
359	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.0
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
361	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
362	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.50
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
363	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.50
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
364	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.70	0.0	0.0	1.00	0.50
	1.00	0.60	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
365	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
366	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0

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...
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
367	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
368	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.60	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
369	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
371	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.70	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
372	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
373	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
374	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
375	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
376	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.60	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
377	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
379	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.70	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
380	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
381	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
382	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
383	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.70	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
384	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
385	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
386	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
387	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
388	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.60	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
389	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
390	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.70	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
392	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
393	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
394	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.70	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
395	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
396	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.70	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
397	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
398	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.70	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
399	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.0	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.70	1.00	0.0
	0.0	0.0	0.20	1.00	1.00	0.0	0.0	0.0	0.0					
401	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.20
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
402	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.20
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					

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...
403	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	1.00	0.20
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
404	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.0	1.00	0.20
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
405	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.20	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
406	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0
	0.0	0.20	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
407	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	1.00	0.0
	0.0	0.20	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
408	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.0	1.00	0.0
	0.0	0.20	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
409	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
410	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
411	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
412	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
413	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
414	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
415	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
416	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.60	0.0	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
417	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
418	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
419	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					
420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.60	0.0	0.60	1.00	0.0
	0.0	0.0	0.0	1.00	1.00	0.0	0.0	0.0	0.0					

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 Vr che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento Vr e la probabilità di superamento Pver associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno Tr e i relativi parametri di pericolosità sismica (vedi tabella successiva):
ag: accelerazione orizzontale massima del terreno;
Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;
T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

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

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:
S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente S = Ss*St (3.2.3)
Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale
Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale
Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.
Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.
Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

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

$$0 \le T < T_B \qquad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$$

$$T_B \le T < T_C \qquad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$$

$$T_C \le T < T_D \qquad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right)$$

$$T_D \le T \qquad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)$$

Dove per sottosuolo di categoria **A** i coefficienti S_S e C_C valgono 1; mentre per le categorie di sottosuolo B, C, D, E i coefficienti S_S e C_C vengono calcolati mediante le espressioni riportane nella seguente Tabella

Categoria sottosuolo	S_S	C_C
A	1,00	1,00
B	$1,00 \le 1,40 - 0,40 \cdot F_o \cdot \frac{a_g}{g} \le 1,20$	$1,10 \cdot (T_C^*)^{-0,20}$
C	$1,00 \le 1,70 - 0,60 \cdot F_o \cdot \frac{a_g}{g} \le 1,50$	$1,05 \cdot (T_C^*)^{-0,33}$
D	$0,90 \le 2,40 - 1,50 \cdot F_o \cdot \frac{a_g}{g} \le 1,80$	$1,25 \cdot (T_C^*)^{-0,50}$
E	$1,00 \le 2,00 - 1,10 \cdot F_o \cdot \frac{a_g}{g} \le 1,60$	$1,15 \cdot (T_C^*)^{-0,40}$

Per tenere conto delle condizioni topografiche e in assenza di specifiche analisi di risposta sismica locale, si utilizzano i valori del coefficiente topografico S_T riportati nella seguente Tabella

Categoria topografica	Ubicazione dell'opera o dell'intervento	S_T
T1	-	1,0
T2	In corrispondenza della sommità del pendio	1,2
T3	In corrispondenza della cresta di un rilievo con pendenza media minore o uguale a 30°	1,2
T4	In corrispondenza della cresta di un rilievo con pendenza media maggiore di 30°	1,4

Lo spettro di risposta elastico in accelerazione della componente verticale del moto sismico, Sve, è definito dalle espressioni:

$$0 \le T < T_B \qquad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o}\left(1 - \frac{T}{T_B}\right)\right]$$

$$T_B \le T < T_C \qquad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v$$

$$T_C \le T < T_D \qquad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C}{T}\right)$$

$$T_D \le T \qquad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C \cdot T_D}{T^2}\right)$$

I valori di S_S, T_B, T_C e T_D, sono riportati nella seguenteTabella

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

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	14.706	40.700	
33873	14.677	40.679	3.514
33874	14.743	40.678	3.983
33652	14.744	40.728	4.342
33651	14.678	40.729	3.956

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	45.2	0.047	2.368	0.313
SLD	63.0	75.4	0.058	2.435	0.342
SLV	10.0	711.8	0.122	2.607	0.441
SLC	5.0	1462.2	0.147	2.695	0.462

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.047	1.440	2.368	0.692	0.145	0.434	1.787
SLD	0.058	1.440	2.435	0.789	0.155	0.466	1.830
SLV	0.122	1.440	2.607	1.230	0.190	0.571	2.088
SLC	0.147	1.440	2.695	1.394	0.198	0.593	2.187

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. Edkcaso 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	Angolo di ingresso dell'azione sismica orizzontale
Fattore di importanza	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica	Zona sismica
Accelerazione ag	Accelerazione orizzontale massima sul suolo
Categoria suolo	Categoria di profilo stratigrafico del suolo di fondazione
Fattore q	Fattore di struttura/di comportamento. Dipendente dalla tipologia strutturale
Amplificazione ND	Coefficiente di amplificazione q/qND 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 riduz. SLD	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	Periodo proprio di vibrazione della struttura
Coefficiente Lambda	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro Sd(T1)	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata spettro Se(T1)	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata spettro S (Tb-Tc)	Valore dell'ordinata dello spettro in uso nel tratto costante
numero 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 qND ricavato come da 7.3.2 in funzione del fattore di comportamento q utilizzato per la struttura: 1<qND=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/Ls (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/Ls (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 etaT (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità 1000*etaT/h da confrontare direttamente con i valori forniti nella norma (es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

Qualora si applichi il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") l'analisi sismica dinamica può essere comprensiva di sollecitazione verticale contemporanea a quella orizzontale, nel qual caso è effettuata una sovrapposizione degli effetti in ragione della radice dei quadrati degli effetti stessi. Per ciascuna combinazione sismica - analisi effettuate con il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") - viene riportato il livello di deformazione etaT, etaP e etaD degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso in unità 1000*etaT/h da confrontare direttamente con il valore 2 o 4 per la verifica.

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 A2, azione verticale, deformazioni di taglio dell'elastomero e tensioni nell'acciaio.
Qualora si applichi l'Ordinanza 3274 e s.m.i. le verifiche sono eseguite in accordo con l'allegato 10.A.
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 (amplificato del 20% per Ordinanza 3274 e smi) combinato con la regola del 30%
Ang fi	Angolo utilizzato per il calcolo dell' area ridotta Ar (per dispositivi circolari)
V	Azione verticale agente
Ar	Area ridotta efficace
Dim A2	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' elestomero
Vcr	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

1) V > 0
2) Sig s < fyk
3) Gam t < 5
4) Gam s < Gam * (caratteristica dell' elastomero)
5) Gam s < 2
6) V < 0.5 Vcr

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

CDC	Tipo	Sigla Id	Note
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.458 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.114 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: ND
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	0.0	-9.90	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	0.0	-9.90	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	0.0	-9.90	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	0.0	-9.90	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	0.0	-9.90	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	0.0	-9.90	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.721	0.149	0.397	1.30	5.75e-02	1665.57	73.5	0.03	1.16e-03	0.0	0.0
2	8.380	0.119	0.353	858.92	37.9	99.69	4.4	6.01e-03	2.65e-04	0.0	0.0
3	8.774	0.114	0.345	956.37	42.2	65.04	2.9	2.89e-04	1.27e-05	0.0	0.0
4	18.431	0.054	0.257	6.90	0.3	5.14	0.2	1.97e-03	8.71e-05	0.0	0.0
5	24.579	0.041	0.236	8.73e-03	3.85e-04	252.68	11.1	0.02	9.28e-04	0.0	0.0
6	32.923	0.030	0.221	7.58	0.3	3.84	0.2	4.87e-05	2.15e-06	0.0	0.0
7	35.223	0.028	0.218	189.94	8.4	15.93	0.7	1.07e-03	4.74e-05	0.0	0.0
8	36.146	0.028	0.217	31.22	1.4	93.86	4.1	0.21	9.20e-03	0.0	0.0
9	36.991	0.027	0.216	19.41	0.9	0.10	4.38e-03	0.15	6.56e-03	0.0	0.0
10	39.883	0.025	0.213	52.45	2.3	0.27	1.21e-02	0.03	1.44e-03	0.0	0.0
11	53.197	0.019	0.204	1.10e-03	4.85e-05	0.05	2.07e-03	2176.00	96.0	0.0	0.0
12	54.097	0.018	0.203	5.08e-03	2.24e-04	11.38	0.5	1.53	6.76e-02	0.0	0.0
13	61.421	0.016	0.200	6.29e-04	2.77e-05	4.60	0.2	1.87	8.25e-02	0.0	0.0
14	77.328	0.013	0.195	84.26	3.7	7.57e-03	3.34e-04	0.07	3.12e-03	0.0	0.0
15	84.697	0.012	0.193	0.07	3.00e-03	33.08	1.5	2.37	0.1	0.0	0.0
16	103.119	0.010	0.190	27.21	1.2	0.08	3.51e-03	0.07	3.13e-03	0.0	0.0
17	103.976	0.010	0.190	0.03	1.42e-03	1.05	4.62e-02	68.06	3.0	0.0	0.0
18	120.071	0.008	0.188	0.45	1.99e-02	4.86e-03	2.15e-04	9.92	0.4	0.0	0.0
19	151.175	0.007	0.186	22.93	1.0	2.92	0.1	1.21e-03	5.36e-05	0.0	0.0
20	153.255	0.007	0.186	5.95	0.3	10.31	0.5	0.02	7.31e-04	0.0	0.0
21	224.526	0.004	0.182	7.62e-03	3.36e-04	0.06	2.63e-03	4.58	0.2	0.0	0.0
Risulta				2265.01		2265.64		2264.94			
In percentuale				99.94		99.96		99.93			

CDC	Tipo	Sigla Id	Note
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.458 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.121 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: ND

CDC	Tipo	Sigla Id	Note
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	0.0	9.90	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	0.0	9.90	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	0.0	9.90	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	0.0	9.90	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	0.0	9.90	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	0.0	9.90	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.726	0.149	0.397	10.49	0.5	1672.27	73.8	0.03	1.20e-03	0.0	0.0
2	8.233	0.121	0.356	1156.23	51.0	96.19	4.2	5.10e-04	2.25e-05	0.0	0.0
3	9.095	0.110	0.339	646.12	28.5	62.11	2.7	5.30e-03	2.34e-04	0.0	0.0
4	18.739	0.053	0.255	1.58	6.97e-02	5.06	0.2	1.36e-03	6.01e-05	0.0	0.0
5	24.581	0.041	0.236	0.02	8.56e-04	252.46	11.1	0.02	9.16e-04	0.0	0.0
6	32.143	0.031	0.222	168.78	7.4	0.03	1.31e-03	1.81e-03	8.00e-05	0.0	0.0
7	33.465	0.030	0.220	70.10	3.1	9.00	0.4	2.44e-03	1.08e-04	0.0	0.0
8	36.133	0.028	0.217	3.08	0.1	105.01	4.6	0.19	8.57e-03	0.0	0.0
9	37.046	0.027	0.216	3.46	0.2	0.02	7.40e-04	0.16	7.21e-03	0.0	0.0
10	46.371	0.022	0.208	58.58	2.6	0.07	3.12e-03	0.13	5.95e-03	0.0	0.0
11	53.199	0.019	0.204	2.07e-03	9.15e-05	0.05	2.43e-03	2175.48	96.0	0.0	0.0
12	54.113	0.018	0.203	0.18	7.80e-03	11.21	0.5	2.09	9.21e-02	0.0	0.0
13	61.461	0.016	0.200	0.01	6.21e-04	4.70	0.2	1.85	8.18e-02	0.0	0.0
14	71.981	0.014	0.196	92.09	4.1	1.18e-03	5.22e-05	0.07	2.89e-03	0.0	0.0
15	84.768	0.012	0.193	0.02	7.65e-04	33.18	1.5	2.24	9.90e-02	0.0	0.0
16	103.759	0.010	0.190	0.07	3.00e-03	0.73	3.21e-02	67.11	3.0	0.0	0.0
17	118.892	0.008	0.188	0.42	1.85e-02	0.40	1.76e-02	10.71	0.5	0.0	0.0
18	121.275	0.008	0.188	44.44	2.0	0.06	2.64e-03	7.57e-03	3.34e-04	0.0	0.0
19	152.831	0.007	0.186	0.54	2.38e-02	12.86	0.6	0.15	6.41e-03	0.0	0.0
20	187.185	0.005	0.184	8.70	0.4	0.24	1.05e-02	0.22	9.68e-03	0.0	0.0
21	224.996	0.004	0.182	0.18	8.01e-03	8.20e-04	3.62e-05	4.46	0.2	0.0	0.0
Risulta				2265.10		2265.65		2264.94			
In percentuale				99.94		99.96		99.93			

CDC	Tipo	Sigla Id	Note
3	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.458 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.152 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: ND
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	9.00	0.0	90.00	99.00	2.125	0.0	0.0

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
390.00	504.05	92.89	143.00	9.00	0.0	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	9.00	0.0	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	9.00	0.0	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	9.00	0.0	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	9.00	0.0	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.567	0.152	0.402	1.64	7.24e-02	1598.62	70.5	0.02	1.05e-03	0.0	0.0
2	8.540	0.117	0.350	1640.33	72.4	34.37	1.5	5.25e-06	0.0	0.0	0.0
3	8.880	0.113	0.343	173.20	7.6	193.79	8.6	9.45e-03	4.17e-04	0.0	0.0
4	18.612	0.054	0.256	3.70	0.2	8.51	0.4	3.47e-03	1.53e-04	0.0	0.0
5	24.516	0.041	0.236	8.17e-03	3.60e-04	252.13	11.1	0.02	9.58e-04	0.0	0.0
6	32.764	0.031	0.221	36.72	1.6	0.40	1.76e-02	3.84e-04	1.70e-05	0.0	0.0
7	33.951	0.029	0.220	186.39	8.2	6.07	0.3	4.24e-03	1.87e-04	0.0	0.0
8	36.197	0.028	0.217	6.43	0.3	110.78	4.9	0.22	9.86e-03	0.0	0.0
9	37.182	0.027	0.216	8.81	0.4	0.10	4.38e-03	0.16	7.24e-03	0.0	0.0
10	42.670	0.023	0.211	64.09	2.8	0.02	8.93e-04	0.06	2.51e-03	0.0	0.0
11	53.198	0.019	0.204	1.51e-03	6.68e-05	0.03	1.44e-03	2176.28	96.0	0.0	0.0
12	54.424	0.018	0.203	0.02	7.09e-04	10.39	0.5	0.66	2.92e-02	0.0	0.0
13	60.648	0.016	0.200	9.39e-03	4.14e-04	7.07	0.3	2.67	0.1	0.0	0.0
14	74.531	0.013	0.196	87.45	3.9	5.28e-03	2.33e-04	0.09	4.00e-03	0.0	0.0
15	87.757	0.011	0.193	0.05	2.07e-03	28.86	1.3	1.90	8.37e-02	0.0	0.0
16	97.624	0.010	0.191	0.11	5.05e-03	0.46	2.03e-02	10.38	0.5	0.0	0.0
17	106.243	0.009	0.190	0.08	3.37e-03	1.81	7.99e-02	66.01	2.9	0.0	0.0
18	113.457	0.009	0.189	36.92	1.6	0.04	1.65e-03	0.30	1.35e-02	0.0	0.0
19	155.939	0.006	0.185	6.95	0.3	8.20	0.4	0.21	9.20e-03	0.0	0.0
20	163.901	0.006	0.185	11.94	0.5	3.99	0.2	0.05	2.02e-03	0.0	0.0
21	193.753	0.005	0.183	0.14	6.38e-03	0.10	4.63e-03	5.54	0.2	0.0	0.0
Risulta				2264.98		2265.74		2264.60			
In percentuale				99.94		99.97		99.92			

CDC	Tipo	Sigla Id	Note
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.458 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.146 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: ND
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	-9.00	0.0	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	-9.00	0.0	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	-9.00	0.0	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	-9.00	0.0	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	-9.00	0.0	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	-9.00	0.0	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.848	0.146	0.393	0.42	1.84e-02	1771.39	78.2	0.03	1.33e-03	0.0	0.0
2	8.423	0.119	0.352	689.48	30.4	43.62	1.9	7.11e-05	3.14e-06	0.0	0.0
3	8.662	0.115	0.348	1125.24	49.6	18.72	0.8	2.64e-03	1.17e-04	0.0	0.0
4	18.567	0.054	0.256	3.72	0.2	2.80	0.1	5.50e-04	2.43e-05	0.0	0.0
5	24.371	0.041	0.237	3.60e-03	1.59e-04	249.38	11.0	0.02	8.45e-04	0.0	0.0
6	33.030	0.030	0.221	94.48	4.2	3.22	0.1	5.80e-04	2.56e-05	0.0	0.0
7	34.381	0.029	0.219	130.94	5.8	17.19	0.8	1.94e-03	8.55e-05	0.0	0.0
8	36.002	0.028	0.217	8.36	0.4	93.33	4.1	0.19	8.49e-03	0.0	0.0
9	36.956	0.027	0.216	5.04	0.2	0.26	1.15e-02	0.14	6.19e-03	0.0	0.0
10	42.691	0.023	0.211	63.62	2.8	6.84e-03	3.02e-04	0.05	2.09e-03	0.0	0.0
11	53.198	0.019	0.204	1.18e-03	5.21e-05	0.06	2.86e-03	2175.84	96.0	0.0	0.0
12	54.047	0.019	0.203	0.04	1.74e-03	12.80	0.6	2.38	0.1	0.0	0.0
13	63.088	0.016	0.199	0.03	1.21e-03	1.50	6.63e-02	1.08	4.77e-02	0.0	0.0
14	74.574	0.013	0.196	87.60	3.9	0.04	1.97e-03	0.07	2.87e-03	0.0	0.0
15	81.711	0.012	0.194	0.26	1.14e-02	35.57	1.6	2.24	9.89e-02	0.0	0.0
16	104.592	0.010	0.190	0.95	4.21e-02	0.67	2.97e-02	73.29	3.2	0.0	0.0
17	113.429	0.009	0.189	33.18	1.5	0.68	2.99e-02	2.44	0.1	0.0	0.0
18	131.052	0.008	0.187	1.24	5.48e-02	7.99	0.4	0.59	2.62e-02	0.0	0.0
19	152.488	0.007	0.186	17.13	0.8	0.30	1.32e-02	1.30	5.74e-02	0.0	0.0
20	170.207	0.006	0.185	2.23	9.84e-02	5.38	0.2	0.87	3.83e-02	0.0	0.0
21	203.507	0.005	0.183	0.84	3.72e-02	0.87	3.82e-02	4.08	0.2	0.0	0.0
Risulta				2264.80		2265.80		2264.62			
In percentuale				99.93		99.97		99.92			

CDC	Tipo	Sigla Id	Note
5	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.202 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.114 sec.
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	0.0	-9.90	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	0.0	-9.90	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	0.0	-9.90	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	0.0	-9.90	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	0.0	-9.90	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	0.0	-9.90	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.721	0.149	0.197	1.30	5.75e-02	1665.57	73.5	0.03	1.16e-03	0.0	0.0
2	8.380	0.119	0.175	858.92	37.9	99.69	4.4	6.01e-03	2.65e-04	0.0	0.0
3	8.774	0.114	0.170	956.37	42.2	65.04	2.9	2.89e-04	1.27e-05	0.0	0.0
4	18.431	0.054	0.125	6.90	0.3	5.14	0.2	1.97e-03	8.71e-05	0.0	0.0
5	24.579	0.041	0.114	8.73e-03	3.85e-04	252.68	11.1	0.02	9.28e-04	0.0	0.0
6	32.923	0.030	0.106	7.58	0.3	3.84	0.2	4.87e-05	2.15e-06	0.0	0.0
7	35.223	0.028	0.105	189.94	8.4	15.93	0.7	1.07e-03	4.74e-05	0.0	0.0
8	36.146	0.028	0.104	31.22	1.4	93.86	4.1	0.21	9.20e-03	0.0	0.0
9	36.991	0.027	0.104	19.41	0.9	0.10	4.38e-03	0.15	6.56e-03	0.0	0.0
10	39.883	0.025	0.102	52.45	2.3	0.27	1.21e-02	0.03	1.44e-03	0.0	0.0
11	53.197	0.019	0.097	1.10e-03	4.85e-05	0.05	2.07e-03	2176.00	96.0	0.0	0.0
12	54.097	0.018	0.097	5.08e-03	2.24e-04	11.38	0.5	1.53	6.76e-02	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
13	61.421	0.016	0.095	6.29e-04	2.77e-05	4.60	0.2	1.87	8.25e-02	0.0	0.0
14	77.328	0.013	0.093	84.26	3.7	7.57e-03	3.34e-04	0.07	3.12e-03	0.0	0.0
15	84.697	0.012	0.092	0.07	3.00e-03	33.08	1.5	2.37	0.1	0.0	0.0
16	103.119	0.010	0.090	27.21	1.2	0.08	3.51e-03	0.07	3.13e-03	0.0	0.0
17	103.976	0.010	0.090	0.03	1.42e-03	1.05	4.62e-02	68.06	3.0	0.0	0.0
18	120.071	0.008	0.089	0.45	1.99e-02	4.86e-03	2.15e-04	9.92	0.4	0.0	0.0
19	151.175	0.007	0.088	22.93	1.0	2.92	0.1	1.21e-03	5.36e-05	0.0	0.0
20	153.255	0.007	0.088	5.95	0.3	10.31	0.5	0.02	7.31e-04	0.0	0.0
21	224.526	0.004	0.086	7.62e-03	3.36e-04	0.06	2.63e-03	4.58	0.2	0.0	0.0
Risulta				2265.01		2265.64		2264.94			
In percentuale				99.94		99.96		99.93			

CDC	Tipo	Sigla Id	Note
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.202 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.121 sec.
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	0.0	9.90	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	0.0	9.90	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	0.0	9.90	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	0.0	9.90	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	0.0	9.90	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	0.0	9.90	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.726	0.149	0.197	10.49	0.5	1672.27	73.8	0.03	1.20e-03	0.0	0.0
2	8.233	0.121	0.176	1156.23	51.0	96.19	4.2	5.10e-04	2.25e-05	0.0	0.0
3	9.095	0.110	0.167	646.12	28.5	62.11	2.7	5.30e-03	2.34e-04	0.0	0.0
4	18.739	0.053	0.124	1.58	6.97e-02	5.06	0.2	1.36e-03	6.01e-05	0.0	0.0
5	24.581	0.041	0.114	0.02	8.56e-04	252.46	11.1	0.02	9.16e-04	0.0	0.0
6	32.143	0.031	0.107	168.78	7.4	0.03	1.31e-03	1.81e-03	8.00e-05	0.0	0.0
7	33.465	0.030	0.106	70.10	3.1	9.00	0.4	2.44e-03	1.08e-04	0.0	0.0
8	36.133	0.028	0.104	3.08	0.1	105.01	4.6	0.19	8.57e-03	0.0	0.0
9	37.046	0.027	0.104	3.46	0.2	0.02	7.40e-04	0.16	7.21e-03	0.0	0.0
10	46.371	0.022	0.100	58.58	2.6	0.07	3.12e-03	0.13	5.95e-03	0.0	0.0
11	53.199	0.019	0.097	2.07e-03	9.15e-05	0.05	2.43e-03	2175.48	96.0	0.0	0.0
12	54.113	0.018	0.097	0.18	7.80e-03	11.21	0.5	2.09	9.21e-02	0.0	0.0
13	61.461	0.016	0.095	0.01	6.21e-04	4.70	0.2	1.85	8.18e-02	0.0	0.0
14	71.981	0.014	0.094	92.09	4.1	1.18e-03	5.22e-05	0.07	2.89e-03	0.0	0.0
15	84.768	0.012	0.092	0.02	7.65e-04	33.18	1.5	2.24	9.90e-02	0.0	0.0
16	103.759	0.010	0.090	0.07	3.00e-03	0.73	3.21e-02	67.11	3.0	0.0	0.0
17	118.892	0.008	0.089	0.42	1.85e-02	0.40	1.76e-02	10.71	0.5	0.0	0.0
18	121.275	0.008	0.089	44.44	2.0	0.06	2.64e-03	7.57e-03	3.34e-04	0.0	0.0
19	152.831	0.007	0.088	0.54	2.38e-02	12.86	0.6	0.15	6.41e-03	0.0	0.0
20	187.185	0.005	0.087	8.70	0.4	0.24	1.05e-02	0.22	9.68e-03	0.0	0.0
21	224.996	0.004	0.086	0.18	8.01e-03	8.20e-04	3.62e-05	4.46	0.2	0.0	0.0
Risulta				2265.10		2265.65		2264.94			
In percentuale				99.94		99.96		99.93			

CDC	Tipo	Sigla Id	Note
7	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.202 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.152 sec.
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	9.00	0.0	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	9.00	0.0	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	9.00	0.0	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	9.00	0.0	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	9.00	0.0	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	9.00	0.0	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.567	0.152	0.200	1.64	7.24e-02	1598.62	70.5	0.02	1.05e-03	0.0	0.0
2	8.540	0.117	0.173	1640.33	72.4	34.37	1.5	5.25e-06	0.0	0.0	0.0
3	8.880	0.113	0.169	173.20	7.6	193.79	8.6	9.45e-03	4.17e-04	0.0	0.0
4	18.612	0.054	0.124	3.70	0.2	8.51	0.4	3.47e-03	1.53e-04	0.0	0.0
5	24.516	0.041	0.114	8.17e-03	3.60e-04	252.13	11.1	0.02	9.58e-04	0.0	0.0
6	32.764	0.031	0.106	36.72	1.6	0.40	1.76e-02	3.84e-04	1.70e-05	0.0	0.0
7	33.951	0.029	0.106	186.39	8.2	6.07	0.3	4.24e-03	1.87e-04	0.0	0.0
8	36.197	0.028	0.104	6.43	0.3	110.78	4.9	0.22	9.86e-03	0.0	0.0
9	37.182	0.027	0.104	8.81	0.4	0.10	4.38e-03	0.16	7.24e-03	0.0	0.0
10	42.670	0.023	0.101	64.09	2.8	0.02	8.93e-04	0.06	2.51e-03	0.0	0.0
11	53.198	0.019	0.097	1.51e-03	6.68e-05	0.03	1.44e-03	2176.28	96.0	0.0	0.0
12	54.424	0.018	0.097	0.02	7.09e-04	10.39	0.5	0.66	2.92e-02	0.0	0.0
13	60.648	0.016	0.096	9.39e-03	4.14e-04	7.07	0.3	2.67	0.1	0.0	0.0
14	74.531	0.013	0.093	87.45	3.9	5.28e-03	2.33e-04	0.09	4.00e-03	0.0	0.0
15	87.757	0.011	0.092	0.05	2.07e-03	28.86	1.3	1.90	8.37e-02	0.0	0.0
16	97.624	0.010	0.091	0.11	5.05e-03	0.46	2.03e-02	10.38	0.5	0.0	0.0
17	106.243	0.009	0.090	0.08	3.37e-03	1.81	7.99e-02	66.01	2.9	0.0	0.0
18	113.457	0.009	0.090	36.92	1.6	0.04	1.65e-03	0.30	1.35e-02	0.0	0.0
19	155.939	0.006	0.088	6.95	0.3	8.20	0.4	0.21	9.20e-03	0.0	0.0
20	163.901	0.006	0.088	11.94	0.5	3.99	0.2	0.05	2.02e-03	0.0	0.0
21	193.753	0.005	0.087	0.14	6.38e-03	0.10	4.63e-03	5.54	0.2	0.0	0.0
Risulta				2264.98		2265.74		2264.60			
In percentuale				99.94		99.97		99.92			

CDC	Tipo	Sigla Id	Note
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: B
			fattore di sito S = 1.440
			ordinata spettro (tratto Tb-Tc) = 0.202 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.146 sec.
			numero di modi considerati: 21
			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			
520.00	654.42	90.00	99.00	-9.00	0.0	90.00	99.00	2.125	0.0	0.0
390.00	504.05	92.89	143.00	-9.00	0.0	90.00	99.00	2.125	0.015	0.391
325.00	106.62	90.00	99.00	-9.00	0.0	90.00	99.00	2.125	0.0	0.0
260.00	419.28	86.72	151.89	-9.00	0.0	90.00	99.00	2.125	0.017	0.470
195.00	106.62	90.00	99.00	-9.00	0.0	90.00	99.00	2.125	0.0	0.0
130.00	475.45	93.06	151.60	-9.00	0.0	90.00	99.00	2.125	0.016	0.467
Risulta	2266.44									

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	6.848	0.146	0.195	0.42	1.84e-02	1771.39	78.2	0.03	1.33e-03	0.0	0.0
2	8.423	0.119	0.174	689.48	30.4	43.62	1.9	7.11e-05	3.14e-06	0.0	0.0
3	8.662	0.115	0.172	1125.24	49.6	18.72	0.8	2.64e-03	1.17e-04	0.0	0.0
4	18.567	0.054	0.124	3.72	0.2	2.80	0.1	5.50e-04	2.43e-05	0.0	0.0
5	24.371	0.041	0.114	3.60e-03	1.59e-04	249.38	11.0	0.02	8.45e-04	0.0	0.0
6	33.030	0.030	0.106	94.48	4.2	3.22	0.1	5.80e-04	2.56e-05	0.0	0.0
7	34.381	0.029	0.105	130.94	5.8	17.19	0.8	1.94e-03	8.55e-05	0.0	0.0
8	36.002	0.028	0.104	8.36	0.4	93.33	4.1	0.19	8.49e-03	0.0	0.0
9	36.956	0.027	0.104	5.04	0.2	0.26	1.15e-02	0.14	6.19e-03	0.0	0.0
10	42.691	0.023	0.101	63.62	2.8	6.84e-03	3.02e-04	0.05	2.09e-03	0.0	0.0
11	53.198	0.019	0.097	1.18e-03	5.21e-05	0.06	2.86e-03	2175.84	96.0	0.0	0.0
12	54.047	0.019	0.097	0.04	1.74e-03	12.80	0.6	2.38	0.1	0.0	0.0
13	63.088	0.016	0.095	0.03	1.21e-03	1.50	6.63e-02	1.08	4.77e-02	0.0	0.0
14	74.574	0.013	0.093	87.60	3.9	0.04	1.97e-03	0.07	2.87e-03	0.0	0.0
15	81.711	0.012	0.092	0.26	1.14e-02	35.57	1.6	2.24	9.89e-02	0.0	0.0
16	104.592	0.010	0.090	0.95	4.21e-02	0.67	2.97e-02	73.29	3.2	0.0	0.0
17	113.429	0.009	0.090	33.18	1.5	0.68	2.99e-02	2.44	0.1	0.0	0.0
18	131.052	0.008	0.089	1.24	5.48e-02	7.99	0.4	0.59	2.62e-02	0.0	0.0
19	152.488	0.007	0.088	17.13	0.8	0.30	1.32e-02	1.30	5.74e-02	0.0	0.0
20	170.207	0.006	0.087	2.23	9.84e-02	5.38	0.2	0.87	3.83e-02	0.0	0.0
21	203.507	0.005	0.087	0.84	3.72e-02	0.87	3.82e-02	4.08	0.2	0.0	0.0
Risulta				2264.80		2265.80		2264.62			
In percentuale				99.93		99.97		99.92			

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
			cm	cm			cm	cm			cm	cm
233	12	0.22	0.01	65.0	13	0.25	0.02	65.0	14	0.18	0.02	130.0
	15	0.19	0.01	65.0	16	0.23	0.02	65.0	17	0.15	0.02	130.0
	18	0.14	8.84e-03	65.0	19	0.15	9.60e-03	65.0	20	0.12	0.02	130.0
	21	0.13	0.02	130.0	22	0.11	0.01	130.0	23	0.08	0.01	130.0
	26	0.11	0.01	130.0	27	0.21	0.01	65.0	28	0.19	0.01	65.0
	29	0.15	0.02	130.0	37	0.23	0.01	65.0	38	0.19	0.01	65.0
	39	0.14	8.96e-03	65.0	40	0.17	0.01	65.0	41	0.25	0.02	65.0
	42	0.23	0.02	65.0	43	0.15	9.66e-03	65.0	44	0.21	0.01	65.0
234	12	0.14	8.88e-03	65.0	13	0.16	0.01	65.0	14	0.12	0.02	130.0
	15	0.19	0.01	65.0	16	0.21	0.01	65.0	17	0.16	0.02	130.0
	18	0.20	0.01	65.0	19	0.22	0.01	65.0	20	0.17	0.02	130.0
	21	0.07	9.71e-03	130.0	22	0.10	0.01	130.0	23	0.11	0.01	130.0
	26	0.09	0.01	130.0	27	0.18	0.01	65.0	28	0.17	0.01	65.0
	29	0.13	0.02	130.0	37	0.15	9.60e-03	65.0	38	0.19	0.01	65.0
	39	0.20	0.01	65.0	40	0.15	0.01	65.0	41	0.16	0.01	65.0
	42	0.22	0.01	65.0	43	0.22	0.01	65.0	44	0.19	0.01	65.0
235	12	0.19	0.01	65.0	13	0.18	0.01	65.0	14	0.13	0.02	130.0
	15	0.20	0.01	65.0	16	0.23	0.01	65.0	17	0.17	0.02	130.0
	18	0.22	0.01	65.0	19	0.23	0.02	65.0	20	0.18	0.02	130.0
	21	0.10	0.01	130.0	22	0.11	0.01	130.0	23	0.13	0.02	130.0
	26	0.11	0.01	130.0	27	0.18	0.01	65.0	28	0.18	0.01	65.0
	29	0.15	0.02	130.0	37	0.16	0.01	65.0	38	0.21	0.01	65.0
	39	0.22	0.01	65.0	40	0.18	0.01	65.0	41	0.20	0.01	65.0
	42	0.23	0.02	65.0	43	0.24	0.02	65.0	44	0.18	0.01	65.0

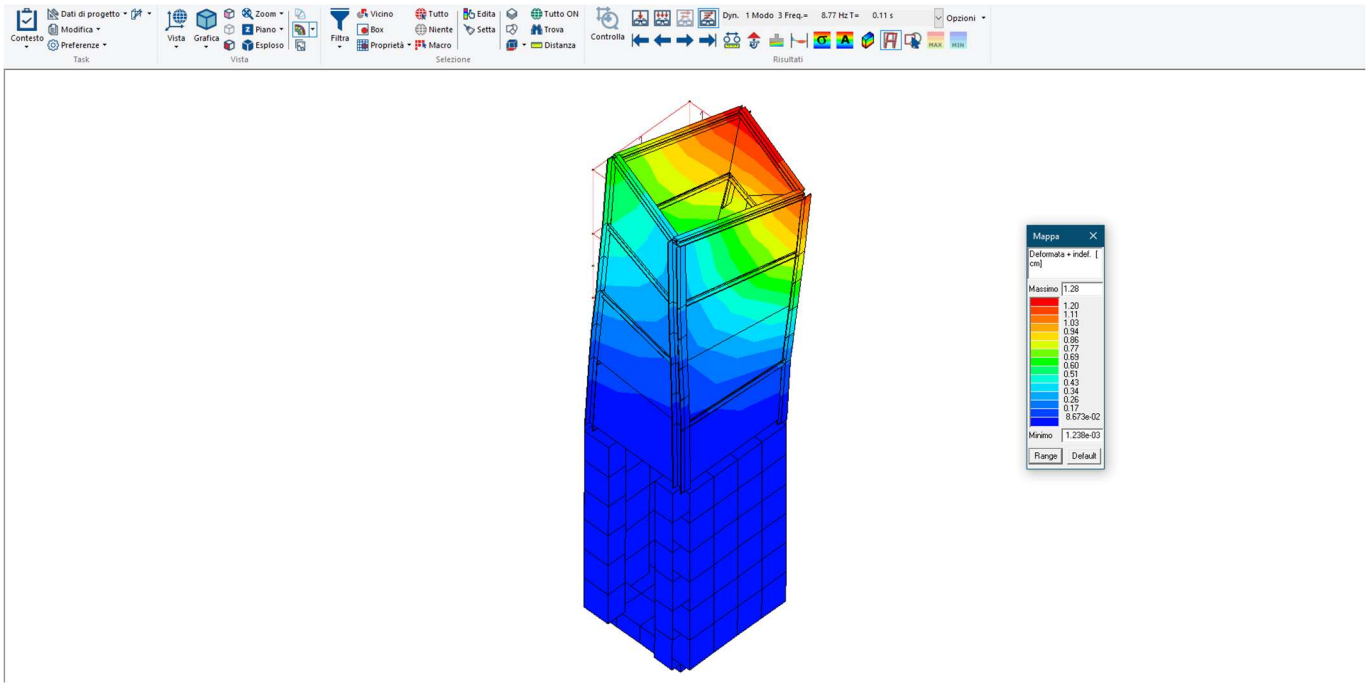
236	12	0.24	0.02	65.0	13	0.25	0.02	65.0	14	0.17	0.02	130.0
	15	0.19	0.01	65.0	16	0.21	0.01	65.0	17	0.14	0.02	130.0
	18	0.14	8.85e-03	65.0	19	0.15	9.65e-03	65.0	20	0.12	0.02	130.0
	21	0.13	0.02	130.0	22	0.09	0.01	130.0	23	0.08	9.94e-03	130.0
	26	0.10	0.01	130.0	27	0.17	0.01	65.0	28	0.19	0.01	65.0
	29	0.15	0.02	130.0	37	0.21	0.01	65.0	38	0.18	0.01	65.0
	39	0.14	9.14e-03	65.0	40	0.18	0.01	65.0	41	0.26	0.02	65.0
	42	0.22	0.01	65.0	43	0.15	9.71e-03	65.0	44	0.18	0.01	65.0
237	12	0.21	0.01	65.0	13	0.24	0.02	65.0	14	0.17	0.02	130.0
	15	0.19	0.01	65.0	16	0.23	0.01	65.0	17	0.15	0.02	130.0
	18	0.15	9.74e-03	65.0	19	0.16	0.01	65.0	20	0.13	0.02	130.0
	21	0.12	0.02	130.0	22	0.11	0.01	130.0	23	0.09	0.01	130.0
	26	0.10	0.01	130.0	27	0.20	0.01	65.0	28	0.18	0.01	65.0
	29	0.14	0.02	130.0	37	0.21	0.01	65.0	38	0.20	0.01	65.0
	39	0.15	9.86e-03	65.0	40	0.16	0.01	65.0	41	0.23	0.02	65.0
	42	0.23	0.02	65.0	43	0.16	0.01	65.0	44	0.20	0.01	65.0
238	12	0.14	9.30e-03	65.0	13	0.17	0.01	65.0	14	0.13	0.02	130.0
	15	0.18	0.01	65.0	16	0.20	0.01	65.0	17	0.14	0.02	130.0
	18	0.20	0.01	65.0	19	0.22	0.01	65.0	20	0.16	0.02	130.0
	21	0.08	0.01	130.0	22	0.09	0.01	130.0	23	0.11	0.01	130.0
	26	0.10	0.01	130.0	27	0.20	0.01	65.0	28	0.19	0.01	65.0
	29	0.14	0.02	130.0	37	0.15	0.01	65.0	38	0.18	0.01	65.0
	39	0.20	0.01	65.0	40	0.17	0.01	65.0	41	0.16	0.01	65.0
	42	0.20	0.01	65.0	43	0.22	0.01	65.0	44	0.21	0.01	65.0
239	12	0.19	0.01	65.0	13	0.19	0.01	65.0	14	0.14	0.02	130.0
	15	0.19	0.01	65.0	16	0.21	0.01	65.0	17	0.16	0.02	130.0
	18	0.22	0.01	65.0	19	0.23	0.02	65.0	20	0.18	0.02	130.0
	21	0.11	0.01	130.0	22	0.11	0.01	130.0	23	0.13	0.02	130.0
	26	0.12	0.02	130.0	27	0.20	0.01	65.0	28	0.20	0.01	65.0
	29	0.16	0.02	130.0	37	0.16	0.01	65.0	38	0.19	0.01	65.0
	39	0.22	0.01	65.0	40	0.19	0.01	65.0	41	0.20	0.01	65.0
	42	0.22	0.01	65.0	43	0.24	0.02	65.0	44	0.20	0.01	65.0
240	12	0.22	0.01	65.0	13	0.23	0.02	65.0	14	0.16	0.02	130.0
	15	0.19	0.01	65.0	16	0.21	0.01	65.0	17	0.14	0.02	130.0
	18	0.15	9.61e-03	65.0	19	0.16	0.01	65.0	20	0.13	0.02	130.0
	21	0.12	0.02	130.0	22	0.10	0.01	130.0	23	0.08	0.01	130.0
	26	0.10	0.01	130.0	27	0.16	0.01	65.0	28	0.17	0.01	65.0
	29	0.14	0.02	130.0	37	0.19	0.01	65.0	38	0.18	0.01	65.0
	39	0.15	9.90e-03	65.0	40	0.17	0.01	65.0	41	0.24	0.02	65.0
	42	0.22	0.01	65.0	43	0.16	0.01	65.0	44	0.17	0.01	65.0
241	12	0.16	0.01	65.0	13	0.17	0.01	65.0	14	0.13	0.02	130.0
	15	0.17	0.01	65.0	16	0.19	0.01	65.0	17	0.14	0.02	130.0
	18	0.22	0.01	65.0	19	0.23	0.02	65.0	20	0.17	0.02	130.0
	21	0.09	0.01	130.0	22	0.09	0.01	130.0	23	0.13	0.02	130.0
	26	0.13	0.02	130.0	27	0.24	0.02	65.0	28	0.23	0.01	65.0
	29	0.17	0.02	130.0	37	0.16	0.01	65.0	38	0.17	0.01	65.0
	39	0.21	0.01	65.0	40	0.21	0.01	65.0	41	0.17	0.01	65.0
	42	0.19	0.01	65.0	43	0.24	0.02	65.0	44	0.24	0.02	65.0
242	12	0.16	0.01	65.0	13	0.21	0.01	65.0	14	0.12	0.02	130.0
	15	0.24	0.02	65.0	16	0.28	0.02	65.0	17	0.18	0.02	130.0
	18	0.19	0.01	65.0	19	0.21	0.01	65.0	20	0.17	0.02	130.0
	21	0.08	0.01	130.0	22	0.12	0.02	130.0	23	0.11	0.01	130.0
	26	0.04	5.75e-03	130.0	27	0.12	7.99e-03	65.0	28	0.11	7.09e-03	65.0
	29	0.09	0.01	130.0	37	0.17	0.01	65.0	38	0.24	0.02	65.0
	39	0.20	0.01	65.0	40	0.10	6.39e-03	65.0	41	0.21	0.01	65.0
	42	0.28	0.02	65.0	43	0.21	0.01	65.0	44	0.12	7.88e-03	65.0
243	12	0.21	0.01	65.0	13	0.23	0.01	65.0	14	0.14	0.02	130.0
	15	0.25	0.02	65.0	16	0.30	0.02	65.0	17	0.20	0.03	130.0
	18	0.19	0.01	65.0	19	0.21	0.01	65.0	20	0.17	0.02	130.0
	21	0.10	0.01	130.0	22	0.14	0.02	130.0	23	0.11	0.01	130.0
	26	0.05	6.67e-03	130.0	27	0.08	5.51e-03	65.0	28	0.10	6.50e-03	65.0
	29	0.09	0.01	130.0	37	0.19	0.01	65.0	38	0.25	0.02	65.0
	39	0.20	0.01	65.0	40	0.10	6.59e-03	65.0	41	0.24	0.02	65.0
	42	0.30	0.02	65.0	43	0.21	0.01	65.0	44	0.09	5.94e-03	65.0
244	12	0.18	0.01	65.0	13	0.17	0.01	65.0	14	0.13	0.02	130.0
	15	0.16	0.01	65.0	16	0.18	0.01	65.0	17	0.13	0.02	130.0
	18	0.21	0.01	65.0	19	0.22	0.01	65.0	20	0.16	0.02	130.0
	21	0.10	0.01	130.0	22	0.09	0.01	130.0	23	0.11	0.01	130.0
	26	0.11	0.01	130.0	27	0.20	0.01	65.0	28	0.21	0.01	65.0
	29	0.16	0.02	130.0	37	0.15	9.92e-03	65.0	38	0.16	0.01	65.0
	39	0.20	0.01	65.0	40	0.20	0.01	65.0	41	0.19	0.01	65.0
	42	0.18	0.01	65.0	43	0.22	0.01	65.0	44	0.21	0.01	65.0
245	12	0.14	9.01e-03	65.0	13	0.16	0.01	65.0	14	0.12	0.02	130.0
	15	0.17	0.01	65.0	16	0.19	0.01	65.0	17	0.14	0.02	130.0
	18	0.24	0.02	65.0	19	0.25	0.02	65.0	20	0.19	0.02	130.0
	21	0.08	0.01	130.0	22	0.10	0.01	130.0	23	0.14	0.02	130.0
	26	0.13	0.02	130.0	27	0.24	0.02	65.0	28	0.23	0.01	65.0

	29	0.17	0.02	130.0	37	0.15	9.64e-03	65.0	38	0.18	0.01	65.0
	39	0.23	0.02	65.0	40	0.21	0.01	65.0	41	0.15	9.78e-03	65.0
	42	0.19	0.01	65.0	43	0.26	0.02	65.0	44	0.24	0.02	65.0
246	12	0.16	0.01	65.0	13	0.20	0.01	65.0	14	0.12	0.02	130.0
	15	0.22	0.01	65.0	16	0.26	0.02	65.0	17	0.17	0.02	130.0
	18	0.18	0.01	65.0	19	0.20	0.01	65.0	20	0.16	0.02	130.0
	21	0.08	0.01	130.0	22	0.11	0.01	130.0	23	0.10	0.01	130.0
	26	0.05	6.36e-03	130.0	27	0.13	8.64e-03	65.0	28	0.12	7.69e-03	65.0
	29	0.10	0.01	130.0	37	0.17	0.01	65.0	38	0.22	0.01	65.0
	39	0.19	0.01	65.0	40	0.11	6.93e-03	65.0	41	0.20	0.01	65.0
	42	0.26	0.02	65.0	43	0.20	0.01	65.0	44	0.13	8.52e-03	65.0
247	12	0.21	0.01	65.0	13	0.22	0.01	65.0	14	0.14	0.02	130.0
	15	0.24	0.02	65.0	16	0.28	0.02	65.0	17	0.19	0.02	130.0
	18	0.18	0.01	65.0	19	0.20	0.01	65.0	20	0.16	0.02	130.0
	21	0.11	0.01	130.0	22	0.13	0.02	130.0	23	0.10	0.01	130.0
	26	0.06	7.77e-03	130.0	27	0.10	6.40e-03	65.0	28	0.11	7.33e-03	65.0
	29	0.10	0.01	130.0	37	0.18	0.01	65.0	38	0.24	0.02	65.0
	39	0.19	0.01	65.0	40	0.11	7.37e-03	65.0	41	0.23	0.02	65.0
	42	0.28	0.02	65.0	43	0.20	0.01	65.0	44	0.10	6.80e-03	65.0
248	12	0.17	0.01	65.0	13	0.16	0.01	65.0	14	0.12	0.02	130.0
	15	0.17	0.01	65.0	16	0.19	0.01	65.0	17	0.14	0.02	130.0
	18	0.22	0.01	65.0	19	0.23	0.02	65.0	20	0.17	0.02	130.0
	21	0.09	0.01	130.0	22	0.09	0.01	130.0	23	0.12	0.02	130.0
	26	0.11	0.01	130.0	27	0.20	0.01	65.0	28	0.21	0.01	65.0
	29	0.16	0.02	130.0	37	0.14	8.95e-03	65.0	38	0.17	0.01	65.0
	39	0.22	0.01	65.0	40	0.19	0.01	65.0	41	0.17	0.01	65.0
	42	0.19	0.01	65.0	43	0.24	0.02	65.0	44	0.21	0.01	65.0
249	12	0.40	0.03	65.0	13	0.50	0.03	65.0	14	0.26	0.03	130.0
	15	0.38	0.02	65.0	16	0.48	0.03	65.0	17	0.24	0.03	130.0
	18	0.21	0.01	65.0	19	0.21	0.01	65.0	20	0.15	0.02	130.0
	21	0.21	0.03	130.0	22	0.20	0.03	130.0	23	0.13	0.02	130.0
	26	0.15	0.02	130.0	27	0.26	0.02	65.0	28	0.25	0.02	65.0
	29	0.18	0.02	130.0	37	0.39	0.03	65.0	38	0.36	0.02	65.0
	39	0.20	0.01	65.0	40	0.23	0.01	65.0	41	0.50	0.03	65.0
	42	0.50	0.03	65.0	43	0.23	0.01	65.0	44	0.27	0.02	65.0
250	12	0.35	0.02	65.0	13	0.45	0.03	65.0	14	0.21	0.03	130.0
	15	0.37	0.02	65.0	16	0.45	0.03	65.0	17	0.23	0.03	130.0
	18	0.25	0.02	65.0	19	0.25	0.02	65.0	20	0.17	0.02	130.0
	21	0.17	0.02	130.0	22	0.18	0.02	130.0	23	0.14	0.02	130.0
	26	0.13	0.02	130.0	27	0.22	0.01	65.0	28	0.22	0.01	65.0
	29	0.14	0.02	130.0	37	0.33	0.02	65.0	38	0.35	0.02	65.0
	39	0.23	0.01	65.0	40	0.20	0.01	65.0	41	0.45	0.03	65.0
	42	0.47	0.03	65.0	43	0.26	0.02	65.0	44	0.23	0.02	65.0
251	12	0.37	0.02	65.0	13	0.46	0.03	65.0	14	0.23	0.03	130.0
	15	0.39	0.03	65.0	16	0.48	0.03	65.0	17	0.25	0.03	130.0
	18	0.27	0.02	65.0	19	0.28	0.02	65.0	20	0.20	0.03	130.0
	21	0.19	0.02	130.0	22	0.20	0.03	130.0	23	0.16	0.02	130.0
	26	0.15	0.02	130.0	27	0.25	0.02	65.0	28	0.25	0.02	65.0
	29	0.17	0.02	130.0	37	0.36	0.02	65.0	38	0.37	0.02	65.0
	39	0.25	0.02	65.0	40	0.22	0.01	65.0	41	0.47	0.03	65.0
	42	0.49	0.03	65.0	43	0.29	0.02	65.0	44	0.26	0.02	65.0
252	12	0.39	0.03	65.0	13	0.48	0.03	65.0	14	0.24	0.03	130.0
	15	0.37	0.02	65.0	16	0.45	0.03	65.0	17	0.21	0.03	130.0
	18	0.19	0.01	65.0	19	0.19	0.01	65.0	20	0.12	0.02	130.0
	21	0.19	0.02	130.0	22	0.17	0.02	130.0	23	0.11	0.01	130.0
	26	0.13	0.02	130.0	27	0.22	0.01	65.0	28	0.23	0.01	65.0
	29	0.16	0.02	130.0	37	0.37	0.02	65.0	38	0.34	0.02	65.0
	39	0.17	0.01	65.0	40	0.21	0.01	65.0	41	0.49	0.03	65.0
	42	0.47	0.03	65.0	43	0.20	0.01	65.0	44	0.24	0.02	65.0
253	12	0.38	0.02	65.0	13	0.47	0.03	65.0	14	0.25	0.03	130.0
	15	0.36	0.02	65.0	16	0.46	0.03	65.0	17	0.22	0.03	130.0
	18	0.25	0.02	65.0	19	0.25	0.02	65.0	20	0.17	0.02	130.0
	21	0.20	0.03	130.0	22	0.19	0.02	130.0	23	0.16	0.02	130.0
	26	0.16	0.02	130.0	27	0.29	0.02	65.0	28	0.28	0.02	65.0
	29	0.20	0.03	130.0	37	0.37	0.02	65.0	38	0.34	0.02	65.0
	39	0.23	0.02	65.0	40	0.26	0.02	65.0	41	0.48	0.03	65.0
	42	0.47	0.03	65.0	43	0.27	0.02	65.0	44	0.30	0.02	65.0
254	12	0.37	0.02	65.0	13	0.47	0.03	65.0	14	0.22	0.03	130.0
	15	0.39	0.03	65.0	16	0.48	0.03	65.0	17	0.24	0.03	130.0
	18	0.22	0.01	65.0	19	0.22	0.01	65.0	20	0.15	0.02	130.0
	21	0.18	0.02	130.0	22	0.19	0.02	130.0	23	0.12	0.02	130.0
	26	0.10	0.01	130.0	27	0.18	0.01	65.0	28	0.18	0.01	65.0
	29	0.12	0.02	130.0	37	0.35	0.02	65.0	38	0.37	0.02	65.0
	39	0.20	0.01	65.0	40	0.17	0.01	65.0	41	0.48	0.03	65.0
	42	0.50	0.03	65.0	43	0.23	0.01	65.0	44	0.19	0.01	65.0
255	12	0.39	0.03	65.0	13	0.49	0.03	65.0	14	0.24	0.03	130.0
	15	0.41	0.03	65.0	16	0.51	0.03	65.0	17	0.26	0.03	130.0

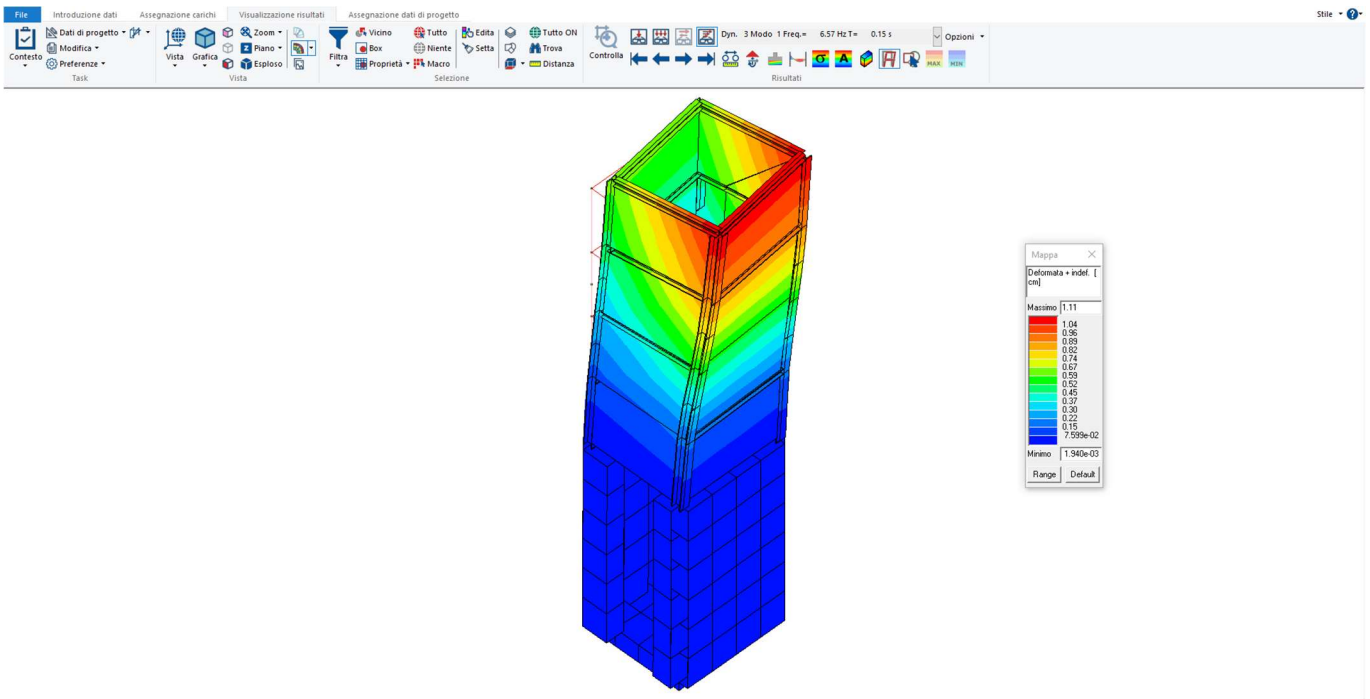
	18	0.24	0.02	65.0	19	0.24	0.02	65.0	20	0.17	0.02	130.0
	21	0.20	0.03	130.0	22	0.21	0.03	130.0	23	0.14	0.02	130.0
	26	0.13	0.02	130.0	27	0.21	0.01	65.0	28	0.21	0.01	65.0
	29	0.14	0.02	130.0	37	0.38	0.02	65.0	38	0.39	0.03	65.0
	39	0.22	0.01	65.0	40	0.19	0.01	65.0	41	0.50	0.03	65.0
	42	0.52	0.03	65.0	43	0.25	0.02	65.0	44	0.22	0.01	65.0
256	12	0.37	0.02	65.0	13	0.46	0.03	65.0	14	0.22	0.03	130.0
	15	0.35	0.02	65.0	16	0.43	0.03	65.0	17	0.20	0.03	130.0
	18	0.23	0.02	65.0	19	0.23	0.01	65.0	20	0.15	0.02	130.0
	21	0.18	0.02	130.0	22	0.16	0.02	130.0	23	0.13	0.02	130.0
	26	0.15	0.02	130.0	27	0.25	0.02	65.0	28	0.26	0.02	65.0
	29	0.18	0.02	130.0	37	0.34	0.02	65.0	38	0.32	0.02	65.0
	39	0.21	0.01	65.0	40	0.24	0.02	65.0	41	0.46	0.03	65.0
	42	0.44	0.03	65.0	43	0.24	0.02	65.0	44	0.27	0.02	65.0
257	12	0.35	0.02	65.0	13	0.44	0.03	65.0	14	0.23	0.03	130.0
	15	0.34	0.02	65.0	16	0.43	0.03	65.0	17	0.21	0.03	130.0
	18	0.26	0.02	65.0	19	0.26	0.02	65.0	20	0.18	0.02	130.0
	21	0.18	0.02	130.0	22	0.18	0.02	130.0	23	0.16	0.02	130.0
	26	0.17	0.02	130.0	27	0.29	0.02	65.0	28	0.28	0.02	65.0
	29	0.19	0.03	130.0	37	0.34	0.02	65.0	38	0.33	0.02	65.0
	39	0.24	0.02	65.0	40	0.25	0.02	65.0	41	0.45	0.03	65.0
	42	0.45	0.03	65.0	43	0.28	0.02	65.0	44	0.29	0.02	65.0
258	12	0.30	0.02	65.0	13	0.40	0.03	65.0	14	0.18	0.02	130.0
	15	0.32	0.02	65.0	16	0.40	0.03	65.0	17	0.19	0.03	130.0
	18	0.28	0.02	65.0	19	0.28	0.02	65.0	20	0.19	0.02	130.0
	21	0.15	0.02	130.0	22	0.15	0.02	130.0	23	0.16	0.02	130.0
	26	0.16	0.02	130.0	27	0.27	0.02	65.0	28	0.27	0.02	65.0
	29	0.17	0.02	130.0	37	0.30	0.02	65.0	38	0.30	0.02	65.0
	39	0.25	0.02	65.0	40	0.24	0.02	65.0	41	0.40	0.03	65.0
	42	0.41	0.03	65.0	43	0.30	0.02	65.0	44	0.28	0.02	65.0
259	12	0.33	0.02	65.0	13	0.42	0.03	65.0	14	0.21	0.03	130.0
	15	0.34	0.02	65.0	16	0.43	0.03	65.0	17	0.22	0.03	130.0
	18	0.31	0.02	65.0	19	0.31	0.02	65.0	20	0.21	0.03	130.0
	21	0.17	0.02	130.0	22	0.18	0.02	130.0	23	0.18	0.02	130.0
	26	0.18	0.02	130.0	27	0.30	0.02	65.0	28	0.29	0.02	65.0
	29	0.20	0.03	130.0	37	0.32	0.02	65.0	38	0.32	0.02	65.0
	39	0.28	0.02	65.0	40	0.26	0.02	65.0	41	0.42	0.03	65.0
	42	0.44	0.03	65.0	43	0.32	0.02	65.0	44	0.31	0.02	65.0
260	12	0.34	0.02	65.0	13	0.43	0.03	65.0	14	0.21	0.03	130.0
	15	0.33	0.02	65.0	16	0.41	0.03	65.0	17	0.19	0.02	130.0
	18	0.24	0.02	65.0	19	0.24	0.02	65.0	20	0.15	0.02	130.0
	21	0.16	0.02	130.0	22	0.15	0.02	130.0	23	0.14	0.02	130.0
	26	0.14	0.02	130.0	27	0.25	0.02	65.0	28	0.25	0.02	65.0
	29	0.17	0.02	130.0	37	0.32	0.02	65.0	38	0.30	0.02	65.0
	39	0.21	0.01	65.0	40	0.23	0.01	65.0	41	0.43	0.03	65.0
	42	0.42	0.03	65.0	43	0.25	0.02	65.0	44	0.26	0.02	65.0
261	12	0.33	0.02	65.0	13	0.42	0.03	65.0	14	0.21	0.03	130.0
	15	0.33	0.02	65.0	16	0.41	0.03	65.0	17	0.20	0.03	130.0
	18	0.30	0.02	65.0	19	0.30	0.02	65.0	20	0.21	0.03	130.0
	21	0.17	0.02	130.0	22	0.17	0.02	130.0	23	0.19	0.02	130.0
	26	0.19	0.02	130.0	27	0.32	0.02	65.0	28	0.31	0.02	65.0
	29	0.22	0.03	130.0	37	0.32	0.02	65.0	38	0.31	0.02	65.0
	39	0.27	0.02	65.0	40	0.28	0.02	65.0	41	0.42	0.03	65.0
	42	0.42	0.03	65.0	43	0.32	0.02	65.0	44	0.33	0.02	65.0
262	12	0.32	0.02	65.0	13	0.42	0.03	65.0	14	0.20	0.03	130.0
	15	0.34	0.02	65.0	16	0.43	0.03	65.0	17	0.21	0.03	130.0
	18	0.24	0.02	65.0	19	0.24	0.02	65.0	20	0.16	0.02	130.0
	21	0.16	0.02	130.0	22	0.16	0.02	130.0	23	0.14	0.02	130.0
	26	0.13	0.02	130.0	27	0.23	0.01	65.0	28	0.22	0.01	65.0
	29	0.15	0.02	130.0	37	0.32	0.02	65.0	38	0.32	0.02	65.0
	39	0.22	0.01	65.0	40	0.20	0.01	65.0	41	0.43	0.03	65.0
	42	0.44	0.03	65.0	43	0.26	0.02	65.0	44	0.24	0.02	65.0
263	12	0.35	0.02	65.0	13	0.44	0.03	65.0	14	0.22	0.03	130.0
	15	0.36	0.02	65.0	16	0.45	0.03	65.0	17	0.23	0.03	130.0
	18	0.27	0.02	65.0	19	0.27	0.02	65.0	20	0.19	0.02	130.0
	21	0.18	0.02	130.0	22	0.19	0.02	130.0	23	0.16	0.02	130.0
	26	0.16	0.02	130.0	27	0.25	0.02	65.0	28	0.25	0.02	65.0
	29	0.17	0.02	130.0	37	0.34	0.02	65.0	38	0.34	0.02	65.0
	39	0.24	0.02	65.0	40	0.23	0.01	65.0	41	0.45	0.03	65.0
	42	0.46	0.03	65.0	43	0.28	0.02	65.0	44	0.26	0.02	65.0
264	12	0.31	0.02	65.0	13	0.40	0.03	65.0	14	0.19	0.02	130.0
	15	0.31	0.02	65.0	16	0.38	0.02	65.0	17	0.18	0.02	130.0
	18	0.28	0.02	65.0	19	0.28	0.02	65.0	20	0.18	0.02	130.0
	21	0.15	0.02	130.0	22	0.14	0.02	130.0	23	0.16	0.02	130.0
	26	0.17	0.02	130.0	27	0.29	0.02	65.0	28	0.29	0.02	65.0
	29	0.19	0.03	130.0	37	0.30	0.02	65.0	38	0.28	0.02	65.0
	39	0.25	0.02	65.0	40	0.26	0.02	65.0	41	0.41	0.03	65.0

	42	0.40	0.03	65.0	43	0.29	0.02	65.0	44	0.30	0.02	65.0

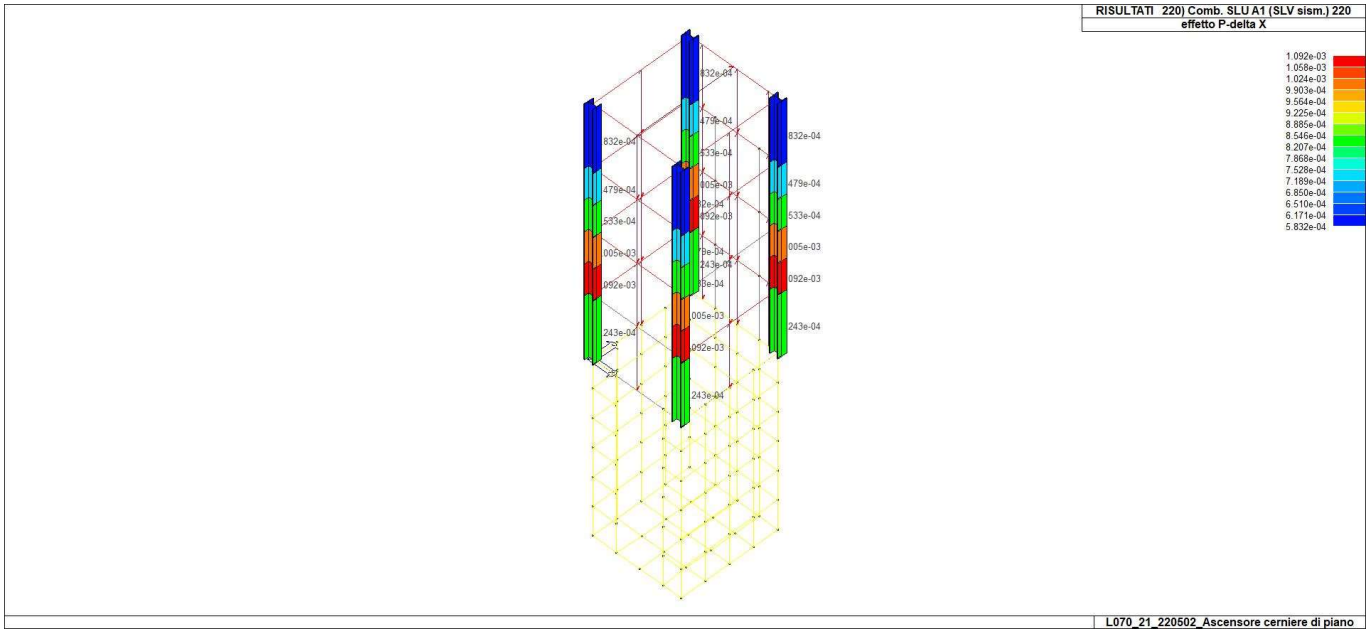
Cmb	**1000 etaT/h**
	0.52



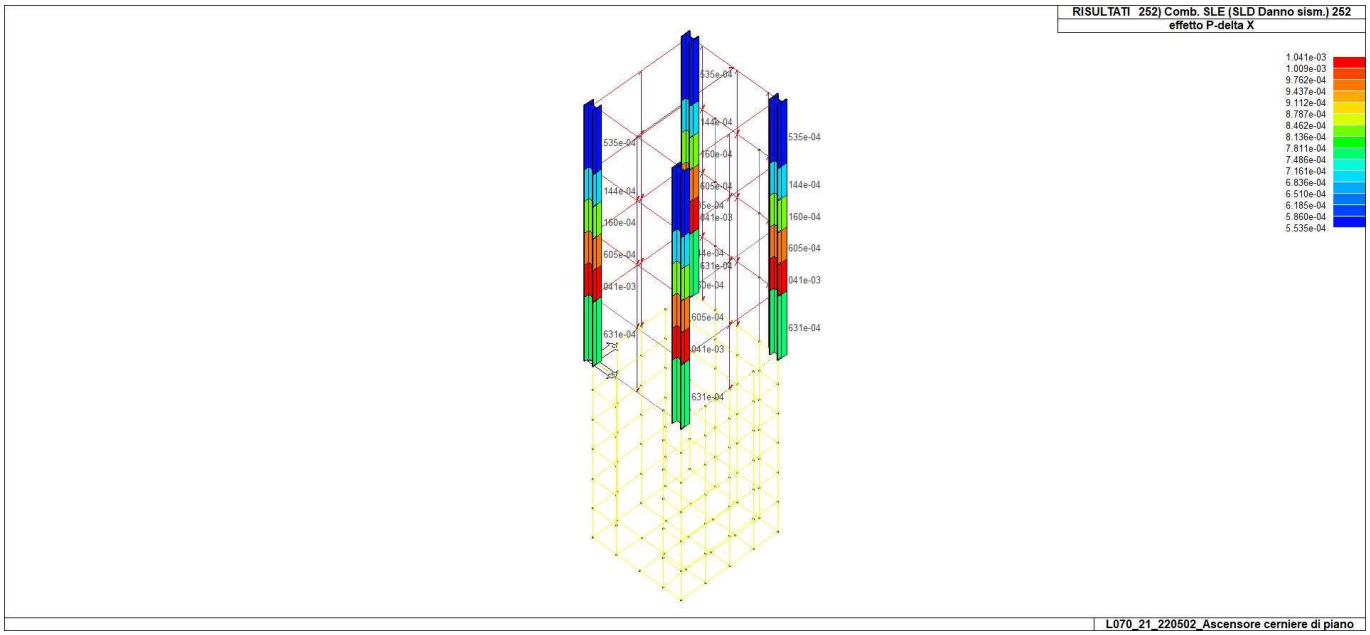
31_RIS_MODOX_003_CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)



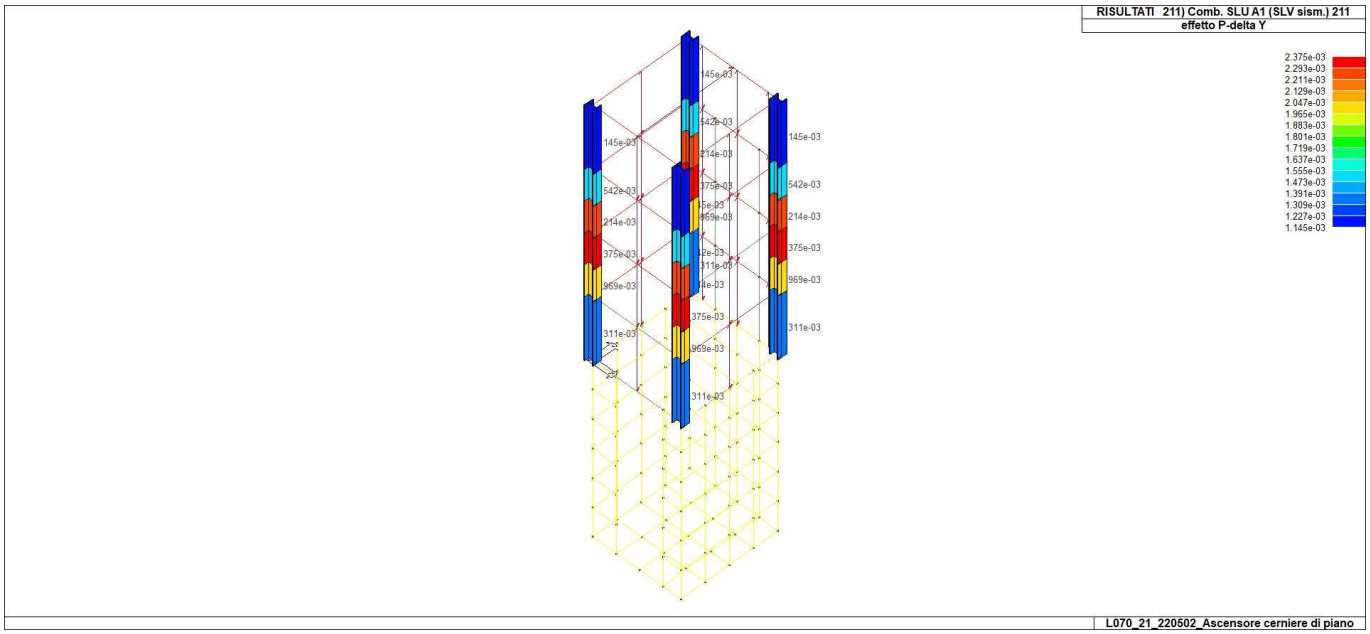
31_RIS_MODOY_001_CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)



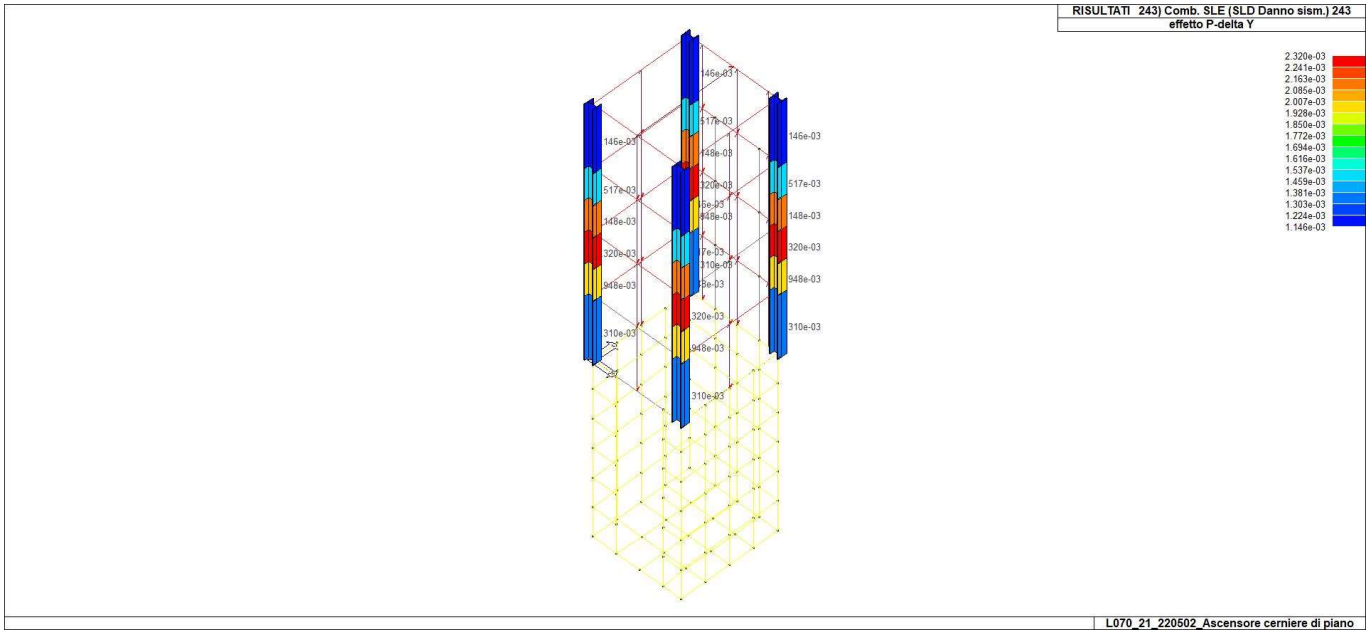
31_RIS_PDELTAX_220_Comb. SLU A1 (SLV sism.) 220



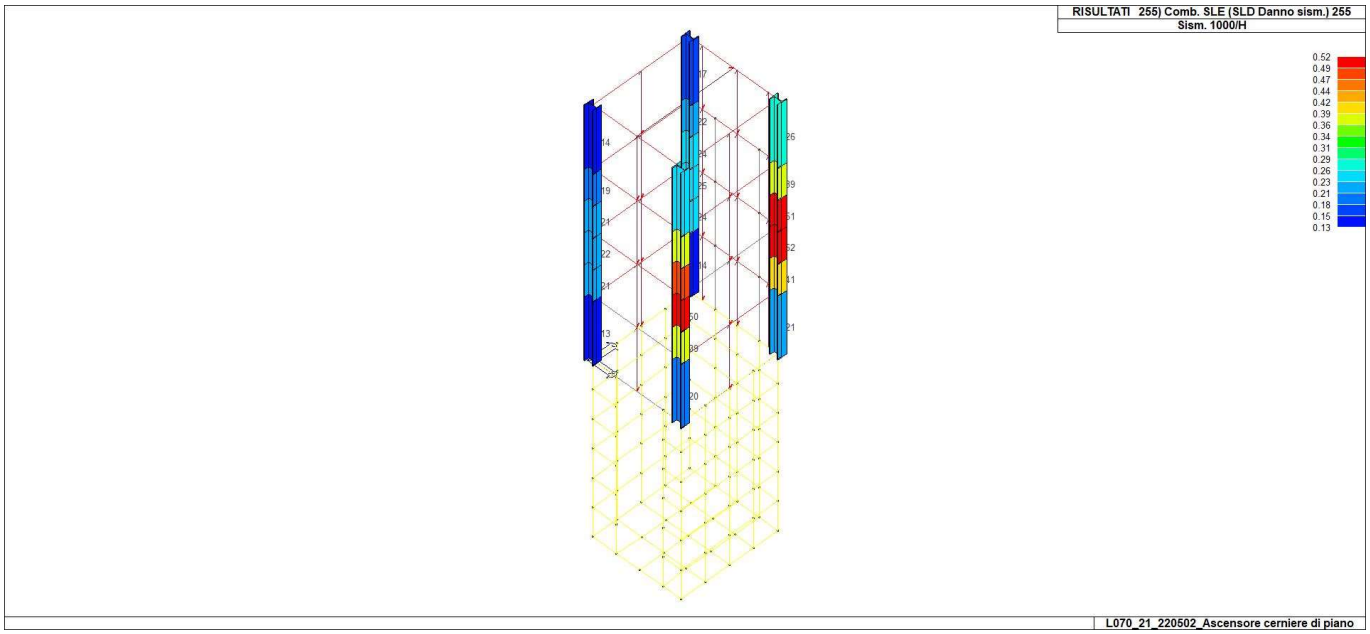
31_RIS_PDELTAX_252_Comb. SLE (SLD Danno sism.) 252



31_RIS_PDELTAY_211_Comb. SLU A1 (SLV sism.) 211



31_RIS_PDELTAY_243_Comb. SLE (SLD Danno sism.) 243



31_RIS_SLE_255_Comb. SLE (SLD Danno sism.) 255

RISULTATI NODALI

LEGENDA RISULTATI NODALI

Il controllo dei risultati delle analisi condotte, per quanto concerne i nodi strutturali, è possibile in relazione alle tabelle sottoriportate.

Una prima tabella riporta infatti per ogni nodo e per ogni combinazione (o caso di carico) gli spostamenti nodali.

Una seconda tabella riporta per ogni nodo a cui sia associato un vincolo rigido e/o elastico o una fondazione speciale e per ogni combinazione (o caso di carico) i valori delle azioni esercitate dalla struttura sui vincoli (reazioni vincolari cambiate di segno).

Una terza tabella, infine riassume per ogni nodo le sei combinazioni in cui si attingono i valori minimi e massimi della reazione Fz, della reazione Mx e della reazione My.

Nodo	Cmb	Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
		cm	cm	cm			
1	37	1.76e-03	-0.02	-0.10	-4.93e-05	-3.26e-05	1.16e-05
1	67	-2.76e-04	-3.57e-03	-0.11	0.0	-5.74e-05	-1.84e-05
1	84	-2.28e-03	6.85e-03	-0.08	2.56e-05	-3.82e-05	-1.48e-05
1	208	0.02	-4.93e-03	-0.08	-4.39e-06	-3.81e-05	2.07e-05
1	211	0.02	-0.01	-0.07	-2.15e-05	-3.54e-05	2.60e-05
1	227	6.94e-03	-0.02	-0.07	-5.36e-05	-3.52e-05	6.81e-06
1	240	9.17e-04	-2.62e-03	-0.07	0.0	-4.05e-05	-1.47e-05
1	243	1.05e-03	-3.85e-03	-0.07	-3.74e-06	-3.86e-05	-1.21e-05
1	261	9.02e-05	-6.59e-03	-0.07	-1.12e-05	-2.77e-05	0.0
1	283	1.19e-03	-0.01	-0.08	-3.35e-05	-2.58e-05	7.12e-06
1	298	-1.65e-04	-2.92e-03	-0.09	-1.20e-06	-4.23e-05	-1.29e-05
1	306	-1.47e-03	3.21e-03	-0.08	1.56e-05	-3.58e-05	-1.14e-05
1	377	1.04e-03	-0.01	-0.08	-2.10e-05	-2.95e-05	0.0
1	383	9.60e-04	-0.01	-0.08	-2.65e-05	-2.84e-05	3.25e-06
1	391	-1.22e-04	-4.44e-03	-0.08	-5.33e-06	-3.87e-05	-9.77e-06
1	414	9.62e-04	-9.79e-03	-0.08	-2.02e-05	-2.87e-05	1.34e-06
1	416	9.06e-04	-0.01	-0.08	-2.47e-05	-2.95e-05	1.85e-06
1	420	-2.03e-04	-4.14e-03	-0.08	-4.51e-06	-3.79e-05	-9.38e-06
2	37	1.86e-03	-0.02	-0.10	-4.39e-05	-3.75e-05	1.12e-05
2	67	-1.31e-04	-4.34e-03	-0.11	3.76e-06	-6.34e-05	-1.86e-05
2	84	-2.17e-03	6.21e-03	-0.08	2.82e-05	-4.04e-05	-1.51e-05
2	208	0.02	-3.88e-03	-0.07	6.80e-06	-6.02e-05	1.65e-05
2	211	0.02	-0.01	-0.07	-1.06e-05	-5.64e-05	2.21e-05
2	229	7.93e-05	-0.02	-0.07	-5.20e-05	-2.79e-05	4.36e-06
2	243	1.14e-03	-4.33e-03	-0.07	0.0	-4.45e-05	-1.25e-05
2	260	2.97e-04	-1.99e-03	-0.07	5.70e-06	-3.93e-05	-9.79e-06
2	261	1.74e-04	-6.55e-03	-0.07	-7.90e-06	-3.06e-05	0.0
2	277	1.43e-03	-0.01	-0.08	-2.12e-05	-3.53e-05	0.0
2	283	1.27e-03	-0.01	-0.08	-2.94e-05	-2.96e-05	6.81e-06
2	298	-5.63e-05	-3.46e-03	-0.08	2.36e-06	-4.69e-05	-1.31e-05
2	377	1.13e-03	-9.96e-03	-0.07	-1.71e-05	-3.38e-05	0.0
2	383	1.04e-03	-0.01	-0.08	-2.26e-05	-3.23e-05	2.92e-06
2	391	-2.13e-05	-4.83e-03	-0.08	-1.94e-06	-4.26e-05	-9.98e-06
2	414	1.04e-03	-9.65e-03	-0.07	-1.63e-05	-3.28e-05	0.0
2	416	9.91e-04	-0.01	-0.08	-2.08e-05	-3.36e-05	1.53e-06
2	420	-1.04e-04	-4.51e-03	-0.08	-1.16e-06	-4.17e-05	-9.60e-06
3	25	2.10e-03	-0.02	-0.10	-3.27e-05	5.14e-05	1.29e-05
3	37	1.84e-03	-0.02	-0.10	-4.09e-05	6.06e-05	2.14e-05
3	67	-9.44e-06	-5.38e-03	-0.11	-4.53e-06	5.08e-05	-4.32e-06
3	206	-1.47e-03	-1.90e-03	-0.07	4.06e-06	5.82e-05	2.23e-05
3	211	0.02	-8.31e-03	-0.07	-1.11e-05	-1.13e-05	2.84e-05
3	229	9.12e-05	-0.02	-0.07	-5.10e-05	4.51e-05	1.00e-05
3	238	-5.74e-04	-3.11e-03	-0.07	0.0	4.68e-05	1.30e-05
3	243	1.20e-03	-5.27e-03	-0.07	-7.36e-06	2.59e-05	-3.57e-06
3	259	7.27e-04	-6.47e-03	-0.07	-1.02e-05	3.31e-05	2.50e-06
3	277	1.44e-03	-0.01	-0.08	-2.24e-05	3.90e-05	9.13e-06
3	283	1.27e-03	-0.01	-0.08	-2.78e-05	4.51e-05	1.47e-05
3	298	3.36e-05	-4.16e-03	-0.08	-3.57e-06	3.86e-05	-2.37e-06

3	377	1.15e-03	-9.51e-03	-0.07	-1.82e-05	3.89e-05	8.95e-06
3	383	1.05e-03	-0.01	-0.08	-2.26e-05	4.25e-05	1.12e-05
3	391	5.67e-05	-5.28e-03	-0.08	-6.58e-06	3.87e-05	0.0
3	414	1.07e-03	-9.16e-03	-0.07	-1.72e-05	3.91e-05	9.31e-06
3	416	1.01e-03	-0.01	-0.08	-2.14e-05	4.17e-05	9.96e-06
3	420	-2.39e-05	-4.92e-03	-0.08	-5.58e-06	3.90e-05	0.0
4	25	2.19e-03	-0.02	-0.10	-3.46e-05	4.37e-05	1.28e-05
4	37	1.93e-03	-0.02	-0.11	-4.32e-05	5.04e-05	2.12e-05
4	67	8.97e-05	-5.61e-03	-0.11	-5.12e-06	4.77e-05	-4.31e-06
4	206	-1.41e-03	-1.18e-03	-0.07	2.92e-06	5.06e-05	2.20e-05
4	211	0.02	-7.27e-03	-0.07	-1.39e-05	-1.86e-05	2.75e-05
4	229	1.49e-04	-0.02	-0.07	-5.11e-05	4.20e-05	1.06e-05
4	238	-5.10e-04	-2.71e-03	-0.07	-1.08e-06	4.11e-05	1.27e-05
4	243	1.26e-03	-5.41e-03	-0.07	-8.22e-06	2.40e-05	-3.79e-06
4	259	7.88e-04	-6.43e-03	-0.07	-1.11e-05	2.98e-05	2.31e-06
4	277	1.51e-03	-0.01	-0.08	-2.37e-05	3.33e-05	8.99e-06
4	283	1.33e-03	-0.01	-0.08	-2.95e-05	3.78e-05	1.46e-05
4	298	1.08e-04	-4.30e-03	-0.08	-4.08e-06	3.60e-05	-2.40e-06
4	377	1.22e-03	-9.26e-03	-0.08	-1.95e-05	3.34e-05	8.77e-06
4	383	1.12e-03	-0.01	-0.08	-2.40e-05	3.62e-05	1.11e-05
4	391	1.28e-04	-5.33e-03	-0.08	-7.18e-06	3.58e-05	0.0
4	414	1.13e-03	-8.89e-03	-0.08	-1.85e-05	3.36e-05	9.12e-06
4	416	1.07e-03	-0.01	-0.08	-2.27e-05	3.58e-05	9.83e-06
4	420	4.65e-05	-4.97e-03	-0.08	-6.20e-06	3.60e-05	0.0
5	29	3.48e-04	-0.02	-0.12	-6.66e-05	8.18e-06	8.73e-06
5	37	-1.24e-03	-0.02	-0.12	-6.82e-05	1.29e-05	1.55e-05
5	182	-8.76e-03	-3.85e-03	-0.08	-2.34e-05	3.36e-05	3.71e-05
5	204	0.02	-1.65e-03	-0.07	-1.59e-05	-3.71e-05	1.77e-05
5	225	-1.57e-03	-0.02	-0.08	-6.53e-05	1.30e-05	9.83e-06
5	229	-1.40e-03	-0.02	-0.08	-6.56e-05	1.24e-05	8.99e-06
5	236	3.03e-03	-4.69e-03	-0.07	-2.06e-05	0.0	-8.86e-06
5	237	-2.40e-03	-4.01e-03	-0.08	-2.04e-05	1.53e-05	1.06e-05
5	259	9.53e-04	-6.56e-03	-0.08	-2.65e-05	5.50e-06	0.0
5	279	2.73e-04	-0.01	-0.09	-4.71e-05	6.43e-06	5.94e-06
5	283	-7.88e-04	-0.01	-0.09	-4.81e-05	9.57e-06	1.05e-05
5	355	-5.74e-03	-4.01e-03	-0.08	-2.24e-05	2.49e-05	2.51e-05
5	369	1.39e-03	-6.90e-03	-0.08	-2.81e-05	3.94e-06	-1.59e-06
5	379	3.46e-05	-0.01	-0.09	-4.16e-05	7.34e-06	5.80e-06
5	383	-3.19e-04	-0.01	-0.09	-4.19e-05	8.39e-06	7.31e-06
5	410	1.23e-03	-6.53e-03	-0.08	-2.70e-05	4.43e-06	-1.23e-06
5	416	-1.20e-04	-0.01	-0.09	-4.05e-05	7.83e-06	6.16e-06
6	29	3.70e-04	-0.02	-0.12	-7.18e-05	9.36e-06	5.78e-06
6	37	-1.23e-03	-0.02	-0.12	-7.40e-05	1.45e-05	1.26e-05
6	182	-8.74e-03	-5.26e-03	-0.08	-2.87e-05	3.55e-05	3.43e-05
6	204	0.02	-2.37e-03	-0.07	-2.11e-05	-3.58e-05	1.59e-05
6	227	5.22e-03	-0.02	-0.08	-7.04e-05	-4.09e-06	7.68e-06
6	229	-1.38e-03	-0.02	-0.08	-7.01e-05	1.34e-05	6.95e-06
6	236	3.06e-03	-4.33e-03	-0.07	-2.50e-05	0.0	-1.08e-05
6	259	9.74e-04	-6.52e-03	-0.08	-3.13e-05	6.65e-06	-2.39e-06
6	261	-5.38e-04	-6.22e-03	-0.08	-3.06e-05	1.12e-05	2.67e-06
6	279	2.90e-04	-0.01	-0.09	-5.12e-05	7.38e-06	3.71e-06
6	283	-7.74e-04	-0.01	-0.09	-5.27e-05	1.08e-05	8.22e-06
6	355	-5.72e-03	-4.95e-03	-0.08	-2.76e-05	2.65e-05	2.25e-05
6	369	1.41e-03	-6.80e-03	-0.08	-3.25e-05	4.88e-06	-3.62e-06
6	379	5.24e-05	-0.01	-0.09	-4.59e-05	8.39e-06	3.60e-06
6	383	-3.02e-04	-0.01	-0.09	-4.64e-05	9.53e-06	5.10e-06
6	410	1.26e-03	-6.45e-03	-0.08	-3.15e-05	5.41e-06	-3.26e-06
6	416	-1.02e-04	-0.01	-0.08	-4.49e-05	8.93e-06	3.96e-06
7	29	3.34e-04	-0.02	-0.12	-5.97e-05	-1.09e-05	1.06e-05
7	37	-1.27e-03	-0.02	-0.12	-6.83e-05	-5.46e-06	1.80e-05
7	182	-8.72e-03	-8.53e-03	-0.08	-3.80e-05	2.03e-05	3.61e-05
7	204	0.02	-3.92e-03	-0.08	-2.58e-05	-5.15e-05	1.96e-05
7	227	5.26e-03	-0.02	-0.08	-7.34e-05	-2.09e-05	8.58e-06
7	229	-1.32e-03	-0.02	-0.08	-7.37e-05	-4.23e-06	7.03e-06
7	236	3.15e-03	-3.34e-03	-0.07	-2.47e-05	-1.79e-05	-9.62e-06
7	259	1.06e-03	-6.33e-03	-0.08	-3.28e-05	-1.15e-05	0.0
7	261	-4.55e-04	-6.59e-03	-0.08	-3.35e-05	-6.97e-06	4.10e-06
7	279	2.79e-04	-0.01	-0.09	-4.34e-05	-8.52e-06	7.06e-06
7	283	-7.90e-04	-0.01	-0.09	-4.91e-05	-4.92e-06	1.20e-05
7	355	-5.67e-03	-7.12e-03	-0.08	-3.44e-05	1.03e-05	2.41e-05
7	369	1.48e-03	-6.51e-03	-0.08	-2.62e-05	-1.33e-05	-2.11e-06
7	379	6.00e-05	-0.01	-0.09	-4.14e-05	-7.88e-06	6.57e-06
7	383	-2.96e-04	-0.01	-0.09	-4.32e-05	-6.68e-06	8.21e-06
7	410	1.33e-03	-6.19e-03	-0.08	-2.64e-05	-1.27e-05	-1.80e-06
7	416	-9.17e-05	-0.01	-0.09	-4.15e-05	-7.37e-06	6.89e-06
8	29	3.16e-04	-0.02	-0.12	-6.48e-05	-9.72e-06	9.05e-06
8	37	-1.28e-03	-0.02	-0.12	-6.94e-05	-4.67e-06	1.64e-05

8	182	-8.70e-03	-0.01	-0.08	-3.36e-05	1.90e-05	3.51e-05
8	204	0.02	-4.96e-03	-0.08	-1.91e-05	-4.89e-05	1.96e-05
8	227	5.27e-03	-0.02	-0.08	-6.71e-05	-2.02e-05	7.11e-06
8	236	3.17e-03	-2.78e-03	-0.08	-1.64e-05	-1.74e-05	-1.18e-05
8	239	3.06e-03	-4.09e-03	-0.08	-1.99e-05	-1.70e-05	-1.07e-05
8	261	-4.30e-04	-6.72e-03	-0.08	-2.61e-05	-6.74e-06	2.12e-06
8	279	2.70e-04	-0.01	-0.09	-4.58e-05	-7.72e-06	5.78e-06
8	283	-7.96e-04	-0.01	-0.09	-4.89e-05	-4.35e-06	1.07e-05
8	355	-5.65e-03	-8.34e-03	-0.08	-2.90e-05	9.53e-06	2.28e-05
8	369	1.49e-03	-6.35e-03	-0.08	-2.51e-05	-1.24e-05	-3.80e-06
8	379	6.01e-05	-0.01	-0.09	-4.09e-05	-7.29e-06	5.10e-06
8	383	-2.95e-04	-0.01	-0.09	-4.19e-05	-6.16e-06	6.74e-06
8	410	1.34e-03	-6.05e-03	-0.08	-2.43e-05	-1.19e-05	-3.53e-06
8	416	-8.92e-05	-0.01	-0.09	-4.01e-05	-6.86e-06	5.37e-06
9	29	3.72e-04	-0.02	-0.12	-6.95e-05	-1.31e-06	7.62e-06
9	37	-1.23e-03	-0.02	-0.12	-7.27e-05	4.45e-06	1.47e-05
9	182	-8.73e-03	-6.88e-03	-0.08	-2.81e-05	2.89e-05	3.47e-05
9	204	0.02	-3.34e-03	-0.07	-2.85e-05	-4.33e-05	1.73e-05
9	229	-1.35e-03	-0.02	-0.08	-7.53e-05	5.31e-06	6.81e-06
9	231	5.07e-03	-0.02	-0.08	-7.63e-05	-1.14e-05	8.72e-06
9	236	3.10e-03	-3.95e-03	-0.07	-2.98e-05	-8.04e-06	-1.03e-05
9	261	-4.98e-04	-6.32e-03	-0.08	-3.63e-05	2.84e-06	3.16e-06
9	263	9.30e-04	-6.50e-03	-0.08	-3.68e-05	-1.44e-06	-1.44e-06
9	279	2.98e-04	-0.01	-0.09	-5.04e-05	0.0	4.99e-06
9	283	-7.72e-04	-0.01	-0.09	-5.26e-05	3.00e-06	9.70e-06
9	355	-5.70e-03	-6.03e-03	-0.08	-2.90e-05	1.93e-05	2.29e-05
9	369	1.45e-03	-6.68e-03	-0.08	-3.74e-05	-4.21e-06	-3.13e-06
9	379	6.52e-05	-0.01	-0.09	-4.62e-05	0.0	4.73e-06
9	383	-2.92e-04	-0.01	-0.09	-4.69e-05	1.58e-06	6.30e-06
9	410	1.30e-03	-6.34e-03	-0.08	-3.64e-05	-3.58e-06	-2.78e-06
9	416	-8.94e-05	-0.01	-0.09	-4.52e-05	0.0	5.08e-06
10	37	3.64e-04	-0.02	-0.11	-6.75e-05	-3.32e-05	1.23e-05
10	65	2.03e-03	-9.71e-03	-0.11	-3.71e-05	-5.14e-05	-1.18e-05
10	150	-5.08e-03	-0.01	-0.08	-3.02e-05	1.18e-06	3.45e-05
10	203	0.02	-0.01	-0.08	-3.13e-05	-5.46e-05	2.34e-05
10	204	0.02	-4.99e-03	-0.08	-1.34e-05	-5.52e-05	2.11e-05
10	227	6.23e-03	-0.02	-0.07	-6.50e-05	-3.80e-05	6.82e-06
10	235	2.14e-03	-4.02e-03	-0.07	-1.60e-05	-3.85e-05	-1.23e-05
10	236	2.07e-03	-2.74e-03	-0.07	-1.25e-05	-3.91e-05	-1.36e-05
10	261	-4.55e-05	-6.68e-03	-0.07	-2.26e-05	-2.70e-05	0.0
10	283	2.92e-04	-0.01	-0.08	-4.71e-05	-2.61e-05	7.73e-06
10	297	1.40e-03	-7.03e-03	-0.09	-2.68e-05	-3.83e-05	-8.31e-06
10	339	-3.26e-03	-8.30e-03	-0.07	-2.55e-05	-9.23e-06	2.18e-05
10	369	1.19e-03	-6.30e-03	-0.08	-2.32e-05	-3.49e-05	-6.30e-06
10	371	1.08e-03	-7.97e-03	-0.08	-2.85e-05	-3.53e-05	-5.83e-06
10	383	4.23e-04	-0.01	-0.08	-3.99e-05	-2.81e-05	4.00e-06
10	410	1.07e-03	-6.00e-03	-0.08	-2.22e-05	-3.42e-05	-5.90e-06
10	412	9.58e-04	-7.67e-03	-0.08	-2.75e-05	-3.46e-05	-5.43e-06
10	416	4.99e-04	-0.01	-0.08	-3.81e-05	-2.90e-05	2.66e-06
11	37	1.11e-03	-0.02	-0.11	-5.35e-05	-3.69e-05	1.32e-05
11	67	4.94e-04	-3.64e-03	-0.11	-5.70e-06	-5.99e-05	-1.61e-05
11	150	-3.30e-03	-0.01	-0.07	-2.10e-05	0.0	3.51e-05
11	203	0.02	-0.01	-0.08	-2.22e-05	-4.77e-05	2.49e-05
11	208	0.02	-4.93e-03	-0.08	-4.10e-06	-4.80e-05	2.27e-05
11	227	6.58e-03	-0.02	-0.07	-5.63e-05	-3.90e-05	7.79e-06
11	235	1.64e-03	-3.97e-03	-0.07	-6.98e-06	-4.24e-05	-1.20e-05
11	240	1.55e-03	-2.66e-03	-0.07	-3.45e-06	-4.30e-05	-1.31e-05
11	261	5.77e-05	-6.63e-03	-0.07	-1.38e-05	-3.01e-05	0.0
11	283	7.83e-04	-0.01	-0.08	-3.66e-05	-2.90e-05	8.35e-06
11	298	3.70e-04	-2.98e-03	-0.09	-4.75e-06	-4.43e-05	-1.11e-05
11	339	-2.10e-03	-8.24e-03	-0.07	-1.64e-05	-1.08e-05	2.23e-05
11	369	1.01e-03	-6.24e-03	-0.08	-1.33e-05	-3.89e-05	-5.89e-06
11	383	7.35e-04	-0.01	-0.08	-2.96e-05	-3.13e-05	4.55e-06
11	391	2.68e-04	-4.49e-03	-0.08	-8.67e-06	-4.07e-05	-8.17e-06
11	410	9.07e-04	-5.94e-03	-0.08	-1.24e-05	-3.81e-05	-5.50e-06
11	416	7.47e-04	-0.01	-0.08	-2.78e-05	-3.24e-05	3.19e-06
11	420	1.69e-04	-4.19e-03	-0.08	-7.78e-06	-3.99e-05	-7.78e-06
12	37	-4.37e-04	-0.02	-0.11	-7.80e-05	-1.79e-05	1.18e-05
12	65	2.36e-03	-9.77e-03	-0.12	-4.78e-05	-3.26e-05	-1.23e-05
12	182	-6.89e-03	-0.01	-0.08	-3.75e-05	1.01e-05	3.35e-05
12	204	0.02	-4.98e-03	-0.08	-2.05e-05	-5.35e-05	1.93e-05
12	207	0.02	-0.01	-0.08	-3.84e-05	-5.29e-05	2.13e-05
12	227	5.64e-03	-0.02	-0.08	-7.15e-05	-2.90e-05	5.55e-06
12	236	2.64e-03	-2.77e-03	-0.07	-1.95e-05	-2.74e-05	-1.42e-05
12	239	2.57e-03	-4.08e-03	-0.08	-2.30e-05	-2.70e-05	-1.31e-05
12	261	-2.92e-04	-6.72e-03	-0.07	-2.94e-05	-1.63e-05	0.0
12	283	-2.38e-04	-0.01	-0.08	-5.50e-05	-1.44e-05	7.30e-06

12	297	1.62e-03	-7.08e-03	-0.09	-3.49e-05	-2.42e-05	-8.74e-06
12	355	-4.46e-03	-8.34e-03	-0.08	-3.26e-05	0.0	2.10e-05
12	369	1.34e-03	-6.34e-03	-0.08	-3.07e-05	-2.25e-05	-6.84e-06
12	379	3.48e-04	-0.01	-0.08	-4.70e-05	-1.75e-05	1.80e-06
12	383	7.30e-05	-0.01	-0.08	-4.76e-05	-1.63e-05	3.54e-06
12	410	1.20e-03	-6.04e-03	-0.08	-2.96e-05	-2.20e-05	-6.46e-06
12	416	2.13e-04	-0.01	-0.08	-4.58e-05	-1.70e-05	2.19e-06
13	37	2.03e-04	-0.02	-0.11	-6.32e-05	4.62e-05	1.98e-05
13	165	-1.26e-03	-0.01	-0.11	-4.44e-05	5.43e-05	2.15e-05
13	182	-5.18e-03	-3.79e-03	-0.08	-2.02e-05	6.05e-05	4.03e-05
13	201	-3.18e-03	-7.69e-03	-0.08	-2.74e-05	4.79e-05	2.28e-05
13	203	0.02	-7.88e-03	-0.07	-2.68e-05	-1.88e-05	2.29e-05
13	229	-5.57e-04	-0.02	-0.07	-6.40e-05	3.67e-05	1.04e-05
13	233	-1.43e-03	-3.93e-03	-0.07	-1.66e-05	3.82e-05	1.26e-05
13	235	2.05e-03	-5.74e-03	-0.07	-2.02e-05	2.06e-05	-6.21e-06
13	259	8.59e-04	-6.52e-03	-0.07	-2.30e-05	2.71e-05	1.31e-06
13	283	1.71e-04	-0.01	-0.08	-4.43e-05	3.46e-05	1.35e-05
13	347	-8.01e-04	-8.49e-03	-0.09	-3.18e-05	4.00e-05	1.47e-05
13	355	-3.36e-03	-3.96e-03	-0.08	-1.91e-05	5.00e-05	2.77e-05
13	369	1.08e-03	-6.86e-03	-0.08	-2.47e-05	2.74e-05	0.0
13	379	5.01e-04	-0.01	-0.08	-3.80e-05	3.22e-05	8.43e-06
13	383	3.07e-04	-0.01	-0.08	-3.83e-05	3.30e-05	1.00e-05
13	410	9.68e-04	-6.49e-03	-0.08	-2.36e-05	2.77e-05	0.0
13	416	3.84e-04	-0.01	-0.08	-3.69e-05	3.25e-05	8.76e-06
14	37	1.01e-03	-0.02	-0.11	-4.94e-05	5.30e-05	1.94e-05
14	67	4.43e-04	-5.68e-03	-0.11	-1.09e-05	4.91e-05	-6.10e-06
14	150	-3.35e-03	-3.74e-03	-0.08	-1.03e-05	6.73e-05	4.01e-05
14	203	0.02	-7.80e-03	-0.07	-1.77e-05	-1.76e-05	2.30e-05
14	206	-2.39e-03	-1.23e-03	-0.07	-1.16e-06	5.21e-05	2.05e-05
14	229	-2.64e-04	-0.02	-0.07	-5.57e-05	4.25e-05	9.94e-06
14	235	1.60e-03	-5.70e-03	-0.07	-1.20e-05	2.43e-05	-6.48e-06
14	238	-1.04e-03	-2.75e-03	-0.07	-4.85e-06	4.26e-05	1.13e-05
14	259	7.66e-04	-6.48e-03	-0.07	-1.46e-05	3.13e-05	1.05e-06
14	283	7.06e-04	-0.01	-0.08	-3.41e-05	3.97e-05	1.33e-05
14	298	3.32e-04	-4.35e-03	-0.08	-8.37e-06	3.72e-05	-3.77e-06
14	339	-2.15e-03	-3.91e-03	-0.08	-9.67e-06	5.60e-05	2.75e-05
14	369	9.61e-04	-6.81e-03	-0.08	-1.57e-05	3.22e-05	0.0
14	383	6.67e-04	-0.01	-0.08	-2.84e-05	3.80e-05	9.74e-06
14	391	2.29e-04	-5.38e-03	-0.08	-1.14e-05	3.69e-05	-1.33e-06
14	410	8.62e-04	-6.44e-03	-0.08	-1.47e-05	3.23e-05	0.0
14	416	6.82e-04	-0.01	-0.08	-2.71e-05	3.75e-05	8.50e-06
14	420	1.30e-04	-5.02e-03	-0.08	-1.03e-05	3.71e-05	0.0
15	29	6.98e-04	-0.02	-0.12	-7.31e-05	2.44e-05	1.29e-05
15	37	-5.38e-04	-0.02	-0.11	-7.41e-05	2.86e-05	1.98e-05
15	182	-6.97e-03	-3.83e-03	-0.08	-2.78e-05	4.58e-05	4.04e-05
15	204	0.02	-1.62e-03	-0.07	-1.77e-05	-2.85e-05	2.01e-05
15	225	-1.19e-03	-0.02	-0.08	-7.04e-05	2.44e-05	1.20e-05
15	229	-1.06e-03	-0.02	-0.08	-7.07e-05	2.38e-05	1.12e-05
15	236	2.54e-03	-4.69e-03	-0.07	-2.40e-05	9.42e-06	-6.78e-06
15	237	-1.93e-03	-4.00e-03	-0.07	-2.38e-05	2.60e-05	1.30e-05
15	259	8.65e-04	-6.56e-03	-0.07	-3.00e-05	1.58e-05	1.88e-06
15	279	5.05e-04	-0.01	-0.09	-5.19e-05	1.86e-05	9.01e-06
15	283	-3.19e-04	-0.01	-0.09	-5.26e-05	2.14e-05	1.36e-05
15	355	-4.55e-03	-3.99e-03	-0.08	-2.65e-05	3.65e-05	2.80e-05
15	369	1.24e-03	-6.89e-03	-0.08	-3.21e-05	1.51e-05	0.0
15	379	2.63e-04	-0.01	-0.08	-4.60e-05	1.91e-05	8.71e-06
15	383	-1.20e-05	-0.01	-0.08	-4.63e-05	2.00e-05	1.03e-05
15	410	1.11e-03	-6.53e-03	-0.08	-3.09e-05	1.55e-05	1.15e-06
15	416	1.27e-04	-0.01	-0.08	-4.49e-05	1.95e-05	9.05e-06
16	37	2.34e-04	-0.02	-0.11	-6.84e-05	5.09e-05	0.0
16	67	9.73e-04	-5.36e-03	-0.11	-2.91e-05	4.13e-05	0.0
16	182	-5.15e-03	-5.20e-03	-0.08	-2.49e-05	6.55e-05	0.0
16	201	-3.15e-03	-8.42e-03	-0.07	-3.13e-05	5.12e-05	0.0
16	203	0.02	-8.70e-03	-0.07	-2.89e-05	-1.52e-05	0.0
16	229	-5.41e-04	-0.02	-0.07	-6.74e-05	3.79e-05	0.0
16	233	-1.41e-03	-4.30e-03	-0.07	-2.00e-05	4.08e-05	0.0
16	235	2.06e-03	-5.41e-03	-0.07	-2.26e-05	2.13e-05	0.0
16	259	8.77e-04	-6.47e-03	-0.07	-2.57e-05	2.85e-05	0.0
16	283	1.95e-04	-0.01	-0.08	-4.82e-05	3.80e-05	0.0
16	298	6.87e-04	-4.14e-03	-0.08	-2.20e-05	3.16e-05	0.0
16	355	-3.34e-03	-4.90e-03	-0.08	-2.32e-05	5.40e-05	0.0
16	369	1.10e-03	-6.75e-03	-0.08	-2.78e-05	2.87e-05	0.0
16	379	5.23e-04	-0.01	-0.08	-4.17e-05	3.48e-05	0.0
16	383	3.29e-04	-0.01	-0.08	-4.19e-05	3.58e-05	0.0
16	410	9.88e-04	-6.40e-03	-0.08	-2.67e-05	2.90e-05	0.0
16	416	4.06e-04	-0.01	-0.08	-4.06e-05	3.51e-05	0.0
17	37	1.03e-03	-0.02	-0.10	-4.98e-05	5.75e-05	0.0

17	67	4.54e-04	-5.34e-03	-0.11	-1.10e-05	4.74e-05	0.0
17	150	-3.34e-03	-5.20e-03	-0.08	-1.15e-05	7.26e-05	0.0
17	203	0.02	-8.67e-03	-0.07	-1.70e-05	-1.40e-05	0.0
17	206	-2.38e-03	-1.94e-03	-0.07	-1.53e-06	5.54e-05	0.0
17	229	-2.55e-04	-0.02	-0.07	-5.60e-05	4.25e-05	0.0
17	235	1.61e-03	-5.40e-03	-0.07	-1.16e-05	2.34e-05	0.0
17	238	-1.03e-03	-3.12e-03	-0.07	-4.95e-06	4.45e-05	0.0
17	259	7.75e-04	-6.46e-03	-0.07	-1.44e-05	3.15e-05	0.0
17	283	7.21e-04	-0.01	-0.08	-3.43e-05	4.28e-05	0.0
17	298	3.40e-04	-4.13e-03	-0.08	-8.45e-06	3.61e-05	0.0
17	339	-2.13e-03	-4.89e-03	-0.08	-1.05e-05	5.97e-05	0.0
17	369	9.70e-04	-6.74e-03	-0.08	-1.55e-05	3.22e-05	0.0
17	383	6.80e-04	-0.01	-0.08	-2.85e-05	4.03e-05	0.0
17	391	2.37e-04	-5.26e-03	-0.08	-1.14e-05	3.64e-05	0.0
17	410	8.71e-04	-6.39e-03	-0.07	-1.45e-05	3.24e-05	0.0
17	416	6.95e-04	-0.01	-0.08	-2.72e-05	3.95e-05	0.0
17	420	1.39e-04	-4.91e-03	-0.08	-1.04e-05	3.66e-05	0.0
18	29	7.21e-04	-0.02	-0.11	-8.41e-05	2.71e-05	0.0
18	37	-5.15e-04	-0.02	-0.11	-8.50e-05	3.20e-05	0.0
18	182	-6.95e-03	-5.22e-03	-0.08	-3.66e-05	4.95e-05	0.0
18	204	0.02	-2.34e-03	-0.07	-2.38e-05	-2.58e-05	0.0
18	225	-1.17e-03	-0.02	-0.08	-7.77e-05	2.59e-05	0.0
18	227	5.59e-03	-0.02	-0.07	-7.74e-05	7.19e-06	0.0
18	236	2.56e-03	-4.31e-03	-0.07	-3.03e-05	1.08e-05	0.0
18	237	-1.91e-03	-4.36e-03	-0.07	-3.09e-05	2.85e-05	0.0
18	259	8.85e-04	-6.49e-03	-0.07	-3.66e-05	1.76e-05	0.0
18	279	5.23e-04	-0.01	-0.09	-6.01e-05	2.06e-05	0.0
18	283	-3.01e-04	-0.01	-0.08	-6.07e-05	2.39e-05	0.0
18	355	-4.53e-03	-4.92e-03	-0.08	-3.46e-05	3.96e-05	0.0
18	369	1.26e-03	-6.78e-03	-0.08	-3.93e-05	1.66e-05	0.0
18	379	2.81e-04	-0.01	-0.08	-5.40e-05	2.12e-05	0.0
18	383	6.39e-06	-0.01	-0.08	-5.41e-05	2.23e-05	0.0
18	410	1.13e-03	-6.42e-03	-0.08	-3.80e-05	1.71e-05	0.0
18	416	1.46e-04	-0.01	-0.08	-5.27e-05	2.16e-05	0.0
19	37	2.79e-04	-0.02	-0.11	-7.59e-05	1.27e-05	0.0
19	65	1.94e-03	-0.01	-0.11	-5.09e-05	-3.75e-06	0.0
19	182	-5.12e-03	-6.85e-03	-0.08	-3.25e-05	3.85e-05	0.0
19	201	-3.13e-03	-9.17e-03	-0.07	-3.65e-05	2.39e-05	0.0
19	203	0.02	-9.77e-03	-0.07	-3.27e-05	-3.80e-05	0.0
19	231	6.09e-03	-0.02	-0.07	-7.08e-05	-7.39e-06	0.0
19	233	-1.39e-03	-4.67e-03	-0.07	-2.42e-05	1.34e-05	0.0
19	235	2.09e-03	-5.07e-03	-0.07	-2.53e-05	-6.70e-06	0.0
19	263	8.61e-04	-6.45e-03	-0.07	-2.92e-05	1.13e-06	0.0
19	283	2.28e-04	-0.01	-0.08	-5.37e-05	8.90e-06	0.0
19	297	1.34e-03	-7.50e-03	-0.08	-3.70e-05	-2.10e-06	0.0
19	355	-3.31e-03	-5.99e-03	-0.07	-2.94e-05	2.67e-05	0.0
19	369	1.13e-03	-6.63e-03	-0.08	-3.17e-05	0.0	0.0
19	379	5.54e-04	-0.01	-0.08	-4.67e-05	5.24e-06	0.0
19	383	3.61e-04	-0.01	-0.08	-4.70e-05	6.68e-06	0.0
19	410	1.01e-03	-6.29e-03	-0.07	-3.05e-05	0.0	0.0
19	416	4.37e-04	-0.01	-0.08	-4.55e-05	5.80e-06	0.0
20	37	1.06e-03	-0.02	-0.10	-5.21e-05	1.47e-05	0.0
20	67	4.66e-04	-4.88e-03	-0.11	-1.12e-05	-3.14e-06	0.0
20	150	-3.32e-03	-6.85e-03	-0.07	-1.61e-05	4.27e-05	0.0
20	203	0.02	-9.76e-03	-0.07	-1.65e-05	-3.79e-05	0.0
20	231	6.49e-03	-0.02	-0.07	-5.58e-05	-7.07e-06	0.0
20	232	6.06e-03	-2.20e-04	-0.07	4.89e-06	-1.09e-05	0.0
20	235	1.62e-03	-5.06e-03	-0.07	-1.06e-05	-8.60e-06	0.0
20	258	-2.08e-04	-2.15e-03	-0.07	-2.49e-06	5.15e-06	0.0
20	263	7.64e-04	-6.44e-03	-0.07	-1.45e-05	0.0	0.0
20	283	7.44e-04	-0.01	-0.08	-3.59e-05	1.02e-05	0.0
20	298	3.49e-04	-3.82e-03	-0.08	-8.57e-06	-1.75e-06	0.0
20	339	-2.12e-03	-5.99e-03	-0.07	-1.35e-05	2.94e-05	0.0
20	369	9.82e-04	-6.62e-03	-0.07	-1.54e-05	-1.48e-06	0.0
20	383	7.00e-04	-0.01	-0.08	-2.96e-05	7.46e-06	0.0
20	391	2.47e-04	-5.06e-03	-0.08	-1.17e-05	0.0	0.0
20	410	8.82e-04	-6.29e-03	-0.07	-1.44e-05	0.0	0.0
20	416	7.14e-04	-0.01	-0.08	-2.82e-05	6.41e-06	0.0
20	420	1.48e-04	-4.73e-03	-0.08	-1.07e-05	1.01e-06	0.0
21	29	7.45e-04	-0.02	-0.11	-9.82e-05	2.10e-06	0.0
21	37	-4.89e-04	-0.02	-0.11	-9.91e-05	8.16e-06	0.0
21	182	-6.92e-03	-6.86e-03	-0.08	-4.87e-05	3.30e-05	0.0
21	204	0.02	-3.32e-03	-0.07	-3.21e-05	-4.14e-05	0.0
21	229	-1.03e-03	-0.02	-0.07	-8.64e-05	7.48e-06	0.0
21	231	5.47e-03	-0.02	-0.07	-8.62e-05	-9.45e-06	0.0
21	236	2.59e-03	-3.92e-03	-0.07	-3.74e-05	-7.37e-06	0.0
21	261	-3.44e-04	-6.28e-03	-0.07	-4.41e-05	4.68e-06	0.0

21	263	8.48e-04	-6.47e-03	-0.07	-4.46e-05	0.0	0.0
21	279	5.43e-04	-0.01	-0.09	-7.06e-05	1.63e-06	0.0
21	283	-2.80e-04	-0.01	-0.08	-7.12e-05	5.66e-06	0.0
21	355	-4.50e-03	-6.01e-03	-0.08	-4.54e-05	2.26e-05	0.0
21	369	1.29e-03	-6.64e-03	-0.08	-4.80e-05	-2.55e-06	0.0
21	379	3.03e-04	-0.01	-0.08	-6.39e-05	2.60e-06	0.0
21	383	2.82e-05	-0.01	-0.08	-6.41e-05	3.94e-06	0.0
21	410	1.15e-03	-6.31e-03	-0.08	-4.66e-05	-1.94e-06	0.0
21	416	1.68e-04	-0.01	-0.08	-6.25e-05	3.21e-06	0.0
22	37	3.24e-04	-0.02	-0.11	-7.38e-05	-3.08e-05	0.0
22	65	1.98e-03	-0.01	-0.11	-4.61e-05	-4.98e-05	0.0
22	150	-5.09e-03	-8.48e-03	-0.07	-3.31e-05	6.12e-06	0.0
22	203	0.02	-0.01	-0.07	-3.18e-05	-6.25e-05	0.0
22	204	0.02	-3.91e-03	-0.07	-1.40e-05	-6.36e-05	0.0
22	229	-5.05e-04	-0.02	-0.07	-7.04e-05	-2.19e-05	0.0
22	235	2.12e-03	-4.51e-03	-0.07	-2.13e-05	-3.77e-05	0.0
22	236	2.04e-03	-3.29e-03	-0.07	-1.80e-05	-3.84e-05	0.0
22	261	-7.15e-05	-6.55e-03	-0.07	-2.69e-05	-2.47e-05	0.0
22	283	2.61e-04	-0.01	-0.08	-5.20e-05	-2.42e-05	0.0
22	297	1.37e-03	-7.28e-03	-0.08	-3.34e-05	-3.69e-05	0.0
22	339	-3.28e-03	-7.07e-03	-0.07	-2.90e-05	-5.33e-06	0.0
22	369	1.16e-03	-6.48e-03	-0.08	-2.87e-05	-3.35e-05	0.0
22	371	1.05e-03	-8.10e-03	-0.08	-3.46e-05	-3.37e-05	0.0
22	383	3.93e-04	-0.01	-0.08	-4.49e-05	-2.63e-05	0.0
22	410	1.04e-03	-6.16e-03	-0.08	-2.76e-05	-3.28e-05	0.0
22	412	9.28e-04	-7.78e-03	-0.08	-3.34e-05	-3.29e-05	0.0
22	416	4.69e-04	-0.01	-0.08	-4.32e-05	-2.72e-05	0.0
23	37	1.09e-03	-0.02	-0.10	-5.14e-05	-3.40e-05	0.0
23	67	4.78e-04	-4.35e-03	-0.11	-6.46e-06	-5.68e-05	0.0
23	150	-3.31e-03	-8.47e-03	-0.07	-1.83e-05	6.14e-06	0.0
23	203	0.02	-0.01	-0.07	-1.59e-05	-6.06e-05	0.0
23	208	0.02	-3.84e-03	-0.07	2.27e-06	-6.16e-05	0.0
23	229	-2.35e-04	-0.02	-0.07	-5.70e-05	-2.47e-05	0.0
23	235	1.63e-03	-4.50e-03	-0.07	-6.67e-06	-4.20e-05	0.0
23	240	1.54e-03	-3.25e-03	-0.07	-3.20e-06	-4.27e-05	0.0
23	261	4.71e-05	-6.54e-03	-0.07	-1.31e-05	-2.75e-05	0.0
23	283	7.65e-04	-0.01	-0.08	-3.52e-05	-2.68e-05	0.0
23	298	3.58e-04	-3.47e-03	-0.08	-5.17e-06	-4.20e-05	0.0
23	339	-2.11e-03	-7.06e-03	-0.07	-1.44e-05	-6.41e-06	0.0
23	369	9.93e-04	-6.47e-03	-0.08	-1.29e-05	-3.75e-05	0.0
23	383	7.19e-04	-0.01	-0.08	-2.85e-05	-2.93e-05	0.0
23	391	2.56e-04	-4.83e-03	-0.08	-8.81e-06	-3.82e-05	0.0
23	410	8.94e-04	-6.15e-03	-0.07	-1.20e-05	-3.67e-05	0.0
23	416	7.31e-04	-0.01	-0.08	-2.68e-05	-3.04e-05	0.0
23	420	1.57e-04	-4.51e-03	-0.08	-7.89e-06	-3.73e-05	0.0
24	29	7.72e-04	-0.02	-0.11	-9.18e-05	-2.43e-05	0.0
24	37	-4.63e-04	-0.02	-0.11	-9.36e-05	-1.80e-05	0.0
24	182	-6.90e-03	-8.50e-03	-0.08	-4.69e-05	1.28e-05	0.0
24	204	0.02	-3.91e-03	-0.07	-2.83e-05	-5.86e-05	0.0
24	227	5.62e-03	-0.02	-0.08	-8.16e-05	-2.96e-05	0.0
24	229	-1.02e-03	-0.02	-0.07	-8.30e-05	-1.31e-05	0.0
24	236	2.61e-03	-3.31e-03	-0.07	-3.10e-05	-2.79e-05	0.0
24	239	2.54e-03	-4.56e-03	-0.07	-3.45e-05	-2.74e-05	0.0
24	261	-3.18e-04	-6.56e-03	-0.07	-4.00e-05	-1.59e-05	0.0
24	279	5.64e-04	-0.01	-0.09	-6.57e-05	-1.87e-05	0.0
24	283	-2.59e-04	-0.01	-0.08	-6.68e-05	-1.45e-05	0.0
24	355	-4.48e-03	-7.09e-03	-0.08	-4.25e-05	2.22e-06	0.0
24	369	1.31e-03	-6.49e-03	-0.08	-4.27e-05	-2.31e-05	0.0
24	379	3.25e-04	-0.01	-0.08	-5.90e-05	-1.78e-05	0.0
24	383	5.04e-05	-0.01	-0.08	-5.94e-05	-1.64e-05	0.0
24	410	1.18e-03	-6.17e-03	-0.08	-4.14e-05	-2.25e-05	0.0
24	416	1.90e-04	-0.01	-0.08	-5.78e-05	-1.71e-05	0.0
25	37	-3.12e-04	-0.01	-0.10	-6.03e-05	-2.34e-06	3.04e-06
25	67	-5.33e-03	-2.27e-03	-0.11	-1.05e-05	-2.63e-05	-3.46e-05
25	83	-6.41e-03	3.80e-03	-0.11	1.59e-05	-2.09e-05	-3.20e-05
25	208	0.02	-3.41e-03	-0.08	-1.70e-05	-1.72e-05	3.08e-05
25	211	0.02	-7.99e-03	-0.07	-3.44e-05	-1.44e-05	3.69e-05
25	227	4.00e-03	-0.02	-0.07	-6.20e-05	-1.52e-05	2.42e-06
25	240	-2.73e-03	-1.73e-03	-0.07	-7.61e-06	-1.94e-05	-2.50e-05
25	252	-2.84e-03	-1.13e-03	-0.07	-5.13e-06	-1.46e-05	-1.94e-05
25	261	-1.99e-03	-4.49e-03	-0.07	-1.82e-05	-7.35e-06	-8.28e-06
25	283	-5.17e-04	-9.78e-03	-0.08	-4.17e-05	-2.93e-06	0.0
25	298	-3.86e-03	-1.88e-03	-0.09	-8.56e-06	-1.89e-05	-2.48e-05
25	306	-4.58e-03	2.16e-03	-0.08	9.04e-06	-1.53e-05	-2.31e-05
25	383	-1.08e-03	-8.09e-03	-0.08	-3.45e-05	-5.75e-06	-4.29e-06
25	391	-3.45e-03	-2.95e-03	-0.08	-1.25e-05	-1.62e-05	-2.09e-05
25	398	-3.73e-03	-7.26e-04	-0.08	-2.78e-06	-1.32e-05	-1.86e-05

25	416	-1.27e-03	-7.65e-03	-0.08	-3.27e-05	-6.87e-06	-5.98e-06
25	419	-3.48e-03	-1.59e-03	-0.08	-6.34e-06	-1.26e-05	-1.74e-05
25	420	-3.45e-03	-2.75e-03	-0.08	-1.16e-05	-1.57e-05	-2.04e-05
26	37	2.27e-04	-0.02	-0.10	-5.74e-05	-1.50e-05	7.24e-06
26	67	-3.31e-03	-3.06e-03	-0.11	-8.56e-06	-3.83e-05	-2.58e-05
26	83	-4.75e-03	4.59e-03	-0.11	1.75e-05	-3.11e-05	-2.32e-05
26	208	0.02	-4.27e-03	-0.08	-1.48e-05	-2.24e-05	2.36e-05
26	211	0.02	-9.87e-03	-0.07	-3.18e-05	-2.00e-05	2.92e-05
26	227	5.17e-03	-0.02	-0.07	-5.94e-05	-2.28e-05	4.40e-06
26	240	-1.22e-03	-2.27e-03	-0.07	-6.01e-06	-2.78e-05	-1.94e-05
26	242	-1.90e-03	-3.74e-03	-0.07	-1.05e-05	-1.14e-05	0.0
26	261	-1.31e-03	-5.64e-03	-0.07	-1.64e-05	-1.57e-05	-4.16e-06
26	283	-3.75e-05	-0.01	-0.08	-3.96e-05	-1.25e-05	3.68e-06
26	298	-2.39e-03	-2.51e-03	-0.09	-7.02e-06	-2.80e-05	-1.83e-05
26	306	-3.36e-03	2.59e-03	-0.08	1.03e-05	-2.32e-05	-1.66e-05
26	383	-4.30e-04	-0.01	-0.08	-3.25e-05	-1.51e-05	0.0
26	391	-2.15e-03	-3.80e-03	-0.08	-1.09e-05	-2.51e-05	-1.48e-05
26	398	-2.63e-03	-9.90e-04	-0.08	-1.30e-06	-2.13e-05	-1.28e-05
26	416	-5.53e-04	-9.66e-03	-0.08	-3.06e-05	-1.62e-05	-1.96e-06
26	419	-2.42e-03	-2.06e-03	-0.08	-4.80e-06	-2.08e-05	-1.17e-05
26	420	-2.19e-03	-3.55e-03	-0.08	-1.00e-05	-2.45e-05	-1.44e-05
27	37	2.54e-04	-6.79e-03	-0.10	-6.07e-05	1.05e-05	1.48e-06
27	67	-8.27e-03	-8.28e-04	-0.11	-8.75e-06	-2.17e-05	-4.84e-05
27	87	-9.44e-03	1.16e-03	-0.11	8.74e-06	-2.36e-05	-5.30e-05
27	208	0.02	-1.68e-03	-0.08	-1.66e-05	-2.69e-05	4.68e-05
27	211	0.02	-4.13e-03	-0.07	-3.54e-05	-2.11e-05	5.49e-05
27	227	2.56e-03	-8.18e-03	-0.07	-6.49e-05	-1.05e-05	2.76e-06
27	236	-4.93e-03	-6.80e-04	-0.07	-7.30e-06	-1.66e-05	-3.36e-05
27	240	-4.85e-03	-6.74e-04	-0.07	-7.25e-06	-1.62e-05	-3.31e-05
27	261	-2.50e-03	-2.17e-03	-0.07	-1.87e-05	0.0	-1.27e-05
27	283	-2.60e-04	-4.69e-03	-0.08	-4.20e-05	6.33e-06	-1.49e-06
27	298	-5.94e-03	-7.22e-04	-0.09	-7.38e-06	-1.51e-05	-3.47e-05
27	308	-6.72e-03	6.03e-04	-0.09	4.28e-06	-1.64e-05	-3.78e-05
27	383	-1.24e-03	-3.86e-03	-0.08	-3.47e-05	2.42e-06	-7.35e-06
27	391	-5.16e-03	-1.30e-03	-0.08	-1.19e-05	-1.18e-05	-2.96e-05
27	400	-5.46e-03	-7.79e-04	-0.08	-7.30e-06	-1.23e-05	-3.09e-05
27	416	-1.59e-03	-3.64e-03	-0.08	-3.28e-05	0.0	-9.51e-06
27	420	-5.10e-03	-1.22e-03	-0.08	-1.10e-05	-1.13e-05	-2.91e-05
28	37	-2.34e-04	-0.01	-0.10	-6.10e-05	5.20e-06	1.24e-06
28	67	-6.87e-03	-1.51e-03	-0.11	-9.88e-06	-2.17e-05	-4.20e-05
28	87	-7.94e-03	1.50e-03	-0.11	7.51e-06	-2.25e-05	-4.55e-05
28	208	0.02	-2.54e-03	-0.08	-1.70e-05	-2.04e-05	3.91e-05
28	211	0.02	-6.07e-03	-0.07	-3.50e-05	-1.64e-05	4.59e-05
28	227	3.21e-03	-0.01	-0.07	-6.34e-05	-1.20e-05	1.96e-06
28	236	-3.89e-03	-1.20e-03	-0.07	-7.66e-06	-1.66e-05	-2.99e-05
28	240	-3.84e-03	-1.19e-03	-0.07	-7.60e-06	-1.62e-05	-2.95e-05
28	261	-2.36e-03	-3.33e-03	-0.07	-1.86e-05	-2.96e-06	-1.11e-05
28	283	-5.37e-04	-7.22e-03	-0.08	-4.22e-05	2.62e-06	-1.35e-06
28	298	-4.96e-03	-1.28e-03	-0.09	-8.15e-06	-1.53e-05	-3.02e-05
28	308	-5.68e-03	7.30e-04	-0.09	3.44e-06	-1.59e-05	-3.25e-05
28	383	-1.29e-03	-5.96e-03	-0.08	-3.49e-05	0.0	-6.51e-06
28	391	-4.37e-03	-2.11e-03	-0.08	-1.23e-05	-1.25e-05	-2.57e-05
28	400	-4.64e-03	-1.32e-03	-0.08	-7.83e-06	-1.28e-05	-2.67e-05
28	416	-1.56e-03	-5.64e-03	-0.08	-3.30e-05	-1.86e-06	-8.42e-06
28	420	-4.35e-03	-1.97e-03	-0.08	-1.15e-05	-1.20e-05	-2.52e-05
29	1	-5.19e-03	0.0	-0.10	-1.20e-05	-9.45e-06	-2.76e-05
29	67	-0.01	0.0	-0.12	0.0	-3.67e-05	-6.21e-05
29	87	-0.01	0.0	-0.11	1.92e-05	-4.32e-05	-7.11e-05
29	201	2.64e-03	0.0	-0.07	-3.43e-05	2.65e-05	1.59e-05
29	208	0.01	0.0	-0.08	-1.20e-05	-3.79e-05	5.20e-05
29	211	0.01	0.0	-0.07	-3.41e-05	-2.64e-05	6.39e-05
29	233	-5.42e-04	0.0	-0.07	-1.51e-05	9.20e-06	-2.21e-06
29	236	-7.42e-03	0.0	-0.07	-3.41e-06	-2.37e-05	-4.02e-05
29	240	-7.27e-03	0.0	-0.07	-3.36e-06	-2.30e-05	-3.94e-05
29	265	-3.98e-03	0.0	-0.07	-9.26e-06	-7.23e-06	-2.12e-05
29	298	-8.46e-03	0.0	-0.09	0.0	-2.54e-05	-4.42e-05
29	308	-9.61e-03	0.0	-0.09	1.15e-05	-2.97e-05	-5.02e-05
29	365	-3.98e-03	0.0	-0.07	-9.26e-06	-7.23e-06	-2.12e-05
29	391	-7.06e-03	0.0	-0.08	-7.22e-06	-1.90e-05	-3.70e-05
29	400	-7.52e-03	0.0	-0.08	-2.27e-06	-2.08e-05	-3.93e-05
29	409	-3.98e-03	0.0	-0.07	-9.26e-06	-7.23e-06	-2.12e-05
29	420	-6.94e-03	0.0	-0.08	-6.52e-06	-1.85e-05	-3.64e-05
30	37	1.08e-03	-3.33e-03	-0.10	-6.04e-05	1.54e-05	4.70e-06
30	67	-9.78e-03	-1.52e-04	-0.12	-5.81e-06	-2.58e-05	-5.58e-05
30	87	-0.01	8.63e-04	-0.11	1.20e-05	-2.93e-05	-6.24e-05
30	208	0.02	-7.85e-04	-0.08	-1.42e-05	-3.48e-05	5.14e-05
30	211	0.02	-2.10e-03	-0.07	-3.46e-05	-2.63e-05	6.15e-05

30	231	2.27e-03	-4.23e-03	-0.07	-6.70e-05	-7.96e-06	6.17e-06
30	236	-6.04e-03	-2.12e-04	-0.07	-5.49e-06	-1.92e-05	-3.74e-05
30	240	-5.93e-03	-2.10e-04	-0.07	-5.47e-06	-1.86e-05	-3.68e-05
30	257	-2.38e-03	-1.04e-03	-0.07	-1.87e-05	1.16e-06	-1.24e-05
30	283	2.50e-04	-2.30e-03	-0.08	-4.17e-05	9.58e-06	0.0
30	298	-6.99e-03	-1.76e-04	-0.09	-5.34e-06	-1.78e-05	-3.99e-05
30	308	-7.90e-03	5.01e-04	-0.09	6.55e-06	-2.02e-05	-4.43e-05
30	383	-1.01e-03	-1.86e-03	-0.08	-3.42e-05	4.62e-06	-6.55e-06
30	391	-5.96e-03	-5.13e-04	-0.08	-1.04e-05	-1.35e-05	-3.37e-05
30	400	-6.32e-03	-2.43e-04	-0.08	-5.75e-06	-1.45e-05	-3.55e-05
30	416	-1.47e-03	-1.75e-03	-0.08	-3.22e-05	2.79e-06	-9.11e-06
30	420	-5.88e-03	-4.73e-04	-0.08	-9.64e-06	-1.30e-05	-3.31e-05
31	67	-0.02	-0.16	-0.12	1.54e-03	-1.07e-04	3.48e-04
31	76	-0.03	-0.24	-0.08	2.33e-03	-1.75e-04	5.43e-04
31	146	0.06	-1.79e-03	-0.07	1.73e-05	5.50e-04	-6.95e-04
31	201	0.03	5.47e-03	-0.07	-5.11e-05	3.75e-04	2.13e-05
31	208	-0.02	-3.28e-03	-0.08	3.87e-05	-3.97e-04	5.55e-05
31	229	0.01	0.05	-0.07	-5.32e-04	1.75e-04	-1.19e-04
31	236	-0.02	5.21e-04	-0.08	-4.78e-06	-1.61e-04	-3.64e-05
31	240	-0.02	-6.59e-04	-0.08	7.56e-06	-1.48e-04	-4.55e-05
31	261	4.49e-03	0.02	-0.07	-2.54e-04	9.21e-05	-6.61e-05
31	298	-0.02	-0.10	-0.09	1.03e-03	-6.92e-05	2.30e-04
31	302	-0.02	-0.16	-0.08	1.55e-03	-1.11e-04	3.56e-04
31	337	0.04	-6.27e-04	-0.07	6.00e-06	3.72e-04	-4.69e-04
31	383	0.01	0.09	-0.08	-8.94e-04	1.33e-04	-3.40e-04
31	400	-0.01	-0.09	-0.08	8.72e-04	-5.57e-05	2.01e-04
31	416	8.26e-03	0.08	-0.08	-7.70e-04	1.17e-04	-2.95e-04
31	420	-0.01	-0.07	-0.08	6.76e-04	-3.97e-05	1.56e-04
32	29	0.02	0.42	-0.12	-1.39e-03	-1.63e-05	1.49e-03
32	76	0.11	-0.77	-0.08	2.58e-03	-7.38e-05	-3.08e-03
32	84	0.11	-0.76	-0.08	2.57e-03	-7.29e-05	-3.08e-03
32	211	-0.09	0.02	-0.07	-9.49e-05	3.48e-05	4.39e-04
32	229	6.19e-03	0.15	-0.08	-6.74e-04	3.07e-06	1.86e-04
32	243	-0.04	7.70e-03	-0.07	-4.62e-05	3.72e-05	2.01e-04
32	245	0.03	0.03	-0.08	-1.48e-04	-1.95e-05	-9.36e-05
32	261	2.83e-03	0.07	-0.08	-3.21e-04	4.40e-06	9.06e-05
32	279	0.02	0.28	-0.09	-9.29e-04	-1.01e-05	9.92e-04
32	302	0.07	-0.51	-0.08	1.72e-03	-4.73e-05	-2.06e-03
32	306	0.07	-0.51	-0.08	1.71e-03	-4.68e-05	-2.06e-03
32	379	0.01	0.24	-0.09	-7.96e-04	-7.26e-06	8.50e-04
32	394	0.05	-0.30	-0.08	9.77e-04	-2.98e-05	-1.26e-03
32	398	0.05	-0.29	-0.08	9.72e-04	-2.93e-05	-1.26e-03
32	416	0.01	0.24	-0.09	-7.95e-04	-6.84e-06	8.50e-04
32	419	0.04	-0.23	-0.08	7.55e-04	-2.37e-05	-1.02e-03
33	76	-0.05	-0.58	-0.08	2.06e-03	-1.63e-04	-7.81e-05
33	87	-0.05	-0.58	-0.12	2.04e-03	-1.62e-04	-8.10e-05
33	150	0.13	-2.02e-03	-0.07	-2.12e-06	4.81e-04	-3.17e-04
33	201	0.09	0.01	-0.07	-5.30e-05	3.78e-04	2.65e-04
33	208	-0.07	-0.01	-0.08	4.45e-05	-3.83e-04	-1.58e-04
33	229	0.04	0.14	-0.07	-5.87e-04	1.69e-04	7.64e-05
33	236	-0.04	2.58e-04	-0.08	-1.31e-06	-1.74e-04	-1.35e-04
33	240	-0.04	-2.92e-03	-0.08	1.20e-05	-1.62e-04	-1.06e-04
33	261	0.02	0.06	-0.07	-2.79e-04	8.66e-05	3.67e-05
33	302	-0.03	-0.39	-0.08	1.37e-03	-1.06e-04	-5.30e-05
33	308	-0.03	-0.38	-0.09	1.36e-03	-1.07e-04	-5.43e-05
33	339	0.09	-2.31e-04	-0.07	-6.32e-06	3.23e-04	-2.12e-04
33	382	0.03	0.22	-0.07	-7.80e-04	1.20e-04	-1.86e-04
33	383	0.03	0.22	-0.08	-7.86e-04	1.18e-04	-1.88e-04
33	400	-0.02	-0.22	-0.08	7.57e-04	-5.76e-05	-4.85e-05
33	415	0.02	0.19	-0.07	-6.71e-04	1.04e-04	-1.60e-04
33	416	0.02	0.19	-0.08	-6.77e-04	1.02e-04	-1.61e-04
33	420	-0.02	-0.17	-0.08	5.82e-04	-4.31e-05	-4.53e-05
34	76	-0.09	-1.25	-0.08	5.79e-04	-1.25e-04	-1.68e-03
34	87	-0.09	-1.24	-0.12	5.55e-04	-1.36e-04	-1.68e-03
34	150	0.23	0.03	-0.08	-2.99e-05	2.75e-04	2.58e-04
34	204	-0.17	-0.11	-0.07	5.09e-05	-2.90e-04	-5.17e-04
34	206	0.14	-0.06	-0.08	8.09e-05	2.03e-04	2.10e-04
34	223	0.04	0.36	-0.07	-3.56e-04	4.30e-05	9.90e-04
34	236	-0.09	-0.05	-0.07	1.52e-05	-1.41e-04	-2.86e-04
34	238	0.07	-0.03	-0.08	3.11e-05	9.48e-05	1.02e-04
34	255	0.02	0.17	-0.07	-1.67e-04	1.88e-05	4.81e-04
34	302	-0.06	-0.83	-0.08	3.80e-04	-8.79e-05	-1.12e-03
34	308	-0.06	-0.82	-0.09	3.68e-04	-9.11e-05	-1.12e-03
34	339	0.15	0.02	-0.08	-2.59e-05	1.79e-04	1.71e-04
34	382	0.05	0.41	-0.08	-1.77e-04	6.04e-05	2.44e-04
34	394	-0.03	-0.48	-0.08	1.94e-04	-4.92e-05	-6.85e-04
34	400	-0.04	-0.47	-0.08	1.84e-04	-5.19e-05	-6.86e-04

34	415	0.05	0.35	-0.08	-1.55e-04	5.04e-05	2.09e-04
34	417	-0.03	-0.37	-0.08	1.41e-04	-3.83e-05	-5.53e-04
34	420	-0.03	-0.37	-0.08	1.31e-04	-4.11e-05	-5.54e-04
35	76	-0.07	-0.82	-0.08	1.16e-03	-1.46e-04	-7.79e-04
35	87	-0.07	-0.81	-0.12	1.14e-03	-1.53e-04	-7.82e-04
35	150	0.19	-2.02e-03	-0.07	-9.90e-06	3.63e-04	-2.58e-04
35	201	0.13	0.02	-0.07	-1.95e-04	3.22e-04	4.46e-04
35	208	-0.12	-0.02	-0.08	1.79e-04	-3.24e-04	-2.97e-04
35	229	0.06	0.22	-0.07	-4.77e-04	1.34e-04	1.56e-04
35	236	-0.07	1.80e-04	-0.08	6.97e-05	-1.66e-04	-2.24e-04
35	240	-0.06	-4.79e-03	-0.08	8.02e-05	-1.55e-04	-1.75e-04
35	261	0.03	0.10	-0.07	-2.24e-04	6.45e-05	7.63e-05
35	302	-0.05	-0.55	-0.08	7.68e-04	-9.88e-05	-5.20e-04
35	308	-0.05	-0.54	-0.09	7.56e-04	-1.02e-04	-5.22e-04
35	339	0.12	3.13e-04	-0.07	-1.13e-05	2.40e-04	-1.73e-04
35	382	0.04	0.31	-0.07	-4.37e-04	8.82e-05	-1.82e-05
35	383	0.04	0.31	-0.08	-4.43e-04	8.47e-05	-1.95e-05
35	400	-0.03	-0.30	-0.08	4.02e-04	-5.91e-05	-3.34e-04
35	415	0.04	0.27	-0.07	-3.78e-04	7.50e-05	-1.60e-05
35	416	0.04	0.27	-0.08	-3.83e-04	7.16e-05	-1.72e-05
35	420	-0.02	-0.23	-0.08	3.00e-04	-4.68e-05	-2.76e-04
36	29	0.03	0.55	-0.12	-6.66e-04	-5.09e-06	1.42e-03
36	76	0.17	-1.01	-0.07	1.24e-03	-4.12e-05	-3.21e-03
36	84	0.17	-1.01	-0.08	1.23e-03	-4.03e-05	-3.21e-03
36	211	-0.15	0.03	-0.08	-5.00e-05	2.02e-05	7.35e-04
36	229	0.01	0.23	-0.08	-4.79e-04	3.50e-06	3.28e-04
36	243	-0.07	0.01	-0.07	-2.44e-05	2.96e-05	3.44e-04
36	245	0.06	0.05	-0.08	-1.12e-04	-1.46e-05	-1.54e-04
36	261	4.68e-03	0.11	-0.08	-2.24e-04	4.19e-06	1.62e-04
36	279	0.02	0.37	-0.09	-4.45e-04	-2.68e-06	9.49e-04
36	302	0.11	-0.67	-0.07	8.22e-04	-2.60e-05	-2.14e-03
36	306	0.11	-0.67	-0.08	8.17e-04	-2.54e-05	-2.14e-03
36	379	0.02	0.32	-0.09	-3.82e-04	0.0	8.13e-04
36	394	0.07	-0.38	-0.08	4.48e-04	-1.50e-05	-1.31e-03
36	398	0.07	-0.38	-0.08	4.43e-04	-1.45e-05	-1.31e-03
36	416	0.02	0.32	-0.09	-3.81e-04	0.0	8.13e-04
36	419	0.06	-0.30	-0.08	3.35e-04	-1.11e-05	-1.05e-03
37	76	-0.09	-0.94	-0.09	5.45e-04	-7.02e-05	-1.52e-03
37	87	-0.09	-0.93	-0.12	5.22e-04	-7.00e-05	-1.53e-03
37	182	0.23	-5.83e-04	-0.07	-2.29e-05	2.57e-04	-3.69e-05
37	204	-0.17	-7.26e-03	-0.08	8.81e-05	-2.76e-04	-5.17e-04
37	208	-0.16	-0.02	-0.08	1.02e-04	-2.59e-04	-3.92e-04
37	229	0.07	0.27	-0.07	-3.30e-04	1.18e-04	2.17e-04
37	236	-0.09	8.01e-04	-0.08	3.58e-05	-1.23e-04	-2.86e-04
37	240	-0.08	-5.46e-03	-0.08	4.26e-05	-1.15e-04	-2.24e-04
37	261	0.04	0.13	-0.07	-1.54e-04	6.23e-05	1.06e-04
37	302	-0.06	-0.62	-0.08	3.57e-04	-4.35e-05	-1.02e-03
37	308	-0.06	-0.62	-0.09	3.45e-04	-4.66e-05	-1.02e-03
37	355	0.15	1.82e-03	-0.07	-2.14e-05	1.75e-04	-2.55e-05
37	382	0.05	0.35	-0.07	-2.14e-04	7.62e-05	2.27e-04
37	383	0.05	0.36	-0.08	-2.20e-04	7.28e-05	2.26e-04
37	400	-0.04	-0.34	-0.09	1.67e-04	-2.73e-05	-6.53e-04
37	415	0.05	0.30	-0.07	-1.87e-04	6.65e-05	1.94e-04
37	416	0.04	0.31	-0.08	-1.92e-04	6.31e-05	1.93e-04
37	420	-0.03	-0.26	-0.08	1.16e-04	-2.15e-05	-5.39e-04
38	67	-0.01	-0.17	-0.11	1.67e-03	-1.91e-04	-9.14e-04
38	76	-0.02	-0.25	-0.08	2.52e-03	-2.46e-04	-1.35e-03
38	181	0.06	6.93e-03	-0.10	-6.66e-05	5.17e-04	2.19e-04
38	201	0.04	0.02	-0.07	-2.23e-04	3.36e-04	1.33e-04
38	206	0.03	-8.40e-03	-0.08	9.53e-05	2.62e-04	5.88e-05
38	223	0.01	0.06	-0.07	-6.15e-04	7.61e-05	2.09e-04
38	233	0.02	0.01	-0.07	-1.14e-04	1.56e-04	7.02e-05
38	238	0.02	-3.36e-03	-0.07	3.87e-05	1.19e-04	3.38e-05
38	255	5.47e-03	0.03	-0.07	-2.95e-04	2.68e-05	9.82e-05
38	298	-6.60e-03	-0.11	-0.09	1.11e-03	-1.30e-04	-6.08e-04
38	302	-9.66e-03	-0.17	-0.08	1.67e-03	-1.71e-04	-8.95e-04
38	355	0.04	4.83e-03	-0.08	-4.67e-05	3.42e-04	1.47e-04
38	382	0.01	0.09	-0.08	-8.67e-04	1.09e-04	4.22e-04
38	394	-4.82e-03	-0.10	-0.08	9.71e-04	-1.07e-04	-5.45e-04
38	400	-5.08e-03	-0.10	-0.08	9.60e-04	-1.12e-04	-5.45e-04
38	415	0.01	0.08	-0.08	-7.46e-04	9.06e-05	3.63e-04
38	417	-3.42e-03	-0.08	-0.07	7.63e-04	-8.83e-05	-4.39e-04
38	420	-3.67e-03	-0.07	-0.08	7.52e-04	-9.33e-05	-4.39e-04
39	37	3.09e-04	-0.02	-0.10	-5.66e-05	0.0	6.37e-06
39	67	-3.21e-03	-4.35e-03	-0.11	-7.00e-06	0.0	-2.68e-05
39	83	-4.66e-03	3.42e-03	-0.10	1.89e-05	0.0	-2.42e-05
39	208	0.02	-3.10e-03	-0.07	-1.60e-05	0.0	2.21e-05

39	211	0.02	-8.39e-03	-0.07	-3.31e-05	0.0	2.78e-05
39	229	-1.45e-03	-0.02	-0.07	-5.73e-05	0.0	0.0
39	242	-1.84e-03	-3.84e-03	-0.07	-9.77e-06	0.0	-1.39e-06
39	260	-1.51e-03	-2.11e-03	-0.07	-2.48e-06	0.0	-1.43e-05
39	261	-1.25e-03	-5.88e-03	-0.07	-1.57e-05	0.0	-4.84e-06
39	283	2.50e-05	-0.01	-0.08	-3.89e-05	0.0	3.01e-06
39	298	-2.32e-03	-3.43e-03	-0.08	-5.88e-06	0.0	-1.91e-05
39	306	-3.29e-03	1.75e-03	-0.08	1.14e-05	0.0	-1.74e-05
39	383	-3.67e-04	-0.01	-0.08	-3.18e-05	0.0	-1.14e-06
39	391	-2.08e-03	-4.55e-03	-0.08	-9.85e-06	0.0	-1.56e-05
39	398	-2.57e-03	-1.64e-03	-0.08	0.0	0.0	-1.36e-05
39	416	-4.90e-04	-9.77e-03	-0.08	-2.99e-05	0.0	-2.66e-06
39	419	-2.35e-03	-2.65e-03	-0.08	-3.83e-06	0.0	-1.24e-05
39	420	-2.12e-03	-4.28e-03	-0.08	-8.99e-06	0.0	-1.51e-05
40	29	4.23e-03	-0.02	-0.11	-5.07e-05	0.0	2.12e-05
40	37	4.21e-03	-0.02	-0.10	-5.22e-05	0.0	2.80e-05
40	67	2.41e-03	-4.99e-03	-0.11	-1.31e-05	0.0	3.59e-06
40	206	1.14e-03	-2.00e-03	-0.07	-3.00e-06	0.0	2.79e-05
40	211	0.02	-7.26e-03	-0.07	-2.14e-05	0.0	2.94e-05
40	229	2.30e-03	-0.02	-0.07	-5.56e-05	0.0	1.69e-05
40	238	1.51e-03	-2.96e-03	-0.07	-6.87e-06	0.0	1.80e-05
40	243	2.34e-03	-4.69e-03	-0.07	-1.37e-05	0.0	0.0
40	259	2.18e-03	-5.72e-03	-0.07	-1.66e-05	0.0	6.93e-06
40	279	3.07e-03	-0.01	-0.08	-3.52e-05	0.0	1.52e-05
40	283	3.05e-03	-0.01	-0.08	-3.62e-05	0.0	1.98e-05
40	298	1.85e-03	-3.84e-03	-0.08	-1.01e-05	0.0	3.49e-06
40	379	2.79e-03	-9.57e-03	-0.08	-3.01e-05	0.0	1.47e-05
40	383	2.78e-03	-9.66e-03	-0.08	-3.05e-05	0.0	1.62e-05
40	391	1.86e-03	-4.78e-03	-0.08	-1.31e-05	0.0	5.61e-06
40	416	2.72e-03	-9.27e-03	-0.08	-2.91e-05	0.0	1.50e-05
40	420	1.79e-03	-4.48e-03	-0.08	-1.20e-05	0.0	5.90e-06
41	29	4.31e-03	-0.02	-0.11	-5.03e-05	2.22e-05	2.07e-05
41	37	4.29e-03	-0.02	-0.11	-5.18e-05	2.43e-05	2.76e-05
41	67	2.48e-03	-4.87e-03	-0.11	-1.26e-05	2.58e-05	3.21e-06
41	206	1.19e-03	-1.02e-03	-0.07	-2.68e-06	3.31e-05	2.75e-05
41	211	0.02	-6.11e-03	-0.07	-2.13e-05	-3.65e-05	2.90e-05
41	229	2.34e-03	-0.02	-0.07	-5.53e-05	2.73e-05	1.67e-05
41	238	1.56e-03	-2.33e-03	-0.07	-6.57e-06	2.47e-05	1.76e-05
41	243	2.39e-03	-4.63e-03	-0.07	-1.35e-05	9.64e-06	0.0
41	259	2.22e-03	-5.47e-03	-0.07	-1.64e-05	1.47e-05	6.63e-06
41	279	3.13e-03	-0.01	-0.08	-3.49e-05	1.70e-05	1.49e-05
41	283	3.11e-03	-0.01	-0.08	-3.59e-05	1.84e-05	1.94e-05
41	298	1.91e-03	-3.73e-03	-0.08	-9.78e-06	1.94e-05	3.20e-06
41	379	2.84e-03	-9.05e-03	-0.08	-2.99e-05	1.73e-05	1.44e-05
41	383	2.84e-03	-9.08e-03	-0.08	-3.02e-05	1.78e-05	1.59e-05
41	391	1.91e-03	-4.58e-03	-0.08	-1.27e-05	1.94e-05	5.32e-06
41	416	2.77e-03	-8.74e-03	-0.08	-2.88e-05	1.76e-05	1.46e-05
41	420	1.84e-03	-4.28e-03	-0.08	-1.17e-05	1.97e-05	5.61e-06
42	29	4.13e-04	-0.01	-0.12	-5.49e-05	0.0	1.19e-05
42	37	-8.85e-04	-0.01	-0.12	-5.71e-05	5.23e-06	1.75e-05
42	182	-7.09e-03	-2.80e-03	-0.08	-1.54e-05	2.70e-05	3.84e-05
42	204	0.02	-1.02e-03	-0.07	-9.32e-06	-4.36e-05	1.69e-05
42	225	-1.14e-03	-0.02	-0.08	-5.62e-05	7.33e-06	1.45e-05
42	229	-1.00e-03	-0.02	-0.08	-5.65e-05	6.81e-06	1.37e-05
42	236	2.68e-03	-3.74e-03	-0.07	-1.27e-05	-6.46e-06	-5.85e-06
42	237	-1.82e-03	-3.10e-03	-0.08	-1.24e-05	8.82e-06	1.27e-05
42	259	9.55e-04	-5.28e-03	-0.08	-1.84e-05	0.0	2.26e-06
42	279	3.31e-04	-0.01	-0.09	-3.83e-05	0.0	8.36e-06
42	283	-5.34e-04	-0.01	-0.09	-3.97e-05	3.65e-06	1.21e-05
42	355	-4.59e-03	-3.00e-03	-0.08	-1.44e-05	1.84e-05	2.68e-05
42	369	1.28e-03	-5.53e-03	-0.08	-1.96e-05	-2.00e-06	1.50e-06
42	379	1.49e-04	-8.83e-03	-0.09	-3.30e-05	1.53e-06	8.11e-06
42	383	-1.40e-04	-8.86e-03	-0.09	-3.35e-05	2.50e-06	9.36e-06
42	410	1.16e-03	-5.22e-03	-0.08	-1.86e-05	-1.54e-06	1.79e-06
42	416	2.46e-05	-8.52e-03	-0.09	-3.20e-05	1.99e-06	8.39e-06
43	29	3.50e-04	-0.01	-0.12	-5.45e-05	0.0	5.44e-06
43	37	-9.48e-04	-0.02	-0.12	-5.72e-05	0.0	1.10e-05
43	182	-7.14e-03	-4.08e-03	-0.08	-1.61e-05	0.0	3.20e-05
43	204	0.02	-1.56e-03	-0.07	-1.04e-05	0.0	1.32e-05
43	229	-1.05e-03	-0.02	-0.08	-5.50e-05	0.0	9.11e-06
43	236	2.64e-03	-3.40e-03	-0.07	-1.17e-05	0.0	-9.44e-06
43	259	9.16e-04	-5.22e-03	-0.08	-1.77e-05	0.0	-1.82e-06
43	261	-3.38e-04	-4.97e-03	-0.08	-1.71e-05	0.0	2.72e-06
43	279	2.84e-04	-0.01	-0.09	-3.79e-05	0.0	3.53e-06
43	283	-5.81e-04	-0.01	-0.09	-3.98e-05	0.0	7.23e-06
43	355	-4.63e-03	-3.85e-03	-0.08	-1.47e-05	0.0	2.11e-05
43	369	1.24e-03	-5.44e-03	-0.08	-1.88e-05	0.0	-2.79e-06

43	379	1.03e-04	-8.97e-03	-0.09	-3.27e-05	0.0	3.40e-06
43	383	-1.85e-04	-9.05e-03	-0.09	-3.33e-05	0.0	4.63e-06
43	410	1.12e-03	-5.14e-03	-0.08	-1.78e-05	0.0	-2.49e-06
43	416	-2.05e-05	-8.68e-03	-0.09	-3.17e-05	0.0	3.70e-06
44	29	2.15e-04	-0.02	-0.12	-5.51e-05	0.0	1.01e-05
44	37	-1.10e-03	-0.02	-0.12	-5.94e-05	0.0	1.75e-05
44	182	-7.23e-03	-6.91e-03	-0.08	-2.26e-05	0.0	3.29e-05
44	204	0.02	-2.86e-03	-0.08	-1.40e-05	0.0	2.00e-05
44	227	4.42e-03	-0.02	-0.08	-5.67e-05	0.0	6.44e-06
44	229	-1.18e-03	-0.02	-0.08	-5.58e-05	0.0	4.32e-06
44	236	2.51e-03	-2.54e-03	-0.08	-8.92e-06	0.0	-8.56e-06
44	259	7.88e-04	-5.06e-03	-0.08	-1.68e-05	0.0	0.0
44	261	-4.66e-04	-5.27e-03	-0.08	-1.75e-05	0.0	3.73e-06
44	279	1.77e-04	-0.01	-0.09	-3.82e-05	0.0	6.76e-06
44	283	-6.96e-04	-0.01	-0.09	-4.12e-05	0.0	1.17e-05
44	355	-4.74e-03	-5.72e-03	-0.08	-1.89e-05	0.0	2.20e-05
44	369	1.13e-03	-5.20e-03	-0.08	-1.75e-05	0.0	-2.06e-06
44	379	-7.90e-06	-9.37e-03	-0.09	-3.30e-05	0.0	6.31e-06
44	383	-2.99e-04	-9.57e-03	-0.09	-3.40e-05	0.0	7.95e-06
44	410	1.00e-03	-4.93e-03	-0.08	-1.67e-05	0.0	-1.74e-06
44	416	-1.33e-04	-9.11e-03	-0.09	-3.22e-05	0.0	6.63e-06
45	29	1.63e-04	-0.02	-0.12	-5.66e-05	-3.60e-06	4.57e-06
45	37	-1.16e-03	-0.02	-0.12	-6.08e-05	1.45e-06	1.28e-05
45	182	-7.29e-03	-8.63e-03	-0.08	-2.58e-05	2.31e-05	3.12e-05
45	204	0.01	-4.07e-03	-0.08	-1.43e-05	-4.16e-05	2.27e-05
45	227	4.37e-03	-0.02	-0.08	-5.94e-05	-1.47e-05	3.93e-06
45	236	2.46e-03	-2.08e-03	-0.08	-9.09e-06	-1.12e-05	-1.37e-05
45	239	2.36e-03	-3.19e-03	-0.08	-1.25e-05	-1.08e-05	-1.26e-05
45	261	-5.21e-04	-5.43e-03	-0.08	-1.86e-05	-1.02e-06	0.0
45	279	1.36e-04	-0.01	-0.09	-3.94e-05	-2.87e-06	2.48e-06
45	283	-7.46e-04	-0.01	-0.09	-4.22e-05	0.0	7.96e-06
45	355	-4.79e-03	-6.86e-03	-0.08	-2.13e-05	1.42e-05	1.94e-05
45	379	-5.44e-05	-9.69e-03	-0.09	-3.41e-05	-2.23e-06	2.11e-06
45	382	-1.11e-03	-8.50e-03	-0.08	-2.97e-05	1.68e-06	6.19e-06
45	383	-3.48e-04	-9.99e-03	-0.09	-3.50e-05	-1.11e-06	3.93e-06
45	410	9.59e-04	-4.81e-03	-0.08	-1.76e-05	-6.29e-06	-6.52e-06
45	416	-1.81e-04	-9.45e-03	-0.09	-3.32e-05	-1.76e-06	2.48e-06
46	29	2.68e-04	-0.02	-0.12	-5.44e-05	0.0	7.14e-06
46	37	-1.03e-03	-0.02	-0.12	-5.82e-05	0.0	1.34e-05
46	182	-7.18e-03	-5.46e-03	-0.08	-1.85e-05	0.0	3.13e-05
46	204	0.02	-2.27e-03	-0.07	-1.33e-05	0.0	1.53e-05
46	229	-1.11e-03	-0.02	-0.08	-5.32e-05	0.0	6.42e-06
46	231	4.34e-03	-0.02	-0.08	-5.55e-05	0.0	8.17e-06
46	236	2.58e-03	-3.01e-03	-0.07	-1.02e-05	0.0	-9.09e-06
46	261	-4.01e-04	-5.00e-03	-0.08	-1.65e-05	0.0	2.82e-06
46	263	7.85e-04	-5.15e-03	-0.08	-1.70e-05	0.0	-1.21e-06
46	279	2.21e-04	-0.01	-0.09	-3.77e-05	0.0	4.68e-06
46	283	-6.45e-04	-0.01	-0.09	-4.03e-05	0.0	8.85e-06
46	355	-4.68e-03	-4.75e-03	-0.08	-1.61e-05	0.0	2.07e-05
46	369	1.18e-03	-5.29e-03	-0.08	-1.77e-05	0.0	-2.67e-06
46	379	4.16e-05	-9.11e-03	-0.09	-3.25e-05	0.0	4.39e-06
46	383	-2.47e-04	-9.25e-03	-0.09	-3.34e-05	0.0	5.78e-06
46	410	1.05e-03	-5.01e-03	-0.08	-1.68e-05	0.0	-2.37e-06
46	416	-8.15e-05	-8.83e-03	-0.09	-3.16e-05	0.0	4.69e-06
47	37	-5.74e-04	-0.02	-0.11	0.0	-6.53e-06	6.62e-06
47	65	8.84e-05	-7.90e-03	-0.12	0.0	-2.25e-05	-1.97e-05
47	181	-4.58e-03	-9.77e-03	-0.10	0.0	1.46e-05	2.92e-05
47	203	0.02	-9.86e-03	-0.08	0.0	-3.00e-05	2.80e-05
47	204	0.02	-4.19e-03	-0.08	0.0	-3.02e-05	2.57e-05
47	227	4.69e-03	-0.02	-0.07	0.0	-1.85e-05	4.08e-06
47	234	-1.97e-03	-3.59e-03	-0.07	0.0	-3.48e-06	0.0
47	236	5.49e-04	-2.19e-03	-0.07	0.0	-1.86e-05	-1.90e-05
47	261	-9.53e-04	-5.54e-03	-0.07	0.0	-8.26e-06	-4.23e-06
47	283	-4.71e-04	-0.01	-0.08	0.0	-5.78e-06	3.30e-06
47	297	-2.99e-05	-5.73e-03	-0.09	0.0	-1.64e-05	-1.42e-05
47	355	-3.14e-03	-6.97e-03	-0.08	0.0	8.30e-06	1.83e-05
47	371	-2.13e-04	-6.54e-03	-0.08	0.0	-1.44e-05	-1.14e-05
47	383	-4.63e-04	-0.01	-0.08	0.0	-7.83e-06	0.0
47	398	-1.47e-03	-8.89e-04	-0.08	0.0	-1.16e-05	-1.26e-05
47	412	-2.96e-04	-6.30e-03	-0.08	0.0	-1.38e-05	-1.10e-05
47	416	-4.39e-04	-9.56e-03	-0.08	0.0	-8.69e-06	-2.16e-06
47	419	-1.36e-03	-1.96e-03	-0.08	0.0	-1.13e-05	-1.15e-05
48	37	-1.93e-04	-0.02	-0.11	0.0	-1.19e-05	8.58e-06
48	67	-2.11e-03	-3.00e-03	-0.11	0.0	-3.28e-05	-2.39e-05
48	83	-3.68e-03	4.64e-03	-0.10	0.0	-2.58e-05	-2.13e-05
48	208	0.02	-4.22e-03	-0.08	0.0	-2.47e-05	2.64e-05
48	211	0.02	-9.82e-03	-0.08	0.0	-2.25e-05	3.17e-05

48	227	4.91e-03	-0.02	-0.07	0.0	-2.11e-05	5.47e-06
48	240	-3.33e-04	-2.23e-03	-0.07	0.0	-2.42e-05	-1.80e-05
48	242	-1.89e-03	-3.71e-03	-0.07	0.0	-8.96e-06	0.0
48	261	-1.14e-03	-5.60e-03	-0.07	0.0	-1.30e-05	-3.02e-06
48	283	-2.68e-04	-0.01	-0.08	0.0	-1.00e-05	4.74e-06
48	298	-1.55e-03	-2.47e-03	-0.09	0.0	-2.40e-05	-1.69e-05
48	306	-2.60e-03	2.63e-03	-0.08	0.0	-1.93e-05	-1.52e-05
48	383	-4.58e-04	-0.01	-0.08	0.0	-1.24e-05	0.0
48	391	-1.47e-03	-3.76e-03	-0.08	0.0	-2.13e-05	-1.35e-05
48	398	-2.05e-03	-9.51e-04	-0.08	0.0	-1.77e-05	-1.15e-05
48	416	-5.07e-04	-9.62e-03	-0.08	0.0	-1.34e-05	0.0
48	419	-1.89e-03	-2.02e-03	-0.08	0.0	-1.73e-05	-1.04e-05
48	420	-1.53e-03	-3.51e-03	-0.08	0.0	-2.07e-05	-1.31e-05
49	37	-8.31e-04	-0.02	-0.11	0.0	-1.29e-06	5.85e-06
49	65	1.12e-03	-7.82e-03	-0.12	0.0	-1.50e-05	-2.01e-05
49	181	-5.93e-03	-9.69e-03	-0.10	0.0	1.90e-05	2.67e-05
49	204	0.02	-4.12e-03	-0.08	0.0	-3.70e-05	2.39e-05
49	207	0.02	-9.84e-03	-0.08	0.0	-3.68e-05	2.55e-05
49	227	4.43e-03	-0.02	-0.08	0.0	-1.61e-05	2.34e-06
49	233	-1.99e-03	-4.62e-03	-0.07	0.0	1.57e-06	1.25e-06
49	239	1.51e-03	-3.24e-03	-0.08	0.0	-1.32e-05	-1.80e-05
49	261	-7.55e-04	-5.48e-03	-0.07	0.0	-3.59e-06	-4.92e-06
49	283	-5.82e-04	-0.01	-0.08	0.0	-1.66e-06	2.71e-06
49	297	7.19e-04	-5.66e-03	-0.09	0.0	-1.08e-05	-1.46e-05
49	355	-3.98e-03	-6.91e-03	-0.08	0.0	1.19e-05	1.66e-05
49	379	-1.78e-04	-9.74e-03	-0.08	0.0	-4.63e-06	-3.13e-06
49	383	-3.79e-04	-0.01	-0.08	0.0	-3.42e-06	-1.24e-06
49	407	-1.06e-03	-5.14e-03	-0.08	0.0	-2.13e-06	-3.71e-06
49	415	-9.14e-04	-8.01e-03	-0.08	0.0	-1.26e-06	0.0
49	416	-2.83e-04	-9.50e-03	-0.08	0.0	-4.15e-06	-2.69e-06
50	37	1.70e-03	-0.02	-0.11	0.0	1.38e-05	2.66e-05
50	97	3.06e-03	-9.12e-03	-0.11	0.0	6.23e-06	6.02e-06
50	165	7.51e-04	-9.66e-03	-0.11	0.0	2.26e-05	3.01e-05
50	201	-1.22e-03	-6.33e-03	-0.08	0.0	2.51e-05	2.92e-05
50	203	0.02	-6.44e-03	-0.07	0.0	-4.04e-05	2.47e-05
50	229	8.19e-04	-0.02	-0.07	0.0	1.68e-05	1.69e-05
50	233	-9.11e-06	-3.17e-03	-0.07	0.0	1.64e-05	1.82e-05
50	235	2.52e-03	-4.75e-03	-0.07	0.0	1.58e-06	-1.46e-06
50	259	1.67e-03	-5.38e-03	-0.07	0.0	7.00e-06	6.39e-06
50	283	1.30e-03	-0.01	-0.08	0.0	1.04e-05	1.88e-05
50	313	2.20e-03	-6.55e-03	-0.08	0.0	5.31e-06	5.03e-06
50	347	6.62e-04	-6.91e-03	-0.09	0.0	1.62e-05	2.11e-05
50	369	1.90e-03	-5.64e-03	-0.08	0.0	6.31e-06	5.80e-06
50	379	1.52e-03	-8.95e-03	-0.08	0.0	9.02e-06	1.39e-05
50	383	1.37e-03	-8.98e-03	-0.08	0.0	9.67e-06	1.53e-05
50	410	1.81e-03	-5.33e-03	-0.08	0.0	6.65e-06	6.07e-06
50	416	1.43e-03	-8.64e-03	-0.08	0.0	9.36e-06	1.42e-05
51	29	3.35e-03	-0.02	-0.11	0.0	1.81e-05	1.89e-05
51	37	2.99e-03	-0.02	-0.11	0.0	2.04e-05	2.56e-05
51	67	2.39e-03	-4.81e-03	-0.11	0.0	2.09e-05	1.56e-06
51	203	0.02	-6.49e-03	-0.07	0.0	-3.92e-05	2.42e-05
51	206	-8.32e-05	-9.85e-04	-0.08	0.0	2.93e-05	2.59e-05
51	229	1.58e-03	-0.02	-0.07	0.0	2.33e-05	1.57e-05
51	235	2.41e-03	-4.81e-03	-0.07	0.0	6.14e-06	-2.56e-06
51	238	7.54e-04	-2.29e-03	-0.07	0.0	2.14e-05	1.62e-05
51	259	1.94e-03	-5.44e-03	-0.07	0.0	1.20e-05	5.41e-06
51	279	2.44e-03	-0.01	-0.08	0.0	1.39e-05	1.35e-05
51	283	2.20e-03	-0.01	-0.08	0.0	1.54e-05	1.79e-05
51	298	1.80e-03	-3.69e-03	-0.08	0.0	1.58e-05	1.92e-06
51	379	2.19e-03	-9.01e-03	-0.08	0.0	1.43e-05	1.30e-05
51	383	2.11e-03	-9.04e-03	-0.08	0.0	1.48e-05	1.45e-05
51	391	1.70e-03	-4.54e-03	-0.08	0.0	1.60e-05	4.07e-06
51	416	2.10e-03	-8.71e-03	-0.08	0.0	1.46e-05	1.32e-05
51	420	1.62e-03	-4.24e-03	-0.08	0.0	1.63e-05	4.36e-06
52	29	1.34e-03	-0.01	-0.12	0.0	4.26e-06	2.00e-05
52	37	3.36e-04	-0.01	-0.11	0.0	7.98e-06	2.61e-05
52	150	-4.90e-03	-2.85e-03	-0.08	0.0	2.94e-05	4.57e-05
52	204	0.02	-1.06e-03	-0.07	0.0	-4.33e-05	2.16e-05
52	225	-2.79e-04	-0.02	-0.08	0.0	1.09e-05	1.86e-05
52	229	-1.82e-04	-0.02	-0.08	0.0	1.04e-05	1.77e-05
52	236	2.58e-03	-3.79e-03	-0.07	0.0	-3.65e-06	-1.90e-06
52	237	-9.72e-04	-3.15e-03	-0.08	0.0	1.13e-05	1.82e-05
52	259	1.25e-03	-5.32e-03	-0.07	0.0	2.13e-06	6.91e-06
52	279	9.99e-04	-0.01	-0.09	0.0	3.35e-06	1.44e-05
52	283	3.29e-04	-0.01	-0.09	0.0	5.83e-06	1.85e-05
52	339	-3.00e-03	-3.05e-03	-0.08	0.0	2.09e-05	3.32e-05
52	369	1.57e-03	-5.58e-03	-0.08	0.0	0.0	6.36e-06

52	379	7.95e-04	-8.88e-03	-0.08	0.0	4.08e-06	1.39e-05
52	383	5.72e-04	-8.91e-03	-0.08	0.0	4.90e-06	1.53e-05
52	410	1.46e-03	-5.27e-03	-0.08	0.0	1.38e-06	6.62e-06
52	416	6.84e-04	-8.58e-03	-0.08	0.0	4.49e-06	1.42e-05
53	25	2.09e-03	-0.02	-0.10	-4.87e-05	5.05e-06	0.0
53	37	1.85e-03	-0.02	-0.10	-5.93e-05	1.52e-05	0.0
53	67	-7.68e-05	-4.87e-03	-0.11	-1.98e-05	-5.32e-06	0.0
53	211	0.02	-9.97e-03	-0.07	-2.15e-05	-3.73e-05	0.0
53	231	6.95e-03	-0.02	-0.06	-6.09e-05	-7.80e-06	0.0
53	232	6.27e-03	-2.18e-04	-0.07	0.0	-1.27e-05	0.0
53	243	1.17e-03	-5.16e-03	-0.07	-1.66e-05	-9.89e-06	0.0
53	258	-1.63e-04	-2.14e-03	-0.07	-8.10e-06	4.52e-06	0.0
53	263	6.95e-04	-6.44e-03	-0.07	-2.01e-05	0.0	0.0
53	277	1.43e-03	-0.01	-0.07	-3.43e-05	3.59e-06	0.0
53	283	1.27e-03	-0.01	-0.08	-4.14e-05	1.03e-05	0.0
53	298	-1.62e-05	-3.82e-03	-0.08	-1.51e-05	-3.32e-06	0.0
53	377	1.13e-03	-9.74e-03	-0.07	-2.98e-05	4.33e-06	0.0
53	383	1.04e-03	-0.01	-0.08	-3.53e-05	7.26e-06	0.0
53	391	1.33e-05	-5.06e-03	-0.08	-1.79e-05	0.0	0.0
53	414	1.05e-03	-9.40e-03	-0.07	-2.88e-05	4.98e-06	0.0
53	416	9.94e-04	-0.01	-0.08	-3.39e-05	6.08e-06	0.0
53	420	-6.80e-05	-4.72e-03	-0.08	-1.69e-05	0.0	0.0
54	37	-2.62e-04	-0.01	-0.10	-5.99e-05	0.0	3.21e-06
54	67	-5.27e-03	-3.97e-03	-0.11	-9.14e-06	0.0	-3.46e-05
54	83	-6.35e-03	2.22e-03	-0.10	1.73e-05	0.0	-3.21e-05
54	211	0.02	-6.04e-03	-0.07	-3.63e-05	0.0	3.65e-05
54	216	0.02	-1.49e-03	-0.07	-1.85e-05	0.0	3.41e-05
54	229	-2.23e-03	-0.02	-0.07	-5.99e-05	0.0	-5.35e-06
54	252	-2.80e-03	-2.04e-03	-0.07	-4.36e-06	0.0	-1.94e-05
54	261	-1.96e-03	-4.93e-03	-0.07	-1.77e-05	0.0	-8.26e-06
54	264	-2.64e-03	-1.91e-03	-0.07	-4.13e-06	0.0	-1.79e-05
54	283	-4.79e-04	-9.76e-03	-0.08	-4.14e-05	0.0	0.0
54	298	-3.82e-03	-3.10e-03	-0.08	-7.54e-06	0.0	-2.48e-05
54	306	-4.54e-03	1.03e-03	-0.08	1.01e-05	0.0	-2.31e-05
54	383	-1.04e-03	-8.30e-03	-0.08	-3.41e-05	0.0	-4.20e-06
54	391	-3.40e-03	-3.97e-03	-0.08	-1.16e-05	0.0	-2.08e-05
54	398	-3.69e-03	-1.64e-03	-0.08	-1.86e-06	0.0	-1.87e-05
54	416	-1.23e-03	-7.94e-03	-0.08	-3.22e-05	0.0	-5.90e-06
54	419	-3.44e-03	-2.44e-03	-0.08	-5.47e-06	0.0	-1.74e-05
54	420	-3.41e-03	-3.75e-03	-0.08	-1.07e-05	0.0	-2.04e-05
55	37	5.23e-03	-0.01	-0.10	-5.44e-05	0.0	3.28e-05
55	67	3.60e-03	-4.23e-03	-0.11	-1.52e-05	0.0	1.03e-05
55	183	5.79e-03	-7.54e-03	-0.11	-2.71e-05	0.0	5.54e-05
55	206	2.96e-03	-1.85e-03	-0.07	-4.28e-06	0.0	3.29e-05
55	211	0.02	-5.90e-03	-0.07	-2.31e-05	0.0	2.88e-05
55	229	3.82e-03	-0.02	-0.07	-5.77e-05	0.0	2.32e-05
55	238	2.78e-03	-2.56e-03	-0.07	-8.24e-06	0.0	2.23e-05
55	249	3.06e-03	-4.46e-03	-0.07	-1.64e-05	0.0	1.80e-05
55	259	2.78e-03	-4.72e-03	-0.07	-1.82e-05	0.0	1.06e-05
55	283	3.83e-03	-9.13e-03	-0.08	-3.79e-05	0.0	2.34e-05
55	298	2.74e-03	-3.26e-03	-0.08	-1.18e-05	0.0	8.46e-06
55	356	4.21e-03	-5.46e-03	-0.08	-1.97e-05	0.0	3.85e-05
55	383	3.54e-03	-7.82e-03	-0.08	-3.21e-05	0.0	2.00e-05
55	391	2.76e-03	-4.01e-03	-0.08	-1.47e-05	0.0	1.03e-05
55	416	3.47e-03	-7.52e-03	-0.08	-3.08e-05	0.0	1.88e-05
55	420	2.70e-03	-3.78e-03	-0.08	-1.37e-05	0.0	1.06e-05
56	37	5.27e-03	-0.01	-0.11	-5.42e-05	8.83e-06	3.29e-05
56	67	3.65e-03	-3.86e-03	-0.11	-1.50e-05	1.10e-05	1.05e-05
56	183	5.84e-03	-5.55e-03	-0.11	-2.68e-05	3.34e-05	5.55e-05
56	206	2.99e-03	-6.87e-04	-0.07	-4.06e-06	2.24e-05	3.29e-05
56	211	0.02	-4.74e-03	-0.07	-2.31e-05	-4.82e-05	2.88e-05
56	229	3.85e-03	-0.01	-0.07	-5.74e-05	1.73e-05	2.32e-05
56	238	2.81e-03	-1.77e-03	-0.07	-8.05e-06	1.43e-05	2.24e-05
56	249	3.09e-03	-3.83e-03	-0.07	-1.62e-05	1.05e-05	1.81e-05
56	259	2.81e-03	-4.34e-03	-0.07	-1.80e-05	4.79e-06	1.07e-05
56	283	3.86e-03	-8.29e-03	-0.08	-3.77e-05	6.73e-06	2.35e-05
56	298	2.78e-03	-2.95e-03	-0.08	-1.16e-05	8.17e-06	8.56e-06
56	356	4.24e-03	-4.08e-03	-0.08	-1.95e-05	2.31e-05	3.86e-05
56	383	3.57e-03	-7.10e-03	-0.08	-3.19e-05	6.47e-06	2.01e-05
56	391	2.79e-03	-3.64e-03	-0.08	-1.45e-05	8.48e-06	1.04e-05
56	416	3.50e-03	-6.84e-03	-0.08	-3.06e-05	6.33e-06	1.89e-05
56	420	2.74e-03	-3.39e-03	-0.08	-1.35e-05	8.77e-06	1.07e-05
57	29	2.91e-04	-0.01	-0.12	-5.19e-05	-1.97e-06	1.36e-05
57	37	-7.19e-04	-0.01	-0.12	-5.38e-05	2.16e-06	1.74e-05
57	182	-5.60e-03	-1.98e-03	-0.08	-1.34e-05	2.44e-05	3.84e-05
57	204	0.01	-6.33e-04	-0.07	-7.41e-06	-4.72e-05	1.41e-05
57	225	-9.25e-04	-0.01	-0.08	-5.59e-05	4.82e-06	1.99e-05

57	229	-8.17e-04	-0.01	-0.08	-5.62e-05	4.31e-06	1.92e-05
57	236	2.11e-03	-2.99e-03	-0.07	-1.11e-05	-8.76e-06	-2.02e-06
57	237	-1.46e-03	-2.40e-03	-0.08	-1.06e-05	6.31e-06	1.49e-05
57	259	7.49e-04	-4.19e-03	-0.08	-1.68e-05	-2.95e-06	5.46e-06
57	279	2.37e-04	-8.06e-03	-0.09	-3.61e-05	-1.47e-06	9.92e-06
57	283	-4.37e-04	-8.10e-03	-0.09	-3.73e-05	1.28e-06	1.24e-05
57	355	-3.63e-03	-2.22e-03	-0.08	-1.26e-05	1.59e-05	2.78e-05
57	369	9.89e-04	-4.37e-03	-0.08	-1.79e-05	-4.22e-06	5.05e-06
57	379	9.85e-05	-6.91e-03	-0.09	-3.09e-05	0.0	9.76e-06
57	383	-1.26e-04	-6.93e-03	-0.09	-3.13e-05	0.0	1.06e-05
57	410	8.93e-04	-4.13e-03	-0.08	-1.69e-05	-3.79e-06	5.26e-06
57	416	2.80e-06	-6.67e-03	-0.09	-2.99e-05	0.0	9.96e-06
58	29	2.54e-04	-0.01	-0.12	-5.13e-05	0.0	6.94e-06
58	37	-7.56e-04	-0.01	-0.12	-5.37e-05	0.0	1.08e-05
58	182	-5.63e-03	-3.25e-03	-0.08	-1.41e-05	0.0	3.02e-05
58	204	0.01	-1.06e-03	-0.07	-8.34e-06	0.0	1.04e-05
58	229	-8.48e-04	-0.02	-0.08	-5.48e-05	0.0	1.35e-05
58	236	2.08e-03	-2.83e-03	-0.07	-9.71e-06	0.0	-5.46e-06
58	259	7.19e-04	-4.29e-03	-0.08	-1.57e-05	0.0	1.09e-06
58	261	-2.79e-04	-4.08e-03	-0.08	-1.50e-05	0.0	4.92e-06
58	279	2.08e-04	-8.24e-03	-0.09	-3.55e-05	0.0	4.88e-06
58	283	-4.65e-04	-8.35e-03	-0.09	-3.71e-05	0.0	7.44e-06
58	355	-3.66e-03	-3.10e-03	-0.08	-1.27e-05	0.0	2.08e-05
58	369	9.59e-04	-4.44e-03	-0.08	-1.68e-05	0.0	0.0
58	379	6.96e-05	-7.10e-03	-0.09	-3.03e-05	0.0	4.82e-06
58	383	-1.55e-04	-7.14e-03	-0.09	-3.08e-05	0.0	5.67e-06
58	410	8.63e-04	-4.21e-03	-0.08	-1.58e-05	0.0	0.0
58	416	-2.60e-05	-6.87e-03	-0.09	-2.93e-05	0.0	5.04e-06
59	29	1.53e-04	-0.01	-0.12	-5.26e-05	0.0	7.35e-06
59	37	-8.71e-04	-0.01	-0.12	-5.65e-05	0.0	1.45e-05
59	182	-5.71e-03	-5.66e-03	-0.08	-2.11e-05	0.0	2.66e-05
59	204	0.01	-2.09e-03	-0.08	-1.26e-05	0.0	1.86e-05
59	227	3.65e-03	-0.02	-0.08	-5.69e-05	0.0	2.10e-06
59	229	-9.43e-04	-0.02	-0.08	-5.58e-05	0.0	0.0
59	236	1.99e-03	-2.15e-03	-0.08	-6.63e-06	0.0	-8.99e-06
59	259	6.22e-04	-4.19e-03	-0.08	-1.47e-05	0.0	-2.48e-06
59	261	-3.77e-04	-4.37e-03	-0.08	-1.54e-05	0.0	1.27e-06
59	279	1.28e-04	-8.63e-03	-0.09	-3.63e-05	0.0	4.67e-06
59	283	-5.54e-04	-9.05e-03	-0.09	-3.89e-05	0.0	9.44e-06
59	355	-3.74e-03	-4.71e-03	-0.08	-1.72e-05	0.0	1.72e-05
59	369	8.72e-04	-4.28e-03	-0.08	-1.56e-05	0.0	-3.80e-06
59	379	-1.49e-05	-7.47e-03	-0.09	-3.10e-05	0.0	4.22e-06
59	383	-2.42e-04	-7.61e-03	-0.09	-3.18e-05	0.0	5.82e-06
59	410	7.75e-04	-4.06e-03	-0.08	-1.47e-05	0.0	-3.50e-06
59	416	-1.12e-04	-7.26e-03	-0.09	-3.01e-05	0.0	4.52e-06
60	29	1.04e-04	-0.01	-0.12	-5.43e-05	-1.30e-06	1.60e-06
60	37	-9.30e-04	-0.01	-0.12	-5.84e-05	3.52e-06	1.04e-05
60	182	-5.75e-03	-7.05e-03	-0.08	-2.47e-05	2.47e-05	2.64e-05
60	204	0.01	-3.31e-03	-0.08	-1.33e-05	-4.17e-05	2.76e-05
60	227	3.61e-03	-0.02	-0.08	-5.94e-05	-1.33e-05	0.0
60	236	1.95e-03	-1.59e-03	-0.08	-7.29e-06	-8.89e-06	-1.59e-05
60	239	1.88e-03	-2.49e-03	-0.08	-1.07e-05	-8.54e-06	-1.48e-05
60	261	-4.20e-04	-4.34e-03	-0.08	-1.71e-05	1.09e-06	-3.66e-06
60	279	8.99e-05	-8.88e-03	-0.09	-3.76e-05	-1.04e-06	0.0
60	283	-5.99e-04	-9.61e-03	-0.09	-4.03e-05	2.17e-06	5.96e-06
60	355	-3.78e-03	-5.57e-03	-0.08	-2.00e-05	1.60e-05	1.52e-05
60	379	-5.52e-05	-7.68e-03	-0.09	-3.24e-05	0.0	0.0
60	382	-8.73e-04	-6.77e-03	-0.08	-2.79e-05	3.44e-06	3.87e-06
60	383	-2.85e-04	-7.93e-03	-0.09	-3.33e-05	0.0	1.61e-06
60	415	-7.41e-04	-6.33e-03	-0.08	-2.61e-05	2.83e-06	2.30e-06
60	416	-1.53e-04	-7.49e-03	-0.09	-3.15e-05	0.0	0.0
61	29	1.97e-04	-0.01	-0.12	-5.12e-05	0.0	6.40e-06
61	37	-8.20e-04	-0.01	-0.12	-5.45e-05	0.0	1.16e-05
61	182	-5.67e-03	-4.48e-03	-0.08	-1.69e-05	0.0	2.67e-05
61	204	0.01	-1.60e-03	-0.07	-1.12e-05	0.0	1.24e-05
61	225	-1.00e-03	-0.02	-0.08	-5.33e-05	0.0	6.74e-06
61	229	-8.95e-04	-0.02	-0.08	-5.31e-05	0.0	6.13e-06
61	236	2.04e-03	-2.57e-03	-0.07	-7.65e-06	0.0	-7.01e-06
61	261	-3.27e-04	-4.18e-03	-0.08	-1.41e-05	0.0	2.71e-06
61	263	6.19e-04	-4.30e-03	-0.08	-1.45e-05	0.0	0.0
61	279	1.64e-04	-8.46e-03	-0.09	-3.53e-05	0.0	4.25e-06
61	283	-5.14e-04	-8.71e-03	-0.09	-3.75e-05	0.0	7.72e-06
61	355	-3.70e-03	-3.93e-03	-0.08	-1.41e-05	0.0	1.77e-05
61	369	9.14e-04	-4.39e-03	-0.08	-1.53e-05	0.0	-1.86e-06
61	379	2.44e-05	-7.30e-03	-0.09	-3.00e-05	0.0	4.02e-06
61	383	-2.02e-04	-7.39e-03	-0.09	-3.07e-05	0.0	5.18e-06
61	410	8.18e-04	-4.17e-03	-0.08	-1.44e-05	0.0	-1.61e-06

61	416	-7.16e-05	-7.08e-03	-0.09	-2.91e-05	0.0	4.27e-06
62	37	-6.01e-04	-0.01	-0.11	0.0	2.17e-06	2.41e-06
62	65	-8.67e-04	-6.14e-03	-0.12	0.0	-1.33e-05	-2.70e-05
62	181	-3.38e-03	-7.93e-03	-0.10	0.0	2.30e-05	2.65e-05
62	203	0.02	-8.00e-03	-0.08	0.0	-2.76e-05	3.65e-05
62	204	0.02	-3.38e-03	-0.08	0.0	-2.79e-05	3.42e-05
62	227	3.79e-03	-0.02	-0.07	0.0	-1.34e-05	2.36e-06
62	234	-1.92e-03	-2.86e-03	-0.07	0.0	2.54e-06	-3.33e-06
62	236	-2.83e-04	-1.67e-03	-0.07	0.0	-1.24e-05	-2.45e-05
62	261	-1.20e-03	-4.42e-03	-0.07	0.0	-2.15e-06	-8.65e-06
62	283	-5.40e-04	-9.71e-03	-0.08	0.0	0.0	0.0
62	297	-7.17e-04	-4.46e-03	-0.09	0.0	-9.51e-06	-1.97e-05
62	355	-2.39e-03	-5.64e-03	-0.08	0.0	1.47e-05	1.59e-05
62	371	-7.88e-04	-5.15e-03	-0.08	0.0	-7.67e-06	-1.66e-05
62	383	-6.55e-04	-8.02e-03	-0.08	0.0	-1.28e-06	-4.58e-06
62	398	-1.90e-03	-6.45e-04	-0.08	0.0	-5.54e-06	-1.87e-05
62	412	-8.41e-04	-4.95e-03	-0.08	0.0	-7.21e-06	-1.61e-05
62	416	-6.82e-04	-7.58e-03	-0.08	0.0	-2.12e-06	-6.23e-06
62	419	-1.78e-03	-1.51e-03	-0.08	0.0	-5.24e-06	-1.75e-05
63	37	-4.75e-04	-0.01	-0.11	0.0	0.0	3.32e-06
63	67	-3.64e-03	-2.22e-03	-0.11	0.0	-2.16e-05	-3.40e-05
63	83	-4.85e-03	3.85e-03	-0.10	0.0	-1.61e-05	-3.14e-05
63	208	0.02	-3.38e-03	-0.08	0.0	-2.08e-05	3.27e-05
63	211	0.02	-7.96e-03	-0.08	0.0	-1.83e-05	3.85e-05
63	227	3.92e-03	-0.02	-0.07	0.0	-1.43e-05	2.85e-06
63	240	-1.46e-03	-1.70e-03	-0.07	0.0	-1.64e-05	-2.44e-05
63	242	-2.16e-03	-2.94e-03	-0.07	0.0	-1.42e-06	-4.28e-06
63	261	-1.64e-03	-4.46e-03	-0.07	0.0	-5.21e-06	-8.01e-06
63	283	-5.42e-04	-9.75e-03	-0.08	0.0	-1.28e-06	0.0
63	298	-2.65e-03	-1.85e-03	-0.09	0.0	-1.55e-05	-2.43e-05
63	306	-3.46e-03	2.20e-03	-0.08	0.0	-1.18e-05	-2.26e-05
63	383	-8.79e-04	-8.07e-03	-0.08	0.0	-3.83e-06	-4.01e-06
63	391	-2.43e-03	-2.92e-03	-0.08	0.0	-1.31e-05	-2.04e-05
63	398	-2.82e-03	-6.94e-04	-0.08	0.0	-1.01e-05	-1.82e-05
63	416	-9.88e-04	-7.63e-03	-0.08	0.0	-4.85e-06	-5.68e-06
63	419	-2.64e-03	-1.56e-03	-0.08	0.0	-9.65e-06	-1.70e-05
63	420	-2.46e-03	-2.72e-03	-0.08	0.0	-1.26e-05	-1.99e-05
64	37	-6.90e-04	-0.01	-0.11	0.0	3.38e-06	3.31e-06
64	65	4.74e-04	-6.07e-03	-0.12	0.0	-9.63e-06	-2.50e-05
64	181	-4.59e-03	-7.87e-03	-0.10	0.0	2.37e-05	2.36e-05
64	204	0.01	-3.34e-03	-0.08	0.0	-3.63e-05	3.36e-05
64	207	0.01	-8.00e-03	-0.08	0.0	-3.61e-05	3.48e-05
64	227	3.59e-03	-0.02	-0.08	0.0	-1.32e-05	1.25e-06
64	233	-1.73e-03	-3.69e-03	-0.07	0.0	5.24e-06	-1.94e-06
64	239	9.07e-04	-2.52e-03	-0.08	0.0	-9.34e-06	-2.13e-05
64	261	-8.04e-04	-4.38e-03	-0.07	0.0	0.0	-8.16e-06
64	283	-5.12e-04	-9.66e-03	-0.09	0.0	1.96e-06	0.0
64	297	2.64e-04	-4.40e-03	-0.09	0.0	-6.72e-06	-1.83e-05
64	355	-3.11e-03	-5.60e-03	-0.08	0.0	1.55e-05	1.41e-05
64	379	-2.79e-04	-7.72e-03	-0.08	0.0	0.0	-5.82e-06
64	383	-4.10e-04	-7.97e-03	-0.08	0.0	0.0	-3.77e-06
64	407	-1.02e-03	-4.08e-03	-0.08	0.0	1.60e-06	-7.01e-06
64	416	-3.56e-04	-7.53e-03	-0.08	0.0	0.0	-5.37e-06
64	419	-8.96e-04	-1.47e-03	-0.08	0.0	-1.77e-06	-1.67e-05
65	37	2.07e-03	-0.01	-0.11	0.0	2.98e-06	3.16e-05
65	97	3.03e-03	-7.21e-03	-0.11	0.0	-3.38e-06	1.28e-05
65	165	1.66e-03	-7.50e-03	-0.11	0.0	1.23e-05	3.77e-05
65	201	-4.72e-05	-4.99e-03	-0.08	0.0	1.77e-05	3.52e-05
65	203	0.01	-5.02e-03	-0.07	0.0	-4.94e-05	2.44e-05
65	229	1.50e-03	-0.01	-0.07	0.0	9.56e-06	2.33e-05
65	233	6.54e-04	-2.45e-03	-0.07	0.0	9.08e-06	2.32e-05
65	235	2.32e-03	-3.79e-03	-0.07	0.0	-5.32e-06	2.59e-06
65	259	1.78e-03	-4.27e-03	-0.07	0.0	0.0	1.08e-05
65	283	1.57e-03	-8.21e-03	-0.08	0.0	2.20e-06	2.27e-05
65	313	2.21e-03	-5.17e-03	-0.08	0.0	-2.04e-06	1.01e-05
65	347	1.30e-03	-5.37e-03	-0.09	0.0	8.39e-06	2.67e-05
65	369	1.98e-03	-4.45e-03	-0.08	0.0	0.0	1.07e-05
65	379	1.73e-03	-7.01e-03	-0.08	0.0	1.13e-06	1.82e-05
65	383	1.61e-03	-7.02e-03	-0.08	0.0	1.73e-06	1.95e-05
65	410	1.90e-03	-4.21e-03	-0.08	0.0	0.0	1.09e-05
65	416	1.66e-03	-6.77e-03	-0.08	0.0	1.49e-06	1.84e-05
66	29	3.89e-03	-0.01	-0.11	0.0	4.04e-06	2.59e-05
66	37	3.67e-03	-0.01	-0.11	0.0	6.24e-06	3.21e-05
66	67	3.15e-03	-3.82e-03	-0.11	0.0	7.49e-06	1.01e-05
66	206	1.28e-03	-6.56e-04	-0.08	0.0	1.97e-05	3.23e-05
66	211	0.02	-4.71e-03	-0.07	0.0	-4.81e-05	2.80e-05
66	229	2.62e-03	-0.01	-0.07	0.0	1.42e-05	2.28e-05

66	238	1.67e-03	-1.74e-03	-0.07	0.0	1.20e-05	2.18e-05
66	243	2.52e-03	-3.65e-03	-0.07	0.0	-1.76e-06	3.46e-06
66	259	2.31e-03	-4.31e-03	-0.07	0.0	2.79e-06	1.03e-05
66	279	2.87e-03	-8.21e-03	-0.08	0.0	3.28e-06	1.88e-05
66	283	2.71e-03	-8.26e-03	-0.08	0.0	4.75e-06	2.29e-05
66	298	2.37e-03	-2.92e-03	-0.09	0.0	5.58e-06	8.29e-06
66	379	2.65e-03	-7.06e-03	-0.08	0.0	3.95e-06	1.82e-05
66	383	2.60e-03	-7.07e-03	-0.08	0.0	4.44e-06	1.95e-05
66	391	2.29e-03	-3.61e-03	-0.08	0.0	6.02e-06	1.01e-05
66	416	2.58e-03	-6.81e-03	-0.08	0.0	4.27e-06	1.84e-05
66	420	2.22e-03	-3.36e-03	-0.08	0.0	6.34e-06	1.03e-05
67	29	1.31e-03	-0.01	-0.12	0.0	-1.76e-06	2.33e-05
67	37	5.22e-04	-0.01	-0.11	0.0	1.73e-06	2.82e-05
67	150	-3.38e-03	-2.02e-03	-0.08	0.0	2.46e-05	4.82e-05
67	204	0.01	-6.62e-04	-0.07	0.0	-4.91e-05	1.94e-05
67	225	1.61e-04	-0.01	-0.08	0.0	6.51e-06	2.38e-05
67	229	2.27e-04	-0.01	-0.08	0.0	5.99e-06	2.29e-05
67	236	2.18e-03	-3.02e-03	-0.07	0.0	-7.80e-06	1.35e-06
67	237	-5.07e-04	-2.43e-03	-0.08	0.0	6.86e-06	2.13e-05
67	259	1.18e-03	-4.23e-03	-0.07	0.0	-2.13e-06	1.02e-05
67	279	9.85e-04	-8.11e-03	-0.09	0.0	-1.23e-06	1.70e-05
67	283	4.58e-04	-8.15e-03	-0.09	0.0	1.10e-06	2.03e-05
67	339	-1.97e-03	-2.25e-03	-0.08	0.0	1.62e-05	3.60e-05
67	369	1.43e-03	-4.40e-03	-0.08	0.0	-3.28e-06	1.00e-05
67	379	8.27e-04	-6.96e-03	-0.08	0.0	0.0	1.65e-05
67	383	6.52e-04	-6.97e-03	-0.08	0.0	0.0	1.76e-05
67	410	1.34e-03	-4.16e-03	-0.08	0.0	-2.87e-06	1.02e-05
67	416	7.41e-04	-6.71e-03	-0.08	0.0	0.0	1.67e-05
68	37	-2.00e-04	-0.01	-0.10	-6.08e-05	0.0	1.82e-06
68	67	-6.82e-03	-3.56e-03	-0.11	-8.62e-06	0.0	-4.16e-05
68	87	-7.89e-03	-7.25e-04	-0.11	8.96e-06	0.0	-4.52e-05
68	211	0.02	-4.19e-03	-0.07	-3.69e-05	0.0	4.57e-05
68	216	0.02	-7.25e-04	-0.08	-1.85e-05	0.0	4.31e-05
68	225	-2.58e-03	-0.01	-0.07	-6.16e-05	0.0	-7.36e-06
68	236	-3.87e-03	-2.68e-03	-0.07	-6.94e-06	0.0	-2.96e-05
68	263	-2.72e-03	-3.92e-03	-0.07	-1.67e-05	0.0	-1.70e-05
68	264	-3.38e-03	-1.80e-03	-0.07	-4.23e-06	0.0	-2.15e-05
68	283	-5.11e-04	-7.27e-03	-0.08	-4.21e-05	0.0	0.0
68	298	-4.93e-03	-2.75e-03	-0.09	-7.24e-06	0.0	-2.99e-05
68	308	-5.64e-03	-8.57e-04	-0.08	4.48e-06	0.0	-3.23e-05
68	383	-1.26e-03	-6.27e-03	-0.08	-3.46e-05	0.0	-6.12e-06
68	391	-4.34e-03	-3.36e-03	-0.08	-1.15e-05	0.0	-2.54e-05
68	400	-4.61e-03	-2.62e-03	-0.08	-6.97e-06	0.0	-2.64e-05
68	416	-1.53e-03	-6.03e-03	-0.08	-3.27e-05	0.0	-8.04e-06
68	420	-4.32e-03	-3.19e-03	-0.08	-1.07e-05	0.0	-2.49e-05
69	37	5.60e-03	-9.84e-03	-0.11	-5.39e-05	0.0	3.59e-05
69	67	4.08e-03	-3.39e-03	-0.11	-1.56e-05	0.0	1.47e-05
69	183	7.76e-03	-6.05e-03	-0.11	-2.64e-05	0.0	6.17e-05
69	206	4.21e-03	-1.66e-03	-0.07	-4.01e-06	0.0	3.68e-05
69	211	0.01	-4.54e-03	-0.07	-2.26e-05	0.0	2.72e-05
69	225	4.85e-03	-0.01	-0.07	-5.83e-05	0.0	2.93e-05
69	233	3.77e-03	-2.74e-03	-0.07	-1.13e-05	0.0	2.71e-05
69	238	3.53e-03	-2.12e-03	-0.07	-8.17e-06	0.0	2.54e-05
69	263	3.01e-03	-3.67e-03	-0.07	-1.82e-05	0.0	1.36e-05
69	283	4.11e-03	-6.90e-03	-0.08	-3.76e-05	0.0	2.58e-05
69	298	3.10e-03	-2.60e-03	-0.08	-1.21e-05	0.0	1.17e-05
69	356	5.55e-03	-4.37e-03	-0.08	-1.92e-05	0.0	4.30e-05
69	383	3.80e-03	-5.94e-03	-0.08	-3.19e-05	0.0	2.24e-05
69	391	3.14e-03	-3.18e-03	-0.08	-1.50e-05	0.0	1.34e-05
69	416	3.72e-03	-5.72e-03	-0.08	-3.06e-05	0.0	2.13e-05
69	420	3.10e-03	-3.00e-03	-0.08	-1.39e-05	0.0	1.36e-05
70	29	5.43e-03	-8.55e-03	-0.11	-5.26e-05	0.0	3.03e-05
70	67	4.12e-03	-2.86e-03	-0.11	-1.55e-05	3.20e-06	1.50e-05
70	183	7.79e-03	-3.82e-03	-0.11	-2.61e-05	3.00e-05	6.19e-05
70	206	4.23e-03	-3.67e-04	-0.08	-3.83e-06	1.91e-05	3.70e-05
70	211	0.01	-3.39e-03	-0.07	-2.27e-05	-5.45e-05	2.73e-05
70	229	4.75e-03	-0.01	-0.07	-5.85e-05	1.24e-05	2.81e-05
70	233	3.79e-03	-1.78e-03	-0.07	-1.11e-05	1.12e-05	2.73e-05
70	238	3.55e-03	-1.22e-03	-0.07	-8.04e-06	1.02e-05	2.56e-05
70	259	2.97e-03	-3.20e-03	-0.07	-1.83e-05	0.0	1.32e-05
70	279	4.00e-03	-5.98e-03	-0.08	-3.67e-05	0.0	2.21e-05
70	298	3.13e-03	-2.18e-03	-0.08	-1.19e-05	2.34e-06	1.19e-05
70	356	5.57e-03	-2.82e-03	-0.08	-1.91e-05	2.02e-05	4.32e-05
70	379	3.78e-03	-5.13e-03	-0.08	-3.16e-05	1.32e-06	2.13e-05
70	383	3.83e-03	-5.13e-03	-0.08	-3.19e-05	1.84e-06	2.26e-05
70	391	3.16e-03	-2.69e-03	-0.08	-1.49e-05	2.87e-06	1.36e-05
70	416	3.75e-03	-4.95e-03	-0.08	-3.06e-05	1.63e-06	2.15e-05

70	420	3.12e-03	-2.51e-03	-0.08	-1.38e-05	3.18e-06	1.38e-05
71	29	1.59e-04	-8.44e-03	-0.12	-5.21e-05	-2.53e-06	1.40e-05
71	182	-4.13e-03	-1.23e-03	-0.08	-1.32e-05	2.41e-05	3.68e-05
71	204	9.67e-03	-2.99e-04	-0.07	-7.17e-06	-4.93e-05	9.45e-06
71	225	-7.21e-04	-0.01	-0.08	-5.77e-05	4.23e-06	2.29e-05
71	229	-6.43e-04	-0.01	-0.08	-5.81e-05	3.72e-06	2.22e-05
71	236	1.54e-03	-2.25e-03	-0.07	-1.17e-05	-9.13e-06	0.0
71	237	-1.12e-03	-1.73e-03	-0.08	-1.09e-05	6.00e-06	1.57e-05
71	259	5.29e-04	-3.13e-03	-0.08	-1.73e-05	-3.35e-06	7.26e-06
71	279	1.34e-04	-5.89e-03	-0.09	-3.62e-05	-1.89e-06	1.04e-05
71	355	-2.69e-03	-1.48e-03	-0.08	-1.26e-05	1.56e-05	2.73e-05
71	369	6.93e-04	-3.24e-03	-0.08	-1.83e-05	-4.42e-06	7.09e-06
71	379	3.58e-05	-5.05e-03	-0.09	-3.11e-05	-1.19e-06	1.03e-05
71	410	6.24e-04	-3.06e-03	-0.08	-1.73e-05	-4.01e-06	7.24e-06
71	416	-3.35e-05	-4.87e-03	-0.09	-3.00e-05	0.0	1.04e-05
72	29	1.35e-04	-8.80e-03	-0.12	-5.20e-05	0.0	7.57e-06
72	37	-6.09e-04	-8.87e-03	-0.12	-5.42e-05	0.0	9.91e-06
72	182	-4.15e-03	-2.42e-03	-0.08	-1.45e-05	0.0	2.72e-05
72	204	9.66e-03	-5.67e-04	-0.07	-8.51e-06	0.0	6.53e-06
72	229	-6.64e-04	-0.01	-0.08	-5.74e-05	0.0	1.61e-05
72	236	1.52e-03	-2.23e-03	-0.07	-1.07e-05	0.0	-2.08e-06
72	259	5.10e-04	-3.32e-03	-0.08	-1.67e-05	0.0	3.34e-06
72	261	-2.34e-04	-3.16e-03	-0.08	-1.59e-05	0.0	6.42e-06
72	279	1.16e-04	-6.16e-03	-0.09	-3.61e-05	0.0	5.57e-06
72	283	-3.81e-04	-6.21e-03	-0.09	-3.76e-05	0.0	7.13e-06
72	355	-2.70e-03	-2.35e-03	-0.08	-1.32e-05	0.0	1.94e-05
72	369	6.75e-04	-3.42e-03	-0.08	-1.76e-05	0.0	2.83e-06
72	379	1.72e-05	-5.32e-03	-0.09	-3.09e-05	0.0	5.59e-06
72	383	-1.48e-04	-5.34e-03	-0.09	-3.14e-05	0.0	6.11e-06
72	410	6.05e-04	-3.25e-03	-0.08	-1.66e-05	0.0	2.99e-06
72	416	-5.22e-05	-5.15e-03	-0.09	-2.99e-05	0.0	5.75e-06
73	29	8.14e-05	-9.30e-03	-0.12	-5.38e-05	0.0	4.91e-06
73	37	-6.72e-04	-9.73e-03	-0.12	-5.77e-05	0.0	1.15e-05
73	182	-4.20e-03	-4.35e-03	-0.08	-2.27e-05	0.0	2.04e-05
73	204	9.65e-03	-1.31e-03	-0.08	-1.31e-05	0.0	1.69e-05
73	227	2.84e-03	-0.01	-0.08	-6.00e-05	0.0	-1.17e-06
73	229	-7.12e-04	-0.01	-0.08	-5.90e-05	0.0	-4.72e-06
73	236	1.48e-03	-1.74e-03	-0.08	-7.53e-06	0.0	-9.01e-06
73	259	4.61e-04	-3.29e-03	-0.08	-1.59e-05	0.0	-3.82e-06
73	261	-2.86e-04	-3.42e-03	-0.08	-1.66e-05	0.0	0.0
73	279	7.34e-05	-6.50e-03	-0.09	-3.72e-05	0.0	2.85e-06
73	283	-4.29e-04	-6.78e-03	-0.09	-3.99e-05	0.0	7.24e-06
73	355	-2.76e-03	-3.64e-03	-0.08	-1.86e-05	0.0	1.26e-05
73	369	6.31e-04	-3.33e-03	-0.08	-1.66e-05	0.0	-5.00e-06
73	379	-2.76e-05	-5.64e-03	-0.09	-3.19e-05	0.0	2.38e-06
73	383	-1.95e-04	-5.74e-03	-0.09	-3.28e-05	0.0	3.85e-06
73	410	5.60e-04	-3.17e-03	-0.08	-1.57e-05	0.0	-4.75e-06
73	416	-9.79e-05	-5.49e-03	-0.09	-3.10e-05	0.0	2.64e-06
74	29	4.93e-05	-9.49e-03	-0.12	-5.49e-05	0.0	0.0
74	37	-7.10e-04	-0.01	-0.12	-5.91e-05	3.83e-06	9.08e-06
74	182	-4.23e-03	-5.44e-03	-0.08	-2.58e-05	2.51e-05	2.34e-05
74	204	9.67e-03	-2.52e-03	-0.08	-1.37e-05	-4.42e-05	3.21e-05
74	227	2.82e-03	-0.01	-0.08	-6.16e-05	-1.37e-05	-1.58e-06
74	236	1.45e-03	-1.12e-03	-0.08	-7.56e-06	-8.74e-06	-1.70e-05
74	239	1.40e-03	-1.81e-03	-0.08	-1.11e-05	-8.40e-06	-1.60e-05
74	261	-3.13e-04	-3.26e-03	-0.08	-1.77e-05	1.28e-06	-5.71e-06
74	279	4.86e-05	-6.59e-03	-0.09	-3.81e-05	0.0	-1.11e-06
74	283	-4.58e-04	-7.15e-03	-0.09	-4.09e-05	2.40e-06	4.86e-06
74	355	-2.78e-03	-4.27e-03	-0.08	-2.09e-05	1.64e-05	1.26e-05
74	379	-5.33e-05	-5.70e-03	-0.09	-3.28e-05	0.0	-1.67e-06
74	382	-6.47e-04	-5.05e-03	-0.08	-2.85e-05	3.56e-06	2.44e-06
74	383	-2.22e-04	-5.89e-03	-0.09	-3.38e-05	0.0	0.0
74	415	-5.49e-04	-4.72e-03	-0.08	-2.67e-05	2.95e-06	0.0
74	416	-1.24e-04	-5.56e-03	-0.09	-3.19e-05	0.0	-1.32e-06
75	29	1.07e-04	-9.06e-03	-0.12	-5.26e-05	0.0	5.43e-06
75	37	-6.41e-04	-9.26e-03	-0.12	-5.58e-05	0.0	9.44e-06
75	182	-4.18e-03	-3.45e-03	-0.08	-1.81e-05	0.0	2.13e-05
75	204	9.66e-03	-9.05e-04	-0.07	-1.18e-05	0.0	9.01e-06
75	225	-7.65e-04	-0.01	-0.08	-5.69e-05	0.0	5.97e-06
75	229	-6.88e-04	-0.01	-0.08	-5.67e-05	0.0	5.50e-06
75	236	1.50e-03	-2.10e-03	-0.07	-8.91e-06	0.0	-4.90e-06
75	261	-2.60e-04	-3.32e-03	-0.08	-1.55e-05	0.0	2.47e-06
75	263	4.48e-04	-3.41e-03	-0.08	-1.60e-05	0.0	0.0
75	279	9.39e-05	-6.35e-03	-0.09	-3.64e-05	0.0	3.66e-06
75	283	-4.05e-04	-6.48e-03	-0.09	-3.85e-05	0.0	6.34e-06
75	355	-2.73e-03	-3.06e-03	-0.08	-1.54e-05	0.0	1.43e-05
75	369	6.52e-04	-3.45e-03	-0.08	-1.66e-05	0.0	-1.05e-06

75	379	-5.56e-06	-5.51e-03	-0.09	-3.11e-05	0.0	3.49e-06
75	383	-1.72e-04	-5.55e-03	-0.09	-3.18e-05	0.0	4.38e-06
75	410	5.83e-04	-3.29e-03	-0.08	-1.57e-05	0.0	0.0
75	416	-7.52e-05	-5.34e-03	-0.09	-3.02e-05	0.0	3.69e-06
76	37	-3.34e-04	-0.01	-0.11	0.0	5.60e-06	1.65e-06
76	65	-1.54e-03	-4.42e-03	-0.12	0.0	-1.09e-05	-3.15e-05
76	83	-3.72e-03	3.07e-03	-0.10	0.0	-7.57e-06	-3.94e-05
76	204	0.01	-2.54e-03	-0.08	0.0	-3.21e-05	4.37e-05
76	211	0.01	-6.06e-03	-0.08	0.0	-2.91e-05	5.02e-05
76	227	3.03e-03	-0.01	-0.07	0.0	-1.25e-05	2.53e-06
76	236	-9.40e-04	-1.16e-03	-0.07	0.0	-1.12e-05	-2.82e-05
76	242	-1.73e-03	-2.14e-03	-0.07	0.0	3.49e-06	-7.44e-06
76	261	-1.26e-03	-3.30e-03	-0.07	0.0	0.0	-1.11e-05
76	283	-3.87e-04	-7.20e-03	-0.08	0.0	3.35e-06	-1.01e-06
76	297	-1.19e-03	-3.21e-03	-0.09	0.0	-7.63e-06	-2.31e-05
76	306	-2.64e-03	1.78e-03	-0.08	0.0	-5.43e-06	-2.84e-05
76	371	-1.16e-03	-3.77e-03	-0.08	0.0	-5.76e-06	-1.97e-05
76	383	-6.34e-04	-5.94e-03	-0.08	0.0	1.03e-06	-6.08e-06
76	398	-2.16e-03	-4.18e-04	-0.08	0.0	-4.14e-06	-2.31e-05
76	412	-1.18e-03	-3.63e-03	-0.08	0.0	-5.32e-06	-1.92e-05
76	416	-7.12e-04	-5.61e-03	-0.08	0.0	0.0	-7.95e-06
76	419	-2.01e-03	-1.07e-03	-0.08	0.0	-3.76e-06	-2.16e-05
77	37	-2.82e-04	-0.01	-0.11	0.0	5.58e-06	1.24e-06
77	67	-4.79e-03	-1.47e-03	-0.12	0.0	-1.81e-05	-4.19e-05
77	83	-5.70e-03	3.02e-03	-0.10	0.0	-1.36e-05	-3.98e-05
77	208	0.02	-2.52e-03	-0.08	0.0	-2.44e-05	4.09e-05
77	211	0.02	-6.06e-03	-0.08	0.0	-2.10e-05	4.75e-05
77	227	3.11e-03	-0.01	-0.07	0.0	-1.21e-05	2.23e-06
77	240	-2.39e-03	-1.17e-03	-0.07	0.0	-1.40e-05	-2.92e-05
77	252	-2.50e-03	-7.27e-04	-0.07	0.0	-9.37e-06	-2.34e-05
77	261	-1.78e-03	-3.31e-03	-0.07	0.0	-1.81e-06	-1.12e-05
77	283	-4.61e-04	-7.22e-03	-0.08	0.0	3.07e-06	-1.34e-06
77	298	-3.46e-03	-1.25e-03	-0.09	0.0	-1.27e-05	-3.01e-05
77	306	-4.07e-03	1.75e-03	-0.08	0.0	-9.71e-06	-2.87e-05
77	383	-9.60e-04	-5.95e-03	-0.08	0.0	0.0	-6.48e-06
77	391	-3.10e-03	-2.08e-03	-0.08	0.0	-1.02e-05	-2.57e-05
77	398	-3.32e-03	-4.45e-04	-0.08	0.0	-7.59e-06	-2.35e-05
77	416	-1.13e-03	-5.62e-03	-0.08	0.0	0.0	-8.39e-06
77	419	-3.10e-03	-1.10e-03	-0.08	0.0	-6.97e-06	-2.19e-05
77	420	-3.10e-03	-1.94e-03	-0.08	0.0	-9.73e-06	-2.51e-05
78	37	-4.34e-04	-0.01	-0.11	0.0	4.68e-06	3.79e-06
78	65	-3.86e-05	-4.39e-03	-0.12	0.0	-8.57e-06	-2.76e-05
78	181	-3.12e-03	-6.04e-03	-0.10	0.0	2.55e-05	2.39e-05
78	207	0.01	-6.12e-03	-0.08	0.0	-3.93e-05	4.41e-05
78	208	0.01	-2.51e-03	-0.08	0.0	-3.95e-05	4.36e-05
78	227	2.76e-03	-0.01	-0.08	0.0	-1.32e-05	1.68e-06
78	234	-1.39e-03	-2.10e-03	-0.07	0.0	5.54e-06	-4.91e-06
78	239	3.84e-04	-1.83e-03	-0.08	0.0	-8.85e-06	-2.31e-05
78	261	-7.78e-04	-3.28e-03	-0.07	0.0	0.0	-9.65e-06
78	283	-3.53e-04	-7.18e-03	-0.09	0.0	2.91e-06	0.0
78	297	-8.95e-05	-3.19e-03	-0.09	0.0	-5.92e-06	-2.02e-05
78	355	-2.14e-03	-4.29e-03	-0.08	0.0	1.68e-05	1.41e-05
78	379	-2.89e-04	-5.73e-03	-0.08	0.0	0.0	-6.43e-06
78	383	-3.52e-04	-5.92e-03	-0.08	0.0	1.14e-06	-4.20e-06
78	398	-1.03e-03	-3.98e-04	-0.08	0.0	-1.38e-06	-2.12e-05
78	416	-3.40e-04	-5.58e-03	-0.08	0.0	0.0	-5.99e-06
78	419	-9.63e-04	-1.05e-03	-0.08	0.0	-1.25e-06	-1.97e-05
79	37	2.09e-03	-8.50e-03	-0.11	0.0	0.0	3.33e-05
79	101	2.74e-03	-6.61e-03	-0.11	0.0	-5.36e-06	1.83e-05
79	165	2.27e-03	-5.38e-03	-0.11	0.0	1.02e-05	4.21e-05
79	201	9.04e-04	-3.66e-03	-0.08	0.0	1.63e-05	3.91e-05
79	211	0.01	-3.35e-03	-0.07	0.0	-5.16e-05	2.55e-05
79	229	1.94e-03	-0.01	-0.07	0.0	6.99e-06	2.75e-05
79	233	1.09e-03	-1.74e-03	-0.07	0.0	7.31e-06	2.59e-05
79	243	1.94e-03	-2.68e-03	-0.07	0.0	-6.87e-06	6.08e-06
79	259	1.67e-03	-3.16e-03	-0.07	0.0	-2.40e-06	1.29e-05
79	283	1.59e-03	-5.94e-03	-0.08	0.0	0.0	2.41e-05
79	315	2.02e-03	-4.68e-03	-0.09	0.0	-3.66e-06	1.41e-05
79	347	1.70e-03	-3.86e-03	-0.09	0.0	6.74e-06	2.99e-05
79	371	1.85e-03	-4.02e-03	-0.08	0.0	-2.67e-06	1.43e-05
79	379	1.69e-03	-5.10e-03	-0.08	0.0	-1.12e-06	2.00e-05
79	383	1.61e-03	-5.10e-03	-0.08	0.0	0.0	2.11e-05
79	412	1.79e-03	-3.84e-03	-0.08	0.0	-2.31e-06	1.44e-05
79	416	1.63e-03	-4.92e-03	-0.08	0.0	0.0	2.02e-05
80	29	3.93e-03	-8.53e-03	-0.11	0.0	0.0	2.99e-05
80	67	3.37e-03	-2.83e-03	-0.11	0.0	1.43e-06	1.52e-05
80	183	4.71e-03	-3.79e-03	-0.11	0.0	2.68e-05	6.15e-05

80	206	2.45e-03	-3.44e-04	-0.08	0.0	1.70e-05	3.66e-05
80	211	0.01	-3.37e-03	-0.07	0.0	-5.35e-05	2.67e-05
80	229	3.42e-03	-0.01	-0.07	0.0	1.02e-05	2.79e-05
80	238	2.30e-03	-1.20e-03	-0.07	0.0	8.70e-06	2.54e-05
80	249	2.56e-03	-2.77e-03	-0.07	0.0	4.83e-06	2.12e-05
80	259	2.31e-03	-3.18e-03	-0.07	0.0	-1.09e-06	1.31e-05
80	279	2.90e-03	-5.96e-03	-0.08	0.0	0.0	2.19e-05
80	298	2.53e-03	-2.16e-03	-0.09	0.0	1.03e-06	1.20e-05
80	356	3.43e-03	-2.80e-03	-0.08	0.0	1.79e-05	4.29e-05
80	379	2.72e-03	-5.11e-03	-0.08	0.0	0.0	2.11e-05
80	391	2.48e-03	-2.67e-03	-0.08	0.0	1.61e-06	1.37e-05
80	416	2.68e-03	-4.93e-03	-0.08	0.0	0.0	2.12e-05
80	420	2.44e-03	-2.49e-03	-0.08	0.0	1.94e-06	1.38e-05
81	29	1.13e-03	-8.47e-03	-0.12	0.0	-3.04e-06	2.34e-05
81	37	5.47e-04	-8.47e-03	-0.11	0.0	0.0	2.73e-05
81	150	-1.95e-03	-1.25e-03	-0.08	0.0	2.42e-05	4.90e-05
81	203	0.01	-3.61e-03	-0.07	0.0	-5.07e-05	1.93e-05
81	225	4.53e-04	-0.01	-0.08	0.0	5.25e-06	2.69e-05
81	229	4.86e-04	-0.01	-0.08	0.0	4.69e-06	2.59e-05
81	235	1.67e-03	-2.81e-03	-0.07	0.0	-8.45e-06	3.91e-06
81	237	-1.52e-04	-1.75e-03	-0.08	0.0	6.11e-06	2.23e-05
81	259	9.81e-04	-3.15e-03	-0.07	0.0	-3.14e-06	1.13e-05
81	279	8.56e-04	-5.92e-03	-0.09	0.0	-2.20e-06	1.72e-05
81	283	4.65e-04	-5.92e-03	-0.09	0.0	0.0	1.98e-05
81	293	1.39e-03	-2.84e-03	-0.08	0.0	-5.42e-06	1.01e-05
81	369	1.19e-03	-3.25e-03	-0.08	0.0	-4.10e-06	1.14e-05
81	379	7.44e-04	-5.07e-03	-0.08	0.0	-1.47e-06	1.68e-05
81	383	6.14e-04	-5.07e-03	-0.08	0.0	0.0	1.77e-05
81	410	1.13e-03	-3.07e-03	-0.08	0.0	-3.71e-06	1.16e-05
81	416	6.83e-04	-4.89e-03	-0.08	0.0	-1.07e-06	1.70e-05
82	29	-1.55e-03	-6.71e-03	-0.11	-5.55e-05	0.0	-1.02e-05
82	67	-8.23e-03	-3.19e-03	-0.11	-7.70e-06	0.0	-4.80e-05
82	87	-9.40e-03	-1.43e-03	-0.11	9.92e-06	0.0	-5.27e-05
82	211	0.02	-1.60e-03	-0.07	-3.69e-05	0.0	5.42e-05
82	216	0.02	7.38e-04	-0.07	-1.78e-05	0.0	5.12e-05
82	229	-2.81e-03	-8.63e-03	-0.07	-6.38e-05	0.0	-1.04e-05
82	236	-4.92e-03	-2.32e-03	-0.07	-6.43e-06	0.0	-3.34e-05
82	259	-3.27e-03	-2.95e-03	-0.07	-1.68e-05	0.0	-1.99e-05
82	264	-3.99e-03	-1.57e-03	-0.07	-3.93e-06	0.0	-2.44e-05
82	279	-1.46e-03	-4.76e-03	-0.08	-3.85e-05	0.0	-9.23e-06
82	298	-5.91e-03	-2.41e-03	-0.09	-6.63e-06	0.0	-3.44e-05
82	308	-6.69e-03	-1.24e-03	-0.08	5.12e-06	0.0	-3.76e-05
82	379	-1.63e-03	-4.21e-03	-0.08	-3.33e-05	0.0	-9.66e-06
82	391	-5.13e-03	-2.75e-03	-0.08	-1.12e-05	0.0	-2.94e-05
82	400	-5.43e-03	-2.28e-03	-0.08	-6.62e-06	0.0	-3.07e-05
82	416	-1.57e-03	-4.09e-03	-0.08	-3.25e-05	0.0	-9.10e-06
82	420	-5.08e-03	-2.63e-03	-0.08	-1.04e-05	0.0	-2.88e-05
83	37	5.81e-03	-6.70e-03	-0.11	-5.16e-05	0.0	3.84e-05
83	67	4.17e-03	-2.47e-03	-0.11	-1.64e-05	0.0	1.66e-05
83	183	9.77e-03	-4.63e-03	-0.11	-2.42e-05	0.0	6.81e-05
83	202	5.26e-03	-1.59e-03	-0.07	-3.33e-06	0.0	3.93e-05
83	211	0.01	-2.90e-03	-0.07	-2.14e-05	0.0	2.51e-05
83	229	5.47e-03	-8.67e-03	-0.07	-5.96e-05	0.0	3.18e-05
83	233	4.47e-03	-2.16e-03	-0.07	-1.06e-05	0.0	2.99e-05
83	234	4.07e-03	-1.72e-03	-0.07	-7.77e-06	0.0	2.73e-05
83	261	3.62e-03	-2.64e-03	-0.07	-1.68e-05	0.0	2.14e-05
83	283	4.26e-03	-4.71e-03	-0.08	-3.60e-05	0.0	2.77e-05
83	298	3.17e-03	-1.89e-03	-0.08	-1.26e-05	0.0	1.31e-05
83	356	6.90e-03	-3.34e-03	-0.08	-1.77e-05	0.0	4.75e-05
83	383	3.91e-03	-4.08e-03	-0.08	-3.08e-05	0.0	2.41e-05
83	391	3.24e-03	-2.30e-03	-0.08	-1.54e-05	0.0	1.49e-05
83	408	3.94e-03	-3.08e-03	-0.08	-2.13e-05	0.0	2.23e-05
83	416	3.81e-03	-3.93e-03	-0.08	-2.96e-05	0.0	2.30e-05
83	420	3.22e-03	-2.18e-03	-0.08	-1.43e-05	0.0	1.50e-05
84	29	5.47e-03	-5.38e-03	-0.11	-5.11e-05	0.0	3.28e-05
84	67	4.20e-03	-1.87e-03	-0.11	-1.62e-05	0.0	1.69e-05
84	183	9.78e-03	-2.18e-03	-0.11	-2.40e-05	3.45e-05	6.82e-05
84	206	5.44e-03	-8.86e-05	-0.08	-3.01e-06	2.02e-05	4.04e-05
84	211	0.01	-2.10e-03	-0.07	-2.15e-05	-5.75e-05	2.53e-05
84	229	5.47e-03	-7.51e-03	-0.07	-5.95e-05	1.05e-05	3.18e-05
84	233	4.48e-03	-1.07e-03	-0.07	-1.06e-05	1.11e-05	3.00e-05
84	238	4.16e-03	-7.00e-04	-0.07	-7.60e-06	9.82e-06	2.79e-05
84	259	2.90e-03	-2.07e-03	-0.07	-1.83e-05	-2.12e-06	1.44e-05
84	279	4.03e-03	-3.76e-03	-0.08	-3.57e-05	0.0	2.39e-05
84	298	3.19e-03	-1.42e-03	-0.08	-1.24e-05	0.0	1.33e-05
84	356	6.91e-03	-1.63e-03	-0.08	-1.76e-05	2.30e-05	4.76e-05
84	379	3.84e-03	-3.22e-03	-0.08	-3.07e-05	0.0	2.30e-05

84	391	3.26e-03	-1.76e-03	-0.08	-1.52e-05	0.0	1.51e-05
84	408	3.95e-03	-2.27e-03	-0.08	-2.13e-05	3.32e-06	2.24e-05
84	416	3.82e-03	-3.11e-03	-0.08	-2.97e-05	0.0	2.31e-05
84	420	3.24e-03	-1.64e-03	-0.08	-1.42e-05	0.0	1.52e-05
85	29	2.58e-05	-5.31e-03	-0.12	-5.35e-05	-2.81e-06	1.23e-05
85	182	-2.67e-03	-5.04e-04	-0.08	-1.30e-05	2.43e-05	3.49e-05
85	204	6.78e-03	1.20e-06	-0.07	-6.94e-06	-5.15e-05	3.75e-06
85	225	-5.11e-04	-7.48e-03	-0.08	-5.91e-05	4.01e-06	2.44e-05
85	229	-4.64e-04	-7.54e-03	-0.08	-5.94e-05	3.48e-06	2.36e-05
85	236	9.85e-04	-1.50e-03	-0.07	-1.23e-05	-9.11e-06	1.67e-06
85	237	-7.62e-04	-1.06e-03	-0.08	-1.12e-05	6.06e-06	1.57e-05
85	259	3.17e-04	-2.05e-03	-0.08	-1.79e-05	-3.38e-06	8.03e-06
85	279	3.23e-05	-3.71e-03	-0.09	-3.72e-05	-2.07e-06	9.35e-06
85	355	-1.74e-03	-7.58e-04	-0.08	-1.26e-05	1.57e-05	2.62e-05
85	369	4.17e-04	-2.09e-03	-0.08	-1.88e-05	-4.27e-06	8.12e-06
85	379	-2.58e-05	-3.18e-03	-0.09	-3.20e-05	-1.36e-06	9.43e-06
85	410	3.73e-04	-1.98e-03	-0.08	-1.78e-05	-3.87e-06	8.22e-06
85	416	-6.97e-05	-3.06e-03	-0.09	-3.10e-05	0.0	9.52e-06
86	29	1.32e-05	-5.56e-03	-0.12	-5.43e-05	0.0	6.12e-06
86	182	-2.68e-03	-1.56e-03	-0.08	-1.47e-05	0.0	2.27e-05
86	204	6.78e-03	-5.59e-05	-0.07	-8.41e-06	0.0	1.82e-06
86	229	-4.78e-04	-8.39e-03	-0.08	-5.96e-05	0.0	1.67e-05
86	236	9.75e-04	-1.55e-03	-0.07	-1.16e-05	0.0	0.0
86	259	3.06e-04	-2.29e-03	-0.08	-1.78e-05	0.0	4.43e-06
86	261	-1.85e-04	-2.18e-03	-0.08	-1.69e-05	0.0	6.74e-06
86	279	2.24e-05	-3.91e-03	-0.09	-3.77e-05	0.0	4.73e-06
86	355	-1.75e-03	-1.55e-03	-0.08	-1.36e-05	0.0	1.68e-05
86	379	-3.59e-05	-3.39e-03	-0.09	-3.24e-05	0.0	4.91e-06
86	382	-4.09e-04	-2.69e-03	-0.08	-2.70e-05	0.0	5.63e-06
86	410	3.62e-04	-2.22e-03	-0.08	-1.75e-05	0.0	4.34e-06
86	416	-7.99e-05	-3.28e-03	-0.09	-3.14e-05	0.0	5.01e-06
87	29	1.42e-05	-5.92e-03	-0.12	-5.68e-05	0.0	3.81e-06
87	37	-4.73e-04	-6.07e-03	-0.12	-6.16e-05	0.0	9.81e-06
87	182	-2.71e-03	-2.92e-03	-0.08	-2.40e-05	0.0	1.45e-05
87	204	6.80e-03	-4.92e-04	-0.08	-1.32e-05	0.0	1.55e-05
87	227	1.99e-03	-8.54e-03	-0.08	-6.26e-05	0.0	-3.19e-06
87	229	-4.94e-04	-8.84e-03	-0.08	-6.18e-05	0.0	-7.27e-06
87	236	9.57e-04	-1.27e-03	-0.08	-8.40e-06	0.0	-8.08e-06
87	259	2.88e-04	-2.30e-03	-0.08	-1.72e-05	0.0	-4.28e-06
87	261	-2.06e-04	-2.38e-03	-0.08	-1.80e-05	0.0	-2.16e-06
87	279	2.01e-05	-4.16e-03	-0.09	-3.94e-05	0.0	2.02e-06
87	283	-3.05e-04	-4.26e-03	-0.09	-4.26e-05	0.0	6.02e-06
87	355	-1.78e-03	-2.48e-03	-0.08	-1.97e-05	0.0	8.38e-06
87	379	-4.20e-05	-3.63e-03	-0.09	-3.39e-05	0.0	1.49e-06
87	382	-4.17e-04	-3.05e-03	-0.08	-2.96e-05	0.0	4.03e-06
87	383	-1.50e-04	-3.66e-03	-0.09	-3.50e-05	0.0	2.82e-06
87	415	-3.54e-04	-2.92e-03	-0.08	-2.77e-05	0.0	2.90e-06
87	416	-8.66e-05	-3.53e-03	-0.09	-3.30e-05	0.0	1.69e-06
88	29	-9.95e-06	-6.15e-03	-0.12	-5.69e-05	0.0	0.0
88	37	-5.02e-04	-6.73e-03	-0.12	-6.18e-05	4.23e-06	9.97e-06
88	182	-2.72e-03	-3.78e-03	-0.08	-2.69e-05	2.60e-05	2.21e-05
88	204	6.83e-03	-1.71e-03	-0.08	-1.38e-05	-4.64e-05	3.54e-05
88	227	1.98e-03	-8.23e-03	-0.08	-6.31e-05	-1.41e-05	-2.30e-06
88	236	9.41e-04	-6.47e-04	-0.08	-7.86e-06	-8.96e-06	-1.75e-05
88	239	9.07e-04	-1.12e-03	-0.08	-1.15e-05	-8.57e-06	-1.64e-05
88	261	-2.22e-04	-2.14e-03	-0.08	-1.84e-05	1.25e-06	-6.79e-06
88	279	1.93e-06	-4.26e-03	-0.09	-3.94e-05	0.0	0.0
88	283	-3.26e-04	-4.65e-03	-0.09	-4.27e-05	2.65e-06	5.34e-06
88	355	-1.79e-03	-2.93e-03	-0.08	-2.18e-05	1.69e-05	1.14e-05
88	379	-6.02e-05	-3.69e-03	-0.09	-3.41e-05	0.0	-1.73e-06
88	382	-4.38e-04	-3.28e-03	-0.08	-3.00e-05	3.63e-06	2.32e-06
88	383	-1.69e-04	-3.82e-03	-0.09	-3.52e-05	1.09e-06	0.0
88	415	-3.74e-04	-3.07e-03	-0.08	-2.80e-05	2.99e-06	0.0
88	416	-1.05e-04	-3.60e-03	-0.09	-3.32e-05	0.0	-1.40e-06
89	29	8.31e-06	-5.81e-03	-0.12	-5.60e-05	0.0	3.93e-06
89	182	-2.69e-03	-2.33e-03	-0.08	-1.91e-05	0.0	1.50e-05
89	204	6.78e-03	-1.80e-04	-0.07	-1.19e-05	0.0	5.51e-06
89	225	-5.35e-04	-8.86e-03	-0.08	-6.00e-05	0.0	4.69e-06
89	229	-4.87e-04	-8.84e-03	-0.08	-5.98e-05	0.0	4.39e-06
89	236	9.67e-04	-1.53e-03	-0.08	-1.01e-05	0.0	-2.73e-06
89	261	-1.96e-04	-2.35e-03	-0.08	-1.70e-05	0.0	1.97e-06
89	263	2.73e-04	-2.41e-03	-0.08	-1.75e-05	0.0	0.0
89	279	1.77e-05	-4.09e-03	-0.09	-3.88e-05	0.0	2.70e-06
89	355	-1.77e-03	-2.11e-03	-0.08	-1.65e-05	0.0	1.02e-05
89	379	-4.21e-05	-3.57e-03	-0.09	-3.34e-05	0.0	2.60e-06
89	382	-4.17e-04	-2.91e-03	-0.08	-2.86e-05	0.0	3.98e-06
89	410	3.52e-04	-2.32e-03	-0.08	-1.69e-05	0.0	0.0

89	416	-8.63e-05	-3.46e-03	-0.09	-3.24e-05	0.0	2.74e-06
90	37	8.00e-05	-6.77e-03	-0.11	0.0	7.76e-06	3.23e-06
90	65	-2.17e-03	-2.75e-03	-0.12	0.0	-1.08e-05	-3.47e-05
90	83	-4.18e-03	2.13e-03	-0.10	0.0	-8.38e-06	-4.63e-05
90	204	0.01	-1.69e-03	-0.08	0.0	-3.74e-05	5.21e-05
90	211	0.01	-4.14e-03	-0.08	0.0	-3.33e-05	5.99e-05
90	227	2.24e-03	-8.19e-03	-0.08	0.0	-1.26e-05	3.77e-06
90	236	-1.66e-03	-6.67e-04	-0.08	0.0	-1.20e-05	-3.13e-05
90	252	-1.73e-03	-3.74e-04	-0.07	0.0	-6.96e-06	-2.53e-05
90	261	-1.19e-03	-2.16e-03	-0.07	0.0	0.0	-1.22e-05
90	283	-1.32e-04	-4.68e-03	-0.08	0.0	4.82e-06	0.0
90	297	-1.63e-03	-2.00e-03	-0.09	0.0	-7.58e-06	-2.55e-05
90	306	-2.97e-03	1.25e-03	-0.08	0.0	-5.93e-06	-3.32e-05
90	371	-1.48e-03	-2.40e-03	-0.08	0.0	-5.51e-06	-2.17e-05
90	383	-5.27e-04	-3.85e-03	-0.08	0.0	2.13e-06	-6.06e-06
90	398	-2.40e-03	-2.24e-04	-0.08	0.0	-4.25e-06	-2.68e-05
90	412	-1.48e-03	-2.31e-03	-0.08	0.0	-5.07e-06	-2.12e-05
90	416	-6.63e-04	-3.63e-03	-0.08	0.0	1.10e-06	-8.22e-06
90	419	-2.23e-03	-6.61e-04	-0.08	0.0	-3.77e-06	-2.49e-05
91	37	1.89e-04	-6.78e-03	-0.11	0.0	9.61e-06	1.94e-06
91	67	-5.85e-03	-8.05e-04	-0.12	0.0	-1.84e-05	-4.86e-05
91	87	-6.80e-03	1.19e-03	-0.11	0.0	-1.95e-05	-5.34e-05
91	208	0.01	-1.66e-03	-0.08	0.0	-3.08e-05	4.93e-05
91	211	0.02	-4.12e-03	-0.08	0.0	-2.58e-05	5.71e-05
91	227	2.43e-03	-8.18e-03	-0.07	0.0	-1.13e-05	3.20e-06
91	236	-3.26e-03	-6.68e-04	-0.07	0.0	-1.48e-05	-3.34e-05
91	240	-3.20e-03	-6.62e-04	-0.07	0.0	-1.45e-05	-3.29e-05
91	261	-1.85e-03	-2.16e-03	-0.07	0.0	0.0	-1.28e-05
91	283	-1.80e-04	-4.69e-03	-0.08	0.0	5.88e-06	-1.17e-06
91	298	-4.21e-03	-7.05e-04	-0.09	0.0	-1.28e-05	-3.49e-05
91	308	-4.84e-03	6.22e-04	-0.09	0.0	-1.35e-05	-3.80e-05
91	383	-8.69e-04	-3.85e-03	-0.08	0.0	2.42e-06	-7.12e-06
91	391	-3.68e-03	-1.29e-03	-0.08	0.0	-9.81e-06	-2.97e-05
91	400	-3.92e-03	-7.64e-04	-0.08	0.0	-1.02e-05	-3.10e-05
91	416	-1.11e-03	-3.63e-03	-0.08	0.0	1.12e-06	-9.31e-06
91	420	-3.65e-03	-1.20e-03	-0.08	0.0	-9.35e-06	-2.92e-05
92	37	-1.22e-04	-6.76e-03	-0.11	0.0	5.63e-06	5.86e-06
92	65	-5.42e-04	-2.74e-03	-0.12	0.0	-8.70e-06	-2.96e-05
92	83	-1.96e-03	2.15e-03	-0.10	0.0	-2.92e-06	-4.24e-05
92	207	9.16e-03	-4.18e-03	-0.08	0.0	-4.27e-05	5.17e-05
92	216	9.22e-03	-1.69e-03	-0.08	0.0	-4.11e-05	5.51e-05
92	227	2.09e-03	-8.21e-03	-0.08	0.0	-1.38e-05	2.62e-06
92	239	-1.25e-04	-1.13e-03	-0.08	0.0	-9.44e-06	-2.46e-05
92	242	-1.05e-03	-1.37e-03	-0.07	0.0	4.94e-06	-7.37e-06
92	261	-6.52e-04	-2.15e-03	-0.07	0.0	0.0	-1.03e-05
92	283	-1.57e-04	-4.67e-03	-0.09	0.0	3.53e-06	1.94e-06
92	297	-4.37e-04	-1.99e-03	-0.09	0.0	-6.02e-06	-2.17e-05
92	306	-1.38e-03	1.26e-03	-0.08	0.0	-2.17e-06	-3.03e-05
92	379	-2.73e-04	-3.71e-03	-0.08	0.0	0.0	-6.14e-06
92	383	-2.67e-04	-3.84e-03	-0.08	0.0	1.56e-06	-3.66e-06
92	398	-1.12e-03	-2.14e-04	-0.08	0.0	-1.54e-06	-2.41e-05
92	416	-2.98e-04	-3.62e-03	-0.08	0.0	0.0	-5.70e-06
92	419	-1.04e-03	-6.52e-04	-0.08	0.0	-1.37e-06	-2.23e-05
93	29	2.28e-03	-5.35e-03	-0.11	0.0	-2.34e-06	2.96e-05
93	165	2.89e-03	-3.31e-03	-0.11	0.0	1.19e-05	4.59e-05
93	183	3.09e-03	-2.15e-03	-0.11	0.0	2.53e-05	6.39e-05
93	201	2.02e-03	-2.35e-03	-0.08	0.0	1.76e-05	4.28e-05
93	203	8.04e-03	-2.28e-03	-0.07	0.0	-5.70e-05	1.78e-05
93	229	2.44e-03	-7.51e-03	-0.07	0.0	6.38e-06	3.06e-05
93	233	1.59e-03	-1.06e-03	-0.07	0.0	7.86e-06	2.79e-05
93	253	1.68e-03	-1.79e-03	-0.07	0.0	2.56e-06	2.16e-05
93	259	1.47e-03	-2.06e-03	-0.07	0.0	-3.03e-06	1.37e-05
93	279	1.70e-03	-3.74e-03	-0.09	0.0	-1.72e-06	2.17e-05
93	347	2.11e-03	-2.38e-03	-0.09	0.0	7.75e-06	3.26e-05
93	356	2.24e-03	-1.61e-03	-0.08	0.0	1.67e-05	4.46e-05
93	379	1.60e-03	-3.20e-03	-0.08	0.0	-1.09e-06	2.09e-05
93	391	1.74e-03	-1.75e-03	-0.08	0.0	0.0	1.52e-05
93	416	1.57e-03	-3.09e-03	-0.08	0.0	0.0	2.10e-05
93	420	1.71e-03	-1.63e-03	-0.08	0.0	0.0	1.53e-05
94	29	3.84e-03	-5.36e-03	-0.11	0.0	0.0	3.23e-05
94	67	3.35e-03	-1.86e-03	-0.11	0.0	-1.45e-06	1.73e-05
94	183	6.39e-03	-2.15e-03	-0.11	0.0	3.09e-05	6.80e-05
94	206	3.44e-03	-7.23e-05	-0.08	0.0	1.85e-05	4.00e-05
94	211	9.42e-03	-2.09e-03	-0.07	0.0	-5.65e-05	2.45e-05
94	229	3.91e-03	-7.51e-03	-0.07	0.0	8.89e-06	3.15e-05
94	233	2.99e-03	-1.06e-03	-0.07	0.0	9.85e-06	2.97e-05
94	238	2.78e-03	-6.87e-04	-0.07	0.0	8.78e-06	2.77e-05

94	259	2.18e-03	-2.07e-03	-0.07	0.0	-2.55e-06	1.43e-05
94	279	2.84e-03	-3.75e-03	-0.08	0.0	0.0	2.36e-05
94	298	2.51e-03	-1.41e-03	-0.09	0.0	-1.07e-06	1.36e-05
94	356	4.54e-03	-1.61e-03	-0.08	0.0	2.05e-05	4.74e-05
94	379	2.70e-03	-3.21e-03	-0.08	0.0	0.0	2.27e-05
94	391	2.50e-03	-1.75e-03	-0.08	0.0	0.0	1.52e-05
94	408	2.83e-03	-2.26e-03	-0.08	0.0	2.43e-06	2.24e-05
94	416	2.67e-03	-3.09e-03	-0.08	0.0	0.0	2.28e-05
94	420	2.48e-03	-1.63e-03	-0.08	0.0	0.0	1.54e-05
95	29	9.32e-04	-5.34e-03	-0.12	0.0	-3.04e-06	2.30e-05
95	59	1.58e-03	-1.01e-03	-0.11	0.0	-4.03e-06	1.57e-05
95	211	7.35e-03	-2.05e-03	-0.07	0.0	-5.13e-05	1.79e-05
95	225	6.82e-04	-7.46e-03	-0.08	0.0	5.00e-06	2.93e-05
95	229	6.80e-04	-7.53e-03	-0.08	0.0	4.39e-06	2.82e-05
95	237	1.97e-04	-1.07e-03	-0.08	0.0	6.39e-06	2.32e-05
95	243	1.15e-03	-1.75e-03	-0.07	0.0	-7.81e-06	5.73e-06
95	259	7.53e-04	-2.06e-03	-0.07	0.0	-3.28e-06	1.17e-05
95	279	7.10e-04	-3.73e-03	-0.09	0.0	-2.21e-06	1.71e-05
95	294	1.14e-03	-8.48e-04	-0.08	0.0	-2.87e-06	1.22e-05
95	379	6.43e-04	-3.20e-03	-0.08	0.0	-1.51e-06	1.66e-05
95	389	1.00e-03	-1.27e-03	-0.08	0.0	-2.01e-06	1.32e-05
95	416	6.04e-04	-3.08e-03	-0.08	0.0	-1.13e-06	1.67e-05
95	418	9.62e-04	-1.15e-03	-0.08	0.0	-1.64e-06	1.33e-05
96	67	-9.77e-03	-2.91e-03	-0.11	-4.48e-06	0.0	-5.44e-05
96	87	-0.01	-2.23e-03	-0.11	1.33e-05	0.0	-6.05e-05
96	101	-6.15e-03	-3.53e-03	-0.11	-3.25e-05	0.0	-3.64e-05
96	211	0.02	7.59e-04	-0.07	-3.64e-05	0.0	6.05e-05
96	216	0.02	1.92e-03	-0.07	-1.59e-05	0.0	5.63e-05
96	229	-2.63e-03	-4.73e-03	-0.07	-6.72e-05	0.0	-9.81e-06
96	236	-6.04e-03	-2.03e-03	-0.07	-4.84e-06	0.0	-3.73e-05
96	239	-5.60e-03	-2.17e-03	-0.07	-8.94e-06	0.0	-3.46e-05
96	264	-4.62e-03	-1.40e-03	-0.07	-2.55e-06	0.0	-2.72e-05
96	298	-6.98e-03	-2.14e-03	-0.09	-4.38e-06	0.0	-3.90e-05
96	308	-7.88e-03	-1.69e-03	-0.08	7.48e-06	0.0	-4.30e-05
96	315	-4.57e-03	-2.56e-03	-0.08	-2.31e-05	0.0	-2.69e-05
96	371	-4.28e-03	-2.30e-03	-0.08	-2.01e-05	0.0	-2.49e-05
96	391	-5.96e-03	-2.17e-03	-0.08	-9.62e-06	0.0	-3.30e-05
96	400	-6.31e-03	-1.99e-03	-0.08	-4.95e-06	0.0	-3.47e-05
96	412	-4.20e-03	-2.24e-03	-0.08	-1.93e-05	0.0	-2.43e-05
96	420	-5.87e-03	-2.10e-03	-0.08	-8.86e-06	0.0	-3.24e-05
97	37	6.21e-03	-3.80e-03	-0.11	-4.64e-05	0.0	4.23e-05
97	67	4.06e-03	-1.47e-03	-0.11	-1.55e-05	0.0	1.71e-05
97	183	0.01	-3.49e-03	-0.11	-1.79e-05	0.0	7.78e-05
97	201	8.04e-03	-2.94e-03	-0.07	-1.87e-05	0.0	5.22e-05
97	202	6.59e-03	-1.51e-03	-0.07	0.0	0.0	4.42e-05
97	217	7.20e-03	-5.18e-03	-0.07	-5.95e-05	0.0	4.14e-05
97	233	5.25e-03	-1.61e-03	-0.07	-8.79e-06	0.0	3.34e-05
97	234	4.72e-03	-1.33e-03	-0.07	-5.94e-06	0.0	3.01e-05
97	249	4.40e-03	-1.72e-03	-0.07	-1.48e-05	0.0	2.65e-05
97	283	4.52e-03	-2.69e-03	-0.08	-3.24e-05	0.0	3.03e-05
97	298	3.09e-03	-1.14e-03	-0.08	-1.18e-05	0.0	1.36e-05
97	356	8.56e-03	-2.48e-03	-0.08	-1.34e-05	0.0	5.40e-05
97	383	4.07e-03	-2.34e-03	-0.08	-2.79e-05	0.0	2.62e-05
97	391	3.22e-03	-1.38e-03	-0.08	-1.47e-05	0.0	1.55e-05
97	408	4.20e-03	-1.87e-03	-0.08	-1.93e-05	0.0	2.44e-05
97	416	3.94e-03	-2.25e-03	-0.08	-2.70e-05	0.0	2.49e-05
97	420	3.22e-03	-1.33e-03	-0.08	-1.37e-05	0.0	1.56e-05
98	29	5.61e-03	-2.43e-03	-0.11	-4.76e-05	3.90e-06	3.49e-05
98	67	4.07e-03	-8.00e-04	-0.11	-1.53e-05	-2.57e-06	1.79e-05
98	183	0.01	-7.04e-04	-0.11	-1.83e-05	4.62e-05	7.71e-05
98	201	8.04e-03	-1.07e-03	-0.07	-1.79e-05	2.93e-05	5.19e-05
98	206	6.83e-03	1.21e-04	-0.08	0.0	2.55e-05	4.52e-05
98	229	6.13e-03	-3.84e-03	-0.07	-6.07e-05	1.06e-05	3.48e-05
98	233	5.25e-03	-4.19e-04	-0.07	-8.57e-06	1.41e-05	3.32e-05
98	238	4.84e-03	-2.30e-04	-0.07	-5.63e-06	1.24e-05	3.06e-05
98	259	2.75e-03	-9.81e-04	-0.07	-1.78e-05	-2.61e-06	1.49e-05
98	279	4.12e-03	-1.70e-03	-0.08	-3.32e-05	2.53e-06	2.54e-05
98	298	3.09e-03	-6.11e-04	-0.08	-1.17e-05	-1.78e-06	1.41e-05
98	356	8.59e-03	-5.47e-04	-0.08	-1.37e-05	3.07e-05	5.35e-05
98	379	3.95e-03	-1.45e-03	-0.08	-2.85e-05	2.59e-06	2.43e-05
98	391	3.22e-03	-7.97e-04	-0.08	-1.47e-05	0.0	1.58e-05
98	408	4.20e-03	-1.00e-03	-0.08	-1.96e-05	4.88e-06	2.42e-05
98	416	3.94e-03	-1.39e-03	-0.08	-2.75e-05	2.89e-06	2.44e-05
98	420	3.22e-03	-7.41e-04	-0.08	-1.37e-05	0.0	1.60e-05
99	29	-1.58e-04	-2.12e-03	-0.12	-5.88e-05	-1.78e-06	1.01e-05
99	182	-1.29e-03	1.99e-04	-0.08	-1.35e-05	2.46e-05	3.42e-05
99	204	3.70e-03	2.71e-04	-0.07	-5.80e-06	-5.42e-05	-2.08e-06

99	225	-3.12e-04	-3.88e-03	-0.08	-6.10e-05	4.28e-06	2.53e-05
99	229	-2.93e-04	-3.92e-03	-0.08	-6.13e-05	3.82e-06	2.45e-05
99	236	4.50e-04	-7.31e-04	-0.07	-1.25e-05	-8.56e-06	2.23e-06
99	237	-4.14e-04	-3.86e-04	-0.08	-1.20e-05	6.13e-06	1.56e-05
99	259	1.11e-04	-9.47e-04	-0.08	-1.91e-05	-2.93e-06	8.28e-06
99	279	-1.02e-04	-1.49e-03	-0.09	-4.08e-05	-1.35e-06	7.94e-06
99	355	-8.52e-04	-5.08e-05	-0.08	-1.30e-05	1.60e-05	2.58e-05
99	379	-1.16e-04	-1.27e-03	-0.09	-3.51e-05	0.0	8.18e-06
99	382	-2.98e-04	-8.94e-04	-0.08	-2.98e-05	2.37e-06	8.29e-06
99	415	-2.56e-04	-8.76e-04	-0.08	-2.79e-05	1.93e-06	8.51e-06
99	416	-1.36e-04	-1.21e-03	-0.09	-3.41e-05	0.0	8.22e-06
100	13	2.76e-04	-2.30e-03	-0.12	-3.87e-05	0.0	7.16e-06
100	29	-1.36e-04	-2.24e-03	-0.12	-6.08e-05	0.0	2.49e-06
100	182	-1.25e-03	-6.94e-04	-0.08	-1.51e-05	0.0	1.78e-05
100	204	3.75e-03	4.22e-04	-0.07	-7.33e-06	0.0	-3.01e-06
100	229	-2.94e-04	-4.75e-03	-0.08	-6.12e-05	0.0	1.63e-05
100	236	4.45e-04	-8.42e-04	-0.07	-1.19e-05	0.0	2.30e-06
100	259	1.08e-04	-1.19e-03	-0.08	-1.89e-05	0.0	4.81e-06
100	261	-1.34e-04	-1.13e-03	-0.08	-1.81e-05	0.0	6.34e-06
100	271	1.86e-04	-1.64e-03	-0.09	-2.74e-05	0.0	5.48e-06
100	279	-8.83e-05	-1.60e-03	-0.09	-4.22e-05	0.0	2.36e-06
100	355	-8.28e-04	-7.37e-04	-0.08	-1.41e-05	0.0	1.37e-05
100	371	1.31e-04	-1.44e-03	-0.09	-2.36e-05	0.0	5.51e-06
100	379	-1.04e-04	-1.41e-03	-0.09	-3.63e-05	0.0	2.84e-06
100	382	-2.80e-04	-1.02e-03	-0.08	-3.13e-05	0.0	2.65e-06
100	412	1.12e-04	-1.39e-03	-0.08	-2.26e-05	0.0	5.55e-06
100	415	-2.41e-04	-1.03e-03	-0.08	-2.92e-05	0.0	3.09e-06
100	416	-1.24e-04	-1.35e-03	-0.09	-3.53e-05	0.0	2.88e-06
101	29	-7.52e-05	-2.41e-03	-0.12	-6.39e-05	0.0	4.03e-06
101	181	-1.19e-03	-1.73e-03	-0.10	-2.73e-05	0.0	7.65e-06
101	204	3.84e-03	3.26e-04	-0.08	-1.37e-05	0.0	1.42e-05
101	227	1.08e-03	-4.71e-03	-0.08	-6.44e-05	0.0	-4.80e-06
101	229	-2.89e-04	-5.06e-03	-0.08	-6.35e-05	0.0	-9.38e-06
101	236	4.17e-04	-7.47e-04	-0.08	-9.07e-06	0.0	-6.54e-06
101	259	9.83e-05	-1.23e-03	-0.08	-1.86e-05	0.0	-4.27e-06
101	261	-1.35e-04	-1.26e-03	-0.08	-1.92e-05	0.0	-3.10e-06
101	279	-4.90e-05	-1.72e-03	-0.09	-4.41e-05	0.0	2.13e-06
101	355	-7.91e-04	-1.27e-03	-0.08	-1.98e-05	0.0	4.54e-06
101	379	-7.20e-05	-1.53e-03	-0.09	-3.81e-05	0.0	1.45e-06
101	382	-2.40e-04	-1.20e-03	-0.08	-3.43e-05	0.0	3.59e-06
101	415	-2.08e-04	-1.19e-03	-0.08	-3.18e-05	0.0	2.46e-06
101	416	-9.14e-05	-1.48e-03	-0.09	-3.72e-05	0.0	1.60e-06
102	29	-5.26e-05	-2.69e-03	-0.12	-6.25e-05	-1.20e-06	2.53e-06
102	37	-2.72e-04	-2.96e-03	-0.12	-6.95e-05	3.41e-06	1.30e-05
102	181	-1.17e-03	-2.25e-03	-0.10	-3.04e-05	2.82e-05	1.91e-05
102	204	3.90e-03	-8.89e-04	-0.08	-1.45e-05	-4.81e-05	3.80e-05
102	227	1.10e-03	-4.36e-03	-0.08	-6.58e-05	-1.67e-05	-2.60e-06
102	231	1.08e-03	-4.37e-03	-0.08	-6.55e-05	-1.62e-05	-1.86e-06
102	233	-4.12e-04	-8.85e-04	-0.07	-1.56e-05	6.67e-06	-3.26e-06
102	239	3.95e-04	-4.16e-04	-0.08	-1.27e-05	-1.01e-05	-1.67e-05
102	257	-1.45e-04	-1.01e-03	-0.08	-1.97e-05	0.0	-7.05e-06
102	279	-3.46e-05	-1.87e-03	-0.09	-4.33e-05	-1.01e-06	0.0
102	283	-1.81e-04	-2.04e-03	-0.09	-4.80e-05	2.07e-06	7.26e-06
102	355	-7.80e-04	-1.57e-03	-0.08	-2.18e-05	1.86e-05	1.14e-05
102	379	-6.01e-05	-1.61e-03	-0.09	-3.75e-05	0.0	0.0
102	382	-2.25e-04	-1.45e-03	-0.08	-3.38e-05	3.11e-06	3.32e-06
102	383	-1.09e-04	-1.67e-03	-0.09	-3.90e-05	0.0	1.54e-06
102	415	-1.95e-04	-1.35e-03	-0.08	-3.13e-05	2.51e-06	1.29e-06
102	416	-7.94e-05	-1.58e-03	-0.09	-3.66e-05	0.0	0.0
103	13	2.70e-04	-2.47e-03	-0.12	-3.76e-05	0.0	0.0
103	29	-1.03e-04	-2.28e-03	-0.12	-6.29e-05	0.0	1.94e-06
103	182	-1.20e-03	-1.18e-03	-0.08	-1.92e-05	0.0	8.63e-06
103	204	3.77e-03	5.35e-04	-0.07	-1.17e-05	0.0	1.87e-06
103	225	-3.11e-04	-5.20e-03	-0.08	-6.13e-05	0.0	3.00e-06
103	229	-2.91e-04	-5.20e-03	-0.08	-6.12e-05	0.0	2.90e-06
103	236	4.28e-04	-9.07e-04	-0.08	-1.06e-05	0.0	0.0
103	261	-1.34e-04	-1.29e-03	-0.08	-1.81e-05	0.0	1.23e-06
103	263	9.12e-05	-1.31e-03	-0.08	-1.87e-05	0.0	0.0
103	271	1.82e-04	-1.78e-03	-0.09	-2.66e-05	0.0	0.0
103	279	-6.65e-05	-1.65e-03	-0.09	-4.35e-05	0.0	1.39e-06
103	355	-8.00e-04	-1.11e-03	-0.08	-1.68e-05	0.0	6.00e-06
103	379	-8.64e-05	-1.47e-03	-0.09	-3.75e-05	0.0	1.41e-06
103	382	-2.59e-04	-1.08e-03	-0.08	-3.32e-05	0.0	2.03e-06
103	391	1.87e-04	-1.67e-03	-0.08	-8.22e-06	0.0	0.0
103	415	-2.23e-04	-1.10e-03	-0.08	-3.08e-05	0.0	1.87e-06
103	416	-1.06e-04	-1.42e-03	-0.09	-3.65e-05	0.0	1.47e-06
103	420	1.67e-04	-1.62e-03	-0.08	-7.26e-06	0.0	0.0

104	37	5.93e-04	-3.03e-03	-0.11	0.0	8.95e-06	6.75e-06
104	67	-4.27e-03	-3.13e-04	-0.12	0.0	-1.36e-05	-5.39e-05
104	87	-4.97e-03	5.92e-04	-0.11	0.0	-1.34e-05	-6.09e-05
104	204	9.43e-03	-8.43e-04	-0.08	0.0	-4.12e-05	5.80e-05
104	211	9.99e-03	-2.17e-03	-0.08	0.0	-3.62e-05	6.84e-05
104	231	1.58e-03	-4.27e-03	-0.08	0.0	-1.20e-05	7.78e-06
104	236	-2.40e-03	-1.96e-04	-0.08	0.0	-1.34e-05	-3.47e-05
104	257	-1.14e-03	-1.01e-03	-0.07	0.0	0.0	-1.15e-05
104	283	1.89e-04	-2.09e-03	-0.08	0.0	5.58e-06	1.99e-06
104	298	-3.05e-03	-2.81e-04	-0.09	0.0	-9.43e-06	-3.84e-05
104	308	-3.52e-03	3.22e-04	-0.09	0.0	-9.29e-06	-4.31e-05
104	383	-3.79e-04	-1.71e-03	-0.08	0.0	2.56e-06	-5.00e-06
104	391	-2.63e-03	-5.80e-04	-0.08	0.0	-7.00e-06	-3.24e-05
104	400	-2.81e-03	-3.37e-04	-0.08	0.0	-7.06e-06	-3.43e-05
104	416	-5.81e-04	-1.61e-03	-0.08	0.0	1.41e-06	-7.55e-06
104	420	-2.61e-03	-5.41e-04	-0.08	0.0	-6.56e-06	-3.19e-05
105	37	8.77e-04	-3.18e-03	-0.11	0.0	1.29e-05	5.16e-06
105	67	-7.03e-03	-2.25e-04	-0.12	0.0	-2.12e-05	-5.61e-05
105	87	-8.07e-03	7.34e-04	-0.11	0.0	-2.33e-05	-6.30e-05
105	208	0.01	-8.17e-04	-0.08	0.0	-3.67e-05	5.50e-05
105	211	0.01	-2.14e-03	-0.08	0.0	-2.98e-05	6.52e-05
105	231	1.96e-03	-4.26e-03	-0.07	0.0	-9.44e-06	7.11e-06
105	236	-4.20e-03	-2.03e-04	-0.07	0.0	-1.68e-05	-3.73e-05
105	240	-4.12e-03	-2.01e-04	-0.07	0.0	-1.64e-05	-3.66e-05
105	257	-1.75e-03	-1.02e-03	-0.07	0.0	1.06e-06	-1.23e-05
105	283	2.48e-04	-2.19e-03	-0.08	0.0	8.07e-06	0.0
105	298	-5.02e-03	-2.24e-04	-0.09	0.0	-1.47e-05	-4.01e-05
105	308	-5.72e-03	4.16e-04	-0.09	0.0	-1.61e-05	-4.47e-05
105	383	-6.71e-04	-1.79e-03	-0.08	0.0	3.84e-06	-6.33e-06
105	391	-4.30e-03	-5.43e-04	-0.08	0.0	-1.10e-05	-3.39e-05
105	400	-4.56e-03	-2.86e-04	-0.08	0.0	-1.17e-05	-3.57e-05
105	416	-1.00e-03	-1.68e-03	-0.08	0.0	2.28e-06	-8.92e-06
105	420	-4.24e-03	-5.03e-04	-0.08	0.0	-1.05e-05	-3.33e-05
106	37	2.18e-04	-2.98e-03	-0.11	0.0	5.12e-06	9.02e-06
106	65	-1.07e-03	-1.11e-03	-0.12	0.0	-8.94e-06	-3.19e-05
106	83	-2.08e-03	9.98e-04	-0.10	0.0	0.0	-4.95e-05
106	203	6.46e-03	-2.19e-03	-0.08	0.0	-4.52e-05	5.86e-05
106	207	6.42e-03	-2.19e-03	-0.08	0.0	-4.55e-05	5.76e-05
106	231	1.18e-03	-4.32e-03	-0.08	0.0	-1.43e-05	5.31e-06
106	239	-7.54e-04	-4.21e-04	-0.08	0.0	-1.08e-05	-2.66e-05
106	256	-8.64e-04	-6.61e-05	-0.07	0.0	-5.30e-06	-2.28e-05
106	257	-5.81e-04	-1.00e-03	-0.07	0.0	0.0	-9.98e-06
106	283	5.54e-05	-2.06e-03	-0.09	0.0	3.14e-06	3.91e-06
106	297	-8.02e-04	-8.12e-04	-0.09	0.0	-6.23e-06	-2.33e-05
106	306	-1.48e-03	5.94e-04	-0.08	0.0	0.0	-3.51e-05
106	379	-2.53e-04	-1.63e-03	-0.08	0.0	0.0	-5.42e-06
106	383	-1.74e-04	-1.69e-03	-0.08	0.0	1.18e-06	-2.61e-06
106	398	-1.19e-03	-1.01e-04	-0.08	0.0	0.0	-2.75e-05
106	416	-2.53e-04	-1.59e-03	-0.08	0.0	0.0	-4.97e-06
106	419	-1.10e-03	-3.05e-04	-0.08	0.0	0.0	-2.52e-05
107	29	2.18e-03	-2.20e-03	-0.11	0.0	0.0	3.14e-05
107	165	3.69e-03	-1.30e-03	-0.11	0.0	1.48e-05	5.11e-05
107	183	4.73e-03	-6.23e-04	-0.11	0.0	2.97e-05	7.19e-05
107	201	3.05e-03	-1.06e-03	-0.08	0.0	1.96e-05	4.82e-05
107	211	4.92e-03	-8.49e-04	-0.07	0.0	-5.66e-05	1.92e-05
107	229	2.74e-03	-3.86e-03	-0.07	0.0	6.55e-06	3.34e-05
107	233	2.05e-03	-3.96e-04	-0.07	0.0	9.06e-06	3.06e-05
107	259	1.30e-03	-9.50e-04	-0.07	0.0	-2.94e-06	1.38e-05
107	279	1.62e-03	-1.54e-03	-0.09	0.0	0.0	2.29e-05
107	347	2.63e-03	-9.41e-04	-0.09	0.0	9.73e-06	3.61e-05
107	356	3.32e-03	-4.91e-04	-0.08	0.0	1.97e-05	4.99e-05
107	379	1.56e-03	-1.31e-03	-0.08	0.0	0.0	2.20e-05
107	408	1.83e-03	-9.68e-04	-0.08	0.0	1.99e-06	2.27e-05
107	416	1.55e-03	-1.26e-03	-0.08	0.0	0.0	2.21e-05
107	420	1.67e-03	-8.20e-04	-0.08	0.0	0.0	1.57e-05
108	29	3.86e-03	-2.31e-03	-0.11	0.0	2.03e-06	3.50e-05
108	67	3.21e-03	-8.83e-04	-0.11	0.0	-2.44e-06	1.77e-05
108	183	8.49e-03	-6.57e-04	-0.11	0.0	3.94e-05	7.76e-05
108	206	4.64e-03	1.27e-04	-0.08	0.0	2.22e-05	4.47e-05
108	211	5.99e-03	-8.82e-04	-0.07	0.0	-5.81e-05	2.23e-05
108	229	4.42e-03	-3.86e-03	-0.07	0.0	8.93e-06	3.46e-05
108	233	3.63e-03	-4.08e-04	-0.07	0.0	1.20e-05	3.29e-05
108	238	3.35e-03	-2.23e-04	-0.07	0.0	1.06e-05	3.03e-05
108	259	2.01e-03	-9.66e-04	-0.07	0.0	-2.74e-06	1.48e-05
108	279	2.85e-03	-1.62e-03	-0.08	0.0	1.25e-06	2.55e-05
108	298	2.42e-03	-6.65e-04	-0.09	0.0	-1.73e-06	1.39e-05
108	356	5.93e-03	-5.14e-04	-0.08	0.0	2.62e-05	5.38e-05

108	379	2.73e-03	-1.38e-03	-0.08	0.0	1.47e-06	2.43e-05
108	391	2.46e-03	-8.32e-04	-0.08	0.0	0.0	1.57e-05
108	408	3.01e-03	-9.81e-04	-0.08	0.0	3.70e-06	2.42e-05
108	416	2.72e-03	-1.32e-03	-0.08	0.0	1.79e-06	2.45e-05
108	420	2.45e-03	-7.76e-04	-0.08	0.0	0.0	1.58e-05
109	29	7.71e-04	-2.15e-03	-0.12	0.0	-1.51e-06	2.35e-05
109	87	1.47e-03	-2.44e-04	-0.11	0.0	0.0	1.97e-05
109	211	4.29e-03	-8.11e-04	-0.07	0.0	-5.50e-05	1.35e-05
109	225	1.19e-03	-3.85e-03	-0.08	0.0	5.52e-06	3.18e-05
109	229	1.08e-03	-3.89e-03	-0.08	0.0	4.89e-06	3.04e-05
109	237	6.77e-04	-3.92e-04	-0.08	0.0	7.11e-06	2.47e-05
109	255	7.60e-04	-8.88e-04	-0.07	0.0	-2.14e-06	1.43e-05
109	259	6.32e-04	-9.44e-04	-0.07	0.0	-2.95e-06	1.19e-05
109	279	5.92e-04	-1.51e-03	-0.09	0.0	-1.16e-06	1.73e-05
109	308	1.06e-03	-2.37e-04	-0.08	0.0	0.0	1.48e-05
109	379	5.64e-04	-1.28e-03	-0.08	0.0	0.0	1.68e-05
109	400	9.30e-04	-6.82e-04	-0.08	0.0	0.0	1.51e-05
109	416	5.48e-04	-1.23e-03	-0.08	0.0	0.0	1.69e-05
109	420	8.96e-04	-8.27e-04	-0.08	0.0	-1.18e-06	1.51e-05
110	67	-0.01	-2.82e-03	-0.11	-1.58e-06	0.0	-5.77e-05
110	87	-0.01	-3.22e-03	-0.11	1.65e-05	0.0	-6.44e-05
110	211	0.01	3.06e-03	-0.07	-3.52e-05	0.0	6.42e-05
110	216	0.01	2.87e-03	-0.07	-1.37e-05	0.0	5.97e-05
110	236	-7.36e-03	-1.86e-03	-0.07	-3.24e-06	0.0	-3.84e-05
110	264	-5.39e-03	-1.35e-03	-0.07	-1.33e-06	0.0	-2.82e-05
110	298	-8.33e-03	-2.01e-03	-0.09	-2.34e-06	0.0	-4.12e-05
110	308	-9.45e-03	-2.28e-03	-0.08	9.71e-06	0.0	-4.57e-05
110	391	-6.97e-03	-1.69e-03	-0.08	-8.16e-06	0.0	-3.48e-05
110	400	-7.41e-03	-1.80e-03	-0.08	-3.38e-06	0.0	-3.67e-05
110	420	-6.85e-03	-1.66e-03	-0.08	-7.45e-06	0.0	-3.42e-05
111	67	3.91e-03	-6.23e-04	-0.11	-1.32e-05	0.0	1.67e-05
111	181	0.02	-2.95e-03	-0.10	0.0	0.0	8.64e-05
111	201	0.01	-1.98e-03	-0.07	-1.64e-05	0.0	5.47e-05
111	202	8.31e-03	-1.63e-03	-0.07	2.72e-06	0.0	4.59e-05
111	233	6.29e-03	-1.22e-03	-0.07	-6.39e-06	0.0	3.48e-05
111	234	5.58e-03	-1.09e-03	-0.07	-3.53e-06	0.0	3.11e-05
111	298	2.99e-03	-4.89e-04	-0.09	-1.01e-05	0.0	1.33e-05
111	355	0.01	-2.04e-03	-0.08	-1.74e-06	0.0	5.98e-05
111	382	4.59e-03	-8.97e-04	-0.08	-1.85e-05	0.0	2.84e-05
111	391	3.18e-03	-5.54e-04	-0.08	-1.33e-05	0.0	1.54e-05
111	407	4.75e-03	-8.89e-04	-0.08	-1.09e-05	0.0	2.63e-05
111	415	4.39e-03	-8.55e-04	-0.08	-1.77e-05	0.0	2.70e-05
111	420	3.20e-03	-5.59e-04	-0.08	-1.23e-05	0.0	1.55e-05
112	1	3.82e-03	0.0	-0.09	-1.24e-05	1.45e-06	2.15e-05
112	67	3.97e-03	0.0	-0.11	-1.05e-05	0.0	1.77e-05
112	181	0.02	0.0	-0.10	-1.95e-06	6.71e-05	8.88e-05
112	201	0.01	0.0	-0.07	-1.78e-05	3.59e-05	5.73e-05
112	206	8.70e-03	0.0	-0.08	2.30e-06	3.46e-05	4.96e-05
112	233	6.32e-03	0.0	-0.07	-7.03e-06	1.85e-05	3.59e-05
112	238	5.78e-03	0.0	-0.07	-3.69e-06	1.77e-05	3.29e-05
112	265	2.93e-03	0.0	-0.07	-9.56e-06	1.08e-06	1.65e-05
112	298	3.03e-03	0.0	-0.09	-8.27e-06	0.0	1.40e-05
112	355	0.01	0.0	-0.08	-2.60e-06	4.48e-05	6.14e-05
112	365	2.93e-03	0.0	-0.07	-9.56e-06	1.08e-06	1.65e-05
112	391	3.22e-03	0.0	-0.08	-1.20e-05	0.0	1.58e-05
112	407	4.80e-03	0.0	-0.08	-1.11e-05	1.05e-05	2.66e-05
112	409	2.93e-03	0.0	-0.07	-9.56e-06	1.08e-06	1.65e-05
112	415	4.43e-03	0.0	-0.08	-1.90e-05	8.61e-06	2.64e-05
112	420	3.24e-03	0.0	-0.08	-1.10e-05	0.0	1.59e-05
113	1	0.0	3.28e-04	-0.10	-1.78e-05	0.0	1.22e-05
113	29	0.0	1.93e-03	-0.12	-6.90e-05	4.41e-06	8.87e-06
113	37	0.0	2.47e-03	-0.12	-7.55e-05	9.80e-06	7.00e-06
113	201	0.0	4.10e-04	-0.08	-2.46e-05	1.56e-05	2.70e-05
113	206	0.0	4.71e-04	-0.08	-5.37e-06	1.47e-05	2.15e-05
113	225	0.0	-8.88e-05	-0.08	-6.36e-05	5.94e-06	2.67e-05
113	233	0.0	4.20e-04	-0.08	-1.36e-05	7.63e-06	1.65e-05
113	237	0.0	4.15e-04	-0.08	-1.37e-05	7.63e-06	1.61e-05
113	265	0.0	2.50e-04	-0.08	-1.37e-05	0.0	9.37e-06
113	279	0.0	1.32e-03	-0.09	-4.78e-05	2.92e-06	7.15e-06
113	283	0.0	1.68e-03	-0.09	-5.22e-05	6.51e-06	5.90e-06
113	365	0.0	2.50e-04	-0.08	-1.37e-05	0.0	9.37e-06
113	379	0.0	1.15e-03	-0.09	-4.12e-05	3.03e-06	7.49e-06
113	383	0.0	1.27e-03	-0.09	-4.27e-05	4.23e-06	7.07e-06
113	409	0.0	2.50e-04	-0.08	-1.37e-05	0.0	9.37e-06
113	416	0.0	1.14e-03	-0.09	-4.01e-05	3.37e-06	7.50e-06
114	29	-9.97e-05	1.84e-03	-0.12	-6.98e-05	0.0	1.28e-06
114	75	2.35e-04	-3.01e-03	-0.10	5.01e-05	0.0	2.27e-05

114	84	2.57e-04	-2.92e-03	-0.08	4.59e-05	0.0	2.16e-05
114	216	5.34e-04	8.01e-04	-0.07	-5.47e-06	0.0	-6.50e-06
114	217	-3.94e-05	-1.10e-03	-0.08	-5.81e-05	0.0	1.80e-05
114	229	-4.53e-05	-1.08e-03	-0.08	-5.94e-05	0.0	1.72e-05
114	239	-7.18e-05	-8.36e-05	-0.08	-1.58e-05	0.0	4.09e-06
114	261	-3.96e-05	-2.22e-05	-0.08	-1.81e-05	0.0	6.72e-06
114	264	-3.92e-05	-1.64e-04	-0.07	-5.61e-06	0.0	5.08e-06
114	279	-7.13e-05	1.21e-03	-0.09	-4.81e-05	0.0	1.63e-06
114	302	1.52e-04	-2.02e-03	-0.07	3.18e-05	0.0	1.59e-05
114	306	1.58e-04	-1.98e-03	-0.08	2.66e-05	0.0	1.64e-05
114	379	-6.01e-05	1.01e-03	-0.09	-4.13e-05	0.0	2.21e-06
114	394	8.23e-05	-1.32e-03	-0.07	1.26e-05	0.0	1.26e-05
114	398	8.78e-05	-1.29e-03	-0.08	8.11e-06	0.0	1.30e-05
114	416	-5.59e-05	1.01e-03	-0.09	-4.03e-05	0.0	2.19e-06
114	417	6.08e-05	-1.10e-03	-0.07	6.97e-06	0.0	1.15e-05
114	419	6.64e-05	-1.07e-03	-0.08	2.52e-06	0.0	1.19e-05
115	29	-2.53e-04	1.84e-03	-0.12	-7.28e-05	0.0	3.21e-06
115	75	6.97e-04	-3.51e-03	-0.10	5.78e-05	0.0	-2.06e-05
115	84	7.50e-04	-3.40e-03	-0.08	5.32e-05	0.0	-1.96e-05
115	216	8.60e-04	1.21e-03	-0.08	-1.52e-05	0.0	1.30e-05
115	217	-1.19e-04	-1.27e-03	-0.08	-6.06e-05	0.0	-1.21e-05
115	227	8.30e-05	-8.36e-04	-0.08	-6.36e-05	0.0	-7.71e-06
115	239	-1.89e-04	-1.62e-04	-0.08	-1.26e-05	0.0	-5.81e-06
115	259	-1.48e-04	-9.83e-05	-0.08	-1.85e-05	0.0	-5.09e-06
115	264	-7.38e-05	-2.71e-04	-0.07	-3.45e-06	0.0	-4.71e-06
115	279	-1.79e-04	1.20e-03	-0.09	-5.00e-05	0.0	1.54e-06
115	302	4.54e-04	-2.36e-03	-0.07	3.70e-05	0.0	-1.43e-05
115	306	4.71e-04	-2.33e-03	-0.08	3.16e-05	0.0	-1.46e-05
115	379	-1.56e-04	9.94e-04	-0.09	-4.31e-05	0.0	0.0
115	394	2.53e-04	-1.57e-03	-0.07	1.58e-05	0.0	-1.08e-05
115	398	2.66e-04	-1.54e-03	-0.08	1.12e-05	0.0	-1.10e-05
115	416	-1.50e-04	9.88e-04	-0.09	-4.22e-05	0.0	0.0
115	417	1.91e-04	-1.32e-03	-0.07	9.59e-06	0.0	-9.75e-06
115	419	2.04e-04	-1.29e-03	-0.08	4.98e-06	0.0	-9.95e-06
116	29	-4.20e-04	1.67e-03	-0.12	-7.43e-05	-7.34e-06	2.99e-06
116	37	-4.75e-04	2.04e-03	-0.12	-8.53e-05	-5.01e-06	1.40e-05
116	84	1.37e-03	-1.83e-03	-0.08	5.20e-05	2.36e-05	-4.28e-05
116	216	8.42e-04	2.07e-05	-0.08	-1.53e-05	-5.00e-05	4.28e-05
116	217	-1.92e-04	-3.14e-04	-0.08	-6.69e-05	0.0	-1.29e-05
116	227	-1.14e-05	-2.20e-04	-0.08	-6.95e-05	-1.96e-05	-3.10e-06
116	239	-2.90e-04	4.49e-04	-0.08	-1.48e-05	-1.20e-05	-1.69e-05
116	279	-2.96e-04	1.15e-03	-0.09	-5.13e-05	-5.20e-06	0.0
116	283	-3.32e-04	1.40e-03	-0.09	-5.87e-05	-3.64e-06	7.84e-06
116	306	8.66e-04	-1.13e-03	-0.08	3.01e-05	1.49e-05	-3.23e-05
116	379	-2.63e-04	1.00e-03	-0.09	-4.45e-05	-4.14e-06	0.0
116	383	-2.75e-04	1.08e-03	-0.09	-4.70e-05	-3.62e-06	1.74e-06
116	398	4.95e-04	-5.79e-04	-0.08	8.70e-06	8.77e-06	-2.45e-05
116	416	-2.57e-04	9.86e-04	-0.09	-4.37e-05	-3.72e-06	0.0
116	419	3.82e-04	-4.10e-04	-0.08	2.28e-06	6.90e-06	-2.21e-05
117	29	-1.93e-04	1.73e-03	-0.12	-6.82e-05	0.0	0.0
117	75	4.20e-04	-3.58e-03	-0.10	5.08e-05	0.0	3.96e-06
117	84	4.60e-04	-3.46e-03	-0.08	4.63e-05	0.0	3.85e-06
117	216	7.82e-04	1.27e-03	-0.07	-1.33e-05	0.0	-1.66e-06
117	221	-8.24e-05	-1.59e-03	-0.08	-5.72e-05	0.0	1.77e-06
117	229	-9.04e-05	-1.58e-03	-0.08	-5.81e-05	0.0	1.92e-06
117	239	-1.28e-04	-2.36e-04	-0.08	-1.40e-05	0.0	0.0
117	261	-6.90e-05	-1.99e-04	-0.08	-1.77e-05	0.0	0.0
117	262	-3.22e-05	-3.38e-04	-0.07	-4.03e-06	0.0	1.15e-06
117	279	-1.36e-04	1.12e-03	-0.09	-4.69e-05	0.0	0.0
117	302	2.72e-04	-2.42e-03	-0.07	3.24e-05	0.0	2.76e-06
117	306	2.84e-04	-2.39e-03	-0.08	2.71e-05	0.0	2.87e-06
117	379	-1.17e-04	9.13e-04	-0.09	-4.03e-05	0.0	0.0
117	394	1.47e-04	-1.64e-03	-0.07	1.29e-05	0.0	2.10e-06
117	398	1.57e-04	-1.61e-03	-0.08	8.44e-06	0.0	2.19e-06
117	414	-1.22e-04	8.83e-04	-0.08	-3.49e-05	0.0	0.0
117	416	-1.11e-04	9.08e-04	-0.09	-3.94e-05	0.0	0.0
117	417	1.08e-04	-1.39e-03	-0.07	7.32e-06	0.0	1.89e-06
118	37	1.14e-03	8.77e-04	-0.11	0.0	9.38e-06	1.05e-05
118	67	-5.07e-03	8.95e-05	-0.12	0.0	-1.28e-05	-6.08e-05
118	87	-5.75e-03	-1.60e-04	-0.11	0.0	-1.25e-05	-7.01e-05
118	204	6.94e-03	-1.27e-05	-0.08	0.0	-4.08e-05	6.12e-05
118	211	7.83e-03	-1.74e-04	-0.08	0.0	-3.58e-05	7.39e-05
118	231	8.66e-04	-3.23e-04	-0.08	0.0	-1.18e-05	1.02e-05
118	235	-2.90e-03	2.92e-04	-0.08	0.0	-1.21e-05	-3.35e-05
118	236	-3.20e-03	2.83e-04	-0.08	0.0	-1.33e-05	-3.75e-05
118	283	5.33e-04	6.10e-04	-0.08	0.0	5.89e-06	4.37e-06
118	298	-3.61e-03	8.46e-05	-0.09	0.0	-8.93e-06	-4.32e-05

118	308	-4.06e-03	-8.16e-05	-0.09	0.0	-8.68e-06	-4.94e-05
118	383	-2.19e-04	5.07e-04	-0.08	0.0	2.83e-06	-3.69e-06
118	391	-3.04e-03	9.46e-05	-0.08	0.0	-6.57e-06	-3.60e-05
118	400	-3.22e-03	3.73e-05	-0.08	0.0	-6.59e-06	-3.85e-05
118	416	-4.91e-04	4.80e-04	-0.08	0.0	1.67e-06	-6.61e-06
118	420	-2.99e-03	8.19e-05	-0.08	0.0	-6.13e-06	-3.55e-05
119	37	1.72e-03	5.81e-04	-0.11	0.0	1.44e-05	9.08e-06
119	67	-8.39e-03	1.14e-04	-0.12	0.0	-2.31e-05	-6.38e-05
119	87	-9.59e-03	-4.07e-05	-0.11	0.0	-2.58e-05	-7.29e-05
119	204	9.94e-03	-4.95e-05	-0.08	0.0	-3.81e-05	5.41e-05
119	211	0.01	-1.59e-04	-0.08	0.0	-2.94e-05	6.91e-05
119	231	1.42e-03	-2.44e-04	-0.07	0.0	-8.53e-06	9.61e-06
119	235	-4.73e-03	1.92e-04	-0.07	0.0	-1.56e-05	-3.71e-05
119	236	-5.24e-03	1.86e-04	-0.07	0.0	-1.78e-05	-4.15e-05
119	283	7.76e-04	4.05e-04	-0.08	0.0	8.99e-06	3.20e-06
119	298	-5.97e-03	9.35e-05	-0.09	0.0	-1.60e-05	-4.54e-05
119	308	-6.76e-03	-9.42e-06	-0.09	0.0	-1.78e-05	-5.14e-05
119	383	-4.16e-04	3.40e-04	-0.08	0.0	4.37e-06	-5.09e-06
119	391	-5.00e-03	9.10e-05	-0.08	0.0	-1.20e-05	-3.79e-05
119	400	-5.32e-03	5.60e-05	-0.08	0.0	-1.28e-05	-4.03e-05
119	416	-8.46e-04	3.24e-04	-0.08	0.0	2.66e-06	-8.11e-06
119	420	-4.92e-03	8.19e-05	-0.08	0.0	-1.15e-05	-3.73e-05
120	37	4.68e-04	1.26e-03	-0.11	0.0	3.96e-06	1.29e-05
120	65	-1.58e-03	5.17e-04	-0.12	0.0	-7.78e-06	-3.39e-05
120	146	2.47e-03	-5.13e-04	-0.07	0.0	3.26e-05	4.29e-05
120	207	3.68e-03	-8.64e-05	-0.08	0.0	-4.71e-05	6.28e-05
120	211	3.97e-03	-1.43e-04	-0.08	0.0	-4.53e-05	6.89e-05
120	217	-5.80e-04	-3.41e-04	-0.08	0.0	1.11e-06	-6.04e-06
120	236	-1.46e-03	3.45e-04	-0.08	0.0	-1.03e-05	-2.99e-05
120	239	-1.38e-03	3.65e-04	-0.08	0.0	-1.06e-05	-2.73e-05
120	283	2.06e-04	8.66e-04	-0.09	0.0	2.41e-06	6.44e-06
120	297	-1.16e-03	3.74e-04	-0.09	0.0	-5.41e-06	-2.48e-05
120	308	-1.53e-03	-3.48e-04	-0.08	0.0	0.0	-4.42e-05
120	379	-2.77e-04	6.65e-04	-0.08	0.0	0.0	-4.19e-06
120	383	-1.31e-04	6.99e-04	-0.08	0.0	0.0	-1.05e-06
120	400	-1.29e-03	-1.08e-04	-0.08	0.0	0.0	-3.41e-05
120	416	-2.52e-04	6.51e-04	-0.08	0.0	0.0	-3.73e-06
120	420	-1.22e-03	-2.58e-05	-0.08	0.0	-1.18e-06	-3.12e-05
121	37	2.41e-03	1.28e-03	-0.11	0.0	3.19e-06	3.85e-05
121	165	4.61e-03	7.51e-04	-0.11	0.0	1.50e-05	5.62e-05
121	181	6.64e-03	8.47e-04	-0.10	0.0	3.33e-05	8.07e-05
121	201	4.23e-03	2.43e-04	-0.08	0.0	1.96e-05	5.27e-05
121	216	8.22e-04	4.59e-04	-0.07	0.0	-6.02e-05	1.08e-05
121	233	2.60e-03	2.82e-04	-0.07	0.0	9.00e-06	3.30e-05
121	283	1.77e-03	8.75e-04	-0.08	0.0	1.97e-06	2.77e-05
121	347	3.24e-03	5.24e-04	-0.09	0.0	9.83e-06	3.95e-05
121	355	4.59e-03	5.88e-04	-0.08	0.0	2.21e-05	5.59e-05
121	379	1.57e-03	6.33e-04	-0.08	0.0	0.0	2.30e-05
121	383	1.62e-03	6.84e-04	-0.08	0.0	0.0	2.42e-05
121	407	2.00e-03	3.00e-04	-0.08	0.0	3.91e-06	2.45e-05
121	416	1.58e-03	6.25e-04	-0.08	0.0	0.0	2.31e-05
121	419	1.66e-03	-5.62e-05	-0.08	0.0	1.02e-06	1.65e-05
122	37	4.63e-03	8.51e-04	-0.11	0.0	8.14e-06	4.53e-05
122	67	3.07e-03	-5.45e-05	-0.11	0.0	-2.17e-06	1.79e-05
122	181	0.01	5.80e-04	-0.10	0.0	4.68e-05	8.95e-05
122	201	7.09e-03	1.42e-04	-0.07	0.0	2.70e-05	5.87e-05
122	206	6.03e-03	2.18e-04	-0.08	0.0	2.39e-05	5.09e-05
122	216	1.45e-03	3.57e-04	-0.07	0.0	-6.17e-05	1.27e-05
122	233	4.39e-03	1.84e-04	-0.07	0.0	1.31e-05	3.68e-05
122	238	4.02e-03	1.72e-04	-0.07	0.0	1.16e-05	3.36e-05
122	283	3.36e-03	5.83e-04	-0.08	0.0	5.36e-06	3.24e-05
122	298	2.32e-03	-2.01e-05	-0.09	0.0	-1.52e-06	1.41e-05
122	355	7.72e-03	4.03e-04	-0.08	0.0	3.11e-05	6.19e-05
122	383	2.99e-03	4.58e-04	-0.08	0.0	3.41e-06	2.78e-05
122	391	2.41e-03	1.24e-05	-0.08	0.0	0.0	1.60e-05
122	407	3.34e-03	2.09e-04	-0.08	0.0	6.38e-06	2.69e-05
122	415	2.94e-03	3.90e-04	-0.08	0.0	4.52e-06	2.70e-05
122	416	2.87e-03	4.21e-04	-0.08	0.0	2.70e-06	2.64e-05
122	420	2.42e-03	7.32e-06	-0.08	0.0	0.0	1.61e-05
123	29	7.15e-04	1.37e-03	-0.12	0.0	-1.35e-06	2.32e-05
123	37	7.25e-04	1.71e-03	-0.11	0.0	2.06e-06	2.58e-05
123	181	2.79e-03	9.96e-04	-0.11	0.0	2.45e-05	6.40e-05
123	201	1.77e-03	3.23e-04	-0.08	0.0	1.47e-05	4.29e-05
123	216	3.46e-04	4.57e-04	-0.07	0.0	-5.93e-05	5.58e-06
123	225	1.49e-03	-1.57e-04	-0.08	0.0	5.21e-06	3.32e-05
123	233	1.07e-03	3.49e-04	-0.08	0.0	6.51e-06	2.66e-05
123	237	1.04e-03	3.45e-04	-0.08	0.0	6.40e-06	2.59e-05

123	279	5.47e-04	9.43e-04	-0.09	0.0	-1.07e-06	1.72e-05
123	283	5.53e-04	1.17e-03	-0.09	0.0	1.21e-06	1.89e-05
123	355	1.93e-03	6.91e-04	-0.08	0.0	1.62e-05	4.44e-05
123	379	5.49e-04	8.25e-04	-0.08	0.0	0.0	1.67e-05
123	383	5.51e-04	8.99e-04	-0.08	0.0	0.0	1.72e-05
123	398	8.77e-04	-2.50e-04	-0.08	0.0	0.0	1.62e-05
123	416	5.52e-04	8.16e-04	-0.08	0.0	0.0	1.67e-05
123	419	8.36e-04	-1.56e-04	-0.08	0.0	0.0	1.61e-05
124	29	9.80e-03	0.14	-0.12	-1.33e-03	1.13e-04	1.14e-03
124	76	0.04	-0.24	-0.07	2.33e-03	4.68e-04	-2.19e-03
124	84	0.04	-0.24	-0.08	2.32e-03	4.69e-04	-2.19e-03
124	211	-0.03	-4.60e-04	-0.08	1.85e-05	-3.66e-04	1.65e-04
124	227	-0.01	0.05	-0.08	-4.60e-04	-1.52e-04	6.61e-05
124	229	2.17e-03	0.05	-0.08	-5.28e-04	2.80e-05	4.31e-05
124	239	-0.01	0.01	-0.08	-3.27e-05	-1.43e-04	-2.33e-05
124	243	-0.01	8.81e-05	-0.08	9.28e-06	-1.65e-04	5.62e-05
124	261	9.50e-04	0.02	-0.08	-2.46e-04	1.37e-05	1.79e-05
124	279	6.50e-03	0.09	-0.09	-8.86e-04	7.52e-05	7.60e-04
124	302	0.03	-0.16	-0.07	1.55e-03	3.12e-04	-1.46e-03
124	306	0.03	-0.16	-0.08	1.55e-03	3.13e-04	-1.46e-03
124	379	5.63e-03	0.08	-0.09	-7.59e-04	6.51e-05	6.51e-04
124	383	6.73e-03	0.09	-0.09	-8.82e-04	7.68e-05	7.61e-04
124	398	0.02	-0.09	-0.08	8.82e-04	2.08e-04	-9.00e-04
124	416	5.69e-03	0.08	-0.09	-7.59e-04	6.55e-05	6.51e-04
124	419	0.02	-0.07	-0.08	6.87e-04	1.74e-04	-7.29e-04
125	29	9.94e-03	0.20	-0.12	-1.35e-03	-1.81e-05	9.09e-04
125	76	0.04	-0.36	-0.08	2.45e-03	-8.38e-05	-1.73e-03
125	84	0.04	-0.36	-0.08	2.44e-03	-8.30e-05	-1.73e-03
125	211	-0.03	6.28e-03	-0.07	-4.88e-05	2.12e-05	1.33e-04
125	229	2.18e-03	0.05	-0.08	-5.27e-04	4.90e-06	2.62e-05
125	243	-0.01	2.70e-03	-0.07	-2.23e-05	3.18e-05	6.09e-05
125	245	0.01	0.01	-0.08	-1.20e-04	-1.43e-05	-4.03e-05
125	261	9.59e-04	0.02	-0.08	-2.45e-04	5.47e-06	1.14e-05
125	279	6.59e-03	0.13	-0.09	-9.02e-04	-1.13e-05	6.06e-04
125	302	0.03	-0.24	-0.08	1.63e-03	-5.39e-05	-1.15e-03
125	306	0.03	-0.24	-0.08	1.62e-03	-5.34e-05	-1.15e-03
125	379	5.71e-03	0.11	-0.09	-7.73e-04	-8.19e-06	5.19e-04
125	394	0.02	-0.14	-0.08	9.38e-04	-3.39e-05	-7.06e-04
125	398	0.02	-0.14	-0.08	9.34e-04	-3.34e-05	-7.06e-04
125	416	5.76e-03	0.11	-0.09	-7.72e-04	-7.78e-06	5.19e-04
125	419	0.02	-0.11	-0.08	7.30e-04	-2.70e-05	-5.71e-04
126	29	0.02	0.33	-0.12	-1.18e-03	8.88e-05	1.51e-03
126	76	0.11	-0.58	-0.07	2.07e-03	4.92e-04	-3.23e-03
126	84	0.11	-0.58	-0.07	2.06e-03	4.93e-04	-3.23e-03
126	211	-0.09	-4.41e-03	-0.08	2.49e-05	-4.36e-04	4.34e-04
126	227	-0.04	0.13	-0.08	-5.60e-04	-1.85e-04	2.34e-04
126	229	6.19e-03	0.14	-0.08	-5.82e-04	3.13e-05	1.88e-04
126	243	-0.04	-1.20e-03	-0.08	9.15e-06	-2.05e-04	1.87e-04
126	259	-0.02	0.06	-0.08	-2.65e-04	-8.87e-05	1.06e-04
126	261	2.84e-03	0.06	-0.08	-2.75e-04	1.50e-05	9.15e-05
126	279	0.02	0.22	-0.09	-7.88e-04	5.91e-05	1.01e-03
126	302	0.07	-0.39	-0.07	1.38e-03	3.28e-04	-2.15e-03
126	306	0.07	-0.39	-0.08	1.37e-03	3.28e-04	-2.15e-03
126	379	0.01	0.19	-0.09	-6.75e-04	5.13e-05	8.62e-04
126	383	0.02	0.22	-0.09	-7.83e-04	6.09e-05	1.01e-03
126	398	0.05	-0.22	-0.08	7.69e-04	2.16e-04	-1.32e-03
126	416	0.01	0.19	-0.09	-6.74e-04	5.18e-05	8.63e-04
126	419	0.04	-0.17	-0.08	5.93e-04	1.80e-04	-1.07e-03
127	29	0.02	0.38	-0.12	-1.92e-03	8.74e-05	-1.75e-03
127	76	0.11	-0.74	-0.07	3.86e-03	4.86e-04	2.71e-03
127	84	0.11	-0.74	-0.08	3.86e-03	4.87e-04	2.71e-03
127	211	-0.09	0.07	-0.07	-4.60e-04	-4.39e-04	2.02e-04
127	223	-0.05	0.18	-0.08	-1.07e-03	-2.73e-04	-2.53e-04
127	229	6.18e-03	0.15	-0.08	-8.92e-04	2.98e-05	-2.37e-04
127	243	-0.04	0.04	-0.08	-2.17e-04	-2.06e-04	9.43e-05
127	245	0.03	0.01	-0.08	-8.51e-05	1.67e-04	-1.70e-04
127	255	-0.03	0.08	-0.08	-5.16e-04	-1.33e-04	-1.28e-04
127	279	0.02	0.26	-0.09	-1.28e-03	5.79e-05	-1.17e-03
127	302	0.07	-0.50	-0.07	2.57e-03	3.23e-04	1.81e-03
127	306	0.07	-0.49	-0.08	2.57e-03	3.24e-04	1.81e-03
127	379	0.01	0.22	-0.09	-1.10e-03	5.00e-05	-1.00e-03
127	394	0.05	-0.29	-0.07	1.48e-03	2.12e-04	1.09e-03
127	398	0.05	-0.29	-0.08	1.48e-03	2.13e-04	1.09e-03
127	416	0.01	0.22	-0.09	-1.10e-03	5.05e-05	-1.00e-03
127	417	0.04	-0.23	-0.07	1.16e-03	1.77e-04	8.72e-04
127	419	0.04	-0.23	-0.08	1.16e-03	1.78e-04	8.72e-04
128	29	0.03	0.47	-0.12	-6.61e-04	3.54e-05	1.40e-03

128	76	0.17	-0.82	-0.07	1.16e-03	3.31e-04	-3.30e-03
128	84	0.17	-0.82	-0.07	1.15e-03	3.32e-04	-3.30e-03
128	211	-0.15	-7.94e-03	-0.08	1.54e-05	-3.90e-04	6.93e-04
128	227	-0.06	0.21	-0.08	-4.11e-04	-1.65e-04	3.66e-04
128	229	0.01	0.22	-0.08	-4.73e-04	2.66e-05	2.98e-04
128	243	-0.07	-2.40e-03	-0.08	6.66e-06	-1.82e-04	3.15e-04
128	259	-0.03	0.10	-0.08	-1.91e-04	-7.95e-05	1.72e-04
128	261	4.66e-03	0.10	-0.08	-2.21e-04	1.17e-05	1.47e-04
128	279	0.02	0.31	-0.09	-4.42e-04	2.34e-05	9.34e-04
128	302	0.11	-0.55	-0.07	7.67e-04	2.19e-04	-2.20e-03
128	306	0.11	-0.55	-0.08	7.62e-04	2.20e-04	-2.20e-03
128	379	0.02	0.27	-0.09	-3.79e-04	2.04e-05	8.01e-04
128	383	0.02	0.31	-0.09	-4.37e-04	2.52e-05	9.35e-04
128	398	0.07	-0.31	-0.08	4.09e-04	1.44e-04	-1.35e-03
128	416	0.02	0.27	-0.09	-3.78e-04	2.09e-05	8.01e-04
128	419	0.06	-0.24	-0.08	3.07e-04	1.20e-04	-1.09e-03
129	29	0.04	0.62	-0.12	-3.08e-04	-6.07e-06	3.27e-04
129	76	0.20	-1.25	-0.07	6.72e-04	1.98e-04	-1.38e-03
129	84	0.21	-1.24	-0.08	6.64e-04	1.99e-04	-1.38e-03
129	211	-0.19	0.15	-0.07	-1.39e-04	-3.17e-04	8.61e-04
129	223	-0.12	0.36	-0.08	-3.47e-04	-1.95e-04	9.87e-04
129	229	0.01	0.30	-0.08	-2.98e-04	1.40e-05	2.16e-04
129	243	-0.09	0.07	-0.08	-6.78e-05	-1.49e-04	3.96e-04
129	245	0.07	0.03	-0.08	-2.76e-05	1.06e-04	-2.24e-04
129	255	-0.06	0.17	-0.08	-1.57e-04	-9.77e-05	4.80e-04
129	279	0.02	0.42	-0.09	-2.06e-04	-4.54e-06	2.18e-04
129	302	0.14	-0.83	-0.07	4.46e-04	1.28e-04	-9.23e-04
129	306	0.14	-0.83	-0.08	4.41e-04	1.28e-04	-9.23e-04
129	379	0.02	0.36	-0.09	-1.76e-04	-4.57e-06	1.87e-04
129	394	0.09	-0.48	-0.07	2.38e-04	8.42e-05	-6.28e-04
129	398	0.09	-0.47	-0.08	2.34e-04	8.48e-05	-6.28e-04
129	416	0.02	0.36	-0.09	-1.75e-04	-4.10e-06	1.87e-04
129	417	0.07	-0.37	-0.07	1.79e-04	7.01e-05	-5.32e-04
129	419	0.07	-0.37	-0.08	1.74e-04	7.06e-05	-5.32e-04
130	29	0.04	0.54	-0.12	-3.11e-04	1.99e-05	3.73e-04
130	76	0.20	-0.94	-0.07	5.47e-04	2.44e-04	-1.82e-03
130	84	0.21	-0.93	-0.07	5.38e-04	2.45e-04	-1.82e-03
130	211	-0.19	-9.78e-03	-0.08	3.65e-06	-3.01e-04	8.62e-04
130	227	-0.08	0.26	-0.08	-2.78e-04	-1.21e-04	3.08e-04
130	229	0.01	0.27	-0.08	-3.18e-04	3.07e-05	2.20e-04
130	243	-0.09	-3.16e-03	-0.08	5.48e-06	-1.32e-04	3.96e-04
130	259	-0.04	0.12	-0.08	-1.22e-04	-5.24e-05	1.43e-04
130	261	6.28e-03	0.13	-0.08	-1.42e-04	1.85e-05	1.08e-04
130	279	0.02	0.36	-0.09	-2.08e-04	1.33e-05	2.48e-04
130	302	0.14	-0.62	-0.07	3.62e-04	1.66e-04	-1.21e-03
130	306	0.14	-0.62	-0.08	3.57e-04	1.67e-04	-1.21e-03
130	379	0.02	0.31	-0.09	-1.78e-04	1.31e-05	2.13e-04
130	383	0.02	0.36	-0.09	-2.04e-04	1.51e-05	2.49e-04
130	398	0.09	-0.35	-0.08	1.80e-04	1.05e-04	-7.07e-04
130	416	0.02	0.31	-0.09	-1.77e-04	1.36e-05	2.13e-04
130	419	0.07	-0.27	-0.08	1.29e-04	8.63e-05	-5.58e-04
131	29	0.03	0.56	-0.12	-6.79e-04	3.81e-05	-7.98e-04
131	76	0.17	-1.10	-0.07	1.44e-03	3.41e-04	5.65e-04
131	84	0.17	-1.10	-0.08	1.44e-03	3.42e-04	5.65e-04
131	211	-0.15	0.12	-0.07	-2.46e-04	-3.87e-04	6.66e-04
131	223	-0.09	0.29	-0.08	-5.82e-04	-2.39e-04	7.02e-04
131	229	0.01	0.25	-0.08	-4.90e-04	2.85e-05	-3.66e-04
131	243	-0.07	0.06	-0.08	-1.18e-04	-1.80e-04	3.01e-04
131	245	0.06	0.02	-0.08	-4.69e-05	1.49e-04	-2.58e-04
131	255	-0.04	0.14	-0.08	-2.74e-04	-1.15e-04	3.38e-04
131	279	0.02	0.37	-0.09	-4.54e-04	2.51e-05	-5.32e-04
131	302	0.11	-0.73	-0.07	9.59e-04	2.27e-04	3.76e-04
131	306	0.11	-0.73	-0.08	9.54e-04	2.28e-04	3.76e-04
131	379	0.02	0.32	-0.09	-3.89e-04	2.22e-05	-4.56e-04
131	394	0.07	-0.42	-0.07	5.34e-04	1.47e-04	2.12e-04
131	398	0.07	-0.42	-0.08	5.29e-04	1.48e-04	2.12e-04
131	416	0.02	0.32	-0.09	-3.88e-04	2.27e-05	-4.56e-04
131	417	0.06	-0.33	-0.07	4.10e-04	1.22e-04	1.65e-04
131	419	0.06	-0.33	-0.08	4.05e-04	1.22e-04	1.65e-04
132	29	0.01	0.13	-0.12	-1.41e-03	1.06e-04	-1.18e-03
132	76	0.04	-0.25	-0.07	2.74e-03	4.80e-04	1.93e-03
132	84	0.04	-0.25	-0.08	2.73e-03	4.82e-04	1.93e-03
132	211	-0.03	0.02	-0.07	-2.52e-04	-3.61e-04	7.84e-05
132	223	-0.02	0.06	-0.08	-6.15e-04	-2.22e-04	-6.73e-05
132	229	2.21e-03	0.05	-0.08	-5.20e-04	2.40e-05	-8.19e-05
132	243	-0.01	0.01	-0.07	-1.18e-04	-1.70e-04	3.74e-05
132	245	0.01	5.33e-03	-0.08	-4.78e-05	1.36e-04	-5.16e-05

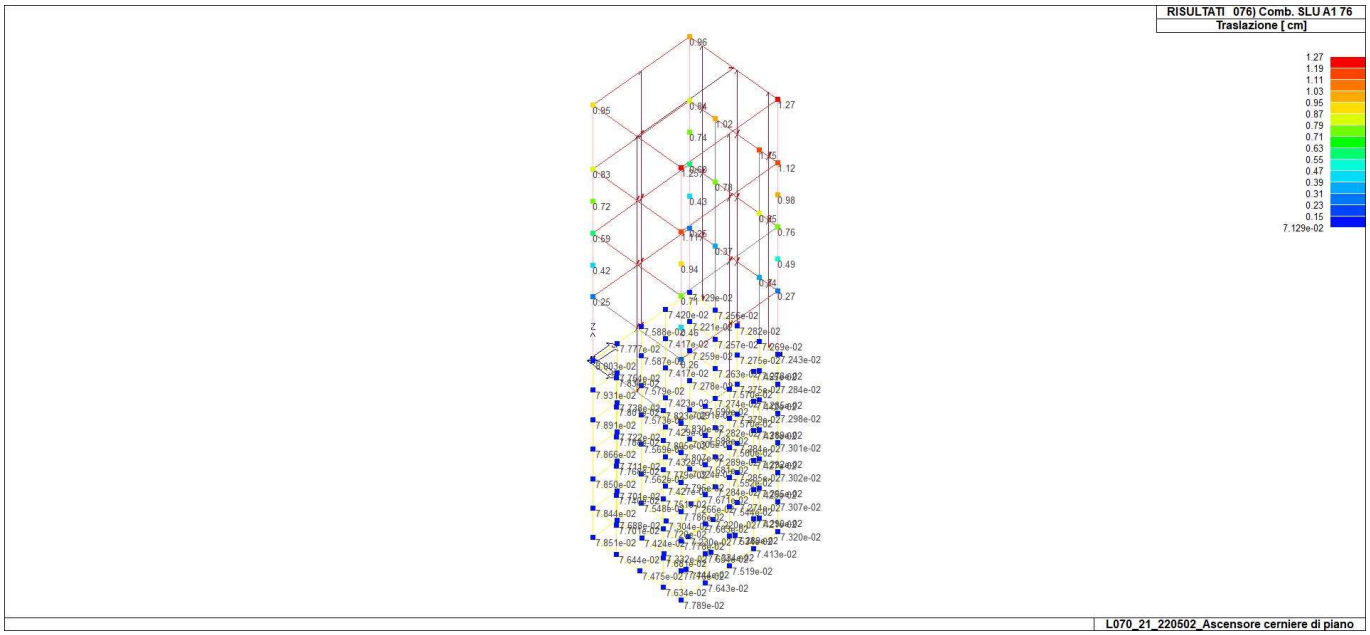
132	255	-8.90e-03	0.03	-0.08	-2.86e-04	-1.08e-04	-3.27e-05
132	279	6.66e-03	0.09	-0.09	-9.41e-04	7.02e-05	-7.87e-04
132	302	0.03	-0.17	-0.07	1.82e-03	3.19e-04	1.29e-03
132	306	0.03	-0.17	-0.08	1.82e-03	3.20e-04	1.29e-03
132	379	5.77e-03	0.08	-0.09	-8.06e-04	6.05e-05	-6.74e-04
132	394	0.02	-0.10	-0.07	1.07e-03	2.11e-04	7.78e-04
132	398	0.02	-0.10	-0.08	1.06e-03	2.11e-04	7.78e-04
132	416	5.83e-03	0.08	-0.09	-8.05e-04	6.10e-05	-6.74e-04
132	417	0.02	-0.08	-0.07	8.41e-04	1.76e-04	6.24e-04
132	419	0.02	-0.08	-0.08	8.36e-04	1.77e-04	6.25e-04
133	67	-0.04	-0.47	-0.12	2.58e-03	-1.63e-04	-6.80e-04
133	76	-0.05	-0.70	-0.08	3.86e-03	-2.18e-04	-9.94e-04
133	150	0.13	0.01	-0.08	-7.24e-05	4.85e-04	2.98e-04
133	201	0.09	0.06	-0.08	-3.76e-04	3.57e-04	3.02e-04
133	206	0.07	-0.03	-0.08	1.90e-04	2.81e-04	1.06e-04
133	223	0.02	0.18	-0.07	-1.07e-03	8.15e-05	5.37e-04
133	236	-0.04	-0.02	-0.07	1.67e-04	-1.94e-04	-1.49e-04
133	238	0.03	-0.01	-0.08	9.00e-05	1.33e-04	5.25e-05
133	255	9.72e-03	0.08	-0.07	-5.11e-04	3.61e-05	2.65e-04
133	298	-0.02	-0.31	-0.09	1.72e-03	-1.10e-04	-4.54e-04
133	302	-0.03	-0.47	-0.08	2.57e-03	-1.49e-04	-6.63e-04
133	339	0.09	0.01	-0.08	-5.14e-05	3.19e-04	1.99e-04
133	382	0.03	0.24	-0.08	-1.26e-03	1.13e-04	2.47e-04
133	394	-0.02	-0.27	-0.08	1.48e-03	-8.98e-05	-4.14e-04
133	400	-0.02	-0.27	-0.08	1.48e-03	-9.35e-05	-4.14e-04
133	415	0.02	0.20	-0.08	-1.09e-03	9.50e-05	2.12e-04
133	417	-0.02	-0.21	-0.08	1.16e-03	-7.24e-05	-3.38e-04
133	420	-0.02	-0.21	-0.08	1.15e-03	-7.62e-05	-3.38e-04
134	76	-0.07	-1.10	-0.08	1.69e-03	-1.25e-04	-2.00e-03
134	87	-0.07	-1.09	-0.12	1.67e-03	-1.28e-04	-2.00e-03
134	182	0.19	0.02	-0.08	-4.92e-05	3.57e-04	3.12e-04
134	201	0.13	0.10	-0.08	-2.16e-04	3.28e-04	4.58e-04
134	206	0.11	-0.05	-0.08	9.23e-05	2.63e-04	1.47e-04
134	223	0.03	0.29	-0.07	-5.95e-04	7.27e-05	8.26e-04
134	236	-0.07	-0.04	-0.07	8.08e-05	-1.60e-04	-2.31e-04
134	238	0.05	-0.02	-0.08	3.89e-05	1.31e-04	7.10e-05
134	255	0.02	0.14	-0.07	-2.82e-04	4.07e-05	4.00e-04
134	302	-0.05	-0.73	-0.08	1.12e-03	-8.26e-05	-1.33e-03
134	308	-0.05	-0.73	-0.09	1.11e-03	-8.52e-05	-1.34e-03
134	355	0.12	0.02	-0.08	-3.74e-05	2.39e-04	2.07e-04
134	382	0.04	0.37	-0.08	-5.41e-04	9.19e-05	4.45e-04
134	394	-0.03	-0.42	-0.08	6.30e-04	-4.63e-05	-8.26e-04
134	400	-0.03	-0.42	-0.08	6.20e-04	-4.86e-05	-8.28e-04
134	415	0.04	0.32	-0.08	-4.67e-04	7.91e-05	3.81e-04
134	417	-0.02	-0.33	-0.08	4.86e-04	-3.57e-05	-6.72e-04
134	420	-0.02	-0.33	-0.08	4.76e-04	-3.80e-05	-6.73e-04
135	29	0.02	0.44	-0.12	-1.76e-03	-1.51e-05	-1.14e-03
135	76	0.11	-0.84	-0.06	3.48e-03	1.01e-05	1.67e-03
135	84	0.11	-0.83	-0.07	3.47e-03	1.10e-05	1.67e-03
135	211	-0.09	0.06	-0.08	-3.73e-04	-6.44e-05	4.17e-04
135	223	-0.05	0.16	-0.08	-9.27e-04	-2.85e-05	4.64e-04
135	243	-0.04	0.03	-0.08	-1.77e-04	-1.99e-05	2.00e-04
135	255	-0.03	0.08	-0.08	-4.45e-04	-1.38e-05	2.27e-04
135	279	0.02	0.30	-0.09	-1.18e-03	-1.13e-05	-7.63e-04
135	302	0.07	-0.56	-0.07	2.32e-03	3.63e-06	1.11e-03
135	306	0.07	-0.55	-0.07	2.31e-03	4.21e-06	1.11e-03
135	379	0.01	0.25	-0.09	-1.01e-03	-1.03e-05	-6.54e-04
135	394	0.05	-0.32	-0.07	1.33e-03	0.0	6.58e-04
135	398	0.05	-0.32	-0.07	1.33e-03	0.0	6.58e-04
135	416	0.01	0.25	-0.09	-1.01e-03	-9.92e-06	-6.54e-04
135	417	0.04	-0.26	-0.07	1.04e-03	-2.40e-06	5.23e-04
135	419	0.04	-0.25	-0.08	1.04e-03	-1.91e-06	5.23e-04
136	29	0.03	0.59	-0.12	-6.75e-04	-1.30e-05	-6.32e-04
136	76	0.17	-1.13	-0.07	1.38e-03	1.77e-05	4.09e-04
136	84	0.17	-1.13	-0.07	1.37e-03	1.85e-05	4.09e-04
136	211	-0.15	0.11	-0.08	-2.05e-04	-6.54e-05	7.00e-04
136	223	-0.09	0.27	-0.08	-5.28e-04	-2.86e-05	7.96e-04
136	243	-0.07	0.05	-0.08	-9.89e-05	-2.03e-05	3.25e-04
136	255	-0.04	0.13	-0.08	-2.48e-04	-1.34e-05	3.87e-04
136	279	0.02	0.39	-0.09	-4.52e-04	-9.87e-06	-4.22e-04
136	302	0.11	-0.75	-0.07	9.18e-04	9.14e-06	2.72e-04
136	306	0.11	-0.75	-0.07	9.13e-04	9.73e-06	2.72e-04
136	379	0.02	0.34	-0.09	-3.87e-04	-8.96e-06	-3.62e-04
136	394	0.07	-0.43	-0.07	5.08e-04	2.18e-06	1.49e-04
136	398	0.07	-0.43	-0.08	5.03e-04	2.69e-06	1.49e-04
136	416	0.02	0.34	-0.09	-3.86e-04	-8.54e-06	-3.62e-04
136	417	0.06	-0.34	-0.07	3.89e-04	0.0	1.13e-04

136	419	0.06	-0.34	-0.08	3.84e-04	0.0	1.13e-04
137	29	0.01	0.18	-0.12	-1.39e-03	-1.53e-05	-1.17e-03
137	76	0.04	-0.34	-0.06	2.65e-03	7.83e-06	1.97e-03
137	84	0.04	-0.34	-0.07	2.64e-03	8.79e-06	1.97e-03
137	211	-0.03	0.02	-0.08	-2.14e-04	-5.85e-05	6.63e-05
137	223	-0.02	0.05	-0.08	-5.64e-04	-2.63e-05	-6.78e-05
137	243	-0.01	0.01	-0.08	-1.01e-04	-1.89e-05	3.77e-05
137	255	-8.91e-03	0.02	-0.08	-2.61e-04	-1.33e-05	-3.13e-05
137	279	6.67e-03	0.12	-0.09	-9.29e-04	-1.15e-05	-7.79e-04
137	302	0.03	-0.22	-0.07	1.76e-03	2.02e-06	1.31e-03
137	306	0.03	-0.22	-0.07	1.76e-03	2.66e-06	1.31e-03
137	379	5.77e-03	0.11	-0.09	-7.96e-04	-1.05e-05	-6.68e-04
137	394	0.02	-0.13	-0.07	1.03e-03	-2.18e-06	7.85e-04
137	398	0.02	-0.13	-0.07	1.02e-03	-1.63e-06	7.85e-04
137	416	5.83e-03	0.11	-0.09	-7.95e-04	-1.01e-05	-6.68e-04
137	419	0.02	-0.10	-0.08	8.04e-04	-2.94e-06	6.27e-04
138	76	-0.06	-0.94	-0.08	3.22e-03	-1.72e-04	-1.50e-03
138	87	-0.06	-0.93	-0.12	3.20e-03	-1.76e-04	-1.50e-03
138	150	0.16	0.02	-0.08	-7.20e-05	4.55e-04	3.05e-04
138	201	0.11	0.09	-0.08	-3.33e-04	3.80e-04	3.79e-04
138	206	0.09	-0.04	-0.08	1.64e-04	3.02e-04	1.26e-04
138	223	0.03	0.24	-0.07	-9.38e-04	8.83e-05	6.81e-04
138	236	-0.06	-0.04	-0.07	1.44e-04	-1.89e-04	-1.90e-04
138	238	0.04	-0.02	-0.08	7.67e-05	1.49e-04	6.16e-05
138	255	0.01	0.12	-0.07	-4.49e-04	4.75e-05	3.32e-04
138	302	-0.04	-0.62	-0.08	2.14e-03	-1.15e-04	-9.98e-04
138	308	-0.04	-0.62	-0.09	2.13e-03	-1.17e-04	-9.99e-04
138	339	0.11	0.01	-0.08	-5.14e-05	3.03e-04	2.03e-04
138	382	0.04	0.31	-0.08	-1.05e-03	1.12e-04	3.46e-04
138	394	-0.02	-0.36	-0.08	1.23e-03	-6.46e-05	-6.20e-04
138	400	-0.03	-0.36	-0.08	1.22e-03	-6.70e-05	-6.21e-04
138	415	0.03	0.27	-0.08	-9.00e-04	9.58e-05	2.97e-04
138	417	-0.02	-0.28	-0.08	9.63e-04	-5.01e-05	-5.05e-04
138	420	-0.02	-0.28	-0.08	9.54e-04	-5.24e-05	-5.05e-04
139	29	0.03	0.49	-0.12	-1.36e-03	7.04e-05	-1.27e-03
139	76	0.14	-0.96	-0.07	2.82e-03	4.51e-04	1.64e-03
139	84	0.14	-0.96	-0.08	2.81e-03	4.52e-04	1.64e-03
139	211	-0.12	0.10	-0.07	-3.99e-04	-4.54e-04	5.37e-04
139	223	-0.07	0.24	-0.08	-9.26e-04	-2.84e-04	5.66e-04
139	229	8.23e-03	0.20	-0.08	-7.73e-04	3.23e-05	-2.88e-04
139	243	-0.05	0.05	-0.08	-1.89e-04	-2.14e-04	2.48e-04
139	245	0.04	0.02	-0.08	-7.37e-05	1.76e-04	-2.12e-04
139	255	-0.03	0.12	-0.08	-4.45e-04	-1.38e-04	2.74e-04
139	279	0.02	0.33	-0.09	-9.11e-04	4.67e-05	-8.50e-04
139	302	0.09	-0.64	-0.07	1.88e-03	3.00e-04	1.09e-03
139	306	0.09	-0.64	-0.08	1.87e-03	3.01e-04	1.09e-03
139	379	0.02	0.28	-0.09	-7.81e-04	4.06e-05	-7.29e-04
139	394	0.06	-0.37	-0.07	1.07e-03	1.97e-04	6.50e-04
139	398	0.06	-0.37	-0.08	1.06e-03	1.97e-04	6.50e-04
139	416	0.02	0.28	-0.09	-7.80e-04	4.11e-05	-7.29e-04
139	417	0.05	-0.29	-0.07	8.32e-04	1.64e-04	5.18e-04
139	419	0.05	-0.29	-0.08	8.27e-04	1.64e-04	5.18e-04
140	29	0.03	0.41	-0.12	-1.12e-03	6.88e-05	1.46e-03
140	76	0.14	-0.72	-0.07	1.96e-03	4.52e-04	-3.26e-03
140	84	0.14	-0.72	-0.07	1.95e-03	4.53e-04	-3.26e-03
140	211	-0.12	-6.33e-03	-0.08	3.04e-05	-4.55e-04	5.63e-04
140	227	-0.05	0.17	-0.08	-6.22e-04	-1.94e-04	2.99e-04
140	229	8.25e-03	0.18	-0.08	-6.47e-04	3.15e-05	2.42e-04
140	243	-0.05	-1.84e-03	-0.08	9.76e-06	-2.15e-04	2.51e-04
140	259	-0.02	0.08	-0.08	-2.98e-04	-9.37e-05	1.39e-04
140	261	3.80e-03	0.08	-0.08	-3.09e-04	1.45e-05	1.18e-04
140	279	0.02	0.27	-0.09	-7.46e-04	4.56e-05	9.70e-04
140	302	0.09	-0.48	-0.07	1.30e-03	3.00e-04	-2.18e-03
140	306	0.10	-0.48	-0.08	1.30e-03	3.01e-04	-2.18e-03
140	379	0.02	0.24	-0.09	-6.40e-04	3.96e-05	8.32e-04
140	383	0.02	0.27	-0.09	-7.42e-04	4.75e-05	9.71e-04
140	398	0.06	-0.27	-0.08	7.15e-04	1.97e-04	-1.34e-03
140	416	0.02	0.24	-0.09	-6.39e-04	4.01e-05	8.32e-04
140	419	0.05	-0.21	-0.08	5.46e-04	1.64e-04	-1.08e-03
141	76	-0.06	-0.72	-0.08	1.96e-03	-1.77e-04	-4.29e-04
141	87	-0.06	-0.71	-0.12	1.94e-03	-1.82e-04	-4.31e-04
141	182	0.16	-2.14e-03	-0.07	2.98e-06	4.54e-04	-2.88e-04
141	201	0.11	0.02	-0.07	-5.10e-05	3.77e-04	3.55e-04
141	208	-0.10	-0.01	-0.08	5.38e-05	-3.78e-04	-2.27e-04
141	229	0.05	0.18	-0.07	-6.45e-04	1.61e-04	1.16e-04
141	236	-0.06	1.69e-04	-0.08	2.46e-06	-1.91e-04	-1.80e-04
141	240	-0.05	-3.95e-03	-0.08	1.73e-05	-1.78e-04	-1.41e-04

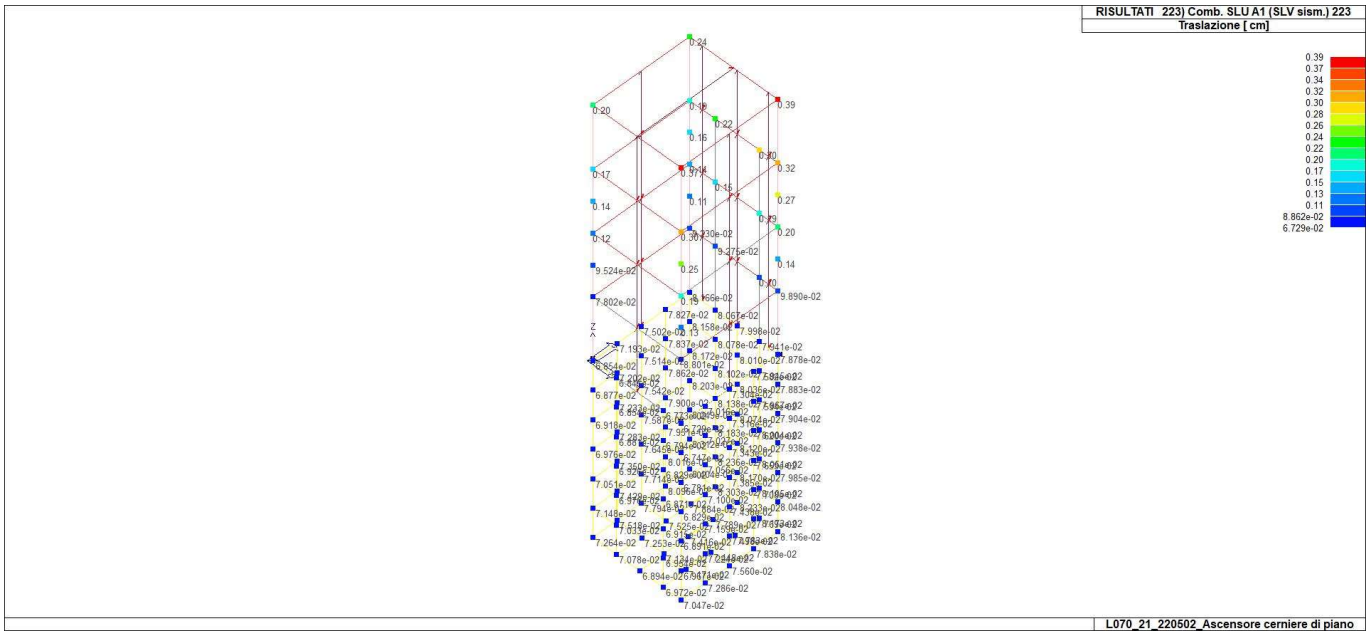
141	261	0.02	0.08	-0.07	-3.07e-04	7.84e-05	5.63e-05
141	302	-0.04	-0.48	-0.08	1.30e-03	-1.19e-04	-2.87e-04
141	308	-0.04	-0.47	-0.09	1.29e-03	-1.22e-04	-2.88e-04
141	355	0.11	-3.62e-05	-0.07	-1.88e-06	3.02e-04	-1.93e-04
141	382	0.04	0.27	-0.07	-7.34e-04	1.11e-04	-1.02e-04
141	383	0.04	0.27	-0.08	-7.40e-04	1.08e-04	-1.04e-04
141	400	-0.02	-0.27	-0.08	7.11e-04	-7.06e-05	-1.91e-04
141	415	0.03	0.23	-0.07	-6.31e-04	9.47e-05	-8.80e-05
141	416	0.03	0.23	-0.08	-6.37e-04	9.15e-05	-8.93e-05
141	420	-0.02	-0.21	-0.08	5.42e-04	-5.58e-05	-1.61e-04
142	67	-0.02	-0.30	-0.12	2.42e-03	-2.12e-04	-7.97e-04
142	76	-0.03	-0.45	-0.08	3.62e-03	-2.77e-04	-1.17e-03
142	181	0.10	0.01	-0.10	-6.78e-05	5.61e-04	2.59e-04
142	201	0.06	0.04	-0.07	-3.41e-04	3.80e-04	2.09e-04
142	206	0.05	-0.02	-0.08	1.68e-04	2.97e-04	7.49e-05
142	223	0.02	0.11	-0.07	-9.62e-04	8.88e-05	3.72e-04
142	236	-0.03	-0.01	-0.07	1.46e-04	-2.18e-04	-9.61e-05
142	238	0.02	-7.29e-03	-0.08	7.77e-05	1.37e-04	3.94e-05
142	255	7.44e-03	0.05	-0.07	-4.62e-04	3.34e-05	1.81e-04
142	298	-0.02	-0.20	-0.09	1.61e-03	-1.44e-04	-5.31e-04
142	302	-0.02	-0.30	-0.08	2.41e-03	-1.92e-04	-7.79e-04
142	355	0.06	7.85e-03	-0.08	-4.68e-05	3.71e-04	1.73e-04
142	382	0.02	0.16	-0.08	-1.20e-03	1.27e-04	3.35e-04
142	394	-0.01	-0.18	-0.08	1.40e-03	-1.19e-04	-4.79e-04
142	400	-0.01	-0.17	-0.08	1.39e-03	-1.24e-04	-4.79e-04
142	415	0.02	0.13	-0.08	-1.03e-03	1.06e-04	2.88e-04
142	417	-9.63e-03	-0.14	-0.08	1.10e-03	-9.72e-05	-3.88e-04
142	420	-0.01	-0.14	-0.08	1.09e-03	-1.02e-04	-3.88e-04
143	29	0.02	0.25	-0.12	-2.04e-03	1.15e-04	-1.47e-03
143	76	0.08	-0.48	-0.07	4.02e-03	5.65e-04	2.32e-03
143	84	0.08	-0.48	-0.08	4.01e-03	5.66e-04	2.32e-03
143	211	-0.06	0.05	-0.07	-4.15e-04	-4.53e-04	1.42e-04
143	223	-0.04	0.11	-0.08	-9.77e-04	-2.82e-04	-1.56e-04
143	229	4.10e-03	0.09	-0.08	-8.17e-04	3.25e-05	-1.51e-04
143	243	-0.03	0.02	-0.08	-1.96e-04	-2.13e-04	6.64e-05
143	245	0.02	9.53e-03	-0.08	-7.75e-05	1.75e-04	-1.09e-04
143	255	-0.02	0.05	-0.08	-4.68e-04	-1.37e-04	-7.82e-05
143	279	0.01	0.17	-0.09	-1.36e-03	7.67e-05	-9.77e-04
143	302	0.05	-0.32	-0.07	2.68e-03	3.76e-04	1.55e-03
143	306	0.05	-0.32	-0.08	2.67e-03	3.77e-04	1.55e-03
143	379	0.01	0.14	-0.09	-1.17e-03	6.63e-05	-8.37e-04
143	394	0.03	-0.19	-0.07	1.56e-03	2.48e-04	9.33e-04
143	398	0.03	-0.19	-0.08	1.55e-03	2.49e-04	9.33e-04
143	416	0.01	0.14	-0.09	-1.16e-03	6.68e-05	-8.37e-04
143	417	0.03	-0.15	-0.07	1.23e-03	2.08e-04	7.48e-04
143	419	0.03	-0.15	-0.08	1.22e-03	2.08e-04	7.48e-04
144	29	0.02	0.24	-0.12	-1.64e-03	1.15e-04	1.33e-03
144	76	0.08	-0.42	-0.07	2.88e-03	5.64e-04	-2.71e-03
144	84	0.08	-0.41	-0.08	2.87e-03	5.65e-04	-2.71e-03
144	211	-0.06	-2.33e-03	-0.08	3.46e-05	-4.54e-04	2.98e-04
144	227	-0.02	0.09	-0.08	-6.77e-04	-1.94e-04	1.43e-04
144	229	4.13e-03	0.09	-0.08	-7.05e-04	3.17e-05	1.09e-04
144	243	-0.03	-5.58e-04	-0.08	1.02e-05	-2.14e-04	1.21e-04
144	259	-0.01	0.04	-0.08	-3.25e-04	-9.33e-05	6.14e-05
144	261	1.87e-03	0.04	-0.08	-3.37e-04	1.46e-05	5.16e-05
144	279	0.01	0.16	-0.09	-1.09e-03	7.61e-05	8.83e-04
144	302	0.05	-0.28	-0.07	1.91e-03	3.75e-04	-1.81e-03
144	306	0.05	-0.28	-0.08	1.91e-03	3.76e-04	-1.81e-03
144	379	9.96e-03	0.14	-0.09	-9.39e-04	6.57e-05	7.57e-04
144	383	0.01	0.16	-0.09	-1.09e-03	7.79e-05	8.84e-04
144	398	0.03	-0.16	-0.08	1.08e-03	2.48e-04	-1.11e-03
144	416	0.01	0.14	-0.09	-9.38e-04	6.61e-05	7.57e-04
144	419	0.03	-0.12	-0.08	8.39e-04	2.07e-04	-8.99e-04
145	76	-0.04	-0.41	-0.08	2.88e-03	-1.79e-04	2.33e-04
145	87	-0.04	-0.41	-0.12	2.86e-03	-1.73e-04	2.25e-04
145	150	0.10	-1.55e-03	-0.07	1.33e-05	5.66e-04	-5.07e-04
145	201	0.06	8.92e-03	-0.07	-5.44e-05	4.19e-04	1.79e-04
145	208	-0.05	-6.85e-03	-0.08	6.38e-05	-4.35e-04	0.0
145	229	0.02	0.09	-0.07	-7.02e-04	1.93e-04	-1.79e-04
145	236	-0.03	4.46e-04	-0.08	4.58e-06	-1.82e-04	-1.03e-04
145	240	-0.03	-1.72e-03	-0.08	2.12e-05	-1.68e-04	-5.04e-05
145	261	0.01	0.04	-0.07	-3.34e-04	1.01e-04	-9.28e-05
145	302	-0.03	-0.28	-0.08	1.91e-03	-1.14e-04	1.52e-04
145	308	-0.03	-0.27	-0.09	1.90e-03	-1.13e-04	1.49e-04
145	339	0.06	-1.82e-04	-0.07	5.13e-06	3.83e-04	-3.41e-04
145	382	0.02	0.16	-0.07	-1.08e-03	1.41e-04	-2.61e-04
145	383	0.02	0.16	-0.08	-1.09e-03	1.40e-04	-2.64e-04

145	400	-0.02	-0.15	-0.08	1.08e-03	-5.71e-05	7.62e-05
145	415	0.02	0.14	-0.07	-9.29e-04	1.23e-04	-2.26e-04
145	416	0.02	0.14	-0.08	-9.34e-04	1.22e-04	-2.28e-04
145	420	-0.01	-0.12	-0.08	8.35e-04	-4.06e-05	5.52e-05

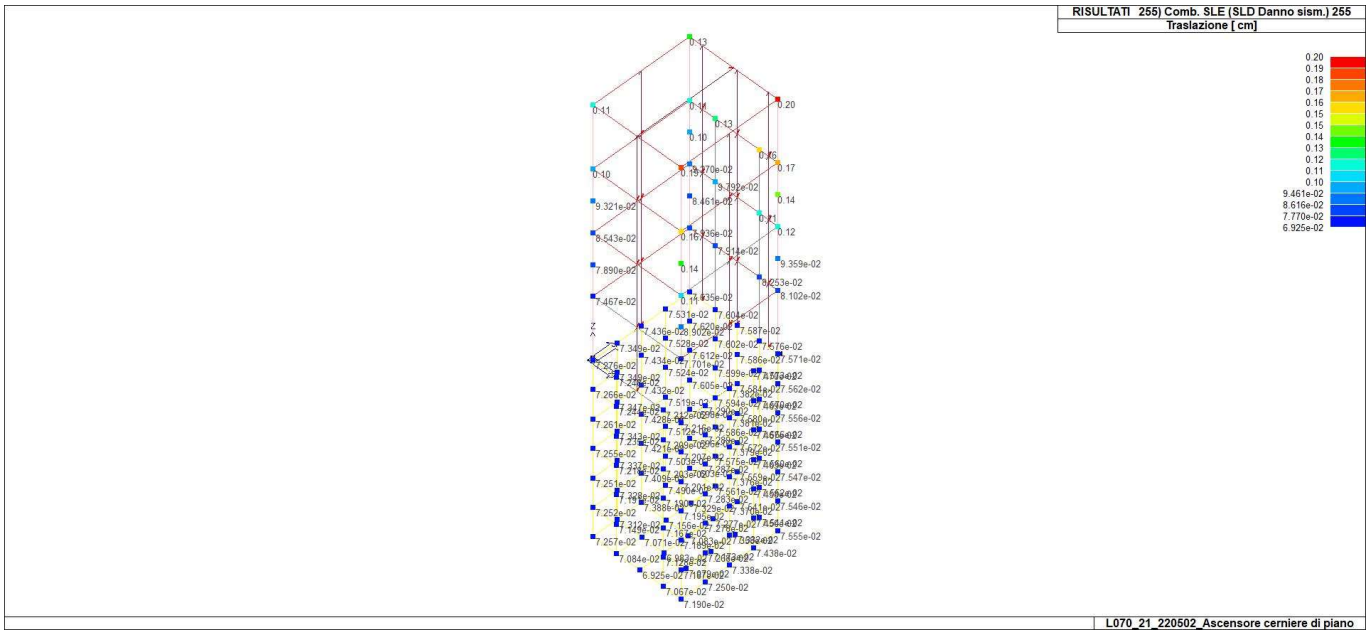
Nodo	Traslazione X	Traslazione Y	Traslazione Z	Rotazione X	Rotazione Y	Rotazione Z
	-0.19	-1.25	-0.12	-2.04e-03	-4.55e-04	-3.30e-03
	0.23	0.62	-0.06	4.02e-03	5.66e-04	2.71e-03



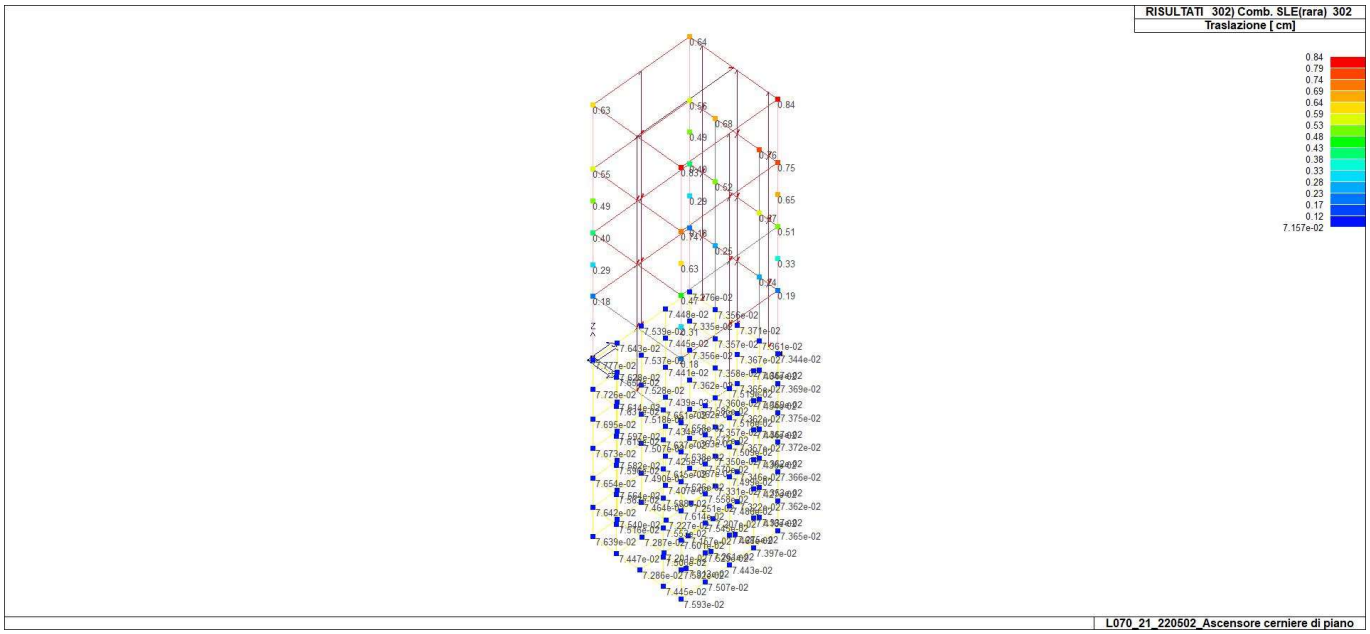
41_RIS_SPOSTAMENTI_076_Comb. SLU A1 76



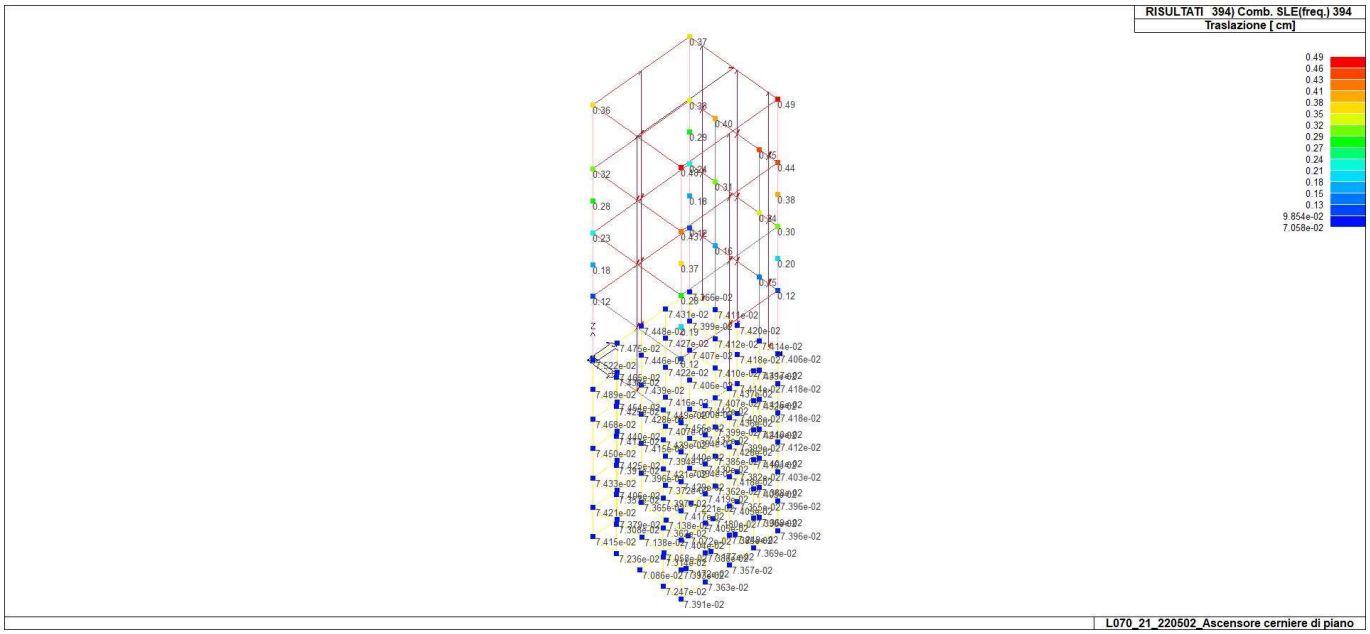
41_RIS_SPOSTAMENTI_223_Comb. SLU A1 (SLV sism.) 223



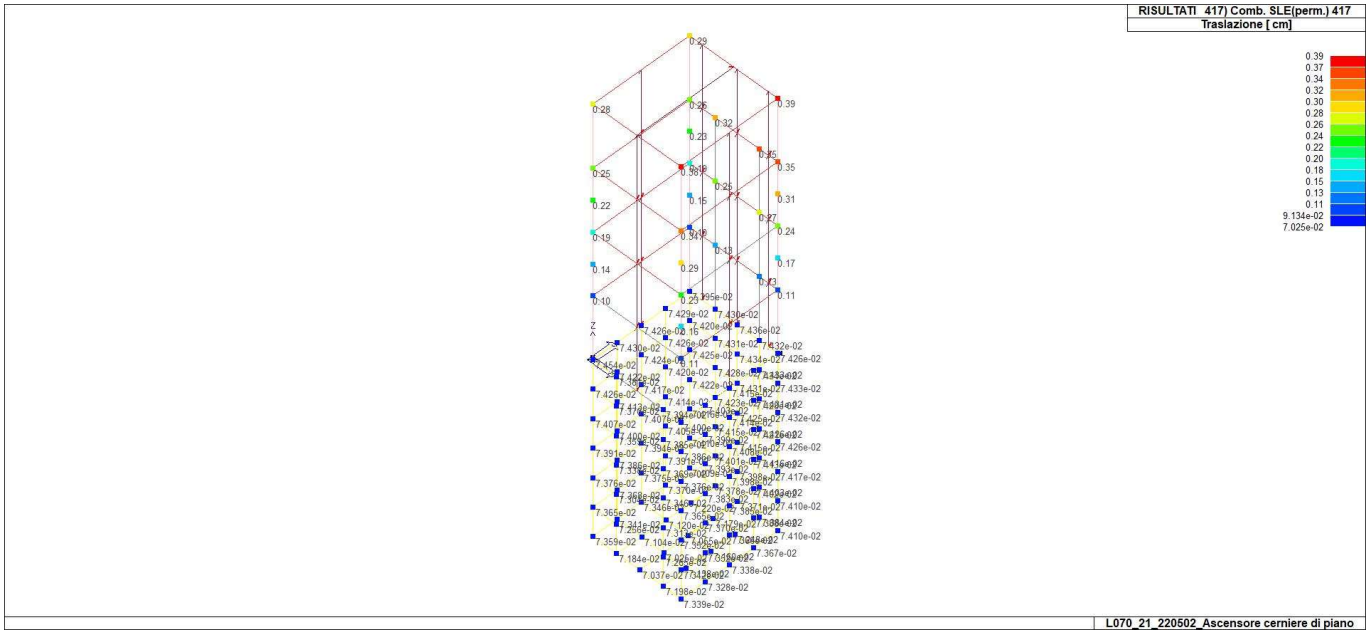
41_RIS_SPOSTAMENTI_255_Comb. SLE (SLD Danno sism.) 255



41_RIS_SPOSTAMENTI_302_Comb. SLE(rara) 302



41_RIS_SPOSTAMENTI_394_Comb. SLE(freq.) 394



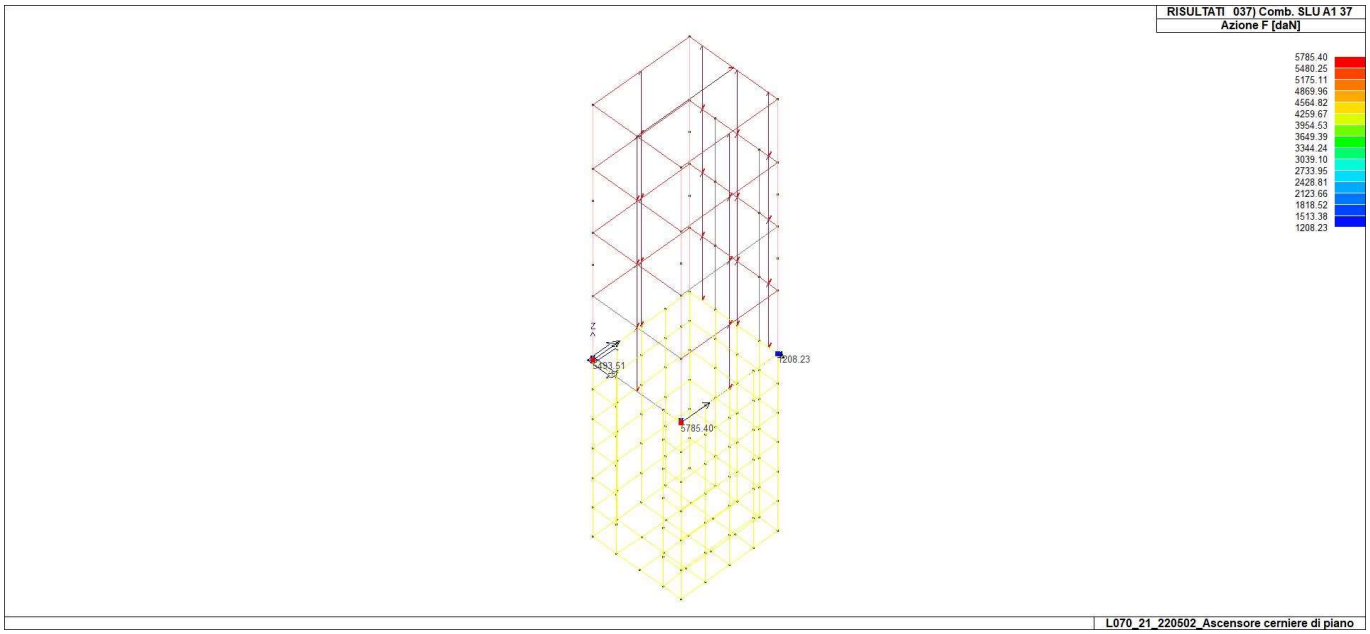
41_RIS_SPOSTAMENTI_417_Comb. SLE(perm.) 417

Nodo	Cmb	Azione X	Azione Y	Azione Z	Azione RX	Azione RY	Azione RZ
		daN	daN	daN	daN cm	daN cm	daN cm
29	1	0.0	531.12	0.0	0.0	0.0	0.0
29	201	0.0	-373.65	0.0	0.0	0.0	0.0
29	233	0.0	224.91	0.0	0.0	0.0	0.0
29	265	0.0	408.54	0.0	0.0	0.0	0.0
29	365	0.0	408.54	0.0	0.0	0.0	0.0
29	409	0.0	408.54	0.0	0.0	0.0	0.0
112	1	0.0	460.15	0.0	0.0	0.0	0.0
112	201	0.0	683.85	0.0	0.0	0.0	0.0
112	233	0.0	719.16	0.0	0.0	0.0	0.0
112	265	0.0	354.02	0.0	0.0	0.0	0.0
112	365	0.0	354.02	0.0	0.0	0.0	0.0
112	409	0.0	354.02	0.0	0.0	0.0	0.0

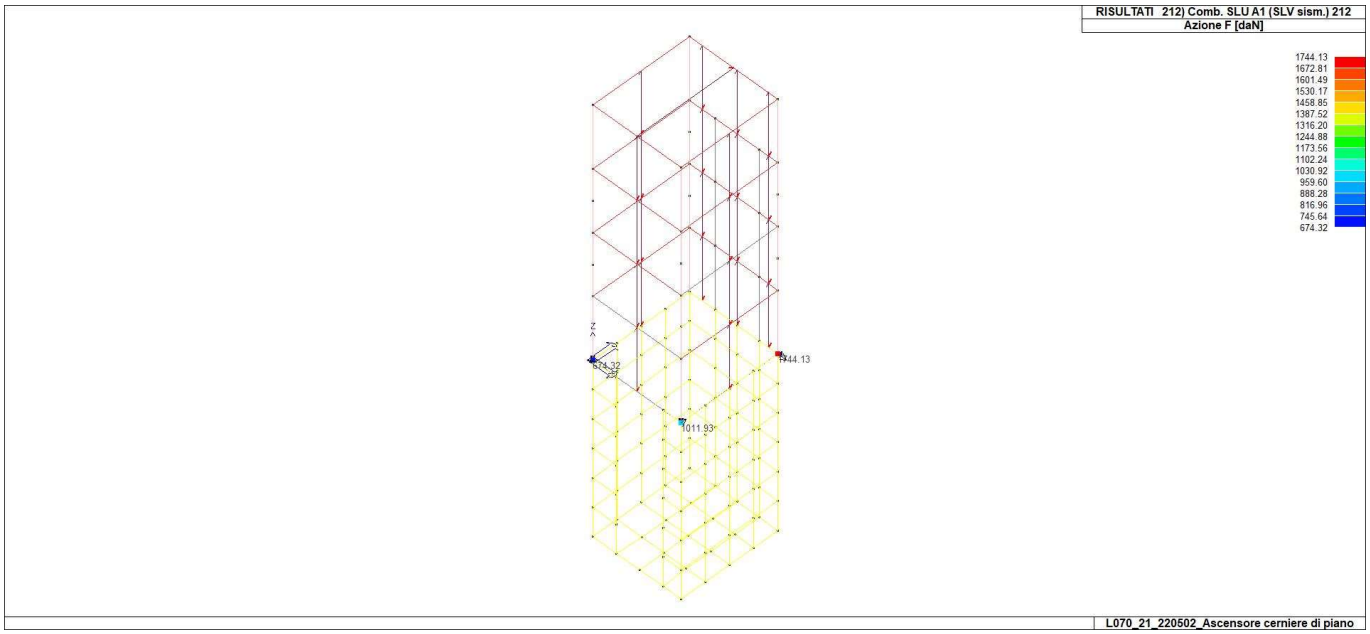
113	1	-73.89	0.0	0.0	0.0	0.0	0.0
113	201	1153.39	0.0	0.0	0.0	0.0	0.0
113	233	540.69	0.0	0.0	0.0	0.0	0.0
113	265	-56.84	0.0	0.0	0.0	0.0	0.0
113	365	-56.84	0.0	0.0	0.0	0.0	0.0
113	409	-56.84	0.0	0.0	0.0	0.0	0.0

Nodo	**Azione X**	**Azione Y**	**Azione Z**	**Azione RX**	**Azione RY**	**Azione RZ**
	-73.89	-373.65	0.0	0.0	0.0	0.0
	1153.39	719.16	0.0	0.0	0.0	0.0

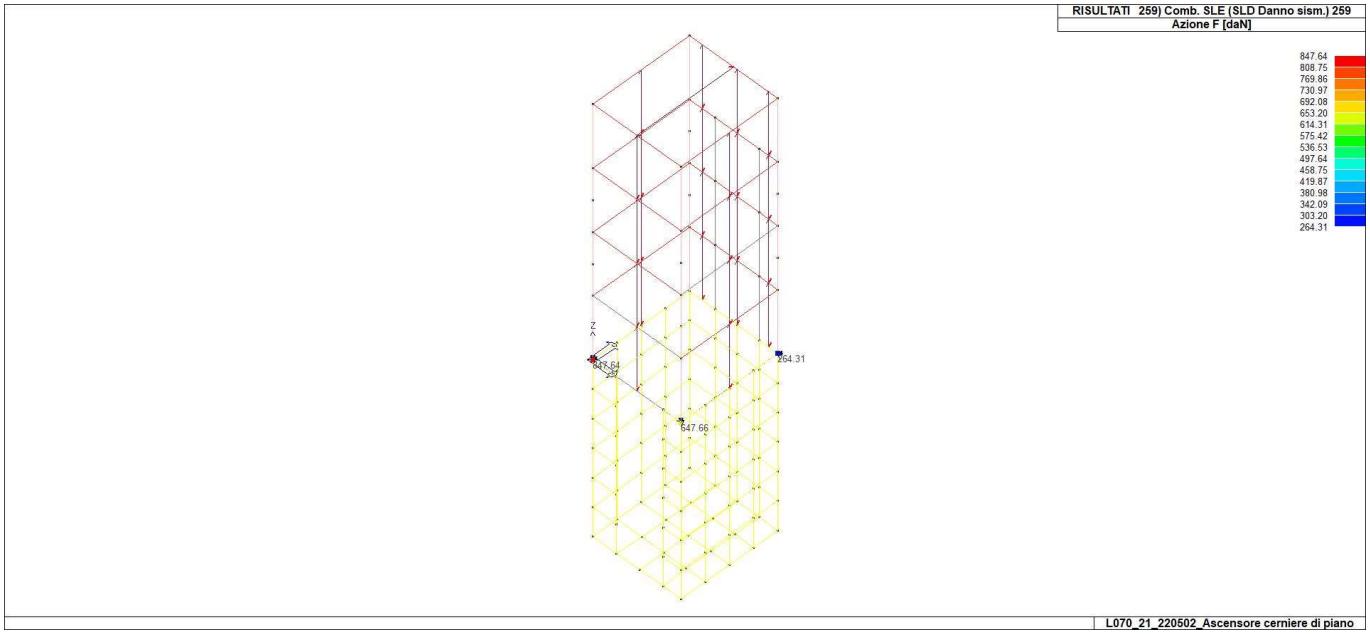
Nodo	**Cmb**	**Azione X**	**Azione Y**	**Azione Z**	**Azione RX**	**Azione RY**	**Azione RZ**
		daN	daN	daN	daN cm	daN cm	daN cm
29	1	0.0	531.12	0.0	0.0	0.0	0.0
	1	0.0	531.12	0.0	0.0	0.0	0.0
	1	0.0	531.12	0.0	0.0	0.0	0.0
	1	0.0	531.12	0.0	0.0	0.0	0.0
	1	0.0	531.12	0.0	0.0	0.0	0.0
	1	0.0	531.12	0.0	0.0	0.0	0.0
112	1	0.0	460.15	0.0	0.0	0.0	0.0
	1	0.0	460.15	0.0	0.0	0.0	0.0
	1	0.0	460.15	0.0	0.0	0.0	0.0
	1	0.0	460.15	0.0	0.0	0.0	0.0
	1	0.0	460.15	0.0	0.0	0.0	0.0
	1	0.0	460.15	0.0	0.0	0.0	0.0
113	1	-73.89	0.0	0.0	0.0	0.0	0.0
	1	-73.89	0.0	0.0	0.0	0.0	0.0
	1	-73.89	0.0	0.0	0.0	0.0	0.0
	1	-73.89	0.0	0.0	0.0	0.0	0.0
	1	-73.89	0.0	0.0	0.0	0.0	0.0
	1	-73.89	0.0	0.0	0.0	0.0	0.0



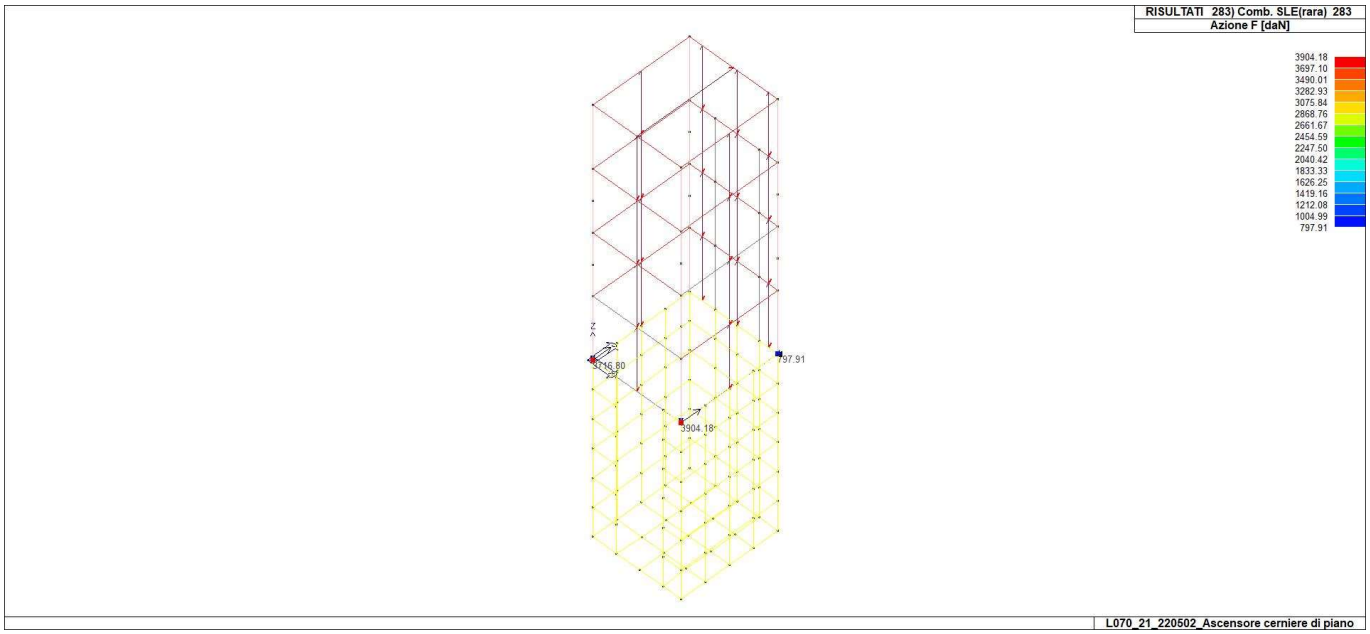
42_RIS_REAZIONI_037_Comb. SLU A1 37



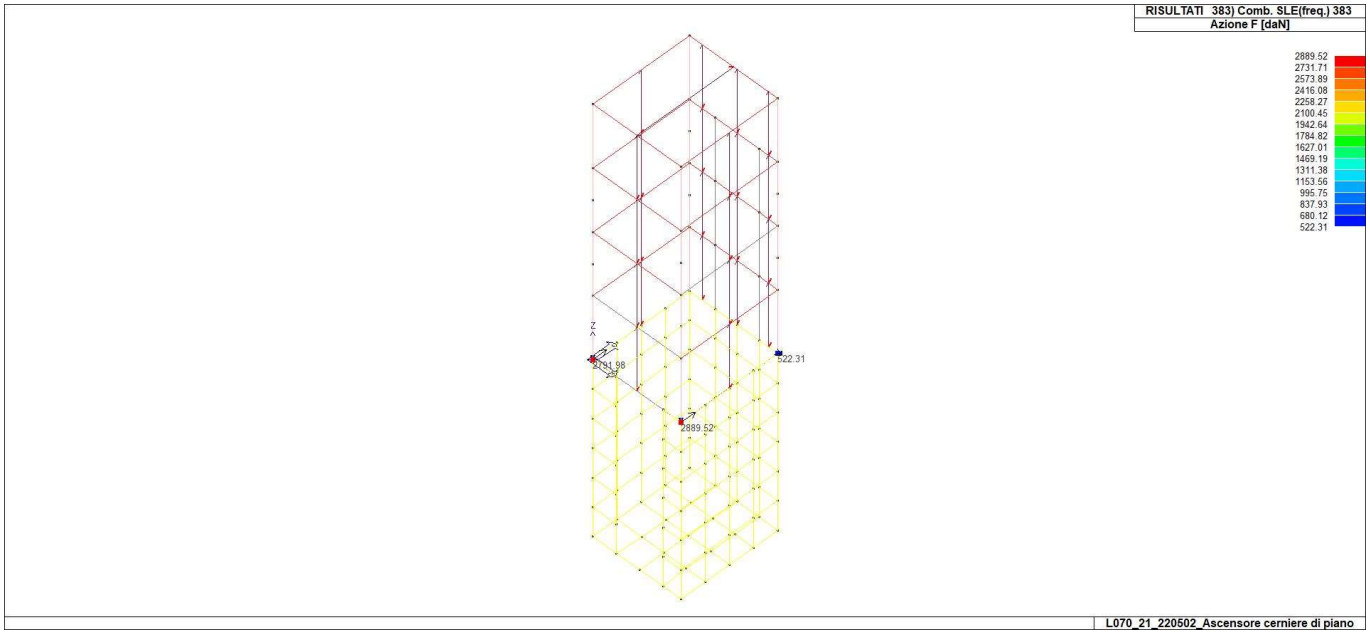
42_RIS_REAZIONI_212_Comb. SLU A1 (SLV sism.) 212



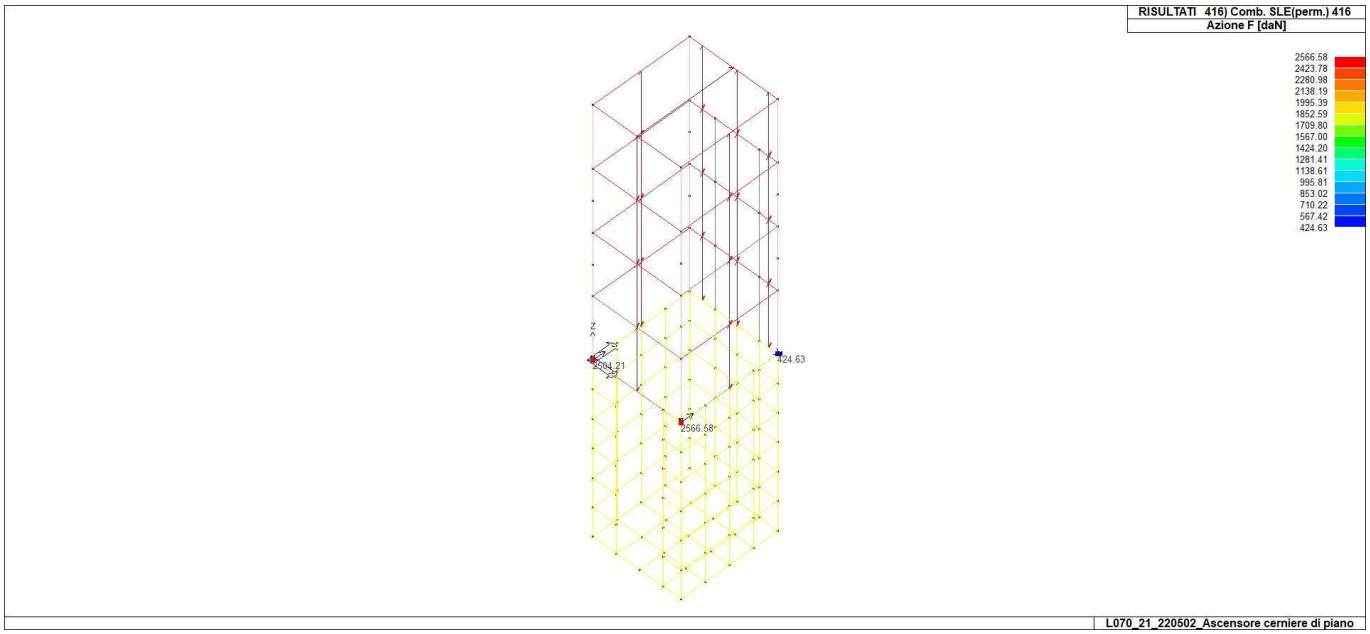
42_RIS_REAZIONI_259_Comb. SLE (SLD Danno sism.) 259



42_RIS_REAZIONI_283_Comb. SLE(rara) 283



42_RIS_REAZIONI_383_Comb. SLE(freq.) 383



42_RIS_REAZIONI_416_Comb. SLE(perm.) 416

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 (espresse 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 (*PALO*) 4) plinto su palo 5) plinto su due pali (*PL.2P*) 6) plinto su tre pali (*PL.3P*) 7) plinto su quattro pali (*PL.4P*) 8) plinto rettangolare su cinque pali (*PL.5P.R*) 9) plinto pentagonale su cinque pali (*PL.5P*) 10) plinto su sei pali (*PL.6P*)
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 Fz (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:

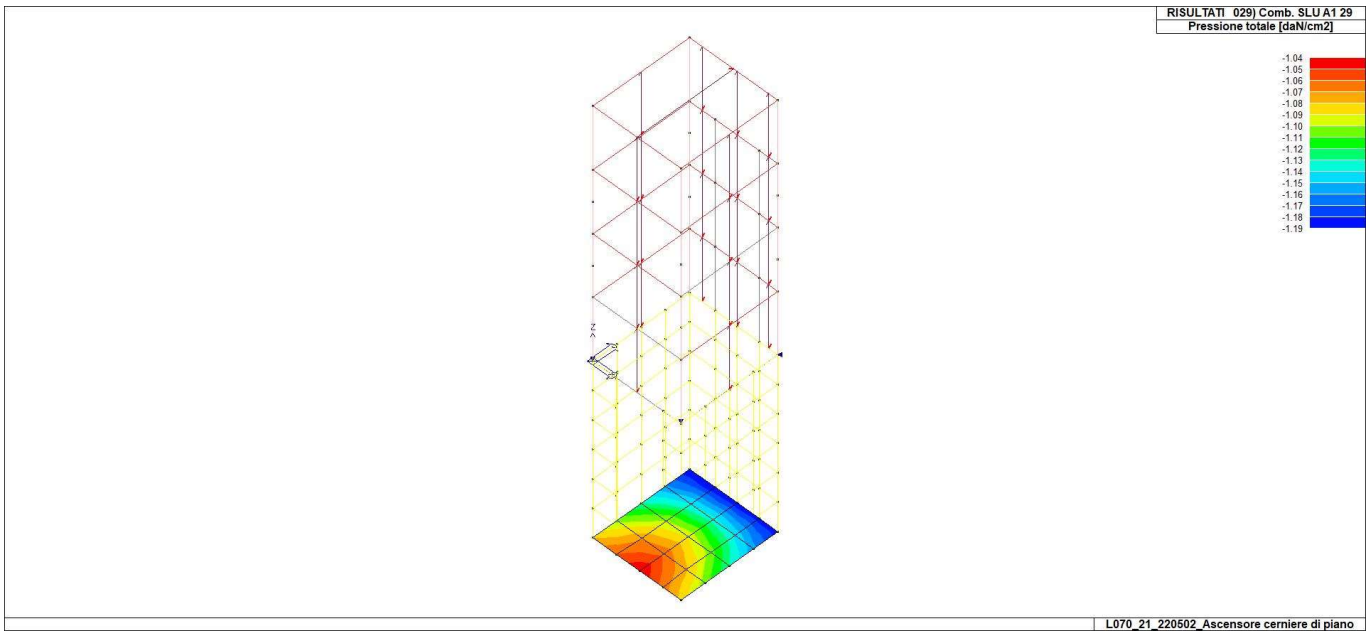
Nodo	numero del nodo a cui è applicato il plinto
Tipo	Codice identificativo del nome assegnato al plinto
area	area dell'impronta del plinto
Wink O **Wink V**	coefficienti di Winkler (orizzontale e verticale) adottati
Comb	Combinazione di carico in cui si verificano i valori riportati
Pt (P1 P2 P3 P4)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

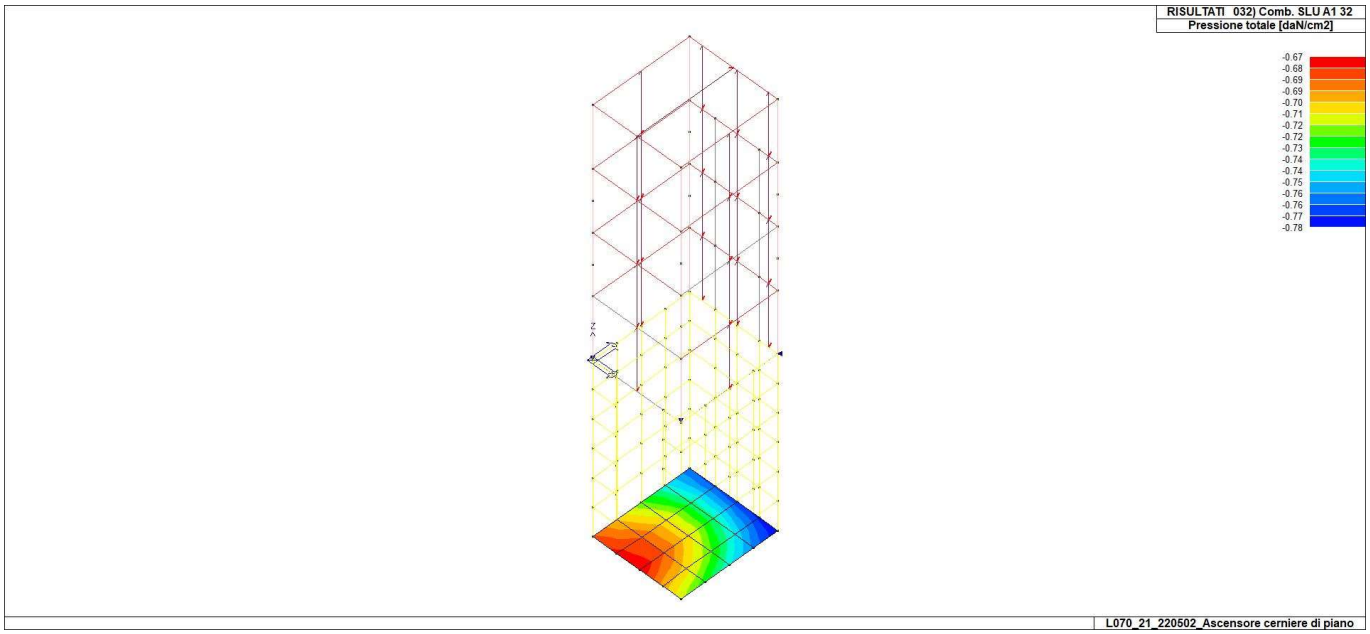
La quarta tabella è riferita alle fondazioni tipo trave su suolo elastico.
Per questo tipo di fondazione vengono riportate le pressioni alle estremità dell'elemento e la massima (in valore assoluto) pressione lungo lo sviluppo dell'elemento.
Vengono inoltre riportati, con funzione statistica, i valori massimo e minimo delle pressioni che compaiono nella tabella.

	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2
1	-1.14	-0.76	-0.74	-0.86	-0.82	-0.81					
2	-1.11	-0.74	-0.72	-0.83	-0.80	-0.79					
3	-1.10	-0.73	-0.72	-0.83	-0.79	-0.79					
4	-1.12	-0.75	-0.74	-0.84	-0.81	-0.80					
5	-1.19	-0.80	-0.76	-0.89	-0.86	-0.85					
6	-1.19	-0.80	-0.75	-0.89	-0.86	-0.85					
7	-1.19	-0.80	-0.75	-0.90	-0.86	-0.85					
8	-1.19	-0.81	-0.76	-0.90	-0.86	-0.85					
9	-1.19	-0.79	-0.75	-0.89	-0.86	-0.85					
10	-1.15	-0.77	-0.74	-0.86	-0.83	-0.82					
11	-1.14	-0.76	-0.74	-0.86	-0.82	-0.81					
12	-1.17	-0.78	-0.75	-0.88	-0.84	-0.83					
13	-1.14	-0.75	-0.74	-0.85	-0.82	-0.82					
14	-1.13	-0.75	-0.74	-0.85	-0.81	-0.81					
15	-1.16	-0.77	-0.75	-0.87	-0.84	-0.83					
16	-1.11	-0.73	-0.72	-0.83	-0.80	-0.80					
17	-1.10	-0.72	-0.72	-0.83	-0.79	-0.79					
18	-1.14	-0.76	-0.73	-0.86	-0.83	-0.82					
19	-1.10	-0.71	-0.71	-0.82	-0.79	-0.78					
20	-1.09	-0.70	-0.70	-0.82	-0.78	-0.78					
21	-1.14	-0.75	-0.73	-0.85	-0.82	-0.81					
22	-1.11	-0.73	-0.72	-0.83	-0.80	-0.79					
23	-1.10	-0.73	-0.71	-0.83	-0.79	-0.79					
24	-1.14	-0.76	-0.73	-0.86	-0.83	-0.82					
53	-1.08	-0.71	-0.70	-0.81	-0.78	-0.77					

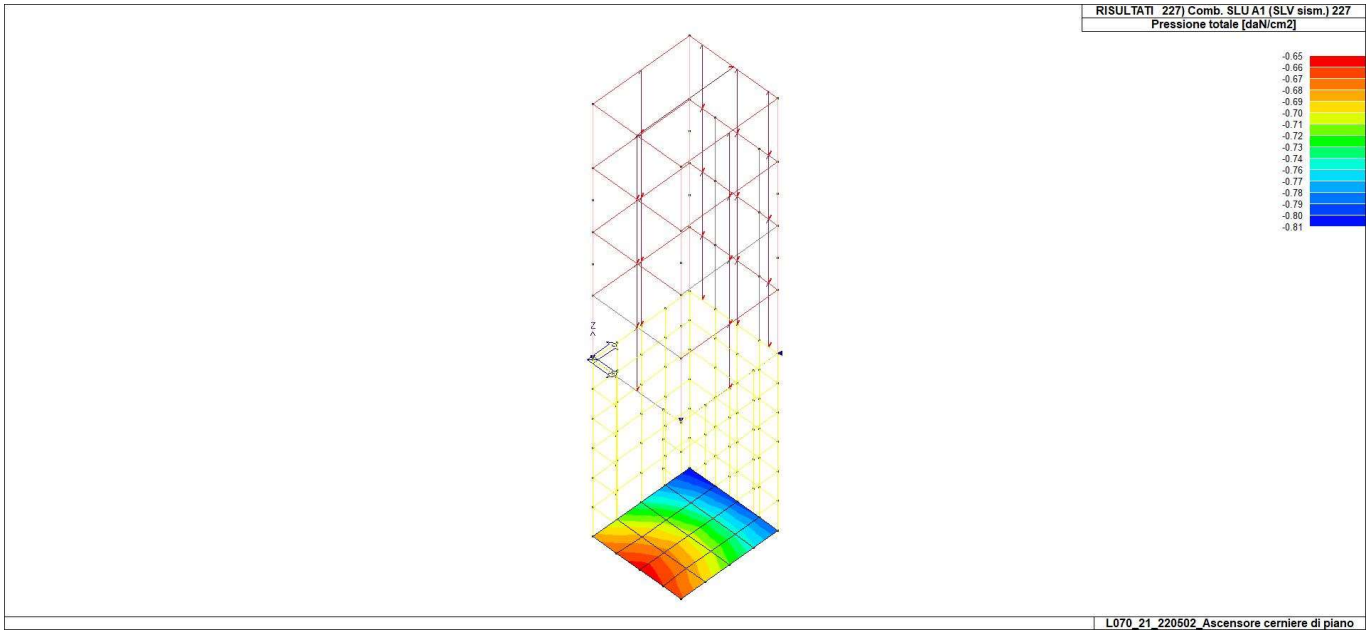
Nodo (G)	**Pt 1/12**	**Pt 2/13**	**Pt 3...**	**Pt 4...**
	-1.19			
	-0.70			



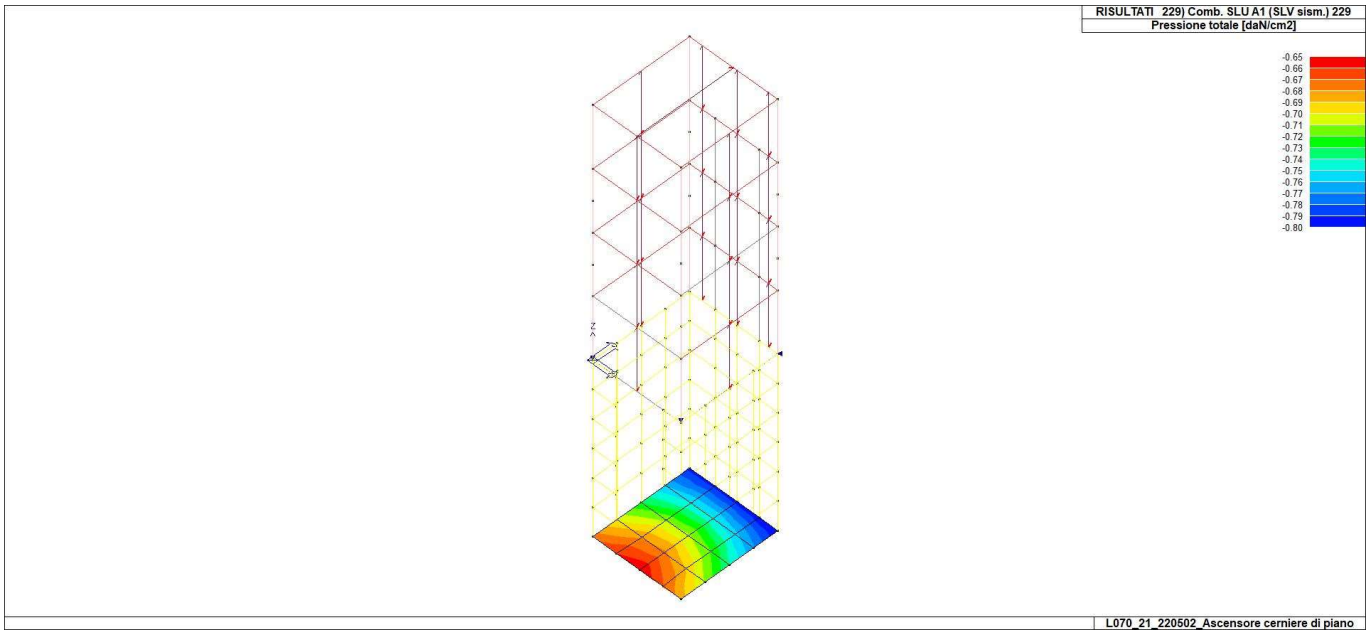
46_RIS_PRESSIONI_029_Comb. SLU A1 29



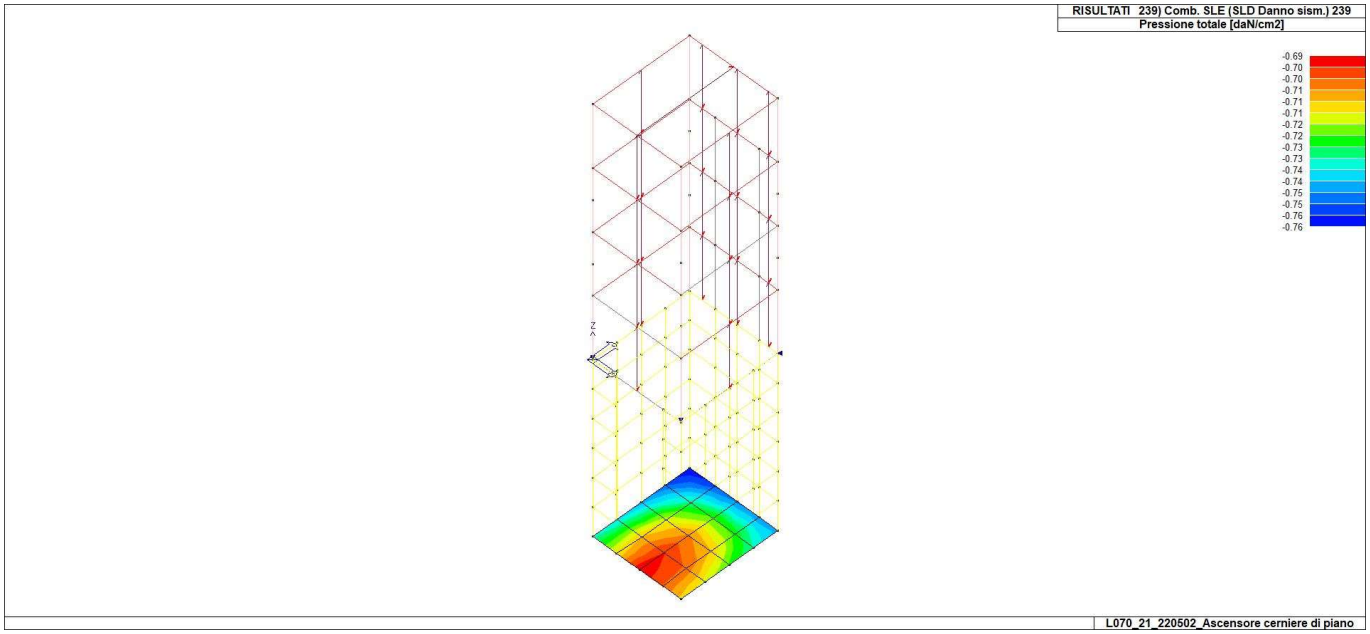
46_RIS_PRESSIONI_032_Comb. SLU A1 32



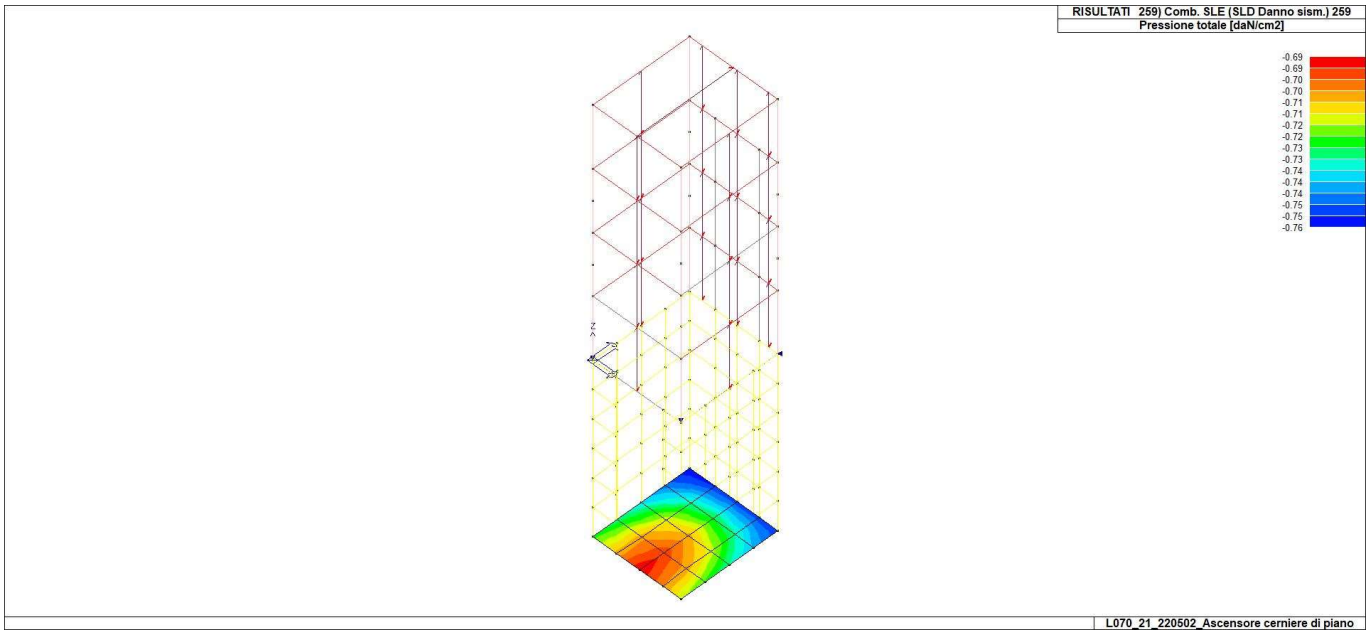
46_RIS_PRESSIONI_227_Comb. SLU A1 (SLV sism.) 227



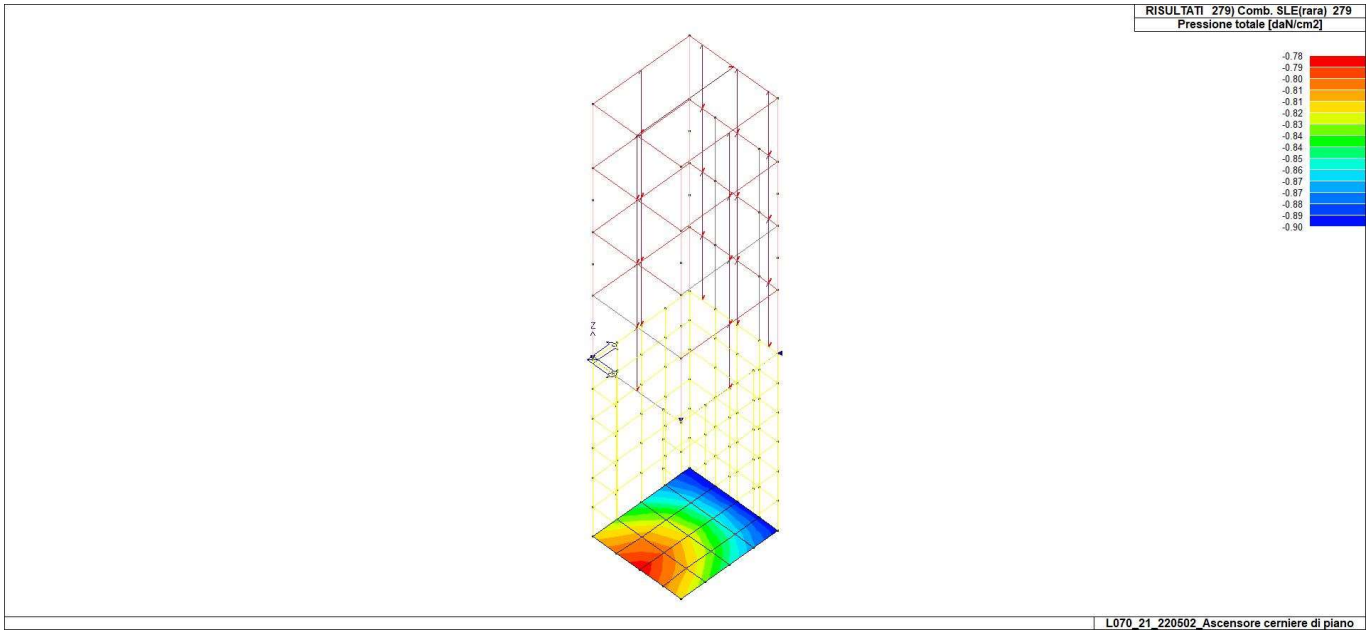
46_RIS_PRESSIONI_229_Comb. SLU A1 (SLV sism.) 229



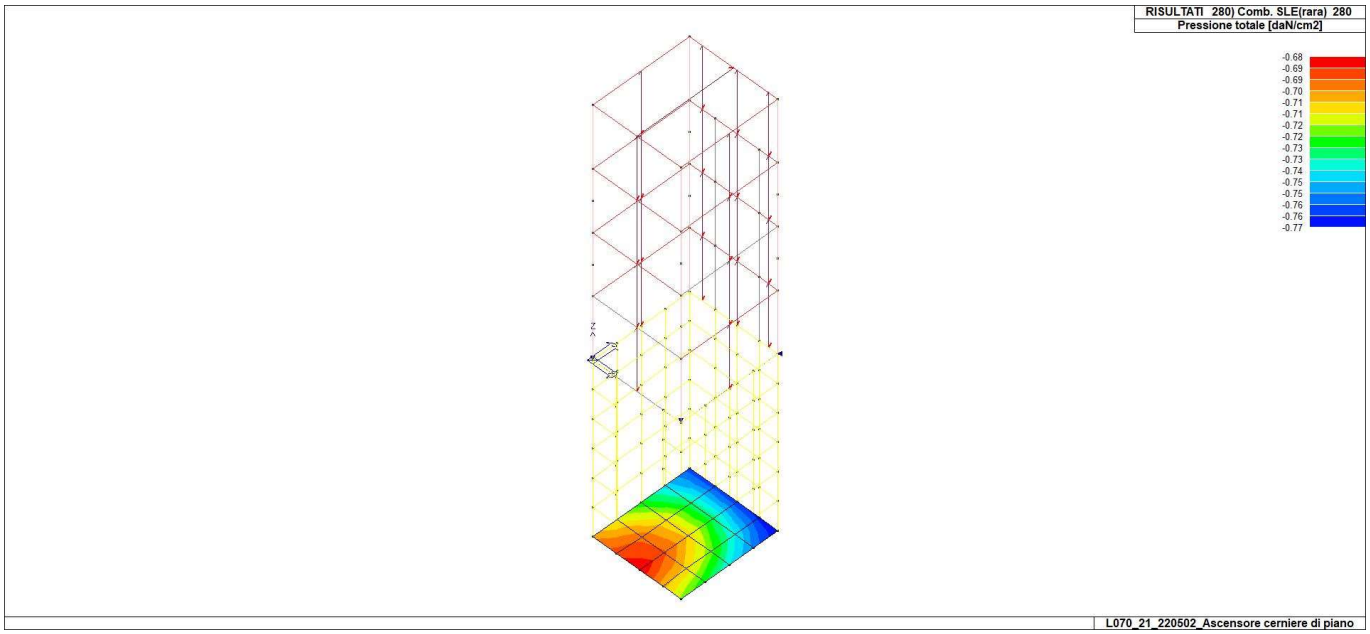
46_RIS_PRESSIONI_239_Comb. SLE (SLD Danno sism.) 239



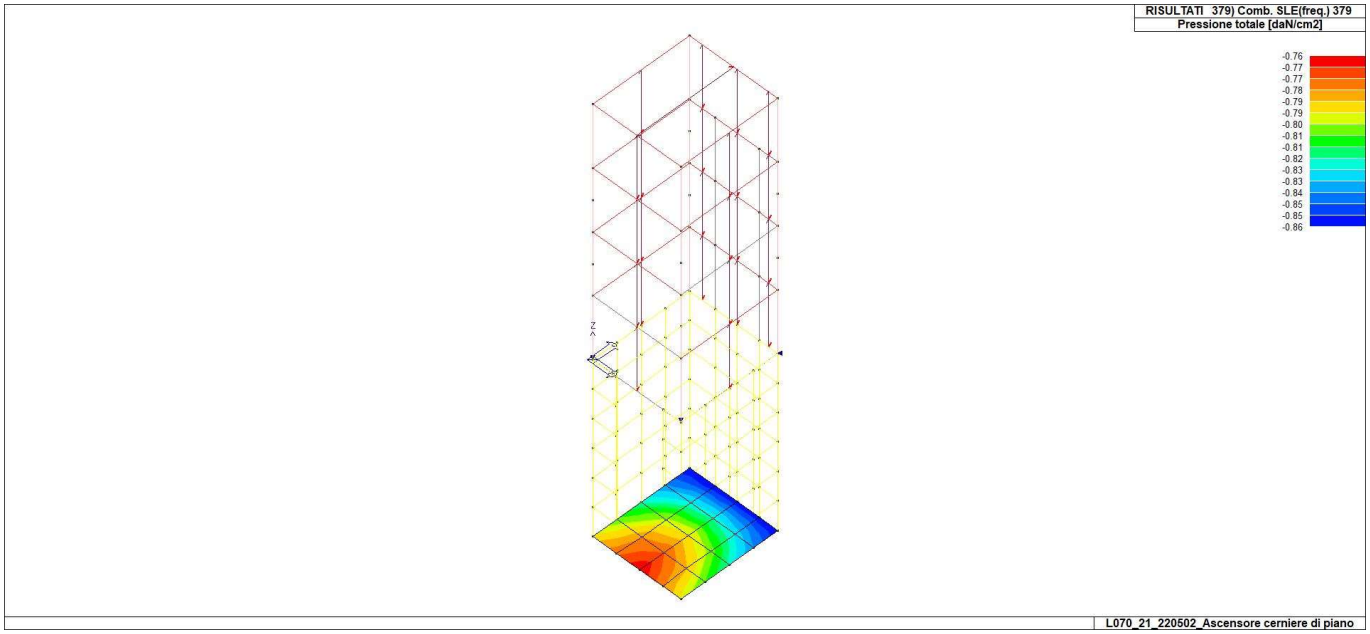
46_RIS_PRESSIONI_259_Comb. SLE (SLD Danno sism.) 259



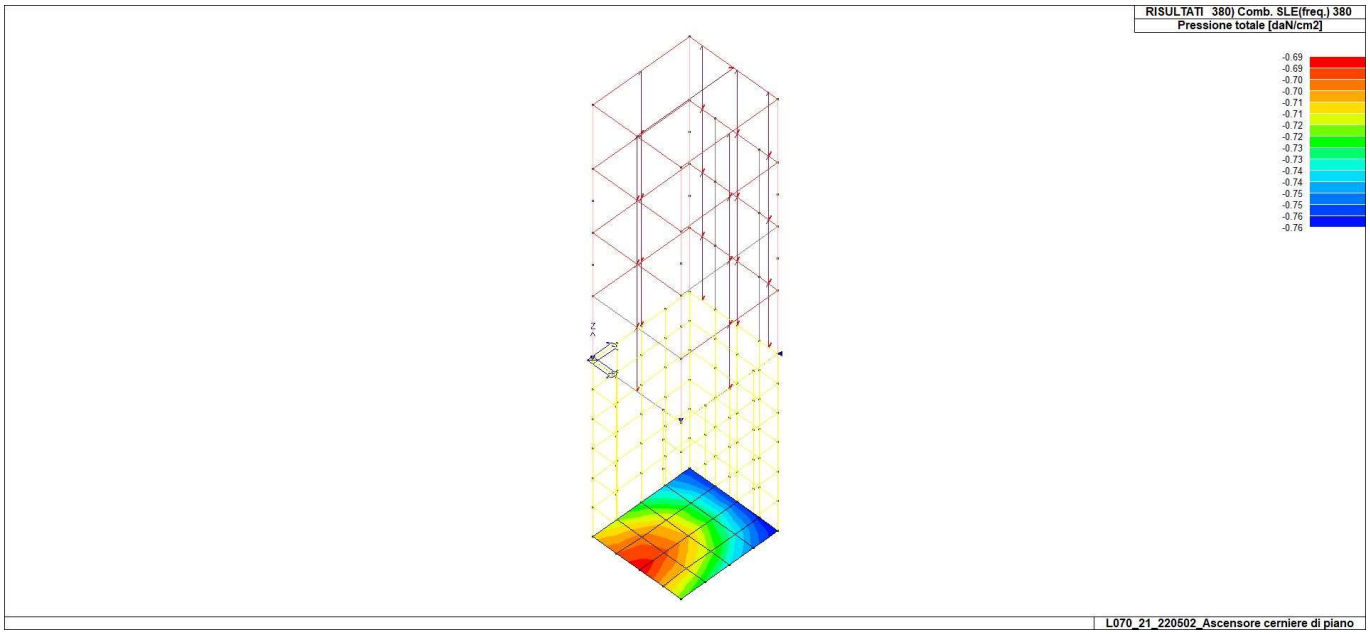
46_RIS_PRESSIONI_279_Comb. SLE(rara) 279



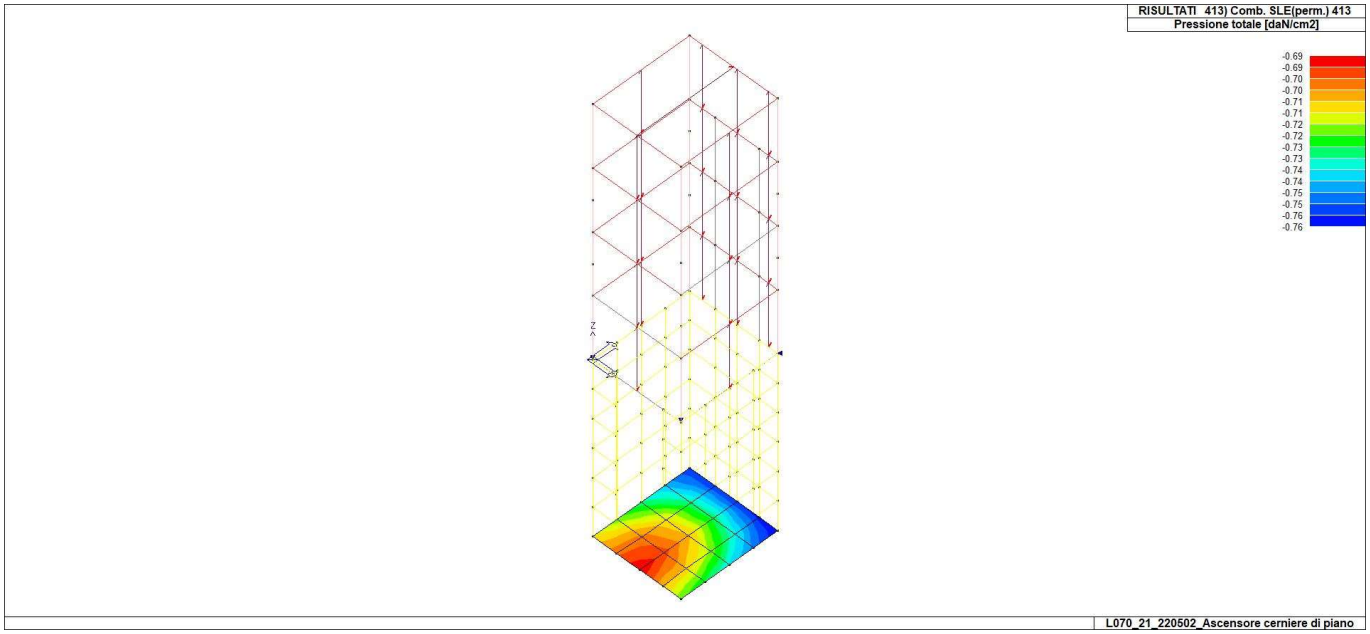
46_RIS_PRESSIONI_280_Comb. SLE(rara) 280



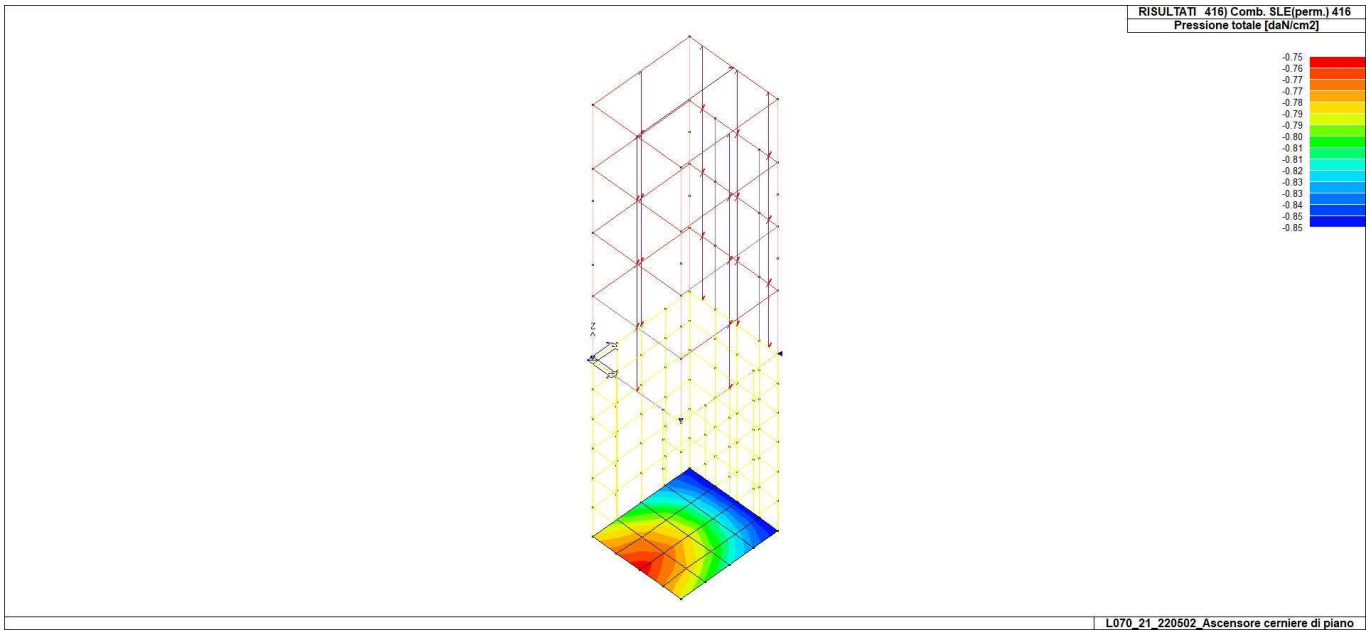
46_RIS_PRESSIONI_379_Comb. SLE(freq.) 379



46_RIS_PRESSIONI_380_Comb. SLE(freq.) 380



46_RIS_PRESSIONI_413_Comb. SLE(perm.) 413



46_RIS_PRESSIONI_416_Comb. SLE(perm.) 416

RISULTATI ELEMENTI TIPO TRAVE

LEGENDA RISULTATI ELEMENTI TIPO TRAVE

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

Gli elementi vengono suddivisi in relazione alle proprietà in elementi:

- tipo **pilastro**
- tipo **trave in elevazione**
- tipo **trave in fondazione**

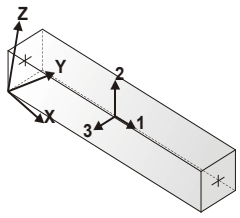
Per ogni elemento e per ogni combinazione (o caso di carico) vengono riportati i risultati più significativi.

Per gli elementi tipo *pilastro* sono riportati in tabella i seguenti valori:

Pilas.	numero dell'elemento pilastro
Cmb	combinazione in cui si verificano i valori riportati
M3 mx/mn	momento flettente in campata M3 max (prima riga) / min (seconda riga)
M2 mx/mn	momento flettente in campata M2 max (prima riga) / min (seconda riga)
D2/D3	freccia massima in direzione 2 (prima riga) / direzione 3 (seconda riga)
Q2/Q3	carico totale in direzione 2 (prima riga) / direzione 3 (seconda riga)
Pos.	ascissa del punto iniziale e finale dell'elemento
N, V2, ecc..	sei componenti di sollecitazione al piede ed in sommità dell'elemento

Per gli elementi tipo *trave in elevazione* sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri.

Per gli elementi tipo *trave in fondazione* (trave f.) sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri e la massima pressione sul terreno.



orientamento elementi 2D non verticali

orientamento elementi 2D verticali

Pilas.	Cmb	M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3	Pos.	N	V 2	V 3	T	M 2	M 3
		daN cm	daN cm	cm	daN	cm	daN	daN	daN	daN cm	daN cm	daN cm
12	32	277.03	-1.896e+04	-0.02	0.0	0.0	-57.27	150.74	396.55	-95.12	-4.474e+04	-9520.95
		-9520.95	-4.474e+04	-0.15	0.0	65.0	-23.95	150.74	396.55	-95.12	-1.896e+04	277.03
12	36	184.05	-1.895e+04	-0.02	0.0	0.0	-56.65	148.62	396.52	-95.64	-4.473e+04	-9476.09
		-9476.09	-4.473e+04	-0.15	0.0	65.0	-23.33	148.62	396.52	-95.64	-1.895e+04	184.05
12	79	9815.56	6.765e+04	0.02	0.0	0.0	-1206.48	-180.66	-585.03	92.31	6.765e+04	9815.56
		-1927.29	2.963e+04	0.20	0.0	65.0	-1163.16	-180.66	-585.03	92.31	2.963e+04	-1927.29
12	87	9860.42	6.766e+04	0.02	0.0	0.0	-1205.86	-182.78	-585.06	91.79	6.766e+04	9860.42
		-2020.28	2.963e+04	0.20	0.0	65.0	-1162.54	-182.78	-585.06	91.79	2.963e+04	-2020.28
12	146	2513.10	-27.55	-0.04	0.0	0.0	-624.89	242.22	-3.45	21.93	-27.55	-1.323e+04
		-1.323e+04	-252.05	-3.52e-03	0.0	65.0	-591.57	242.22	-3.45	21.93	-252.05	2513.10
12	201	122.17	-3353.81	-0.02	0.0	0.0	-633.55	130.84	57.20	-12.03	-7062.82	-9733.96
		-9733.96	-7062.82	-0.02	0.0	65.0	-600.23	130.84	57.20	-12.03	-3353.81	122.17
12	204	9375.21	6975.82	0.02	0.0	0.0	-15.16	-119.25	-55.29	-4.97	6975.82	9375.21
		272.57	3390.87	0.02	0.0	65.0	18.16	-119.25	-55.29	-4.97	3390.87	272.57
12	206	286.97	4318.72	-0.02	0.0	0.0	-740.48	98.91	-34.33	-25.99	4318.72	-7506.45
		-7506.45	2084.07	8.84e-03	0.0	65.0	-707.16	98.91	-34.33	-25.99	2084.07	286.97
12	207	7147.71	-2047.01	0.02	0.0	0.0	91.77	-87.32	36.24	9.00	-4405.72	7147.71
		107.77	-4405.72	-0.01	0.0	65.0	125.09	-87.32	36.24	9.00	-2047.01	107.77
12	222	3261.93	2.104e+04	8.02e-03	0.0	0.0	-575.88	-58.22	-169.47	-96.50	2.104e+04	3261.93
		-126.30	1.004e+04	0.05	0.0	65.0	-542.57	-58.22	-169.47	-96.50	1.004e+04	-126.30
12	223	-720.81	-9860.90	-5.47e-03	0.0	0.0	-91.65	38.33	167.62	87.05	-2.074e+04	-2816.08
		-2816.08	-2.074e+04	-0.05	0.0	65.0	-58.33	38.33	167.62	87.05	-9860.90	-720.81
12	233	-196.77	-1565.40	-0.01	0.0	0.0	-483.77	57.88	27.21	-6.92	-3329.94	-4620.84
		-4620.84	-3329.94	-9.42e-03	0.0	65.0	-450.45	57.88	27.21	-6.92	-1565.40	-196.77
12	236	5389.59	3957.26	0.01	0.0	0.0	-191.63	-86.83	-31.51	2.10	3957.26	5389.59
		-916.11	1913.05	7.58e-03	0.0	65.0	-158.31	-86.83	-31.51	2.10	1913.05	-916.11
12	238	-145.87	2304.84	-8.43e-03	0.0	0.0	-536.83	41.53	-18.15	-14.03	2304.84	-3513.28
		-3513.28	1123.58	3.93e-03	0.0	65.0	-503.51	41.53	-18.15	-14.03	1123.58	-145.87
12	239	4282.04	-775.93	0.01	0.0	0.0	-138.57	-70.48	13.85	9.21	-1677.51	4282.04
		-967.02	-1677.51	-5.77e-03	0.0	65.0	-105.25	-70.48	13.85	9.21	-775.93	-967.02
12	254	1818.03	1.061e+04	4.67e-03	0.0	0.0	-455.59	-36.26	-85.27	-49.08	1.061e+04	1818.03
		-345.21	5077.15	0.02	0.0	65.0	-422.27	-36.26	-85.27	-49.08	5077.15	-345.21
12	255	-767.67	-4729.49	-1.98e-03	0.0	0.0	-219.81	7.32	80.97	44.27	-9985.42	-1049.27
		-1049.27	-9985.42	-0.03	0.0	65.0	-186.49	7.32	80.97	44.27	-4729.49	-767.67
12	280	0.67	-1.258e+04	-0.01	0.0	0.0	-156.68	95.65	263.65	-64.22	-2.972e+04	-6216.56
		-6216.56	-2.972e+04	-0.10	0.0	65.0	-123.36	95.65	263.65	-64.22	-1.258e+04	0.67
12	282	-61.32	-1.258e+04	-0.01	0.0	0.0	-156.27	94.24	263.63	-64.57	-2.971e+04	-6186.66
		-6186.66	-2.971e+04	-0.10	0.0	65.0	-122.95	94.24	263.63	-64.57	-1.258e+04	-61.32
12	304	6592.35	4.514e+04	0.01	0.0	0.0	-843.41	-122.35	-390.31	61.23	4.514e+04	6592.35
		-1360.51	1.977e+04	0.14	0.0	65.0	-810.09	-122.35	-390.31	61.23	1.977e+04	-1360.51
12	308	6622.26	4.515e+04	0.01	0.0	0.0	-843.00	-123.77	-390.32	60.88	4.515e+04	6622.26
		-1422.50	1.978e+04	0.14	0.0	65.0	-809.68	-123.77	-390.32	60.88	1.978e+04	-1422.50
12	337	1491.38	86.59	-0.02	0.0	0.0	-535.10	156.64	-3.02	13.81	86.59	-8690.27
		-8690.27	-109.82	-2.65e-03	0.0	65.0	-501.78	156.64	-3.02	13.81	-109.82	1491.38
12	380	-166.47	-8755.13	-7.91e-03	0.0	0.0	-210.99	62.61	183.91	-45.68	-2.071e+04	-4236.28
		-4236.28	-2.071e+04	-0.07	0.0	65.0	-177.67	62.61	183.91	-45.68	-8755.13	-166.47
12	382	-219.60	-8750.60	-7.86e-03	0.0	0.0	-210.63	61.40	183.89	-45.98	-2.070e+04	-4210.65
		-4210.65	-2.070e+04	-0.07	0.0	65.0	-177.31	61.40	183.89	-45.98	-8750.60	-219.60
12	396	4016.99	2.613e+04	7.84e-03	0.0	0.0	-589.74	-78.62	-227.56	34.65	2.613e+04	4016.99
		-1093.39	1.134e+04	0.08	0.0	65.0	-556.42	-78.62	-227.56	34.65	1.134e+04	-1093.39
12	400	4042.63	2.613e+04	7.89e-03	0.0	0.0	-589.38	-79.83	-227.58	34.35	2.613e+04	4042.63
		-1146.52	1.134e+04	0.08	0.0	65.0	-556.06	-79.83	-227.58	34.35	1.134e+04	-1146.52
12	413	-222.18	-7479.57	-6.59e-03	0.0	0.0	-229.09	51.60	157.33	-39.50	-1.771e+04	-3576.19
		-3576.19	-1.771e+04	-0.06	0.0	65.0	-195.77	51.60	157.33	-39.50	-7479.57	-222.18
12	415	-275.31	-7475.04	-6.53e-03	0.0	0.0	-228.73	50.39	157.31	-39.79	-1.770e+04	-3550.55
		-3550.55	-1.770e+04	-0.06	0.0	65.0	-195.42	50.39	157.31	-39.79	-7475.04	-275.31
12	418	3259.00	2.053e+04	6.49e-03	0.0	0.0	-518.88	-65.68	-179.52	26.82	2.053e+04	3259.00
		-1009.97	8865.74	0.06	0.0	65.0	-485.56	-65.68	-179.52	26.82	8865.74	-1009.97
12	420	3284.63	2.054e+04	6.55e-03	0.0	0.0	-518.53	-66.89	-179.53	26.52	2.054e+04	3284.63
		-1063.10	8870.27	0.06	0.0	65.0	-485.21	-66.89	-179.53	26.52	8870.27	-1063.10
13	36	3722.71	3.422e+04	-0.02	0.0	0.0	131.22	57.90	421.92	112.34	6793.80	-40.62
		-40.62	6793.80	-0.16	0.0	65.0	164.54	57.90	421.92	112.34	3.422e+04	3722.71
13	79	-6115.61	-8352.88	0.01	0.0	0.0	-1178.70	6.38	-608.40	-264.50	-8352.88	-6530.29
		-6530.29	-4.790e+04	0.23	0.0	65.0	-1135.38	6.38	-608.40	-264.50	-4.790e+04	-6115.61
13	87	-6201.93	-8346.81	0.01	0.0	0.0	-1178.31	8.07	-608.43	-264.48	-8346.81	-6726.44
		-6726.44	-4.789e+04	0.23	0.0	65.0	-1134.99	8.07	-608.43	-264.48	-4.789e+04	-6201.93
13	146	8066.19	507.36	-0.03	0.0	0.0	-339.61	130.09	15.17	3.79	-478.43	-389.56
		-389.56	-478.43	-4.30e-03	0.0	65.0	-306.29	130.09	15.17	3.79	507.36	8066.19
13	201	1993.44	3607.23	-0.02	0.0	0.0	-400.73	146.11	51.78	41.84	377.55	-7647.05
		-7647.05	377.55	-0.02	0.0	65.0	-367.41	146.11	51.78	41.84	3607.23	1993.44
13	204	8324.56	-216.93	0.03	0.0	0.0	-86.20	-157.80	-51.31	-31.97	-216.93	8324.56
		-2075.80	-3416.16	0.02	0.0	65.0	-52.88	-157.80	-51.31	-31.97	-3416.16	-2075.80
13	207	7787.31	2370.59	0.02	0.0	0.0	43.24	-129.09	32.45	-1.46	217.44	7787.31

		-1411.79	217.44	-0.02	0.0	65.0	76.56	-129.09	32.45	-1.46	2370.59	-1411.79
13	222	-573.36	-774.93	6.69e-03	0.0	0.0	-508.03	-19.54	-154.17	-73.96	-774.93	-573.36
		-1831.73	-1.066e+04	0.06	0.0	65.0	-474.71	-19.54	-154.17	-73.96	-1.066e+04	-1831.73
13	223	549.04	1.058e+04	-5.64e-03	0.0	0.0	7.37	43.10	151.97	75.97	838.64	-2240.76
		-2240.76	838.64	-0.07	0.0	65.0	40.69	43.10	151.97	75.97	1.058e+04	549.04
13	226	-897.84	-567.26	-4.04e-04	0.0	0.0	-540.45	20.19	-131.10	-33.93	-567.26	-4482.82
		-4482.82	-8997.79	0.05	0.0	65.0	-507.13	20.19	-131.10	-33.93	-8997.79	-897.84
13	233	604.04	1738.75	-0.01	0.0	0.0	-325.92	80.20	24.56	20.29	207.65	-4675.80
		-4675.80	207.65	-0.01	0.0	65.0	-292.60	80.20	24.56	20.29	1738.75	604.04
13	236	890.39	-139.37	0.01	0.0	0.0	-180.52	-46.47	-28.72	-21.87	-139.37	890.39
		-2197.42	-1941.19	0.01	0.0	65.0	-147.20	-46.47	-28.72	-21.87	-1941.19	-2197.42
13	254	-1235.12	-363.55	3.51e-03	0.0	0.0	-379.61	-1.27	-77.64	-37.08	-363.55	-1235.12
		-1312.41	-5348.62	0.03	0.0	65.0	-346.29	-1.27	-77.64	-37.08	-5348.62	-1312.41
13	255	-280.96	5146.17	-2.82e-03	0.0	0.0	-126.84	34.99	73.47	35.51	431.83	-2550.29
		-2550.29	431.83	-0.03	0.0	65.0	-93.52	34.99	73.47	35.51	5146.17	-280.96
13	258	-848.79	-261.74	1.24e-04	0.0	0.0	-395.64	18.46	-66.14	-17.24	-261.74	-3173.33
		-3173.33	-4518.01	0.03	0.0	65.0	-362.32	18.46	-66.14	-17.24	-4518.01	-848.79
13	259	-612.07	4315.56	7.03e-04	0.0	0.0	-110.81	15.26	61.97	15.67	330.03	-612.07
		-744.59	330.03	-0.03	0.0	65.0	-77.49	15.26	61.97	15.67	4315.56	-744.59
13	282	2199.91	2.278e+04	-0.01	0.0	0.0	-2.87	43.95	280.58	74.63	4540.71	-656.76
		-656.76	4540.71	-0.11	0.0	65.0	30.45	43.95	280.58	74.63	2.278e+04	2199.91
13	304	-4166.96	-5564.17	8.81e-03	0.0	0.0	-813.62	6.77	-405.87	-176.43	-5564.17	-4607.11
		-4607.11	-3.195e+04	0.16	0.0	65.0	-780.30	6.77	-405.87	-176.43	-3.195e+04	-4166.96
13	308	-4224.51	-5560.12	8.78e-03	0.0	0.0	-813.36	7.90	-405.90	-176.42	-5560.12	-4737.87
		-4737.87	-3.194e+04	0.16	0.0	65.0	-780.04	7.90	-405.90	-176.42	-3.194e+04	-4224.51
13	337	5095.56	304.50	-0.02	0.0	0.0	-316.75	92.08	9.41	2.26	-307.44	-889.39
		-889.39	-307.44	-3.07e-03	0.0	65.0	-283.43	92.08	9.41	2.26	304.50	5095.56
13	380	1341.21	1.591e+04	-7.37e-03	0.0	0.0	-78.16	35.03	195.80	52.00	3185.91	-936.01
		-936.01	3185.91	-0.08	0.0	65.0	-44.84	35.03	195.80	52.00	1.591e+04	1341.21
13	382	1291.89	1.591e+04	-7.40e-03	0.0	0.0	-77.93	36.00	195.78	52.01	3189.38	-1048.09
		-1048.09	3189.38	-0.08	0.0	65.0	-44.61	36.00	195.78	52.01	1.591e+04	1291.89
13	396	-2732.63	-3436.85	5.20e-03	0.0	0.0	-536.52	14.53	-236.91	-108.53	-3436.85	-3677.26
		-3677.26	-1.884e+04	0.09	0.0	65.0	-503.20	14.53	-236.91	-108.53	-1.884e+04	-2732.63
13	400	-2781.95	-3433.38	5.17e-03	0.0	0.0	-536.30	15.50	-236.93	-108.52	-3433.38	-3789.34
		-3789.34	-1.883e+04	0.09	0.0	65.0	-502.98	15.50	-236.93	-108.52	-1.883e+04	-2781.95
13	413	1035.79	1.363e+04	-6.27e-03	0.0	0.0	-103.17	32.44	167.53	44.46	2735.66	-1072.68
		-1072.68	2735.66	-0.07	0.0	65.0	-69.85	32.44	167.53	44.46	1.363e+04	1035.79
13	415	986.47	1.363e+04	-6.30e-03	0.0	0.0	-102.94	33.40	167.51	44.47	2739.12	-1184.77
		-1184.77	2739.12	-0.07	0.0	65.0	-69.62	33.40	167.51	44.47	1.363e+04	986.47
13	418	-2314.41	-2787.33	4.15e-03	0.0	0.0	-458.76	16.62	-186.99	-87.95	-2787.33	-3394.58
		-3394.58	-1.494e+04	0.07	0.0	65.0	-425.44	16.62	-186.99	-87.95	-1.494e+04	-2314.41
13	420	-2363.73	-2783.87	4.13e-03	0.0	0.0	-458.54	17.58	-187.01	-87.94	-2783.87	-3506.66
		-3506.66	-1.494e+04	0.07	0.0	65.0	-425.22	17.58	-187.01	-87.94	-1.494e+04	-2363.73
14	31	7399.92	2.342e+04	-0.02	0.0	0.0	-131.89	57.85	-94.53	-112.87	2.342e+04	-121.01
		-121.01	1.113e+04	-0.09	0.0	130.0	-45.26	57.85	-94.53	-112.87	1.113e+04	7399.92
14	36	6366.56	2.329e+04	-0.02	0.0	0.0	-69.27	48.15	-92.15	-112.87	2.329e+04	106.89
		106.89	1.131e+04	-0.09	0.0	130.0	-2.63	48.15	-92.15	-112.87	1.131e+04	6366.56
14	75	2442.72	-2.221e+04	0.02	0.0	0.0	-509.53	30.72	34.31	83.74	-2.667e+04	-1550.34
		-1550.34	-2.667e+04	0.14	0.0	130.0	-422.90	30.72	34.31	83.74	-2.221e+04	2442.72
14	79	2472.65	-2.223e+04	0.02	0.0	0.0	-510.14	30.49	34.17	83.70	-2.667e+04	-1491.43
		-1491.43	-2.667e+04	0.14	0.0	130.0	-423.51	30.49	34.17	83.70	-2.223e+04	2472.65
14	88	1439.29	-2.205e+04	0.02	0.0	0.0	-447.52	20.79	36.54	83.71	-2.680e+04	-1263.53
		-1263.53	-2.680e+04	0.14	0.0	130.0	-380.89	20.79	36.54	83.71	-2.205e+04	1439.29
14	179	8650.72	1004.14	-0.04	0.0	0.0	-202.14	43.68	-9.55	-14.33	1004.14	2971.81
		2971.81	-237.34	-5.43e-03	0.0	130.0	-115.51	43.68	-9.55	-14.33	-237.34	8650.72
14	201	1.131e+04	3405.26	-0.04	0.0	0.0	-221.22	102.91	25.56	29.73	526.17	-1867.21
		-1867.21	526.17	-0.02	0.0	130.0	-154.58	102.91	25.56	29.73	3405.26	1.131e+04
14	204	413.72	298.39	0.04	0.0	0.0	-69.13	-67.28	-38.17	-28.90	298.39	413.72
		-8126.74	-4220.65	0.02	0.0	130.0	-2.49	-67.28	-38.17	-28.90	-4220.65	-8126.74
14	206	9307.77	-48.14	-0.03	0.0	0.0	-264.25	86.11	-21.66	23.40	-48.14	-2123.21
		-2123.21	-2548.85	0.01	0.0	130.0	-197.61	86.11	-21.66	23.40	-2548.85	9307.77
14	207	669.71	1733.47	0.04	0.0	0.0	-26.10	-50.47	9.05	-22.57	872.71	669.71
		-6128.47	872.71	-0.02	0.0	130.0	40.54	-50.47	9.05	-22.57	1733.47	-6128.47
14	222	-797.36	-824.25	9.63e-03	0.0	0.0	-237.39	-4.44	-96.10	-44.13	-824.25	-1251.35
		-1251.35	-1.156e+04	0.06	0.0	130.0	-170.75	-4.44	-96.10	-44.13	-1.156e+04	-797.36
14	223	4202.06	1.049e+04	-8.35e-03	0.0	0.0	-58.13	36.46	81.39	44.38	1673.99	492.94
		492.94	1673.99	-0.07	0.0	130.0	8.51	36.46	81.39	44.38	1.049e+04	4202.06
14	233	6474.00	1396.45	-0.02	0.0	0.0	-184.54	58.85	8.89	14.69	456.61	-1072.54
		-1072.54	456.61	-0.01	0.0	130.0	-117.90	58.85	8.89	14.69	1396.45	6474.00
14	236	508.99	353.19	0.02	0.0	0.0	-113.13	-27.60	-24.08	-14.71	353.19	508.99
		-2974.18	-2562.15	9.04e-03	0.0	130.0	-46.49	-27.60	-24.08	-14.71	-2562.15	-2974.18
14	238	5483.16	184.27	-0.02	0.0	0.0	-205.90	50.43	-14.60	11.55	184.27	-1187.23
		-1187.23	-1560.78	4.19e-03	0.0	130.0	-139.26	50.43	-14.60	11.55	-1560.78	5483.16
14	239	623.68	625.53	0.02	0.0	0.0	-91.77	-19.17	-0.60	-11.57	625.53	623.68
		-1983.35	395.07	-7.35e-03	0.0	130.0	-25.13	-19.17	-0.60	-11.57	395.07	-1983.35
14	254	480.96	-191.12	4.91e-03	0.0	0.0	-192.72	5.63	-51.53	-21.86	-191.12	-759.78
		-759.78	-6033.97	0.03	0.0	130.0	-126.08	5.63	-51.53	-21.86	-6033.97	480.96

14	255	3018.86	4868.27	-4.45e-03	0.0	0.0	-104.95	25.63	36.33	21.84	1000.92	196.23
		196.23	1000.92	-0.03	0.0	130.0	-38.31	25.63	36.33	21.84	4868.27	3018.86
14	280	5000.33	1.567e+04	-0.02	0.0	0.0	-101.83	39.09	-64.03	-75.25	1.567e+04	-81.50
		-81.50	7342.78	-0.06	0.0	130.0	-35.19	39.09	-64.03	-75.25	7342.78	5000.33
14	282	4993.94	1.566e+04	-0.02	0.0	0.0	-101.73	38.87	-63.96	-75.25	1.566e+04	-59.41
		-59.41	7346.73	-0.06	0.0	130.0	-35.09	38.87	-63.96	-75.25	7346.73	4993.94
14	302	1695.53	-1.488e+04	0.01	0.0	0.0	-353.59	21.00	21.86	55.83	-1.772e+04	-1034.39
		-1034.39	-1.772e+04	0.10	0.0	130.0	-286.96	21.00	21.86	55.83	-1.488e+04	1695.53
14	304	1715.48	-1.490e+04	0.01	0.0	0.0	-354.00	20.85	21.76	55.80	-1.773e+04	-995.12
		-995.12	-1.773e+04	0.10	0.0	130.0	-287.36	20.85	21.76	55.80	-1.490e+04	1715.48
14	308	1709.09	-1.490e+04	0.01	0.0	0.0	-353.90	20.63	21.83	55.80	-1.773e+04	-973.02
		-973.02	-1.773e+04	0.09	0.0	130.0	-287.26	20.63	21.83	55.80	-1.490e+04	1709.09
14	354	5834.20	723.54	-0.03	0.0	0.0	-148.67	29.64	-7.38	-9.56	723.54	1980.38
		1980.38	-235.97	-3.83e-03	0.0	130.0	-82.03	29.64	-7.38	-9.56	-235.97	5834.20
14	380	4025.21	1.109e+04	-0.01	0.0	0.0	-115.93	32.05	-47.10	-52.68	1.109e+04	-141.59
		-141.59	4965.09	-0.04	0.0	130.0	-49.30	32.05	-47.10	-52.68	4965.09	4025.21
14	381	4042.30	1.108e+04	-0.01	0.0	0.0	-116.28	31.92	-47.19	-52.70	1.108e+04	-107.93
		-107.93	4950.36	-0.04	0.0	130.0	-49.65	31.92	-47.19	-52.70	4950.36	4042.30
14	382	4019.73	1.108e+04	-0.01	0.0	0.0	-115.85	31.86	-47.04	-52.68	1.108e+04	-122.65
		-122.65	4968.48	-0.04	0.0	130.0	-49.21	31.86	-47.04	-52.68	4968.48	4019.73
14	394	873.90	-8267.78	5.96e-03	0.0	0.0	-230.45	10.74	20.35	37.09	-1.091e+04	-521.84
		-521.84	-1.091e+04	0.05	0.0	130.0	-163.81	10.74	20.35	37.09	-8267.78	873.90
14	396	891.00	-8282.51	6.39e-03	0.0	0.0	-230.80	10.61	20.26	37.06	-1.092e+04	-488.18
		-488.18	-1.092e+04	0.05	0.0	130.0	-164.16	10.61	20.26	37.06	-8282.51	891.00
14	400	885.52	-8279.12	6.30e-03	0.0	0.0	-230.71	10.42	20.32	37.07	-1.092e+04	-469.24
		-469.24	-1.092e+04	0.05	0.0	130.0	-164.07	10.42	20.32	37.07	-8279.12	885.52
14	413	3700.16	9562.07	-8.99e-03	0.0	0.0	-120.63	29.71	-41.46	-45.15	9562.07	-161.61
		-161.61	4172.52	-0.04	0.0	130.0	-54.00	29.71	-41.46	-45.15	4172.52	3700.16
14	414	3717.26	9558.35	-8.56e-03	0.0	0.0	-120.98	29.58	-41.54	-45.18	9558.35	-127.95
		-127.95	4157.80	-0.04	0.0	130.0	-54.35	29.58	-41.54	-45.18	4157.80	3717.26
14	415	3694.69	9558.01	-9.09e-03	0.0	0.0	-120.55	29.52	-41.40	-45.15	9558.01	-142.68
		-142.68	4175.92	-0.04	0.0	130.0	-53.91	29.52	-41.40	-45.15	4175.92	3694.69
14	417	711.75	-6372.95	4.62e-03	0.0	0.0	-197.63	8.47	18.86	31.11	-8825.37	-389.22
		-389.22	-8825.37	0.04	0.0	130.0	-130.99	8.47	18.86	31.11	-6372.95	711.75
14	418	728.85	-6387.67	5.05e-03	0.0	0.0	-197.98	8.34	18.78	31.08	-8829.09	-355.56
		-355.56	-8829.09	0.04	0.0	130.0	-131.34	8.34	18.78	31.08	-6387.67	728.85
14	420	723.37	-6384.28	4.95e-03	0.0	0.0	-197.89	8.15	18.84	31.09	-8833.15	-336.62
		-336.62	-8833.15	0.04	0.0	130.0	-131.26	8.15	18.84	31.09	-6384.28	723.37
15	35	1664.03	-1.592e+04	-0.01	0.0	0.0	-1051.08	98.16	721.35	-212.35	-6.280e+04	-4716.68
		-4716.68	-6.280e+04	-0.16	0.0	65.0	-1007.76	98.16	721.35	-212.35	-1.592e+04	1664.03
15	36	1669.81	-1.587e+04	-0.01	0.0	0.0	-932.19	96.25	720.80	-211.83	-6.272e+04	-4586.76
		-4586.76	-6.272e+04	-0.16	0.0	65.0	-898.87	96.25	720.80	-211.83	-1.587e+04	1669.81
15	79	-344.60	8.813e+04	-0.03	0.0	0.0	-217.59	313.09	-974.43	203.96	8.813e+04	-2.070e+04
		-2.070e+04	2.479e+04	0.23	0.0	65.0	-174.28	313.09	-974.43	203.96	2.479e+04	-344.60
15	80	-338.82	8.821e+04	-0.03	0.0	0.0	-98.71	311.18	-974.98	204.47	8.821e+04	-2.057e+04
		-2.057e+04	2.484e+04	0.23	0.0	65.0	-65.39	311.18	-974.98	204.47	2.484e+04	-338.82
15	210	-4800.45	8501.19	-0.03	0.0	0.0	-680.33	215.24	-71.59	-74.57	8501.19	-1.863e+04
		-1.863e+04	3879.87	0.02	0.0	65.0	-647.01	215.24	-71.59	-74.57	3879.87	-4800.45
15	211	1.824e+04	-4568.40	0.03	0.0	0.0	-15.66	-207.15	81.74	71.70	-9848.94	1.824e+04
		4940.34	-9848.94	-0.02	0.0	65.0	17.66	-207.15	81.74	71.70	-4568.40	4940.34
15	213	-3965.24	-1448.59	-0.02	0.0	0.0	-791.64	179.47	28.23	-63.83	-3290.23	-1.547e+04
		-1.547e+04	-3290.23	-8.66e-03	0.0	65.0	-758.32	179.47	28.23	-63.83	-1448.59	-3965.24
15	216	1.508e+04	1942.49	0.02	0.0	0.0	95.66	-171.38	-18.09	60.96	1942.49	1.508e+04
		4105.14	760.06	5.82e-03	0.0	65.0	128.98	-171.38	-18.09	60.96	760.06	4105.14
15	222	-3177.64	2.129e+04	-0.02	0.0	0.0	-288.48	140.98	-180.55	-84.65	2.129e+04	-1.229e+04
		-1.229e+04	9616.16	0.05	0.0	65.0	-255.17	140.98	-180.55	-84.65	9616.16	-3177.64
15	223	1.157e+04	-9964.24	0.02	0.0	0.0	-391.90	-130.25	185.47	81.20	-2.196e+04	1.157e+04
		3157.23	-2.196e+04	-0.05	0.0	65.0	-358.58	-130.25	185.47	81.20	-9964.24	3157.23
15	242	-2388.62	4078.70	-0.01	0.0	0.0	-506.53	109.33	-34.62	-37.70	4078.70	-9418.16
		-9418.16	1843.59	9.39e-03	0.0	65.0	-473.21	109.33	-34.62	-37.70	1843.59	-2388.62
15	243	8599.50	-2167.26	0.01	0.0	0.0	-167.25	-97.85	38.21	34.35	-4635.96	8599.50
		2316.40	-4635.96	-0.01	0.0	65.0	-133.93	-97.85	38.21	34.35	-2167.26	2316.40
15	245	-1972.35	-816.50	-0.01	0.0	0.0	-561.76	91.55	15.06	-32.29	-1798.21	-7846.92
		-7846.92	-1798.21	-4.19e-03	0.0	65.0	-528.44	91.55	15.06	-32.29	-816.50	-1972.35
15	248	7028.26	1240.96	0.01	0.0	0.0	-112.02	-80.06	-11.46	28.94	1240.96	7028.26
		1900.13	492.83	3.07e-03	0.0	65.0	-78.70	-80.06	-11.46	28.94	492.83	1900.13
15	254	-1591.59	1.044e+04	-7.88e-03	0.0	0.0	-312.67	72.74	-88.77	-42.70	1.044e+04	-6294.33
		-6294.33	4695.23	0.02	0.0	65.0	-279.35	72.74	-88.77	-42.70	4695.23	-1591.59
15	255	5475.67	-5018.90	8.14e-03	0.0	0.0	-361.11	-61.26	92.37	39.35	-1.099e+04	5475.67
		1519.38	-1.099e+04	-0.03	0.0	65.0	-327.79	-61.26	92.37	39.35	-5018.90	1519.38
15	282	1102.85	-1.063e+04	-7.50e-03	0.0	0.0	-739.69	66.15	481.14	-141.78	-4.191e+04	-3196.66
		-3196.66	-4.191e+04	-0.11	0.0	65.0	-706.38	66.15	481.14	-141.78	-1.063e+04	1102.85
15	304	-236.23	5.872e+04	-0.02	0.0	0.0	-184.04	209.43	-649.39	135.75	5.872e+04	-1.385e+04
		-1.385e+04	1.651e+04	0.15	0.0	65.0	-150.72	209.43	-649.39	135.75	1.651e+04	-236.23
15	382	761.86	-7493.23	-5.22e-03	0.0	0.0	-618.89	48.01	337.35	-99.78	-2.942e+04	-2358.74
		-2358.74	-2.942e+04	-0.08	0.0	65.0	-585.57	48.01	337.35	-99.78	-7493.23	761.86
15	396	-102.50	3.410e+04	-0.02	0.0	0.0	-250.98	140.32	-382.60	81.32	3.410e+04	-9223.46

		-9223.46	9228.67	0.09	0.0	65.0	-217.66	140.32	-382.60	81.32	9228.67	-102.50
15	415	648.40	-6447.59	-4.46e-03	0.0	0.0	-578.63	41.96	289.43	-85.79	-2.526e+04	-2078.91
		-2078.91	-2.526e+04	-0.07	0.0	65.0	-545.31	41.96	289.43	-85.79	-6447.59	648.40
15	418	-67.99	2.682e+04	-0.01	0.0	0.0	-270.41	118.36	-303.21	64.93	2.682e+04	-7761.30
		-7761.30	7106.75	0.07	0.0	65.0	-237.09	118.36	-303.21	64.93	7106.75	-67.99
16	35	4422.94	3.900e+04	-8.17e-03	0.0	0.0	-878.29	41.98	123.94	358.39	3.094e+04	1694.10
		1694.10	3.094e+04	-0.15	0.0	65.0	-834.97	41.98	123.94	358.39	3.900e+04	4422.94
16	80	8954.68	-3.848e+04	-0.03	0.0	0.0	204.97	142.85	-228.48	-562.80	-3.848e+04	-330.57
		-330.57	-5.334e+04	0.22	0.0	65.0	238.29	142.85	-228.48	-562.80	-5.334e+04	8954.68
16	149	5944.03	1013.74	-0.03	0.0	0.0	-468.10	149.62	0.98	42.36	949.99	-3781.47
		-3781.47	949.99	-4.64e-03	0.0	65.0	-424.78	149.62	0.98	42.36	1013.74	5944.03
16	210	3374.63	-949.97	-0.03	0.0	0.0	-422.43	170.49	-56.78	-58.65	-949.97	-8161.22
		-8161.22	-4286.93	0.02	0.0	65.0	-389.11	170.49	-56.78	-58.65	-4286.93	3374.63
16	211	7394.67	4828.30	0.03	0.0	0.0	-100.11	-162.54	65.58	69.65	919.68	7394.67
		-3624.31	919.68	-0.03	0.0	65.0	-66.79	-162.54	65.58	69.65	4828.30	-3624.31
16	213	2818.54	1625.73	-0.02	0.0	0.0	-554.74	140.67	19.38	-27.78	256.54	-6771.91
		-6771.91	256.54	-0.01	0.0	65.0	-521.42	140.67	19.38	-27.78	1625.73	2818.54
16	222	2033.26	-2292.76	-0.02	0.0	0.0	-110.04	112.26	-138.14	-73.39	-2292.76	-5412.59
		-5412.59	-1.071e+04	0.06	0.0	65.0	-76.72	112.26	-138.14	-73.39	-1.071e+04	2033.26
16	223	4939.92	1.098e+04	0.02	0.0	0.0	-400.15	-108.64	142.73	76.00	2264.28	4939.92
		-2270.35	2264.28	-0.07	0.0	65.0	-366.83	-108.64	142.73	76.00	1.098e+04	-2270.35
16	232	308.90	-1757.43	2.76e-03	0.0	0.0	40.91	-9.24	-111.16	-26.89	-1757.43	308.90
		-416.69	-8732.89	0.05	0.0	65.0	74.23	-9.24	-111.16	-26.89	-8732.89	-416.69
16	242	1602.82	-488.40	-0.01	0.0	0.0	-336.28	84.78	-27.24	-29.19	-488.40	-4120.49
		-4120.49	-2090.02	0.01	0.0	65.0	-302.96	84.78	-27.24	-29.19	-2090.02	1602.82
16	243	3763.91	2238.72	0.01	0.0	0.0	-168.67	-82.91	30.92	28.44	398.16	3763.91
		-1837.95	398.16	-0.01	0.0	65.0	-135.35	-82.91	30.92	28.44	2238.72	-1837.95
16	245	1326.69	845.86	-0.01	0.0	0.0	-401.98	70.00	10.68	-13.90	98.06	-3432.43
		-3432.43	98.06	-5.25e-03	0.0	65.0	-368.66	70.00	10.68	-13.90	845.86	1326.69
16	248	3075.85	-188.29	0.01	0.0	0.0	-102.97	-68.13	-7.00	13.16	-188.29	3075.85
		-1561.82	-697.16	3.52e-03	0.0	65.0	-69.65	-68.13	-7.00	13.16	-697.16	-1561.82
16	254	945.73	-1149.43	-8.70e-03	0.0	0.0	-181.56	56.09	-67.69	-36.51	-1149.43	-2770.05
		-2770.05	-5281.11	0.03	0.0	65.0	-148.24	56.09	-67.69	-36.51	-5281.11	945.73
16	255	2413.47	5429.81	8.95e-03	0.0	0.0	-323.39	-54.22	71.36	35.76	1059.19	2413.47
		-1180.86	1059.19	-0.03	0.0	65.0	-290.07	-54.22	71.36	35.76	5429.81	-1180.86
16	282	2947.26	2.601e+04	-5.43e-03	0.0	0.0	-613.25	28.43	82.87	238.87	2.062e+04	1099.47
		1099.47	2.062e+04	-0.10	0.0	65.0	-579.93	28.43	82.87	238.87	2.601e+04	2947.26
16	304	5916.29	-2.567e+04	-0.02	0.0	0.0	46.55	95.23	-151.71	-375.33	-2.567e+04	-273.65
		-273.65	-3.553e+04	0.15	0.0	65.0	79.87	95.23	-151.71	-375.33	-3.553e+04	5916.29
16	339	3961.32	685.73	-0.02	0.0	0.0	-339.79	100.19	0.90	28.19	627.45	-2550.91
		-2550.91	627.45	-3.21e-03	0.0	65.0	-306.47	100.19	0.90	28.19	685.73	3961.32
16	382	2027.63	1.823e+04	-3.77e-03	0.0	0.0	-505.04	20.19	58.58	167.11	1.442e+04	715.23
		715.23	1.442e+04	-0.07	0.0	65.0	-471.72	20.19	58.58	167.11	1.823e+04	2027.63
16	396	4041.83	-1.562e+04	-0.01	0.0	0.0	-70.14	64.73	-81.81	-229.93	-1.562e+04	-165.80
		-165.80	-2.094e+04	0.08	0.0	65.0	-36.82	64.73	-81.81	-229.93	-2.094e+04	4041.83
16	407	697.44	198.38	-3.69e-03	0.0	0.0	-270.05	20.83	1.73	5.38	85.88	-656.62
		-656.62	85.88	-1.57e-03	0.0	65.0	-236.73	20.83	1.73	5.38	198.38	697.44
16	411	-118.57	76.64	8.76e-05	0.0	0.0	-252.63	1.00	1.94	-0.32	-49.71	-183.25
		-183.25	-49.71	-1.17e-03	0.0	65.0	-219.31	1.00	1.94	-0.32	76.64	-118.57
16	415	1721.03	1.564e+04	-3.22e-03	0.0	0.0	-468.98	17.45	50.49	143.19	1.235e+04	586.88
		586.88	1.235e+04	-0.06	0.0	65.0	-435.66	17.45	50.49	143.19	1.564e+04	1721.03
16	418	3425.68	-1.259e+04	-0.01	0.0	0.0	-105.38	54.84	-61.70	-185.88	-1.259e+04	-139.13
		-139.13	-1.660e+04	0.07	0.0	65.0	-72.06	54.84	-61.70	-185.88	-1.660e+04	3425.68
17	35	3919.21	1.346e+04	-4.54e-03	0.0	0.0	-334.28	-5.47	27.78	421.51	9852.79	3919.21
		3207.99	9852.79	-0.09	0.0	130.0	-247.65	-5.47	27.78	421.51	1.346e+04	3207.99
17	80	1.329e+04	-1.205e+04	-0.04	0.0	0.0	-133.83	68.10	-76.27	-510.94	-1.205e+04	4441.43
		4441.43	-2.196e+04	0.14	0.0	130.0	-67.20	68.10	-76.27	-510.94	-2.196e+04	1.329e+04
17	81	6889.66	-1632.28	-3.44e-03	0.0	0.0	-264.68	64.60	-37.04	-54.30	-1632.28	-1508.78
		-1508.78	-6447.66	0.04	0.0	130.0	-178.05	64.60	-37.04	-54.30	-6447.66	6889.66
17	83	1.434e+04	-1.217e+04	-0.04	0.0	0.0	-196.82	78.44	-73.77	-510.89	-1.217e+04	4145.75
		4145.75	-2.176e+04	0.14	0.0	130.0	-110.19	78.44	-73.77	-510.89	-2.176e+04	1.434e+04
17	148	6748.60	1138.82	-0.04	0.0	0.0	-117.78	31.33	14.03	22.17	-685.08	2675.13
		2675.13	-685.08	-4.81e-03	0.0	130.0	-51.14	31.33	14.03	22.17	1138.82	6748.60
17	210	1.252e+04	-375.98	-0.04	0.0	0.0	-229.63	106.99	-32.78	-51.10	-375.98	1006.56
		1006.56	-4110.65	0.02	0.0	130.0	-162.99	106.99	-32.78	-51.10	-4110.65	1.252e+04
17	211	-2195.98	5590.63	0.05	0.0	0.0	-74.12	-68.80	50.17	51.93	-404.71	-2195.98
		-8745.99	-404.71	-0.03	0.0	130.0	-7.49	-68.80	50.17	51.93	5590.63	-8745.99
17	213	1.066e+04	1861.78	-0.04	0.0	0.0	-273.73	92.35	16.76	-17.17	140.52	919.41
		919.41	140.52	-0.01	0.0	130.0	-207.09	92.35	16.76	-17.17	1861.78	1.066e+04
17	216	-2108.83	-381.80	0.04	0.0	0.0	-30.02	-54.16	0.63	18.00	-921.21	-2108.83
		-6889.73	-921.21	6.30e-03	0.0	130.0	36.62	-54.16	0.63	18.00	-381.80	-6889.73
17	222	8762.99	-1320.40	-0.03	0.0	0.0	-109.88	74.84	-84.46	-76.60	-1320.40	51.84
		51.84	-1.044e+04	0.06	0.0	130.0	-43.24	74.84	-84.46	-76.60	-1.044e+04	8762.99
17	223	-1248.51	1.167e+04	0.03	0.0	0.0	-189.23	-38.09	100.46	76.83	479.59	-1248.51
		-5182.48	479.59	-0.07	0.0	130.0	-122.59	-38.09	100.46	76.83	1.167e+04	-5182.48
17	242	7075.29	-393.75	-0.02	0.0	0.0	-188.57	61.99	-12.46	-25.31	-393.75	174.41
		174.41	-1754.00	0.01	0.0	130.0	-121.93	61.99	-12.46	-25.31	-1754.00	7075.29

17	243	-1373.92	2885.61	0.02	0.0	0.0	-108.58	-25.84	27.49	25.28	-427.43	-1373.92
		-3576.06	-427.43	-0.01	0.0	130.0	-41.94	-25.84	27.49	25.28	2885.61	-3576.06
17	245	6154.68	1211.51	-0.02	0.0	0.0	-210.46	54.72	12.09	-8.46	-134.34	131.90
		131.90	-134.34	-5.64e-03	0.0	130.0	-143.82	54.72	12.09	-8.46	1211.51	6154.68
17	248	-1331.41	-79.90	0.02	0.0	0.0	-86.69	-18.58	2.93	8.44	-686.84	-1331.41
		-2655.44	-686.84	2.57e-03	0.0	130.0	-20.05	-18.58	2.93	8.44	-79.90	-2655.44
17	254	5224.12	-858.24	-0.01	0.0	0.0	-129.29	46.18	-38.16	-38.03	-858.24	-284.43
		-284.43	-4899.08	0.03	0.0	130.0	-62.66	46.18	-38.16	-38.03	-4899.08	5224.12
17	255	-915.08	6030.70	0.01	0.0	0.0	-167.86	-10.03	53.18	38.00	37.06	-915.08
		-1724.88	37.06	-0.03	0.0	130.0	-101.22	-10.03	53.18	38.00	6030.70	-1724.88
17	282	2570.47	9051.87	-3.00e-03	0.0	0.0	-236.72	-2.81	19.52	281.01	6513.66	2570.47
		2205.60	6513.66	-0.06	0.0	130.0	-170.08	-2.81	19.52	281.01	9051.87	2205.60
17	304	9612.36	-8167.97	-0.02	0.0	0.0	-144.69	52.99	-48.34	-340.63	-8167.97	2723.40
		2723.40	-1.445e+04	0.09	0.0	130.0	-78.05	52.99	-48.34	-340.63	-1.445e+04	9612.36
17	305	4660.04	-1143.05	-2.26e-03	0.0	0.0	-190.32	43.91	-23.69	-36.20	-1143.05	-1048.18
		-1048.18	-4223.01	0.03	0.0	130.0	-123.69	43.91	-23.69	-36.20	-4223.01	4660.04
17	306	9628.81	-8168.65	-0.02	0.0	0.0	-145.09	53.13	-48.18	-340.59	-8168.65	2721.50
		2721.50	-1.443e+04	0.09	0.0	130.0	-78.45	53.13	-48.18	-340.59	-1.443e+04	9628.81
17	338	5248.62	947.82	-0.03	0.0	0.0	-133.98	28.48	11.86	14.77	-593.47	1545.86
		1545.86	-593.47	-3.71e-03	0.0	130.0	-67.35	28.48	11.86	14.77	947.82	5248.62
17	382	2069.28	6506.57	-2.03e-03	0.0	0.0	-210.29	3.46	15.92	196.70	4436.95	1619.34
		1619.34	4436.95	-0.04	0.0	130.0	-143.65	3.46	15.92	196.70	6506.57	2069.28
17	389	4717.44	-4621.72	-0.01	0.0	0.0	-121.10	23.49	-7.35	-182.68	-4621.72	1663.55
		1663.55	-5577.16	0.04	0.0	130.0	-54.47	23.49	-7.35	-182.68	-5577.16	4717.44
17	396	5797.72	-5472.08	-0.02	0.0	0.0	-124.96	29.59	-16.01	-220.35	-5472.08	1950.70
		1950.70	-7553.90	0.05	0.0	130.0	-58.32	29.59	-16.01	-220.35	-7553.90	5797.72
17	397	2333.68	-389.77	-4.23e-04	0.0	0.0	-156.97	23.26	1.27	-7.25	-554.74	-689.70
		-689.70	-554.74	3.64e-03	0.0	130.0	-90.33	23.26	1.27	-7.25	-389.77	2333.68
17	398	5811.82	-5472.66	-0.02	0.0	0.0	-125.30	29.71	-15.87	-220.32	-5472.66	1949.08
		1949.08	-7535.77	0.05	0.0	130.0	-58.66	29.71	-15.87	-220.32	-7535.77	5811.82
17	411	1752.20	568.65	2.04e-04	0.0	0.0	-148.64	18.09	7.51	-8.72e-03	-407.54	-600.10
		-600.10	-407.54	-2.12e-03	0.0	130.0	-82.00	18.09	7.51	-8.72e-03	568.65	1752.20
17	415	2023.98	5658.30	-1.71e-03	0.0	0.0	-201.48	5.55	14.72	168.60	3744.88	1302.28
		1302.28	3744.88	-0.04	0.0	130.0	-134.84	5.55	14.72	168.60	5658.30	2023.98
17	418	4719.36	-4622.32	-0.01	0.0	0.0	-121.15	23.51	-7.33	-182.67	-4622.32	1663.34
		1663.34	-5574.62	0.04	0.0	130.0	-54.51	23.51	-7.33	-182.67	-5574.62	4719.36
17	419	4733.46	-4622.90	-0.01	0.0	0.0	-121.49	23.63	-7.18	-182.64	-4622.90	1661.71
		1661.71	-5556.48	0.04	0.0	130.0	-54.85	23.63	-7.18	-182.64	-5556.48	4733.46
18	33	2068.91	4738.56	-0.01	0.0	0.0	-1439.42	78.45	742.75	137.22	-4.354e+04	-3030.18
		-3030.18	-4.354e+04	-0.14	0.0	65.0	-1396.10	78.45	742.75	137.22	4738.56	2068.91
18	37	2055.50	4726.45	-0.01	0.0	0.0	-1439.01	78.75	742.95	137.42	-4.357e+04	-3063.26
		-3063.26	-4.357e+04	-0.14	0.0	65.0	-1395.69	78.75	742.95	137.42	4726.45	2055.50
18	76	-1478.38	5.378e+04	-0.03	0.0	0.0	1350.89	319.77	-917.00	-270.79	5.378e+04	-2.226e+04
		-2.226e+04	-5822.62	0.18	0.0	65.0	1384.21	319.77	-917.00	-270.79	-5822.62	-1478.38
18	84	-1491.79	5.376e+04	-0.03	0.0	0.0	1351.30	320.07	-916.81	-270.59	5.376e+04	-2.230e+04
		-2.230e+04	-5834.73	0.18	0.0	65.0	1384.62	320.07	-916.81	-270.59	-5834.73	-1491.79
18	210	-4885.95	-105.56	-0.03	0.0	0.0	115.76	207.81	22.56	-66.52	-1593.86	-1.823e+04
		-1.823e+04	-1593.86	-3.69e-03	0.0	65.0	149.08	207.81	22.56	-66.52	-105.56	-4885.95
18	211	1.757e+04	1296.51	0.03	0.0	0.0	-805.65	-205.08	-18.04	71.55	1296.51	1.757e+04
		4398.26	101.74	1.87e-03	0.0	65.0	-772.33	-205.08	-18.04	71.55	101.74	4398.26
18	226	-2130.51	1.321e+04	-0.01	0.0	0.0	224.83	87.24	-187.18	-46.07	1.321e+04	-7756.54
		-7756.54	-1180.69	0.04	0.0	65.0	258.15	87.24	-187.18	-46.07	-1180.69	-2130.51
18	227	8213.31	1183.04	0.01	0.0	0.0	-932.68	-95.21	195.77	49.82	-1.376e+04	8213.31
		2069.28	-1.376e+04	-0.04	0.0	65.0	-899.36	-95.21	195.77	49.82	1183.04	2069.28
18	229	-236.65	1120.57	-1.96e-03	0.0	0.0	-729.82	8.40	205.36	43.94	-1.445e+04	-739.68
		-739.68	-1.445e+04	-0.04	0.0	65.0	-696.50	8.40	205.36	43.94	1120.57	-236.65
18	232	1196.45	1.389e+04	2.66e-03	0.0	0.0	21.97	-16.36	-196.76	-40.19	1.389e+04	1196.45
		175.42	-1118.23	0.04	0.0	65.0	55.29	-16.36	-196.76	-40.19	-1118.23	175.42
18	242	-2387.06	-76.80	-0.01	0.0	0.0	-123.38	99.69	14.25	-32.31	-1013.32	-8792.91
		-8792.91	-1013.32	-2.20e-03	0.0	65.0	-90.06	99.69	14.25	-32.31	-76.80	-2387.06
18	243	9682.71	92.05	0.01	0.0	0.0	-591.88	-111.81	-1.58	34.72	92.05	9682.71
		2489.11	-21.31	6.46e-04	0.0	65.0	-558.56	-111.81	-1.58	34.72	-21.31	2489.11
18	258	-1027.26	6320.51	-5.30e-03	0.0	0.0	-68.78	40.09	-89.68	-22.20	6320.51	-3612.22
		-3612.22	-607.02	0.02	0.0	65.0	-35.47	40.09	-89.68	-22.20	-607.02	-1027.26
18	259	4502.01	508.91	5.47e-03	0.0	0.0	-646.47	-52.21	102.34	24.61	-7241.78	4502.01
		1129.31	-7241.78	-0.02	0.0	65.0	-613.15	-52.21	102.34	24.61	508.91	1129.31
18	261	-96.00	488.53	-9.22e-04	0.0	0.0	-542.50	1.18	105.96	22.06	-7496.35	-152.98
		-152.98	-7496.35	-0.02	0.0	65.0	-509.18	1.18	105.96	22.06	488.53	-96.00
18	264	1042.77	6575.08	1.10e-03	0.0	0.0	-172.75	-13.30	-93.29	-19.65	6575.08	1042.77
		198.04	-586.63	0.02	0.0	65.0	-139.43	-13.30	-93.29	-19.65	-586.63	198.04
18	281	1387.77	3152.74	-7.36e-03	0.0	0.0	-1001.36	51.55	496.00	91.64	-2.909e+04	-1963.14
		-1963.14	-2.909e+04	-0.09	0.0	65.0	-968.04	51.55	496.00	91.64	3152.74	1387.77
18	283	1378.83	3144.67	-7.40e-03	0.0	0.0	-1001.08	51.75	496.14	91.77	-2.910e+04	-1985.20
		-1985.20	-2.910e+04	-0.10	0.0	65.0	-967.77	51.75	496.14	91.77	3144.67	1378.83
18	302	-970.28	3.570e+04	-0.02	0.0	0.0	775.45	211.10	-609.22	-180.12	3.570e+04	-1.469e+04
		-1.469e+04	-3898.34	0.12	0.0	65.0	808.77	211.10	-609.22	-180.12	-3898.34	-970.28
18	306	-979.21	3.568e+04	-0.02	0.0	0.0	775.72	211.30	-609.09	-179.99	3.568e+04	-1.471e+04

		-1.471e+04	-3906.41	0.12	0.0	65.0	809.04	211.30	-609.09	-179.99	-3906.41	-979.21
18	381	990.61	2189.80	-5.09e-03	0.0	0.0	-808.42	34.18	349.20	64.50	-2.051e+04	-1231.02
		-1231.02	-2.051e+04	-0.07	0.0	65.0	-775.10	34.18	349.20	64.50	2189.80	990.61
18	383	982.95	2182.88	-5.13e-03	0.0	0.0	-808.19	34.35	349.31	64.61	-2.052e+04	-1249.92
		-1249.92	-2.052e+04	-0.07	0.0	65.0	-774.87	34.35	349.31	64.61	2182.88	982.95
18	394	-496.33	2.007e+04	-0.02	0.0	0.0	329.35	137.43	-347.26	-110.50	2.007e+04	-9428.96
		-9428.96	-2496.64	0.07	0.0	65.0	362.67	137.43	-347.26	-110.50	-2496.64	-496.33
18	398	-503.99	2.006e+04	-0.02	0.0	0.0	329.58	137.60	-347.14	-110.38	2.006e+04	-9447.86
		-9447.86	-2503.55	0.07	0.0	65.0	362.90	137.60	-347.14	-110.38	-2503.55	-503.99
18	414	859.39	1868.09	-4.33e-03	0.0	0.0	-744.17	28.36	300.29	55.45	-1.765e+04	-984.03
		-984.03	-1.765e+04	-0.06	0.0	65.0	-710.85	28.36	300.29	55.45	1868.09	859.39
18	416	851.73	1861.17	-4.36e-03	0.0	0.0	-743.94	28.53	300.40	55.56	-1.766e+04	-1002.93
		-1002.93	-1.766e+04	-0.06	0.0	65.0	-710.62	28.53	300.40	55.56	1861.17	851.73
18	417	-360.69	1.550e+04	-0.01	0.0	0.0	194.81	114.00	-270.24	-89.32	1.550e+04	-7770.99
		-7770.99	-2062.32	0.05	0.0	65.0	228.13	114.00	-270.24	-89.32	-2062.32	-360.69
18	419	-368.35	1.549e+04	-0.01	0.0	0.0	195.04	114.18	-270.13	-89.21	1.549e+04	-7789.89
		-7789.89	-2069.24	0.05	0.0	65.0	228.36	114.18	-270.13	-89.21	-2069.24	-368.35
19	33	4657.70	1.631e+04	-7.73e-03	0.0	0.0	-755.41	37.34	378.26	-40.73	-8280.45	2230.28
		2230.28	-8280.45	-0.11	0.0	65.0	-712.10	37.34	378.26	-40.73	1.631e+04	4657.70
19	38	4582.11	1.631e+04	-7.83e-03	0.0	0.0	-661.39	36.78	376.92	-40.75	-8189.27	2191.68
		2191.68	-8189.27	-0.11	0.0	65.0	-628.07	36.78	376.92	-40.75	1.631e+04	4582.11
19	75	1.007e+04	1.027e+04	-0.03	0.0	0.0	369.79	153.83	-466.96	-19.14	1.027e+04	69.55
		69.55	-2.008e+04	0.13	0.0	65.0	413.10	153.83	-466.96	-19.14	-2.008e+04	1.007e+04
19	83	1.007e+04	1.028e+04	-0.03	0.0	0.0	370.03	153.86	-467.10	-19.11	1.028e+04	69.60
		69.60	-2.008e+04	0.13	0.0	65.0	413.34	153.86	-467.10	-19.11	-2.008e+04	1.007e+04
19	84	9993.03	1.037e+04	-0.03	0.0	0.0	463.81	153.26	-468.31	-19.16	1.037e+04	30.94
		30.94	-2.007e+04	0.13	0.0	65.0	497.13	153.26	-468.31	-19.16	-2.007e+04	9993.03
19	178	5805.85	-34.05	-0.03	0.0	0.0	96.00	135.20	-3.23	-3.03	-34.05	-2981.87
		-2981.87	-244.31	7.05e-04	0.0	65.0	129.32	135.20	-3.23	-3.03	-244.31	5805.85
19	210	3638.96	110.37	-0.03	0.0	0.0	30.05	167.40	18.52	-68.38	-1074.56	-7698.60
		-7698.60	-1074.56	-3.82e-03	0.0	65.0	63.36	167.40	18.52	-68.38	110.37	3638.96
19	211	8024.27	718.94	0.03	0.0	0.0	-521.96	-166.82	-14.89	69.02	718.94	8024.27
		-3275.73	-230.61	1.93e-03	0.0	65.0	-488.64	-166.82	-14.89	69.02	-230.61	-3275.73
19	226	1636.50	7466.89	-0.01	0.0	0.0	79.09	71.80	-152.35	-53.10	7466.89	-3157.05
		-3157.05	-2587.79	0.04	0.0	65.0	112.41	71.80	-152.35	-53.10	-2587.79	1636.50
19	227	3517.86	2527.95	0.01	0.0	0.0	-581.26	-73.23	159.50	53.46	-7991.43	3517.86
		-1368.36	-7991.43	-0.04	0.0	65.0	-547.94	-73.23	159.50	53.46	2527.95	-1368.36
19	229	393.56	2642.17	-2.06e-03	0.0	0.0	-458.12	10.51	167.18	32.01	-8377.85	-414.11
		-414.11	-8377.85	-0.04	0.0	65.0	-424.80	10.51	167.18	32.01	2642.17	393.56
19	232	774.92	7853.30	2.71e-03	0.0	0.0	-44.05	-11.93	-160.03	-31.64	7853.30	774.92
		-125.42	-2702.01	0.04	0.0	65.0	-10.73	-11.93	-160.03	-31.64	-2702.01	-125.42
19	242	1851.23	48.87	-0.01	0.0	0.0	-113.07	82.19	11.13	-33.75	-665.60	-3705.13
		-3705.13	-665.60	-2.28e-03	0.0	65.0	-79.75	82.19	11.13	-33.75	48.87	1851.23
19	243	4086.55	119.28	0.01	0.0	0.0	-393.35	-84.51	-2.99	34.09	119.28	4086.55
		-1620.80	-66.47	6.43e-04	0.0	65.0	-360.04	-84.51	-2.99	34.09	-66.47	-1620.80
19	250	1147.82	2895.28	-8.39e-03	0.0	0.0	-88.40	51.51	-59.81	-42.51	2895.28	-2260.68
		-2260.68	-1040.84	0.01	0.0	65.0	-55.08	51.51	-59.81	-42.51	-1040.84	1147.82
19	251	2642.09	1023.23	8.60e-03	0.0	0.0	-418.02	-53.83	67.94	42.85	-3441.61	2642.09
		-917.39	-3441.61	-0.02	0.0	65.0	-384.70	-53.83	67.94	42.85	1023.23	-917.39
19	261	251.16	1310.87	-9.66e-04	0.0	0.0	-355.00	4.54	84.78	15.99	-4272.21	-102.47
		-102.47	-4272.21	-0.02	0.0	65.0	-321.68	4.54	84.78	15.99	1310.87	251.16
19	264	483.89	3725.89	1.17e-03	0.0	0.0	-151.42	-6.86	-76.65	-15.65	3725.89	483.89
		-20.72	-1328.48	0.02	0.0	65.0	-118.10	-6.86	-76.65	-15.65	-1328.48	-20.72
19	281	3106.18	1.087e+04	-5.14e-03	0.0	0.0	-531.43	24.43	252.72	-27.13	-5556.87	1518.47
		1518.47	-5556.87	-0.07	0.0	65.0	-498.11	24.43	252.72	-27.13	1.087e+04	3106.18
19	283	3107.46	1.087e+04	-5.19e-03	0.0	0.0	-531.27	24.45	252.63	-27.11	-5550.42	1518.50
		1518.50	-5550.42	-0.07	0.0	65.0	-497.95	24.45	252.63	-27.11	1.087e+04	3107.46
19	302	6713.46	6813.41	-0.02	0.0	0.0	218.70	102.08	-310.76	-12.74	6813.41	77.98
		77.98	-1.339e+04	0.09	0.0	65.0	252.02	102.08	-310.76	-12.74	-1.339e+04	6713.46
19	306	6714.73	6819.86	-0.02	0.0	0.0	218.86	102.10	-310.85	-12.72	6819.86	78.01
		78.01	-1.339e+04	0.09	0.0	65.0	252.18	102.10	-310.85	-12.72	-1.339e+04	6714.73
19	353	3923.28	-113.60	-0.02	0.0	0.0	-26.34	90.06	-0.80	-1.96	-113.60	-1930.53
		-1930.53	-165.76	1.97e-04	0.0	65.0	6.98	90.06	-0.80	-1.96	-165.76	3923.28
19	381	2208.30	7607.17	-3.53e-03	0.0	0.0	-448.08	16.73	178.15	-18.94	-3972.61	1121.15
		1121.15	-3972.61	-0.05	0.0	65.0	-414.76	16.73	178.15	-18.94	7607.17	2208.30
19	383	2209.40	7607.76	-3.57e-03	0.0	0.0	-447.94	16.74	178.07	-18.93	-3967.08	1121.18
		1121.18	-3967.08	-0.05	0.0	65.0	-414.62	16.74	178.07	-18.93	7607.76	2209.40
19	394	4456.47	3156.50	-0.01	0.0	0.0	45.54	64.60	-170.58	-7.79	3156.50	257.45
		257.45	-7931.52	0.05	0.0	65.0	78.86	64.60	-170.58	-7.79	-7931.52	4456.47
19	398	4457.56	3162.03	-0.01	0.0	0.0	45.68	64.62	-170.66	-7.77	3162.03	257.48
		257.48	-7930.93	0.05	0.0	65.0	79.00	64.62	-170.66	-7.77	-7930.93	4457.56
19	405	866.10	-40.23	-3.67e-03	0.0	0.0	-203.38	16.85	3.09	-0.26	-241.36	-228.90
		-228.90	-241.36	-6.15e-04	0.0	65.0	-170.06	16.85	3.09	-0.26	-40.23	866.10
19	410	196.20	-4.16	2.94e-04	0.0	0.0	-253.81	-1.30	4.21	0.16	-277.81	196.20
		112.00	-277.81	-1.20e-03	0.0	65.0	-220.49	-1.30	4.21	0.16	-4.16	112.00
19	414	1908.83	6519.84	-2.99e-03	0.0	0.0	-420.32	14.15	153.30	-16.21	-3444.78	989.01
		989.01	-3444.78	-0.04	0.0	65.0	-387.00	14.15	153.30	-16.21	6519.84	1908.83

19	416	1909.92	6520.43	-3.03e-03	0.0	0.0	-420.19	14.17	153.23	-16.20	-3439.25	989.04
		989.04	-3439.25	-0.04	0.0	65.0	-386.87	14.17	153.23	-16.20	6520.43	1909.92
19	417	3741.14	2141.66	-0.01	0.0	0.0	-7.97	52.97	-129.96	-6.28	2141.66	297.85
		297.85	-6305.46	0.04	0.0	65.0	25.35	52.97	-129.96	-6.28	-6305.46	3741.14
19	419	3742.23	2147.18	-0.01	0.0	0.0	-7.83	52.99	-130.03	-6.26	2147.18	297.88
		297.88	-6304.87	0.04	0.0	65.0	25.49	52.99	-130.03	-6.26	-6304.87	3742.23
20	33	5314.80	1.364e+04	-4.20e-03	0.0	0.0	-325.61	-55.05	41.62	-385.35	8231.13	5314.80
		-1841.44	8231.13	-0.09	0.0	130.0	-238.98	-55.05	41.62	-385.35	1.364e+04	-1841.44
20	84	7347.53	-9985.05	-0.04	0.0	0.0	5.03	-31.05	-52.94	388.55	-9985.05	7347.53
		3310.53	-1.687e+04	0.11	0.0	130.0	71.67	-31.05	-52.94	388.55	-1.687e+04	3310.53
20	123	1474.63	771.66	1.06e-03	0.0	0.0	-303.07	-52.62	9.83	-0.14	-505.98	1474.63
		-5365.76	-505.98	-3.35e-03	0.0	130.0	-216.44	-52.62	9.83	-0.14	771.66	-5365.76
20	150	1.070e+04	149.45	-0.04	0.0	0.0	85.87	64.89	3.72	-50.50	-334.13	2268.36
		2268.36	-334.13	-1.44e-03	0.0	130.0	152.51	64.89	3.72	-50.50	149.45	1.070e+04
20	210	9011.71	1727.56	-0.04	0.0	0.0	-27.61	70.96	21.13	-30.10	-1006.13	2206.24
		2206.24	-1006.13	-6.43e-03	0.0	130.0	39.03	70.96	21.13	-30.10	1727.56	9011.71
20	211	-1053.32	301.61	0.05	0.0	0.0	-264.29	-104.79	-8.88	30.83	301.61	-1053.32
		-1.226e+04	-839.88	1.84e-03	0.0	130.0	-197.66	-104.79	-8.88	30.83	-839.88	-1.226e+04
20	218	4941.43	1708.75	-0.03	0.0	0.0	-15.12	35.87	-64.26	20.30	1708.75	1183.65
		1183.65	-6709.33	0.04	0.0	130.0	51.52	35.87	-64.26	20.30	-6709.33	4941.43
20	219	1.68	7786.74	0.03	0.0	0.0	-280.88	-71.45	78.24	-20.19	-2448.99	1.68
		-8382.13	-2448.99	-0.05	0.0	130.0	-214.24	-71.45	78.24	-20.19	7786.74	-8382.13
20	229	960.48	9968.24	-3.45e-03	0.0	0.0	-225.10	-10.15	100.95	-33.28	-3228.07	960.48
		-933.46	-3228.07	-0.06	0.0	130.0	-158.46	-10.15	100.95	-33.28	9968.24	-933.46
20	232	224.85	2487.83	4.76e-03	0.0	0.0	-70.89	-25.44	-86.97	33.39	2487.83	224.85
		-2507.24	-8890.83	0.05	0.0	130.0	-4.25	-25.44	-86.97	33.39	-8890.83	-2507.24
20	242	3565.23	1141.80	-0.02	0.0	0.0	-88.88	25.86	14.14	-14.91	-690.29	1373.69
		1373.69	-690.29	-3.96e-03	0.0	130.0	-22.24	25.86	14.14	-14.91	1141.80	3565.23
20	243	-176.41	14.51	0.02	0.0	0.0	-208.81	-62.16	0.64	14.76	-75.32	-176.41
		-7087.56	-75.32	7.61e-04	0.0	130.0	-142.17	-62.16	0.64	14.76	14.51	-7087.56
20	250	1558.21	650.98	-0.01	0.0	0.0	-82.50	8.59	-28.13	9.99	650.98	881.62
		881.62	-3036.93	0.02	0.0	130.0	-15.86	8.59	-28.13	9.99	-3036.93	1558.21
20	251	315.66	4193.24	0.01	0.0	0.0	-215.19	-44.89	42.92	-10.14	-1416.59	315.66
		-5080.53	-1416.59	-0.02	0.0	130.0	-148.55	-44.89	42.92	-10.14	4193.24	-5080.53
20	261	771.85	5234.06	-1.62e-03	0.0	0.0	-186.73	-14.22	53.79	-16.49	-1793.13	771.85
		-1354.42	-1793.13	-0.03	0.0	130.0	-120.09	-14.22	53.79	-16.49	5234.06	-1354.42
20	264	425.44	1027.51	1.95e-03	0.0	0.0	-110.96	-22.08	-39.01	16.35	1027.51	425.44
		-2167.90	-4077.75	0.02	0.0	130.0	-44.32	-22.08	-39.01	16.35	-4077.75	-2167.90
20	281	3585.40	9171.89	-2.78e-03	0.0	0.0	-230.98	-37.55	28.73	-256.91	5436.40	3585.40
		-1296.13	5436.40	-0.06	0.0	130.0	-164.34	-37.55	28.73	-256.91	9171.89	-1296.13
20	306	5135.52	-6784.32	-0.02	0.0	0.0	-52.20	-28.32	-32.83	259.01	-6784.32	5135.52
		1453.65	-1.105e+04	0.07	0.0	130.0	14.44	-28.32	-32.83	259.01	-1.105e+04	1453.65
20	326	1025.28	591.54	7.34e-04	0.0	0.0	-215.95	-35.93	7.54	-0.11	-388.34	1025.28
		-3645.68	-388.34	-2.45e-03	0.0	130.0	-149.31	-35.93	7.54	-0.11	591.54	-3645.68
20	339	6382.75	292.34	-0.03	0.0	0.0	1.69	35.64	4.94	-33.69	-350.38	1749.41
		1749.41	-350.38	-1.49e-03	0.0	130.0	68.33	35.64	4.94	-33.69	292.34	6382.75
20	381	2689.90	6595.90	-1.83e-03	0.0	0.0	-206.39	-31.75	22.35	-179.86	3689.80	2689.90
		-1437.76	3689.80	-0.04	0.0	130.0	-139.75	-31.75	22.35	-179.86	6595.90	-1437.76
20	395	726.02	-287.76	2.13e-04	0.0	0.0	-155.49	-21.89	1.24	4.96	-449.51	726.02
		-2119.91	-449.51	2.96e-03	0.0	130.0	-88.85	-21.89	1.24	4.96	-287.76	-2119.91
20	396	3467.05	-4713.25	-0.02	0.0	0.0	-65.49	-16.34	-4.94	168.61	-4713.25	3467.05
		1343.49	-5355.39	0.04	0.0	130.0	1.15	-16.34	-4.94	168.61	-5355.39	1343.49
20	398	3463.07	-4708.49	-0.02	0.0	0.0	-65.19	-16.20	-5.09	168.64	-4708.49	3463.07
		1357.64	-5369.68	0.04	0.0	130.0	1.45	-16.20	-5.09	168.64	-5369.68	1357.64
20	410	601.55	589.76	5.70e-04	0.0	0.0	-149.09	-18.26	7.52	-0.10	-387.37	601.55
		-1772.72	-387.37	-2.33e-03	0.0	130.0	-82.45	-18.26	7.52	-0.10	589.76	-1772.72
20	414	2391.57	5737.88	-1.49e-03	0.0	0.0	-198.20	-29.82	20.23	-154.18	3107.35	2391.57
		-1485.61	3107.35	-0.04	0.0	130.0	-131.56	-29.82	20.23	-154.18	5737.88	-1485.61
20	418	2951.00	-3753.92	-0.01	0.0	0.0	-71.95	-13.50	2.22	140.18	-4042.01	2951.00
		1195.90	-4042.01	0.03	0.0	130.0	-5.31	-13.50	2.22	140.18	-3753.92	1195.90
20	419	2947.02	-3768.21	-0.01	0.0	0.0	-71.65	-13.36	2.07	140.20	-4037.25	2947.02
		1210.05	-4037.25	0.03	0.0	130.0	-5.01	-13.36	2.07	140.20	-3768.21	1210.05
21	36	-9473.80	2.527e+04	-0.02	0.0	0.0	580.49	81.39	1000.36	223.78	-1.048e+05	-2.005e+04
		-2.005e+04	-1.048e+05	-0.19	0.0	130.0	647.13	81.39	1000.36	223.78	2.527e+04	-9473.80
21	37	-9232.79	2.520e+04	-0.02	0.0	0.0	432.44	74.48	1000.22	223.02	-1.048e+05	-1.891e+04
		-1.891e+04	-1.048e+05	-0.19	0.0	130.0	519.07	74.48	1000.22	223.02	2.520e+04	-9232.79
21	76	2.101e+04	1.412e+05	0.02	0.0	0.0	-2178.24	-88.13	-1328.44	-355.58	1.412e+05	2.101e+04
		9556.60	-3.145e+04	0.25	0.0	130.0	-2111.61	-88.13	-1328.44	-355.58	-3.145e+04	9556.60
21	79	2.215e+04	1.412e+05	0.02	0.0	0.0	-2326.29	-95.03	-1328.58	-356.34	1.412e+05	2.215e+04
		9797.61	-3.151e+04	0.25	0.0	130.0	-2239.66	-95.03	-1328.58	-356.34	-3.151e+04	9797.61
21	87	2.248e+04	1.411e+05	0.02	0.0	0.0	-2325.62	-97.19	-1327.64	-356.48	1.411e+05	2.248e+04
		9842.41	-3.149e+04	0.25	0.0	130.0	-2238.99	-97.19	-1327.64	-356.48	-3.149e+04	9842.41
21	146	-1.323e+04	1148.07	-0.04	0.0	0.0	-693.22	234.58	38.10	34.93	-3804.56	-4.372e+04
		-4.372e+04	-3804.56	-5.40e-03	0.0	130.0	-626.58	234.58	38.10	34.93	1148.07	-1.323e+04
21	201	-9730.84	136.73	-0.03	0.0	0.0	-663.14	136.15	63.85	23.46	-8490.04	-2.740e+04
		-2.740e+04	-8490.04	-0.02	0.0	130.0	-596.50	136.15	63.85	23.46	136.73	-9730.84
21	204	2.575e+04	7243.99	0.03	0.0	0.0	-150.78	-126.21	-58.07	-19.71	7243.99	2.575e+04

		9372.32	-631.23	0.02	0.0	130.0	-84.14	-126.21	-58.07	-19.71	-631.23	9372.32
21	207	1.938e+04	-78.51	0.02	0.0	0.0	67.44	-94.31	46.24	-2.14	-6095.85	1.938e+04
		7147.92	-6095.85	-0.01	0.0	130.0	134.08	-94.31	46.24	-2.14	-78.51	7147.92
21	222	1.082e+04	2.457e+04	8.93e-03	0.0	0.0	-851.23	-58.15	-195.02	-45.20	2.457e+04	1.082e+04
		3254.74	-1351.30	0.05	0.0	130.0	-784.59	-58.15	-195.02	-45.20	-1351.30	3254.74
21	223	-2809.53	663.32	-5.24e-03	0.0	0.0	13.06	37.56	189.46	43.41	-2.454e+04	-7695.22
		-7695.22	-2.454e+04	-0.06	0.0	130.0	79.70	37.56	189.46	43.41	663.32	-2809.53
21	226	1862.42	2.073e+04	5.85e-04	0.0	0.0	-905.36	-11.97	-164.72	-19.95	2.073e+04	1862.42
		302.16	-1118.24	0.04	0.0	130.0	-838.72	-11.97	-164.72	-19.95	-1118.24	302.16
21	233	-4619.48	-64.58	-0.01	0.0	0.0	-542.04	60.44	31.45	10.72	-4311.30	-1.246e+04
		-1.246e+04	-4311.30	-0.01	0.0	130.0	-475.41	60.44	31.45	10.72	-64.58	-4619.48
21	236	1.702e+04	4228.79	0.02	0.0	0.0	-306.60	-89.62	-35.35	-14.44	4228.79	1.702e+04
		5387.39	-524.22	6.90e-03	0.0	130.0	-239.96	-89.62	-35.35	-14.44	-524.22	5387.39
21	254	6532.86	1.219e+04	5.25e-03	0.0	0.0	-636.11	-36.29	-97.83	-23.34	1.219e+04	6532.86
		1814.24	-806.27	0.02	0.0	130.0	-569.47	-36.29	-97.83	-23.34	-806.27	1814.24
21	255	-1046.33	217.47	-2.07e-03	0.0	0.0	-212.54	7.11	93.93	19.62	-1.227e+04	-1972.11
		-1972.11	-1.227e+04	-0.03	0.0	130.0	-145.90	7.11	93.93	19.62	217.47	-1046.33
21	258	2086.28	1.027e+04	1.10e-03	0.0	0.0	-662.85	-13.36	-82.74	-10.82	1.027e+04	2086.28
		347.96	-693.48	0.02	0.0	130.0	-596.21	-13.36	-82.74	-10.82	-693.48	347.96
21	259	2474.47	104.67	2.08e-03	0.0	0.0	-185.80	-15.82	78.84	7.10	-1.035e+04	2474.47
		419.95	-1.035e+04	-0.02	0.0	130.0	-119.16	-15.82	78.84	7.10	104.67	419.95
21	282	-6185.27	1.675e+04	-0.01	0.0	0.0	239.62	49.38	666.28	148.57	-6.987e+04	-1.260e+04
		-1.260e+04	-6.987e+04	-0.12	0.0	130.0	306.26	49.38	666.28	148.57	1.675e+04	-6185.27
21	283	-6106.61	1.676e+04	-0.01	0.0	0.0	237.66	47.72	666.53	148.43	-6.989e+04	-1.231e+04
		-1.231e+04	-6.989e+04	-0.12	0.0	130.0	304.30	47.72	666.53	148.43	1.676e+04	-6106.61
21	302	1.477e+04	9.415e+04	0.01	0.0	0.0	-1599.54	-63.63	-886.26	-237.67	9.415e+04	1.477e+04
		6501.66	-2.106e+04	0.17	0.0	130.0	-1532.90	-63.63	-886.26	-237.67	-2.106e+04	6501.66
21	304	1.507e+04	9.413e+04	0.01	0.0	0.0	-1601.50	-65.28	-886.00	-237.81	9.413e+04	1.507e+04
		6580.32	-2.105e+04	0.17	0.0	130.0	-1534.86	-65.28	-886.00	-237.81	-2.105e+04	6580.32
21	308	1.528e+04	9.406e+04	0.01	0.0	0.0	-1601.05	-66.72	-885.37	-237.90	9.406e+04	1.528e+04
		6610.19	-2.103e+04	0.16	0.0	130.0	-1534.41	-66.72	-885.37	-237.90	-2.103e+04	6610.19
21	337	-8688.46	667.81	-0.03	0.0	0.0	-609.52	151.51	24.77	22.67	-2551.98	-2.838e+04
		-2.838e+04	-2551.98	-4.14e-03	0.0	130.0	-542.88	151.51	24.77	22.67	667.81	-8688.46
21	380	-4235.41	1.162e+04	-8.44e-03	0.0	0.0	40.12	31.19	465.37	103.50	-4.887e+04	-8290.51
		-8290.51	-4.887e+04	-0.09	0.0	130.0	106.76	31.19	465.37	103.50	1.162e+04	-4235.41
21	382	-4209.81	1.164e+04	-8.41e-03	0.0	0.0	40.51	29.96	465.91	103.43	-4.893e+04	-8104.79
		-8104.79	-4.893e+04	-0.09	0.0	130.0	107.14	29.96	465.91	103.43	1.164e+04	-4209.81
21	383	-4142.38	1.165e+04	-8.00e-03	0.0	0.0	38.83	28.55	466.13	103.31	-4.895e+04	-7853.32
		-7853.32	-4.895e+04	-0.09	0.0	130.0	105.46	28.55	466.13	103.31	1.165e+04	-4142.38
21	394	9481.14	5.561e+04	7.83e-03	0.0	0.0	-1068.50	-42.61	-527.32	-146.64	5.561e+04	9481.14
		3941.76	-1.294e+04	0.10	0.0	130.0	-1001.86	-42.61	-527.32	-146.64	-1.294e+04	3941.76
21	396	9732.61	5.559e+04	8.24e-03	0.0	0.0	-1070.18	-44.03	-527.10	-146.76	5.559e+04	9732.61
		4009.19	-1.293e+04	0.10	0.0	130.0	-1003.54	-44.03	-527.10	-146.76	-1.293e+04	4009.19
21	400	9918.33	5.554e+04	8.27e-03	0.0	0.0	-1069.79	-45.26	-526.56	-146.84	5.554e+04	9918.33
		4034.79	-1.292e+04	0.10	0.0	130.0	-1003.15	-45.26	-526.56	-146.84	-1.292e+04	4034.79
21	413	-3575.50	9922.09	-7.01e-03	0.0	0.0	-26.23	24.65	398.61	88.45	-4.190e+04	-6780.38
		-6780.38	-4.190e+04	-0.07	0.0	130.0	40.41	24.65	398.61	88.45	9922.09	-3575.50
21	415	-3549.90	9934.69	-6.98e-03	0.0	0.0	-25.84	23.42	399.15	88.37	-4.195e+04	-6594.66
		-6594.66	-4.195e+04	-0.08	0.0	130.0	40.80	23.42	399.15	88.37	9934.69	-3549.90
21	416	-3482.48	9947.42	-6.57e-03	0.0	0.0	-27.52	22.01	399.37	88.25	-4.197e+04	-6343.19
		-6343.19	-4.197e+04	-0.08	0.0	130.0	39.12	22.01	399.37	88.25	9947.42	-3482.48
21	417	7922.88	4.413e+04	6.47e-03	0.0	0.0	-915.28	-36.44	-420.16	-119.00	4.413e+04	7922.88
		3185.08	-1.049e+04	0.08	0.0	130.0	-848.64	-36.44	-420.16	-119.00	-1.049e+04	3185.08
21	418	8174.35	4.412e+04	6.88e-03	0.0	0.0	-916.96	-37.86	-419.94	-119.12	4.412e+04	8174.35
		3252.50	-1.047e+04	0.08	0.0	130.0	-850.32	-37.86	-419.94	-119.12	-1.047e+04	3252.50
21	420	8360.07	4.406e+04	6.91e-03	0.0	0.0	-916.57	-39.09	-419.40	-119.20	4.406e+04	8360.07
		3278.10	-1.046e+04	0.07	0.0	130.0	-849.94	-39.09	-419.40	-119.20	-1.046e+04	3278.10
22	32	2723.14	1.057e+04	-0.02	0.0	0.0	-1835.39	184.83	815.89	-444.75	-9.550e+04	-2.130e+04
		-2.130e+04	-9.550e+04	-0.18	0.0	130.0	-1768.75	184.83	815.89	-444.75	1.057e+04	2723.14
22	35	2767.16	1.061e+04	-0.02	0.0	0.0	-1985.83	185.05	815.52	-445.26	-9.541e+04	-2.129e+04
		-2.129e+04	-9.541e+04	-0.19	0.0	130.0	-1899.20	185.05	815.52	-445.26	1.061e+04	2767.16
22	80	-489.97	1.309e+05	-0.04	0.0	0.0	588.67	452.53	-1101.74	499.59	1.309e+05	-5.932e+04
		-5.932e+04	-1.230e+04	0.25	0.0	130.0	655.31	452.53	-1101.74	499.59	-1.230e+04	-489.97
22	84	-434.50	1.308e+05	-0.04	0.0	0.0	585.87	455.36	-1101.05	499.32	1.308e+05	-5.963e+04
		-5.963e+04	-1.230e+04	0.25	0.0	130.0	652.51	455.36	-1101.05	499.32	-1.230e+04	-434.50
22	87	-445.96	1.310e+05	-0.04	0.0	0.0	438.23	452.76	-1102.10	499.08	1.310e+05	-5.930e+04
		-5.930e+04	-1.226e+04	0.25	0.0	130.0	524.86	452.76	-1102.10	499.08	-1.226e+04	-445.96
22	210	-4838.94	9791.77	-0.03	0.0	0.0	-862.41	233.44	-72.34	-18.67	9791.77	-3.495e+04
		-3.495e+04	-116.47	0.02	0.0	130.0	-795.77	233.44	-72.34	-18.67	-116.47	-4838.94
22	211	3.160e+04	639.08	0.03	0.0	0.0	-52.43	-200.00	82.27	17.52	-1.056e+04	3.160e+04
		5838.92	-1.056e+04	-0.02	0.0	130.0	14.21	-200.00	82.27	17.52	639.08	5838.92
22	213	-3978.12	409.25	-0.02	0.0	0.0	-1068.25	193.37	28.67	-32.02	-3473.93	-2.888e+04
		-2.888e+04	-3473.93	-0.01	0.0	130.0	-1001.61	193.37	28.67	-32.02	409.25	-3978.12
22	216	2.554e+04	2704.73	0.03	0.0	0.0	153.41	-159.94	-18.73	30.87	2704.73	2.554e+04
		4978.10	113.36	5.89e-03	0.0	130.0	220.05	-159.94	-18.73	30.87	113.36	4978.10
22	222	-3157.67	2.404e+04	-0.02	0.0	0.0	-275.68	148.26	-180.45	17.84	2.404e+04	-2.236e+04
		-2.236e+04	-611.69	0.05	0.0	130.0	-209.04	148.26	-180.45	17.84	-611.69	-3157.67

22	223	2.185e+04	1325.72	0.02	0.0	0.0	-615.82	-141.23	189.99	-21.89	-2.457e+04	2.185e+04
		3560.71	-2.457e+04	-0.06	0.0	130.0	-549.18	-141.23	189.99	-21.89	1325.72	3560.71
22	242	-2340.92	4898.36	-0.01	0.0	0.0	-648.86	114.65	-35.16	-9.81	4898.36	-1.713e+04
		-1.713e+04	80.63	8.52e-03	0.0	130.0	-582.22	114.65	-35.16	-9.81	80.63	-2340.92
22	243	1.771e+04	450.75	0.01	0.0	0.0	-232.43	-117.57	38.06	7.55	-4743.05	1.771e+04
		2534.95	-4743.05	-0.01	0.0	130.0	-165.79	-117.57	38.06	7.55	450.75	2534.95
22	245	-1908.52	305.95	-0.01	0.0	0.0	-751.02	94.93	14.25	-16.01	-1623.35	-1.414e+04
		-1.414e+04	-1623.35	-4.94e-03	0.0	130.0	-684.38	94.93	14.25	-16.01	305.95	-1908.52
22	248	1.471e+04	1778.65	0.01	0.0	0.0	-130.28	-97.85	-11.36	13.75	1778.65	1.471e+04
		2102.56	225.43	2.21e-03	0.0	130.0	-63.64	-97.85	-11.36	13.75	225.43	2102.56
22	254	-1514.67	1.198e+04	-8.42e-03	0.0	0.0	-358.39	72.70	-88.90	8.20	1.198e+04	-1.093e+04
		-1.093e+04	-159.34	0.02	0.0	130.0	-291.75	72.70	-88.90	8.20	-159.34	-1514.67
22	255	1.150e+04	690.72	8.90e-03	0.0	0.0	-522.91	-75.62	91.79	-10.46	-1.183e+04	1.150e+04
		1708.70	-1.183e+04	-0.03	0.0	130.0	-456.27	-75.62	91.79	-10.46	690.72	1708.70
22	280	1845.36	7132.45	-0.01	0.0	0.0	-1376.42	122.68	544.39	-296.87	-6.364e+04	-1.410e+04
		-1.410e+04	-6.364e+04	-0.12	0.0	130.0	-1309.78	122.68	544.39	-296.87	7132.45	1845.36
22	282	1860.12	7108.72	-0.01	0.0	0.0	-1376.70	123.23	543.89	-296.99	-6.360e+04	-1.416e+04
		-1.416e+04	-6.360e+04	-0.12	0.0	130.0	-1310.06	123.23	543.89	-296.99	7108.72	1860.12
22	304	-296.72	8.731e+04	-0.03	0.0	0.0	239.62	301.15	-734.03	332.69	8.731e+04	-3.945e+04
		-3.945e+04	-8114.13	0.17	0.0	130.0	306.26	301.15	-734.03	332.69	-8114.13	-296.72
22	306	-259.74	8.725e+04	-0.03	0.0	0.0	237.76	303.03	-733.57	332.51	8.725e+04	-3.965e+04
		-3.965e+04	-8112.33	0.17	0.0	130.0	304.40	303.03	-733.57	332.51	-8112.33	-259.74
22	308	-281.96	8.735e+04	-0.03	0.0	0.0	239.34	301.70	-734.53	332.57	8.735e+04	-3.950e+04
		-3.950e+04	-8137.85	0.17	0.0	130.0	305.98	301.70	-734.53	332.57	-8137.85	-281.96
22	380	1320.85	5072.42	-7.16e-03	0.0	0.0	-1095.69	85.44	381.51	-208.15	-4.452e+04	-9785.84
		-9785.84	-4.452e+04	-0.09	0.0	130.0	-1029.05	85.44	381.51	-208.15	5072.42	1320.85
22	382	1333.51	5052.08	-7.24e-03	0.0	0.0	-1095.93	85.91	381.08	-208.25	-4.449e+04	-9834.80
		-9834.80	-4.449e+04	-0.09	0.0	130.0	-1029.29	85.91	381.08	-208.25	5052.08	1333.51
22	396	-57.39	5.152e+04	-0.02	0.0	0.0	-56.59	200.07	-433.90	199.73	5.152e+04	-2.607e+04
		-2.607e+04	-4889.76	0.10	0.0	130.0	10.05	200.07	-433.90	199.73	-4889.76	-57.39
22	398	-25.70	5.147e+04	-0.02	0.0	0.0	-58.19	201.68	-433.51	199.57	5.147e+04	-2.624e+04
		-2.624e+04	-4888.22	0.10	0.0	130.0	8.45	201.68	-433.51	199.57	-4888.22	-25.70
22	400	-44.74	5.155e+04	-0.02	0.0	0.0	-56.84	200.54	-434.33	199.63	5.155e+04	-2.612e+04
		-2.612e+04	-4910.10	0.10	0.0	130.0	9.80	200.54	-434.33	199.63	-4910.10	-44.74
22	413	1146.02	4385.74	-6.10e-03	0.0	0.0	-1002.11	73.02	327.21	-178.58	-3.815e+04	-8346.92
		-8346.92	-3.815e+04	-0.07	0.0	130.0	-935.47	73.02	327.21	-178.58	4385.74	1146.02
22	415	1158.67	4365.41	-6.18e-03	0.0	0.0	-1002.35	73.50	326.79	-178.67	-3.812e+04	-8395.88
		-8395.88	-3.812e+04	-0.08	0.0	130.0	-935.71	73.50	326.79	-178.67	4365.41	1158.67
22	418	4.70	4.088e+04	-0.01	0.0	0.0	-142.94	167.66	-344.52	159.79	4.088e+04	-2.179e+04
		-2.179e+04	-3911.44	0.08	0.0	130.0	-76.30	167.66	-344.52	159.79	-3911.44	4.70
22	419	36.39	4.083e+04	-0.02	0.0	0.0	-144.54	169.27	-344.13	159.63	4.083e+04	-2.197e+04
		-2.197e+04	-3909.90	0.08	0.0	130.0	-77.90	169.27	-344.13	159.63	-3909.90	36.39
22	420	17.35	4.091e+04	-0.01	0.0	0.0	-143.18	168.13	-344.95	159.69	4.091e+04	-2.184e+04
		-2.184e+04	-3931.78	0.08	0.0	130.0	-76.54	168.13	-344.95	159.69	-3931.78	17.35
23	32	3080.83	2.671e+04	-0.02	0.0	0.0	-2042.47	209.39	1019.50	425.06	-1.058e+05	-2.414e+04
		-2.414e+04	-1.058e+05	-0.19	0.0	130.0	-1975.83	209.39	1019.50	425.06	2.671e+04	3080.83
23	33	3143.50	2.669e+04	-0.02	0.0	0.0	-2201.18	210.90	1018.67	425.61	-1.057e+05	-2.427e+04
		-2.427e+04	-1.057e+05	-0.19	0.0	130.0	-2114.55	210.90	1018.67	425.61	2.669e+04	3143.50
23	34	3159.80	2.665e+04	-0.02	0.0	0.0	-2044.77	210.44	1018.61	425.34	-1.058e+05	-2.420e+04
		-2.420e+04	-1.058e+05	-0.19	0.0	130.0	-1978.13	210.44	1018.61	425.34	2.665e+04	3159.80
23	79	-3352.87	1.331e+05	-0.04	0.0	0.0	2187.50	373.17	-1278.00	-563.28	1.331e+05	-5.186e+04
		-5.186e+04	-3.301e+04	0.24	0.0	130.0	2274.13	373.17	-1278.00	-563.28	-3.301e+04	-3352.87
23	84	-3446.88	1.331e+05	-0.04	0.0	0.0	2346.78	371.00	-1278.13	-563.80	1.331e+05	-5.168e+04
		-5.168e+04	-3.303e+04	0.24	0.0	130.0	2413.42	371.00	-1278.13	-563.80	-3.303e+04	-3446.88
23	87	-3384.21	1.332e+05	-0.04	0.0	0.0	2188.08	372.51	-1278.97	-563.26	1.332e+05	-5.181e+04
		-5.181e+04	-3.305e+04	0.23	0.0	130.0	2274.71	372.51	-1278.97	-563.26	-3.305e+04	-3384.21
23	210	-5502.15	491.91	-0.03	0.0	0.0	168.22	222.50	18.74	-32.77	-1934.93	-3.420e+04
		-3.420e+04	-1934.93	-5.07e-03	0.0	130.0	234.86	222.50	18.74	-32.77	491.91	-5502.15
23	211	3.519e+04	2582.88	0.03	0.0	0.0	-1057.60	-241.61	-20.97	29.76	2582.88	3.519e+04
		4011.76	-134.09	-7.83e-04	0.0	130.0	-990.96	-241.61	-20.97	29.76	-134.09	4011.76
23	226	-2564.90	2.295e+04	-0.01	0.0	0.0	339.73	92.91	-178.96	-23.25	2.295e+04	-1.456e+04
		-1.456e+04	-2881.05	0.04	0.0	130.0	406.36	92.91	-178.96	-23.25	-2881.05	-2564.90
23	227	1.448e+04	3419.77	0.01	0.0	0.0	-1253.76	-96.31	183.90	25.74	-2.305e+04	1.448e+04
		2042.57	-2.305e+04	-0.05	0.0	130.0	-1187.12	-96.31	183.90	25.74	3419.77	2042.57
23	229	-295.73	3939.60	-2.37e-03	0.0	0.0	-986.28	22.10	215.61	16.40	-2.414e+04	-3128.96
		-3128.96	-2.414e+04	-0.05	0.0	130.0	-919.64	22.10	215.61	16.40	3939.60	-295.73
23	232	3049.31	2.404e+04	4.02e-03	0.0	0.0	72.24	-25.51	-210.67	-13.92	2.404e+04	3049.31
		-226.60	-3400.88	0.04	0.0	130.0	138.88	-25.51	-210.67	-13.92	-3400.88	-226.60
23	242	-2758.04	314.25	-0.01	0.0	0.0	-150.11	110.48	9.36	-15.75	-898.37	-1.702e+04
		-1.702e+04	-898.37	-3.21e-03	0.0	130.0	-83.47	110.48	9.36	-15.75	314.25	-2758.04
23	243	1.660e+04	1080.77	0.01	0.0	0.0	-773.86	-108.49	-8.57	17.51	1080.77	1.660e+04
		2601.22	-28.51	3.23e-04	0.0	130.0	-707.22	-108.49	-8.57	17.51	-28.51	2601.22
23	258	-1308.04	1.143e+04	-5.70e-03	0.0	0.0	-64.38	46.43	-88.62	-10.96	1.143e+04	-7304.97
		-7304.97	-1355.45	0.02	0.0	130.0	2.26	46.43	-88.62	-10.96	-1355.45	-1308.04
23	259	6888.65	1641.18	5.97e-03	0.0	0.0	-859.59	-44.44	89.42	12.72	-1.125e+04	6888.65
		1151.22	-1.125e+04	-0.02	0.0	130.0	-792.95	-44.44	89.42	12.72	1641.18	1151.22
23	261	-201.80	1897.29	-1.10e-03	0.0	0.0	-722.31	10.86	104.39	7.30	-1.170e+04	-1595.78

		-1595.78	-1.170e+04	-0.02	0.0	130.0	-655.68	10.86	104.39	7.30	1897.29	-201.80
23	264	1179.47	1.188e+04	1.37e-03	0.0	0.0	-201.65	-8.87	-103.59	-5.53	1.188e+04	1179.47
		44.99	-1611.55	0.02	0.0	130.0	-135.01	-8.87	-103.59	-5.53	-1611.55	44.99
23	280	2030.16	1.785e+04	-0.01	0.0	0.0	-1521.58	139.98	679.78	283.67	-7.052e+04	-1.617e+04
		-1.617e+04	-7.052e+04	-0.13	0.0	130.0	-1454.94	139.98	679.78	283.67	1.785e+04	2030.16
23	281	2082.80	1.781e+04	-0.01	0.0	0.0	-1523.11	140.68	679.19	283.86	-7.048e+04	-1.621e+04
		-1.621e+04	-7.048e+04	-0.13	0.0	130.0	-1456.47	140.68	679.19	283.86	1.781e+04	2082.80
23	304	-2248.11	8.877e+04	-0.03	0.0	0.0	1402.68	248.86	-851.93	-375.40	8.877e+04	-3.460e+04
		-3.460e+04	-2.198e+04	0.16	0.0	130.0	1469.31	248.86	-851.93	-375.40	-2.198e+04	-2248.11
23	306	-2321.65	8.878e+04	-0.03	0.0	0.0	1404.59	247.72	-851.98	-375.57	8.878e+04	-3.453e+04
		-3.453e+04	-2.198e+04	0.16	0.0	130.0	1471.23	247.72	-851.98	-375.57	-2.198e+04	-2321.65
23	308	-2269.00	8.882e+04	-0.03	0.0	0.0	1403.06	248.42	-852.57	-375.39	8.882e+04	-3.456e+04
		-3.456e+04	-2.201e+04	0.16	0.0	130.0	1469.70	248.42	-852.57	-375.39	-2.201e+04	-2269.00
23	380	1397.59	1.254e+04	-7.26e-03	0.0	0.0	-1203.70	98.29	475.97	198.83	-4.934e+04	-1.138e+04
		-1.138e+04	-4.934e+04	-0.09	0.0	130.0	-1137.06	98.29	475.97	198.83	1.254e+04	1397.59
23	381	1442.71	1.251e+04	-6.94e-03	0.0	0.0	-1205.01	98.88	475.46	198.99	-4.930e+04	-1.141e+04
		-1.141e+04	-4.930e+04	-0.09	0.0	130.0	-1138.37	98.88	475.46	198.99	1.251e+04	1442.71
23	396	-1324.87	5.128e+04	-0.02	0.0	0.0	657.95	169.17	-493.18	-229.40	5.128e+04	-2.332e+04
		-2.332e+04	-1.283e+04	0.09	0.0	130.0	724.59	169.17	-493.18	-229.40	-1.283e+04	-1324.87
23	398	-1387.90	5.130e+04	-0.02	0.0	0.0	659.59	168.20	-493.22	-229.55	5.130e+04	-2.325e+04
		-2.325e+04	-1.282e+04	0.09	0.0	130.0	726.23	168.20	-493.22	-229.55	-1.282e+04	-1387.90
23	400	-1342.77	5.133e+04	-0.02	0.0	0.0	658.28	168.79	-493.73	-229.39	5.133e+04	-2.329e+04
		-2.329e+04	-1.285e+04	0.09	0.0	130.0	724.92	168.79	-493.73	-229.39	-1.285e+04	-1342.77
23	413	1186.73	1.077e+04	-6.20e-03	0.0	0.0	-1097.74	84.39	408.03	170.55	-4.228e+04	-9783.90
		-9783.90	-4.228e+04	-0.08	0.0	130.0	-1031.10	84.39	408.03	170.55	1.077e+04	1186.73
23	414	1231.86	1.074e+04	-5.88e-03	0.0	0.0	-1099.05	84.99	407.52	170.71	-4.224e+04	-9816.27
		-9816.27	-4.224e+04	-0.08	0.0	130.0	-1032.41	84.99	407.52	170.71	1.074e+04	1231.86
23	418	-1049.82	4.024e+04	-0.01	0.0	0.0	434.32	143.36	-387.38	-185.14	4.024e+04	-1.969e+04
		-1.969e+04	-1.012e+04	0.07	0.0	130.0	500.95	143.36	-387.38	-185.14	-1.012e+04	-1049.82
23	419	-1112.85	4.026e+04	-0.02	0.0	0.0	435.96	142.39	-387.42	-185.29	4.026e+04	-1.962e+04
		-1.962e+04	-1.011e+04	0.07	0.0	130.0	502.59	142.39	-387.42	-185.29	-1.011e+04	-1112.85
23	420	-1067.73	4.029e+04	-0.01	0.0	0.0	434.64	142.99	-387.93	-185.13	4.029e+04	-1.966e+04
		-1.966e+04	-1.014e+04	0.07	0.0	130.0	501.28	142.99	-387.93	-185.13	-1.014e+04	-1067.73
26	34	-4791.29	2.702e+04	-0.02	0.0	0.0	1566.61	155.67	1037.13	-189.82	-1.078e+05	-2.503e+04
		-2.503e+04	-1.078e+05	-0.19	0.0	130.0	1633.25	155.67	1037.13	-189.82	2.702e+04	-4791.29
26	37	-5018.91	2.700e+04	-0.02	0.0	0.0	1415.07	162.22	1037.99	-189.49	-1.079e+05	-2.611e+04
		-2.611e+04	-1.079e+05	-0.19	0.0	130.0	1501.70	162.22	1037.99	-189.49	2.700e+04	-5018.91
26	76	1.572e+04	1.355e+05	0.02	0.0	0.0	-2985.73	-108.06	-1306.60	157.41	1.355e+05	1.572e+04
		1673.76	-3.432e+04	0.24	0.0	130.0	-2919.09	-108.06	-1306.60	157.41	-3.432e+04	1673.76
26	83	1.464e+04	1.354e+05	0.02	0.0	0.0	-3137.27	-101.51	-1305.74	157.74	1.354e+05	1.464e+04
		1446.13	-3.434e+04	0.24	0.0	130.0	-3050.64	-101.51	-1305.74	157.74	-3.434e+04	1446.13
26	183	-8141.73	3128.95	-0.05	0.0	0.0	-91.95	352.52	-35.25	-196.56	3128.95	-5.397e+04
		-5.397e+04	-1453.29	-1.16e-03	0.0	130.0	-5.32	352.52	-35.25	-196.56	-1453.29	-8141.73
26	201	-1.064e+04	-138.62	-0.03	0.0	0.0	57.59	169.01	5.71	6.99	-886.55	-3.258e+04
		-3.258e+04	-886.55	-5.47e-03	0.0	130.0	124.23	169.01	5.71	6.99	-138.62	-1.064e+04
26	204	3.625e+04	1964.55	0.03	0.0	0.0	-979.30	-193.28	-19.20	0.55	1964.55	3.625e+04
		1.116e+04	-536.60	8.97e-04	0.0	130.0	-912.67	-193.28	-19.20	0.55	-536.60	1.116e+04
26	225	-5441.55	2770.50	-0.02	0.0	0.0	291.80	93.04	176.21	-10.81	-2.018e+04	-1.752e+04
		-1.752e+04	-2.018e+04	-0.05	0.0	130.0	358.44	93.04	176.21	-10.81	2770.50	-5441.55
26	228	1.482e+04	2.075e+04	0.01	0.0	0.0	-1187.96	-76.08	-185.13	14.95	2.075e+04	1.482e+04
		4945.92	-3363.67	0.04	0.0	130.0	-1121.32	-76.08	-185.13	14.95	-3363.67	4945.92
26	229	-4889.87	2657.94	-0.01	0.0	0.0	291.67	83.93	206.90	-22.50	-2.364e+04	-1.579e+04
		-1.579e+04	-2.364e+04	-0.05	0.0	130.0	358.31	83.93	206.90	-22.50	2657.94	-4889.87
26	232	1.309e+04	2.421e+04	0.01	0.0	0.0	-1187.83	-66.97	-215.82	26.64	2.421e+04	1.309e+04
		4394.24	-3251.11	0.04	0.0	130.0	-1121.19	-66.97	-215.82	26.64	-3251.11	4394.24
26	233	-5494.29	-117.87	-0.02	0.0	0.0	-195.32	90.64	3.80	3.94	-613.94	-1.726e+04
		-1.726e+04	-613.94	-2.86e-03	0.0	130.0	-128.68	90.64	3.80	3.94	-117.87	-5494.29
26	236	1.243e+04	275.85	0.01	0.0	0.0	-690.63	-60.54	-3.59	-1.75	275.85	1.243e+04
		4569.17	-193.35	-5.21e-04	0.0	130.0	-623.99	-60.54	-3.59	-1.75	-193.35	4569.17
26	257	-2924.87	1388.52	-7.84e-03	0.0	0.0	-78.77	51.91	90.25	-4.97	-1.036e+04	-9667.51
		-9667.51	-1.036e+04	-0.02	0.0	130.0	-12.13	51.91	90.25	-4.97	1388.52	-2924.87
26	260	4829.85	1.003e+04	6.00e-03	0.0	0.0	-807.18	-21.82	-90.04	7.16	1.003e+04	4829.85
		1999.75	-1699.74	0.02	0.0	130.0	-740.55	-21.82	-90.04	7.16	-1699.74	1999.75
26	261	-2650.70	1332.95	-7.01e-03	0.0	0.0	-78.81	47.39	105.41	-10.75	-1.207e+04	-8806.69
		-8806.69	-1.207e+04	-0.02	0.0	130.0	-12.17	47.39	105.41	-10.75	1332.95	-2650.70
26	264	3969.03	1.174e+04	5.18e-03	0.0	0.0	-807.14	-17.29	-105.20	12.93	1.174e+04	3969.03
		1725.58	-1644.17	0.02	0.0	130.0	-740.50	-17.29	-105.20	12.93	-1644.17	1725.58
26	281	-3351.27	1.796e+04	-0.02	0.0	0.0	890.81	108.81	691.47	-126.18	-7.193e+04	-1.750e+04
		-1.750e+04	-7.193e+04	-0.13	0.0	130.0	957.45	108.81	691.47	-126.18	1.796e+04	-3351.27
26	283	-3404.73	1.798e+04	-0.02	0.0	0.0	890.26	110.13	691.99	-126.18	-7.198e+04	-1.772e+04
		-1.772e+04	-7.198e+04	-0.13	0.0	130.0	956.90	110.13	691.99	-126.18	1.798e+04	-3404.73
26	302	9669.58	9.030e+04	0.01	0.0	0.0	-2144.09	-67.01	-871.01	105.30	9.030e+04	9669.58
		958.77	-2.293e+04	0.16	0.0	130.0	-2077.45	-67.01	-871.01	105.30	-2.293e+04	958.77
26	306	9444.54	9.025e+04	0.01	0.0	0.0	-2144.63	-65.69	-870.50	105.31	9.025e+04	9444.54
		905.30	-2.292e+04	0.16	0.0	130.0	-2077.99	-65.69	-870.50	105.31	-2.292e+04	905.30
26	356	-5486.61	2065.36	-0.03	0.0	0.0	-114.42	237.00	-23.51	-130.89	2065.36	-3.630e+04
		-3.630e+04	-990.36	-9.42e-04	0.0	130.0	-47.78	237.00	-23.51	-130.89	-990.36	-5486.61

26	381	-2491.15	1.253e+04	-0.01	0.0	0.0	490.97	81.04	484.26	-88.00	-5.042e+04	-1.303e+04
		-1.303e+04	-5.042e+04	-0.09	0.0	130.0	557.61	81.04	484.26	-88.00	1.253e+04	-2491.15
26	383	-2536.97	1.255e+04	-0.01	0.0	0.0	490.50	82.17	484.71	-88.00	-5.046e+04	-1.322e+04
		-1.322e+04	-5.046e+04	-0.09	0.0	130.0	557.14	82.17	484.71	-88.00	1.255e+04	-2536.97
26	394	4598.49	5.215e+04	5.55e-03	0.0	0.0	-1369.03	-33.17	-505.27	62.99	5.215e+04	4598.49
		286.62	-1.354e+04	0.09	0.0	130.0	-1302.40	-33.17	-505.27	62.99	-1.354e+04	286.62
26	398	4405.60	5.211e+04	5.44e-03	0.0	0.0	-1369.50	-32.04	-504.83	63.00	5.211e+04	4405.60
		240.80	-1.352e+04	0.09	0.0	130.0	-1302.87	-32.04	-504.83	63.00	-1.352e+04	240.80
26	414	-2206.41	1.072e+04	-9.39e-03	0.0	0.0	357.78	71.90	415.26	-75.28	-4.326e+04	-1.155e+04
		-1.155e+04	-4.326e+04	-0.08	0.0	130.0	424.42	71.90	415.26	-75.28	1.072e+04	-2206.41
26	416	-2252.23	1.074e+04	-9.50e-03	0.0	0.0	357.31	73.03	415.70	-75.27	-4.330e+04	-1.175e+04
		-1.175e+04	-4.330e+04	-0.08	0.0	130.0	423.95	73.03	415.70	-75.27	1.074e+04	-2252.23
26	417	3100.74	4.090e+04	4.12e-03	0.0	0.0	-1145.98	-23.12	-397.28	50.36	4.090e+04	3100.74
		95.34	-1.074e+04	0.07	0.0	130.0	-1079.34	-23.12	-397.28	50.36	-1.074e+04	95.34
26	419	2907.85	4.086e+04	4.01e-03	0.0	0.0	-1146.45	-21.99	-396.84	50.37	4.086e+04	2907.85
		49.52	-1.073e+04	0.07	0.0	130.0	-1079.81	-21.99	-396.84	50.37	-1.073e+04	49.52
27	32	1218.74	5039.85	-0.02	0.0	0.0	948.33	91.55	722.90	79.66	-4.195e+04	-4731.69
		-4731.69	-4.195e+04	-0.14	0.0	65.0	981.65	91.55	722.90	79.66	5039.85	1218.74
27	34	1371.57	5052.74	-0.02	0.0	0.0	950.86	94.85	722.86	80.80	-4.193e+04	-4793.73
		-4793.73	-4.193e+04	-0.14	0.0	65.0	984.18	94.85	722.86	80.80	5052.74	1371.57
27	83	1461.71	5.395e+04	0.01	0.0	0.0	-2141.66	-30.67	-922.74	-161.43	5.395e+04	1461.71
		-531.70	-6024.99	0.18	0.0	65.0	-2098.35	-30.67	-922.74	-161.43	-6024.99	-531.70
27	87	1399.66	5.397e+04	0.01	0.0	0.0	-2139.13	-27.36	-922.77	-160.29	5.397e+04	1399.66
		-378.88	-6012.09	0.18	0.0	65.0	-2095.82	-27.36	-922.77	-160.29	-6012.09	-378.88
27	151	4732.67	775.02	-0.04	0.0	0.0	67.99	197.88	-15.27	101.70	775.02	-8129.35
		-8129.35	-217.53	-1.02e-04	0.0	65.0	111.31	197.88	-15.27	101.70	-217.53	4732.67
27	183	4722.80	778.72	-0.04	0.0	0.0	34.56	197.98	-15.31	101.75	778.72	-8145.59
		-8145.59	-216.16	-1.03e-04	0.0	65.0	77.88	197.98	-15.31	101.75	-216.16	4722.80
27	201	1311.71	-247.93	-0.03	0.0	0.0	109.24	162.93	3.09	-5.59	-247.93	-1.065e+04
		-1.065e+04	-471.11	-3.45e-03	0.0	65.0	142.56	162.93	3.09	-5.59	-471.11	1311.71
27	204	1.116e+04	1364.69	0.03	0.0	0.0	-852.61	-185.34	-19.66	-6.32	1364.69	1.116e+04
		-2250.84	511.08	1.59e-03	0.0	65.0	-819.30	-185.34	-19.66	-6.32	511.08	-2250.84
27	225	812.53	1082.34	-0.01	0.0	0.0	218.19	90.30	166.96	21.31	-1.180e+04	-5445.99
		-5445.99	-1.180e+04	-0.04	0.0	65.0	251.51	90.30	166.96	21.31	1082.34	812.53
27	228	4949.79	1.257e+04	0.01	0.0	0.0	-940.37	-73.17	-178.63	-18.91	1.257e+04	4949.79
		-195.47	-1066.98	0.03	0.0	65.0	-907.05	-73.17	-178.63	-18.91	-1066.98	-195.47
27	229	782.94	1031.29	-0.01	0.0	0.0	209.60	81.83	195.70	15.22	-1.383e+04	-4894.08
		-4894.08	-1.383e+04	-0.04	0.0	65.0	242.92	81.83	195.70	15.22	1031.29	782.94
27	232	4397.88	1.461e+04	0.01	0.0	0.0	-931.78	-64.70	-207.37	-12.82	1.461e+04	4397.88
		-165.89	-1015.94	0.04	0.0	65.0	-898.46	-64.70	-207.37	-12.82	-1015.94	-165.89
27	233	861.56	114.68	-0.01	0.0	0.0	-126.22	87.52	-1.66	-0.92	114.68	-5496.50
		-5496.50	-201.80	-1.79e-03	0.0	65.0	-92.90	87.52	-1.66	-0.92	-201.80	861.56
27	236	4570.59	747.33	0.01	0.0	0.0	-587.30	-57.93	-10.29	8.46	747.33	4570.59
		135.47	286.73	7.52e-05	0.0	65.0	-553.98	-57.93	-10.29	8.46	286.73	135.47
27	257	542.88	585.42	-7.12e-03	0.0	0.0	-71.77	50.45	78.96	12.07	-5551.86	-2927.21
		-2927.21	-5551.86	-0.02	0.0	65.0	-38.45	50.45	78.96	12.07	585.42	542.88
27	260	2001.30	6413.87	4.96e-03	0.0	0.0	-641.75	-20.86	-90.92	-4.53	6413.87	2001.30
		454.15	-500.49	0.02	0.0	65.0	-608.43	-20.86	-90.92	-4.53	-500.49	454.15
27	261	528.94	560.19	-6.41e-03	0.0	0.0	-76.01	46.24	93.17	9.06	-6555.53	-2652.92
		-2652.92	-6555.53	-0.02	0.0	65.0	-42.69	46.24	93.17	9.06	560.19	528.94
27	264	1727.01	7417.54	4.25e-03	0.0	0.0	-637.51	-16.66	-105.12	-1.51	7417.54	1727.01
		468.10	-475.26	0.02	0.0	65.0	-604.19	-16.66	-105.12	-1.51	-475.26	468.10
27	280	976.91	3374.30	-0.01	0.0	0.0	507.36	65.98	479.93	54.37	-2.782e+04	-3311.66
		-3311.66	-2.782e+04	-0.09	0.0	65.0	540.68	65.98	479.93	54.37	3374.30	976.91
27	281	1078.80	3382.89	-0.01	0.0	0.0	509.04	68.18	479.91	55.13	-2.781e+04	-3353.03
		-3353.03	-2.781e+04	-0.09	0.0	65.0	542.36	68.18	479.91	55.13	3382.89	1078.80
27	306	915.63	3.603e+04	7.25e-03	0.0	0.0	-1469.40	-18.49	-615.95	-107.13	3.603e+04	915.63
		-286.25	-4011.24	0.12	0.0	65.0	-1436.08	-18.49	-615.95	-107.13	-4011.24	-286.25
27	308	874.27	3.604e+04	7.30e-03	0.0	0.0	-1467.71	-16.29	-615.97	-106.37	3.604e+04	874.27
		-184.36	-4002.64	0.12	0.0	65.0	-1434.39	-16.29	-615.97	-106.37	-4002.64	-184.36
27	340	3223.34	573.49	-0.02	0.0	0.0	3.70	133.87	-10.97	68.29	573.49	-5478.41
		-5478.41	-139.60	-1.79e-04	0.0	65.0	37.02	133.87	-10.97	68.29	-139.60	3223.34
27	356	3216.76	575.96	-0.02	0.0	0.0	-18.58	133.94	-10.99	68.33	575.96	-5489.23
		-5489.23	-138.69	-1.80e-04	0.0	65.0	14.74	133.94	-10.99	68.33	-138.69	3216.76
27	380	833.39	2374.75	-8.98e-03	0.0	0.0	248.12	50.62	334.16	39.19	-1.935e+04	-2457.05
		-2457.05	-1.935e+04	-0.07	0.0	65.0	281.44	50.62	334.16	39.19	2374.75	833.39
27	381	920.72	2382.11	-8.93e-03	0.0	0.0	249.57	52.51	334.14	39.84	-1.934e+04	-2492.50
		-2492.50	-1.934e+04	-0.07	0.0	65.0	282.89	52.51	334.14	39.84	2382.11	920.72
27	383	947.99	2387.68	-9.04e-03	0.0	0.0	249.17	53.64	333.93	40.02	-1.932e+04	-2538.36
		-2538.36	-1.932e+04	-0.07	0.0	65.0	282.49	53.64	333.93	40.02	2387.68	947.99
27	398	247.23	2.061e+04	3.62e-03	0.0	0.0	-944.73	-3.40	-356.08	-66.02	2.061e+04	247.23
		26.28	-2534.96	0.07	0.0	65.0	-911.41	-3.40	-356.08	-66.02	-2534.96	26.28
27	400	211.78	2.062e+04	3.67e-03	0.0	0.0	-943.28	-1.51	-356.10	-65.37	2.062e+04	211.78
		113.61	-2527.59	0.07	0.0	65.0	-909.96	-1.51	-356.10	-65.37	-2527.59	113.61
27	408	1131.34	480.85	-5.89e-03	0.0	0.0	-283.86	40.92	-7.15	17.31	480.85	-1528.38
		-1528.38	15.97	-1.25e-03	0.0	65.0	-250.55	40.92	-7.15	17.31	15.97	1131.34
27	413	785.55	2041.56	-7.85e-03	0.0	0.0	161.71	45.50	285.57	34.13	-1.652e+04	-2172.18

		-2172.18	-1.652e+04	-0.06	0.0	65.0	195.03	45.50	285.57	34.13	2041.56	785.55
27	414	872.88	2048.93	-7.80e-03	0.0	0.0	163.16	47.39	285.55	34.78	-1.651e+04	-2207.63
		-2207.63	-1.651e+04	-0.06	0.0	65.0	196.47	47.39	285.55	34.78	2048.93	872.88
27	416	900.15	2054.50	-7.91e-03	0.0	0.0	162.76	48.52	285.34	34.96	-1.649e+04	-2253.49
		-2253.49	-1.649e+04	-0.06	0.0	65.0	196.08	48.52	285.34	34.96	2054.50	900.15
27	419	122.36	1.611e+04	2.55e-03	0.0	0.0	-795.32	1.04	-279.73	-53.34	1.611e+04	54.74
		54.74	-2077.11	0.05	0.0	65.0	-762.00	1.04	-279.73	-53.34	-2077.11	122.36
27	420	209.69	1.611e+04	2.60e-03	0.0	0.0	-793.87	2.93	-279.75	-52.69	1.611e+04	19.28
		19.28	-2069.74	0.05	0.0	65.0	-760.55	2.93	-279.75	-52.69	-2069.74	209.69
28	32	3269.04	1.616e+04	-0.02	0.0	0.0	338.25	74.27	368.06	94.43	-7763.81	-1558.54
		-1558.54	-7763.81	-0.11	0.0	65.0	371.57	74.27	368.06	94.43	1.616e+04	3269.04
28	33	3690.20	1.616e+04	-0.02	0.0	0.0	246.00	67.90	367.36	94.41	-7714.05	-723.12
		-723.12	-7714.05	-0.11	0.0	65.0	289.31	67.90	367.36	94.41	1.616e+04	3690.20
28	34	3407.43	1.616e+04	-0.02	0.0	0.0	339.63	72.08	368.50	94.41	-7792.13	-1277.67
		-1277.67	-7792.13	-0.11	0.0	65.0	372.95	72.08	368.50	94.41	1.616e+04	3407.43
28	83	5219.62	1.117e+04	0.01	0.0	0.0	-1151.09	-91.80	-477.07	-183.76	1.117e+04	5219.62
		-747.08	-1.984e+04	0.13	0.0	65.0	-1107.77	-91.80	-477.07	-183.76	-1.984e+04	-747.08
28	84	4665.07	1.109e+04	0.01	0.0	0.0	-1057.46	-87.61	-475.92	-183.76	1.109e+04	4665.07
		-1029.85	-1.984e+04	0.13	0.0	65.0	-1024.14	-87.61	-475.92	-183.76	-1.984e+04	-1029.85
28	183	7817.76	670.39	-0.03	0.0	0.0	-20.36	118.24	-12.89	15.40	670.39	132.37
		132.37	-167.26	-7.78e-04	0.0	65.0	22.96	118.24	-12.89	15.40	-167.26	7817.76
28	204	2995.84	792.27	0.03	0.0	0.0	-548.44	-106.87	-15.36	5.33	792.27	2995.84
		-4096.76	-230.41	1.46e-03	0.0	65.0	-515.12	-106.87	-15.36	5.33	-230.41	-4096.76
28	217	3183.06	1844.07	-0.02	0.0	0.0	78.06	75.64	106.79	63.18	-5194.49	-1785.62
		-1785.62	-5194.49	-0.03	0.0	65.0	111.38	75.64	106.79	63.18	1844.07	3183.06
28	220	4577.17	5834.96	0.02	0.0	0.0	-588.24	-101.40	-116.33	-63.04	5834.96	4577.17
		-2065.84	-1823.65	0.03	0.0	65.0	-554.92	-101.40	-116.33	-63.04	-1823.65	-2065.84
28	229	2212.34	2673.80	-0.01	0.0	0.0	69.90	36.87	158.46	21.83	-7776.79	-222.99
		-222.99	-7776.79	-0.04	0.0	65.0	103.22	36.87	158.46	21.83	2673.80	2212.34
28	232	3014.55	8417.26	0.01	0.0	0.0	-580.08	-62.63	-168.00	-21.69	8417.26	3014.55
		-1095.13	-2653.38	0.04	0.0	65.0	-546.76	-62.63	-168.00	-21.69	-2653.38	-1095.13
28	233	2188.05	121.37	-0.01	0.0	0.0	-114.52	46.55	-0.57	-2.60	121.37	-905.74
		-905.74	95.60	-1.74e-03	0.0	65.0	-81.20	46.55	-0.57	-2.60	95.60	2188.05
28	236	4629.21	401.63	0.01	0.0	0.0	-390.86	-79.82	-7.07	2.64	401.63	4629.21
		-627.07	-69.53	8.88e-05	0.0	65.0	-357.54	-79.82	-7.07	2.64	-69.53	-627.07
28	249	1889.04	912.47	-8.92e-03	0.0	0.0	-88.62	30.95	51.28	31.33	-2466.87	-146.80
		-146.80	-2466.87	-0.01	0.0	65.0	-55.30	30.95	51.28	31.33	912.47	1889.04
28	252	3870.27	2989.87	8.67e-03	0.0	0.0	-416.76	-64.22	-58.93	-31.29	2989.87	3870.27
		-328.06	-886.40	0.01	0.0	65.0	-383.44	-64.22	-58.93	-31.29	-886.40	-328.06
28	261	1407.16	1322.43	-5.40e-03	0.0	0.0	-92.79	11.69	76.86	10.79	-3744.34	629.03
		629.03	-3744.34	-0.02	0.0	65.0	-59.47	11.69	76.86	10.79	1322.43	1407.16
28	264	3094.44	4267.34	5.14e-03	0.0	0.0	-412.59	-44.96	-84.51	-10.75	4267.34	3094.44
		153.81	-1296.36	0.02	0.0	65.0	-379.27	-44.96	-84.51	-10.75	-1296.36	153.81
28	281	2547.99	1.078e+04	-0.01	0.0	0.0	136.25	42.78	244.39	62.94	-5107.71	-232.52
		-232.52	-5107.71	-0.07	0.0	65.0	169.57	42.78	244.39	62.94	1.078e+04	2547.99
28	302	3607.74	7484.51	7.49e-03	0.0	0.0	-794.90	-62.47	-318.55	-122.50	7484.51	3607.74
		-452.68	-1.322e+04	0.09	0.0	65.0	-761.58	-62.47	-318.55	-122.50	-1.322e+04	-452.68
28	306	3729.30	7482.69	7.43e-03	0.0	0.0	-795.14	-63.68	-318.56	-122.50	7482.69	3729.30
		-410.20	-1.322e+04	0.09	0.0	65.0	-761.82	-63.68	-318.56	-122.50	-1.322e+04	-410.20
28	356	5299.70	481.92	-0.02	0.0	0.0	-41.32	76.34	-9.10	10.27	481.92	337.80
		337.80	-109.72	-6.28e-04	0.0	65.0	-8.00	76.34	-9.10	10.27	-109.72	5299.70
28	381	2032.24	7548.43	-7.35e-03	0.0	0.0	19.71	24.72	169.97	44.06	-3499.92	425.18
		425.18	-3499.92	-0.05	0.0	65.0	53.03	24.72	169.97	44.06	7548.43	2032.24
28	394	2867.97	3775.86	4.18e-03	0.0	0.0	-516.96	-44.48	-178.37	-74.92	3775.86	2867.97
		-23.19	-7818.43	0.05	0.0	65.0	-483.64	-44.48	-178.37	-74.92	-7818.43	-23.19
28	398	2972.16	3774.30	4.12e-03	0.0	0.0	-517.17	-45.52	-178.38	-74.92	3774.30	2972.16
		13.22	-7820.55	0.05	0.0	65.0	-483.85	-45.52	-178.38	-74.92	-7820.55	13.22
28	400	3132.67	3758.12	4.30e-03	0.0	0.0	-516.38	-46.77	-178.13	-74.94	3758.12	3132.67
		92.30	-7820.32	0.05	0.0	65.0	-483.06	-46.77	-178.13	-74.94	-7820.32	92.30
28	414	1864.71	6471.98	-6.30e-03	0.0	0.0	-19.09	18.64	145.18	37.77	-2964.88	653.33
		653.33	-2964.88	-0.04	0.0	65.0	14.23	18.64	145.18	37.77	6471.98	1864.71
28	417	2650.17	2745.21	3.21e-03	0.0	0.0	-439.69	-39.05	-137.75	-60.51	2745.21	2650.17
		112.03	-6208.56	0.04	0.0	65.0	-406.37	-39.05	-137.75	-60.51	-6208.56	112.03
28	419	2754.37	2743.65	3.16e-03	0.0	0.0	-439.90	-40.09	-137.76	-60.51	2743.65	2754.37
		148.44	-6210.67	0.04	0.0	65.0	-406.58	-40.09	-137.76	-60.51	-6210.67	148.44
28	420	2914.87	2727.47	3.33e-03	0.0	0.0	-439.11	-41.34	-137.51	-60.52	2727.47	2914.87
		227.52	-6210.44	0.04	0.0	65.0	-405.79	-41.34	-137.51	-60.52	-6210.44	227.52
29	34	3353.22	1.244e+04	-0.02	0.0	0.0	45.20	12.45	27.71	137.74	8836.25	1734.66
		1734.66	8836.25	-0.09	0.0	130.0	111.84	12.45	27.71	137.74	1.244e+04	3353.22
29	83	-708.77	-8804.69	0.02	0.0	0.0	-542.54	-67.62	-73.14	-194.98	-8804.69	-708.77
		-9499.42	-1.831e+04	0.11	0.0	130.0	-455.91	-67.62	-73.14	-194.98	-1.831e+04	-9499.42
29	148	1.062e+04	419.90	-0.04	0.0	0.0	76.62	58.03	-10.73	57.99	419.90	3076.41
		3076.41	-974.42	-1.65e-03	0.0	130.0	143.25	58.03	-10.73	57.99	-974.42	1.062e+04
29	201	7811.82	508.83	-0.04	0.0	0.0	-28.33	72.15	-7.10	-4.11	508.83	-1370.44
		-1370.44	-401.23	-5.15e-03	0.0	130.0	38.31	72.15	-7.10	-4.11	-401.23	7811.82
29	204	2717.42	302.24	0.04	0.0	0.0	-275.46	-112.15	-9.92	4.86	302.24	2717.42
		-1.166e+04	-1000.61	6.14e-04	0.0	130.0	-208.82	-112.15	-9.92	4.86	-1000.61	-1.166e+04

29	217	5222.57	5616.84	-0.03	0.0	0.0	-14.33	46.05	52.88	42.04	-1319.50	184.17
		184.17	-1319.50	-0.04	0.0	130.0	52.31	46.05	52.88	42.04	5616.84	5222.57
29	220	535.62	2091.05	0.03	0.0	0.0	-284.85	-79.24	-68.14	-41.90	2091.05	535.62
		-8817.04	-6828.67	0.03	0.0	130.0	-218.21	-79.24	-68.14	-41.90	-6828.67	-8817.04
29	229	2369.37	8833.03	-0.02	0.0	0.0	-20.56	21.28	86.67	16.03	-2506.89	-13.33
		-13.33	-2506.89	-0.06	0.0	130.0	46.08	21.28	86.67	16.03	8833.03	2369.37
29	232	733.12	3278.44	0.02	0.0	0.0	-278.62	-54.47	-101.93	-15.90	3278.44	733.12
		-5963.84	-1.004e+04	0.05	0.0	130.0	-211.98	-54.47	-101.93	-15.90	-1.004e+04	-5963.84
29	233	2978.72	445.54	-0.02	0.0	0.0	-89.14	27.70	-7.18	-2.02	445.54	-521.77
		-521.77	-481.02	-2.66e-03	0.0	130.0	-22.50	27.70	-7.18	-2.02	-481.02	2978.72
29	236	1073.76	319.40	0.02	0.0	0.0	-208.15	-58.79	-7.43	1.89	319.40	1073.76
		-6469.23	-653.26	-6.21e-04	0.0	130.0	-141.51	-58.79	-7.43	1.89	-653.26	-6469.23
29	249	1703.86	2501.40	-0.01	0.0	0.0	-82.03	14.64	22.52	20.85	-455.15	270.18
		270.18	-455.15	-0.02	0.0	130.0	-15.39	14.64	22.52	20.85	2501.40	1703.86
29	252	281.81	1220.09	0.01	0.0	0.0	-215.26	-45.74	-37.13	-20.98	1220.09	281.81
		-5194.37	-3635.68	0.02	0.0	130.0	-148.62	-45.74	-37.13	-20.98	-3635.68	-5194.37
29	261	287.15	4093.21	-8.29e-03	0.0	0.0	-85.17	2.34	39.24	7.94	-1041.91	172.24
		172.24	-1041.91	-0.03	0.0	130.0	-18.53	2.34	39.24	7.94	4093.21	287.15
29	264	379.76	1806.85	8.65e-03	0.0	0.0	-212.12	-33.44	-53.85	-8.06	1806.85	379.76
		-3777.66	-5227.49	0.02	0.0	130.0	-145.48	-33.44	-53.85	-8.06	-5227.49	-3777.66
29	281	1487.38	8103.41	-0.01	0.0	0.0	-25.35	1.56	16.04	91.81	6018.35	1285.15
		1285.15	6018.35	-0.06	0.0	130.0	41.29	1.56	16.04	91.81	8103.41	1487.38
29	306	-472.42	-5818.83	0.01	0.0	0.0	-375.57	-45.59	-49.73	-130.00	-5818.83	-472.42
		-6399.30	-1.228e+04	0.08	0.0	130.0	-308.93	-45.59	-49.73	-130.00	-1.228e+04	-6399.30
29	338	6332.02	407.46	-0.03	0.0	0.0	-4.41	31.94	-9.59	38.64	407.46	2179.65
		2179.65	-838.68	-1.64e-03	0.0	130.0	62.23	31.94	-9.59	38.64	-838.68	6332.02
29	380	1003.05	5492.90	-0.01	0.0	0.0	-62.60	-3.85	8.95	64.27	4329.47	1003.05
		502.45	4329.47	-0.04	0.0	130.0	4.04	-3.85	8.95	64.27	5492.90	502.45
29	381	977.77	5504.34	-0.01	0.0	0.0	-62.28	-3.51	9.06	64.24	4327.17	977.77
		520.99	4327.17	-0.04	0.0	130.0	4.36	-3.51	9.06	64.24	5504.34	520.99
29	398	-396.31	-3813.38	5.72e-03	0.0	0.0	-240.33	-24.07	-21.21	-83.51	-3813.38	-396.31
		-3524.95	-6570.62	0.04	0.0	130.0	-173.70	-24.07	-21.21	-83.51	-6570.62	-3524.95
29	413	899.19	4627.18	-8.98e-03	0.0	0.0	-74.89	-5.52	6.63	55.08	3765.61	899.19
		181.35	3765.61	-0.04	0.0	130.0	-8.25	-5.52	6.63	55.08	4627.18	181.35
29	414	873.90	4638.62	-8.55e-03	0.0	0.0	-74.57	-5.18	6.73	55.05	3763.31	873.90
		199.89	3763.31	-0.04	0.0	130.0	-7.94	-5.18	6.73	55.05	4638.62	199.89
29	419	-352.93	-3164.11	4.42e-03	0.0	0.0	-204.22	-18.55	-13.81	-69.01	-3164.11	-352.93
		-2764.27	-4959.45	0.03	0.0	130.0	-137.58	-18.55	-13.81	-69.01	-4959.45	-2764.27
37	36	7486.04	6.164e+04	-0.01	0.0	0.0	164.54	57.90	421.92	112.34	3.422e+04	3722.71
		3722.71	3.422e+04	-0.11	0.0	65.0	197.86	57.90	421.92	112.34	6.164e+04	7486.04
37	79	-5700.94	-4.790e+04	9.93e-03	0.0	0.0	-1135.38	6.38	-608.40	-264.50	-4.790e+04	-6115.61
		-6115.61	-8.744e+04	0.16	0.0	65.0	-1092.07	6.38	-608.40	-264.50	-8.744e+04	-5700.94
37	87	-5677.41	-4.789e+04	9.84e-03	0.0	0.0	-1134.99	8.07	-608.43	-264.48	-4.789e+04	-6201.93
		-6201.93	-8.744e+04	0.16	0.0	65.0	-1091.68	8.07	-608.43	-264.48	-8.744e+04	-5677.41
37	152	1.665e+04	1437.05	-0.03	0.0	0.0	-307.51	134.61	14.67	3.17	483.61	7904.15
		7904.15	483.61	-4.66e-03	0.0	65.0	-274.19	134.61	14.67	3.17	1437.05	1.665e+04
37	201	1.084e+04	6684.17	-0.02	0.0	0.0	-367.18	137.35	47.47	41.84	3607.23	1993.44
		1993.44	3607.23	-0.02	0.0	65.0	-333.86	137.35	47.47	41.84	6684.17	1.084e+04
37	204	-2075.80	-3416.16	0.03	0.0	0.0	-53.11	-149.04	-47.00	-31.97	-3416.16	-2075.80
		-1.168e+04	-6462.64	0.02	0.0	65.0	-19.79	-149.04	-47.00	-31.97	-6462.64	-1.168e+04
37	207	-1411.79	4378.59	0.02	0.0	0.0	76.28	-121.60	30.84	-1.46	2370.59	-1411.79
		-9235.94	2370.59	-0.01	0.0	65.0	109.60	-121.60	30.84	-1.46	4378.59	-9235.94
37	222	-1831.73	-1.066e+04	5.73e-03	0.0	0.0	-474.57	-18.51	-142.69	-73.96	-1.066e+04	-1831.73
		-3046.58	-1.993e+04	0.05	0.0	65.0	-441.25	-18.51	-142.69	-73.96	-1.993e+04	-3046.58
37	223	3295.33	1.970e+04	-5.35e-03	0.0	0.0	40.55	42.07	140.49	75.97	1.058e+04	549.04
		549.04	1.058e+04	-0.05	0.0	65.0	73.87	42.07	140.49	75.97	1.970e+04	3295.33
37	226	337.63	-8997.79	-8.91e-04	0.0	0.0	-506.97	19.26	-122.64	-33.93	-8997.79	-897.84
		-897.84	-1.697e+04	0.04	0.0	65.0	-473.65	19.26	-122.64	-33.93	-1.697e+04	337.63
37	233	5496.14	3192.00	-0.01	0.0	0.0	-292.49	75.87	22.42	20.29	1738.75	604.04
		604.04	1738.75	-9.04e-03	0.0	65.0	-259.17	75.87	22.42	20.29	3192.00	5496.14
37	236	-2197.42	-1941.19	0.01	0.0	0.0	-147.32	-42.14	-26.59	-21.87	-1941.19	-2197.42
		-4897.48	-3665.16	7.52e-03	0.0	65.0	-114.00	-42.14	-26.59	-21.87	-3665.16	-4897.48
37	254	-1312.41	-5348.62	2.82e-03	0.0	0.0	-346.22	-0.76	-71.93	-37.08	-5348.62	-1312.41
		-1366.94	-1.002e+04	0.02	0.0	65.0	-312.90	-0.76	-71.93	-37.08	-1.002e+04	-1366.94
37	255	1965.60	9544.90	-2.97e-03	0.0	0.0	-93.59	34.48	67.77	35.51	5146.17	-280.96
		-280.96	5146.17	-0.02	0.0	65.0	-60.27	34.48	67.77	35.51	9544.90	1965.60
37	258	313.84	-4518.01	-4.69e-04	0.0	0.0	-362.24	18.00	-61.94	-17.24	-4518.01	-848.79
		-848.79	-8542.01	0.02	0.0	65.0	-328.92	18.00	-61.94	-17.24	-8542.01	313.84
37	259	284.82	8068.84	3.20e-04	0.0	0.0	-77.57	15.72	57.77	15.67	4315.56	-744.59
		-744.59	4315.56	-0.02	0.0	65.0	-44.25	15.72	57.77	15.67	8068.84	284.82
37	282	5056.58	4.102e+04	-9.56e-03	0.0	0.0	30.45	43.95	280.58	74.63	2.278e+04	2199.91
		2199.91	2.278e+04	-0.08	0.0	65.0	63.77	43.95	280.58	74.63	4.102e+04	5056.58
37	304	-3726.82	-3.195e+04	6.62e-03	0.0	0.0	-780.30	6.77	-405.87	-176.43	-3.195e+04	-4166.96
		-4166.96	-5.833e+04	0.11	0.0	65.0	-746.98	6.77	-405.87	-176.43	-5.833e+04	-3726.82
37	308	-3711.14	-3.194e+04	6.56e-03	0.0	0.0	-780.04	7.90	-405.90	-176.42	-3.194e+04	-4224.51
		-4224.51	-5.833e+04	0.11	0.0	65.0	-746.72	7.90	-405.90	-176.42	-5.833e+04	-3711.14
37	340	1.117e+04	879.05	-0.02	0.0	0.0	-284.24	95.09	9.08	1.85	288.67	4987.54

		4987.54	288.67	-3.36e-03	0.0	65.0	-250.92	95.09	9.08	1.85	879.05	1.117e+04
37	382	3631.87	2.864e+04	-6.72e-03	0.0	0.0	-44.61	36.00	195.78	52.01	1.591e+04	1291.89
		1291.89	1.591e+04	-0.05	0.0	65.0	-11.29	36.00	195.78	52.01	2.864e+04	3631.87
37	383	3693.62	2.861e+04	-6.53e-03	0.0	0.0	-45.53	37.62	195.51	51.64	1.590e+04	1248.62
		1248.62	1.590e+04	-0.05	0.0	65.0	-12.21	37.62	195.51	51.64	2.861e+04	3693.62
37	396	-1788.00	-1.884e+04	3.76e-03	0.0	0.0	-503.20	14.53	-236.91	-108.53	-1.884e+04	-2732.63
		-2732.63	-3.424e+04	0.06	0.0	65.0	-469.88	14.53	-236.91	-108.53	-3.424e+04	-1788.00
37	400	-1774.56	-1.883e+04	3.71e-03	0.0	0.0	-502.98	15.50	-236.93	-108.52	-1.883e+04	-2781.95
		-2781.95	-3.423e+04	0.06	0.0	65.0	-469.66	15.50	-236.93	-108.52	-3.423e+04	-1774.56
37	415	3157.71	2.452e+04	-5.78e-03	0.0	0.0	-69.62	33.40	167.51	44.47	1.363e+04	986.47
		986.47	1.363e+04	-0.05	0.0	65.0	-36.30	33.40	167.51	44.47	2.452e+04	3157.71
37	416	3219.46	2.448e+04	-5.59e-03	0.0	0.0	-70.54	35.02	167.25	44.10	1.361e+04	943.20
		943.20	1.361e+04	-0.05	0.0	65.0	-37.22	35.02	167.25	44.10	2.448e+04	3219.46
37	418	-1234.25	-1.494e+04	2.94e-03	0.0	0.0	-425.44	16.62	-186.99	-87.95	-1.494e+04	-2314.41
		-2314.41	-2.710e+04	0.05	0.0	65.0	-392.12	16.62	-186.99	-87.95	-2.710e+04	-1234.25
37	420	-1220.81	-1.494e+04	2.89e-03	0.0	0.0	-425.22	17.58	-187.01	-87.94	-1.494e+04	-2363.73
		-2363.73	-2.710e+04	0.05	0.0	65.0	-391.90	17.58	-187.01	-87.94	-2.710e+04	-1220.81
38	35	7151.78	4.705e+04	-5.84e-03	0.0	0.0	-834.97	41.98	123.94	358.39	3.900e+04	4422.94
		4422.94	3.900e+04	-0.09	0.0	65.0	-791.66	41.98	123.94	358.39	4.705e+04	7151.78
38	80	1.824e+04	-5.334e+04	-0.03	0.0	0.0	238.29	142.85	-228.48	-562.80	-5.334e+04	8954.68
		8954.68	-6.819e+04	0.14	0.0	65.0	271.61	142.85	-228.48	-562.80	-6.819e+04	1.824e+04
38	84	1.827e+04	-5.330e+04	-0.03	0.0	0.0	236.74	143.36	-228.07	-562.14	-5.330e+04	8950.82
		8950.82	-6.813e+04	0.14	0.0	65.0	270.06	143.36	-228.07	-562.14	-6.813e+04	1.827e+04
38	123	-413.74	213.12	3.15e-04	0.0	0.0	-392.78	-4.97	2.20	-1.06	69.98	-413.74
		-737.06	69.98	-1.60e-03	0.0	65.0	-349.47	-4.97	2.20	-1.06	213.12	-737.06
38	210	1.365e+04	-4286.93	-0.03	0.0	0.0	-388.95	162.14	-51.88	-58.65	-4286.93	3374.63
		3374.63	-7621.30	0.02	0.0	65.0	-355.63	162.14	-51.88	-58.65	-7621.30	1.365e+04
38	211	-3624.31	8734.33	0.03	0.0	0.0	-66.95	-154.19	60.68	69.65	4828.30	-3624.31
		-1.338e+04	4828.30	-0.02	0.0	65.0	-33.63	-154.19	60.68	69.65	8734.33	-1.338e+04
38	213	1.122e+04	2831.15	-0.02	0.0	0.0	-521.21	133.31	18.44	-27.78	1625.73	2818.54
		2818.54	1625.73	-8.02e-03	0.0	65.0	-487.89	133.31	18.44	-27.78	2831.15	1.122e+04
38	222	8955.70	-1.071e+04	-0.02	0.0	0.0	-76.76	107.84	-126.86	-73.39	-1.071e+04	2033.26
		2033.26	-1.888e+04	0.05	0.0	65.0	-43.44	107.84	-126.86	-73.39	-1.888e+04	8955.70
38	223	-2270.35	1.945e+04	0.02	0.0	0.0	-366.80	-104.21	131.45	76.00	1.098e+04	-2270.35
		-8957.21	1.098e+04	-0.05	0.0	65.0	-333.48	-104.21	131.45	76.00	1.945e+04	-8957.21
38	232	-416.69	-8732.89	2.58e-03	0.0	0.0	74.07	-8.08	-102.96	-26.89	-8732.89	-416.69
		-869.93	-1.539e+04	0.04	0.0	65.0	107.39	-8.08	-102.96	-26.89	-1.539e+04	-869.93
38	242	6721.49	-2090.02	-0.01	0.0	0.0	-302.88	80.65	-24.81	-29.19	-2090.02	1602.82
		1602.82	-3684.70	8.69e-03	0.0	65.0	-269.56	80.65	-24.81	-29.19	-3684.70	6721.49
38	243	-1837.95	4072.33	0.01	0.0	0.0	-135.43	-78.78	28.48	28.44	2238.72	-1837.95
		-6835.17	2238.72	-0.01	0.0	65.0	-102.11	-78.78	28.48	28.44	4072.33	-6835.17
38	245	5518.18	1512.70	-0.01	0.0	0.0	-368.55	66.35	10.21	-13.90	845.86	1326.69
		1326.69	845.86	-4.00e-03	0.0	65.0	-335.23	66.35	10.21	-13.90	1512.70	5518.18
38	248	-1561.82	-697.16	0.01	0.0	0.0	-69.76	-64.48	-6.53	13.16	-697.16	-1561.82
		-5631.86	-1125.07	2.50e-03	0.0	65.0	-36.44	-64.48	-6.53	13.16	-1125.07	-5631.86
38	254	4408.50	-5281.11	-8.24e-03	0.0	0.0	-148.26	53.90	-62.07	-36.51	-5281.11	945.73
		945.73	-9282.13	0.02	0.0	65.0	-114.94	53.90	-62.07	-36.51	-9282.13	4408.50
38	255	-1180.86	9669.76	8.37e-03	0.0	0.0	-290.05	-52.03	65.75	35.76	5429.81	-1180.86
		-4522.19	5429.81	-0.02	0.0	65.0	-256.73	-52.03	65.75	35.76	9669.76	-4522.19
38	282	4795.06	3.140e+04	-3.88e-03	0.0	0.0	-579.93	28.43	82.87	238.87	2.601e+04	2947.26
		2947.26	2.601e+04	-0.06	0.0	65.0	-546.61	28.43	82.87	238.87	3.140e+04	4795.06
38	304	1.211e+04	-3.553e+04	-0.02	0.0	0.0	79.87	95.23	-151.71	-375.33	-3.553e+04	5916.29
		5916.29	-4.539e+04	0.09	0.0	65.0	113.19	95.23	-151.71	-375.33	-4.539e+04	1.211e+04
38	306	1.213e+04	-3.551e+04	-0.02	0.0	0.0	78.84	95.57	-151.43	-374.88	-3.551e+04	5913.71
		5913.71	-4.535e+04	0.09	0.0	65.0	112.16	95.57	-151.43	-374.88	-4.535e+04	1.213e+04
38	326	-277.19	167.75	2.24e-04	0.0	0.0	-285.14	-2.88	1.71	-0.76	56.55	-277.19
		-464.17	56.55	-1.17e-03	0.0	65.0	-251.82	-2.88	1.71	-0.76	167.75	-464.17
38	382	3340.03	2.204e+04	-2.71e-03	0.0	0.0	-471.72	20.19	58.58	167.11	1.823e+04	2027.63
		2027.63	1.823e+04	-0.04	0.0	65.0	-438.40	20.19	58.58	167.11	2.204e+04	3340.03
38	396	8249.47	-2.094e+04	-0.01	0.0	0.0	-36.82	64.73	-81.81	-229.93	-2.094e+04	4041.83
		4041.83	-2.626e+04	0.05	0.0	65.0	-3.50	64.73	-81.81	-229.93	-2.626e+04	8249.47
38	398	8266.11	-2.092e+04	-0.01	0.0	0.0	-37.70	65.02	-81.57	-229.55	-2.092e+04	4039.63
		4039.63	-2.622e+04	0.05	0.0	65.0	-4.38	65.02	-81.57	-229.55	-2.622e+04	8266.11
38	403	-106.07	203.25	1.86e-05	0.0	0.0	-228.22	0.52	1.95	-0.32	76.66	-140.04
		-140.04	76.66	-1.06e-03	0.0	65.0	-194.90	0.52	1.95	-0.32	203.25	-106.07
38	411	-53.89	202.99	2.54e-05	0.0	0.0	-219.31	1.00	1.94	-0.32	76.64	-118.57
		-118.57	76.64	-1.06e-03	0.0	65.0	-185.99	1.00	1.94	-0.32	202.99	-53.89
38	415	2855.18	1.892e+04	-2.32e-03	0.0	0.0	-435.66	17.45	50.49	143.19	1.564e+04	1721.03
		1721.03	1.564e+04	-0.04	0.0	65.0	-402.34	17.45	50.49	143.19	1.892e+04	2855.18
38	418	6990.50	-1.660e+04	-9.24e-03	0.0	0.0	-72.06	54.84	-61.70	-185.88	-1.660e+04	3425.68
		3425.68	-2.061e+04	0.04	0.0	65.0	-38.74	54.84	-61.70	-185.88	-2.061e+04	6990.50
38	419	7007.14	-1.658e+04	-9.48e-03	0.0	0.0	-72.94	55.13	-61.46	-185.50	-1.658e+04	3423.48
		3423.48	-2.057e+04	0.04	0.0	65.0	-39.62	55.13	-61.46	-185.50	-2.057e+04	7007.14
39	10	85.72	290.44	6.31e-04	0.0	0.0	-212.48	-1.97	4.43	0.16	2.72	85.72
		-42.28	2.72	-1.76e-03	0.0	65.0	-179.16	-1.97	4.43	0.16	290.44	-42.28
39	33	7085.12	4.089e+04	-5.29e-03	0.0	0.0	-712.10	37.34	378.26	-40.73	1.631e+04	4657.70
		4657.70	1.631e+04	-0.08	0.0	65.0	-668.78	37.34	378.26	-40.73	4.089e+04	7085.12

39	83	2.007e+04	-2.008e+04	-0.03	0.0	0.0	413.34	153.86	-467.10	-19.11	-2.008e+04	1.007e+04
		1.007e+04	-5.044e+04	0.10	0.0	65.0	456.66	153.86	-467.10	-19.11	-5.044e+04	2.007e+04
39	84	1.996e+04	-2.007e+04	-0.03	0.0	0.0	497.13	153.26	-468.31	-19.16	-2.007e+04	9993.03
		9993.03	-5.051e+04	0.10	0.0	65.0	530.45	153.26	-468.31	-19.16	-5.051e+04	1.996e+04
39	210	1.372e+04	1193.97	-0.03	0.0	0.0	63.16	159.06	16.51	-68.38	110.37	3638.96
		3638.96	110.37	-3.67e-03	0.0	65.0	96.48	159.06	16.51	-68.38	1193.97	1.372e+04
39	211	-3275.73	-230.61	0.03	0.0	0.0	-488.44	-158.48	-12.89	69.02	-230.61	-3275.73
		-1.331e+04	-1078.84	1.61e-03	0.0	65.0	-455.12	-158.48	-12.89	69.02	-1078.84	-1.331e+04
39	226	6032.67	-2587.79	-0.01	0.0	0.0	112.22	68.73	-143.57	-53.10	-2587.79	1636.50
		1636.50	-1.182e+04	0.03	0.0	65.0	145.54	68.73	-143.57	-53.10	-1.182e+04	6032.67
39	227	-1368.36	1.222e+04	0.01	0.0	0.0	-547.75	-70.16	150.72	53.46	2527.95	-1368.36
		-5857.21	2527.95	-0.04	0.0	65.0	-514.43	-70.16	150.72	53.46	1.222e+04	-5857.21
39	229	929.42	1.281e+04	-1.90e-03	0.0	0.0	-424.72	9.35	157.96	32.01	2642.17	393.56
		393.56	2642.17	-0.04	0.0	65.0	-391.40	9.35	157.96	32.01	1.281e+04	929.42
39	232	-125.42	-2702.01	2.69e-03	0.0	0.0	-10.81	-10.77	-150.82	-31.64	-2702.01	-125.42
		-753.96	-1.240e+04	0.03	0.0	65.0	22.51	-10.77	-150.82	-31.64	-1.240e+04	-753.96
39	242	6802.28	712.83	-0.01	0.0	0.0	-79.85	78.06	10.14	-33.75	48.87	1851.23
		1851.23	48.87	-2.22e-03	0.0	65.0	-46.53	78.06	10.14	-33.75	712.83	6802.28
39	243	-1620.80	-66.47	0.01	0.0	0.0	-359.93	-80.38	-2.00	34.09	-66.47	-1620.80
		-6722.84	-201.72	5.55e-04	0.0	65.0	-326.62	-80.38	-2.00	34.09	-201.72	-6722.84
39	250	4332.03	-1040.84	-7.82e-03	0.0	0.0	-55.17	49.52	-56.83	-42.51	-1040.84	1147.82
		1147.82	-4703.11	0.01	0.0	65.0	-21.85	49.52	-56.83	-42.51	-4703.11	4332.03
39	251	-917.39	5214.23	8.14e-03	0.0	0.0	-384.62	-51.84	64.96	42.85	1023.23	-917.39
		-4252.58	1023.23	-0.01	0.0	65.0	-351.30	-51.84	64.96	42.85	5214.23	-4252.58
39	261	475.44	6475.98	-8.56e-04	0.0	0.0	-321.64	3.97	80.21	15.99	1310.87	251.16
		251.16	1310.87	-0.02	0.0	65.0	-288.32	3.97	80.21	15.99	6475.98	475.44
39	264	-20.72	-1328.48	1.18e-03	0.0	0.0	-118.14	-6.29	-72.07	-15.65	-1328.48	-20.72
		-396.00	-5964.87	0.02	0.0	65.0	-84.82	-6.29	-72.07	-15.65	-5964.87	-396.00
39	269	109.86	278.77	4.81e-04	0.0	0.0	-220.89	-1.38	4.31	0.16	-1.07	109.86
		19.86	-1.07	-1.45e-03	0.0	65.0	-187.57	-1.38	4.31	0.16	278.77	19.86
39	281	4693.90	2.730e+04	-3.51e-03	0.0	0.0	-498.11	24.43	252.72	-27.13	1.087e+04	3106.18
		3106.18	1.087e+04	-0.06	0.0	65.0	-464.79	24.43	252.72	-27.13	2.730e+04	4693.90
39	306	1.335e+04	-1.339e+04	-0.02	0.0	0.0	252.18	102.10	-310.85	-12.72	-1.339e+04	6714.73
		6714.73	-3.359e+04	0.07	0.0	65.0	285.50	102.10	-310.85	-12.72	-3.359e+04	1.335e+04
39	369	111.47	271.80	3.85e-04	0.0	0.0	-220.59	-1.32	4.23	0.16	-3.39	111.47
		25.82	-3.39	-1.27e-03	0.0	65.0	-187.27	-1.32	4.23	0.16	271.80	25.82
39	381	3295.46	1.919e+04	-2.37e-03	0.0	0.0	-414.76	16.73	178.15	-18.94	7607.17	2208.30
		2208.30	7607.17	-0.04	0.0	65.0	-381.44	16.73	178.15	-18.94	1.919e+04	3295.46
39	398	8657.65	-7930.93	-0.01	0.0	0.0	79.00	64.62	-170.66	-7.77	-7930.93	4457.56
		4457.56	-1.902e+04	0.04	0.0	65.0	112.32	64.62	-170.66	-7.77	-1.902e+04	8657.65
39	410	112.00	269.48	3.53e-04	0.0	0.0	-220.49	-1.30	4.21	0.16	-4.16	112.00
		27.80	-4.16	-1.20e-03	0.0	65.0	-187.17	-1.30	4.21	0.16	269.48	27.80
39	414	2828.65	1.648e+04	-1.98e-03	0.0	0.0	-387.00	14.15	153.30	-16.21	6519.84	1908.83
		1908.83	6519.84	-0.03	0.0	65.0	-353.68	14.15	153.30	-16.21	1.648e+04	2828.65
39	419	7186.59	-6304.87	-9.38e-03	0.0	0.0	25.49	52.99	-130.03	-6.26	-6304.87	3742.23
		3742.23	-1.476e+04	0.03	0.0	65.0	58.81	52.99	-130.03	-6.26	-1.476e+04	7186.59
40	34	8092.53	4.011e+04	-0.01	0.0	0.0	372.95	72.08	368.50	94.41	1.616e+04	3407.43
		3407.43	1.616e+04	-0.08	0.0	65.0	406.27	72.08	368.50	94.41	4.011e+04	8092.53
40	83	-747.08	-1.984e+04	0.01	0.0	0.0	-1107.77	-91.80	-477.07	-183.76	-1.984e+04	-747.08
		-6713.79	-5.085e+04	0.10	0.0	65.0	-1064.46	-91.80	-477.07	-183.76	-5.085e+04	-6713.79
40	88	-891.46	-1.984e+04	0.01	0.0	0.0	-1022.76	-89.81	-475.48	-183.78	-1.984e+04	-891.46
		-6728.87	-5.075e+04	0.10	0.0	65.0	-989.44	-89.81	-475.48	-183.78	-5.075e+04	-6728.87
40	177	1.556e+04	-163.97	-0.03	0.0	0.0	21.95	122.25	-13.31	15.42	-163.97	7615.65
		7615.65	-1029.37	2.09e-04	0.0	65.0	65.26	122.25	-13.31	15.42	-1029.37	1.556e+04
40	201	1.018e+04	364.36	-0.02	0.0	0.0	59.65	101.28	3.02	-5.37	183.14	3680.80
		3680.80	183.14	-3.13e-03	0.0	65.0	92.97	101.28	3.02	-5.37	364.36	1.018e+04
40	204	-4096.76	-230.41	0.02	0.0	0.0	-514.83	-98.12	-15.91	5.33	-230.41	-4096.76
		-1.039e+04	-1249.12	1.13e-03	0.0	65.0	-481.51	-98.12	-15.91	5.33	-1249.12	-1.039e+04
40	217	7737.65	8415.60	-0.02	0.0	0.0	111.18	70.52	102.08	63.18	1844.07	3183.06
		3183.06	1844.07	-0.03	0.0	65.0	144.50	70.52	102.08	63.18	8415.60	7737.65
40	220	-2065.84	-1823.65	0.02	0.0	0.0	-554.72	-96.28	-111.62	-63.04	-1823.65	-2065.84
		-8294.78	-9015.23	0.02	0.0	65.0	-521.40	-96.28	-111.62	-63.04	-9015.23	-8294.78
40	229	4380.01	1.227e+04	-9.68e-03	0.0	0.0	103.01	33.70	149.25	21.83	2673.80	2212.34
		2212.34	2673.80	-0.04	0.0	65.0	136.33	33.70	149.25	21.83	1.227e+04	4380.01
40	232	-1095.13	-2653.38	0.01	0.0	0.0	-546.55	-59.46	-158.78	-21.69	-2653.38	-1095.13
		-4937.14	-1.287e+04	0.03	0.0	65.0	-513.23	-59.46	-158.78	-21.69	-1.287e+04	-4937.14
40	233	4892.65	95.60	-0.01	0.0	0.0	-81.35	42.22	-0.31	-2.60	95.60	2188.05
		2188.05	68.52	-1.60e-03	0.0	65.0	-48.03	42.22	-0.31	-2.60	68.52	4892.65
40	236	-627.07	-69.53	0.01	0.0	0.0	-357.40	-75.49	-7.34	2.64	-69.53	-627.07
		-5494.17	-539.37	5.09e-05	0.0	65.0	-324.08	-75.49	-7.34	2.64	-539.37	-5494.17
40	249	3722.26	4064.00	-7.95e-03	0.0	0.0	-55.40	28.41	48.94	31.33	912.47	1889.04
		1889.04	912.47	-0.01	0.0	65.0	-22.08	28.41	48.94	31.33	4064.00	3722.26
40	252	-328.06	-886.40	8.52e-03	0.0	0.0	-383.34	-61.68	-56.59	-31.29	-886.40	-328.06
		-4323.78	-4534.85	0.01	0.0	65.0	-350.02	-61.68	-56.59	-31.29	-4534.85	-4323.78
40	261	2054.65	5973.22	-4.67e-03	0.0	0.0	-59.57	10.13	72.28	10.79	1322.43	1407.16
		1407.16	1322.43	-0.02	0.0	65.0	-26.25	10.13	72.28	10.79	5973.22	2054.65
40	264	153.81	-1296.36	5.24e-03	0.0	0.0	-379.17	-43.40	-79.93	-10.75	-1296.36	153.81

		-2656.16	-6444.07	0.02	0.0	65.0	-345.85	-43.40	-79.93	-10.75	-6444.07	-2656.16
40	281	5328.50	2.666e+04	-9.16e-03	0.0	0.0	169.57	42.78	244.39	62.94	1.078e+04	2547.99
		2547.99	1.078e+04	-0.06	0.0	65.0	202.89	42.78	244.39	62.94	2.666e+04	5328.50
40	306	-410.20	-1.322e+04	7.21e-03	0.0	0.0	-761.82	-63.68	-318.56	-122.50	-1.322e+04	-410.20
		-4549.70	-3.393e+04	0.07	0.0	65.0	-728.50	-63.68	-318.56	-122.50	-3.393e+04	-4549.70
40	308	-317.94	-1.322e+04	7.46e-03	0.0	0.0	-760.90	-65.15	-318.26	-122.52	-1.322e+04	-317.94
		-4552.43	-3.391e+04	0.07	0.0	65.0	-727.59	-65.15	-318.26	-122.52	-3.391e+04	-4552.43
40	353	1.030e+04	-107.52	-0.02	0.0	0.0	-8.68	79.01	-9.39	10.28	-107.52	5164.96
		5164.96	-717.65	7.40e-05	0.0	65.0	24.64	79.01	-9.39	10.28	-717.65	1.030e+04
40	380	3641.64	1.858e+04	-6.50e-03	0.0	0.0	52.24	25.98	169.72	44.08	7548.20	1953.16
		1953.16	7548.20	-0.04	0.0	65.0	85.56	25.98	169.72	44.08	1.858e+04	3641.64
40	381	3639.30	1.860e+04	-6.29e-03	0.0	0.0	53.03	24.72	169.97	44.06	7548.43	2032.24
		2032.24	7548.43	-0.04	0.0	65.0	86.35	24.72	169.97	44.06	1.860e+04	3639.30
40	398	13.22	-7820.55	4.13e-03	0.0	0.0	-483.85	-45.52	-178.38	-74.92	-7820.55	13.22
		-2945.73	-1.942e+04	0.04	0.0	65.0	-450.53	-45.52	-178.38	-74.92	-1.942e+04	-2945.73
40	400	92.30	-7820.32	4.35e-03	0.0	0.0	-483.06	-46.77	-178.13	-74.94	-7820.32	92.30
		-2948.07	-1.940e+04	0.04	0.0	65.0	-449.75	-46.77	-178.13	-74.94	-1.940e+04	-2948.07
40	413	3078.44	1.589e+04	-5.53e-03	0.0	0.0	13.44	19.89	144.93	37.78	6471.75	1785.63
		1785.63	6471.75	-0.03	0.0	65.0	46.76	19.89	144.93	37.78	1.589e+04	3078.44
40	414	3076.10	1.591e+04	-5.32e-03	0.0	0.0	14.23	18.64	145.18	37.77	6471.98	1864.71
		1864.71	6471.98	-0.03	0.0	65.0	47.55	18.64	145.18	37.77	1.591e+04	3076.10
40	419	148.44	-6210.67	3.23e-03	0.0	0.0	-406.58	-40.09	-137.76	-60.51	-6210.67	148.44
		-2457.49	-1.516e+04	0.03	0.0	65.0	-373.26	-40.09	-137.76	-60.51	-1.516e+04	-2457.49
40	420	227.52	-6210.44	3.45e-03	0.0	0.0	-405.79	-41.34	-137.51	-60.52	-6210.44	227.52
		-2459.83	-1.515e+04	0.03	0.0	65.0	-372.47	-41.34	-137.51	-60.52	-1.515e+04	-2459.83
41	32	1.008e+04	6815.82	-0.02	0.0	0.0	-23.95	150.74	396.55	-95.12	-1.896e+04	277.03
		277.03	-1.896e+04	-0.17	0.0	65.0	9.37	150.74	396.55	-95.12	6815.82	1.008e+04
41	36	9844.19	6821.89	-0.02	0.0	0.0	-23.33	148.62	396.52	-95.64	-1.895e+04	184.05
		184.05	-1.895e+04	-0.17	0.0	65.0	9.99	148.62	396.52	-95.64	6821.89	9844.19
41	79	-1927.29	2.963e+04	0.02	0.0	0.0	-1163.16	-180.66	-585.03	92.31	2.963e+04	-1927.29
		-1.367e+04	-8401.42	0.25	0.0	65.0	-1119.85	-180.66	-585.03	92.31	-8401.42	-1.367e+04
41	87	-2020.28	2.963e+04	0.02	0.0	0.0	-1162.54	-182.78	-585.06	91.79	2.963e+04	-2020.28
		-1.390e+04	-8395.35	0.25	0.0	65.0	-1119.23	-182.78	-585.06	91.79	-8395.35	-1.390e+04
41	178	1.826e+04	-250.52	-0.03	0.0	0.0	-624.97	242.13	-3.47	21.89	-250.52	2521.31
		2521.31	-475.78	-3.89e-03	0.0	65.0	-591.65	242.13	-3.47	21.89	-475.78	1.826e+04
41	201	6987.14	382.13	-0.02	0.0	0.0	-600.02	125.91	55.30	-12.03	-3353.81	122.17
		122.17	-3353.81	-0.02	0.0	65.0	-566.70	125.91	55.30	-12.03	382.13	6987.14
41	206	5106.48	2084.07	-0.02	0.0	0.0	-706.90	94.65	-33.62	-25.99	2084.07	286.97
		286.97	-58.58	0.01	0.0	65.0	-673.58	94.65	-33.62	-25.99	-58.58	5106.48
41	207	107.77	219.69	0.02	0.0	0.0	124.83	-83.06	35.53	9.00	-2047.01	107.77
		-3958.26	-2047.01	-0.02	0.0	65.0	158.15	-83.06	35.53	9.00	219.69	-3958.26
41	220	-107.38	9789.79	0.02	0.0	0.0	-352.79	-109.29	-159.83	-74.52	9789.79	-107.38
		-6836.71	-829.57	0.06	0.0	65.0	-319.47	-109.29	-159.83	-74.52	-829.57	-6836.71
41	222	-126.30	1.004e+04	7.75e-03	0.0	0.0	-542.44	-57.72	-164.39	-96.50	1.004e+04	-126.30
		-4268.96	-787.10	0.06	0.0	65.0	-509.12	-57.72	-164.39	-96.50	-787.10	-4268.96
41	223	2128.88	850.76	-5.64e-03	0.0	0.0	-58.46	37.83	162.54	87.05	-9860.90	-720.81
		-720.81	-9860.90	-0.07	0.0	65.0	-25.14	37.83	162.54	87.05	850.76	2128.88
41	233	2760.18	209.88	-0.01	0.0	0.0	-450.35	55.44	26.27	-6.92	-1565.40	-196.77
		-196.77	-1565.40	-0.01	0.0	65.0	-417.03	55.44	26.27	-6.92	209.88	2760.18
41	236	-916.11	1913.05	0.01	0.0	0.0	-158.41	-84.39	-30.57	2.10	1913.05	-916.11
		-5754.71	-141.89	0.01	0.0	65.0	-125.09	-84.39	-30.57	2.10	-141.89	-5754.71
41	238	1763.67	1123.58	-8.87e-03	0.0	0.0	-503.38	39.43	-17.80	-14.03	1123.58	-145.87
		-145.87	-12.00	5.59e-03	0.0	65.0	-470.06	39.43	-17.80	-14.03	-12.00	1763.67
41	239	-967.02	79.99	0.01	0.0	0.0	-105.38	-68.38	13.49	9.21	-775.93	-967.02
		-4758.20	-775.93	-6.92e-03	0.0	65.0	-72.06	-68.38	13.49	9.21	79.99	-4758.20
41	254	-345.21	5077.15	4.39e-03	0.0	0.0	-422.20	-36.01	-82.75	-49.08	5077.15	-345.21
		-2877.63	-369.73	0.03	0.0	65.0	-388.88	-36.01	-82.75	-49.08	-369.73	-2877.63
41	255	-116.89	437.72	-2.28e-03	0.0	0.0	-186.56	7.07	78.45	44.27	-4729.49	-767.67
		-767.67	-4729.49	-0.03	0.0	65.0	-153.24	7.07	78.45	44.27	437.72	-116.89
41	280	6217.89	4555.35	-0.01	0.0	0.0	-123.36	95.65	263.65	-64.22	-1.258e+04	0.67
		0.67	-1.258e+04	-0.12	0.0	65.0	-90.04	95.65	263.65	-64.22	4555.35	6217.89
41	282	6064.01	4559.40	-0.01	0.0	0.0	-122.95	94.24	263.63	-64.57	-1.258e+04	-61.32
		-61.32	-1.258e+04	-0.12	0.0	65.0	-89.63	94.24	263.63	-64.57	4559.40	6064.01
41	304	-1360.51	1.977e+04	0.01	0.0	0.0	-810.09	-122.35	-390.31	61.23	1.977e+04	-1360.51
		-9313.38	-5596.55	0.16	0.0	65.0	-776.77	-122.35	-390.31	61.23	-5596.55	-9313.38
41	308	-1422.50	1.978e+04	0.01	0.0	0.0	-809.68	-123.77	-390.32	60.88	1.978e+04	-1422.50
		-9467.26	-5592.50	0.16	0.0	65.0	-776.36	-123.77	-390.32	60.88	-5592.50	-9467.26
41	353	1.167e+04	-108.80	-0.02	0.0	0.0	-524.04	156.57	-3.03	13.78	-108.80	1496.85
		1496.85	-305.72	-2.81e-03	0.0	65.0	-490.73	156.57	-3.03	13.78	-305.72	1.167e+04
41	380	3903.35	3198.94	-8.00e-03	0.0	0.0	-177.67	62.61	183.91	-45.68	-8755.13	-166.47
		-166.47	-8755.13	-0.08	0.0	65.0	-144.35	62.61	183.91	-45.68	3198.94	3903.35
41	382	3771.45	3202.41	-7.97e-03	0.0	0.0	-177.31	61.40	183.89	-45.98	-8750.60	-219.60
		-219.60	-8750.60	-0.08	0.0	65.0	-143.99	61.40	183.89	-45.98	3202.41	3771.45
41	396	-1093.39	1.134e+04	7.26e-03	0.0	0.0	-556.42	-78.62	-227.56	34.65	1.134e+04	-1093.39
		-6203.77	-3456.17	0.10	0.0	65.0	-523.10	-78.62	-227.56	34.65	-3456.17	-6203.77
41	400	-1146.52	1.134e+04	7.29e-03	0.0	0.0	-556.06	-79.83	-227.58	34.35	1.134e+04	-1146.52
		-6335.68	-3452.70	0.09	0.0	65.0	-522.75	-79.83	-227.58	34.35	-3452.70	-6335.68

41	413	3131.83	2746.81	-6.70e-03	0.0	0.0	-195.77	51.60	157.33	-39.50	-7479.57	-222.18
		-222.18	-7479.57	-0.07	0.0	65.0	-162.45	51.60	157.33	-39.50	2746.81	3131.83
41	415	2999.93	2750.28	-6.68e-03	0.0	0.0	-195.42	50.39	157.31	-39.79	-7475.04	-275.31
		-275.31	-7475.04	-0.07	0.0	65.0	-162.10	50.39	157.31	-39.79	2750.28	2999.93
41	418	-1009.97	8865.74	5.96e-03	0.0	0.0	-485.56	-65.68	-179.52	26.82	8865.74	-1009.97
		-5278.93	-2802.76	0.07	0.0	65.0	-452.24	-65.68	-179.52	26.82	-2802.76	-5278.93
41	420	-1063.10	8870.27	5.99e-03	0.0	0.0	-485.21	-66.89	-179.53	26.52	8870.27	-1063.10
		-5410.83	-2799.29	0.07	0.0	65.0	-451.89	-66.89	-179.53	26.52	-2799.29	-5410.83
42	32	7929.55	3.099e+04	-0.01	0.0	0.0	-898.54	96.41	720.60	-211.57	-1.585e+04	1663.18
		1663.18	-1.585e+04	-0.19	0.0	65.0	-865.22	96.41	720.60	-211.57	3.099e+04	7929.55
42	35	8044.73	3.097e+04	-0.01	0.0	0.0	-1007.76	98.16	721.35	-212.35	-1.592e+04	1664.03
		1664.03	-1.592e+04	-0.19	0.0	65.0	-964.45	98.16	721.35	-212.35	3.097e+04	8044.73
42	79	2.001e+04	2.479e+04	-0.03	0.0	0.0	-174.28	313.09	-974.43	203.96	2.479e+04	-344.60
		-344.60	-3.855e+04	0.26	0.0	65.0	-130.96	313.09	-974.43	203.96	-3.855e+04	2.001e+04
42	80	1.989e+04	2.484e+04	-0.03	0.0	0.0	-65.39	311.18	-974.98	204.47	2.484e+04	-338.82
		-338.82	-3.853e+04	0.26	0.0	65.0	-32.07	311.18	-974.98	204.47	-3.853e+04	1.989e+04
42	87	2.000e+04	2.477e+04	-0.03	0.0	0.0	-174.61	312.94	-974.24	203.69	2.477e+04	-337.97
		-337.97	-3.855e+04	0.26	0.0	65.0	-131.29	312.94	-974.24	203.69	-3.855e+04	2.000e+04
42	147	1.367e+04	948.38	-0.03	0.0	0.0	-718.99	235.64	23.42	-14.10	-574.14	-1647.92
		-1647.92	-574.14	-5.71e-03	0.0	65.0	-675.67	235.64	23.42	-14.10	948.38	1.367e+04
42	210	9215.55	3879.87	-0.03	0.0	0.0	-646.88	210.93	-69.28	-74.57	3879.87	-4800.45
		-4800.45	-953.15	0.03	0.0	65.0	-613.56	210.93	-69.28	-74.57	-953.15	9215.55
42	211	4940.34	923.84	0.03	0.0	0.0	17.53	-202.84	79.42	71.70	-4568.40	4940.34
		-8549.69	-4568.40	-0.03	0.0	65.0	50.85	-202.84	79.42	71.70	923.84	-8549.69
42	213	7751.26	259.73	-0.02	0.0	0.0	-758.14	175.64	27.85	-63.83	-1448.59	-3965.24
		-3965.24	-1448.59	-0.01	0.0	65.0	-724.82	175.64	27.85	-63.83	259.73	7751.26
42	216	4105.14	760.06	0.02	0.0	0.0	128.79	-167.55	-17.71	60.96	760.06	4105.14
		-7085.40	-289.05	6.95e-03	0.0	65.0	162.11	-167.55	-17.71	60.96	-289.05	-7085.40
42	222	5941.95	9616.16	-0.02	0.0	0.0	-255.20	138.75	-175.28	-84.65	9616.16	-3177.64
		-3177.64	-2304.91	0.06	0.0	65.0	-221.88	138.75	-175.28	-84.65	-2304.91	5941.95
42	223	3157.23	2276.83	0.02	0.0	0.0	-358.55	-128.01	180.20	81.20	-9964.24	3157.23
		-5264.64	-9964.24	-0.07	0.0	65.0	-325.23	-128.01	180.20	81.20	2276.83	-5264.64
42	242	4722.79	1843.59	-0.01	0.0	0.0	-473.14	107.21	-33.48	-37.70	1843.59	-2388.62
		-2388.62	-489.96	0.01	0.0	65.0	-439.82	107.21	-33.48	-37.70	-489.96	4722.79
42	243	2316.40	399.87	0.01	0.0	0.0	-134.00	-95.72	37.07	34.35	-2167.26	2316.40
		-4048.57	-2167.26	-0.01	0.0	65.0	-100.68	-95.72	37.07	34.35	399.87	-4048.57
42	245	3995.63	99.69	-0.01	0.0	0.0	-528.35	89.65	14.86	-32.29	-816.50	-1972.35
		-1972.35	-816.50	-5.40e-03	0.0	65.0	-495.03	89.65	14.86	-32.29	99.69	3995.63
42	248	1900.13	492.83	0.01	0.0	0.0	-78.79	-78.17	-11.27	28.94	492.83	1900.13
		-3321.41	-189.77	3.81e-03	0.0	65.0	-45.47	-78.17	-11.27	28.94	-189.77	-3321.41
42	254	3112.09	4695.23	-8.71e-03	0.0	0.0	-279.37	71.64	-86.16	-42.70	4695.23	-1591.59
		-1591.59	-1155.49	0.03	0.0	65.0	-246.05	71.64	-86.16	-42.70	-1155.49	3112.09
42	255	1519.38	1065.41	8.93e-03	0.0	0.0	-327.77	-60.15	89.76	39.35	-5018.90	1519.38
		-2437.87	-5018.90	-0.03	0.0	65.0	-294.45	-60.15	89.76	39.35	1065.41	-2437.87
42	280	5404.48	2.065e+04	-6.88e-03	0.0	0.0	-706.15	66.25	481.00	-141.61	-1.062e+04	1098.43
		1098.43	-1.062e+04	-0.12	0.0	65.0	-672.84	66.25	481.00	-141.61	2.065e+04	5404.48
42	282	5402.36	2.064e+04	-6.92e-03	0.0	0.0	-706.38	66.15	481.14	-141.78	-1.063e+04	1102.85
		1102.85	-1.063e+04	-0.13	0.0	65.0	-673.06	66.15	481.14	-141.78	2.064e+04	5402.36
42	304	1.338e+04	1.651e+04	-0.02	0.0	0.0	-150.72	209.43	-649.39	135.75	1.651e+04	-236.23
		-236.23	-2.570e+04	0.18	0.0	65.0	-117.40	209.43	-649.39	135.75	-2.570e+04	1.338e+04
42	308	1.337e+04	1.649e+04	-0.02	0.0	0.0	-150.94	209.33	-649.25	135.57	1.649e+04	-231.81
		-231.81	-2.571e+04	0.18	0.0	65.0	-117.62	209.33	-649.25	135.57	-2.571e+04	1.337e+04
42	338	9151.57	626.39	-0.02	0.0	0.0	-513.86	157.80	15.85	-9.62	-404.04	-1105.11
		-1105.11	-404.04	-3.91e-03	0.0	65.0	-480.54	157.80	15.85	-9.62	626.39	9151.57
42	380	3884.27	1.444e+04	-4.78e-03	0.0	0.0	-585.38	48.10	337.24	-99.63	-7481.32	758.07
		758.07	-7481.32	-0.09	0.0	65.0	-552.06	48.10	337.24	-99.63	1.444e+04	3884.27
42	382	3882.46	1.443e+04	-4.82e-03	0.0	0.0	-585.57	48.01	337.35	-99.78	-7493.23	761.86
		761.86	-7493.23	-0.09	0.0	65.0	-552.25	48.01	337.35	-99.78	1.443e+04	3882.46
42	396	9018.47	9228.67	-0.02	0.0	0.0	-217.66	140.32	-382.60	81.32	9228.67	-102.50
		-102.50	-1.564e+04	0.10	0.0	65.0	-184.35	140.32	-382.60	81.32	-1.564e+04	9018.47
42	400	9016.65	9216.75	-0.02	0.0	0.0	-217.85	140.24	-382.49	81.16	9216.75	-98.71
		-98.71	-1.565e+04	0.10	0.0	65.0	-184.53	140.24	-382.49	81.16	-1.565e+04	9016.65
42	406	2100.48	84.04	-3.76e-03	0.0	0.0	-344.93	36.20	4.48	-3.29	-206.86	-252.21
		-252.21	-206.86	-1.67e-03	0.0	65.0	-311.61	36.20	4.48	-3.29	84.04	2100.48
42	413	3377.53	1.237e+04	-4.08e-03	0.0	0.0	-545.12	42.04	289.32	-85.63	-6435.68	644.62
		644.62	-6435.68	-0.08	0.0	65.0	-511.80	42.04	289.32	-85.63	1.237e+04	3377.53
42	415	3375.72	1.237e+04	-4.12e-03	0.0	0.0	-545.31	41.96	289.43	-85.79	-6447.59	648.40
		648.40	-6447.59	-0.08	0.0	65.0	-511.99	41.96	289.43	-85.79	1.237e+04	3375.72
42	418	7625.32	7106.75	-0.01	0.0	0.0	-237.09	118.36	-303.21	64.93	7106.75	-67.99
		-67.99	-1.260e+04	0.08	0.0	65.0	-203.78	118.36	-303.21	64.93	-1.260e+04	7625.32
42	420	7623.51	7094.83	-0.01	0.0	0.0	-237.28	118.27	-303.10	64.77	7094.83	-64.20
		-64.20	-1.261e+04	0.08	0.0	65.0	-203.96	118.27	-303.10	64.77	-1.261e+04	7623.51
43	33	7168.00	5.302e+04	-9.97e-03	0.0	0.0	-1396.10	78.45	742.75	137.22	4738.56	2068.91
		2068.91	4738.56	-0.13	0.0	65.0	-1352.79	78.45	742.75	137.22	5.302e+04	7168.00
43	37	7174.26	5.302e+04	-0.01	0.0	0.0	-1395.69	78.75	742.95	137.42	4726.45	2055.50
		2055.50	4726.45	-0.14	0.0	65.0	-1352.38	78.75	742.95	137.42	5.302e+04	7174.26
43	76	1.931e+04	-5822.62	-0.04	0.0	0.0	1384.21	319.77	-917.00	-270.79	-5822.62	-1478.38

		-1478.38	-6.543e+04	0.17	0.0	65.0	1417.53	319.77	-917.00	-270.79	-6.543e+04	1.931e+04
43	84	1.931e+04	-5834.73	-0.04	0.0	0.0	1384.62	320.07	-916.81	-270.59	-5834.73	-1491.79
		-1491.79	-6.543e+04	0.17	0.0	65.0	1417.94	320.07	-916.81	-270.59	-6.543e+04	1.931e+04
43	182	1.326e+04	-123.90	-0.03	0.0	0.0	223.05	233.67	-6.44	5.72	-123.90	-1929.25
		-1929.25	-542.46	5.52e-04	0.0	65.0	256.37	233.67	-6.44	5.72	-542.46	1.326e+04
43	210	8639.09	1266.94	-0.03	0.0	0.0	148.91	203.50	21.52	-66.52	-105.56	-4885.95
		-4885.95	-105.56	-3.90e-03	0.0	65.0	182.23	203.50	21.52	-66.52	1266.94	8639.09
43	211	4398.26	101.74	0.03	0.0	0.0	-772.15	-200.77	-17.01	71.55	101.74	4398.26
		-8949.45	-977.24	2.07e-03	0.0	65.0	-738.83	-200.77	-17.01	71.55	-977.24	-8949.45
43	226	3523.33	-1180.69	-0.01	0.0	0.0	257.99	85.68	-182.44	-46.07	-1180.69	-2130.51
		-2130.51	-1.085e+04	0.04	0.0	65.0	291.31	85.68	-182.44	-46.07	-1.085e+04	3523.33
43	227	2069.28	1.141e+04	0.01	0.0	0.0	-899.20	-93.65	191.03	49.82	1183.04	2069.28
		-4102.57	1183.04	-0.04	0.0	65.0	-865.88	-93.65	191.03	49.82	1.141e+04	-4102.57
43	229	346.85	1.195e+04	-2.06e-03	0.0	0.0	-696.44	7.75	200.38	43.94	1120.57	-236.65
		-236.65	1120.57	-0.04	0.0	65.0	-663.12	7.75	200.38	43.94	1.195e+04	346.85
43	232	175.42	-1118.23	2.73e-03	0.0	0.0	55.23	-15.72	-191.79	-40.19	-1118.23	175.42
		-926.09	-1.139e+04	0.04	0.0	65.0	88.55	-15.72	-191.79	-40.19	-1.139e+04	-926.09
43	242	4094.04	803.71	-0.01	0.0	0.0	-90.14	97.57	13.74	-32.31	-76.80	-2387.06
		-2387.06	-76.80	-2.34e-03	0.0	65.0	-56.82	97.57	13.74	-32.31	803.71	4094.04
43	243	2489.11	-21.31	0.01	0.0	0.0	-558.47	-109.69	-1.08	34.72	-21.31	2489.11
		-4779.74	-78.65	6.39e-04	0.0	65.0	-525.15	-109.69	-1.08	34.72	-78.65	-4779.74
43	258	1568.10	-607.02	-5.83e-03	0.0	0.0	-35.55	39.32	-87.33	-22.20	-607.02	-1027.26
		-1027.26	-5197.67	0.02	0.0	65.0	-2.23	39.32	-87.33	-22.20	-5197.67	1568.10
43	259	1129.31	5922.73	6.06e-03	0.0	0.0	-613.07	-51.44	100.00	24.61	508.91	1129.31
		-2253.80	508.91	-0.02	0.0	65.0	-579.75	-51.44	100.00	24.61	5922.73	-2253.80
43	261	-2.40	6130.11	-9.63e-04	0.0	0.0	-509.15	0.87	103.49	22.06	488.53	-96.00
		-96.00	488.53	-0.02	0.0	65.0	-475.83	0.87	103.49	22.06	6130.11	-2.40
43	264	198.04	-586.63	1.19e-03	0.0	0.0	-139.47	-12.99	-90.83	-19.65	-586.63	198.04
		-683.30	-5405.05	0.02	0.0	65.0	-106.15	-12.99	-90.83	-19.65	-5405.05	-683.30
43	281	4738.68	3.539e+04	-6.63e-03	0.0	0.0	-968.04	51.55	496.00	91.64	3152.74	1387.77
		1387.77	3152.74	-0.09	0.0	65.0	-934.72	51.55	496.00	91.64	3.539e+04	4738.68
43	283	4742.86	3.539e+04	-6.68e-03	0.0	0.0	-967.77	51.75	496.14	91.77	3144.67	1378.83
		1378.83	3144.67	-0.09	0.0	65.0	-934.45	51.75	496.14	91.77	3.539e+04	4742.86
43	302	1.275e+04	-3898.34	-0.02	0.0	0.0	808.77	211.10	-609.22	-180.12	-3898.34	-970.28
		-970.28	-4.350e+04	0.11	0.0	65.0	842.09	211.10	-609.22	-180.12	-4.350e+04	1.275e+04
43	306	1.276e+04	-3906.41	-0.02	0.0	0.0	809.04	211.30	-609.09	-179.99	-3906.41	-979.21
		-979.21	-4.350e+04	0.11	0.0	65.0	842.36	211.30	-609.09	-179.99	-4.350e+04	1.276e+04
43	355	8719.42	-99.19	-0.02	0.0	0.0	34.66	153.70	-2.18	4.22	-99.19	-1270.85
		-1270.85	-240.65	8.95e-05	0.0	65.0	67.97	153.70	-2.18	4.22	-240.65	8719.42
43	381	3212.23	2.489e+04	-4.57e-03	0.0	0.0	-775.10	34.18	349.20	64.50	2189.80	990.61
		990.61	2189.80	-0.06	0.0	65.0	-741.78	34.18	349.20	64.50	2.489e+04	3212.23
43	383	3215.81	2.489e+04	-4.61e-03	0.0	0.0	-774.87	34.35	349.31	64.61	2182.88	982.95
		982.95	2182.88	-0.06	0.0	65.0	-741.55	34.35	349.31	64.61	2.489e+04	3215.81
43	394	8436.30	-2496.64	-0.02	0.0	0.0	362.67	137.43	-347.26	-110.50	-2496.64	-496.33
		-496.33	-2.507e+04	0.06	0.0	65.0	395.99	137.43	-347.26	-110.50	-2.507e+04	8436.30
43	398	8439.88	-2503.55	-0.02	0.0	0.0	362.90	137.60	-347.14	-110.38	-2503.55	-503.99
		-503.99	-2.507e+04	0.06	0.0	65.0	396.22	137.60	-347.14	-110.38	-2.507e+04	8439.88
43	414	2702.81	2.139e+04	-3.87e-03	0.0	0.0	-710.85	28.36	300.29	55.45	1868.09	859.39
		859.39	1868.09	-0.05	0.0	65.0	-677.53	28.36	300.29	55.45	2.139e+04	2702.81
43	416	2706.39	2.139e+04	-3.91e-03	0.0	0.0	-710.62	28.53	300.40	55.56	1861.17	851.73
		851.73	1861.17	-0.05	0.0	65.0	-677.30	28.53	300.40	55.56	2.139e+04	2706.39
43	417	7049.61	-2062.32	-0.01	0.0	0.0	228.13	114.00	-270.24	-89.32	-2062.32	-360.69
		-360.69	-1.963e+04	0.05	0.0	65.0	261.45	114.00	-270.24	-89.32	-1.963e+04	7049.61
43	419	7053.19	-2069.24	-0.01	0.0	0.0	228.36	114.18	-270.13	-89.21	-2069.24	-368.35
		-368.35	-1.963e+04	0.05	0.0	65.0	261.68	114.18	-270.13	-89.21	-1.963e+04	7053.19
44	34	7536.86	5.204e+04	-0.02	0.0	0.0	984.18	94.85	722.86	80.80	5052.74	1371.57
		1371.57	5052.74	-0.13	0.0	65.0	1017.50	94.85	722.86	80.80	5.204e+04	7536.86
44	76	-723.72	-6048.20	0.01	0.0	0.0	-1982.79	-37.13	-920.56	-162.90	-6048.20	-723.72
		-3136.93	-6.588e+04	0.17	0.0	65.0	-1949.47	-37.13	-920.56	-162.90	-6.588e+04	-3136.93
44	83	-531.70	-6024.99	0.01	0.0	0.0	-2098.35	-30.67	-922.74	-161.43	-6024.99	-531.70
		-2525.11	-6.600e+04	0.17	0.0	65.0	-2055.03	-30.67	-922.74	-161.43	-6.600e+04	-2525.11
44	151	1.759e+04	-217.53	-0.03	0.0	0.0	111.31	197.88	-15.27	101.70	-217.53	4732.67
		4732.67	-1210.09	-4.18e-04	0.0	65.0	154.62	197.88	-15.27	101.70	-1210.09	1.759e+04
44	201	1.025e+04	175.19	-0.03	0.0	0.0	142.30	157.98	3.36	-5.59	-471.11	1311.71
		1311.71	-471.11	-3.51e-03	0.0	65.0	175.62	157.98	3.36	-5.59	175.19	1.025e+04
44	204	-2250.84	511.08	0.03	0.0	0.0	-819.03	-180.40	-19.92	-6.32	511.08	-2250.84
		-1.264e+04	-1212.02	1.71e-03	0.0	65.0	-785.71	-180.40	-19.92	-6.32	-1212.02	-1.264e+04
44	225	6165.74	9665.01	-0.01	0.0	0.0	251.32	88.16	162.89	21.31	1082.34	812.53
		812.53	1082.34	-0.04	0.0	65.0	284.64	88.16	162.89	21.31	9665.01	6165.74
44	228	-195.47	-1066.98	0.01	0.0	0.0	-906.86	-71.03	-174.56	-18.91	-1066.98	-195.47
		-4435.43	-1.041e+04	0.03	0.0	65.0	-873.54	-71.03	-174.56	-18.91	-1.041e+04	-4435.43
44	229	5638.42	1.131e+04	-0.01	0.0	0.0	242.73	80.05	190.73	15.22	1031.29	782.94
		782.94	1031.29	-0.04	0.0	65.0	276.05	80.05	190.73	15.22	1.131e+04	5638.42
44	232	-165.89	-1015.94	0.01	0.0	0.0	-898.28	-62.93	-202.40	-12.82	-1015.94	-165.89
		-3908.11	-1.206e+04	0.04	0.0	65.0	-864.96	-62.93	-202.40	-12.82	-1.206e+04	-3908.11
44	233	5737.76	-91.07	-0.01	0.0	0.0	-93.03	85.08	-1.53	-0.92	-201.80	861.56
		861.56	-201.80	-1.78e-03	0.0	65.0	-59.71	85.08	-1.53	-0.92	-91.07	5737.76

44	236	135.47	286.73	0.01	0.0	0.0	-553.85	-55.49	-10.42	8.46	286.73	135.47
		-2817.78	-601.08	1.88e-04	0.0	65.0	-520.53	-55.49	-10.42	8.46	-601.08	-2817.78
44	257	3568.11	4594.28	-6.94e-03	0.0	0.0	-38.54	49.39	76.95	12.07	585.42	542.88
		542.88	585.42	-0.02	0.0	65.0	-5.22	49.39	76.95	12.07	4594.28	3568.11
44	260	454.15	-500.49	5.30e-03	0.0	0.0	-608.34	-19.81	-88.90	-4.53	-500.49	454.15
		-648.12	-5286.44	0.02	0.0	65.0	-575.02	-19.81	-88.90	-4.53	-5286.44	-648.12
44	261	3306.24	5408.32	-6.24e-03	0.0	0.0	-42.78	45.37	90.70	9.06	560.19	528.94
		528.94	560.19	-0.02	0.0	65.0	-9.46	45.37	90.70	9.06	5408.32	3306.24
44	264	468.10	-475.26	4.60e-03	0.0	0.0	-604.10	-15.78	-102.66	-1.51	-475.26	468.10
		-386.25	-6100.47	0.02	0.0	65.0	-570.78	-15.78	-102.66	-1.51	-6100.47	-386.25
44	281	5510.62	3.458e+04	-0.01	0.0	0.0	542.36	68.18	479.91	55.13	3382.89	1078.80
		1078.80	3382.89	-0.09	0.0	65.0	575.68	68.18	479.91	55.13	3.458e+04	5510.62
44	302	-318.06	-4017.73	7.21e-03	0.0	0.0	-1435.62	-19.80	-615.70	-107.33	-4017.73	-318.06
		-1605.25	-4.404e+04	0.11	0.0	65.0	-1402.30	-19.80	-615.70	-107.33	-4.404e+04	-1605.25
44	306	-286.25	-4011.24	7.10e-03	0.0	0.0	-1436.08	-18.49	-615.95	-107.13	-4011.24	-286.25
		-1488.12	-4.405e+04	0.11	0.0	65.0	-1402.76	-18.49	-615.95	-107.13	-4.405e+04	-1488.12
44	340	1.193e+04	-139.60	-0.02	0.0	0.0	37.02	133.87	-10.97	68.29	-139.60	3223.34
		3223.34	-852.70	-3.85e-04	0.0	65.0	70.34	133.87	-10.97	68.29	-852.70	1.193e+04
44	381	4333.95	2.410e+04	-8.44e-03	0.0	0.0	282.89	52.51	334.14	39.84	2382.11	920.72
		920.72	2382.11	-0.06	0.0	65.0	316.21	52.51	334.14	39.84	2.410e+04	4333.95
44	383	4434.34	2.409e+04	-8.54e-03	0.0	0.0	282.49	53.64	333.93	40.02	2387.68	947.99
		947.99	2387.68	-0.06	0.0	65.0	315.81	53.64	333.93	40.02	2.409e+04	4434.34
44	394	-0.98	-2540.52	3.73e-03	0.0	0.0	-911.01	-4.52	-355.87	-66.19	-2540.52	-0.98
		-295.05	-2.567e+04	0.06	0.0	65.0	-877.69	-4.52	-355.87	-66.19	-2.567e+04	-295.05
44	398	26.28	-2534.96	3.63e-03	0.0	0.0	-911.41	-3.40	-356.08	-66.02	-2534.96	26.28
		-194.66	-2.568e+04	0.06	0.0	65.0	-878.09	-3.40	-356.08	-66.02	-2.568e+04	-194.66
44	414	3953.40	2.061e+04	-7.34e-03	0.0	0.0	196.47	47.39	285.55	34.78	2048.93	872.88
		872.88	2048.93	-0.05	0.0	65.0	229.79	47.39	285.55	34.78	2.061e+04	3953.40
44	416	4053.79	2.060e+04	-7.44e-03	0.0	0.0	196.08	48.52	285.34	34.96	2054.50	900.15
		900.15	2054.50	-0.05	0.0	65.0	229.40	48.52	285.34	34.96	2.060e+04	4053.79
44	417	95.09	-2082.67	2.71e-03	0.0	0.0	-761.60	-0.08	-279.52	-53.52	-2082.67	95.09
		89.59	-2.025e+04	0.05	0.0	65.0	-728.28	-0.08	-279.52	-53.52	-2.025e+04	89.59
44	419	189.99	-2077.11	2.62e-03	0.0	0.0	-762.00	1.04	-279.73	-53.34	-2077.11	122.36
		122.36	-2.026e+04	0.05	0.0	65.0	-728.68	1.04	-279.73	-53.34	-2.026e+04	189.99

Pilas.	**M3 mx/mn**	**M2 mx/mn**	**D 2 / D 3**	**Q 2 / Q 3**	**N**	**V 2**	**V 3**	**T**
	-5.963e+04	-1.079e+05	-0.19	0.0	-3137.27	-241.61	-1328.58	-563.80
	3.625e+04	1.412e+05	0.26	0.0	2413.42	455.36	1037.99	499.59

Trave	**Cmb**	**M3 mx/mn**	**M2 mx/mn**	**D 2 / D 3**	**Q 2 / Q 3**	**Pos.**	**N**	**V 2**	**V 3**	**T**	**M 2**	**M 3**
		daN cm	daN cm	cm	daN	cm	daN	daN	daN	daN cm	daN cm	daN cm
1	32	3091.10	1.844e+04	5.00e-03	-17.87	0.0	83.78	-68.33	-53.16	-3.24	1.844e+04	3091.10
		-3862.73	1.366e+04	0.02	0.0	90.0	83.78	-86.20	-53.16	-3.24	1.366e+04	-3862.73
1	33	3129.48	1.842e+04	5.45e-03	-23.24	0.0	88.35	-65.81	-52.91	-3.22	1.842e+04	3129.48
		-3838.96	1.366e+04	0.02	0.0	90.0	88.35	-89.05	-52.91	-3.22	1.366e+04	-3838.96
1	75	8398.10	-1.537e+04	0.01	-23.24	0.0	-121.50	-206.21	-7.77	10.91	-2.202e+04	8398.10
		-1.121e+04	-2.203e+04	0.03	163.22	90.0	-121.50	-229.44	155.45	10.91	-1.537e+04	-1.121e+04
1	84	8355.85	-1.537e+04	0.01	-17.87	0.0	-124.99	-208.57	-7.84	10.90	-2.201e+04	8355.85
		-1.122e+04	-2.203e+04	0.03	163.22	90.0	-124.99	-226.44	155.38	10.90	-1.537e+04	-1.122e+04
1	87	8394.23	-1.537e+04	0.01	-23.24	0.0	-120.41	-206.05	-7.59	10.92	-2.204e+04	8394.23
		-1.120e+04	-2.205e+04	0.03	163.22	90.0	-120.41	-229.29	155.63	10.92	-1.537e+04	-1.120e+04
1	210	5873.96	-86.36	8.50e-03	-17.87	0.0	-2.76	-141.57	-1.09	6.99	-86.36	5873.96
		-7671.91	-242.74	0.01	0.0	90.0	-2.76	-159.45	-1.09	6.99	-242.74	-7671.91
1	211	7487.47	253.79	-5.22e-03	-17.87	0.0	-20.94	153.75	-2.57	-7.14	253.79	-5545.77
		-5545.77	80.07	-0.01	0.0	90.0	-20.94	135.88	-2.57	-7.14	80.07	7487.47
1	216	6162.29	-146.02	-4.09e-03	-17.87	0.0	-25.23	128.15	-0.30	-5.94	-146.02	-4567.17
		-4567.17	-150.31	-0.01	0.0	90.0	-25.23	110.28	-0.30	-5.94	-150.31	6162.29
1	229	579.47	725.05	1.18e-03	-17.87	0.0	12.86	-3.43	-5.53	3.98	725.05	579.47
		-533.53	273.66	4.10e-03	0.0	90.0	12.86	-21.31	-5.53	3.98	273.66	-533.53
1	232	525.33	-370.04	2.36e-04	-17.87	0.0	-8.46	17.93	4.63	-3.95	-739.98	-284.31
		-284.31	-739.98	-4.00e-03	0.0	90.0	-8.46	0.06	4.63	-3.95	-370.04	525.33
1	238	2554.36	-84.74	3.60e-03	-17.87	0.0	1.63	-55.22	-0.37	1.16	-84.74	2554.36
		-3220.01	-141.20	3.32e-03	0.0	90.0	1.63	-73.10	-0.37	1.16	-141.20	-3220.01
1	239	3282.84	87.10	-3.23e-03	-17.87	0.0	13.00	70.70	0.66	-1.03	4.30	-2276.15
		-2276.15	4.30	-3.36e-03	0.0	90.0	13.00	52.83	0.66	-1.03	87.10	3282.84
1	242	2975.01	-62.01	4.32e-03	-17.87	0.0	2.34	-66.10	-0.46	3.49	-62.01	2975.01
		-3777.92	-131.53	7.27e-03	0.0	90.0	2.34	-83.97	-0.46	3.49	-131.53	-3777.92
1	243	3840.75	77.43	-3.94e-03	-17.87	0.0	12.29	81.58	0.75	-3.36	-18.43	-2696.79
		-2696.79	-18.43	-7.31e-03	0.0	90.0	12.29	63.70	0.75	-3.36	77.43	3840.75
1	261	366.93	336.73	6.83e-04	-17.87	0.0	9.37	2.25	-2.63	2.01	336.73	354.13
		-247.32	122.81	2.02e-03	0.0	90.0	9.37	-15.62	-2.63	2.01	122.81	-247.32
1	264	364.46	-176.91	-3.71e-04	-17.87	0.0	5.26	13.23	2.92	-1.88	-417.17	-75.91
		-75.91	-417.17	-2.06e-03	0.0	90.0	5.26	-4.65	2.92	-1.88	-176.91	310.16
1	280	2107.16	1.228e+04	3.41e-03	-17.87	0.0	58.41	-42.97	-35.39	-2.14	1.228e+04	2107.16
		-2564.63	9097.52	0.02	0.0	90.0	58.41	-60.85	-35.39	-2.14	9097.52	-2564.63
1	281	2104.81	1.227e+04	3.66e-03	-17.87	0.0	59.76	-42.84	-35.25	-2.14	1.227e+04	2104.81

		-2555.16	9100.65	0.02	0.0	90.0	59.76	-60.71	-35.25	-2.14	9100.65	-2555.16
1	302	5617.22	-1.025e+04	9.27e-03	-17.87	0.0	-80.14	-136.44	-5.16	7.28	-1.468e+04	5617.22
		-7466.57	-1.469e+04	0.02	108.81	90.0	-80.14	-154.31	103.65	7.28	-1.025e+04	-7466.57
1	306	5617.00	-1.026e+04	9.22e-03	-17.87	0.0	-80.77	-136.47	-5.18	7.29	-1.469e+04	5617.00
		-7469.28	-1.470e+04	0.02	108.81	90.0	-80.77	-154.34	103.63	7.29	-1.026e+04	-7469.28
1	308	5614.64	-1.025e+04	9.48e-03	-17.87	0.0	-79.42	-136.33	-5.04	7.29	-1.470e+04	5614.64
		-7459.81	-1.471e+04	0.02	108.81	90.0	-79.42	-154.21	103.77	7.29	-1.025e+04	-7459.81
1	380	1516.75	8585.70	2.45e-03	-17.87	0.0	43.08	-27.76	-24.73	-1.48	8585.70	1516.75
		-1785.82	6360.15	0.01	0.0	90.0	43.08	-45.63	-24.73	-1.48	6360.15	-1785.82
1	381	1514.73	8577.95	2.67e-03	-17.87	0.0	44.24	-27.65	-24.61	-1.48	8577.95	1514.73
		-1777.70	6362.83	0.01	0.0	90.0	44.24	-45.52	-24.61	-1.48	6362.83	-1777.70
1	394	3781.91	-6543.60	6.25e-03	-17.87	0.0	-46.50	-88.04	18.64	4.81	-9200.69	3781.91
		-4945.89	-9200.69	0.01	21.76	90.0	-46.50	-105.91	40.40	4.81	-6543.60	-4945.89
1	398	3781.72	-6546.69	6.21e-03	-17.87	0.0	-47.04	-88.06	18.63	4.81	-9202.43	3781.72
		-4948.20	-9202.43	0.01	21.76	90.0	-47.04	-105.94	40.39	4.81	-6546.69	-4948.20
1	400	3779.70	-6544.01	6.43e-03	-17.87	0.0	-45.88	-87.95	18.74	4.81	-9210.17	3779.70
		-4940.09	-9210.17	0.01	21.76	90.0	-45.88	-105.82	40.50	4.81	-6544.01	-4940.09
1	413	1319.94	7353.42	2.13e-03	-17.87	0.0	37.97	-22.69	-21.17	-1.26	7353.42	1319.94
		-1526.21	5447.69	9.38e-03	0.0	90.0	37.97	-40.56	-21.17	-1.26	5447.69	-1526.21
1	414	1317.92	7345.68	2.35e-03	-17.87	0.0	39.13	-22.57	-21.06	-1.26	7345.68	1317.92
		-1518.10	5450.37	9.34e-03	0.0	90.0	39.13	-40.45	-21.06	-1.26	5450.37	-1518.10
1	417	3195.72	-5392.80	5.28e-03	-17.87	0.0	-36.27	-72.59	23.61	4.02	-7518.08	3195.72
		-4141.83	-7518.08	0.01	0.0	90.0	-36.27	-90.47	23.61	4.02	-5392.80	-4141.83
1	419	3195.53	-5395.89	5.24e-03	-17.87	0.0	-36.81	-72.61	23.60	4.03	-7519.82	3195.53
		-4144.15	-7519.82	0.01	0.0	90.0	-36.81	-90.49	23.60	4.03	-5395.89	-4144.15
1	420	3193.51	-5393.21	5.46e-03	-17.87	0.0	-35.66	-72.50	23.72	4.03	-7527.56	3193.51
		-4136.03	-7527.56	0.01	0.0	90.0	-35.66	-90.38	23.72	4.03	-5393.21	-4136.03
2	10	20.36	26.46	4.94e-04	-7.65	0.0	14.36	-9.72	0.29	0.03	15.39	20.36
		-501.24	15.39	1.94e-04	0.0	38.5	14.36	-17.37	0.29	0.03	26.46	-501.24
2	33	-1435.94	1.552e+04	-7.51e-04	-9.94	0.0	-2.81	-40.95	-651.89	-0.73	1.552e+04	-1435.94
		-3203.79	-9576.21	0.05	0.0	38.5	-2.81	-50.89	-651.89	-0.73	-9576.21	-3203.79
2	83	-7638.38	1.349e+04	-6.29e-03	-9.94	0.0	-137.54	-160.02	755.92	7.75	-1.696e+04	-7638.38
		-1.399e+04	-1.696e+04	-0.03	69.82	38.5	-137.54	-169.96	825.74	7.75	1.349e+04	-1.399e+04
2	84	-7628.23	1.348e+04	-6.34e-03	-7.65	0.0	-148.31	-156.98	755.89	7.74	-1.696e+04	-7628.23
		-1.382e+04	-1.696e+04	-0.03	69.82	38.5	-148.31	-164.62	825.71	7.74	1.348e+04	-1.382e+04
2	123	-44.20	23.22	3.63e-04	-9.94	0.0	56.88	-12.89	0.25	0.03	13.62	-44.20
		-732.00	13.62	1.96e-04	0.0	38.5	56.88	-22.83	0.25	0.03	23.22	-732.00
2	210	-8193.45	226.55	-6.59e-03	-7.65	0.0	-32.85	-167.62	17.29	6.76	-301.09	-8193.45
		-1.479e+04	-301.09	0.02	0.0	38.5	-32.85	-175.27	17.29	6.76	226.55	-1.479e+04
2	211	1.334e+04	186.78	8.14e-03	-7.65	0.0	65.21	143.25	-19.53	-6.93	186.78	7969.44
		7969.44	-427.04	-0.02	0.0	38.5	65.21	135.60	-19.53	-6.93	-427.04	1.334e+04
2	221	1196.65	2099.23	5.38e-04	-7.65	0.0	20.36	8.86	-37.03	-4.97	2099.23	1002.71
		1002.71	724.10	-0.02	0.0	38.5	20.36	1.21	-37.03	-4.97	724.10	1196.65
2	224	-1076.37	-772.71	3.95e-04	-7.65	0.0	13.28	-30.35	36.48	4.97	-2126.55	-1076.37
		-2391.91	-2126.55	0.02	0.0	38.5	13.28	-37.99	36.48	4.97	-772.71	-2391.91
2	242	-4054.35	115.18	-3.14e-03	-7.65	0.0	-7.59	-88.01	8.61	3.36	-148.19	-4054.35
		-7589.87	-148.19	8.60e-03	0.0	38.5	-7.59	-95.66	8.61	3.36	115.18	-7589.87
2	243	6503.94	157.61	3.59e-03	-7.65	0.0	41.70	67.74	-8.45	-3.30	157.61	4043.53
		4043.53	-99.54	-8.40e-03	0.0	38.5	41.70	60.09	-8.45	-3.30	-99.54	6503.94
2	253	498.61	1044.63	3.81e-04	-7.65	0.0	18.70	-0.64	-18.35	-2.46	1044.63	498.61
		326.81	362.15	-8.16e-03	0.0	38.5	18.70	-8.29	-18.35	-2.46	362.15	326.81
2	256	-509.43	-346.51	1.73e-04	-7.65	0.0	15.41	-19.64	18.51	2.52	-1035.21	-509.43
		-1412.73	-1035.21	8.35e-03	0.0	38.5	15.41	-27.29	18.51	2.52	-346.51	-1412.73
2	269	8.93	20.24	3.98e-04	-7.65	0.0	17.14	-9.86	0.22	0.03	11.83	8.93
		-518.00	11.83	1.61e-04	0.0	38.5	17.14	-17.51	0.22	0.03	20.24	-518.00
2	281	-955.17	1.035e+04	-4.65e-04	-7.65	0.0	-1.48	-28.65	-434.58	-0.49	1.035e+04	-955.17
		-2205.41	-6383.10	0.03	0.0	38.5	-1.48	-36.30	-434.58	-0.49	-6383.10	-2205.41
2	306	-5090.13	8992.14	-4.16e-03	-7.65	0.0	-91.30	-108.03	503.95	5.17	-1.131e+04	-5090.13
		-9396.56	-1.131e+04	-0.02	46.55	38.5	-91.30	-115.68	550.50	5.17	8992.14	-9396.56
2	326	-27.35	16.52	2.78e-04	-7.65	0.0	38.31	-9.95	0.18	0.03	9.70	-27.35
		-557.55	9.70	1.43e-04	0.0	38.5	38.31	-17.59	0.18	0.03	16.52	-557.55
2	369	4.62	16.52	3.46e-04	-7.65	0.0	17.12	-9.95	0.18	0.03	9.69	4.62
		-525.49	9.69	1.42e-04	0.0	38.5	17.12	-17.59	0.18	0.03	16.52	-525.49
2	381	-668.67	7246.08	-2.39e-04	-7.65	0.0	4.09	-23.07	-304.17	-0.33	7246.08	-668.67
		-1703.93	-4464.45	0.02	0.0	38.5	4.09	-30.71	-304.17	-0.33	-4464.45	-1703.93
2	395	-98.36	308.06	2.30e-04	-7.65	0.0	19.95	-11.79	11.49	0.18	-313.38	-98.36
		-699.49	-313.38	-7.20e-04	9.31	38.5	19.95	-19.44	20.80	0.18	308.06	-699.49
2	398	-3311.19	5564.66	-2.60e-03	-7.65	0.0	-65.90	-74.13	324.48	3.25	-7107.09	-3311.19
		-6312.31	-7107.09	-0.01	9.31	38.5	-65.90	-81.77	333.79	3.25	5564.66	-6312.31
2	410	3.19	15.27	3.28e-04	-7.65	0.0	17.11	-9.97	0.16	0.03	8.98	3.19
		-527.98	8.98	1.35e-04	0.0	38.5	17.11	-17.62	0.16	0.03	15.27	-527.98
2	414	-572.69	6212.21	-1.58e-04	-7.65	0.0	5.95	-21.20	-260.69	-0.28	6212.21	-572.69
		-1535.93	-3824.49	0.02	0.0	38.5	5.95	-28.84	-260.69	-0.28	-3824.49	-1535.93
2	419	-2752.16	4519.68	-2.11e-03	-7.65	0.0	-56.49	-63.43	268.43	2.66	-5814.90	-2752.16
		-5341.58	-5814.90	-7.98e-03	0.0	38.5	-56.49	-71.08	268.43	2.66	4519.68	-5341.58
3	33	1773.48	1.614e+04	-1.20e-03	-13.30	0.0	207.19	-4.41	638.11	-0.73	-1.672e+04	1773.48
		1203.73	-1.672e+04	-0.12	0.0	51.5	207.19	-17.71	638.11	-0.73	1.614e+04	1203.73

3	79	1.239e+04	1.870e+04	-6.24e-03	-13.30	0.0	72.60	-123.13	-790.52	7.74	1.870e+04	1.239e+04
		5704.40	-1.960e+04	0.19	93.40	51.5	72.60	-136.43	-697.13	7.74	-1.960e+04	5704.40
3	84	1.260e+04	1.872e+04	-6.47e-03	-10.23	0.0	61.69	-128.88	-790.72	7.74	1.872e+04	1.260e+04
		5695.46	-1.960e+04	0.19	93.40	51.5	61.69	-139.10	-697.32	7.74	-1.960e+04	5695.46
3	123	70.67	-8.83	1.65e-04	-13.30	0.0	56.88	23.64	0.25	0.03	-21.67	-804.32
		-804.32	-21.67	2.40e-04	0.0	51.5	56.88	10.34	0.25	0.03	-8.83	70.67
3	150	1.213e+04	4169.03	-7.22e-03	-10.23	0.0	-114.80	-122.42	-29.19	-0.71	4169.03	1.213e+04
		5565.74	2665.95	-0.02	0.0	51.5	-114.80	-132.65	-29.19	-0.71	2665.95	5565.74
3	209	1.036e+04	-278.68	-6.03e-03	-10.23	0.0	64.62	-102.74	24.90	2.89	-1055.60	1.036e+04
		4808.54	-1055.60	9.73e-03	0.0	51.5	64.62	-112.96	24.90	2.89	-278.68	4808.54
3	210	1.369e+04	378.27	-6.91e-03	-10.23	0.0	58.37	-139.66	-7.72	6.76	378.27	1.369e+04
		6230.07	-584.76	0.03	0.0	51.5	58.37	-149.88	-7.72	6.76	-584.76	6230.07
3	211	-5869.37	671.92	7.98e-03	-10.23	0.0	-26.01	171.49	5.49	-6.93	-175.84	-1.444e+04
		-1.444e+04	-175.84	-0.03	0.0	51.5	-26.01	161.26	5.49	-6.93	671.92	-5869.37
3	212	-4447.84	1258.03	7.22e-03	-10.23	0.0	-32.26	134.57	-27.14	-3.06	1258.03	-1.111e+04
		-1.111e+04	365.83	-0.01	0.0	51.5	-32.26	124.34	-27.14	-3.06	365.83	-4447.84
3	221	-641.84	378.79	-8.26e-04	-10.23	0.0	40.83	37.76	57.01	-4.97	-2496.26	-2323.03
		-2323.03	-2496.26	-0.03	0.0	51.5	40.83	27.53	57.01	-4.97	378.79	-641.84
3	224	1313.12	2547.22	9.71e-04	-10.23	0.0	-7.19	-3.04	-57.57	4.97	2547.22	1313.12
		893.22	-356.32	0.03	0.0	51.5	-7.19	-13.27	-57.57	4.97	-356.32	893.22
3	241	4836.11	-138.62	-3.06e-03	-10.23	0.0	40.52	-41.66	12.39	1.44	-526.63	4836.11
		2427.34	-526.63	4.82e-03	0.0	51.5	40.52	-51.89	12.39	1.44	-138.62	2427.34
3	242	6484.81	185.63	-3.48e-03	-10.23	0.0	37.45	-59.98	-3.82	3.36	185.63	6484.81
		3132.66	-289.93	0.02	0.0	51.5	37.45	-70.21	-3.82	3.36	-289.93	3132.66
3	243	-2927.11	284.81	3.24e-03	-10.23	0.0	-3.34	95.91	3.98	-3.30	-199.07	-7602.74
		-7602.74	-199.07	-0.02	0.0	51.5	-3.34	85.68	3.98	-3.30	284.81	-2927.11
3	244	-2221.79	513.19	2.78e-03	-10.23	0.0	-6.41	77.59	-12.22	-1.38	513.19	-5954.04
		-5954.04	133.50	-4.59e-03	0.0	51.5	-6.41	67.36	-12.22	-1.38	133.50	-2221.79
3	253	-269.59	186.10	-4.89e-04	-10.23	0.0	28.76	27.86	28.35	-2.46	-1242.95	-1440.98
		-1440.98	-1242.95	-0.01	0.0	51.5	28.76	17.63	28.35	-2.46	186.10	-269.59
3	256	486.74	1229.52	1.59e-04	-10.23	0.0	5.35	8.07	-28.19	2.52	1229.52	323.05
		323.05	-191.22	0.01	0.0	51.5	5.35	-2.16	-28.19	2.52	-191.22	475.14
3	281	1110.60	1.076e+04	-8.22e-04	-10.23	0.0	138.52	-0.55	425.42	-0.49	-1.115e+04	1110.60
		819.02	-1.115e+04	-0.08	0.0	51.5	138.52	-10.78	425.42	-0.49	1.076e+04	819.02
3	304	8187.07	1.247e+04	-4.18e-03	-10.23	0.0	48.79	-79.69	-527.01	5.17	1.247e+04	8187.07
		3819.46	-1.307e+04	0.12	62.26	51.5	48.79	-89.92	-464.74	5.17	-1.307e+04	3819.46
3	306	8208.15	1.248e+04	-4.35e-03	-10.23	0.0	48.70	-79.93	-527.12	5.17	1.248e+04	8208.15
		3828.41	-1.307e+04	0.12	62.26	51.5	48.70	-90.16	-464.86	5.17	-1.307e+04	3828.41
3	326	63.64	-6.23	9.62e-05	-10.23	0.0	38.31	18.15	0.18	0.03	-15.35	-607.93
		-607.93	-15.35	1.76e-04	0.0	51.5	38.31	7.93	0.18	0.03	-6.23	63.64
3	339	7900.00	2777.12	-4.86e-03	-10.23	0.0	-68.96	-75.63	-19.43	-0.46	2777.12	7900.00
		3741.93	1776.45	-0.01	0.0	51.5	-68.96	-85.85	-19.43	-0.46	1776.45	3741.93
3	381	670.84	7531.36	-5.96e-04	-10.23	0.0	102.09	5.04	297.83	-0.33	-7806.90	607.01
		602.99	-7806.90	-0.06	0.0	51.5	102.09	-5.19	297.83	-0.33	7531.36	602.99
3	382	683.71	7535.12	-7.58e-04	-10.23	0.0	102.01	4.83	297.73	-0.33	-7798.15	625.08
		610.66	-7798.15	-0.06	0.0	51.5	102.01	-5.39	297.73	-0.33	7535.12	610.66
3	396	5171.63	7483.69	-2.78e-03	-10.23	0.0	32.17	-45.82	-311.64	3.25	7483.69	5171.63
		2548.33	-8244.91	0.08	12.45	51.5	32.17	-56.05	-299.18	3.25	-8244.91	2548.33
3	398	5189.69	7492.45	-2.93e-03	-10.23	0.0	32.10	-46.03	-311.73	3.25	7492.45	5189.69
		2556.00	-8241.15	0.08	12.45	51.5	32.10	-56.25	-299.28	3.25	-8241.15	2556.00
3	402	92.23	-5.72	4.67e-05	-10.23	0.0	19.93	18.13	0.16	0.03	-14.14	-578.02
		-578.02	-14.14	1.66e-04	0.0	51.5	19.93	7.90	0.16	0.03	-5.72	92.23
3	407	1135.30	551.07	-1.12e-03	-10.23	0.0	-0.17	-0.78	-3.83	-0.07	551.07	1135.30
		831.65	353.70	-2.64e-03	0.0	51.5	-0.17	-11.01	-3.83	-0.07	353.70	831.65
3	410	96.47	-5.73	4.22e-05	-10.23	0.0	17.11	18.13	0.16	0.03	-14.14	-573.80
		-573.80	-14.14	1.66e-04	0.0	51.5	17.11	7.90	0.16	0.03	-5.73	96.47
3	411	104.14	-1.96	-1.92e-04	-10.23	0.0	17.03	17.93	0.07	0.03	-5.39	-555.73
		-555.73	-5.39	1.18e-04	0.0	51.5	17.03	7.70	0.07	0.03	-1.96	104.14
3	414	558.37	6454.63	-5.14e-04	-10.23	0.0	89.95	6.91	255.31	-0.28	-6693.65	438.33
		438.33	-6693.65	-0.05	0.0	51.5	89.95	-3.32	255.31	-0.28	6454.63	530.63
3	415	569.31	6458.39	-6.77e-04	-10.23	0.0	89.87	6.70	255.21	-0.28	-6684.90	456.39
		456.39	-6684.90	-0.05	0.0	51.5	89.87	-3.52	255.21	-0.28	6458.39	538.30
3	418	4217.51	5987.37	-2.33e-03	-10.23	0.0	27.59	-35.13	-247.47	2.66	5987.37	4217.51
		2144.93	-6757.45	0.06	0.0	51.5	27.59	-45.36	-247.47	2.66	-6757.45	2144.93
3	419	4235.58	5996.13	-2.47e-03	-10.23	0.0	27.51	-35.33	-247.57	2.66	5996.13	4235.58
		2152.60	-6753.68	0.06	0.0	51.5	27.51	-45.56	-247.57	2.66	-6753.68	2152.60
4	31	3.815e+04	9526.05	-0.03	-51.12	0.0	556.07	-354.92	44.48	-3.20	718.06	3.815e+04
		-3.719e+04	718.06	-0.08	0.0	198.0	556.07	-406.04	44.48	-3.20	9526.05	-3.719e+04
4	36	3.835e+04	9530.76	-0.03	-39.32	0.0	554.24	-360.97	44.53	-3.19	713.40	3.835e+04
		-3.702e+04	713.40	-0.08	0.0	198.0	554.24	-400.29	44.53	-3.19	9530.76	-3.702e+04
4	79	5.595e+04	988.07	0.03	-51.12	0.0	-672.00	614.99	-73.44	11.40	988.07	-6.076e+04
		-6.076e+04	-1.355e+04	0.25	0.0	198.0	-672.00	563.87	-73.44	11.40	-1.355e+04	5.595e+04
4	80	5.613e+04	985.63	0.03	-39.32	0.0	-673.67	609.04	-73.42	11.41	985.63	-6.056e+04
		-6.056e+04	-1.355e+04	0.25	0.0	198.0	-673.67	569.71	-73.42	11.41	-1.355e+04	5.613e+04
4	88	5.612e+04	983.41	0.03	-39.32	0.0	-673.83	608.94	-73.40	11.40	983.41	-6.056e+04
		-6.056e+04	-1.355e+04	0.25	0.0	198.0	-673.83	569.62	-73.40	11.40	-1.355e+04	5.612e+04
4	221	1.790e+04	1420.89	-0.01	-39.32	0.0	40.26	-166.85	-10.77	-5.22	1420.89	1.790e+04

		-1.903e+04	-733.88	-0.10	0.0	198.0	40.26	-206.18	-10.77	-5.22	-733.88	-1.903e+04
4	222	1.937e+04	481.63	9.86e-03	-39.32	0.0	-30.09	222.12	8.32	8.39	-1186.08	-2.072e+04
		-2.072e+04	-1186.08	0.12	0.0	198.0	-30.09	182.80	8.32	8.39	481.63	1.937e+04
4	223	1.965e+04	1134.84	-0.01	-39.32	0.0	42.05	-184.50	-7.81	-8.49	1134.84	1.965e+04
		-2.078e+04	-430.64	-0.12	0.0	198.0	42.05	-223.83	-7.81	-8.49	-430.64	-2.078e+04
4	224	1.762e+04	784.87	9.11e-03	-39.32	0.0	-28.30	204.48	11.28	5.12	-1472.13	-1.897e+04
		-1.897e+04	-1472.13	0.10	0.0	198.0	-28.30	165.15	11.28	5.12	784.87	1.762e+04
4	253	8569.20	709.17	-5.94e-03	-39.32	0.0	22.29	-72.92	-5.38	-2.62	709.17	8569.20
		-9763.05	-367.08	-0.05	0.0	198.0	22.29	-112.25	-5.38	-2.62	-367.08	-9763.05
4	254	9317.56	234.85	-5.63e-03	-39.32	0.0	-12.08	120.33	4.09	4.14	-585.48	-1.062e+04
		-1.062e+04	-585.48	0.06	0.0	198.0	-12.08	81.01	4.09	4.14	234.85	9317.56
4	255	9332.32	601.75	-6.32e-03	-39.32	0.0	23.27	-80.63	-4.26	-4.24	601.75	9332.32
		-1.053e+04	-251.21	-0.06	0.0	198.0	23.27	-119.96	-4.26	-4.24	-251.21	-1.053e+04
4	256	8554.18	350.72	-5.31e-03	-39.32	0.0	-11.11	112.62	5.21	2.51	-692.90	-9852.16
		-9852.16	-692.90	0.05	0.0	198.0	-11.11	73.30	5.21	2.51	350.72	8554.18
4	280	2.534e+04	6349.61	-0.02	-39.32	0.0	371.46	-233.97	29.65	-2.14	479.79	2.534e+04
		-2.487e+04	479.79	-0.05	0.0	198.0	371.46	-273.29	29.65	-2.14	6349.61	-2.487e+04
4	282	2.535e+04	6351.11	-0.02	-39.32	0.0	371.36	-234.03	29.66	-2.14	478.31	2.535e+04
		-2.488e+04	478.31	-0.05	0.0	198.0	371.36	-273.35	29.66	-2.14	6351.11	-2.488e+04
4	304	3.722e+04	659.80	0.02	-39.32	0.0	-447.25	412.64	-48.97	7.59	659.80	-4.059e+04
		-4.059e+04	-9036.99	0.16	0.0	198.0	-447.25	373.32	-48.97	7.59	-9036.99	3.722e+04
4	308	3.721e+04	658.32	0.02	-39.32	0.0	-447.36	412.58	-48.96	7.59	658.32	-4.058e+04
		-4.058e+04	-9035.49	0.16	0.0	198.0	-447.36	373.25	-48.96	7.59	-9035.49	3.721e+04
4	380	1.755e+04	4442.27	-0.01	-39.32	0.0	261.70	-157.82	20.73	-1.51	338.29	1.755e+04
		-1.759e+04	338.29	-0.04	0.0	198.0	261.70	-197.15	20.73	-1.51	4442.27	-1.759e+04
4	382	1.755e+04	4443.56	-0.01	-39.32	0.0	261.61	-157.88	20.74	-1.52	337.03	1.755e+04
		-1.760e+04	337.03	-0.04	0.0	198.0	261.61	-197.20	20.74	-1.52	4443.56	-1.760e+04
4	396	2.078e+04	492.73	0.01	-39.32	0.0	-268.09	242.36	-30.69	4.73	492.73	-2.331e+04
		-2.331e+04	-5582.93	0.10	0.0	198.0	-268.09	203.04	-30.69	4.73	-5582.93	2.078e+04
4	400	2.078e+04	491.46	0.01	-39.32	0.0	-268.18	242.31	-30.67	4.73	491.46	-2.331e+04
		-2.331e+04	-5581.64	0.10	0.0	198.0	-268.18	202.98	-30.67	4.73	-5581.64	2.078e+04
4	413	1.495e+04	3806.49	-0.01	-39.32	0.0	225.12	-132.44	17.75	-1.30	291.13	1.495e+04
		-1.517e+04	291.13	-0.03	0.0	198.0	225.12	-171.76	17.75	-1.30	3806.49	-1.517e+04
4	415	1.495e+04	3807.78	-0.01	-39.32	0.0	225.02	-132.50	17.77	-1.31	289.86	1.495e+04
		-1.517e+04	289.86	-0.03	0.0	198.0	225.02	-171.82	17.77	-1.31	3807.78	-1.517e+04
4	418	1.598e+04	433.87	9.25e-03	-39.32	0.0	-214.15	192.62	-25.08	3.86	433.87	-1.826e+04
		-1.826e+04	-4531.59	0.09	0.0	198.0	-214.15	153.29	-25.08	3.86	-4531.59	1.598e+04
4	420	1.598e+04	432.61	9.09e-03	-39.32	0.0	-214.25	192.56	-25.07	3.85	432.61	-1.826e+04
		-1.826e+04	-4530.30	0.09	0.0	198.0	-214.25	153.24	-25.07	3.85	-4530.30	1.598e+04
5	14	912.69	25.35	1.76e-03	-107.03	0.0	-12.38	53.09	0.28	-0.02	-25.56	-1457.20
		-1533.72	-25.56	8.27e-04	0.0	180.0	-12.38	-53.94	0.28	-0.02	25.35	-1533.72
5	33	2968.33	2920.27	-5.19e-03	-180.12	0.0	-28.29	35.87	33.57	2.12	-3122.30	2327.60
		-7426.71	-3122.30	-0.12	0.0	180.0	-28.29	-144.25	33.57	2.12	2920.27	-7426.71
5	83	3969.59	2326.23	-5.31e-03	-428.71	0.0	-38.82	253.53	-21.13	0.92	2326.23	-9491.73
		-9491.73	-1477.47	0.31	0.0	180.0	-38.82	-175.19	-21.13	0.92	-1477.47	-2441.04
5	148	1.062e+04	51.15	-9.40e-03	141.56	0.0	-28.63	-166.95	9.40	-0.22	-1640.76	1.062e+04
		-6691.34	-1640.76	-0.03	0.0	180.0	-28.63	-25.39	9.40	-0.22	51.15	-6691.34
5	193	3242.29	22.21	-6.66e-03	-231.45	0.0	-58.44	58.22	5.55	-0.11	-976.08	1924.40
		-8426.58	-976.08	-0.02	0.0	180.0	-58.44	-173.23	5.55	-0.11	22.21	-8426.58
5	204	8124.81	302.89	9.08e-03	-124.85	0.0	-22.42	172.35	-3.34	-0.65	302.89	-1.166e+04
		-1.166e+04	-298.34	0.10	0.0	180.0	-22.42	47.50	-3.34	-0.65	-298.34	8124.81
5	215	4445.20	496.48	7.48e-03	-124.85	0.0	-22.47	131.47	-5.54	-2.50	496.48	-7982.60
		-7982.60	-500.65	-0.14	0.0	180.0	-22.47	6.62	-5.54	-2.50	-500.65	4445.20
5	224	4800.86	1544.38	3.78e-03	-124.85	0.0	-17.39	135.24	-17.08	2.37	1544.38	-8306.59
		-8306.59	-1530.76	0.10	0.0	180.0	-17.39	10.39	-17.08	2.37	-1530.76	4800.86
5	230	1063.02	354.74	-2.03e-03	-124.85	0.0	-15.17	64.58	-3.86	-0.31	354.74	-1939.81
		-1939.81	-340.51	0.10	0.0	180.0	-15.17	-60.27	-3.86	-0.31	-340.51	-1552.35
5	233	3045.35	45.17	-4.02e-03	-124.85	0.0	-15.58	9.92	0.51	0.40	-47.44	2977.63
		-6472.93	-47.44	-0.05	0.0	180.0	-15.58	-114.93	0.51	0.40	45.17	-6472.93
5	253	1962.54	732.26	-2.87e-03	-124.85	0.0	-15.71	26.89	8.17	-1.14	-739.20	1450.07
		-4946.32	-739.20	-0.05	0.0	180.0	-15.71	-97.96	8.17	-1.14	732.26	-4946.32
5	262	1062.26	174.11	-1.86e-03	-124.85	0.0	-15.38	63.53	-1.90	-0.15	174.11	-1846.30
		-1846.30	-167.12	0.05	0.0	180.0	-15.38	-61.32	-1.90	-0.15	-167.12	-1647.39
5	263	1060.76	174.85	-1.53e-03	-124.85	0.0	-15.79	61.27	1.98	0.17	-182.15	-1644.24
		-1852.45	-182.15	-0.05	0.0	180.0	-15.79	-63.58	1.98	0.17	174.85	-1852.45
5	271	1063.29	18.17	1.27e-03	-124.85	0.0	-15.01	62.13	0.20	-8.29e-03	-18.36	-1719.57
		-1772.05	-18.36	7.06e-04	0.0	180.0	-15.01	-62.72	0.20	-8.29e-03	18.17	-1772.05
5	281	1977.75	1947.38	-3.51e-03	-124.85	0.0	-19.38	26.29	22.39	1.42	-2082.09	1485.38
		-5018.19	-2082.09	-0.08	0.0	180.0	-19.38	-98.56	22.39	1.42	1947.38	-5018.19
5	306	2685.22	1550.26	-3.59e-03	-290.57	0.0	-26.40	171.40	-14.08	0.62	1550.26	-6394.18
		-6394.18	-984.45	0.21	0.0	180.0	-26.40	-119.18	-14.08	0.62	-984.45	-1694.42
5	338	6331.78	35.37	-6.17e-03	40.88	0.0	-25.85	-84.56	6.28	-0.14	-1095.17	6331.78
		-5210.47	-1095.17	-0.02	0.0	180.0	-25.85	-43.69	6.28	-0.14	35.37	-5210.47
5	361	2175.43	15.34	-4.49e-03	-159.06	0.0	-39.48	41.19	3.70	-0.07	-651.27	1216.58
		-5684.77	-651.27	-0.01	0.0	180.0	-39.48	-117.87	3.70	-0.07	15.34	-5684.77
5	381	1508.52	1366.22	-2.87e-03	-124.85	0.0	-18.20	37.09	15.70	0.99	-1460.57	519.58
		-4040.85	-1460.57	-0.06	0.0	180.0	-18.20	-87.76	15.70	0.99	1366.22	-4040.85

5	391	1156.43	556.44	1.47e-03	-124.85	0.0	-12.73	73.60	-5.74	0.41	556.44	-2740.07
		-2740.07	-475.96	0.10	0.0	180.0	-12.73	-51.25	-5.74	0.41	-475.96	-728.89
5	393	1343.89	116.24	-2.11e-03	-157.99	0.0	-18.60	80.39	-0.81	-5.81e-03	116.24	-2336.68
		-2336.68	-30.09	7.12e-03	0.0	180.0	-18.60	-77.60	-0.81	-5.81e-03	-30.09	-2085.27
5	413	1382.00	1162.73	-2.95e-03	-124.85	0.0	-18.02	40.87	13.37	0.86	-1243.61	180.13
		-3698.90	-1243.61	-0.05	0.0	180.0	-18.02	-83.97	13.37	0.86	1162.73	-3698.90
5	414	1389.41	1173.08	-2.65e-03	-124.85	0.0	-17.79	40.68	13.48	0.85	-1253.97	198.68
		-3716.02	-1253.97	-0.05	0.0	180.0	-17.79	-84.17	13.48	0.85	1173.08	-3716.02
5	420	1156.68	558.17	1.36e-03	-124.85	0.0	-12.77	73.63	-5.75	0.41	558.17	-2743.16
		-2743.16	-477.68	0.10	0.0	180.0	-12.77	-51.22	-5.75	0.41	-477.68	-726.04
6	33	1203.73	1.614e+04	2.17e-03	-23.24	0.0	102.19	-17.71	-6.89	-0.73	1.614e+04	1203.73
		-1435.94	1.552e+04	-0.06	0.0	90.0	102.19	-40.95	-6.89	-0.73	1.552e+04	-1435.94
6	36	1194.80	1.615e+04	1.65e-03	-17.87	0.0	91.29	-20.38	-7.09	-0.74	1.615e+04	1194.80
		-1444.17	1.551e+04	-0.06	0.0	90.0	91.29	-38.26	-7.09	-0.74	1.551e+04	-1444.17
6	79	5704.40	-1.695e+04	8.57e-03	-23.24	0.0	-32.40	-136.43	-52.13	7.74	-1.960e+04	5704.40
		-7620.00	-2.035e+04	0.12	163.21	90.0	-32.40	-159.67	111.09	7.74	-1.695e+04	-7620.00
6	83	5717.82	-1.696e+04	8.11e-03	-23.24	0.0	-32.54	-136.78	-52.30	7.75	-1.960e+04	5717.82
		-7638.38	-2.035e+04	0.12	163.21	90.0	-32.54	-160.02	110.92	7.75	-1.696e+04	-7638.38
6	150	5565.74	2665.95	6.34e-03	-17.87	0.0	-114.80	-132.65	-29.19	-0.71	2665.95	5565.74
		-7176.86	39.20	-6.12e-03	0.0	90.0	-114.80	-150.52	-29.19	-0.71	39.20	-7176.86
6	210	6230.07	-301.09	8.67e-03	-17.87	0.0	14.48	-151.32	1.87	6.76	-584.76	6230.07
		-8193.45	-584.76	0.08	0.0	90.0	14.48	-169.20	1.87	6.76	-301.09	-8193.45
6	211	7969.44	671.92	-5.39e-03	-17.87	0.0	17.88	162.70	-4.11	-6.93	671.92	-5869.37
		-5869.37	186.78	-0.08	0.0	90.0	17.88	144.83	-4.11	-6.93	186.78	7969.44
6	221	1002.71	2099.23	-4.26e-04	-17.87	0.0	22.48	27.21	20.67	-4.97	378.79	-641.84
		-641.84	378.79	-0.04	0.0	90.0	22.48	9.34	20.67	-4.97	2099.23	1002.71
6	224	893.22	-356.32	1.59e-03	-17.87	0.0	11.16	-12.95	-21.22	4.97	-356.32	893.22
		-1076.37	-2126.55	0.04	0.0	90.0	11.16	-30.82	-21.22	4.97	-2126.55	-1076.37
6	226	2719.27	-1004.75	3.45e-03	-17.87	0.0	10.68	-60.32	-6.65	1.98	-1004.75	2719.27
		-3514.26	-1479.52	0.03	0.0	90.0	10.68	-78.20	-6.65	1.98	-1479.52	-3514.26
6	227	3440.60	1452.21	-2.26e-03	-17.87	0.0	22.96	74.59	6.09	-1.98	1027.22	-2467.89
		-2467.89	1027.22	-0.03	0.0	90.0	22.96	56.71	6.09	-1.98	1452.21	3440.60
6	242	3132.66	-148.19	4.40e-03	-17.87	0.0	15.78	-70.92	0.94	3.36	-289.93	3132.66
		-4054.35	-289.93	0.04	0.0	90.0	15.78	-88.79	0.94	3.36	-148.19	-4054.35
6	243	4043.53	284.81	-4.04e-03	-17.87	0.0	18.33	86.39	-0.78	-3.30	284.81	-2927.11
		-2927.11	157.61	-0.04	0.0	90.0	18.33	68.51	-0.78	-3.30	157.61	4043.53
6	253	498.61	1044.63	-2.29e-04	-17.87	0.0	19.72	17.47	10.30	-2.46	186.10	-269.59
		-269.59	186.10	-0.02	0.0	90.0	19.72	-0.40	10.30	-2.46	1044.63	498.61
6	256	475.14	-191.22	4.27e-04	-17.87	0.0	14.39	-2.00	-10.13	2.52	-191.22	475.14
		-509.43	-1035.21	0.02	0.0	90.0	14.39	-19.88	-10.13	2.52	-1035.21	-509.43
6	258	1396.83	-499.70	1.81e-03	-17.87	0.0	13.89	-25.93	-3.24	1.00	-499.70	1396.83
		-1740.85	-731.69	0.02	0.0	90.0	13.89	-43.80	-3.24	1.00	-731.69	-1740.85
6	259	1730.03	741.10	-1.48e-03	-17.87	0.0	20.22	41.40	3.40	-0.94	494.58	-1191.28
		-1191.28	494.58	-0.02	0.0	90.0	20.22	23.52	3.40	-0.94	741.10	1730.03
6	281	819.02	1.076e+04	1.48e-03	-17.87	0.0	68.52	-10.78	-4.58	-0.49	1.076e+04	819.02
		-955.17	1.035e+04	-0.04	0.0	90.0	68.52	-28.65	-4.58	-0.49	1.035e+04	-955.17
6	282	827.96	1.077e+04	1.17e-03	-17.87	0.0	68.43	-11.01	-4.70	-0.48	1.077e+04	827.96
		-967.43	1.034e+04	-0.04	0.0	90.0	68.43	-28.89	-4.70	-0.48	1.034e+04	-967.43
6	304	3819.46	-1.130e+04	5.74e-03	-17.87	0.0	-21.21	-89.92	-34.74	5.17	-1.307e+04	3819.46
		-5077.88	-1.357e+04	0.08	108.81	90.0	-21.21	-107.80	74.07	5.17	-1.130e+04	-5077.88
6	306	3828.41	-1.131e+04	5.44e-03	-17.87	0.0	-21.30	-90.16	-34.86	5.17	-1.307e+04	3828.41
		-5090.13	-1.357e+04	0.08	108.81	90.0	-21.30	-108.03	73.95	5.17	-1.131e+04	-5090.13
6	339	3741.93	1776.45	4.28e-03	-17.87	0.0	-68.96	-85.85	-19.43	-0.46	1776.45	3741.93
		-4789.22	27.71	-4.04e-03	0.0	90.0	-68.96	-103.73	-19.43	-0.46	27.71	-4789.22
6	381	602.99	7531.36	1.14e-03	-17.87	0.0	53.09	-5.19	-3.17	-0.33	7531.36	602.99
		-668.67	7246.08	-0.03	0.0	90.0	53.09	-23.07	-3.17	-0.33	7246.08	-668.67
6	382	610.66	7535.12	8.79e-04	-17.87	0.0	53.01	-5.39	-3.27	-0.33	7535.12	610.66
		-679.17	7241.12	-0.03	0.0	90.0	53.01	-23.27	-3.27	-0.33	7241.12	-679.17
6	396	2548.33	-7102.13	3.91e-03	-17.87	0.0	-16.83	-56.05	1.82	3.25	-8244.91	2548.33
		-3300.68	-8244.91	0.05	21.76	90.0	-16.83	-73.93	23.58	3.25	-7102.13	-3300.68
6	398	2556.00	-7107.09	3.65e-03	-17.87	0.0	-16.90	-56.25	1.72	3.25	-8241.15	2556.00
		-3311.19	-8241.15	0.05	21.76	90.0	-16.90	-74.13	23.48	3.25	-7107.09	-3311.19
6	414	530.63	6454.63	1.04e-03	-17.87	0.0	47.95	-3.32	-2.69	-0.28	6454.63	530.63
		-572.69	6212.21	-0.03	0.0	90.0	47.95	-21.20	-2.69	-0.28	6212.21	-572.69
6	415	538.30	6458.39	7.78e-04	-17.87	0.0	47.87	-3.52	-2.79	-0.28	6458.39	538.30
		-583.19	6207.24	-0.03	0.0	90.0	47.87	-21.40	-2.79	-0.28	6207.24	-583.19
6	418	2144.93	-5809.94	3.34e-03	-17.87	0.0	-14.41	-45.36	10.53	2.66	-6757.45	2144.93
		-2741.66	-6757.45	0.04	0.0	90.0	-14.41	-63.23	10.53	2.66	-5809.94	-2741.66
6	419	2152.60	-5814.90	3.07e-03	-17.87	0.0	-14.49	-45.56	10.43	2.66	-6753.68	2152.60
		-2752.16	-6753.68	0.04	0.0	90.0	-14.49	-63.43	10.43	2.66	-5814.90	-2752.16
7	35	6.981e+04	1.300e+04	-0.04	-51.12	0.0	603.96	-697.78	67.27	-2.17	-319.61	6.981e+04
		-7.341e+04	-319.61	-0.07	0.0	198.0	603.96	-748.90	67.27	-2.17	1.300e+04	-7.341e+04
7	37	6.976e+04	1.299e+04	-0.04	-51.12	0.0	604.89	-697.19	67.20	-2.11	-318.79	6.976e+04
		-7.334e+04	-318.79	-0.07	0.0	198.0	604.89	-748.31	67.20	-2.11	1.299e+04	-7.334e+04
7	76	1.004e+05	448.02	0.05	-39.32	0.0	-744.60	1026.60	-85.59	17.77	448.02	-9.893e+04
		-9.893e+04	-1.650e+04	0.12	0.0	198.0	-744.60	987.28	-85.59	17.77	-1.650e+04	1.004e+05
7	79	1.003e+05	448.65	-0.05	-51.12	0.0	-743.55	1033.18	-85.62	17.95	448.65	-9.917e+04

		-9.917e+04	-1.651e+04	0.12	0.0	198.0	-743.55	982.06	-85.62	17.95	-1.651e+04	1.003e+05
7	80	1.005e+05	448.84	-0.05	-39.32	0.0	-743.67	1027.19	-85.66	17.82	448.84	-9.898e+04
		-9.898e+04	-1.651e+04	0.12	0.0	198.0	-743.67	987.87	-85.66	17.82	-1.651e+04	1.005e+05
7	88	1.005e+05	448.45	-0.05	-39.32	0.0	-742.70	1027.14	-85.63	17.89	448.45	-9.897e+04
		-9.897e+04	-1.651e+04	0.12	0.0	198.0	-742.70	987.81	-85.63	17.89	-1.651e+04	1.005e+05
7	221	1.899e+04	538.57	-0.01	-39.32	0.0	19.94	-178.78	2.69	-4.91	-54.09	1.899e+04
		-2.030e+04	-54.09	-0.03	0.0	198.0	19.94	-218.11	2.69	-4.91	538.57	-2.030e+04
7	223	2.073e+04	524.19	-0.01	-39.32	0.0	18.87	-196.28	2.58	-8.37	-41.75	2.073e+04
		-2.203e+04	-41.75	-0.03	0.0	198.0	18.87	-235.60	2.58	-8.37	524.19	-2.203e+04
7	224	1.892e+04	46.43	-9.30e-03	-39.32	0.0	-23.65	216.13	-1.99	5.55	46.43	-1.998e+04
		-1.998e+04	-407.96	0.02	0.0	198.0	-23.65	176.81	-1.99	5.55	-407.96	1.892e+04
7	225	1.795e+04	641.70	-0.01	-39.32	0.0	18.02	-168.22	3.31	-3.94	-25.11	1.795e+04
		-1.926e+04	-25.11	-0.02	0.0	198.0	18.02	-207.54	3.31	-3.94	641.70	-1.926e+04
7	228	1.787e+04	17.45	-8.72e-03	-39.32	0.0	-21.73	205.57	-2.61	4.59	17.45	-1.894e+04
		-1.894e+04	-511.09	0.01	0.0	198.0	-21.73	166.25	-2.61	4.59	-511.09	1.787e+04
7	253	9140.65	269.75	-6.13e-03	-39.32	0.0	12.69	-78.68	1.34	-2.29	-26.70	9140.65
		-1.033e+04	-26.70	-0.01	0.0	198.0	12.69	-118.00	1.34	-2.29	269.75	-1.033e+04
7	254	9981.33	16.63	-6.40e-03	-39.32	0.0	-10.99	126.12	-0.85	4.68	16.63	-1.110e+04
		-1.110e+04	-180.46	0.01	0.0	198.0	-10.99	86.80	-0.85	4.68	-180.46	9981.33
7	256	9241.52	25.60	-6.14e-03	-39.32	0.0	-12.28	118.64	-1.12	3.14	25.60	-1.036e+04
		-1.036e+04	-225.83	0.01	0.0	198.0	-12.28	79.32	-1.12	3.14	-225.83	9241.52
7	257	8610.83	321.61	-5.89e-03	-39.32	0.0	11.76	-73.32	1.66	-1.80	-12.20	8610.83
		-9799.84	-12.20	-9.13e-03	0.0	198.0	11.76	-112.64	1.66	-1.80	321.61	-9799.84
7	260	8711.08	11.11	-5.84e-03	-39.32	0.0	-11.35	113.29	-1.43	2.65	11.11	-9826.95
		-9826.95	-277.69	6.00e-03	0.0	198.0	-11.35	73.96	-1.43	2.65	-277.69	8711.08
7	282	4.646e+04	8669.02	-0.02	-39.32	0.0	402.65	-462.52	44.86	-1.39	-213.14	4.646e+04
		-4.901e+04	-213.14	-0.05	0.0	198.0	402.65	-501.85	44.86	-1.39	8669.02	-4.901e+04
7	283	4.643e+04	8660.81	-0.02	-39.32	0.0	403.27	-462.13	44.82	-1.35	-212.59	4.643e+04
		-4.897e+04	-212.59	-0.05	0.0	198.0	403.27	-501.45	44.82	-1.35	8660.81	-4.897e+04
7	302	6.678e+04	298.49	-0.03	-39.32	0.0	-496.31	691.06	-57.02	11.99	298.49	-6.616e+04
		-6.616e+04	-1.099e+04	0.08	0.0	198.0	-496.31	651.74	-57.02	11.99	-1.099e+04	6.678e+04
7	304	6.682e+04	299.04	-0.03	-39.32	0.0	-495.69	691.45	-57.07	12.02	299.04	-6.619e+04
		-6.619e+04	-1.100e+04	0.08	0.0	198.0	-495.69	652.13	-57.07	12.02	-1.100e+04	6.682e+04
7	308	6.682e+04	298.78	-0.03	-39.32	0.0	-495.05	691.42	-57.05	12.07	298.78	-6.618e+04
		-6.618e+04	-1.100e+04	0.08	0.0	198.0	-495.05	652.10	-57.05	12.07	-1.100e+04	6.682e+04
7	382	3.234e+04	6075.59	-0.02	-39.32	0.0	282.02	-317.78	31.44	-0.84	-149.40	3.234e+04
		-3.447e+04	-149.40	-0.03	0.0	198.0	282.02	-357.10	31.44	-0.84	6075.59	-3.447e+04
7	383	3.231e+04	6068.55	-0.02	-39.32	0.0	282.55	-317.44	31.40	-0.81	-148.94	3.231e+04
		-3.443e+04	-148.94	-0.03	0.0	198.0	282.55	-356.76	31.40	-0.81	6068.55	-3.443e+04
7	394	3.895e+04	180.95	-0.02	-39.32	0.0	-300.06	413.46	-34.56	7.77	180.95	-3.903e+04
		-3.903e+04	-6661.35	0.05	0.0	198.0	-300.06	374.14	-34.56	7.77	-6661.35	3.895e+04
7	396	3.898e+04	181.41	-0.02	-39.32	0.0	-299.53	413.80	-34.59	7.80	181.41	-3.906e+04
		-3.906e+04	-6668.39	0.05	0.0	198.0	-299.53	374.48	-34.59	7.80	-6668.39	3.898e+04
7	400	3.898e+04	181.19	-0.02	-39.32	0.0	-298.98	413.77	-34.58	7.84	181.19	-3.905e+04
		-3.905e+04	-6664.66	0.05	0.0	198.0	-298.98	374.45	-34.58	7.84	-6664.66	3.898e+04
7	415	2.764e+04	5211.32	-0.01	-39.32	0.0	241.84	-269.53	26.97	-0.65	-128.17	2.764e+04
		-2.962e+04	-128.17	-0.03	0.0	198.0	241.84	-308.85	26.97	-0.65	5211.32	-2.962e+04
7	416	2.761e+04	5204.27	-0.01	-39.32	0.0	242.37	-269.19	26.93	-0.62	-127.70	2.761e+04
		-2.959e+04	-127.70	-0.03	0.0	198.0	242.37	-308.52	26.93	-0.62	5204.27	-2.959e+04
7	417	3.069e+04	145.48	-0.02	-39.32	0.0	-240.95	331.10	-27.78	6.47	145.48	-3.098e+04
		-3.098e+04	-5354.59	0.04	0.0	198.0	-240.95	291.78	-27.78	6.47	-5354.59	3.069e+04
7	418	3.072e+04	145.94	-0.02	-39.32	0.0	-240.42	331.44	-27.82	6.50	145.94	-3.101e+04
		-3.101e+04	-5361.63	0.04	0.0	198.0	-240.42	292.11	-27.82	6.50	-5361.63	3.072e+04
7	420	3.072e+04	145.72	-0.02	-39.32	0.0	-239.86	331.41	-27.80	6.54	145.72	-3.100e+04
		-3.100e+04	-5357.91	0.04	0.0	198.0	-239.86	292.08	-27.80	6.54	-5357.91	3.072e+04
8	31	1.113e+04	3015.04	-0.01	-51.12	0.0	-61.16	-98.65	-29.16	-3.17	3015.04	1.113e+04
		-1.346e+04	-2757.82	-0.06	0.0	198.0	-61.16	-149.77	-29.16	-3.17	-2757.82	-1.346e+04
8	33	1.111e+04	3033.19	-0.01	-51.12	0.0	-61.10	-98.38	-29.34	-3.14	3033.19	1.111e+04
		-1.343e+04	-2775.97	-0.06	0.0	198.0	-61.10	-149.50	-29.34	-3.14	-2775.97	-1.343e+04
8	79	2.179e+04	85.95	0.01	-51.12	0.0	13.28	247.89	8.21	7.94	-1538.66	-2.223e+04
		-2.223e+04	-1538.66	0.29	0.0	198.0	13.28	196.76	8.21	7.94	85.95	2.179e+04
8	80	2.196e+04	87.05	0.01	-39.32	0.0	15.55	241.96	8.22	7.94	-1539.77	-2.206e+04
		-2.206e+04	-1539.77	0.29	0.0	198.0	15.55	202.64	8.22	7.94	87.05	2.196e+04
8	88	2.195e+04	91.46	0.01	-39.32	0.0	15.60	241.91	8.26	7.93	-1544.18	-2.205e+04
		-2.205e+04	-1544.18	0.29	0.0	198.0	15.60	202.58	8.26	7.93	91.46	2.195e+04
8	218	9731.27	1386.88	4.89e-03	-39.32	0.0	-4.54	123.62	14.10	4.53	-1404.64	-1.085e+04
		-1.085e+04	-1404.64	0.14	0.0	198.0	-4.54	84.29	14.10	4.53	1386.88	9731.27
8	219	9788.51	1346.95	-0.01	-39.32	0.0	-10.82	-85.18	-13.52	-4.57	1346.95	9788.51
		-1.097e+04	-1329.14	-0.15	0.0	198.0	-10.82	-124.50	-13.52	-4.57	-1329.14	-1.097e+04
8	223	1.049e+04	1127.80	-0.01	-39.32	0.0	-10.81	-92.27	-11.30	-6.53	1127.80	1.049e+04
		-1.167e+04	-1110.01	-0.16	0.0	198.0	-10.81	-131.59	-11.30	-6.53	-1110.01	-1.167e+04
8	224	9423.29	1483.78	4.80e-03	-39.32	0.0	-4.70	120.50	15.08	3.91	-1501.58	-1.054e+04
		-1.054e+04	-1501.58	0.13	0.0	198.0	-4.70	81.18	15.08	3.91	1483.78	9423.29
8	250	4550.38	686.24	-3.40e-03	-39.32	0.0	-6.08	71.36	6.98	2.25	-695.06	-5685.10
		-5685.10	-695.06	0.07	0.0	198.0	-6.08	32.03	6.98	2.25	686.24	4550.38
8	251	4519.41	702.81	-4.41e-03	-39.32	0.0	-9.03	-31.86	-7.05	-2.23	702.81	4519.41
		-5681.99	-693.96	-0.07	0.0	198.0	-9.03	-71.18	-7.05	-2.23	-693.96	-5681.99

8	253	4418.55	717.65	-4.24e-03	-39.32	0.0	-8.92	-30.84	-7.20	-1.97	717.65	4418.55
		-5581.13	-708.78	-0.07	0.0	198.0	-8.92	-70.17	-7.20	-1.97	-708.78	-5581.13
8	254	4897.32	578.55	-3.65e-03	-39.32	0.0	-6.08	74.86	5.89	3.22	-587.36	-6032.24
		-6032.24	-587.36	0.08	0.0	198.0	-6.08	35.54	5.89	3.22	578.55	4897.32
8	256	4449.51	701.07	-3.47e-03	-39.32	0.0	-6.18	70.34	7.13	1.99	-709.90	-5584.24
		-5584.24	-709.90	0.07	0.0	198.0	-6.18	31.01	7.13	1.99	701.07	4449.51
8	280	7344.21	2010.56	-8.29e-03	-39.32	0.0	-41.78	-63.13	-19.44	-2.11	2010.56	7344.21
		-9048.65	-1839.08	-0.04	0.0	198.0	-41.78	-102.45	-19.44	-2.11	-1839.08	-9048.65
8	281	7327.01	2022.66	-9.75e-03	-39.32	0.0	-41.74	-62.95	-19.56	-2.09	2022.66	7327.01
		-9030.80	-1851.18	-0.04	0.0	198.0	-41.74	-102.28	-19.56	-2.09	-1851.18	-9030.80
8	304	1.445e+04	56.77	6.90e-03	-39.32	0.0	7.85	167.89	5.46	5.30	-1025.24	-1.490e+04
		-1.490e+04	-1025.24	0.20	0.0	198.0	7.85	128.57	5.46	5.30	56.77	1.445e+04
8	308	1.445e+04	59.71	6.70e-03	-39.32	0.0	7.88	167.85	5.49	5.29	-1028.18	-1.489e+04
		-1.489e+04	-1028.18	0.20	0.0	198.0	7.88	128.53	5.49	5.29	59.71	1.445e+04
8	380	4966.09	1408.56	-6.54e-03	-39.32	0.0	-31.51	-38.27	-13.62	-1.47	1408.56	4966.09
		-6503.80	-1288.51	-0.03	0.0	198.0	-31.51	-77.59	-13.62	-1.47	-1288.51	-6503.80
8	381	4951.36	1418.93	-7.79e-03	-39.32	0.0	-31.48	-38.12	-13.73	-1.46	1418.93	4951.36
		-6488.50	-1298.89	-0.03	0.0	198.0	-31.48	-77.44	-13.73	-1.46	-1298.89	-6488.50
8	391	5573.12	404.17	-4.87e-03	-39.32	0.0	13.09	80.06	4.60	2.67	-507.04	-6386.33
		-6386.33	-507.04	0.10	0.0	198.0	13.09	40.74	4.60	2.67	404.17	5573.12
8	396	7552.46	348.32	-4.22e-03	-39.32	0.0	12.70	99.63	4.93	3.28	-627.74	-8282.05
		-8282.05	-627.74	0.12	0.0	198.0	12.70	60.31	4.93	3.28	348.32	7552.46
8	413	4173.39	1207.89	-5.95e-03	-39.32	0.0	-28.09	-29.98	-11.68	-1.26	1207.89	4173.39
		-5655.51	-1104.99	-0.02	0.0	198.0	-28.09	-69.30	-11.68	-1.26	-1104.99	-5655.51
8	414	4158.65	1218.26	-7.20e-03	-39.32	0.0	-28.06	-29.83	-11.79	-1.24	1218.26	4158.65
		-5640.22	-1115.36	-0.02	0.0	198.0	-28.06	-69.15	-11.79	-1.24	-1115.36	-5640.22
8	418	5573.42	403.38	-4.06e-03	-39.32	0.0	13.05	80.07	4.59	2.67	-506.25	-6387.27
		-6387.27	-506.25	0.10	0.0	198.0	13.05	40.75	4.59	2.67	403.38	5573.42
8	420	5570.57	405.89	-4.72e-03	-39.32	0.0	13.08	80.04	4.62	2.66	-508.77	-6383.87
		-6383.87	-508.77	0.10	0.0	198.0	13.08	40.71	4.62	2.66	405.89	5570.57
9	37	6.877e+04	271.75	-0.04	-51.12	0.0	317.31	-676.39	-60.91	-2.61	271.75	6.877e+04
		-7.022e+04	-1.179e+04	0.05	0.0	198.0	317.31	-727.52	-60.91	-2.61	-1.179e+04	-7.022e+04
9	76	8.678e+04	1.372e+04	0.05	-39.32	0.0	-386.04	902.98	70.93	15.74	-320.31	-8.811e+04
		-8.811e+04	-320.31	0.07	0.0	198.0	-386.04	863.65	70.93	15.74	1.372e+04	8.678e+04
9	83	8.662e+04	1.371e+04	0.04	-51.12	0.0	-383.00	908.98	70.84	15.57	-319.17	-8.830e+04
		-8.830e+04	-319.17	0.07	0.0	198.0	-383.00	857.86	70.84	15.57	1.371e+04	8.662e+04
9	84	8.680e+04	1.372e+04	0.04	-39.32	0.0	-384.91	903.10	70.92	15.69	-320.00	-8.812e+04
		-8.812e+04	-320.00	0.07	0.0	198.0	-384.91	863.78	70.92	15.69	1.372e+04	8.680e+04
9	221	1.389e+04	25.73	-0.01	-39.32	0.0	7.28	-126.95	-2.02	-5.94	25.73	1.389e+04
		-1.514e+04	-386.21	-0.02	0.0	198.0	7.28	-166.27	-2.02	-5.94	-386.21	-1.514e+04
9	224	1.404e+04	416.63	7.07e-03	-39.32	0.0	-4.53	167.65	2.18	5.38	-27.46	-1.526e+04
		-1.526e+04	-27.46	0.02	0.0	198.0	-4.53	128.32	2.18	5.38	416.63	1.404e+04
9	226	1.636e+04	379.50	8.25e-03	-39.32	0.0	-6.74	191.00	1.97	2.09	-17.23	-1.757e+04
		-1.757e+04	-17.23	0.01	0.0	198.0	-6.74	151.68	1.97	2.09	379.50	1.636e+04
9	227	1.620e+04	15.49	-0.01	-39.32	0.0	9.49	-150.30	-1.81	-2.66	15.49	1.620e+04
		-1.745e+04	-349.08	-0.01	0.0	198.0	9.49	-189.63	-1.81	-2.66	-349.08	-1.745e+04
9	232	1.719e+04	414.12	8.64e-03	-39.32	0.0	-5.74	199.44	2.15	1.86	-12.34	-1.841e+04
		-1.841e+04	-12.34	9.48e-03	0.0	198.0	-5.74	160.11	2.15	1.86	414.12	1.719e+04
9	250	6253.95	159.75	-4.19e-03	-39.32	0.0	0.43	88.88	0.84	2.59	-14.62	-7450.66
		-7450.66	-14.62	0.01	0.0	198.0	0.43	49.55	0.84	2.59	159.75	6253.95
9	251	6277.43	19.98	-4.88e-03	-39.32	0.0	11.73	-49.72	-1.35	-3.38	19.98	6277.43
		-7460.82	-255.91	-8.74e-03	0.0	198.0	11.73	-89.05	-1.35	-3.38	-255.91	-7460.82
9	258	7812.81	158.36	-4.88e-03	-39.32	0.0	-0.16	104.63	0.82	0.84	-7.02	-9011.83
		-9011.83	-7.02	8.08e-03	0.0	198.0	-0.16	65.31	0.82	0.84	158.36	7812.81
9	259	7838.60	12.38	-5.65e-03	-39.32	0.0	12.32	-65.48	-1.33	-1.63	12.38	7838.60
		-9019.68	-254.51	-2.48e-03	0.0	198.0	12.32	-104.80	-1.33	-1.63	-254.51	-9019.68
9	261	8162.28	6.28	-5.86e-03	-39.32	0.0	10.80	-68.76	-1.07	-1.34	6.28	8162.28
		-9345.71	-205.57	-3.54e-03	0.0	198.0	10.80	-108.09	-1.07	-1.34	-205.57	-9345.71
9	283	4.577e+04	181.51	-0.03	-39.32	0.0	212.32	-448.32	-40.64	-1.79	181.51	4.577e+04
		-4.689e+04	-7864.98	0.04	0.0	198.0	212.32	-487.64	-40.64	-1.79	-7864.98	-4.689e+04
9	302	5.766e+04	9133.63	0.03	-39.32	0.0	-255.31	608.51	47.20	10.36	-212.63	-5.894e+04
		-5.894e+04	-212.63	0.05	0.0	198.0	-255.31	569.19	47.20	10.36	9133.63	5.766e+04
9	306	5.767e+04	9132.38	0.03	-39.32	0.0	-254.55	608.60	47.20	10.33	-212.43	-5.894e+04
		-5.894e+04	-212.43	0.05	0.0	198.0	-254.55	569.27	47.20	10.33	9132.38	5.767e+04
9	383	3.187e+04	128.02	-0.02	-39.32	0.0	150.78	-307.97	-28.54	-1.39	128.02	3.187e+04
		-3.301e+04	-5522.58	0.03	0.0	198.0	150.78	-347.30	-28.54	-1.39	-5522.58	-3.301e+04
9	394	3.288e+04	5542.33	0.02	-39.32	0.0	-149.40	358.07	28.64	6.46	-129.19	-3.413e+04
		-3.413e+04	-129.19	0.03	0.0	198.0	-149.40	318.74	28.64	6.46	5542.33	3.288e+04
9	398	3.289e+04	5541.27	0.02	-39.32	0.0	-148.75	358.14	28.64	6.43	-129.02	-3.413e+04
		-3.413e+04	-129.02	0.03	0.0	198.0	-148.75	318.81	28.64	6.43	5541.27	3.289e+04
9	414	2.724e+04	110.06	-0.02	-39.32	0.0	129.71	-261.27	-24.50	-1.23	110.06	2.724e+04
		-2.839e+04	-4741.52	0.02	0.0	198.0	129.71	-300.59	-24.50	-1.23	-4741.52	-2.839e+04
9	416	2.723e+04	110.23	-0.02	-39.32	0.0	130.36	-261.20	-24.51	-1.26	110.23	2.723e+04
		-2.838e+04	-4742.59	0.02	0.0	198.0	130.36	-300.52	-24.51	-1.26	-4742.59	-2.838e+04
9	417	2.559e+04	4456.81	0.01	-39.32	0.0	-117.76	284.42	23.03	5.25	-103.89	-2.683e+04
		-2.683e+04	-103.89	0.03	0.0	198.0	-117.76	245.10	23.03	5.25	4456.81	2.559e+04
10	32	1.242e+04	2965.23	-0.02	-39.32	0.0	-5.83	-110.97	-31.20	-3.03	2965.23	1.242e+04

		-1.345e+04	-3211.55	-0.06	0.0	198.0	-5.83	-150.29	-31.20	-3.03	-3211.55	-1.345e+04
10	33	1.227e+04	2984.58	-0.02	-51.12	0.0	-8.05	-105.29	-31.39	-3.01	2984.58	1.227e+04
		-1.364e+04	-3230.91	-0.06	0.0	198.0	-8.05	-156.41	-31.39	-3.01	-3230.91	-1.364e+04
10	83	1.670e+04	3571.20	0.02	-51.12	0.0	-52.01	202.38	28.80	7.69	-2131.25	-1.831e+04
		-1.831e+04	-2131.25	0.29	0.0	198.0	-52.01	151.26	28.80	7.69	3571.20	1.670e+04
10	84	1.687e+04	3572.37	0.02	-39.32	0.0	-49.80	196.50	28.81	7.69	-2132.42	-1.814e+04
		-1.814e+04	-2132.42	0.29	0.0	198.0	-49.80	157.18	28.81	7.69	3572.37	1.687e+04
10	87	1.668e+04	3553.01	0.01	-51.12	0.0	-52.02	202.18	28.62	7.71	-2113.07	-1.829e+04
		-1.829e+04	-2113.07	0.29	0.0	198.0	-52.02	151.06	28.62	7.71	3553.01	1.668e+04
10	224	7185.05	1514.38	3.93e-03	-39.32	0.0	-7.47	98.06	15.21	3.90	-1498.12	-8337.65
		-8337.65	-1498.12	0.13	0.0	198.0	-7.47	58.74	15.21	3.90	1514.38	7185.05
10	229	8832.37	591.93	-0.02	-39.32	0.0	-7.13	-75.29	-6.07	-1.36	591.93	8832.37
		-9967.68	-609.54	-0.06	0.0	198.0	-7.13	-114.61	-6.07	-1.36	-609.54	-9967.68
10	232	8890.31	666.96	4.79e-03	-39.32	0.0	-7.49	115.29	6.65	1.28	-649.29	-1.004e+04
		-1.004e+04	-649.29	0.06	0.0	198.0	-7.49	75.97	6.65	1.28	666.96	8890.31
10	253	3246.90	716.17	-5.31e-03	-39.32	0.0	-7.28	-18.90	-7.27	-1.99	716.17	3246.90
		-4388.47	-724.24	-0.07	0.0	198.0	-7.28	-58.22	-7.27	-1.99	-724.24	-4388.47
10	261	4092.89	294.02	-5.38e-03	-39.32	0.0	-7.27	-27.44	-3.01	-0.69	294.02	4092.89
		-5233.79	-302.79	-0.03	0.0	198.0	-7.27	-66.77	-3.01	-0.69	-302.79	-5233.79
10	264	4077.48	294.64	-2.39e-03	-39.32	0.0	-7.42	66.66	2.93	0.66	-285.85	-5227.19
		-5227.19	-285.85	0.03	0.0	198.0	-7.42	27.33	2.93	0.66	294.64	4077.48
10	280	8088.63	1978.16	-0.01	-39.32	0.0	-6.34	-67.44	-20.81	-2.02	1978.16	8088.63
		-9158.25	-2142.38	-0.04	0.0	198.0	-6.34	-106.77	-20.81	-2.02	-2142.38	-9158.25
10	281	8101.99	1990.28	-0.01	-39.32	0.0	-6.35	-67.58	-20.93	-2.01	1990.28	8101.99
		-9171.80	-2154.50	-0.04	0.0	198.0	-6.35	-106.90	-20.93	-2.01	-2154.50	-9171.80
10	306	1.105e+04	2380.24	0.01	-39.32	0.0	-35.65	137.54	19.19	5.12	-1420.27	-1.228e+04
		-1.228e+04	-1420.27	0.19	0.0	198.0	-35.65	98.21	19.19	5.12	2380.24	1.105e+04
10	308	1.104e+04	2368.12	9.03e-03	-39.32	0.0	-35.66	137.40	19.07	5.14	-1408.15	-1.227e+04
		-1.227e+04	-1408.15	0.20	0.0	198.0	-35.66	98.08	19.07	5.14	2368.12	1.104e+04
10	380	5491.90	1385.94	-8.94e-03	-39.32	0.0	-6.64	-41.33	-14.58	-1.42	1385.94	5491.90
		-6584.22	-1500.88	-0.03	0.0	198.0	-6.64	-80.65	-14.58	-1.42	-1500.88	-6584.22
10	381	5503.35	1396.33	-9.96e-03	-39.32	0.0	-6.65	-41.45	-14.68	-1.41	1396.33	5503.35
		-6595.84	-1511.28	-0.03	0.0	198.0	-6.65	-80.77	-14.68	-1.41	-1511.28	-6595.84
10	400	5359.53	964.01	3.18e-03	-39.32	0.0	-13.51	79.86	8.35	3.17	-689.90	-6559.64
		-6559.64	-689.90	0.12	0.0	198.0	-13.51	40.54	8.35	3.17	964.01	5359.53
10	413	4626.32	1188.53	-8.01e-03	-39.32	0.0	-6.74	-32.62	-12.50	-1.22	1188.53	4626.32
		-5726.21	-1287.05	-0.02	0.0	198.0	-6.74	-71.95	-12.50	-1.22	-1287.05	-5726.21
10	414	4637.77	1198.92	-9.03e-03	-39.32	0.0	-6.75	-32.74	-12.61	-1.21	1198.92	4637.77
		-5737.83	-1297.45	-0.02	0.0	198.0	-6.75	-72.06	-12.61	-1.21	-1297.45	-5737.83
10	420	3757.81	587.67	2.04e-03	-39.32	0.0	-7.95	63.63	5.44	2.57	-489.13	-4948.41
		-4948.41	-489.13	0.10	0.0	198.0	-7.95	24.31	5.44	2.57	587.67	3757.81
11	33	1561.27	3197.43	-2.60e-03	-180.12	0.0	-23.66	82.57	33.57	0.13	-2845.56	-1838.43
		-3186.45	-2845.56	-0.12	0.0	180.0	-23.66	-97.55	33.57	0.13	3197.43	-3186.45
11	36	971.29	3173.82	-2.02e-03	-107.03	0.0	-13.50	45.73	33.31	0.16	-2821.89	-786.34
		-2187.25	-2821.89	-0.12	0.0	180.0	-13.50	-61.30	33.31	0.16	3173.82	-2187.25
11	79	5393.34	3160.15	-9.00e-03	-428.71	0.0	-70.02	122.35	-102.48	3.35	3160.15	2250.75
		-1.431e+04	-2630.81	0.31	163.22	180.0	-70.02	-306.36	60.74	3.35	-596.89	-1.431e+04
11	83	5403.98	3182.68	-9.36e-03	-428.71	0.0	-70.01	122.08	-102.73	3.38	3182.68	2275.55
		-1.433e+04	-2636.44	0.31	163.22	180.0	-70.01	-306.64	60.48	3.38	-619.40	-1.433e+04
11	150	1.070e+04	2270.79	-7.57e-03	141.56	0.0	-28.21	-167.88	-16.40	-0.30	2270.79	1.070e+04
		-6773.66	-681.01	-0.03	0.0	180.0	-28.21	-26.32	-16.40	-0.30	-681.01	-6773.66
11	210	9007.26	19.32	-6.64e-03	-124.85	0.0	-18.02	-57.15	0.26	4.00	-26.92	9007.26
		-1.252e+04	-26.92	0.16	0.0	180.0	-18.02	-182.00	0.26	4.00	19.32	-1.252e+04
11	213	7154.03	575.52	-5.84e-03	-124.85	0.0	-17.95	-36.56	6.36	3.39	-568.51	7154.03
		-1.066e+04	-568.51	0.10	0.0	180.0	-17.95	-161.41	6.36	3.39	575.52	-1.066e+04
11	224	1220.29	1527.66	2.83e-03	-124.85	0.0	-18.18	47.19	-17.11	2.42	1527.66	-385.07
		-3126.86	-1551.31	0.10	0.0	180.0	-18.18	-77.66	-17.11	2.42	-1551.31	-3126.86
11	232	1103.15	656.48	2.92e-03	-124.85	0.0	-18.21	70.79	-7.43	-2.12	656.48	-2508.86
		-2508.86	-681.39	0.03	0.0	180.0	-18.21	-54.06	-7.43	-2.12	-681.39	-1003.44
11	243	3573.86	5.56	2.79e-03	-124.85	0.0	-18.16	121.64	-0.04	-1.97	5.56	-7085.33
		-7085.33	-2.01	-0.08	0.0	180.0	-18.16	-3.21	-0.04	-1.97	-2.01	3573.86
11	253	1091.91	742.45	-1.92e-03	-124.85	0.0	-18.05	69.69	8.18	-1.18	-730.85	-2408.57
		-2408.57	-730.85	-0.05	0.0	180.0	-18.05	-55.16	8.18	-1.18	742.45	-1101.41
11	256	1089.70	722.86	-1.56e-03	-124.85	0.0	-18.18	55.29	-8.10	1.18	722.86	-1113.73
		-2397.80	-734.76	0.05	0.0	180.0	-18.18	-69.56	-8.10	1.18	-734.76	-2397.80
11	261	1060.47	309.80	-1.90e-03	-124.85	0.0	-18.03	57.97	3.37	1.07	-297.58	-1353.57
		-2156.23	-297.58	-0.01	0.0	180.0	-18.03	-66.88	3.37	1.07	309.80	-2156.23
11	264	1060.96	289.58	-1.46e-03	-124.85	0.0	-18.19	67.01	-3.29	-1.07	289.58	-2168.73
		-2168.73	-302.11	0.01	0.0	180.0	-18.19	-57.84	-3.29	-1.07	-302.11	-1342.98
11	281	1078.60	2132.15	-1.78e-03	-124.85	0.0	-16.62	57.44	22.39	0.09	-1897.59	-1294.13
		-2191.24	-1897.59	-0.08	0.0	180.0	-16.62	-67.41	22.39	0.09	2132.15	-2191.24
11	282	1080.69	2117.14	-2.09e-03	-124.85	0.0	-16.61	57.26	22.22	0.11	-1882.58	-1277.59
		-2207.71	-1882.58	-0.08	0.0	180.0	-16.61	-67.59	22.22	0.11	2117.14	-2207.71
11	304	3615.13	2106.22	-6.04e-03	-290.57	0.0	-47.53	83.96	-68.31	2.23	2106.22	1431.99
		-9607.07	-1753.75	0.21	108.81	180.0	-47.53	-206.62	40.50	2.23	-397.39	-9607.07
11	306	3622.22	2121.23	-6.29e-03	-290.57	0.0	-47.52	83.78	-68.48	2.25	2121.23	1448.53
		-9623.54	-1757.50	0.21	108.81	180.0	-47.52	-206.80	40.33	2.25	-412.40	-9623.54

11	339	6383.00	1512.55	-4.95e-03	40.88	0.0	-26.41	-85.15	-10.92	-0.20	1512.55	6383.00
		-5265.32	-452.74	-0.02	0.0	180.0	-26.41	-44.27	-10.92	-0.20	-452.74	-5265.32
11	381	1062.61	1495.56	-1.70e-03	-124.85	0.0	-17.07	58.98	15.71	0.06	-1331.41	-1436.35
		-2056.63	-1331.41	-0.06	0.0	180.0	-17.07	-65.87	15.71	0.06	1495.56	-2056.63
11	382	1062.63	1482.69	-1.97e-03	-124.85	0.0	-17.06	58.82	15.56	0.08	-1318.54	-1422.18
		-2070.75	-1318.54	-0.06	0.0	180.0	-17.06	-66.03	15.56	0.08	1482.69	-2070.75
11	396	2222.77	792.89	-3.42e-03	-157.99	0.0	-24.66	39.36	-18.45	1.44	792.89	1340.31
		-5794.44	-612.70	0.13	21.76	180.0	-24.66	-118.63	3.32	1.44	-568.67	-5794.44
11	398	2229.87	805.76	-3.63e-03	-157.99	0.0	-24.65	39.20	-18.59	1.46	805.76	1354.48
		-5808.56	-622.34	0.13	21.76	180.0	-24.65	-118.79	3.17	1.46	-581.53	-5808.56
11	414	1061.33	1283.93	-1.67e-03	-124.85	0.0	-17.22	59.50	13.48	0.05	-1143.26	-1484.41
		-2011.12	-1143.26	-0.05	0.0	180.0	-17.22	-65.35	13.48	0.05	1283.93	-2011.12
11	415	1061.36	1271.07	-1.94e-03	-124.85	0.0	-17.21	59.34	13.34	0.07	-1130.39	-1470.23
		-2025.24	-1130.39	-0.05	0.0	180.0	-17.21	-65.51	13.34	0.07	1271.07	-2025.24
11	418	1822.64	444.99	-2.70e-03	-124.85	0.0	-18.91	29.59	-5.73	1.19	444.99	1193.32
		-4716.69	-586.05	0.10	0.0	180.0	-18.91	-95.26	-5.73	1.19	-586.05	-4716.69
11	419	1829.74	457.86	-2.91e-03	-124.85	0.0	-18.90	29.43	-5.87	1.21	457.86	1207.50
		-4730.82	-598.91	0.10	0.0	180.0	-18.90	-95.42	-5.87	1.21	-598.91	-4730.82
24	6	16.81	-1.80	2.28e-04	-7.65	0.0	-3.87	-10.22	0.02	-0.08	-2.73	16.81
		-523.91	-2.73	7.09e-05	0.0	38.5	-3.87	-17.87	0.02	-0.08	-1.80	-523.91
24	36	-3232.67	2.243e+04	-2.26e-03	-7.65	0.0	-53.61	-73.18	-597.42	-28.47	2.243e+04	-3232.67
		-6197.27	-570.33	0.09	0.0	38.5	-53.61	-80.83	-597.42	-28.47	-570.33	-6197.27
24	79	-1.123e+04	766.87	-8.41e-03	-9.94	0.0	-170.90	-232.43	676.69	48.39	-2.663e+04	-1.123e+04
		-2.037e+04	-2.663e+04	-0.09	69.82	38.5	-170.90	-242.37	746.51	48.39	766.87	-2.037e+04
24	83	-1.125e+04	766.01	-8.62e-03	-9.94	0.0	-170.15	-232.80	676.61	48.35	-2.663e+04	-1.125e+04
		-2.040e+04	-2.663e+04	-0.09	69.82	38.5	-170.15	-242.74	746.43	48.35	766.01	-2.040e+04
24	97	52.97	-1.00	6.31e-04	-9.94	0.0	-9.65	-12.73	0.15	-0.04	-6.96	52.97
		-628.36	-6.96	7.36e-05	0.0	38.5	-9.65	-22.67	0.15	-0.04	-1.00	-628.36
24	210	-9428.74	26.27	-7.33e-03	-7.65	0.0	-38.07	-191.96	14.42	11.62	-541.50	-9428.74
		-1.697e+04	-541.50	0.01	0.0	38.5	-38.07	-199.61	14.42	11.62	26.27	-1.697e+04
24	211	1.553e+04	579.49	9.02e-03	-7.65	0.0	37.93	167.08	-15.77	-12.59	579.49	9248.57
		9248.57	-40.14	-0.01	0.0	38.5	37.93	159.44	-15.77	-12.59	-40.14	1.553e+04
24	222	-6132.32	44.09	-4.25e-03	-7.65	0.0	-24.41	-128.28	35.66	18.47	-1349.83	-6132.32
		-1.122e+04	-1349.83	0.01	0.0	38.5	-24.41	-135.93	35.66	18.47	44.09	-1.122e+04
24	223	1.007e+04	1356.72	5.16e-03	-7.65	0.0	17.30	106.66	-35.99	-18.87	1356.72	6109.26
		6109.26	-50.15	-0.01	0.0	38.5	17.30	99.01	-35.99	-18.87	-50.15	1.007e+04
24	242	-4651.94	12.13	-3.48e-03	-7.65	0.0	-21.14	-100.05	7.10	5.72	-267.35	-4651.94
		-8651.05	-267.35	4.98e-03	0.0	38.5	-21.14	-107.70	7.10	5.72	12.13	-8651.05
24	243	7620.25	261.58	4.04e-03	-7.65	0.0	11.52	79.80	-7.02	-5.86	261.58	4695.41
		4695.41	-14.73	-4.87e-03	0.0	38.5	11.52	72.15	-7.02	-5.86	-14.73	7620.25
24	254	-3027.39	20.65	-1.97e-03	-7.65	0.0	-14.48	-68.67	17.55	9.13	-665.50	-3027.39
		-5818.23	-665.50	6.55e-03	0.0	38.5	-14.48	-76.31	17.55	9.13	20.65	-5818.23
24	255	4787.43	659.73	2.53e-03	-7.65	0.0	4.86	48.41	-17.47	-9.28	659.73	3070.86
		3070.86	-23.25	-6.44e-03	0.0	38.5	4.86	40.77	-17.47	-9.28	-23.25	4787.43
24	267	18.88	-1.64	2.47e-04	-7.65	0.0	-4.56	-10.19	0.03	-0.08	-2.79	18.88
		-520.65	-2.79	6.54e-05	0.0	38.5	-4.56	-17.84	0.03	-0.08	-1.64	-520.65
24	282	-2147.44	1.495e+04	-1.41e-03	-7.65	0.0	-37.72	-52.16	-398.27	-19.00	1.495e+04	-2147.44
		-4302.89	-380.66	0.06	0.0	38.5	-37.72	-59.81	-398.27	-19.00	-380.66	-4302.89
24	304	-7485.34	511.08	-5.57e-03	-7.65	0.0	-114.20	-156.30	451.13	32.25	-1.775e+04	-7485.34
		-1.365e+04	-1.775e+04	-0.06	46.55	38.5	-114.20	-163.95	497.68	32.25	511.08	-1.365e+04
24	306	-7497.45	510.50	-5.71e-03	-7.65	0.0	-113.69	-156.55	451.08	32.22	-1.775e+04	-7497.45
		-1.367e+04	-1.775e+04	-0.06	46.55	38.5	-113.69	-164.20	497.62	32.22	510.50	-1.367e+04
24	313	37.78	-0.83	4.57e-04	-7.65	0.0	-6.70	-9.83	0.11	-0.03	-5.02	37.78
		-488.05	-5.02	5.61e-05	0.0	38.5	-6.70	-17.48	0.11	-0.03	-0.83	-488.05
24	367	19.74	-1.54	2.57e-04	-7.65	0.0	-4.64	-10.17	0.03	-0.08	-2.82	19.74
		-519.08	-2.82	6.19e-05	0.0	38.5	-4.64	-17.82	0.03	-0.08	-1.54	-519.08
24	369	31.85	-0.96	4.02e-04	-7.65	0.0	-5.14	-9.92	0.09	-0.05	-4.37	31.85
		-497.36	-4.37	5.50e-05	0.0	38.5	-5.14	-17.57	0.09	-0.05	-0.96	-497.36
24	382	-1497.00	1.047e+04	-9.06e-04	-7.65	0.0	-27.82	-39.56	-278.78	-13.32	1.047e+04	-1497.00
		-3167.22	-266.89	0.04	0.0	38.5	-27.82	-47.21	-278.78	-13.32	-266.89	-3167.22
24	396	-4934.43	311.25	-3.55e-03	-7.65	0.0	-75.59	-106.56	291.48	19.16	-1.109e+04	-4934.43
		-9184.27	-1.109e+04	-0.04	9.31	38.5	-75.59	-114.21	300.79	19.16	311.25	-9184.27
24	398	-4944.81	310.75	-3.67e-03	-7.65	0.0	-75.16	-106.78	291.43	19.14	-1.109e+04	-4944.81
		-9202.88	-1.109e+04	-0.04	9.31	38.5	-75.16	-114.42	300.74	19.14	310.75	-9202.88
24	410	30.40	-1.01	3.84e-04	-7.65	0.0	-5.09	-9.95	0.08	-0.05	-4.15	30.40
		-499.94	-4.15	5.48e-05	0.0	38.5	-5.09	-17.60	0.08	-0.05	-1.01	-499.94
24	411	20.02	-1.50	2.60e-04	-7.65	0.0	-4.66	-10.17	0.03	-0.08	-2.83	20.02
		-518.55	-2.83	6.08e-05	0.0	38.5	-4.66	-17.81	0.03	-0.08	-1.50	-518.55
24	415	-1280.28	8970.48	-7.40e-04	-7.65	0.0	-24.51	-35.36	-238.95	-11.43	8970.48	-1280.28
		-2788.84	-228.98	0.03	0.0	38.5	-24.51	-43.01	-238.95	-11.43	-228.98	-2788.84
24	418	-4123.27	250.81	-2.90e-03	-7.65	0.0	-63.52	-90.75	241.51	15.25	-9047.36	-4123.27
		-7764.45	-9047.36	-0.03	0.0	38.5	-63.52	-98.40	241.51	15.25	250.81	-7764.45
24	419	-4133.65	250.31	-3.03e-03	-7.65	0.0	-63.08	-90.97	241.46	15.23	-9046.03	-4133.65
		-7783.07	-9046.03	-0.03	0.0	38.5	-63.08	-98.61	241.46	15.23	250.31	-7783.07
25	9	150.22	-20.87	7.89e-05	-13.30	0.0	-7.53	23.81	0.15	-0.04	-28.85	-733.48
		-733.48	-28.85	3.05e-04	0.0	51.5	-7.53	10.51	0.15	-0.04	-20.87	150.22
25	36	5133.95	1.815e+04	-2.68e-03	-10.23	0.0	156.39	-45.08	692.58	-28.47	-1.752e+04	5133.95

		2549.12	-1.752e+04	-0.13	0.0	51.5	156.39	-55.30	692.58	-28.47	1.815e+04	2549.12
25	79	1.907e+04	2.026e+04	-9.15e-03	-13.30	0.0	39.10	-195.90	-869.92	48.39	2.026e+04	1.907e+04
		8641.31	-2.214e+04	0.18	93.40	51.5	39.10	-209.19	-776.52	48.39	-2.214e+04	8641.31
25	84	1.927e+04	2.028e+04	-9.33e-03	-10.23	0.0	42.43	-201.66	-870.02	48.37	2.028e+04	1.927e+04
		8616.82	-2.213e+04	0.18	93.40	51.5	42.43	-211.89	-776.62	48.37	-2.213e+04	8616.82
25	179	1.605e+04	4058.93	-8.47e-03	-13.30	0.0	-88.65	-162.65	-22.86	-2.20	4058.93	1.605e+04
		7329.84	2881.65	-0.02	0.0	51.5	-88.65	-175.95	-22.86	-2.20	2881.65	7329.84
25	209	1.210e+04	-109.34	-6.82e-03	-10.23	0.0	27.17	-121.66	17.50	1.70	-501.91	1.210e+04
		5571.93	-501.91	5.92e-03	0.0	51.5	27.17	-131.89	17.50	1.70	-109.34	5571.93
25	210	1.592e+04	248.69	-7.62e-03	-10.23	0.0	23.72	-164.02	-4.36	11.62	248.69	1.592e+04
		7207.66	-521.59	0.02	0.0	51.5	23.72	-174.25	-4.36	11.62	-521.59	7207.66
25	211	-6757.36	680.82	8.47e-03	-10.23	0.0	-23.86	195.34	3.01	-12.59	-20.10	-1.655e+04
		-1.655e+04	-20.10	-0.02	0.0	51.5	-23.86	185.12	3.01	-12.59	680.82	-6757.36
25	212	-5121.64	730.51	7.78e-03	-10.23	0.0	-27.31	152.98	-18.84	-2.68	730.51	-1.274e+04
		-1.274e+04	268.57	-7.78e-03	0.0	51.5	-27.31	142.76	-18.84	-2.68	268.57	-5121.64
25	221	-719.60	587.13	-1.34e-03	-10.23	0.0	9.84	40.34	38.43	-14.58	-1296.04	-2533.60
		-2533.60	-1296.04	-0.02	0.0	51.5	9.84	30.11	38.43	-14.58	587.13	-719.60
25	224	1593.84	1350.53	1.33e-03	-10.23	0.0	-16.95	-5.76	-38.76	14.18	1350.53	1593.84
		1034.02	-549.97	0.02	0.0	51.5	-16.95	-15.99	-38.76	14.18	-549.97	1034.02
25	241	5708.41	-57.85	-3.47e-03	-10.23	0.0	10.96	-51.01	8.64	0.79	-251.45	5708.41
		2818.14	-251.45	2.98e-03	0.0	51.5	10.96	-61.24	8.64	0.79	-57.85	2818.14
25	242	7602.31	119.22	-3.86e-03	-10.23	0.0	9.21	-72.03	-2.12	5.72	119.22	7602.31
		3629.67	-259.48	9.19e-03	0.0	51.5	9.21	-82.26	-2.12	5.72	-259.48	3629.67
25	243	-3371.77	246.30	3.52e-03	-10.23	0.0	-18.82	107.98	2.20	-5.86	-136.63	-8669.00
		-8669.00	-136.63	-8.90e-03	0.0	51.5	-18.82	97.75	2.20	-5.86	246.30	-3371.77
25	244	-2560.24	234.04	3.08e-03	-10.23	0.0	-20.57	86.96	-8.56	-0.94	234.04	-6775.09
		-6775.09	44.68	-2.69e-03	0.0	51.5	-20.57	76.73	-8.56	-0.94	44.68	-2560.24
25	250	4557.50	643.91	-1.86e-03	-10.23	0.0	-3.82	-38.44	-18.56	7.54	643.91	4557.50
		2314.56	-307.76	5.27e-03	0.0	51.5	-3.82	-48.67	-18.56	7.54	-307.76	2314.56
25	251	-2056.66	294.59	1.61e-03	-10.23	0.0	-5.79	74.39	18.64	-7.69	-661.32	-5624.18
		-5624.18	-661.32	-4.99e-03	0.0	51.5	-5.79	64.16	18.64	-7.69	294.59	-2056.66
25	269	116.90	-14.79	4.66e-05	-10.23	0.0	-5.28	18.27	0.11	-0.03	-20.39	-560.56
		-560.56	-20.39	2.22e-04	0.0	51.5	-5.28	8.04	0.11	-0.03	-14.79	116.90
25	282	3245.31	1.210e+04	-1.85e-03	-10.23	0.0	102.28	-24.06	461.73	-19.00	-1.168e+04	3245.31
		1742.84	-1.168e+04	-0.08	0.0	51.5	102.28	-34.29	461.73	-19.00	1.210e+04	1742.84
25	304	1.264e+04	1.350e+04	-6.12e-03	-10.23	0.0	25.80	-128.20	-579.94	32.25	1.350e+04	1.264e+04
		5777.62	-1.476e+04	0.12	62.26	51.5	25.80	-138.43	-517.68	32.25	-1.476e+04	5777.62
25	306	1.267e+04	1.351e+04	-6.28e-03	-10.23	0.0	26.31	-128.45	-580.00	32.22	1.351e+04	1.267e+04
		5787.97	-1.475e+04	0.12	62.26	51.5	26.31	-138.68	-517.73	32.22	-1.475e+04	5787.97
25	354	1.063e+04	2704.79	-5.67e-03	-10.23	0.0	-59.36	-106.04	-15.23	-1.47	2704.79	1.063e+04
		4903.31	1920.23	-0.01	0.0	51.5	-59.36	-116.26	-15.23	-1.47	1920.23	4903.31
25	369	120.51	-12.33	-7.26e-05	-10.23	0.0	-5.14	18.18	0.09	-0.05	-16.89	-552.39
		-552.39	-16.89	1.98e-04	0.0	51.5	-5.14	7.95	0.09	-0.05	-12.33	120.51
25	382	2112.37	8465.99	-1.36e-03	-10.23	0.0	70.18	-11.46	323.22	-13.32	-8179.98	2112.37
		1258.98	-8179.98	-0.06	0.0	51.5	70.18	-21.68	323.22	-13.32	8465.99	1258.98
25	396	8155.86	8179.07	-4.05e-03	-10.23	0.0	22.41	-78.46	-344.73	19.16	8179.07	8155.86
		3851.82	-9254.04	0.07	12.45	51.5	22.41	-88.69	-332.28	19.16	-9254.04	3851.82
25	398	8175.76	8187.10	-4.19e-03	-10.23	0.0	22.84	-78.67	-344.78	19.14	8187.10	8175.76
		3860.69	-9248.44	0.07	12.45	51.5	22.84	-88.90	-332.33	19.14	-9248.44	3860.69
25	406	1685.97	528.62	-1.20e-03	-10.23	0.0	-15.65	-6.69	-2.98	-0.34	528.62	1685.97
		1077.94	375.00	-2.64e-03	0.0	51.5	-15.65	-16.92	-2.98	-0.34	375.00	1077.94
25	410	121.72	-11.51	-9.57e-05	-10.23	0.0	-5.09	18.15	0.08	-0.05	-15.72	-549.67
		-549.67	-15.72	1.90e-04	0.0	51.5	-5.09	7.92	0.08	-0.05	-11.51	121.72
25	415	1734.92	7255.72	-1.20e-03	-10.23	0.0	59.49	-7.26	277.05	-11.43	-7012.51	1734.92
		1097.78	-7012.51	-0.05	0.0	51.5	59.49	-17.49	277.05	-11.43	7255.72	1097.78
25	418	6730.00	6572.85	-3.39e-03	-10.23	0.0	20.48	-62.65	-274.49	15.25	6572.85	6730.00
		3240.13	-7563.34	0.06	0.0	51.5	20.48	-72.88	-274.49	15.25	-7563.34	3240.13
25	419	6749.89	6580.88	-3.53e-03	-10.23	0.0	20.92	-62.86	-274.54	15.23	6580.88	6749.89
		3249.01	-7557.75	0.06	0.0	51.5	20.92	-73.09	-274.54	15.23	-7557.75	3249.01
30	36	2549.12	2.243e+04	4.17e-03	-17.87	0.0	51.39	-55.30	47.58	-28.47	1.815e+04	2549.12
		-3232.67	1.815e+04	-0.06	0.0	90.0	51.39	-73.18	47.58	-28.47	2.243e+04	-3232.67
30	79	8641.31	-2.214e+04	0.01	-23.24	0.0	-65.90	-209.19	-131.52	48.39	-2.214e+04	8641.31
		-1.123e+04	-2.691e+04	0.10	163.21	90.0	-65.90	-232.43	31.69	48.39	-2.663e+04	-1.123e+04
30	83	8656.84	-2.213e+04	0.01	-23.24	0.0	-65.15	-209.57	-131.61	48.35	-2.213e+04	8656.84
		-1.125e+04	-2.690e+04	0.10	163.21	90.0	-65.15	-232.80	31.61	48.35	-2.663e+04	-1.125e+04
30	84	8616.82	-2.213e+04	0.01	-17.87	0.0	-62.57	-211.89	-131.62	48.37	-2.213e+04	8616.82
		-1.126e+04	-2.690e+04	0.10	163.21	90.0	-62.57	-229.76	31.59	48.37	-2.663e+04	-1.126e+04
30	179	7329.84	2881.65	0.01	-23.24	0.0	-88.65	-175.95	-22.86	-2.20	2881.65	7329.84
		-9550.93	824.28	-5.21e-03	0.0	90.0	-88.65	-199.18	-22.86	-2.20	824.28	-9550.93
30	203	8397.24	320.40	-5.73e-03	-17.87	0.0	6.67	170.25	3.41	-1.89	135.63	-6120.80
		-6120.80	135.63	-0.02	0.0	90.0	6.67	152.37	3.41	-1.89	320.40	8397.24
30	210	7207.66	-521.59	0.01	-17.87	0.0	-4.60	-175.91	0.71	11.62	-521.59	7207.66
		-9428.74	-541.50	0.05	0.0	90.0	-4.60	-193.79	0.71	11.62	-541.50	-9428.74
30	211	9248.57	680.82	-7.01e-03	-17.87	0.0	4.46	186.78	-2.06	-12.59	680.82	-6757.36
		-6757.36	579.49	-0.05	0.0	90.0	4.46	168.91	-2.06	-12.59	579.49	9248.57
30	218	4541.84	-623.46	5.47e-03	-17.87	0.0	-8.86	-106.83	-8.58	15.26	-623.46	4541.84
		-5876.92	-1272.10	0.04	0.0	90.0	-8.86	-124.70	-8.58	15.26	-1272.10	-5876.92

30	222	4732.81	-787.02	5.86e-03	-17.87	0.0	-8.20	-111.79	-6.94	18.47	-787.02	4732.81
		-6132.32	-1349.83	0.05	0.0	90.0	-8.20	-129.66	-6.94	18.47	-1349.83	-6132.32
30	223	6109.26	1356.72	-4.63e-03	-17.87	0.0	1.09	125.91	6.60	-18.87	824.18	-4418.39
		-4418.39	824.18	-0.05	0.0	90.0	1.09	108.04	6.60	-18.87	1356.72	6109.26
30	242	3629.67	-259.48	5.27e-03	-17.87	0.0	-4.72	-83.08	0.36	5.72	-259.48	3629.67
		-4651.94	-267.35	0.02	0.0	90.0	-4.72	-100.95	0.36	5.72	-267.35	-4651.94
30	243	4695.41	261.58	-4.88e-03	-17.87	0.0	-4.90	98.57	-0.28	-5.86	246.30	-3371.77
		-3371.77	246.30	-0.02	0.0	90.0	-4.90	80.70	-0.28	-5.86	261.58	4695.41
30	253	592.44	616.43	2.21e-04	-17.87	0.0	-2.73	18.80	4.39	-7.28	283.84	-295.11
		-295.11	283.84	-0.01	0.0	90.0	-2.73	0.92	4.39	-7.28	616.43	592.44
30	254	2409.98	-388.26	3.01e-03	-17.87	0.0	-6.49	-51.48	-3.42	9.13	-388.26	2409.98
		-3027.39	-665.50	0.02	0.0	90.0	-6.49	-69.35	-3.42	9.13	-665.50	-3027.39
30	255	3070.86	659.73	-2.67e-03	-17.87	0.0	-3.13	66.97	3.50	-9.28	375.08	-2152.08
		-2152.08	375.08	-0.02	0.0	90.0	-3.13	49.10	3.50	-9.28	659.73	3070.86
30	256	553.01	-297.01	2.32e-04	-17.87	0.0	-6.88	-3.31	-4.31	7.13	-297.01	553.01
		-548.97	-622.19	0.01	0.0	90.0	-6.88	-21.18	-4.31	7.13	-622.19	-548.97
30	282	1742.84	1.495e+04	2.85e-03	-17.87	0.0	32.28	-34.29	31.73	-19.00	1.210e+04	1742.84
		-2147.44	1.210e+04	-0.04	0.0	90.0	32.28	-52.16	31.73	-19.00	1.495e+04	-2147.44
30	304	5777.62	-1.476e+04	9.26e-03	-17.87	0.0	-44.20	-138.43	-87.68	32.25	-1.476e+04	5777.62
		-7485.34	-1.794e+04	0.06	108.81	90.0	-44.20	-156.30	21.13	32.25	-1.775e+04	-7485.34
30	306	5787.97	-1.475e+04	8.96e-03	-17.87	0.0	-43.69	-138.68	-87.73	32.22	-1.475e+04	5787.97
		-7497.45	-1.794e+04	0.06	108.81	90.0	-43.69	-156.55	21.08	32.22	-1.775e+04	-7497.45
30	354	4903.31	1920.23	6.85e-03	-17.87	0.0	-59.36	-116.26	-15.23	-1.47	1920.23	4903.31
		-6364.81	549.14	-3.46e-03	0.0	90.0	-59.36	-134.14	-15.23	-1.47	549.14	-6364.81
30	382	1258.98	1.047e+04	2.06e-03	-17.87	0.0	21.18	-21.68	22.22	-13.32	8465.99	1258.98
		-1497.00	8465.99	-0.03	0.0	90.0	21.18	-39.56	22.22	-13.32	1.047e+04	-1497.00
30	396	3851.82	-9254.04	6.27e-03	-17.87	0.0	-26.59	-88.69	-31.28	19.16	-9254.04	3851.82
		-4934.43	-1.109e+04	0.04	21.76	90.0	-26.59	-106.56	-9.52	19.16	-1.109e+04	-4934.43
30	398	3860.69	-9248.44	6.01e-03	-17.87	0.0	-26.16	-88.90	-31.33	19.14	-9248.44	3860.69
		-4944.81	-1.109e+04	0.04	21.76	90.0	-26.16	-106.78	-9.57	19.14	-1.109e+04	-4944.81
30	415	1097.78	8970.48	1.79e-03	-17.87	0.0	17.49	-17.49	19.05	-11.43	7255.72	1097.78
		-1280.28	7255.72	-0.02	0.0	90.0	17.49	-35.36	19.05	-11.43	8970.48	-1280.28
30	418	3240.13	-7563.34	5.33e-03	-17.87	0.0	-21.52	-72.88	-16.49	15.25	-7563.34	3240.13
		-4123.27	-9047.36	0.03	0.0	90.0	-21.52	-90.75	-16.49	15.25	-9047.36	-4123.27
30	419	3249.01	-7557.75	5.07e-03	-17.87	0.0	-21.08	-73.09	-16.54	15.23	-7557.75	3249.01
		-4133.65	-9046.03	0.03	0.0	90.0	-21.08	-90.97	-16.54	15.23	-9046.03	-4133.65
31	80	-1.120e+04	1.681e+04	-8.35e-03	-7.65	0.0	-227.02	-226.20	800.61	10.89	-1.536e+04	-1.120e+04
		-2.006e+04	-1.536e+04	-0.08	69.82	38.5	-227.02	-233.85	870.43	10.89	1.681e+04	-2.006e+04
31	83	-1.121e+04	1.678e+04	-8.49e-03	-9.94	0.0	-227.44	-229.48	800.42	10.92	-1.538e+04	-1.121e+04
		-2.024e+04	-1.538e+04	-0.08	69.82	38.5	-227.44	-239.42	870.24	10.92	1.678e+04	-2.024e+04
31	84	-1.122e+04	1.679e+04	-8.58e-03	-7.65	0.0	-229.99	-226.44	800.38	10.90	-1.537e+04	-1.122e+04
		-2.008e+04	-1.537e+04	-0.08	69.82	38.5	-229.99	-234.09	870.20	10.90	1.679e+04	-2.008e+04
31	97	61.45	-10.57	6.55e-04	-9.94	0.0	13.25	-12.89	0.48	0.09	-29.06	61.45
		-626.30	-29.06	-2.44e-04	0.0	38.5	13.25	-22.83	0.48	0.09	-10.57	-626.30
31	123	55.86	-16.83	5.76e-04	-9.94	0.0	13.70	-12.98	0.39	0.09	-32.00	55.86
		-635.22	-32.00	-2.38e-04	0.0	38.5	13.70	-22.92	0.39	0.09	-16.83	-635.22
31	210	-7671.91	-12.29	-5.95e-03	-7.65	0.0	-16.45	-157.91	4.35	6.99	-242.74	-7671.91
		-1.390e+04	-242.74	2.37e-03	0.0	38.5	-16.45	-165.56	4.35	6.99	-12.29	-1.390e+04
31	211	1.251e+04	80.07	7.53e-03	-7.65	0.0	-7.25	134.34	-8.01	-7.14	80.07	7487.47
		7487.47	-291.59	-2.67e-03	0.0	38.5	-7.25	126.69	-8.01	-7.14	-291.59	1.251e+04
31	223	8037.83	397.89	4.27e-03	-7.65	0.0	11.62	84.23	-24.04	-7.94	397.89	4942.62
		4942.62	-567.06	-3.03e-03	0.0	38.5	11.62	76.58	-24.04	-7.94	-567.06	8037.83
31	225	-328.94	258.60	-2.95e-04	-7.65	0.0	9.97	-17.50	-22.90	3.36	258.60	-328.94
		-1149.68	-659.79	-9.24e-04	0.0	38.5	9.97	-25.15	-22.90	3.36	-659.79	-1149.68
31	228	320.73	528.57	1.20e-03	-7.65	0.0	-5.56	-3.74	22.00	-3.33	-354.98	320.73
		29.16	-354.98	5.52e-04	0.0	38.5	-5.56	-11.39	22.00	-3.33	528.57	29.16
31	242	-3777.92	-17.53	-2.79e-03	-7.65	0.0	-4.31	-83.21	2.18	3.49	-131.53	-3777.92
		-7128.45	-131.53	1.09e-03	0.0	38.5	-4.31	-90.86	2.18	3.49	-17.53	-7128.45
31	243	6116.61	77.43	3.39e-03	-7.65	0.0	18.94	62.94	-1.89	-3.36	77.43	3840.75
		3840.75	-25.31	-1.41e-03	0.0	38.5	18.94	55.30	-1.89	-3.36	-25.31	6116.61
31	257	-145.09	115.27	6.79e-05	-7.65	0.0	7.98	-13.72	-11.06	1.71	115.27	-145.09
		-820.41	-329.07	-5.08e-04	0.0	38.5	7.98	-21.37	-11.06	1.71	-329.07	-820.41
31	260	207.92	286.23	5.93e-04	-7.65	0.0	6.65	-6.55	11.35	-1.58	-169.37	207.92
		-191.44	-169.37	1.90e-04	0.0	38.5	6.65	-14.19	11.35	-1.58	286.23	-191.44
31	304	-7457.10	1.120e+04	-5.47e-03	-7.65	0.0	-148.79	-154.18	533.79	7.28	-1.025e+04	-7457.10
		-1.354e+04	-1.025e+04	-0.06	46.55	38.5	-148.79	-161.83	580.33	7.28	1.120e+04	-1.354e+04
31	306	-7469.28	1.118e+04	-5.62e-03	-7.65	0.0	-150.77	-154.34	533.63	7.29	-1.026e+04	-7469.28
		-1.356e+04	-1.026e+04	-0.06	46.55	38.5	-150.77	-161.99	580.18	7.29	1.118e+04	-1.356e+04
31	313	45.11	-9.82	4.76e-04	-7.65	0.0	9.69	-9.95	0.34	0.07	-22.90	45.11
		-485.03	-22.90	-1.84e-04	0.0	38.5	9.69	-17.59	0.34	0.07	-9.82	-485.03
31	326	41.38	-14.00	4.24e-04	-7.65	0.0	9.99	-10.00	0.28	0.07	-24.86	41.38
		-490.97	-24.86	-1.80e-04	0.0	38.5	9.99	-17.65	0.28	0.07	-14.00	-490.97
31	369	40.89	-13.09	4.22e-04	-7.65	0.0	8.67	-10.00	0.28	0.07	-23.93	40.89
		-491.40	-23.93	-1.75e-04	0.0	38.5	8.67	-17.65	0.28	0.07	-13.09	-491.40
31	396	-4937.77	6786.80	-3.50e-03	-7.65	0.0	-94.34	-105.80	341.52	4.81	-6540.92	-4937.77
		-9158.26	-6540.92	-0.03	9.31	38.5	-94.34	-113.45	350.83	4.81	6786.80	-9158.26
31	398	-4948.20	6775.99	-3.62e-03	-7.65	0.0	-96.04	-105.94	341.39	4.81	-6546.69	-4948.20

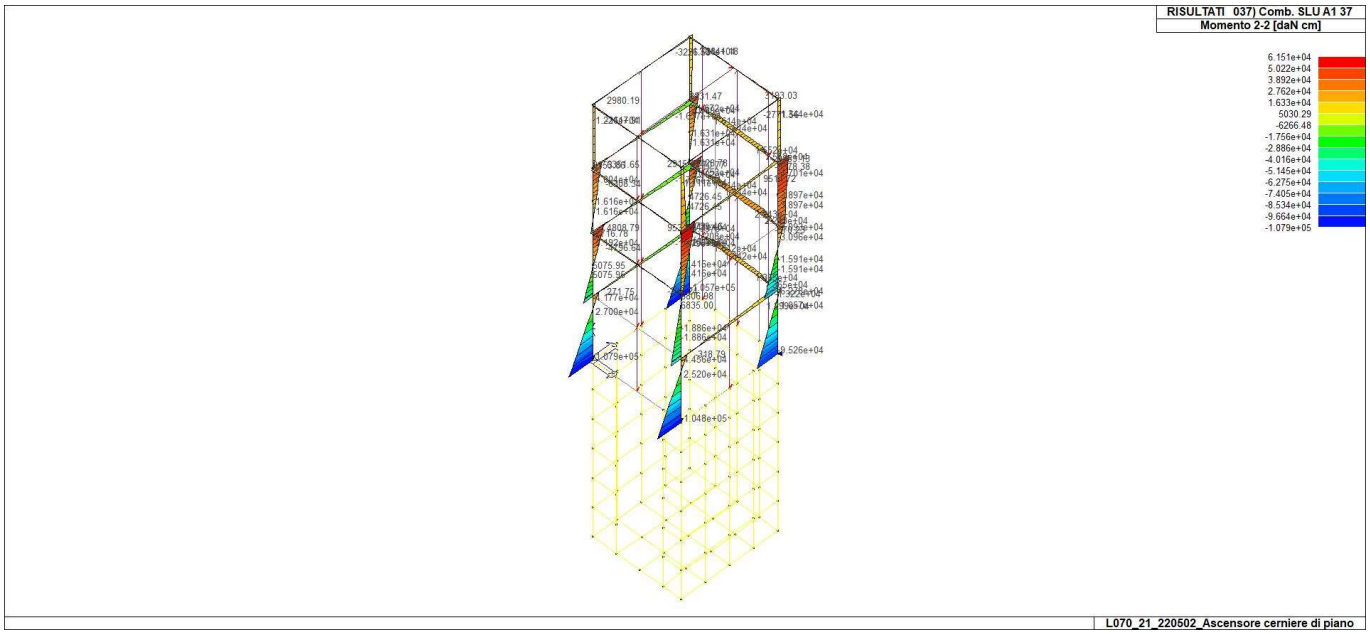
		-9173.94	-6546.69	-0.03	9.31	38.5	-96.04	-113.58	350.70	4.81	6775.99	-9173.94
31	410	39.53	-14.28	4.04e-04	-7.65	0.0	8.47	-10.02	0.26	0.07	-24.37	39.53
		-493.47	-24.37	-1.73e-04	0.0	38.5	8.47	-17.67	0.26	0.07	-14.28	-493.47
31	418	-4133.71	5456.49	-2.86e-03	-7.65	0.0	-77.12	-90.35	281.73	4.02	-5390.12	-4133.71
		-7759.49	-5390.12	-0.03	0.0	38.5	-77.12	-98.00	281.73	4.02	5456.49	-7759.49
31	419	-4144.15	5445.68	-2.99e-03	-7.65	0.0	-78.81	-90.49	281.60	4.03	-5395.89	-4144.15
		-7775.17	-5395.89	-0.03	0.0	38.5	-78.81	-98.14	281.60	4.03	5445.68	-7775.17
32	9	175.89	-71.78	4.79e-05	-13.30	0.0	12.58	23.64	0.48	0.09	-96.49	-699.22
		-699.22	-96.49	4.21e-04	0.0	51.5	12.58	10.34	0.48	0.09	-71.78	175.89
32	32	6346.59	1.844e+04	-3.30e-03	-10.23	0.0	188.78	-58.10	591.84	-3.24	-1.204e+04	6346.59
		3091.10	-1.204e+04	-0.09	0.0	51.5	188.78	-68.33	591.84	-3.24	1.844e+04	3091.10
32	33	6176.24	1.842e+04	-3.17e-03	-13.30	0.0	193.35	-52.51	592.09	-3.22	-1.207e+04	6176.24
		3129.48	-1.207e+04	-0.09	0.0	51.5	193.35	-65.81	592.09	-3.22	1.842e+04	3129.48
32	84	1.883e+04	1.402e+04	-8.59e-03	-10.23	0.0	-19.99	-198.34	-746.23	10.90	1.402e+04	1.883e+04
		8355.85	-2.201e+04	0.12	93.40	51.5	-19.99	-208.57	-652.84	10.90	-2.201e+04	8355.85
32	87	1.866e+04	1.398e+04	-8.47e-03	-13.30	0.0	-15.41	-192.75	-745.98	10.92	1.398e+04	1.866e+04
		8394.23	-2.204e+04	0.12	93.40	51.5	-15.41	-206.05	-652.59	10.92	-2.204e+04	8394.23
32	150	1.518e+04	5143.84	-7.96e-03	-10.23	0.0	-116.07	-157.05	-37.05	-1.69	5143.84	1.518e+04
		6832.31	3235.80	-0.02	0.0	51.5	-116.07	-167.28	-37.05	-1.69	3235.80	6832.31
32	210	1.283e+04	190.79	-6.25e-03	-10.23	0.0	18.04	-129.97	-8.71	6.99	190.79	1.283e+04
		5873.96	-86.36	6.11e-03	0.0	51.5	18.04	-140.20	-8.71	6.99	-86.36	5873.96
32	211	-5545.77	253.79	7.34e-03	-10.23	0.0	-41.73	162.61	5.04	-7.14	165.53	-1.366e+04
		-1.366e+04	165.53	-6.74e-03	0.0	51.5	-41.73	152.38	5.04	-7.14	253.79	-5545.77
32	213	1.053e+04	313.44	-5.70e-03	-10.23	0.0	21.83	-104.39	3.01	5.80	-44.96	1.053e+04
		4895.36	-44.96	3.90e-03	0.0	51.5	21.83	-114.62	3.01	5.80	313.44	4895.36
32	216	-4567.17	401.28	6.87e-03	-10.23	0.0	-45.52	137.03	-6.68	-5.94	401.28	-1.136e+04
		-1.136e+04	-146.02	-4.54e-03	0.0	51.5	-45.52	126.80	-6.68	-5.94	-146.02	-4567.17
32	229	601.16	725.05	-1.29e-03	-10.23	0.0	18.36	7.30	19.57	3.98	-410.90	467.80
		467.80	-410.90	-6.10e-04	0.0	51.5	18.36	-2.93	19.57	3.98	725.05	579.47
32	232	-284.31	442.57	1.30e-03	-10.23	0.0	-13.96	27.66	-20.47	-3.95	442.57	-1446.34
		-1446.34	-739.98	8.48e-04	0.0	51.5	-13.96	17.44	-20.47	-3.95	-739.98	-284.31
32	242	6080.47	68.16	-3.20e-03	-10.23	0.0	12.43	-55.19	-4.14	3.49	68.16	6080.47
		2975.01	-62.01	3.16e-03	0.0	51.5	12.43	-65.42	-4.14	3.49	-62.01	2975.01
32	243	-2696.79	-18.43	2.81e-03	-10.23	0.0	2.19	91.13	4.43	-3.36	-163.67	-7126.29
		-7126.29	-163.67	-2.61e-03	0.0	51.5	2.19	80.90	4.43	-3.36	-18.43	-2696.79
32	245	4941.49	133.58	-2.93e-03	-10.23	0.0	14.10	-42.50	1.52	2.90	-43.96	4941.49
		2489.24	-43.96	2.06e-03	0.0	51.5	14.10	-52.73	1.52	2.90	133.58	2489.24
32	248	-2211.02	-51.55	2.51e-03	-10.23	0.0	0.53	78.44	-1.23	-2.77	-51.55	-5987.31
		-5987.31	-214.03	-1.50e-03	0.0	51.5	0.53	68.21	-1.23	-2.77	-214.03	-2211.02
32	261	354.13	336.73	-7.68e-04	-10.23	0.0	12.03	12.73	9.53	2.01	-217.74	-37.68
		-37.68	-217.74	-2.01e-04	0.0	51.5	12.03	2.50	9.53	2.01	336.73	354.13
32	264	-75.91	122.23	2.59e-04	-10.23	0.0	2.60	23.21	-9.23	-1.88	122.23	-1008.14
		-1008.14	-417.17	7.39e-04	0.0	51.5	2.60	12.98	-9.23	-1.88	-417.17	-75.91
32	269	135.75	-53.12	-5.14e-05	-10.23	0.0	9.25	18.16	0.34	0.07	-70.60	-535.94
		-535.94	-70.60	3.17e-04	0.0	51.5	9.25	7.93	0.34	0.07	-53.12	135.75
32	280	4056.82	1.228e+04	-2.27e-03	-10.23	0.0	128.41	-32.74	394.61	-2.14	-8039.96	4056.82
		2107.16	-8039.96	-0.06	0.0	51.5	128.41	-42.97	394.61	-2.14	1.228e+04	2107.16
32	281	4047.70	1.227e+04	-2.14e-03	-10.23	0.0	129.76	-32.61	394.75	-2.14	-8055.95	4047.70
		2104.81	-8055.95	-0.06	0.0	51.5	129.76	-42.84	394.75	-2.14	1.227e+04	2104.81
32	306	1.238e+04	9327.97	-5.79e-03	-10.23	0.0	-10.77	-126.24	-497.44	7.29	9327.97	1.238e+04
		5617.00	-1.469e+04	0.08	62.26	51.5	-10.77	-136.47	-435.18	7.29	-1.469e+04	5617.00
32	308	1.237e+04	9311.98	-5.67e-03	-10.23	0.0	-9.42	-126.11	-497.30	7.29	9311.98	1.237e+04
		5614.64	-1.470e+04	0.08	62.26	51.5	-9.42	-136.33	-435.04	7.29	-1.470e+04	5614.64
32	339	9948.31	3413.22	-5.39e-03	-10.23	0.0	-74.82	-98.71	-24.65	-1.11	3413.22	9948.31
		4601.30	2143.71	-0.01	0.0	51.5	-74.82	-108.94	-24.65	-1.11	2143.71	4601.30
32	369	136.75	-49.25	-1.16e-04	-10.23	0.0	8.67	18.10	0.28	0.07	-63.75	-532.03
		-532.03	-63.75	3.05e-04	0.0	51.5	8.67	7.87	0.28	0.07	-49.25	136.75
32	380	2682.90	8585.70	-1.65e-03	-10.23	0.0	92.08	-17.53	276.27	-1.48	-5642.30	2682.90
		1516.75	-5642.30	-0.04	0.0	51.5	92.08	-27.76	276.27	-1.48	8585.70	1516.75
32	381	2675.09	8577.95	-1.54e-03	-10.23	0.0	93.24	-17.42	276.39	-1.48	-5656.00	2675.09
		1514.73	-5656.00	-0.04	0.0	51.5	93.24	-27.65	276.39	-1.48	8577.95	1514.73
32	398	8053.53	5660.43	-3.92e-03	-10.23	0.0	1.96	-77.83	-294.83	4.81	5660.43	8053.53
		3781.72	-9202.43	0.05	12.45	51.5	1.96	-88.06	-282.37	4.81	-9202.43	3781.72
32	400	8045.71	5646.73	-3.82e-03	-10.23	0.0	3.12	-77.72	-294.71	4.81	5646.73	8045.71
		3779.70	-9210.17	0.05	12.45	51.5	3.12	-87.95	-282.26	4.81	-9210.17	3779.70
32	407	1572.12	643.70	-1.29e-03	-10.23	0.0	-9.53	-5.39	-4.82	-0.17	643.70	1572.12
		1031.40	395.23	-2.11e-03	0.0	51.5	-9.53	-15.61	-4.82	-0.17	395.23	1031.40
32	410	137.09	-47.96	-1.37e-04	-10.23	0.0	8.47	18.08	0.26	0.07	-61.46	-530.73
		-530.73	-61.46	3.01e-04	0.0	51.5	8.47	7.85	0.26	0.07	-47.96	137.09
32	413	2224.93	7353.42	-1.45e-03	-10.23	0.0	79.97	-12.46	236.83	-1.26	-4843.08	2224.93
		1319.94	-4843.08	-0.04	0.0	51.5	79.97	-22.69	236.83	-1.26	7353.42	1319.94
32	414	2217.11	7345.68	-1.34e-03	-10.23	0.0	81.13	-12.35	236.94	-1.26	-4856.78	2217.11
		1317.92	-4856.78	-0.04	0.0	51.5	81.13	-22.57	236.94	-1.26	7345.68	1317.92
32	419	6671.81	4551.82	-3.33e-03	-10.23	0.0	5.19	-62.39	-234.40	4.03	4551.82	6671.81
		3195.53	-7519.82	0.04	0.0	51.5	5.19	-72.61	-234.40	4.03	-7519.82	3195.53
32	420	6664.00	4538.11	-3.22e-03	-10.23	0.0	6.34	-62.27	-234.28	4.03	4538.11	6664.00
		3193.51	-7527.56	0.04	0.0	51.5	6.34	-72.50	-234.28	4.03	-7527.56	3193.51

33	32	5.982e+04	4794.37	-0.03	-39.32	0.0	329.44	-591.01	-111.81	-2.68	4794.37	5.982e+04
		-6.109e+04	-1.734e+04	0.05	0.0	198.0	329.44	-630.33	-111.81	-2.68	-1.734e+04	-6.109e+04
33	33	5.968e+04	4810.17	-0.03	-51.12	0.0	328.19	-585.56	-111.96	-2.78	4810.17	5.968e+04
		-6.133e+04	-1.736e+04	0.05	0.0	198.0	328.19	-636.68	-111.96	-2.78	-1.736e+04	-6.133e+04
33	83	7.565e+04	2.002e+04	0.04	-51.12	0.0	-422.21	797.65	124.35	15.95	-4599.69	-7.722e+04
		-7.722e+04	-4599.69	0.16	0.0	198.0	-422.21	746.53	124.35	15.95	2.002e+04	7.565e+04
33	84	7.584e+04	2.002e+04	0.04	-39.32	0.0	-421.52	791.79	124.38	16.01	-4602.80	-7.704e+04
		-7.704e+04	-4602.80	0.16	0.0	198.0	-421.52	752.47	124.38	16.01	2.002e+04	7.584e+04
33	87	7.561e+04	2.001e+04	0.04	-51.12	0.0	-422.77	797.24	124.22	15.91	-4587.00	-7.718e+04
		-7.718e+04	-4587.00	0.16	0.0	198.0	-422.77	746.12	124.22	15.91	2.001e+04	7.561e+04
33	221	1.554e+04	664.04	-0.02	-39.32	0.0	16.53	-143.57	-9.72	-6.22	664.04	1.554e+04
		-1.678e+04	-1278.54	-0.06	0.0	198.0	16.53	-182.89	-9.72	-6.22	-1278.54	-1.678e+04
33	224	1.569e+04	1336.41	8.07e-03	-39.32	0.0	-18.31	184.39	10.28	5.93	-718.29	-1.693e+04
		-1.693e+04	-718.29	0.06	0.0	198.0	-18.31	145.07	10.28	5.93	1336.41	1.569e+04
33	229	1.895e+04	331.11	-0.02	-39.32	0.0	18.48	-177.99	-6.71	-2.29	331.11	1.895e+04
		-2.019e+04	-1014.01	-0.03	0.0	198.0	18.48	-217.31	-6.71	-2.29	-1014.01	-2.019e+04
33	232	1.910e+04	1071.88	9.76e-03	-39.32	0.0	-20.26	218.82	7.28	1.99	-385.36	-2.033e+04
		-2.033e+04	-385.36	0.03	0.0	198.0	-20.26	179.49	7.28	1.99	1071.88	1.910e+04
33	250	7005.46	638.35	-4.17e-03	-39.32	0.0	-9.55	96.69	4.86	4.20	-330.56	-8245.37
		-8245.37	-330.56	0.03	0.0	198.0	-9.55	57.36	4.86	4.20	638.35	7005.46
33	251	7029.92	351.06	-5.28e-03	-39.32	0.0	5.11	-57.65	-5.05	-4.63	351.06	7029.92
		-8276.99	-653.68	-0.03	0.0	198.0	5.11	-96.97	-5.05	-4.63	-653.68	-8276.99
33	261	9086.80	170.28	-6.34e-03	-39.32	0.0	6.88	-78.42	-3.36	-1.22	170.28	9086.80
		-1.033e+04	-503.35	-0.01	0.0	198.0	6.88	-117.75	-3.36	-1.22	-503.35	-1.033e+04
33	264	9062.80	488.01	-4.94e-03	-39.32	0.0	-11.32	117.47	3.18	0.79	-149.78	-1.030e+04
		-1.030e+04	-149.78	0.02	0.0	198.0	-11.32	78.14	3.18	0.79	488.01	9062.80
33	280	3.968e+04	3199.67	-0.02	-39.32	0.0	218.88	-387.50	-74.57	-1.86	3199.67	3.968e+04
		-4.094e+04	-1.156e+04	0.04	0.0	198.0	218.88	-426.82	-74.57	-1.86	-1.156e+04	-4.094e+04
33	281	3.970e+04	3208.13	-0.02	-39.32	0.0	218.50	-387.77	-74.65	-1.88	3208.13	3.970e+04
		-4.097e+04	-1.157e+04	0.04	0.0	198.0	218.50	-427.10	-74.65	-1.88	-1.157e+04	-4.097e+04
33	306	5.035e+04	1.335e+04	0.03	-39.32	0.0	-281.76	534.37	82.89	10.60	-3065.11	-5.156e+04
		-5.156e+04	-3065.11	0.11	0.0	198.0	-281.76	495.05	82.89	10.60	1.335e+04	5.035e+04
33	308	5.032e+04	1.334e+04	0.03	-39.32	0.0	-282.14	534.10	82.80	10.58	-3056.64	-5.154e+04
		-5.154e+04	-3056.64	0.11	0.0	198.0	-282.14	494.77	82.80	10.58	1.334e+04	5.032e+04
33	380	2.759e+04	2242.84	-0.02	-39.32	0.0	152.55	-265.39	-52.22	-1.37	2242.84	2.759e+04
		-2.885e+04	-8097.51	0.02	0.0	198.0	152.55	-304.72	-52.22	-1.37	-8097.51	-2.885e+04
33	381	2.761e+04	2250.10	-0.02	-39.32	0.0	152.23	-265.63	-52.30	-1.39	2250.10	2.761e+04
		-2.887e+04	-8104.57	0.02	0.0	198.0	152.23	-304.95	-52.30	-1.39	-8104.57	-2.887e+04
33	398	2.825e+04	8084.49	0.01	-39.32	0.0	-168.30	311.19	50.14	6.64	-1843.04	-2.947e+04
		-2.947e+04	-1843.04	0.07	0.0	198.0	-168.30	271.87	50.14	6.64	8084.49	2.825e+04
33	400	2.822e+04	8077.43	0.01	-39.32	0.0	-168.62	310.96	50.07	6.62	-1835.79	-2.945e+04
		-2.945e+04	-1835.79	0.07	0.0	198.0	-168.62	271.63	50.07	6.62	8077.43	2.822e+04
33	413	2.356e+04	1923.90	-0.01	-39.32	0.0	130.44	-224.69	-44.78	-1.20	1923.90	2.356e+04
		-2.482e+04	-6941.82	0.02	0.0	198.0	130.44	-264.02	-44.78	-1.20	-6941.82	-2.482e+04
33	414	2.359e+04	1931.16	-0.01	-39.32	0.0	130.12	-224.93	-44.85	-1.22	1931.16	2.359e+04
		-2.484e+04	-6948.88	0.02	0.0	198.0	130.12	-264.25	-44.85	-1.22	-6948.88	-2.484e+04
33	419	2.179e+04	6497.93	0.01	-39.32	0.0	-134.44	245.97	40.27	5.42	-1475.68	-2.302e+04
		-2.302e+04	-1475.68	0.06	0.0	198.0	-134.44	206.64	40.27	5.42	6497.93	2.179e+04
33	420	2.177e+04	6490.88	0.01	-39.32	0.0	-134.76	245.73	40.20	5.40	-1468.43	-2.300e+04
		-2.300e+04	-1468.43	0.06	0.0	198.0	-134.76	206.41	40.20	5.40	6490.88	2.177e+04
34	33	8693.33	-206.70	-5.09e-03	-46.47	0.0	-80.52	-81.07	25.51	-28.01	-4797.71	8693.33
		-1.008e+04	-4797.71	-0.04	0.0	180.0	-80.52	-127.55	25.51	-28.01	-206.70	-1.008e+04
34	84	7337.28	4581.62	2.54e-03	-35.75	0.0	176.83	100.92	-23.48	48.46	4581.62	-7610.30
		-7610.30	355.53	0.12	0.0	180.0	176.83	65.17	-23.48	48.46	355.53	7337.28
34	87	7174.54	4563.51	3.71e-03	-46.47	0.0	190.85	105.55	-23.37	48.54	4563.51	-7642.00
		-7642.00	356.27	0.12	0.0	180.0	190.85	59.08	-23.37	48.54	356.27	7174.54
34	147	1.746e+04	18.88	-9.74e-03	-46.47	0.0	-98.12	-178.27	18.72	-1.81	-3351.54	1.746e+04
		-1.881e+04	-3351.54	-0.02	0.0	180.0	-98.12	-224.74	18.72	-1.81	18.88	-1.881e+04
34	178	1.750e+04	18.11	-0.01	-35.75	0.0	-113.56	-182.89	18.62	-1.89	-3333.53	1.750e+04
		-1.864e+04	-3333.53	-0.02	0.0	180.0	-113.56	-218.64	18.62	-1.89	18.11	-1.864e+04
34	180	1.758e+04	19.35	-9.60e-03	-35.75	0.0	-108.18	-183.64	18.70	-1.85	-3347.39	1.758e+04
		-1.869e+04	-3347.39	-0.02	0.0	180.0	-108.18	-219.38	18.70	-1.85	19.35	-1.869e+04
34	203	9903.31	3.21	7.78e-03	-35.75	0.0	-55.76	135.99	0.93	-1.63	-164.66	-1.136e+04
		-1.136e+04	-164.66	7.56e-03	0.0	180.0	-55.76	100.24	0.93	-1.63	3.21	9903.31
34	204	1.406e+04	197.54	8.44e-03	-35.75	0.0	-53.52	182.22	-1.14	8.27	197.54	-1.552e+04
		-1.552e+04	-7.67	0.05	0.0	180.0	-53.52	146.47	-1.14	8.27	-7.67	1.406e+04
34	218	2921.01	659.58	-2.20e-03	-35.75	0.0	38.37	54.71	-3.81	15.46	659.58	-3709.89
		-3709.89	-27.24	0.06	0.0	180.0	38.37	18.96	-3.81	15.46	-27.24	2921.01
34	221	9402.18	19.95	-5.10e-03	-35.75	0.0	30.72	-90.73	3.73	-14.34	-653.45	9402.18
		-1.015e+04	-653.45	-0.05	0.0	180.0	30.72	-126.48	3.73	-14.34	19.95	-1.015e+04
34	224	9472.32	705.45	4.52e-03	-35.75	0.0	12.73	128.63	-4.08	14.39	705.45	-1.046e+04
		-1.046e+04	-31.42	0.05	0.0	180.0	12.73	92.88	-4.08	14.39	-31.42	9472.32
34	236	6595.40	6.84	3.52e-03	-35.75	0.0	32.94	95.59	0.24	4.56	-37.07	-7393.89
		-7393.89	-37.07	0.03	0.0	180.0	32.94	59.84	0.24	4.56	6.84	6595.40
34	250	1257.16	319.90	-1.29e-03	-35.75	0.0	34.82	36.25	-1.85	7.76	319.90	-2050.31
		-2050.31	-14.28	0.03	0.0	180.0	34.82	0.50	-1.85	7.76	-14.28	1257.16
34	251	1246.39	11.04	-1.05e-03	-35.75	0.0	27.85	-0.43	1.99	-7.47	-347.90	1246.39

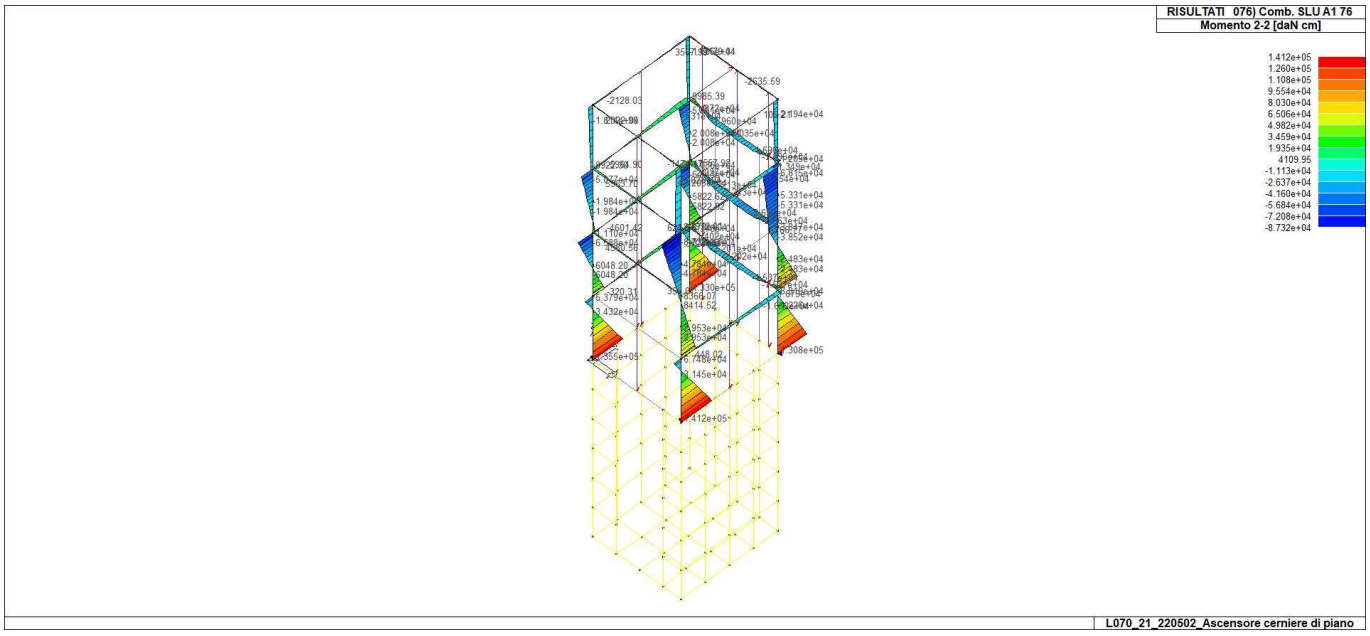
		-2048.04	-347.90	-0.03	0.0	180.0	27.85	-36.18	1.99	-7.47	11.04	-2048.04
34	253	4435.98	9.66	-2.74e-03	-35.75	0.0	27.46	-35.86	1.89	-7.05	-332.03	4435.98
		-5236.61	-332.03	-0.02	0.0	180.0	27.46	-71.61	1.89	-7.05	9.66	-5236.61
34	256	4445.73	304.02	1.85e-03	-35.75	0.0	35.21	71.68	-1.76	7.35	304.02	-5239.90
		-5239.90	-12.90	0.02	0.0	180.0	35.21	35.93	-1.76	7.35	-12.90	4445.73
34	281	5741.26	-138.01	-3.46e-03	-35.75	0.0	-49.25	-51.66	17.01	-18.65	-3200.32	5741.26
		-6775.12	-3200.32	-0.02	0.0	180.0	-49.25	-87.41	17.01	-18.65	-138.01	-6775.12
34	306	4760.62	3049.73	1.70e-03	-35.75	0.0	128.08	73.25	-15.63	32.35	3049.73	-5206.82
		-5206.82	236.47	0.08	0.0	180.0	128.08	37.50	-15.63	32.35	236.47	4760.62
34	308	4729.39	3040.49	2.51e-03	-35.75	0.0	131.66	72.75	-15.57	32.38	3040.49	-5148.97
		-5148.97	237.30	0.08	0.0	180.0	131.66	37.01	-15.57	32.38	237.30	4729.39
34	338	1.159e+04	12.38	-6.56e-03	-35.75	0.0	-60.98	-116.46	12.49	-1.19	-2236.21	1.159e+04
		-1.259e+04	-2236.21	-0.01	0.0	180.0	-60.98	-152.21	12.49	-1.19	12.38	-1.259e+04
34	353	1.153e+04	11.52	-6.72e-03	-35.75	0.0	-65.51	-115.96	12.44	-1.21	-2227.04	1.153e+04
		-1.256e+04	-2227.04	-0.01	0.0	180.0	-65.51	-151.71	12.44	-1.21	11.52	-1.256e+04
34	354	1.159e+04	12.35	-6.57e-03	-35.75	0.0	-61.93	-116.45	12.49	-1.19	-2236.28	1.159e+04
		-1.259e+04	-2236.28	-0.01	0.0	180.0	-61.93	-152.20	12.49	-1.19	12.35	-1.259e+04
34	380	3857.79	-97.68	-2.67e-03	-35.75	0.0	-27.58	-30.44	11.89	-13.03	-2237.96	3857.79
		-4839.36	-2237.96	-0.02	0.0	180.0	-27.58	-66.19	11.89	-13.03	-97.68	-4839.36
34	381	3907.38	-96.97	-2.54e-03	-35.75	0.0	-24.51	-30.87	11.94	-13.01	-2245.88	3907.38
		-4866.12	-2245.88	-0.02	0.0	180.0	-24.51	-66.62	11.94	-13.01	-96.97	-4866.12
34	398	2573.10	1834.14	-1.33e-03	-35.75	0.0	92.26	49.73	-9.40	19.30	1834.14	-3160.18
		-3160.18	142.16	0.05	0.0	180.0	92.26	13.98	-9.40	19.30	142.16	2573.10
34	400	2546.33	1826.22	1.60e-03	-35.75	0.0	95.33	49.30	-9.35	19.32	1826.22	-3110.59
		-3110.59	142.87	0.05	0.0	180.0	95.33	13.55	-9.35	19.32	142.87	2546.33
34	413	3249.26	-83.95	-2.37e-03	-35.75	0.0	-19.16	-23.54	10.20	-11.15	-1920.25	3249.26
		-4204.51	-1920.25	-0.01	0.0	180.0	-19.16	-59.28	10.20	-11.15	-83.95	-4204.51
34	414	3298.85	-83.24	-2.23e-03	-35.75	0.0	-16.09	-23.96	10.25	-11.13	-1928.17	3298.85
		-4231.28	-1928.17	-0.01	0.0	180.0	-16.09	-59.71	10.25	-11.13	-83.24	-4231.28
34	419	1930.94	1468.52	-1.22e-03	-35.75	0.0	81.40	42.82	-7.53	15.40	1468.52	-2558.97
		-2558.97	113.75	0.04	0.0	180.0	81.40	7.07	-7.53	15.40	113.75	1930.94
34	420	1904.17	1460.60	1.37e-03	-35.75	0.0	84.47	42.39	-7.48	15.43	1460.60	-2509.38
		-2509.38	114.46	0.04	0.0	180.0	84.47	6.65	-7.48	15.43	114.46	1904.17
35	33	6172.76	956.05	-4.42e-03	-46.47	0.0	-50.00	-53.38	40.37	-6.01	-6310.68	6172.76
		-7617.62	-6310.68	-0.12	0.0	180.0	-50.00	-99.85	40.37	-6.01	956.05	-7617.62
35	75	4247.26	5951.79	2.82e-03	-46.47	0.0	100.47	80.04	-29.58	14.22	5951.79	-5977.45
		-5977.45	626.85	0.28	0.0	180.0	100.47	33.57	-29.58	14.22	626.85	4247.26
35	84	4439.76	5956.03	2.76e-03	-35.75	0.0	93.28	74.83	-29.63	14.22	5956.03	-5811.43
		-5811.43	622.44	0.28	0.0	180.0	93.28	39.08	-29.63	14.22	622.44	4439.76
35	148	1.228e+04	356.77	-9.22e-03	-35.75	0.0	-111.18	-124.00	21.05	-1.06	-3433.07	1.228e+04
		-1.326e+04	-3433.07	-0.03	0.0	180.0	-111.18	-159.74	21.05	-1.06	356.77	-1.326e+04
35	152	1.226e+04	354.57	-9.50e-03	-35.75	0.0	-113.22	-123.85	21.03	-1.05	-3430.73	1.226e+04
		-1.325e+04	-3430.73	-0.03	0.0	180.0	-113.22	-159.60	21.03	-1.05	354.57	-1.325e+04
35	179	1.208e+04	358.98	-9.14e-03	-46.47	0.0	-95.72	-118.64	21.08	-1.06	-3434.96	1.208e+04
		-1.346e+04	-3434.96	-0.03	0.0	180.0	-95.72	-165.11	21.08	-1.06	358.98	-1.346e+04
35	204	1.223e+04	425.72	8.88e-03	-35.75	0.0	49.32	159.38	-4.09	4.59	425.72	-1.324e+04
		-1.324e+04	-310.25	0.08	0.0	180.0	49.32	123.63	-4.09	4.59	-310.25	1.223e+04
35	216	9130.82	839.65	7.95e-03	-35.75	0.0	49.50	124.92	-8.74	-4.10	839.65	-1.014e+04
		-1.014e+04	-737.85	-0.08	0.0	180.0	49.50	89.17	-8.74	-4.10	-737.85	9130.82
35	221	7805.99	1450.50	-4.08e-03	-35.75	0.0	-10.20	-75.36	18.10	-5.21	-1810.30	7805.99
		-8976.84	-1810.30	-0.09	0.0	180.0	-10.20	-111.11	18.10	-5.21	1450.50	-8976.84
35	224	7969.77	1861.94	4.13e-03	-35.75	0.0	18.14	112.61	-18.67	5.14	1861.94	-9082.87
		-9082.87	-1499.98	0.09	0.0	180.0	18.14	76.86	-18.67	5.14	-1499.98	7969.77
35	229	4747.67	658.31	-2.83e-03	-35.75	0.0	-10.21	-41.37	9.43	-1.56	-1043.17	4747.67
		-5916.76	-1043.17	-0.03	0.0	180.0	-10.21	-77.12	9.43	-1.56	658.31	-5916.76
35	233	5483.81	58.97	-3.32e-03	-35.75	0.0	-1.97	-49.49	0.97	-2.37	-115.04	5483.81
		-6642.04	-115.04	-0.04	0.0	180.0	-1.97	-85.24	0.97	-2.37	58.97	-6642.04
35	253	3576.23	723.43	-2.07e-03	-35.75	0.0	-3.46	-28.29	9.02	-2.58	-901.93	3576.23
		-4733.70	-901.93	-0.04	0.0	180.0	-3.46	-64.04	9.02	-2.58	723.43	-4733.70
35	256	3571.59	889.14	1.96e-03	-35.75	0.0	1.15	63.99	-8.87	2.59	889.14	-4729.65
		-4729.65	-708.71	0.05	0.0	180.0	1.15	28.24	-8.87	2.59	-708.71	3571.59
35	261	2057.92	329.54	-1.45e-03	-35.75	0.0	-3.46	-11.42	4.71	-0.76	-520.41	2057.92
		-3214.52	-520.41	-0.01	0.0	180.0	-3.46	-47.17	4.71	-0.76	329.54	-3214.52
35	264	2052.41	507.62	1.66e-03	-35.75	0.0	1.16	47.12	-4.56	0.77	507.62	-3211.33
		-3211.33	-314.82	0.02	0.0	180.0	1.16	11.37	-4.56	0.77	-314.82	2052.41
35	281	4041.25	638.35	-2.90e-03	-35.75	0.0	-35.32	-33.20	26.92	-4.01	-4207.98	4041.25
		-5153.03	-4207.98	-0.08	0.0	180.0	-35.32	-68.95	26.92	-4.01	638.35	-5153.03
35	302	2756.89	3967.00	1.87e-03	-35.75	0.0	65.00	55.74	-19.71	9.48	3967.00	-4058.89
		-4058.89	418.88	0.19	0.0	180.0	65.00	19.99	-19.71	9.48	418.88	2756.89
35	306	2763.30	3968.56	1.83e-03	-35.75	0.0	63.63	55.83	-19.73	9.48	3968.56	-4069.49
		-4069.49	417.41	0.19	0.0	180.0	63.63	20.09	-19.73	9.48	417.41	2763.30
35	338	7991.72	240.30	-6.05e-03	-35.75	0.0	-72.67	-76.71	14.06	-0.70	-2290.84	7991.72
		-9034.06	-2290.84	-0.02	0.0	180.0	-72.67	-112.46	14.06	-0.70	240.30	-9034.06
35	340	7981.12	238.83	-6.23e-03	-35.75	0.0	-74.03	-76.62	14.05	-0.70	-2289.28	7981.12
		-9027.64	-2289.28	-0.02	0.0	180.0	-74.03	-112.37	14.05	-0.70	238.83	-9027.64
35	354	7980.58	240.30	-6.05e-03	-35.75	0.0	-65.80	-76.71	14.06	-0.70	-2290.83	7980.58
		-9044.75	-2290.83	-0.02	0.0	180.0	-65.80	-112.46	14.06	-0.70	240.30	-9044.75

35	381	2660.07	450.42	-1.90e-03	-35.75	0.0	-25.37	-17.94	18.88	-2.80	-2948.86	2660.07
		-3786.59	-2948.86	-0.06	0.0	180.0	-25.37	-53.69	18.88	-2.80	450.42	-3786.59
35	383	2650.98	449.16	-1.97e-03	-35.75	0.0	-26.54	-17.86	18.87	-2.80	-2947.53	2650.98
		-3781.09	-2947.53	-0.06	0.0	180.0	-26.54	-53.61	18.87	-2.80	449.16	-3781.09
35	394	1323.18	2319.70	1.04e-03	-35.75	0.0	28.43	39.31	-11.00	5.85	2319.70	-2535.45
		-2535.45	339.69	0.12	0.0	180.0	28.43	3.56	-11.00	5.85	339.69	1323.18
35	398	1328.68	2321.04	9.37e-04	-35.75	0.0	27.26	39.39	-11.01	5.85	2321.04	-2544.54
		-2544.54	338.43	0.12	0.0	180.0	27.26	3.64	-11.01	5.85	338.43	1328.68
35	414	2200.96	388.19	-1.61e-03	-35.75	0.0	-22.15	-12.87	16.21	-2.40	-2529.57	2200.96
		-3332.67	-2529.57	-0.05	0.0	180.0	-22.15	-48.62	16.21	-2.40	388.19	-3332.67
35	416	2191.87	386.93	-1.65e-03	-35.75	0.0	-23.32	-12.79	16.20	-2.40	-2528.24	2191.87
		-3327.17	-2528.24	-0.05	0.0	180.0	-23.32	-48.54	16.20	-2.40	386.93	-3327.17
35	417	904.29	1831.31	8.12e-04	-35.75	0.0	18.47	34.51	-8.47	4.75	1831.31	-2091.47
		-2091.47	307.39	0.09	0.0	180.0	18.47	-1.24	-8.47	4.75	307.39	902.92
35	419	908.88	1832.64	6.97e-04	-35.75	0.0	17.30	34.59	-8.48	4.75	1832.64	-2100.56
		-2100.56	306.13	0.09	0.0	180.0	17.30	-1.16	-8.48	4.75	306.13	908.42
36	33	3.110e+04	6353.99	-0.02	-51.12	0.0	301.47	-296.46	-114.80	-3.16	6353.99	3.110e+04
		-3.266e+04	-1.638e+04	-0.04	0.0	198.0	301.47	-347.58	-114.80	-3.16	-1.638e+04	-3.266e+04
36	37	3.109e+04	6351.65	-0.02	-51.12	0.0	301.54	-296.39	-114.77	-3.16	6351.65	3.109e+04
		-3.266e+04	-1.637e+04	-0.04	0.0	198.0	301.54	-347.51	-114.77	-3.16	-1.637e+04	-3.266e+04
36	76	4.053e+04	1.831e+04	0.02	-39.32	0.0	-375.42	435.79	122.60	11.65	-5964.90	-4.186e+04
		-4.186e+04	-5964.90	0.24	0.0	198.0	-375.42	396.46	122.60	11.65	1.831e+04	4.053e+04
36	83	4.035e+04	1.831e+04	0.02	-51.12	0.0	-374.32	441.73	122.60	11.67	-5965.35	-4.206e+04
		-4.206e+04	-5965.35	0.24	0.0	198.0	-374.32	390.61	122.60	11.67	1.831e+04	4.035e+04
36	84	4.054e+04	1.831e+04	0.02	-39.32	0.0	-375.35	435.87	122.62	11.65	-5967.23	-4.187e+04
		-4.187e+04	-5967.23	0.24	0.0	198.0	-375.35	396.54	122.62	11.65	1.831e+04	4.054e+04
36	221	1.195e+04	1785.64	-0.02	-39.32	0.0	19.59	-107.41	-21.27	-5.10	1785.64	1.195e+04
		-1.321e+04	-2432.70	-0.10	0.0	198.0	19.59	-146.74	-21.27	-5.10	-2432.70	-1.321e+04
36	224	1.206e+04	2483.92	6.43e-03	-39.32	0.0	-13.31	147.88	21.79	5.14	-1837.29	-1.332e+04
		-1.332e+04	-1837.29	0.10	0.0	198.0	-13.31	108.55	21.79	5.14	2483.92	1.206e+04
36	230	1.166e+04	1573.73	6.28e-03	-39.32	0.0	-18.95	143.76	12.06	5.07	-813.15	-1.292e+04
		-1.292e+04	-813.15	0.06	0.0	198.0	-18.95	104.44	12.06	5.07	1573.73	1.166e+04
36	231	1.154e+04	761.50	-0.02	-39.32	0.0	25.23	-103.30	-11.54	-5.03	761.50	1.154e+04
		-1.280e+04	-1522.51	-0.07	0.0	198.0	25.23	-142.62	-11.54	-5.03	-1522.51	-1.280e+04
36	232	1.474e+04	1835.15	7.77e-03	-39.32	0.0	-16.67	174.89	14.70	1.72	-1083.36	-1.600e+04
		-1.600e+04	-1083.36	0.04	0.0	198.0	-16.67	135.56	14.70	1.72	1835.15	1.474e+04
36	253	5616.89	889.72	-5.21e-03	-39.32	0.0	11.66	-43.41	-10.59	-2.52	889.72	5616.89
		-6871.68	-1211.21	-0.05	0.0	198.0	11.66	-82.74	-10.59	-2.52	-1211.21	-6871.68
36	256	5595.02	1198.26	-3.12e-03	-39.32	0.0	-4.85	82.53	10.47	2.61	-877.10	-6852.69
		-6852.69	-877.10	0.05	0.0	198.0	-4.85	43.21	10.47	2.61	1198.26	5595.02
36	261	6942.53	514.76	-5.36e-03	-39.32	0.0	13.32	-56.80	-7.07	-0.82	514.76	6942.53
		-8197.04	-888.17	-0.02	0.0	198.0	13.32	-96.12	-7.07	-0.82	-888.17	-8197.04
36	262	5465.91	778.10	-3.17e-03	-39.32	0.0	-7.68	81.23	5.96	2.53	-400.75	-6723.77
		-6723.77	-400.75	0.03	0.0	198.0	-7.68	41.90	5.96	2.53	778.10	5465.91
36	263	5487.97	413.37	-5.06e-03	-39.32	0.0	14.49	-42.11	-6.09	-2.44	413.37	5487.97
		-6742.58	-791.05	-0.03	0.0	198.0	14.49	-81.43	-6.09	-2.44	-791.05	-6742.58
36	281	2.065e+04	4236.84	-0.01	-39.32	0.0	201.43	-195.03	-76.54	-2.10	4236.84	2.065e+04
		-2.186e+04	-1.092e+04	-0.03	0.0	198.0	201.43	-234.36	-76.54	-2.10	-1.092e+04	-2.186e+04
36	283	2.064e+04	4235.28	-0.01	-39.32	0.0	201.48	-194.98	-76.52	-2.10	4235.28	2.064e+04
		-2.186e+04	-1.092e+04	-0.03	0.0	198.0	201.48	-234.31	-76.52	-2.10	-1.092e+04	-2.186e+04
36	302	2.681e+04	1.220e+04	0.02	-39.32	0.0	-249.14	297.05	81.71	7.78	-3974.50	-2.812e+04
		-2.812e+04	-3974.50	0.16	0.0	198.0	-249.14	257.72	81.71	7.78	1.220e+04	2.681e+04
36	306	2.681e+04	1.221e+04	0.02	-39.32	0.0	-249.09	297.10	81.73	7.78	-3976.05	-2.812e+04
		-2.812e+04	-3976.05	0.16	0.0	198.0	-249.09	257.77	81.73	7.78	1.221e+04	2.681e+04
36	381	1.427e+04	2969.04	-0.01	-39.32	0.0	142.03	-130.69	-53.61	-1.46	2969.04	1.427e+04
		-1.550e+04	-7645.98	-0.02	0.0	198.0	142.03	-170.01	-53.61	-1.46	-7645.98	-1.550e+04
36	383	1.427e+04	2967.70	-0.01	-39.32	0.0	142.07	-130.65	-53.60	-1.46	2967.70	1.427e+04
		-1.549e+04	-7644.64	-0.02	0.0	198.0	142.07	-169.97	-53.60	-1.46	-7644.64	-1.549e+04
36	394	1.431e+04	7314.69	8.08e-03	-39.32	0.0	-146.20	170.76	48.70	4.88	-2328.28	-1.560e+04
		-1.560e+04	-2328.28	0.10	0.0	198.0	-146.20	131.44	48.70	4.88	7314.69	1.431e+04
36	398	1.432e+04	7316.04	7.85e-03	-39.32	0.0	-146.16	170.81	48.72	4.89	-2329.62	-1.561e+04
		-1.561e+04	-2329.62	0.10	0.0	198.0	-146.16	131.48	48.72	4.89	7316.04	1.432e+04
36	414	1.215e+04	2546.85	-8.91e-03	-39.32	0.0	122.24	-109.25	-45.97	-1.24	2546.85	1.215e+04
		-1.338e+04	-6555.68	-0.02	0.0	198.0	122.24	-148.58	-45.97	-1.24	-6555.68	-1.338e+04
36	416	1.214e+04	2545.52	-9.85e-03	-39.32	0.0	122.28	-109.21	-45.96	-1.24	2545.52	1.214e+04
		-1.337e+04	-6554.34	-0.02	0.0	198.0	122.28	-148.53	-45.96	-1.24	-6554.34	-1.337e+04
36	417	1.072e+04	5848.31	5.91e-03	-39.32	0.0	-115.51	134.41	38.83	4.00	-1839.81	-1.200e+04
		-1.200e+04	-1839.81	0.08	0.0	198.0	-115.51	95.08	38.83	4.00	5848.31	1.072e+04
36	419	1.072e+04	5849.66	5.74e-03	-39.32	0.0	-115.47	134.45	38.84	4.00	-1841.14	-1.201e+04
		-1.201e+04	-1841.14	0.08	0.0	198.0	-115.47	95.13	38.84	4.00	5849.66	1.072e+04

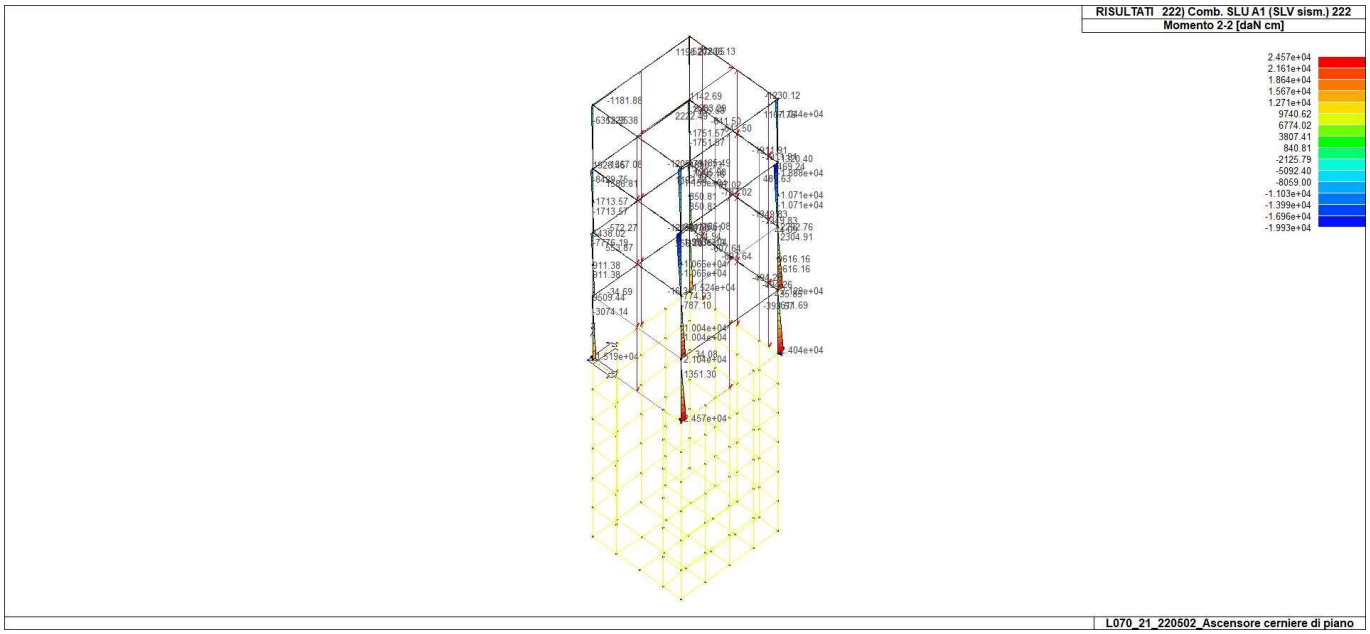
Trave	**M3 mx/mn**	**M2 mx/mn**	**D 2 / D 3**	**Q 2 / Q 3**	**N**	**V 2**	**V 3**	**T**
	-9.917e+04	-2.691e+04	-0.16	-428.71	-744.60	-748.90	-870.02	-28.47
	1.005e+05	2.243e+04	0.31	163.22	604.89	1033.18	870.43	48.54



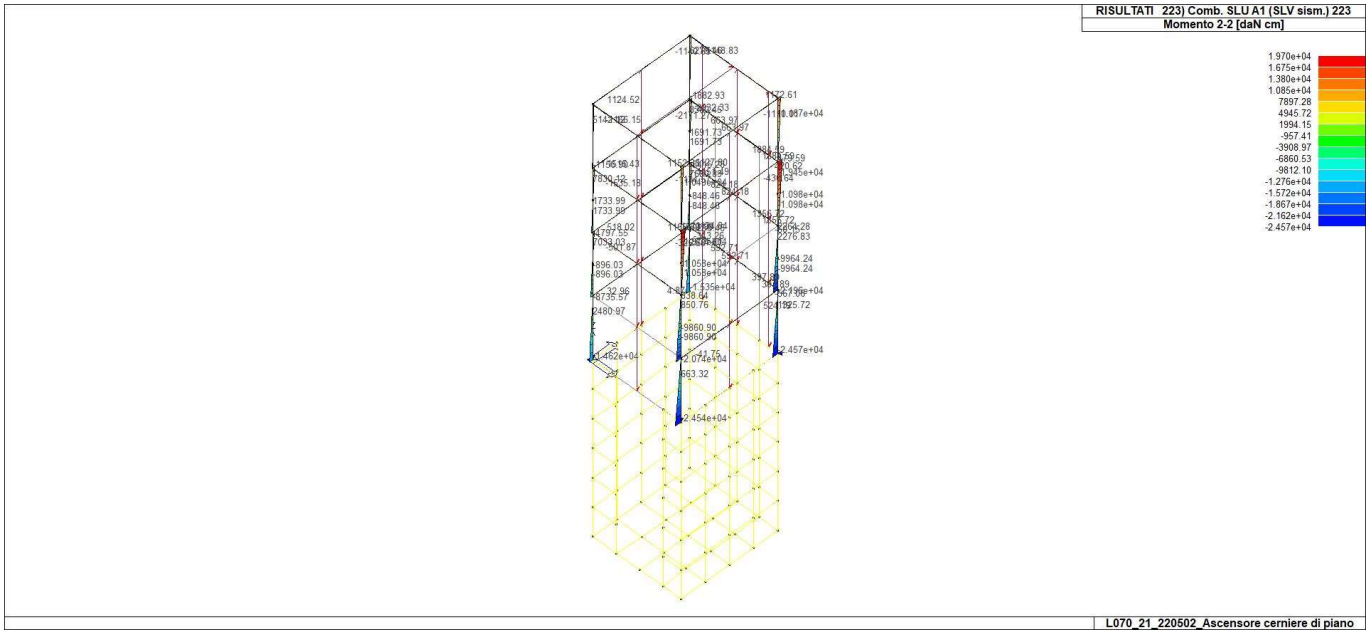
43_RIS_M2_037_Comb. SLU A1 37



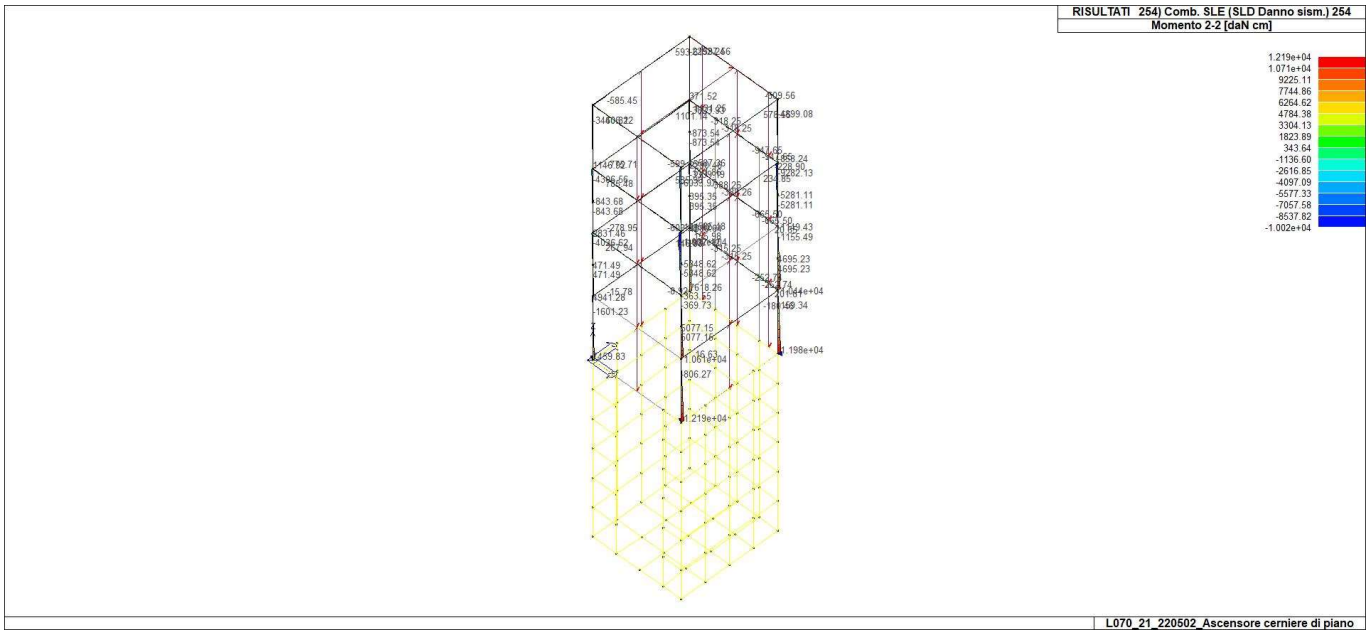
43_RIS_M2_076_Comb. SLU A1 76



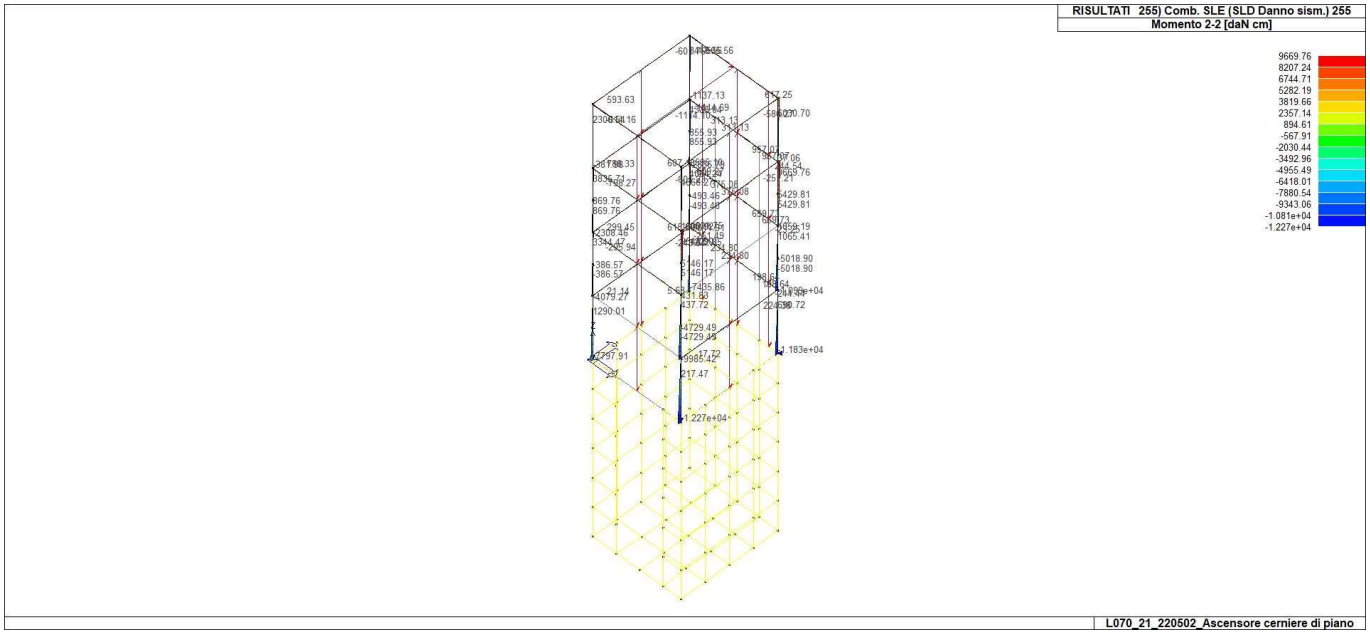
43_RIS_M2_222_Comb. SLU A1 (SLV sism.) 222



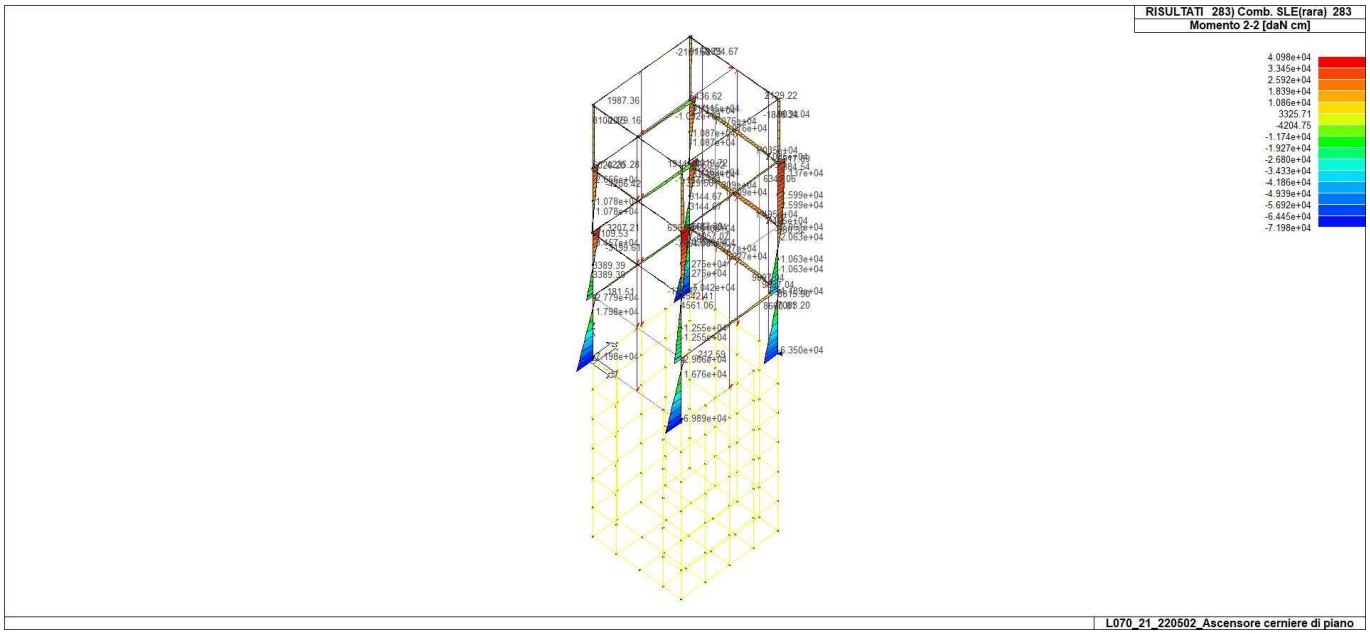
43_RIS_M2_223_Comb. SLU A1 (SLV sism.) 223



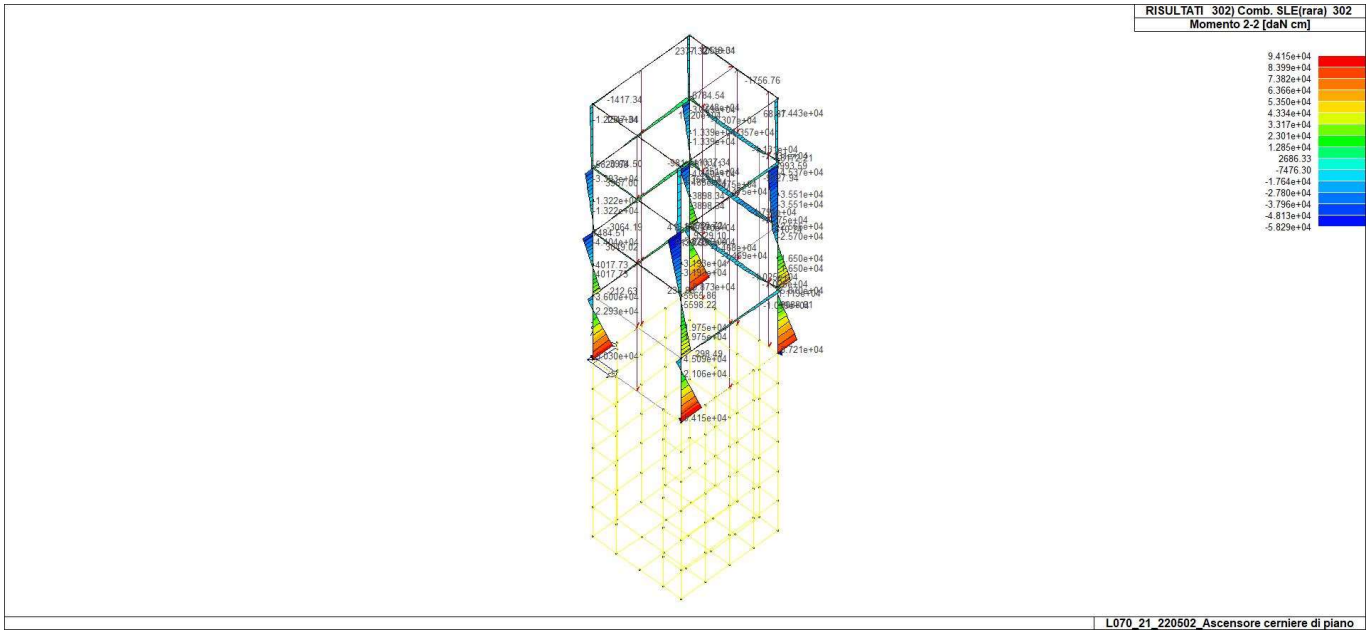
43_RIS_M2_254_Comb. SLE (SLD Danno sism.) 254



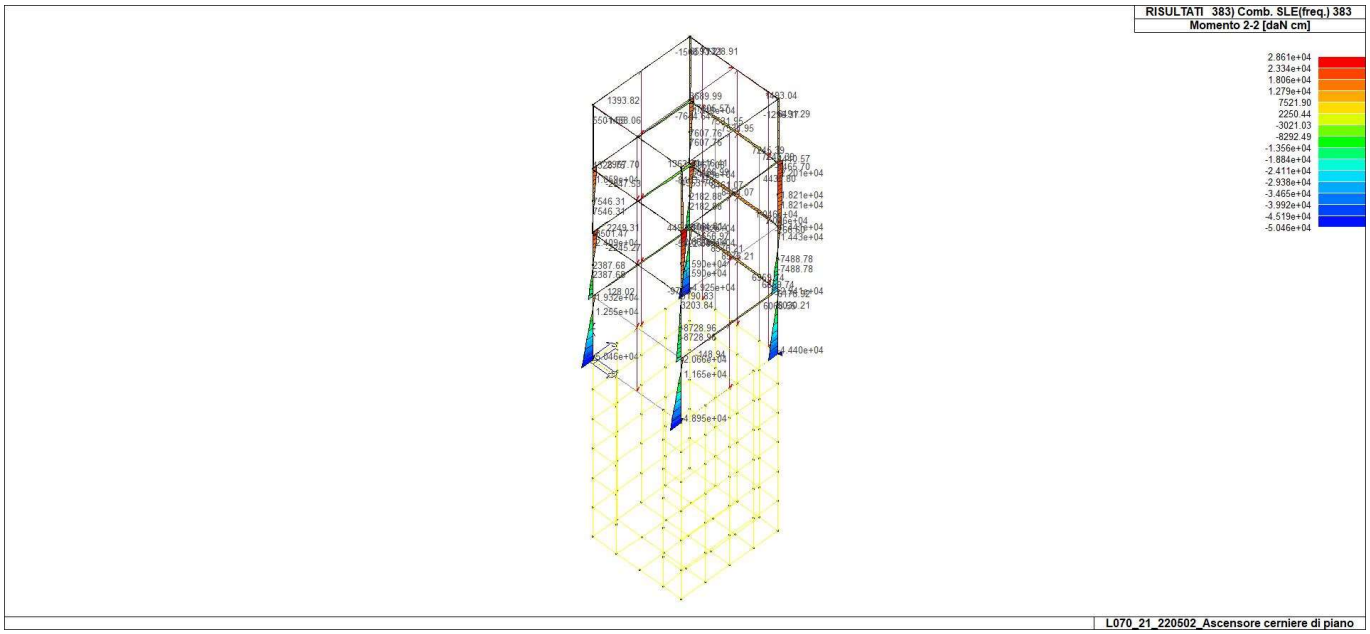
43_RIS_M2_255_Comb. SLE (SLD Danno sism.) 255



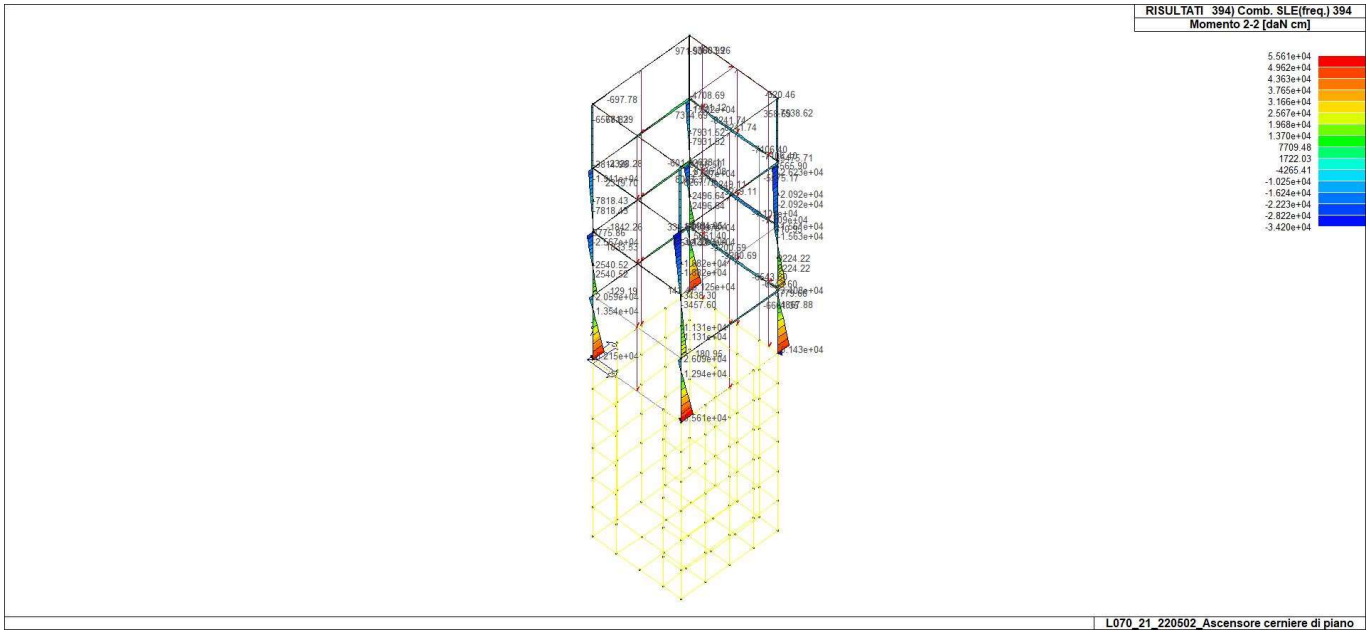
43_RIS_M2_283_Comb. SLE(rara) 283



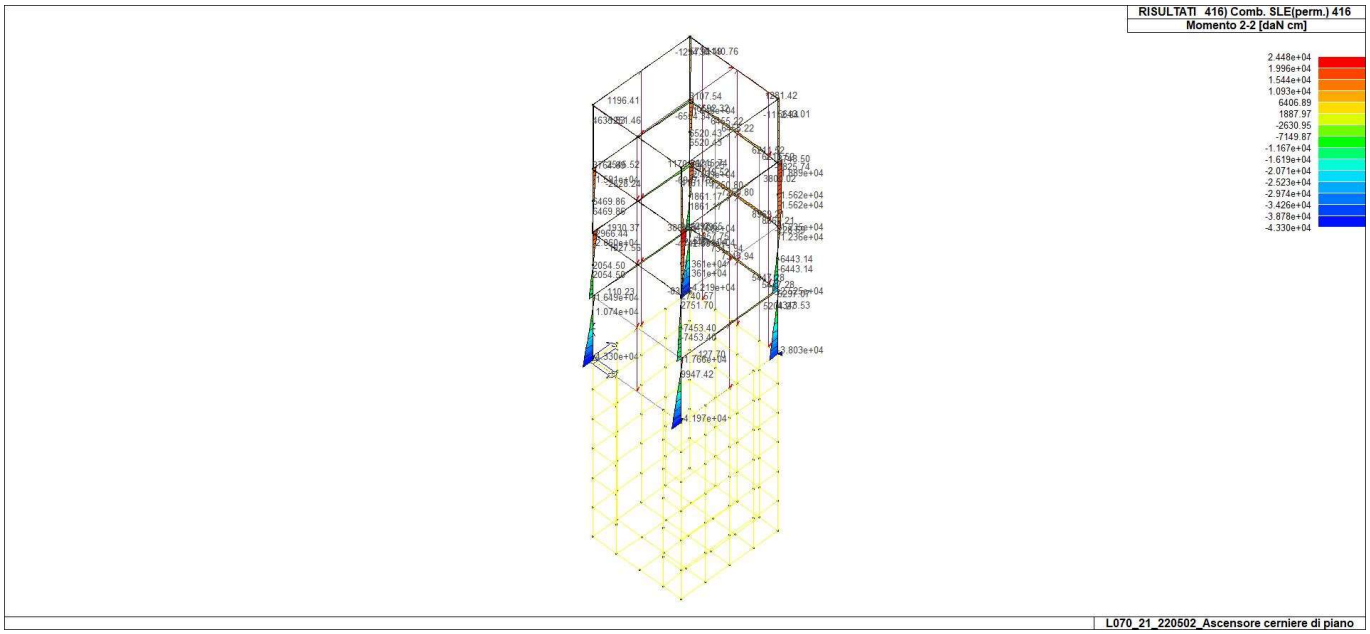
43_RIS_M2_302_Comb. SLE(rara) 302



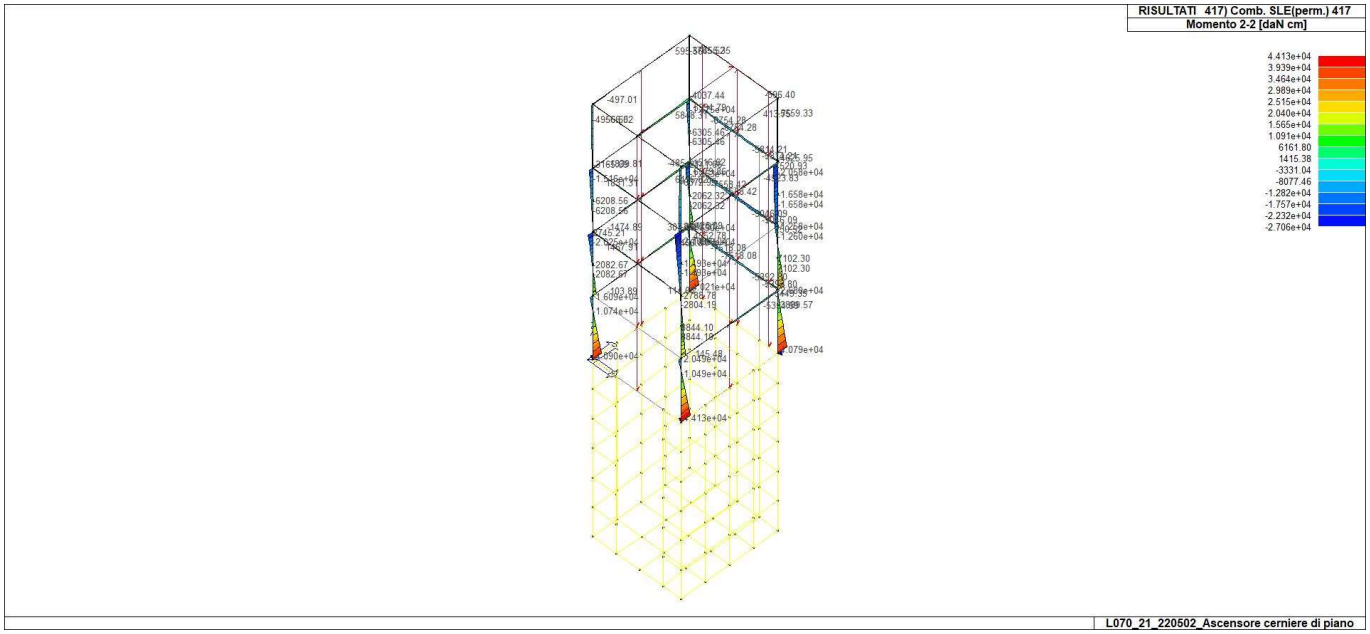
43_RIS_M2_383_Comb. SLE(freq.) 383



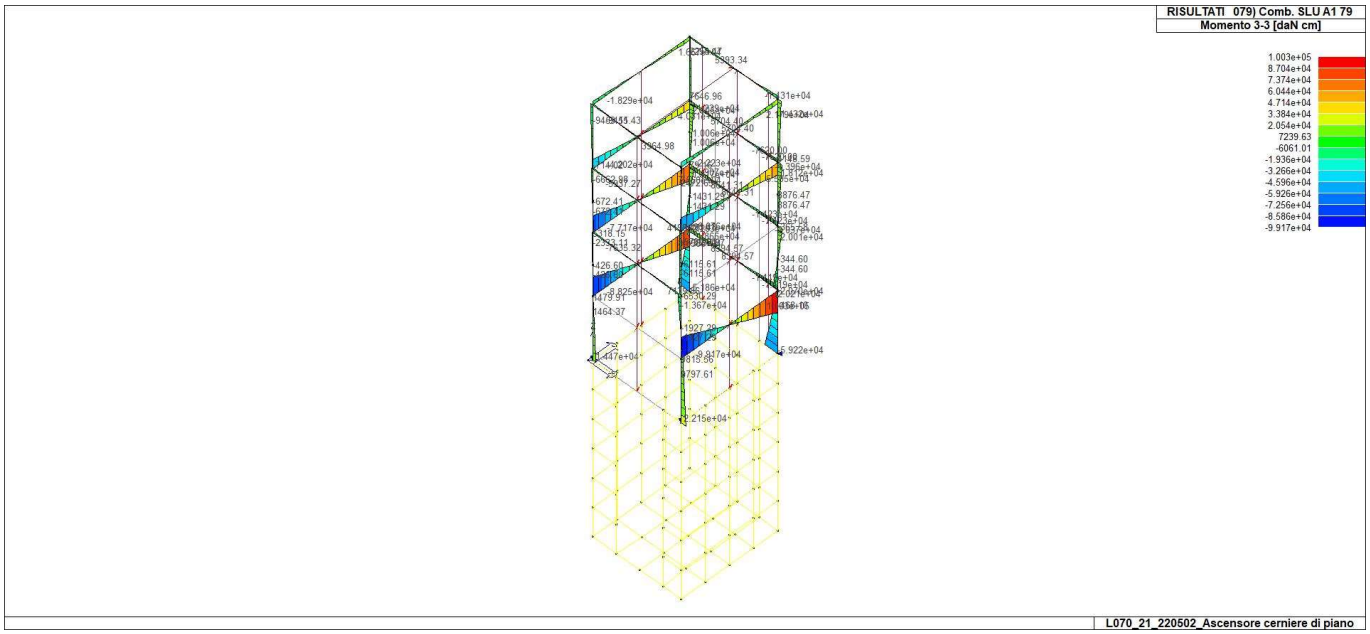
43_RIS_M2_394_Comb. SLE(freq.) 394



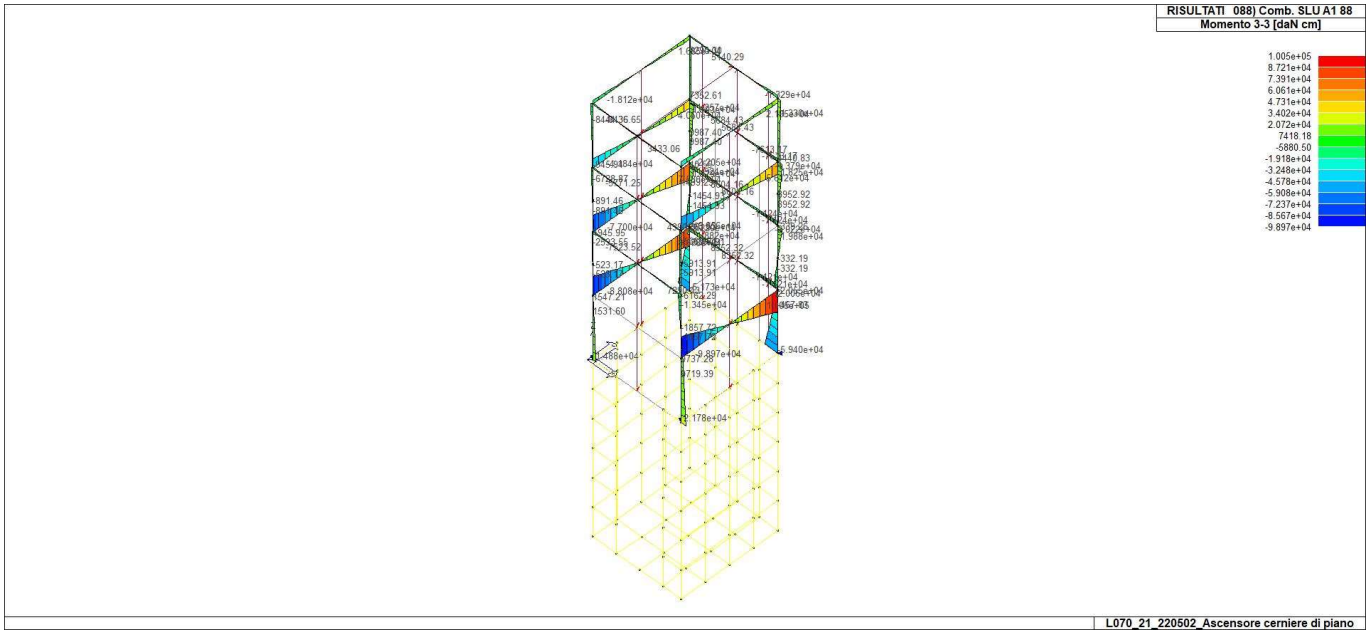
43_RIS_M2_416_Comb. SLE(perm.) 416



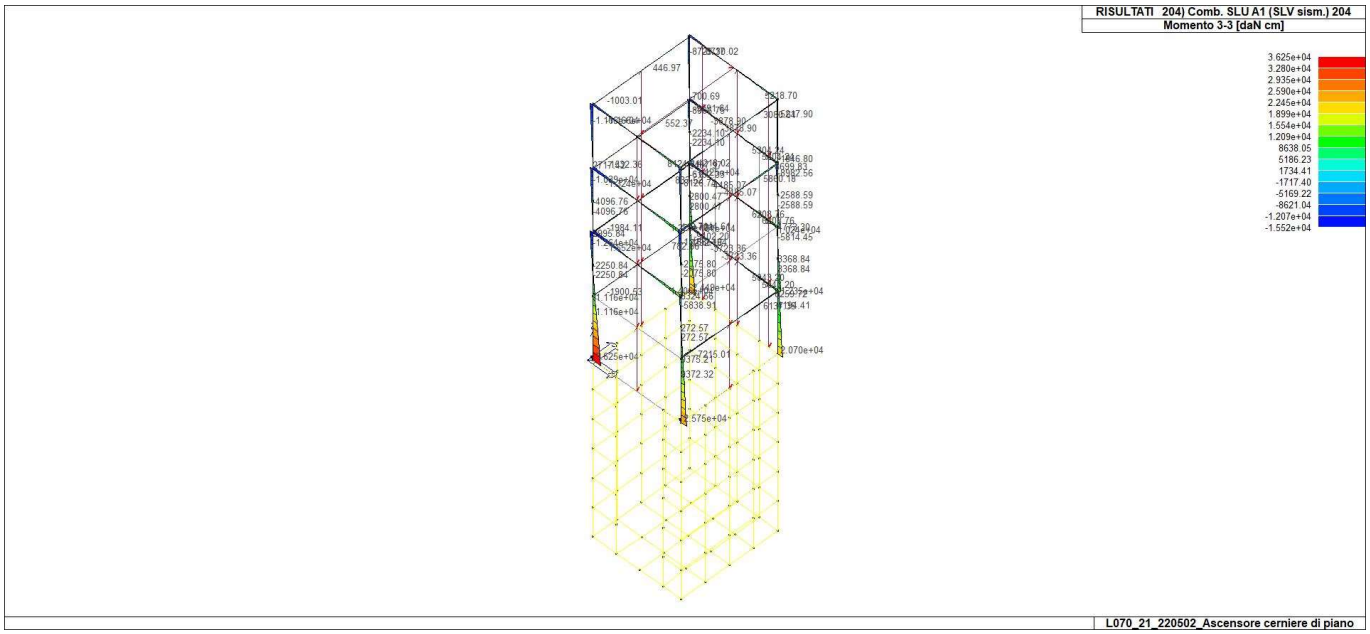
43_RIS_M2_417_Comb. SLE(perm.) 417



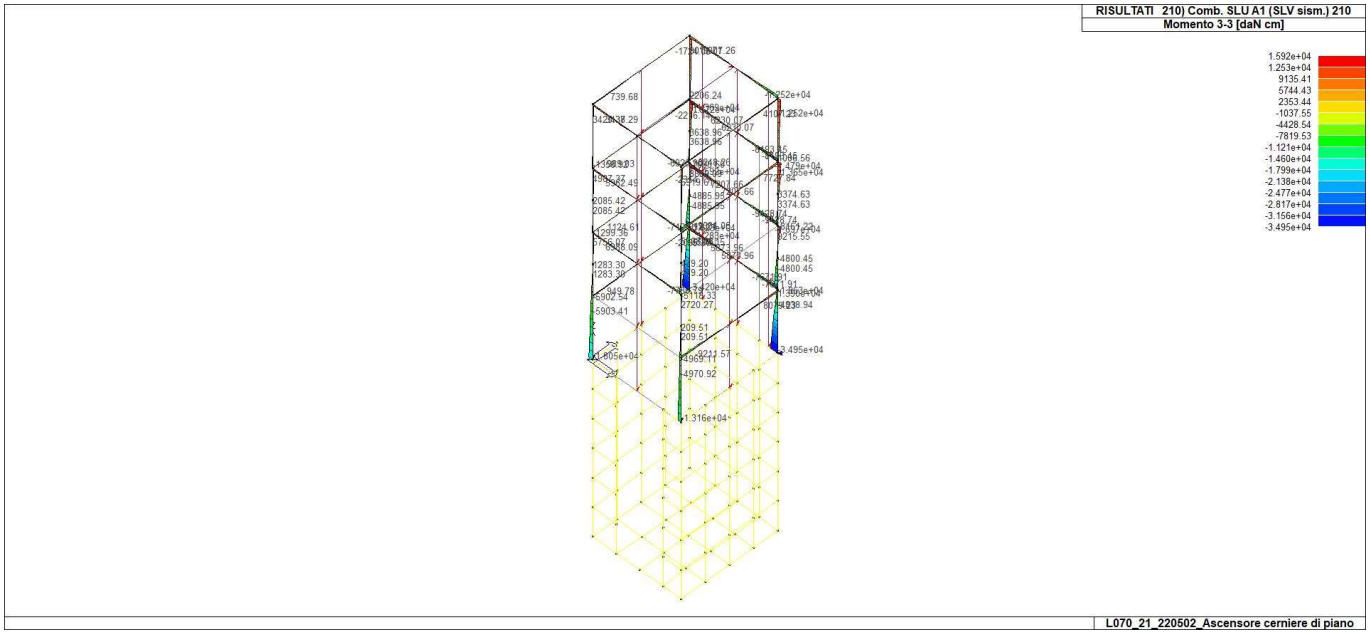
43_RIS_M3_079_Comb. SLU A1 79



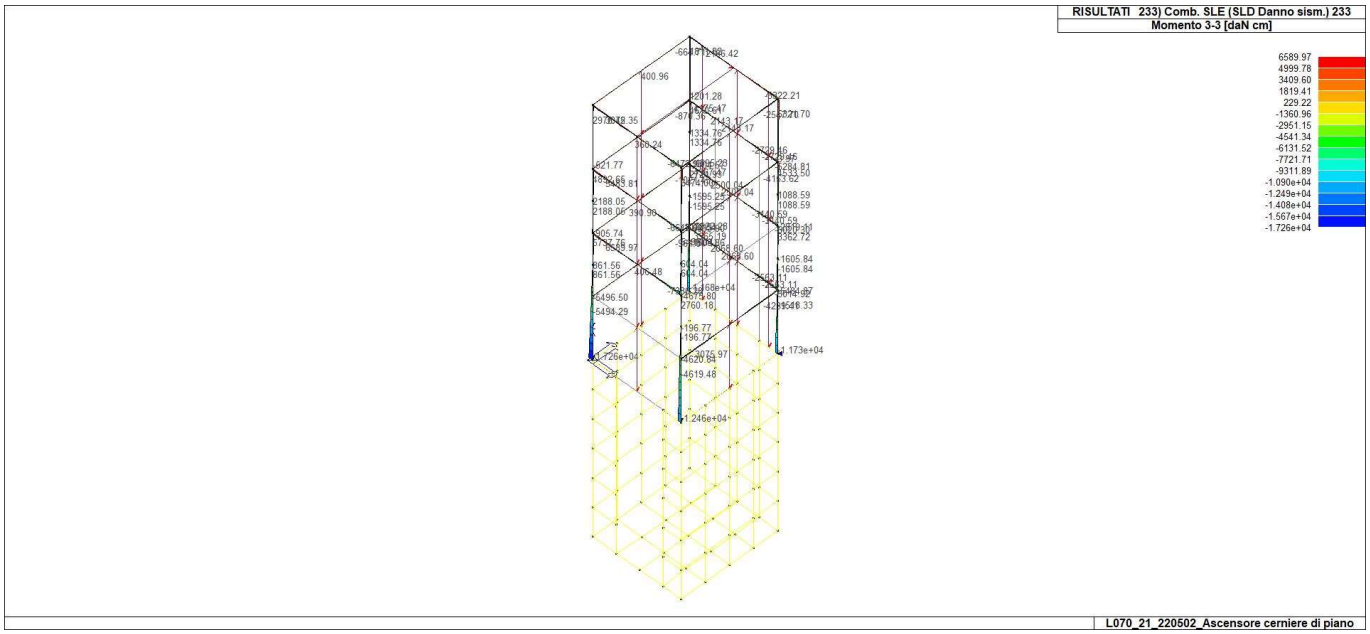
43_RIS_M3_088_Comb. SLU A1 88



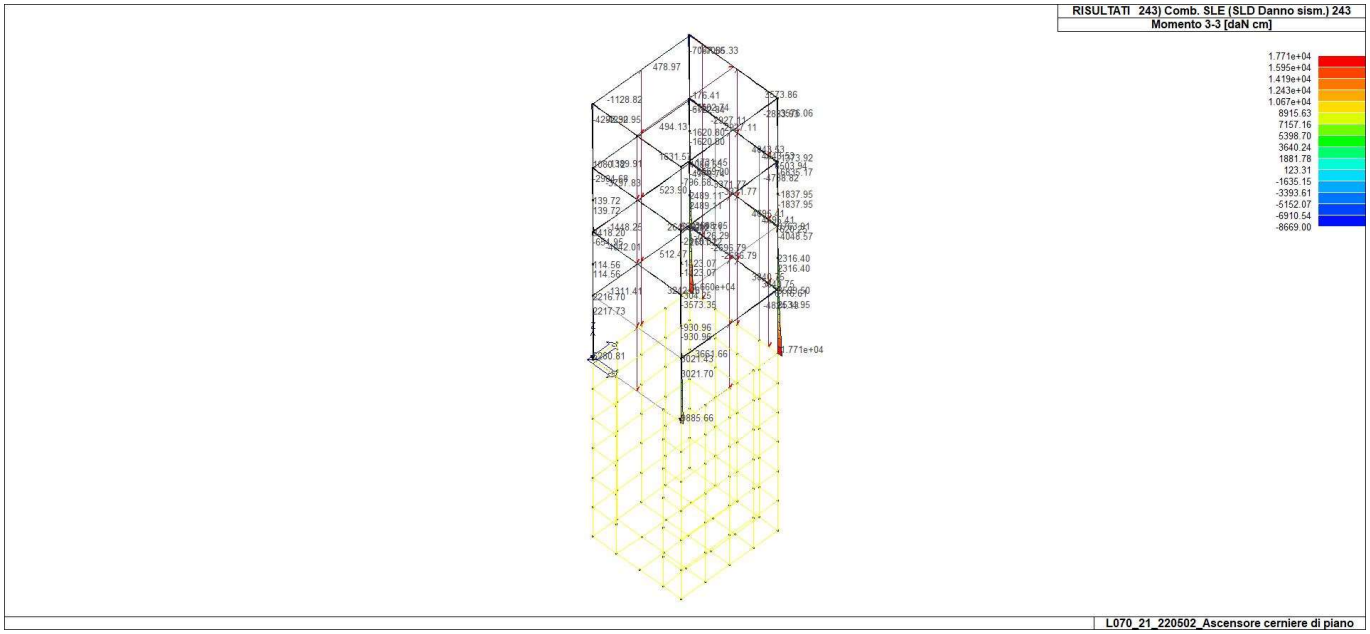
43_RIS_M3_204_Comb. SLU A1 (SLV sism.) 204



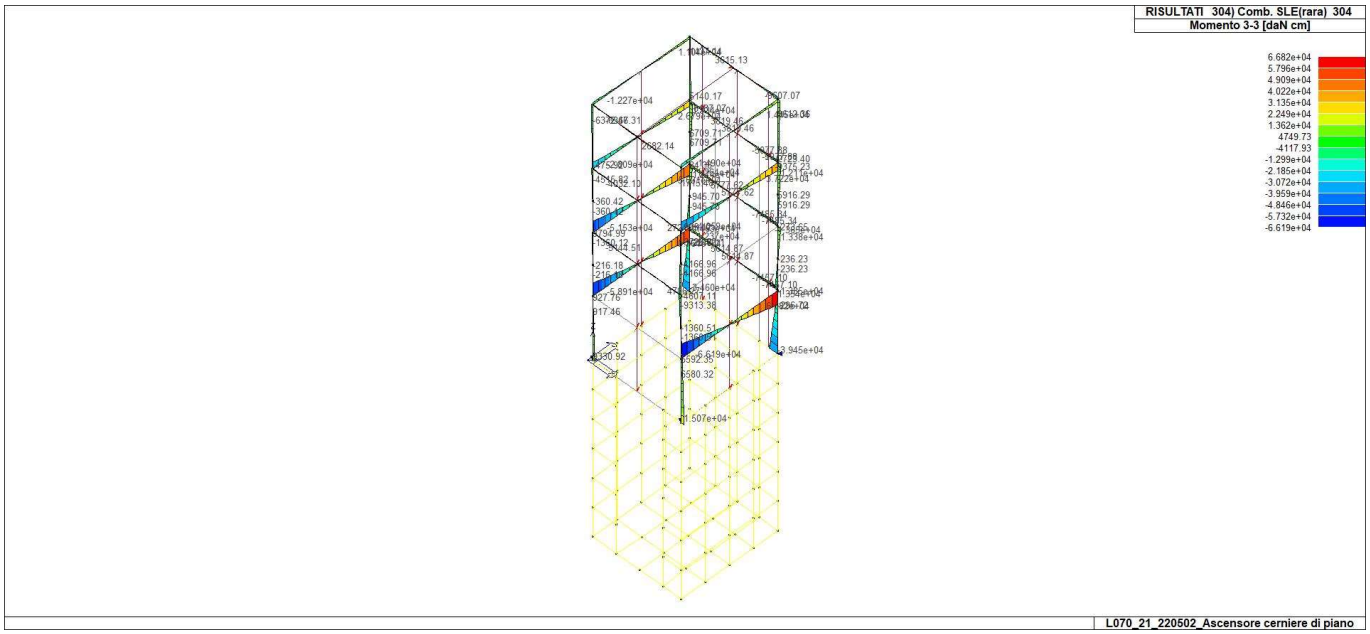
43_RIS_M3_210_Comb. SLU A1 (SLV sism.) 210



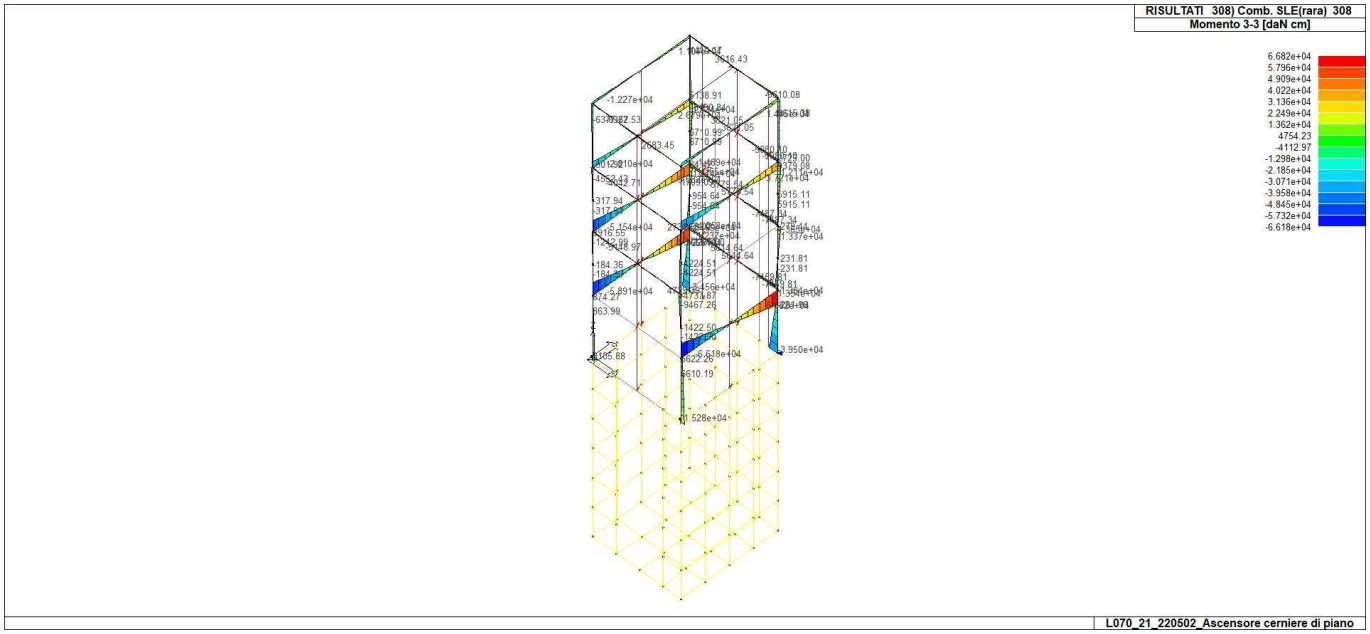
43_RIS_M3_233_Comb. SLE (SLD Danno sism.) 233



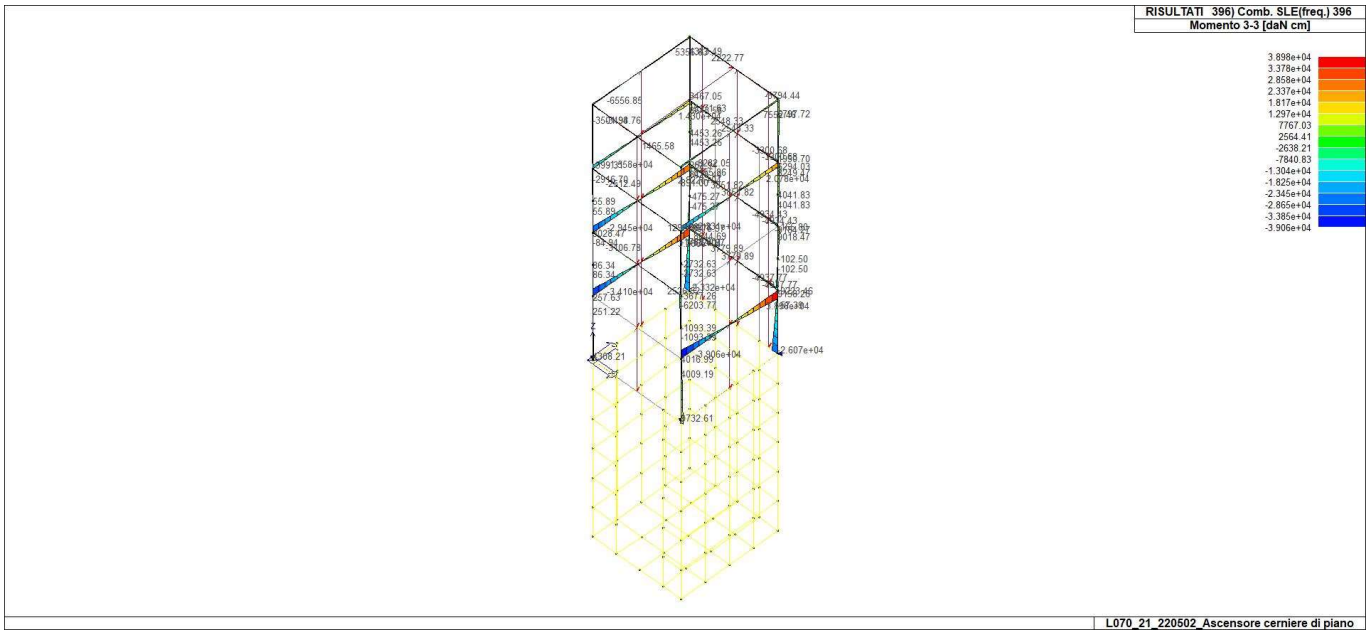
43_RIS_M3_243_Comb. SLE (SLD Danno sism.) 243



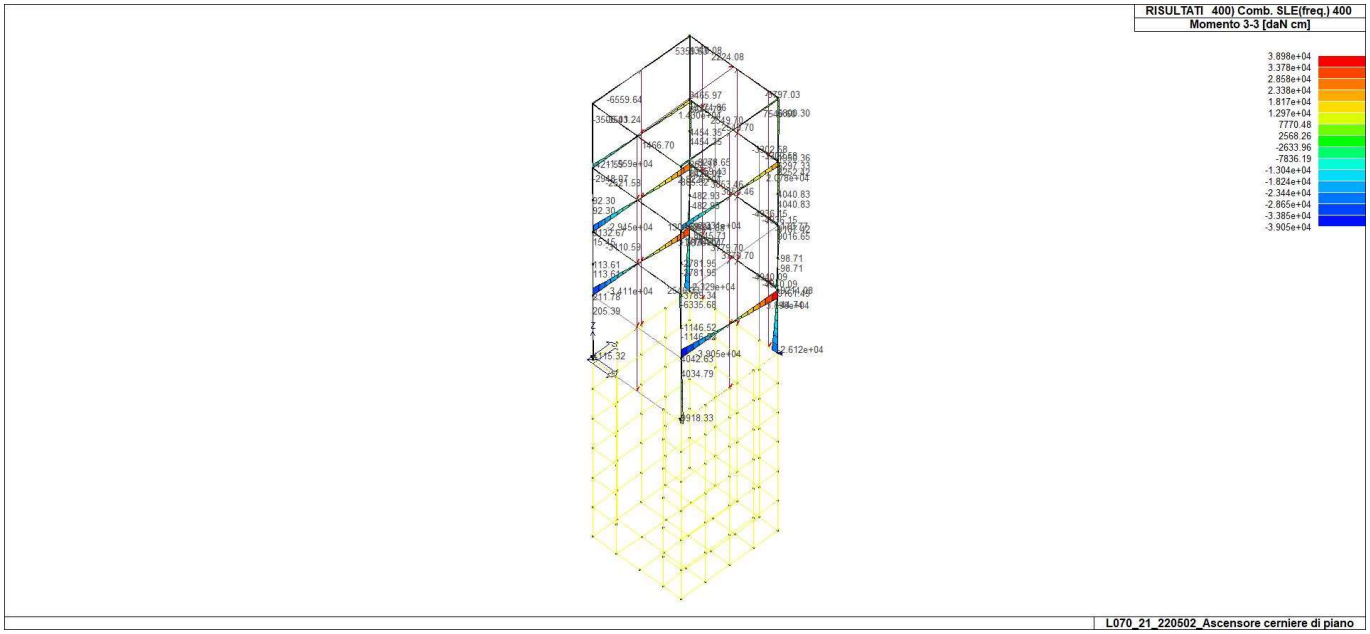
43_RIS_M3_304_Comb. SLE(rara) 304



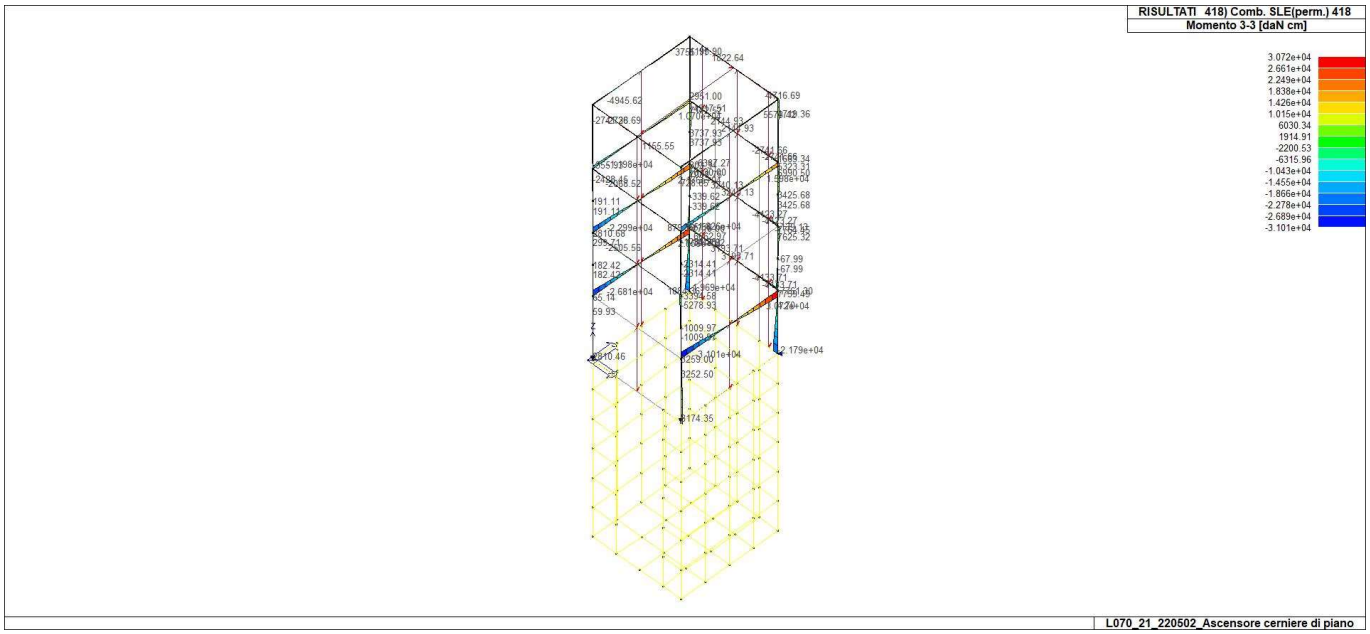
43_RIS_M3_308_Comb. SLE(rara) 308



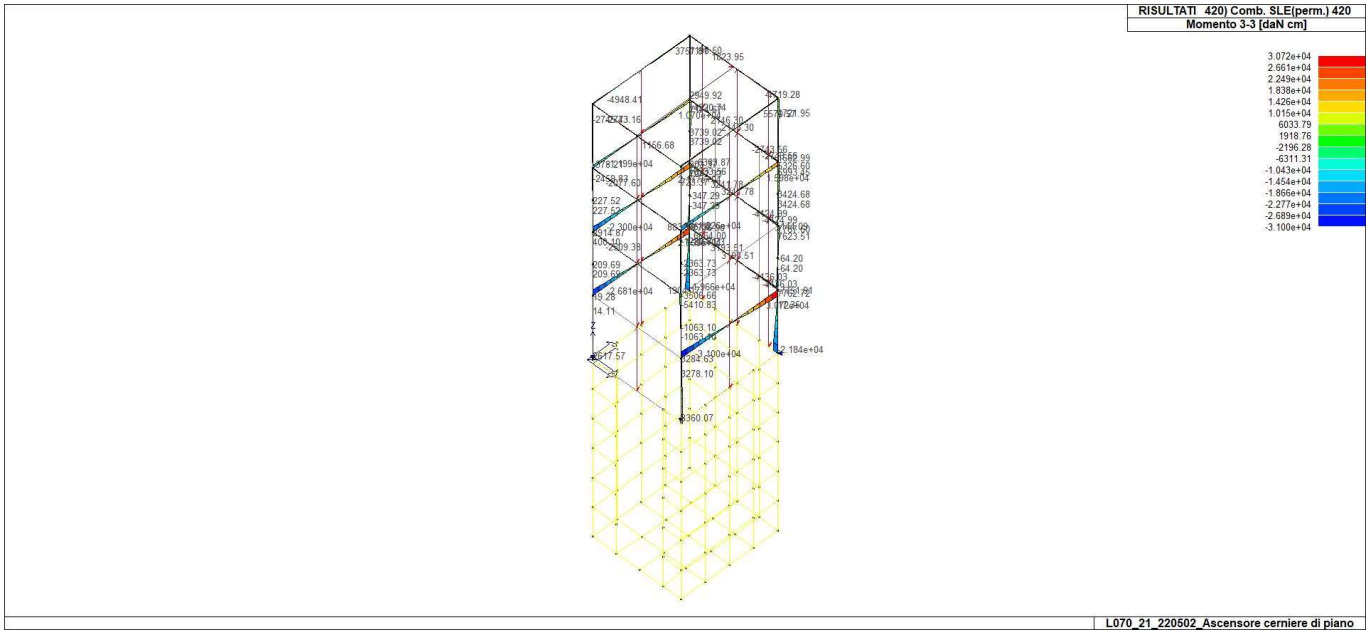
43_RIS_M3_396_Comb. SLE(freq.) 396



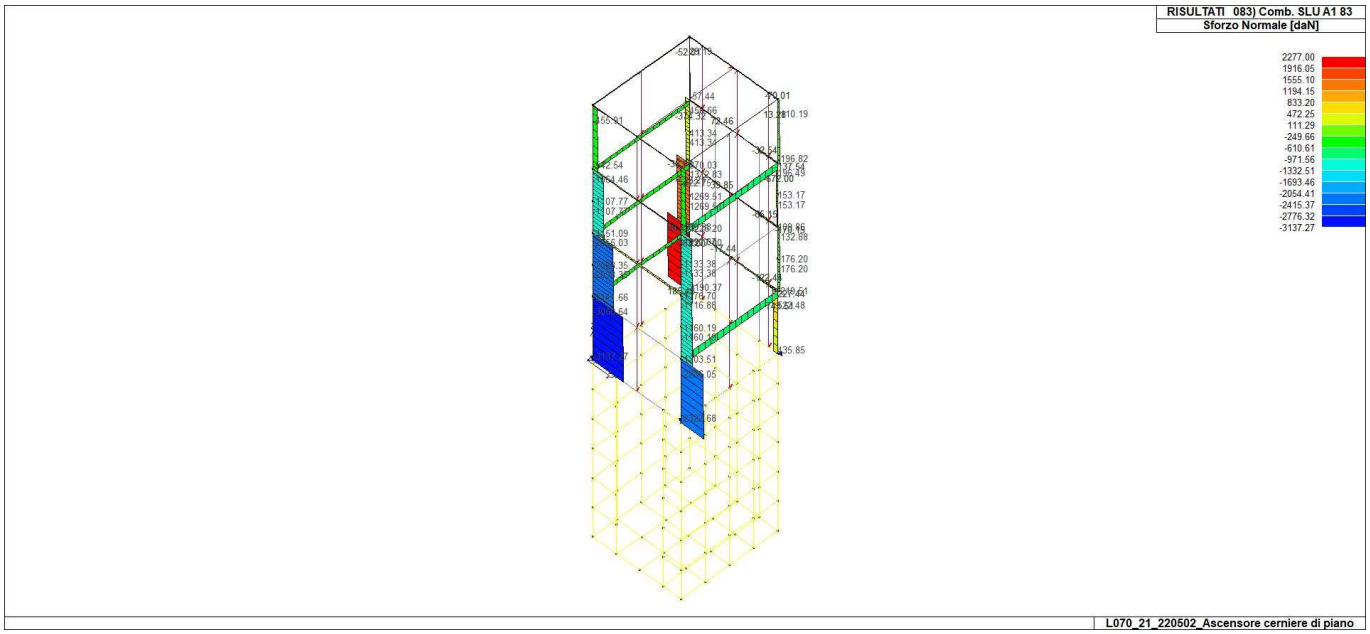
43_RIS_M3_400_Comb. SLE(freq.) 400



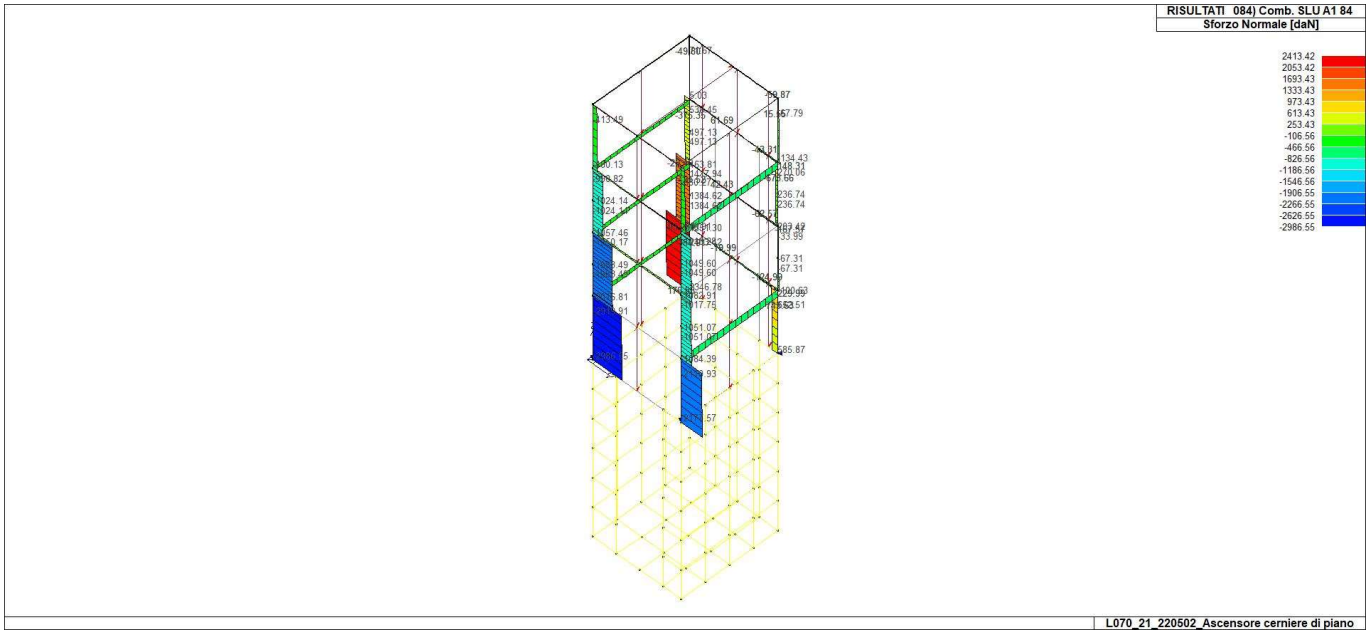
43_RIS_M3_418_Comb. SLE(perm.) 418



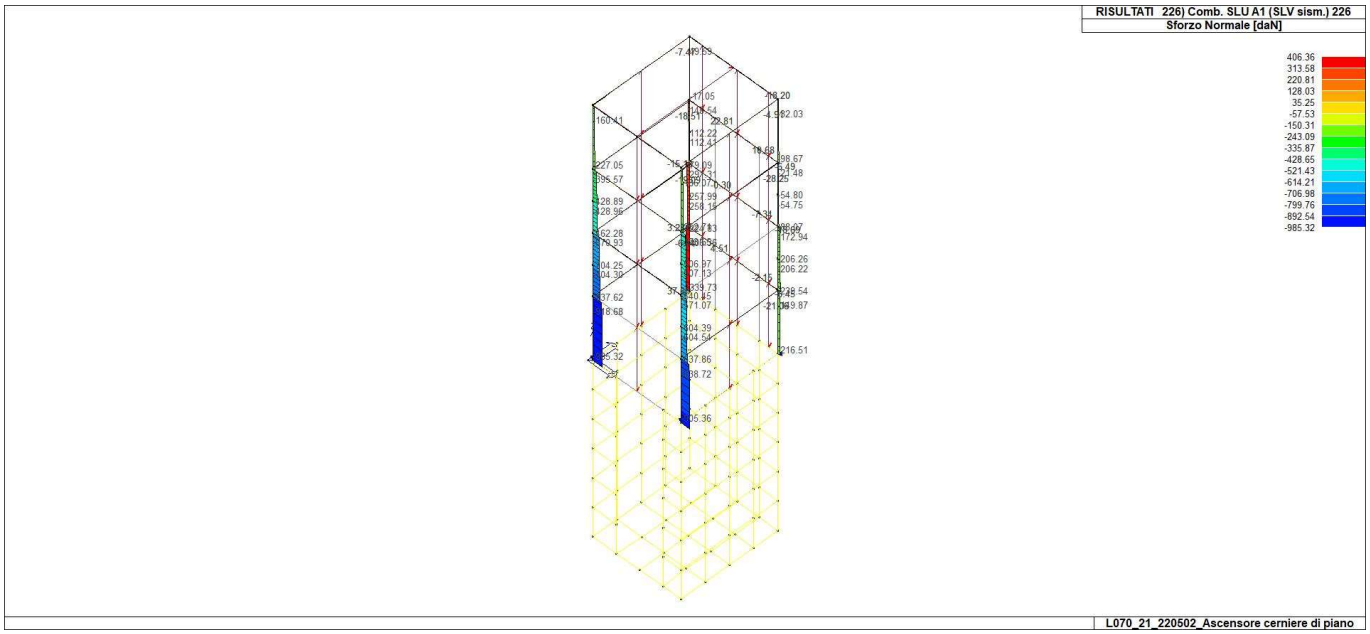
43_RIS_M3_420_Comb. SLE(perm.) 420



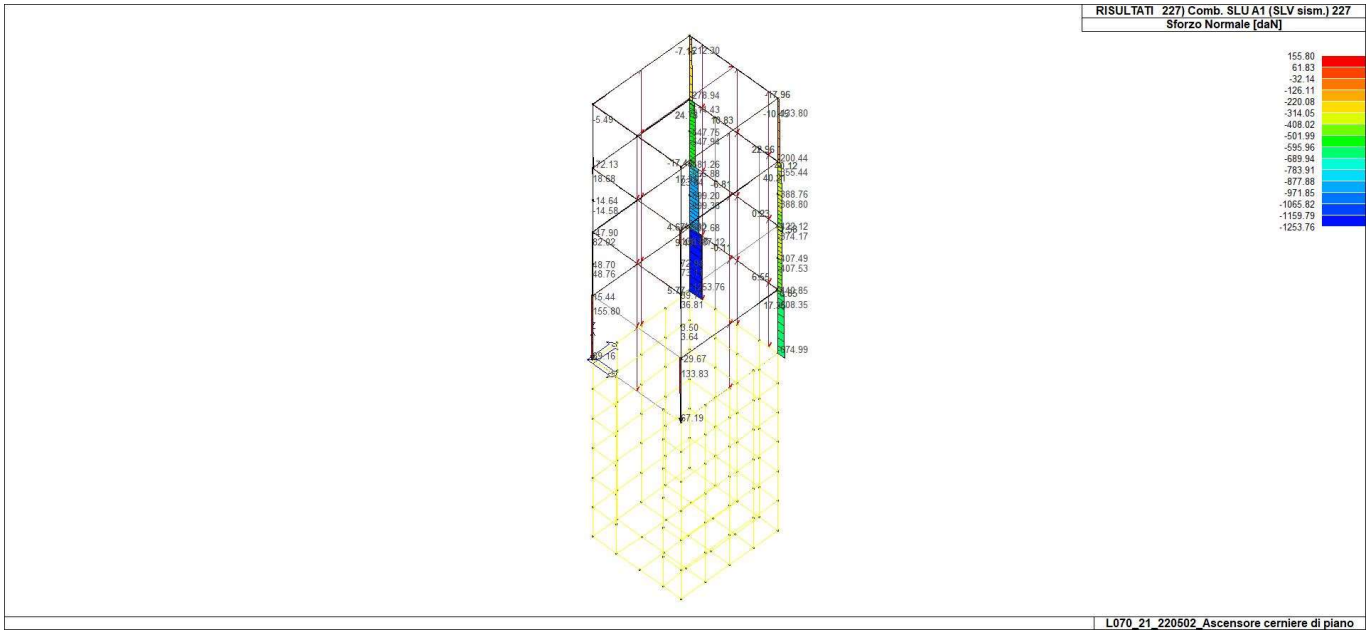
43_RIS_N_083_Comb. SLU A1 83



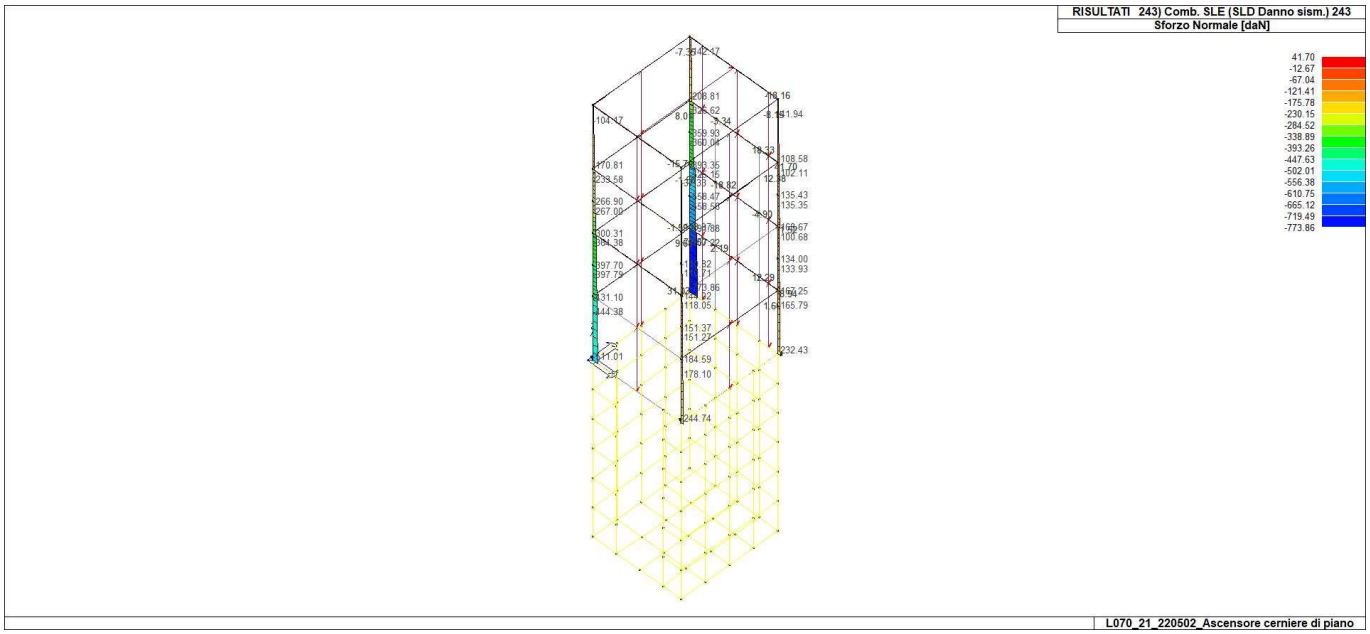
43_RIS_N_084_Comb. SLU A1 84



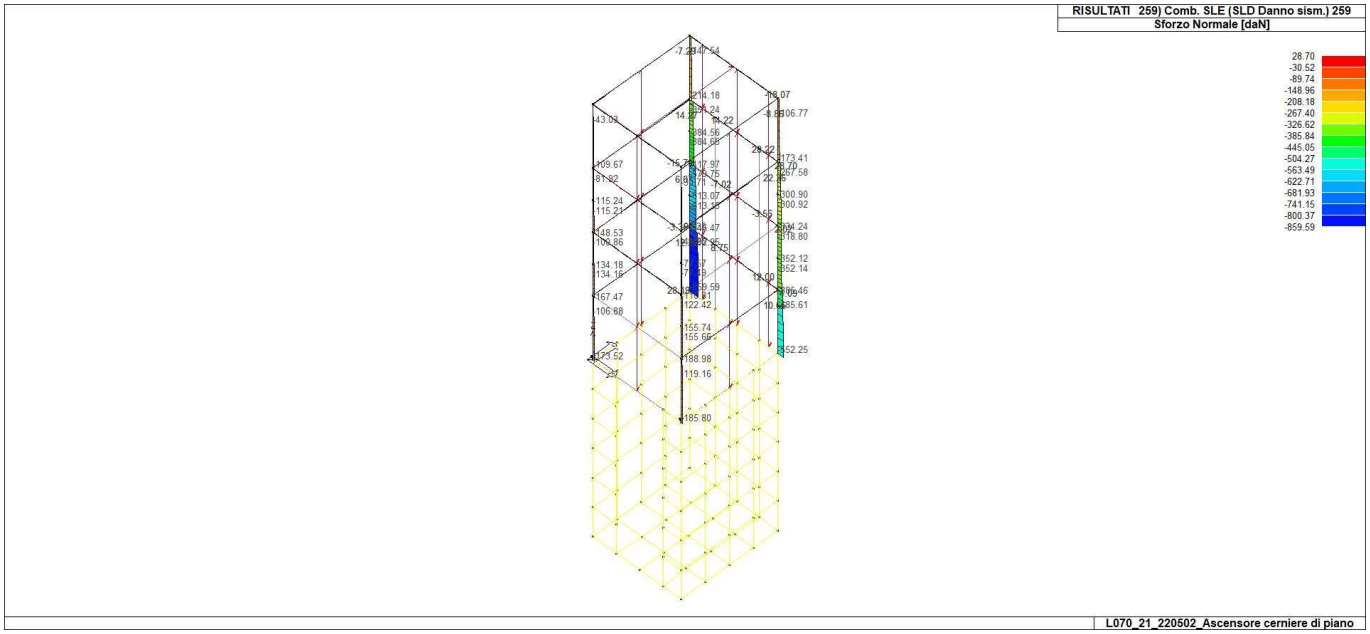
43_RIS_N_226_Comb. SLU A1 (SLV sism.) 226



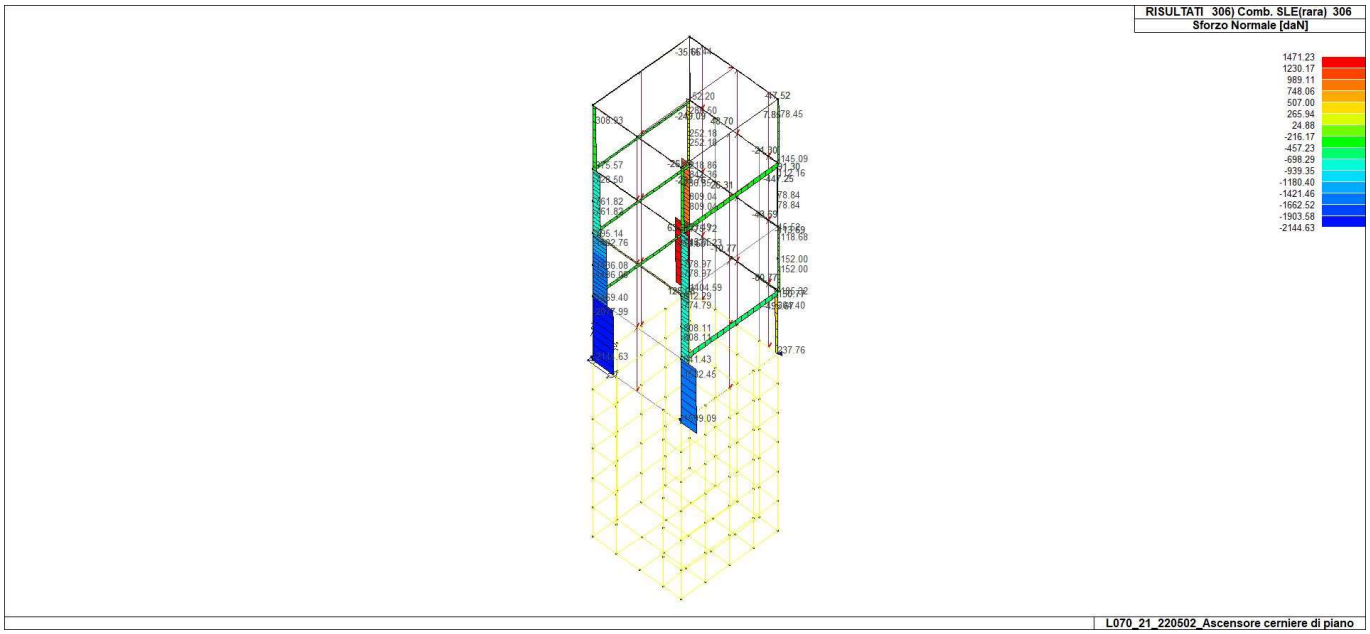
43_RIS_N_227_Comb. SLU A1 (SLV sism.) 227



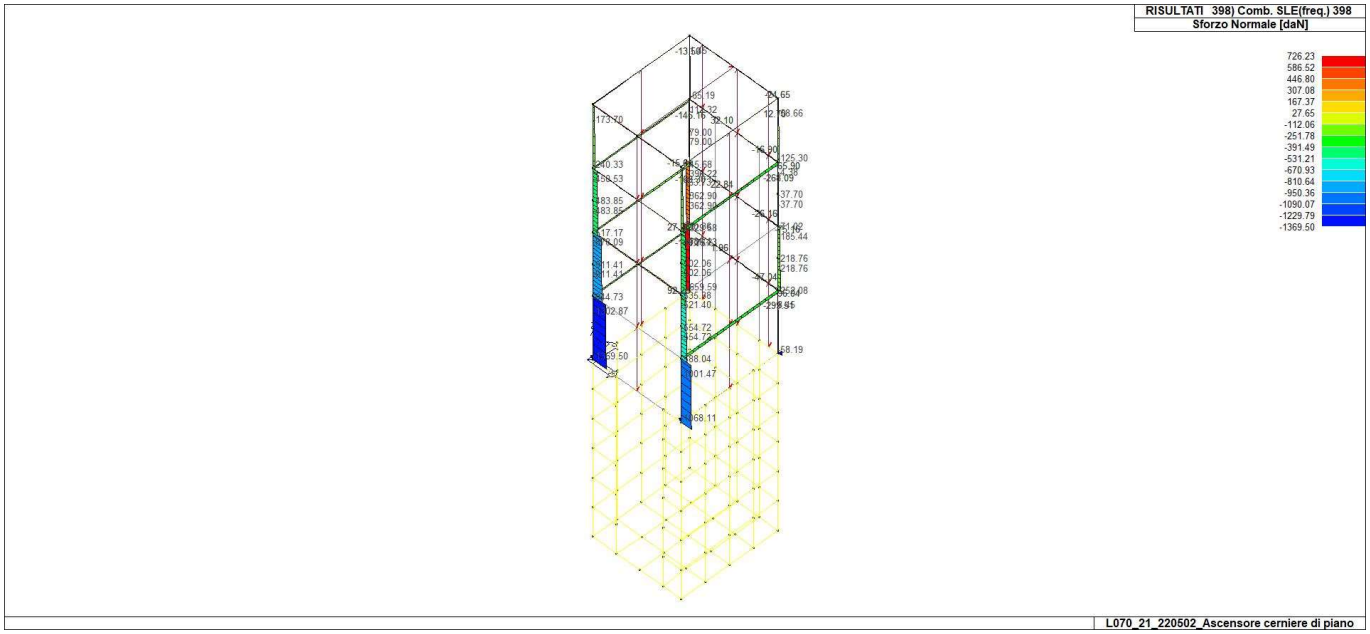
43_RIS_N_243_Comb. SLE (SLD Danno sism.) 243



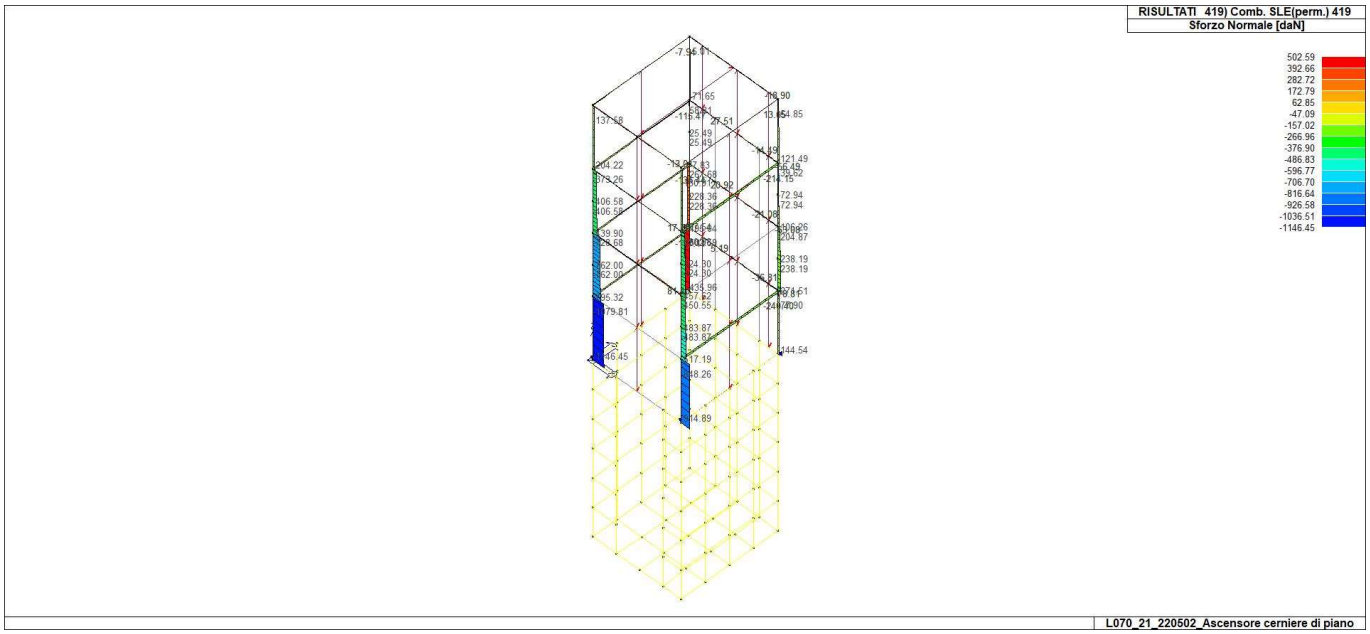
43_RIS_N_259_Comb. SLE (SLD Danno sism.) 259



43_RIS_N_306_Comb. SLE(rara) 306



43_RIS_N_398_Comb. SLE(freq.) 398

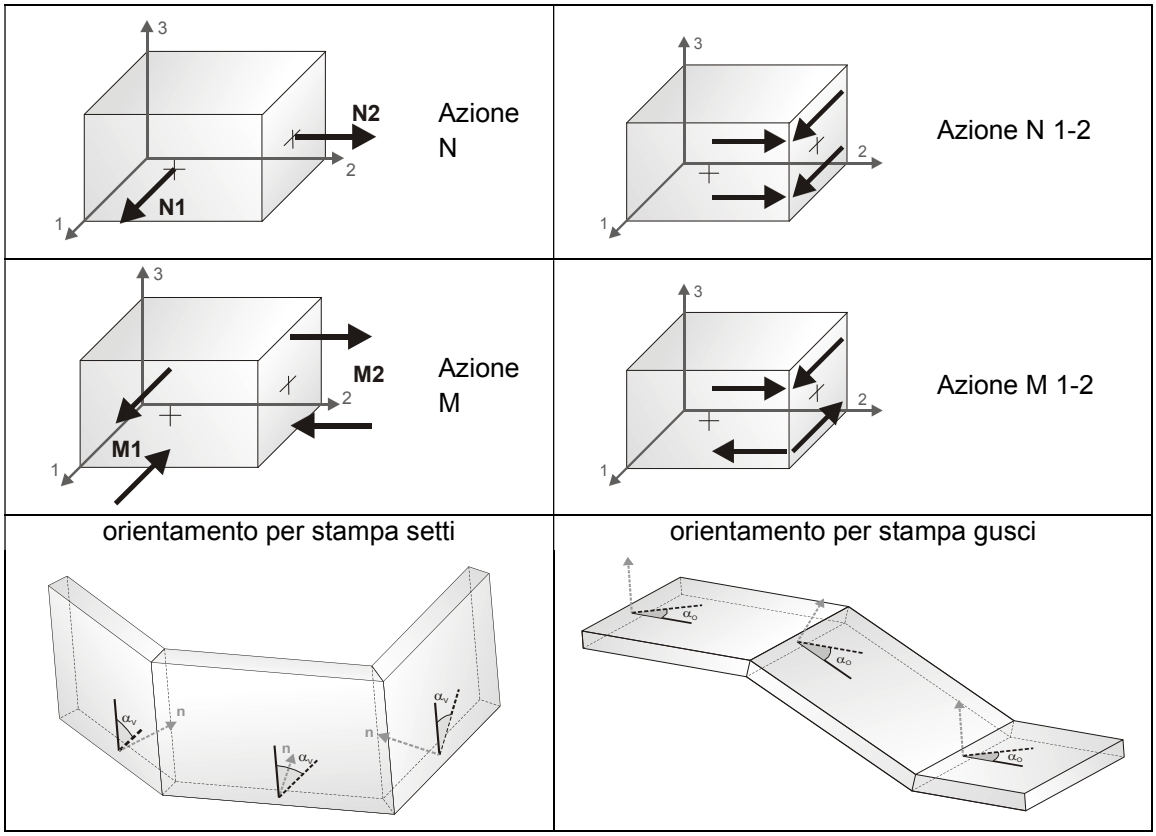


43_RIS_N_419_Comb. SLE(perm.) 419

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
N1-2	**M1**	(lo sforzo 2-1 è uguale allo sforzo 1-2 per la reciprocità delle tensioni
M2	**M1-2**	tangenziali)

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	32	-360.00	-1881.17	-28.36	132.17	-2.832e+04	-1.067e+04	-4116.28
2	32	-300.00	-2178.28	126.06	132.17	-1.840e+04	-3529.34	-2306.47
2	32	-240.00	-1813.75	150.83	40.68	-1.312e+04	-807.78	-565.20
2	32	-180.00	-1348.64	108.82	7.76	-1.021e+04	-603.34	862.88
2	32	-120.00	-919.07	49.56	16.89	-9662.43	131.41	2020.58
2	32	-60.00	-389.58	-41.47	-3.62	-1.561e+04	-1953.84	4296.85
2	32	0.0	357.93	237.90	68.08	-8615.84	647.28	2864.03
2	67	-360.00	-3415.86	-29.39	192.47	-5.083e+04	-1.418e+04	-7794.71
2	67	-300.00	-4065.91	282.52	192.47	-2.799e+04	-4664.04	-9853.00
2	67	-240.00	-3601.00	319.60	73.36	-1.416e+04	519.37	-7375.13
2	67	-180.00	-2915.85	294.85	11.15	-4080.94	955.11	-6258.92
2	67	-120.00	-2202.00	254.74	4.03	3160.00	1035.55	-5778.98
2	67	-60.00	-1720.62	232.73	60.28	1.399e+04	5430.40	-7663.62
2	67	0.0	-1394.15	-67.63	-101.20	1.315e+04	427.32	1204.13
2	87	-360.00	-3325.90	-55.76	187.84	-4.883e+04	-1.356e+04	-7540.79
2	87	-300.00	-4015.74	254.70	187.84	-2.663e+04	-4272.02	-1.022e+04
2	87	-240.00	-3618.34	297.50	71.66	-1.262e+04	799.07	-8043.43
2	87	-180.00	-2987.54	284.86	9.62	-2194.70	1185.11	-7199.87
2	87	-120.00	-2302.88	261.65	-2.50	5650.26	960.18	-6919.97
2	87	-60.00	-1890.93	267.18	64.13	1.926e+04	6326.68	-9610.37
2	87	0.0	-1682.09	-128.86	-130.36	1.712e+04	197.15	104.94
2	151	-360.00	-2932.34	-97.09	207.70	-4.245e+04	-1.641e+04	-5530.49
2	151	-300.00	-3535.72	94.10	207.70	-2.818e+04	-5095.60	-2480.34
2	151	-240.00	-3249.71	129.21	65.24	-2.113e+04	-815.78	215.42
2	151	-180.00	-2761.54	105.14	5.19	-1.769e+04	-805.62	2466.38
2	151	-120.00	-2210.15	72.80	-4.77	-1.769e+04	-1273.07	4559.68
2	151	-60.00	-1556.22	-20.89	2.18	-2.361e+04	-1844.05	6028.63
2	151	0.0	-282.90	494.30	59.66	-6210.02	901.68	1282.61
2	204	-360.00	-2833.34	635.63	307.08	-4.725e+04	-2.441e+04	-6295.84
2	204	-300.00	-2719.30	752.51	307.08	-1.641e+04	-3369.40	7953.35
2	204	-240.00	-1664.58	612.76	81.19	-2782.80	381.02	8065.04
2	204	-180.00	-818.57	382.63	13.57	4962.27	504.24	7859.88
2	204	-120.00	-189.35	169.51	14.76	7011.75	989.29	5950.64
2	204	-60.00	10.26	38.52	42.22	6288.81	2946.94	2999.96
2	204	0.0	-353.92	-293.67	-70.06	1883.20	1107.95	-2013.59
2	216	-360.00	-2850.79	618.09	329.73	-4.725e+04	-2.448e+04	-6090.95
2	216	-300.00	-2736.74	734.97	329.73	-1.641e+04	-3447.85	8542.58
2	216	-240.00	-1707.05	590.25	81.16	-2782.80	343.53	8775.22
2	216	-180.00	-885.64	360.08	12.07	4962.27	408.04	8551.54
2	216	-120.00	-184.73	147.96	13.04	7011.75	784.81	6871.07
2	216	-60.00	-4.20	13.74	41.24	6288.81	2626.88	3879.65
2	216	0.0	-384.42	-238.76	-56.28	1883.20	1009.62	-1101.30
2	229	-360.00	-1728.49	-81.55	71.97	-2.825e+04	-6976.15	-4041.35
2	229	-300.00	-2037.20	110.14	71.97	-1.787e+04	-3308.53	-6460.44
2	229	-240.00	-1647.87	134.31	28.56	-1.174e+04	-1308.27	-4307.79
2	229	-180.00	-1153.22	109.36	0.43	-7419.03	-1564.93	-2508.57
2	229	-120.00	-731.73	70.26	-9.24	-4819.87	-2163.99	-682.84
2	229	-60.00	-303.05	13.48	-34.57	-3163.43	-3241.21	1106.01

2	229	0.0	243.30	147.92	46.86	130.21	-1215.93	-2115.75
2	236	-360.00	-2241.65	30.13	128.62	-3.185e+04	-9908.83	-5588.83
2	236	-300.00	-2631.17	224.67	128.62	-1.857e+04	-3082.72	-5895.71
2	236	-240.00	-2225.51	257.73	45.70	-1.072e+04	-51.26	-4567.63
2	236	-180.00	-1697.04	227.15	6.92	-5198.39	172.35	-3723.27
2	236	-120.00	-1145.85	173.07	9.65	-1722.37	549.04	-3466.59
2	236	-60.00	-744.32	127.04	36.01	1109.34	2174.96	-3394.99
2	236	0.0	-539.38	-81.98	-48.33	2633.71	455.69	-177.10
2	248	-360.00	-2250.44	21.46	139.81	-3.185e+04	-9943.20	-5487.55
2	248	-300.00	-2639.96	216.00	139.81	-1.857e+04	-3121.34	-5603.56
2	248	-240.00	-2246.68	246.59	45.69	-1.072e+04	-69.98	-4215.21
2	248	-180.00	-1730.34	215.98	6.17	-5198.39	124.49	-3379.67
2	248	-120.00	-1143.68	162.38	8.79	-1722.37	447.44	-3009.37
2	248	-60.00	-751.65	114.74	35.52	1109.34	2016.30	-2957.99
2	248	0.0	-554.54	-54.71	-41.50	2633.71	407.28	276.21
2	261	-360.00	-2004.34	-47.06	122.41	-3.185e+04	-9904.72	-4500.15
2	261	-300.00	-2393.87	147.47	122.41	-1.857e+04	-3075.83	-4933.87
2	261	-240.00	-2033.51	174.56	41.54	-1.072e+04	-313.53	-3231.71
2	261	-180.00	-1547.45	145.94	5.28	-5198.39	-272.64	-2000.25
2	261	-120.00	-1103.32	101.29	5.63	-1722.37	-106.19	-1043.95
2	261	-60.00	-706.11	51.10	11.38	1109.34	681.37	-691.18
2	261	0.0	-251.75	86.46	-1.51	2633.71	-5.68	1049.13
2	280	-360.00	-1955.07	-28.40	131.97	-2.952e+04	-1.046e+04	-4353.54
2	280	-300.00	-2283.36	139.60	131.97	-1.847e+04	-3418.12	-3213.47
2	280	-240.00	-1921.24	165.89	41.70	-1.233e+04	-593.99	-1534.81
2	280	-180.00	-1449.43	128.54	6.90	-8542.19	-418.39	-260.01
2	280	-120.00	-1005.59	73.97	13.20	-7007.76	137.94	745.55
2	280	-60.00	-524.00	-2.09	5.07	-1.001e+04	-876.44	2299.32
2	280	0.0	94.27	168.42	39.90	-4839.03	534.45	2283.31
2	298	-360.00	-2554.49	-23.36	145.67	-3.810e+04	-1.078e+04	-5833.46
2	298	-300.00	-3039.42	210.31	145.67	-2.112e+04	-3531.33	-7231.56
2	298	-240.00	-2682.01	238.88	54.68	-1.086e+04	324.10	-5374.28
2	298	-180.00	-2160.88	218.67	8.12	-3413.61	630.24	-4502.00
2	298	-120.00	-1622.17	185.97	3.42	1869.04	708.31	-4088.38
2	298	-60.00	-1249.40	165.18	42.97	9452.07	3775.84	-5324.66
2	298	0.0	-983.33	-41.14	-69.45	9093.56	322.68	943.44
2	308	-360.00	-2494.52	-40.94	142.58	-3.677e+04	-1.037e+04	-5664.18
2	308	-300.00	-3005.97	191.77	142.58	-2.021e+04	-3269.98	-7475.28
2	308	-240.00	-2693.56	224.14	53.55	-9837.24	510.57	-5819.82
2	308	-180.00	-2208.68	212.01	7.10	-2156.12	783.57	-5129.30
2	308	-120.00	-1689.42	190.58	-0.93	3529.22	658.07	-4849.04
2	308	-60.00	-1362.94	188.14	45.54	1.296e+04	4373.36	-6622.50
2	308	0.0	-1175.29	-81.96	-88.89	1.174e+04	169.23	210.65
2	340	-360.00	-2232.14	-68.49	155.82	-3.252e+04	-1.227e+04	-4323.97
2	340	-300.00	-2685.96	84.70	155.82	-2.125e+04	-3819.04	-2316.46
2	340	-240.00	-2447.81	111.95	49.26	-1.551e+04	-566.00	-313.92
2	340	-180.00	-2058.01	92.20	4.14	-1.249e+04	-543.58	1314.87
2	340	-120.00	-1627.60	64.68	-2.45	-1.203e+04	-830.76	2804.07
2	340	-60.00	-1139.80	-3.90	4.24	-1.561e+04	-1073.79	3803.51
2	340	0.0	-242.49	333.48	37.79	-3815.82	638.92	995.76
2	371	-360.00	-2403.66	-6.99	142.07	-3.651e+04	-1.086e+04	-5524.73
2	371	-300.00	-2813.92	209.02	142.07	-2.087e+04	-3662.06	-5911.07
2	371	-240.00	-2409.13	233.82	50.63	-1.187e+04	-122.31	-3980.37
2	371	-180.00	-1867.51	200.98	7.91	-5579.50	136.18	-2860.90
2	371	-120.00	-1341.67	149.99	9.70	-1574.47	514.82	-2167.58
2	371	-60.00	-915.67	97.43	31.40	1789.05	2004.07	-2200.34
2	371	0.0	-521.41	36.97	-23.73	3255.85	504.35	1890.38
2	380	-360.00	-1997.39	-28.40	131.74	-3.022e+04	-1.033e+04	-4491.55
2	380	-300.00	-2344.05	147.56	131.74	-1.850e+04	-3348.74	-3752.88
2	380	-240.00	-1983.48	174.72	42.27	-1.185e+04	-465.68	-2112.93
2	380	-180.00	-1507.87	140.18	6.37	-7539.05	-307.44	-930.71
2	380	-120.00	-1055.59	88.47	10.96	-5422.15	140.45	-16.34
2	380	-60.00	-602.48	21.41	10.15	-6675.75	-239.56	1107.57
2	380	0.0	-61.45	126.74	23.12	-2597.21	464.59	1929.16
2	391	-360.00	-2398.21	-26.19	136.90	-3.576e+04	-1.024e+04	-5498.28
2	391	-300.00	-2845.30	194.76	136.90	-2.021e+04	-3451.56	-6718.50
2	391	-240.00	-2486.19	223.14	50.41	-1.087e+04	114.80	-4918.18
2	391	-180.00	-1975.27	201.06	7.06	-4166.09	361.16	-3988.43
2	391	-120.00	-1454.41	165.55	3.27	413.91	432.01	-3439.28
2	391	-60.00	-1067.28	136.99	32.98	6249.76	2687.04	-4113.99
2	391	0.0	-761.67	-16.73	-49.07	6599.82	242.76	794.66
2	400	-360.00	-2383.82	-32.25	136.46	-3.540e+04	-1.014e+04	-5451.78
2	400	-300.00	-2842.37	188.88	136.46	-1.993e+04	-3359.73	-6810.06
2	400	-240.00	-2499.50	218.65	50.23	-1.050e+04	193.06	-5082.41
2	400	-180.00	-2001.20	199.46	6.75	-3674.53	430.09	-4221.50
2	400	-120.00	-1486.89	167.98	1.81	1086.20	432.89	-3728.45
2	400	-60.00	-1117.62	146.22	34.56	7667.09	2965.57	-4626.52

2	400	0.0	-842.19	-32.33	-57.05	7673.91	197.60	557.27
2	412	-360.00	-2373.38	-9.26	140.72	-3.602e+04	-1.076e+04	-5452.87
2	412	-300.00	-2781.10	204.61	140.72	-2.063e+04	-3619.46	-5837.08
2	412	-240.00	-2381.22	229.85	49.89	-1.175e+04	-131.87	-3941.14
2	412	-180.00	-1845.47	197.50	7.65	-5540.70	114.15	-2834.14
2	412	-120.00	-1325.19	147.15	9.34	-1590.28	476.61	-2137.95
2	412	-60.00	-903.27	95.33	30.53	1722.03	1930.71	-2154.18
2	412	0.0	-512.29	36.29	-22.98	3197.42	484.82	1814.97
2	413	-360.00	-2011.50	-28.40	131.66	-3.045e+04	-1.028e+04	-4537.55
2	413	-300.00	-2364.28	150.21	131.66	-1.851e+04	-3325.62	-3932.69
2	413	-240.00	-2004.23	177.66	42.46	-1.169e+04	-422.91	-2305.64
2	413	-180.00	-1527.36	144.06	6.20	-7204.67	-270.46	-1154.27
2	413	-120.00	-1072.25	93.30	10.22	-4893.61	141.28	-270.30
2	413	-60.00	-628.63	29.25	11.84	-5563.60	-27.27	710.32
2	413	0.0	-113.36	112.85	17.53	-1849.93	441.30	1811.11
2	420	-360.00	-2367.92	-28.47	135.55	-3.526e+04	-1.014e+04	-5426.42
2	420	-300.00	-2812.47	190.36	135.55	-1.998e+04	-3408.96	-6644.51
2	420	-240.00	-2458.29	219.16	49.68	-1.075e+04	105.24	-4878.95
2	420	-180.00	-1953.23	197.58	6.80	-4127.29	339.13	-3961.67
2	420	-120.00	-1437.93	162.71	2.91	398.10	393.81	-3409.65
2	420	-60.00	-1054.87	134.89	32.11	6182.74	2613.67	-4067.83
2	420	0.0	-752.55	-17.41	-48.32	6541.39	223.22	719.25
M_S			**N memb.**	**V memb.**	**V orto**	**M memb.**	**M orto**	**T**
			-4065.91	-293.67	-130.36	-5.083e+04	-2.448e+04	-1.022e+04
			357.93	752.51	329.73	1.926e+04	6326.68	8775.22

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	32	-360.00	-1844.67	-70.42	95.15	2.174e+04	-7905.60	3306.81
3	32	-300.00	-2117.85	-176.02	95.15	1.008e+04	-2563.64	2192.00
3	32	-240.00	-1622.97	-196.75	41.27	4972.58	196.49	1153.89
3	32	-180.00	-1073.04	-159.60	13.96	739.30	706.62	760.80
3	32	-120.00	-603.76	-118.47	29.52	-2560.66	2120.78	1279.23
3	32	-60.00	-177.00	-131.86	20.34	-5636.17	2487.38	1814.26
3	32	0.0	-215.39	144.45	-54.59	-236.07	803.03	-2813.66
3	178	-360.00	-1931.07	-65.57	83.83	2.246e+04	-7002.15	3590.65
3	178	-300.00	-2232.75	-200.50	83.83	9758.65	-2405.75	3733.86
3	178	-240.00	-1710.69	-222.27	40.36	3708.33	412.08	2732.62
3	178	-180.00	-1127.38	-190.59	12.12	-1604.95	860.94	2601.19
3	178	-120.00	-615.35	-157.25	23.57	-6238.07	1998.08	3398.74
3	178	-60.00	-268.02	-248.67	59.30	-1.432e+04	5158.17	6350.12
3	178	0.0	-754.85	383.41	-109.80	-2958.79	23.56	-991.13
3	183	-360.00	-2711.86	-81.69	106.18	3.045e+04	-9266.34	4962.09
3	183	-300.00	-3133.83	-255.87	106.18	1.366e+04	-3683.90	5391.38
3	183	-240.00	-2471.29	-282.44	56.22	5935.22	357.14	3657.80
3	183	-180.00	-1718.54	-238.23	15.66	-588.75	931.93	3128.41
3	183	-120.00	-1057.40	-188.66	28.53	-5942.04	2277.44	3709.07
3	183	-60.00	-606.34	-264.43	76.07	-1.460e+04	6225.43	6815.94
3	183	0.0	-997.90	370.48	-127.01	-3375.95	465.24	-1991.07
3	201	-360.00	-1803.80	-79.75	63.64	1.668e+04	-5700.16	3649.17
3	201	-300.00	-2126.29	-173.22	63.64	8627.12	-2553.23	3874.21
3	201	-240.00	-1703.04	-206.56	33.65	5263.86	-143.01	2868.58
3	201	-180.00	-1198.16	-178.87	6.45	2723.51	27.99	2238.87
3	201	-120.00	-706.83	-137.15	12.19	1262.86	501.04	2305.81
3	201	-60.00	-365.88	-129.31	28.82	332.73	1932.79	2678.74
3	201	0.0	-371.96	202.86	-70.44	-659.90	23.04	3280.66
3	202	-360.00	-1887.17	-71.05	81.93	1.734e+04	-6534.79	3549.37
3	202	-300.00	-2232.42	-163.01	81.93	8769.19	-2651.70	3302.50
3	202	-240.00	-1844.06	-193.60	35.25	5157.28	83.84	2303.51
3	202	-180.00	-1372.21	-164.12	5.81	2446.33	312.36	1620.89
3	202	-120.00	-912.29	-119.92	11.83	867.43	661.27	1570.65
3	202	-60.00	-616.89	-102.37	43.70	-227.59	2640.84	2229.65
3	202	0.0	-593.89	154.15	-71.37	-799.49	724.60	1373.37
3	204	-360.00	-1671.07	30.09	132.33	2.339e+04	-1.041e+04	2300.12
3	204	-300.00	-2076.62	-51.61	132.33	1.124e+04	-2288.85	-495.90
3	204	-240.00	-1840.70	-61.48	45.96	6021.46	503.40	-1377.69
3	204	-180.00	-1536.62	-34.87	10.97	1842.15	872.11	-1866.87
3	204	-120.00	-1282.21	-10.65	6.92	-955.13	1231.13	-2183.37

3	204	-60.00	-1034.44	28.85	26.03	-3569.60	2435.33	-1073.15
3	204	0.0	-598.22	-179.22	-1.98	-1316.37	1272.82	-6231.29
3	221	-360.00	-1462.46	-30.51	25.71	1.514e+04	-3844.88	3132.62
3	221	-300.00	-1731.83	-127.50	25.71	8295.61	-2437.38	4438.82
3	221	-240.00	-1325.70	-156.72	26.66	5512.54	-698.00	3211.07
3	221	-180.00	-850.83	-134.74	4.40	3370.26	-771.11	2511.91
3	221	-120.00	-390.98	-103.89	1.63	2185.52	-611.20	2162.13
3	221	-60.00	-27.59	-88.51	-15.04	1640.13	-1023.36	1469.04
3	221	0.0	117.14	105.40	-9.48	-334.20	-1198.43	4056.02
3	233	-360.00	-1727.35	-41.59	72.57	1.734e+04	-6261.76	3175.28
3	233	-300.00	-2072.59	-133.56	72.57	8769.19	-2373.51	3132.86
3	233	-240.00	-1709.98	-162.60	33.80	5157.28	-5.11	2121.10
3	233	-180.00	-1264.66	-135.88	5.87	2446.33	123.80	1456.06
3	233	-120.00	-844.47	-97.56	9.69	867.43	501.38	1278.78
3	233	-60.00	-543.87	-77.39	28.40	-227.59	1895.70	1644.75
3	233	0.0	-426.18	93.00	-49.73	-799.49	364.07	857.49
3	234	-360.00	-1744.90	-35.75	76.46	1.734e+04	-6361.58	3131.28
3	234	-300.00	-2090.14	-127.72	76.46	8769.19	-2479.58	3021.51
3	234	-240.00	-1740.98	-155.07	33.56	5157.28	17.93	1970.20
3	234	-180.00	-1310.34	-127.88	5.09	2446.33	156.60	1257.98
3	234	-120.00	-903.83	-88.90	7.90	867.43	394.80	973.72
3	234	-60.00	-622.35	-63.20	31.32	-227.59	1856.08	1350.99
3	234	0.0	-486.77	67.52	-44.06	-799.49	572.26	233.37
3	251	-360.00	-1537.71	0.14	63.60	1.734e+04	-5990.24	2667.73
3	251	-300.00	-1882.96	-91.83	63.60	8769.19	-2100.12	2834.46
3	251	-240.00	-1563.02	-117.65	31.79	5157.28	-100.76	1776.84
3	251	-180.00	-1162.32	-94.08	5.37	2446.33	-90.97	1098.77
3	251	-120.00	-802.55	-62.70	5.64	867.43	218.67	680.17
3	251	-60.00	-509.69	-35.06	11.16	-227.59	920.34	682.10
3	251	0.0	-258.51	-3.71	-18.03	-799.49	61.86	-263.83
3	280	-360.00	-1767.06	-47.41	87.22	2.030e+04	-7341.99	3115.37
3	280	-300.00	-2064.65	-148.56	87.22	9652.86	-2481.97	2379.83
3	280	-240.00	-1630.93	-170.47	38.19	5039.44	115.50	1319.20
3	280	-180.00	-1133.95	-137.35	10.77	1309.69	472.53	809.33
3	280	-120.00	-702.85	-98.58	21.06	-1420.23	1459.80	983.70
3	280	-60.00	-329.38	-96.27	20.12	-3842.95	2030.76	1378.08
3	280	0.0	-273.66	90.70	-42.35	-432.57	678.63	-2172.48
3	353	-360.00	-1824.66	-44.17	79.68	2.078e+04	-6739.68	3304.60
3	353	-300.00	-2141.25	-164.88	79.68	9438.71	-2376.71	3407.73
3	353	-240.00	-1689.41	-187.48	37.58	4196.61	259.23	2371.69
3	353	-180.00	-1170.18	-158.01	9.55	-253.14	575.40	2036.26
3	353	-120.00	-710.58	-124.43	17.09	-3871.84	1378.00	2396.71
3	353	-60.00	-390.06	-174.15	46.09	-9632.55	3811.29	4401.98
3	353	0.0	-633.30	250.01	-79.15	-2247.71	158.98	-957.46
3	356	-360.00	-2020.09	-54.62	80.18	2.259e+04	-6995.76	3668.13
3	356	-300.00	-2347.05	-182.91	80.18	1.027e+04	-2761.73	3958.04
3	356	-240.00	-1864.03	-203.82	41.70	4639.16	231.88	2656.44
3	356	-180.00	-1310.32	-171.05	11.02	-67.71	621.91	2205.53
3	356	-120.00	-822.34	-133.55	19.54	-3843.44	1535.33	2524.77
3	356	-60.00	-485.57	-179.58	53.13	-9754.37	4286.47	4605.80
3	356	0.0	-713.41	244.65	-86.85	-2348.54	364.06	-1440.05
3	376	-360.00	-1886.75	-39.17	81.44	2.085e+04	-7133.57	3299.74
3	376	-300.00	-2213.21	-143.65	81.44	1.009e+04	-2771.83	3031.91
3	376	-240.00	-1798.88	-164.74	39.58	5506.78	28.10	1706.22
3	376	-180.00	-1312.02	-131.76	9.62	1939.46	332.73	997.34
3	376	-120.00	-884.71	-91.27	16.56	-480.18	1081.18	861.28
3	376	-60.00	-537.88	-72.98	26.31	-2513.88	2100.95	1212.51
3	376	0.0	-391.79	42.69	-39.61	-673.14	767.84	-2105.53
3	380	-360.00	-1718.74	-33.58	82.39	1.941e+04	-6997.11	2997.77
3	380	-300.00	-2030.63	-131.98	82.39	9387.76	-2430.81	2490.19
3	380	-240.00	-1633.73	-154.58	36.31	5074.79	66.91	1417.06
3	380	-180.00	-1168.70	-123.91	8.85	1650.68	332.10	837.86
3	380	-120.00	-760.55	-86.60	15.97	-733.93	1062.35	806.19
3	380	-60.00	-418.74	-74.89	19.85	-2758.34	1748.55	1112.77
3	380	0.0	-306.13	58.39	-34.87	-542.64	601.80	-1783.90
3	383	-360.00	-1886.25	-42.54	82.82	2.097e+04	-7216.60	3309.36
3	383	-300.00	-2207.03	-147.43	82.82	1.010e+04	-2760.83	2961.89
3	383	-240.00	-1783.40	-168.58	39.84	5454.12	43.47	1661.14
3	383	-180.00	-1288.82	-135.09	10.12	1809.62	371.96	982.94
3	383	-120.00	-856.34	-94.41	18.07	-709.59	1197.21	915.96
3	383	-60.00	-500.60	-79.55	25.89	-2862.76	2155.85	1287.48
3	383	0.0	-374.79	53.80	-41.47	-629.07	777.58	-2197.55
3	391	-360.00	-1776.99	5.89	66.26	1.853e+04	-6064.55	2988.46
3	391	-300.00	-2163.98	-92.72	66.26	9462.37	-2631.66	3545.44
3	391	-240.00	-1867.55	-115.31	33.64	5759.30	-134.05	2135.47
3	391	-180.00	-1483.26	-89.71	2.64	3094.86	-168.84	1173.88
3	391	-120.00	-1130.49	-52.90	-1.80	1729.15	-348.23	312.78

3	391	-60.00	-910.03	-5.32	32.13	590.01	1514.30	640.49
3	391	0.0	-598.22	-55.58	-20.05	-1411.37	508.43	-705.64
3	413	-360.00	-1702.64	-28.98	80.77	1.911e+04	-6882.14	2958.57
3	413	-300.00	-2019.29	-126.45	80.77	9299.40	-2413.76	2526.98
3	413	-240.00	-1634.66	-149.28	35.68	5086.58	50.71	1449.69
3	413	-180.00	-1180.28	-119.43	8.21	1764.35	285.29	847.36
3	413	-120.00	-779.78	-82.61	14.27	-505.17	929.87	747.02
3	413	-60.00	-448.52	-67.76	19.76	-2396.80	1654.48	1024.34
3	413	0.0	-316.95	47.62	-32.38	-579.33	576.19	-1654.38
3	416	-360.00	-1870.15	-37.93	81.21	2.067e+04	-7101.64	3270.16
3	416	-300.00	-2195.69	-141.91	81.21	1.001e+04	-2743.77	2998.68
3	416	-240.00	-1784.33	-163.28	39.21	5465.90	27.27	1693.76
3	416	-180.00	-1300.40	-130.61	9.48	1923.29	325.16	992.45
3	416	-120.00	-875.57	-90.42	16.37	-480.82	1064.72	856.79
3	416	-60.00	-530.39	-72.42	25.80	-2501.22	2061.78	1199.04
3	416	0.0	-385.61	43.02	-38.97	-665.76	751.97	-2068.02
3	420	-360.00	-1765.68	6.14	66.42	1.844e+04	-6059.90	2966.11
3	420	-300.00	-2152.11	-91.89	66.42	9419.73	-2604.71	3500.05
3	420	-240.00	-1857.15	-114.44	33.41	5736.96	-129.31	2107.25
3	420	-180.00	-1474.85	-88.99	2.56	3084.54	-167.91	1154.58
3	420	-120.00	-1123.66	-52.44	-1.96	1725.74	-354.25	298.97
3	420	-60.00	-903.87	-5.11	31.64	594.75	1485.58	624.84
3	420	0.0	-592.96	-55.15	-19.59	-1404.35	495.01	-674.21

M_S			**N memb.**	**V memb.**	**V orto**	**M memb.**	**M orto**	**T**
			-3133.83	-282.44	-127.01	-1.460e+04	-1.041e+04	-6231.29
			117.14	383.41	132.33	3.045e+04	6225.43	6815.94

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	36	-360.00	-6610.50	388.02	-1107.86	3.833e+04	1.088e+05	2.837e+04
4	36	-300.00	-6047.38	829.30	-1107.86	1652.11	4.508e+04	3.304e+04
4	36	-240.00	-4820.24	1333.96	-620.29	2.246e+04	1.119e+04	4930.36
4	36	-180.00	-3578.43	1784.56	-297.08	2.464e+04	-2442.13	-1666.15
4	36	-120.00	-2192.20	2074.21	-221.10	4262.45	-1.155e+04	1808.74
4	36	-60.00	-812.58	2300.88	-220.16	-4.555e+04	-2.151e+04	1.072e+04
4	36	0.0	583.93	650.30	209.31	-1.122e+05	-4235.43	6588.96
4	37	-360.00	-9119.20	508.52	-1409.94	5.847e+04	1.395e+05	4.002e+04
4	37	-300.00	-8367.17	1141.14	-1409.94	5645.51	5.801e+04	5.102e+04
4	37	-240.00	-6704.11	1724.34	-776.42	2.754e+04	1.480e+04	1.295e+04
4	37	-180.00	-5052.92	2186.79	-356.73	3.159e+04	-1811.21	2531.10
4	37	-120.00	-3263.57	2466.13	-247.47	9512.89	-1.228e+04	4414.24
4	37	-60.00	-1466.40	2673.89	-240.82	-4.702e+04	-2.346e+04	1.276e+04
4	37	0.0	324.85	838.05	236.10	-1.221e+05	-4616.97	6937.26
4	67	-360.00	-9460.79	-467.62	-1142.66	8.096e+04	1.212e+05	4.658e+04
4	67	-300.00	-8902.92	181.63	-1142.66	3.520e+04	5.377e+04	7.304e+04
4	67	-240.00	-7498.24	309.78	-589.20	4.392e+04	1.794e+04	3.342e+04
4	67	-180.00	-6334.07	129.28	-225.16	5.851e+04	6051.91	1.640e+04
4	67	-120.00	-5204.33	-38.34	-44.96	7.236e+04	2820.25	6977.27
4	67	-60.00	-3920.36	-135.17	21.74	6.956e+04	2026.02	3936.47
4	67	0.0	-2388.10	609.05	9.65	5.977e+04	661.68	7208.60
4	87	-360.00	-9249.23	-866.14	-1094.40	8.141e+04	1.181e+05	4.637e+04
4	87	-300.00	-8785.98	-258.93	-1094.40	4.319e+04	5.329e+04	7.430e+04
4	87	-240.00	-7549.98	-211.23	-560.83	5.203e+04	1.864e+04	3.528e+04
4	87	-180.00	-6593.81	-494.48	-209.16	7.027e+04	7195.87	1.751e+04
4	87	-120.00	-5676.32	-721.79	-10.78	9.411e+04	5197.56	6574.86
4	87	-60.00	-4559.01	-832.60	71.28	1.025e+05	6242.78	2856.50
4	87	0.0	-3057.47	574.27	-29.14	1.036e+05	1636.81	9644.83
4	203	-360.00	-5522.69	-26.43	-833.49	1.764e+04	9.516e+04	1.484e+04
4	203	-300.00	-4902.82	167.40	-833.49	1.312e+04	3.963e+04	1.266e+04
4	203	-240.00	-3559.24	364.99	-457.51	4.538e+04	1.618e+04	-1.129e+04
4	203	-180.00	-2339.17	462.21	-208.60	6.828e+04	8797.33	-1.988e+04
4	203	-120.00	-1207.99	559.18	-90.30	7.376e+04	7236.43	-2.223e+04
4	203	-60.00	-108.82	722.88	-44.67	6.033e+04	8561.24	-2.117e+04
4	203	0.0	729.49	426.18	-135.81	1.483e+04	6866.86	-7421.94
4	206	-360.00	-6262.21	-549.50	-1003.79	4.555e+04	9.598e+04	3.128e+04
4	206	-300.00	-5944.10	-144.71	-1003.79	1.500e+04	4.608e+04	4.340e+04
4	206	-240.00	-5163.55	106.31	-552.44	2.655e+04	1.154e+04	1.930e+04
4	206	-180.00	-4426.72	215.67	-258.56	4.237e+04	-3147.33	1.132e+04

4	206	-120.00	-3578.59	299.34	-152.66	5.433e+04	-1.065e+04	1.216e+04
4	206	-60.00	-2633.45	420.05	-67.12	4.644e+04	-1.664e+04	2.391e+04
4	206	0.0	-1357.03	515.68	221.39	1.764e+04	-9071.71	3.106e+04
4	217	-360.00	-6035.59	617.02	-796.27	4.394e+04	8.323e+04	3.413e+04
4	217	-300.00	-5708.35	1067.17	-796.27	-1.539e+04	3.994e+04	5.407e+04
4	217	-240.00	-4728.86	982.37	-408.25	-4.015e+04	1.265e+04	2.997e+04
4	217	-180.00	-3846.68	642.48	-192.21	-4.694e+04	2454.48	2.133e+04
4	217	-120.00	-2982.83	245.70	-116.72	-4.242e+04	-3646.93	1.957e+04
4	217	-60.00	-2119.20	-132.96	-52.13	-2.904e+04	-8162.28	2.175e+04
4	217	0.0	-1155.65	-516.50	154.09	-6850.16	-6031.83	1.918e+04
4	229	-360.00	-6029.55	656.85	-786.23	4.279e+04	8.296e+04	3.303e+04
4	229	-300.00	-5702.32	1107.00	-786.23	-1.653e+04	3.975e+04	5.250e+04
4	229	-240.00	-4725.98	1022.65	-405.35	-4.398e+04	1.519e+04	2.716e+04
4	229	-180.00	-3830.63	676.88	-168.35	-5.267e+04	6619.81	1.642e+04
4	229	-120.00	-2980.23	270.33	-80.57	-5.096e+04	-460.00	1.313e+04
4	229	-60.00	-2135.64	-124.51	-57.43	-3.817e+04	-2462.36	7437.21
4	229	0.0	-1151.49	-525.40	7.16	-1.681e+04	-2931.50	-1399.61
4	233	-360.00	-6156.23	-348.52	-930.62	4.231e+04	9.194e+04	2.936e+04
4	233	-300.00	-5838.12	56.27	-930.62	1.176e+04	4.227e+04	4.211e+04
4	233	-240.00	-4971.38	311.29	-501.23	1.574e+04	1.155e+04	1.821e+04
4	233	-180.00	-4133.95	399.53	-223.15	2.416e+04	-378.74	9666.19
4	233	-120.00	-3211.91	441.63	-119.93	2.880e+04	-6687.17	8877.59
4	233	-60.00	-2203.61	494.43	-61.09	1.971e+04	-1.100e+04	1.428e+04
4	233	0.0	-1014.30	336.76	146.46	-1804.10	-5472.47	1.647e+04
4	235	-360.00	-5966.04	-189.89	-771.92	3.859e+04	8.351e+04	2.434e+04
4	235	-300.00	-5647.93	214.89	-771.92	8029.38	3.434e+04	3.849e+04
4	235	-240.00	-4644.62	454.10	-397.58	608.90	1.172e+04	1.472e+04
4	235	-180.00	-3662.36	494.47	-146.82	-2177.33	5158.74	4336.30
4	235	-120.00	-2651.79	450.14	-49.30	-7635.60	3265.28	-1880.59
4	235	-60.00	-1555.19	380.33	-41.61	-1.530e+04	1820.53	-7768.29
4	235	0.0	-530.00	63.39	-23.13	-1.860e+04	2750.73	-1.154e+04
4	238	-360.00	-6161.67	-426.62	-925.03	4.317e+04	9.175e+04	2.889e+04
4	238	-300.00	-5843.56	-21.83	-925.03	1.261e+04	4.210e+04	4.167e+04
4	238	-240.00	-4987.79	225.06	-500.01	1.770e+04	1.171e+04	1.763e+04
4	238	-180.00	-4167.21	310.94	-219.75	2.719e+04	-143.57	8730.48
4	238	-120.00	-3264.57	350.89	-116.01	3.320e+04	-5806.54	7120.99
4	238	-60.00	-2269.47	406.49	-58.76	2.534e+04	-1.014e+04	1.254e+04
4	238	0.0	-1077.38	362.83	131.77	5088.01	-4933.69	1.572e+04
4	259	-360.00	-6024.74	-145.48	-832.72	3.873e+04	8.665e+04	2.639e+04
4	259	-300.00	-5706.63	259.31	-832.72	8170.41	3.730e+04	3.984e+04
4	259	-240.00	-4739.52	512.87	-435.52	3113.01	1.217e+04	1.587e+04
4	259	-180.00	-3783.86	572.03	-171.29	2860.07	4172.49	5848.46
4	259	-120.00	-2784.45	558.19	-68.09	-1061.01	-428.06	2107.22
4	259	-60.00	-1711.88	524.20	-53.10	-1.102e+04	-2085.42	-2141.00
4	259	0.0	-627.87	130.53	9.71	-2.277e+04	97.02	-6744.77
4	282	-360.00	-6435.13	155.87	-1022.25	3.921e+04	1.019e+05	2.779e+04
4	282	-300.00	-5953.39	585.35	-1022.25	4555.53	4.284e+04	3.539e+04
4	282	-240.00	-4825.77	1003.00	-563.67	1.803e+04	1.143e+04	8635.29
4	282	-180.00	-3697.29	1324.45	-258.93	2.061e+04	-699.11	962.47
4	282	-120.00	-2454.46	1516.61	-174.37	7102.76	-8070.88	1947.44
4	282	-60.00	-1186.29	1665.10	-163.99	-2.873e+04	-1.564e+04	7640.54
4	282	0.0	115.58	504.79	154.66	-7.718e+04	-3128.55	4648.35
4	283	-360.00	-6880.98	298.92	-1052.09	4.438e+04	1.046e+05	3.019e+04
4	283	-300.00	-6337.49	774.27	-1052.09	5109.16	4.372e+04	3.931e+04
4	283	-240.00	-5104.66	1195.21	-576.94	1.952e+04	1.144e+04	1.075e+04
4	283	-180.00	-3883.33	1511.84	-261.81	2.264e+04	-834.19	2507.47
4	283	-120.00	-2562.99	1697.75	-175.46	7931.03	-8316.35	3227.24
4	283	-60.00	-1226.16	1835.15	-166.96	-3.079e+04	-1.612e+04	8680.15
4	283	0.0	115.00	587.10	162.93	-8.236e+04	-3190.54	4709.76
4	298	-360.00	-7108.71	-351.84	-873.91	5.938e+04	9.239e+04	3.456e+04
4	298	-300.00	-6694.66	134.60	-873.91	2.481e+04	4.090e+04	5.399e+04
4	298	-240.00	-5634.08	252.17	-452.12	3.044e+04	1.353e+04	2.440e+04
4	298	-180.00	-4737.43	140.17	-174.10	4.059e+04	4407.89	1.176e+04
4	298	-120.00	-3856.83	28.10	-40.45	4.983e+04	1749.30	4935.92
4	298	-60.00	-2862.13	-37.56	8.08	4.693e+04	877.86	2796.39
4	298	0.0	-1693.63	434.43	11.96	3.887e+04	328.56	4890.65
4	308	-360.00	-6967.67	-617.52	-841.73	5.968e+04	9.031e+04	3.442e+04
4	308	-300.00	-6616.70	-159.11	-841.73	3.014e+04	4.058e+04	5.482e+04
4	308	-240.00	-5668.57	-95.18	-433.21	3.585e+04	1.400e+04	2.564e+04
4	308	-180.00	-4910.59	-275.67	-163.43	4.843e+04	5170.53	1.250e+04
4	308	-120.00	-4171.49	-427.54	-17.66	6.433e+04	3334.17	4667.64
4	308	-60.00	-3287.90	-502.52	41.10	6.890e+04	3689.03	2076.41
4	308	0.0	-2139.88	411.24	-13.90	6.809e+04	978.64	6514.80
4	379	-360.00	-6816.15	152.57	-989.89	4.651e+04	9.970e+04	3.036e+04
4	379	-300.00	-6316.22	625.72	-989.89	8178.55	4.223e+04	4.185e+04
4	379	-240.00	-5131.77	974.45	-535.01	1.811e+04	1.176e+04	1.383e+04
4	379	-180.00	-3982.28	1186.92	-233.26	2.181e+04	610.53	4628.99

4	379	-120.00	-2764.59	1295.24	-139.47	1.207e+04	-5550.79	3351.29
4	379	-60.00	-1507.89	1370.76	-122.73	-1.656e+04	-1.146e+04	6287.80
4	379	0.0	-239.15	496.03	119.82	-5.496e+04	-2307.37	3300.08
4	382	-360.00	-6374.86	40.76	-974.57	4.060e+04	9.809e+04	2.782e+04
4	382	-300.00	-5928.83	467.53	-974.57	6749.57	4.167e+04	3.720e+04
4	382	-240.00	-4841.80	831.35	-531.67	1.667e+04	1.165e+04	1.093e+04
4	382	-180.00	-3769.77	1074.77	-237.20	1.965e+04	377.65	2549.93
4	382	-120.00	-2605.62	1208.70	-147.15	9931.94	-5992.54	2037.20
4	382	-60.00	-1398.88	1310.68	-130.65	-1.818e+04	-1.213e+04	5833.70
4	382	0.0	-151.94	432.96	122.18	-5.655e+04	-2464.73	3569.19
4	383	-360.00	-6757.02	163.37	-1000.14	4.503e+04	1.004e+05	2.988e+04
4	383	-300.00	-6258.07	629.46	-1000.14	7224.11	4.243e+04	4.056e+04
4	383	-240.00	-5080.85	996.09	-543.04	1.795e+04	1.166e+04	1.274e+04
4	383	-180.00	-3929.25	1235.40	-239.67	2.139e+04	261.86	3874.21
4	383	-120.00	-2698.65	1363.96	-148.08	1.064e+04	-6202.95	3134.17
4	383	-60.00	-1433.05	1456.43	-133.21	-1.994e+04	-1.254e+04	6724.79
4	383	0.0	-152.43	503.50	129.27	-6.099e+04	-2517.87	3621.83
4	400	-360.00	-6766.02	-362.28	-852.10	5.504e+04	9.019e+04	3.275e+04
4	400	-300.00	-6389.80	100.63	-852.10	2.133e+04	4.006e+04	5.110e+04
4	400	-240.00	-5385.18	218.56	-441.84	2.437e+04	1.341e+04	2.293e+04
4	400	-180.00	-4527.88	109.20	-172.73	3.251e+04	4429.02	1.083e+04
4	400	-120.00	-3674.87	-2.80	-44.00	4.084e+04	1721.47	4387.67
4	400	-60.00	-2717.50	-76.62	2.20	3.879e+04	696.54	2351.39
4	400	0.0	-1581.27	344.72	11.29	3.344e+04	246.53	4298.31
4	415	-360.00	-6370.30	9.52	-960.05	4.134e+04	9.699e+04	2.795e+04
4	415	-300.00	-5932.12	436.80	-960.05	7624.93	4.135e+04	3.794e+04
4	415	-240.00	-4852.88	782.25	-521.74	1.662e+04	1.176e+04	1.171e+04
4	415	-180.00	-3796.23	999.53	-230.38	1.978e+04	745.62	3084.00
4	415	-120.00	-2656.06	1114.11	-138.38	1.124e+04	-5305.32	2071.49
4	415	-60.00	-1468.02	1200.72	-119.75	-1.450e+04	-1.098e+04	5248.19
4	415	0.0	-238.57	413.72	111.55	-4.978e+04	-2245.39	3238.67
4	416	-360.00	-6752.46	132.13	-985.62	4.577e+04	9.931e+04	3.001e+04
4	416	-300.00	-6261.35	598.73	-985.62	8099.47	4.211e+04	4.129e+04
4	416	-240.00	-5091.93	946.99	-533.12	1.790e+04	1.176e+04	1.353e+04
4	416	-180.00	-3955.70	1160.15	-232.84	2.152e+04	629.83	4408.28
4	416	-120.00	-2749.09	1269.37	-139.31	1.195e+04	-5515.72	3168.46
4	416	-60.00	-1502.19	1346.47	-122.30	-1.626e+04	-1.139e+04	6139.28
4	416	0.0	-239.06	484.27	118.64	-5.422e+04	-2298.52	3291.31
4	420	-360.00	-6742.45	-278.71	-858.45	5.411e+04	9.046e+04	3.244e+04
4	420	-300.00	-6352.41	188.15	-858.45	1.902e+04	4.001e+04	5.022e+04
4	420	-240.00	-5321.79	323.66	-446.17	2.168e+04	1.325e+04	2.218e+04
4	420	-180.00	-4427.52	237.72	-176.13	2.868e+04	4189.28	1.035e+04
4	420	-120.00	-3534.51	139.33	-52.29	3.465e+04	1197.45	4326.96
4	420	-60.00	-2548.72	67.85	-9.75	3.029e+04	-255.35	2476.10
4	420	0.0	-1412.49	335.93	19.50	2.298e+04	18.15	3669.88

M_S	**N memb.**	**V memb.**	**V orto**	**M memb.**	**M orto**	**T**
	-9460.79	-866.14	-1409.94	-1.221e+05	-2.346e+04	-2.223e+04
	729.49	2673.89	236.10	1.036e+05	1.395e+05	7.430e+04

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	31	-360.00	-6698.48	196.12	-1434.04	1737.03	1.042e+05	-4521.86
5	31	-300.00	-7046.83	151.39	-1434.04	1.586e+04	1.930e+04	-1.107e+04
5	31	-240.00	-6537.34	71.65	-299.28	2.989e+04	6362.01	-1.107e+04
5	31	-180.00	-6366.61	-149.08	-378.41	3.110e+04	-1.718e+04	-1.309e+04
5	31	-120.00	-6378.08	-150.29	79.96	2.908e+04	-8516.11	-1.451e+04
5	31	-60.00	-6315.66	-396.58	-617.19	1.316e+04	-5.196e+04	-1.551e+04
5	31	0.0	-4871.69	-28.72	665.88	-4765.11	-1.151e+04	-1.103e+04
5	79	-360.00	-5080.91	-104.65	-1758.70	-7.087e+04	1.121e+05	4302.27
5	79	-300.00	-4699.38	-112.34	-1758.70	-6.659e+04	2.211e+04	6505.72
5	79	-240.00	-3154.04	-175.81	-906.46	-5.316e+04	-2.422e+04	6986.51
5	79	-180.00	-1344.96	-412.34	153.20	-6.521e+04	-3508.33	9032.99
5	79	-120.00	510.80	-407.39	-28.42	-7.941e+04	-4381.51	1.047e+04
5	79	-60.00	2292.77	-426.31	723.45	-8.971e+04	4.765e+04	1.404e+04
5	79	0.0	2952.87	669.03	-661.79	-6.676e+04	1.020e+04	1.801e+04
5	88	-360.00	-2192.70	-134.66	-1540.71	-5.807e+04	8.668e+04	3775.83
5	88	-300.00	-2038.63	-152.81	-1540.71	-5.823e+04	1.612e+04	5502.02
5	88	-240.00	-1170.16	-211.25	-769.51	-4.920e+04	-2.238e+04	6133.95

5	88	-180.00	108.11	-446.93	180.99	-6.265e+04	-1101.27	8122.79
5	88	-120.00	1523.53	-444.82	-32.83	-7.779e+04	-2714.94	9528.90
5	88	-60.00	2911.20	-469.15	720.77	-8.914e+04	4.902e+04	1.311e+04
5	88	0.0	3228.63	632.72	-681.40	-6.753e+04	1.046e+04	1.744e+04
5	182	-360.00	-3650.84	-122.52	-1260.69	1.972e+04	8.040e+04	-1.056e+04
5	182	-300.00	-3867.29	-254.85	-1260.69	1.989e+04	1.416e+04	-2.415e+04
5	182	-240.00	-3449.77	-379.97	-439.83	1.986e+04	-7087.49	-2.281e+04
5	182	-180.00	-3032.92	-417.84	-65.90	1.240e+04	-7594.91	-2.491e+04
5	182	-120.00	-2632.50	-450.25	37.41	-8746.10	-4551.54	-2.686e+04
5	182	-60.00	-2178.39	-588.57	53.37	-4.440e+04	-1749.11	-2.479e+04
5	182	0.0	-1377.69	-326.52	9.10	-6.752e+04	-356.52	-8299.31
5	211	-360.00	-4886.19	1497.30	-951.57	3154.76	7.158e+04	-1059.38
5	211	-300.00	-5059.87	1555.39	-951.57	5.644e+04	1.294e+04	-1.608e+04
5	211	-240.00	-4441.41	1104.42	-238.91	8.993e+04	-2759.89	-1.472e+04
5	211	-180.00	-3712.43	466.82	80.48	1.079e+05	560.80	-1.714e+04
5	211	-120.00	-3160.11	-282.81	128.08	1.015e+05	5347.22	-1.882e+04
5	211	-60.00	-2549.36	-1132.65	68.30	6.253e+04	6682.38	-2.073e+04
5	211	0.0	-1704.39	-1862.86	-31.43	-2051.19	1889.86	-1.383e+04
5	226	-360.00	-4939.07	-82.28	-1118.63	-4081.02	8.211e+04	-1174.35
5	226	-300.00	-4891.23	-72.15	-1118.63	-1586.24	1.471e+04	-1114.68
5	226	-240.00	-3821.24	-131.95	-451.01	-1919.66	-6666.14	-1617.03
5	226	-180.00	-2819.45	-159.24	-82.06	-5618.19	-7552.64	-1669.39
5	226	-120.00	-1875.53	-164.42	24.80	-1.265e+04	-4793.16	-2059.60
5	226	-60.00	-969.67	-152.81	72.09	-1.859e+04	-1566.86	-645.89
5	226	0.0	-34.05	142.14	-45.12	-2.082e+04	2257.09	679.05
5	229	-360.00	-5755.15	37.23	-1668.29	-245.05	1.026e+05	-3515.44
5	229	-300.00	-5881.01	51.71	-1668.29	2354.17	7838.60	-3367.59
5	229	-240.00	-5299.30	-0.47	-581.50	8059.66	-1.814e+04	-4592.12
5	229	-180.00	-4692.68	-22.61	-112.96	8838.08	-1.833e+04	-5184.35
5	229	-120.00	-3853.57	-34.59	3.01	8044.02	-1.481e+04	-5492.15
5	229	-60.00	-2850.50	-57.94	-6.74	5424.75	-1.210e+04	-6428.99
5	229	0.0	-1811.32	-14.20	232.54	662.91	-1142.22	-6161.26
5	236	-360.00	-5090.47	84.83	-1158.55	-7026.36	8.323e+04	6201.57
5	236	-300.00	-5042.62	94.96	-1158.55	-4531.58	1.581e+04	6222.79
5	236	-240.00	-4113.02	110.94	-460.11	-2310.62	-7027.22	7322.63
5	236	-180.00	-3248.14	126.40	-91.66	-1650.51	-8458.98	7603.20
5	236	-120.00	-2391.52	138.82	-0.15	2815.51	-6775.32	8041.55
5	236	-60.00	-1549.67	192.35	0.91	8419.22	-6321.23	7670.31
5	236	0.0	-612.34	68.89	72.49	1.700e+04	-1093.28	5681.80
5	243	-360.00	-5133.85	118.40	-1169.42	-5622.71	8.352e+04	5079.61
5	243	-300.00	-5086.00	128.53	-1169.42	-3127.93	1.609e+04	5088.77
5	243	-240.00	-4210.65	146.31	-462.62	83.66	-7118.39	5825.12
5	243	-180.00	-3348.16	165.85	-93.63	4285.04	-8664.97	5861.45
5	243	-120.00	-2568.97	184.87	-5.51	8868.58	-7179.96	6062.73
5	243	-60.00	-1760.28	210.42	-17.04	1.355e+04	-7440.65	5438.66
5	243	0.0	-838.17	-56.32	101.06	1.947e+04	-2012.51	4007.85
5	261	-360.00	-5201.87	34.82	-1186.64	-1592.09	8.401e+04	-1439.01
5	261	-300.00	-5154.03	44.95	-1186.64	902.69	1.657e+04	-1410.07
5	261	-240.00	-4332.46	1.30	-464.97	5123.29	-7273.19	-2179.90
5	261	-180.00	-3634.82	-15.47	-94.40	5420.16	-8926.08	-2572.67
5	261	-120.00	-2943.58	-20.99	-10.20	4527.67	-7616.89	-2789.46
5	261	-60.00	-2235.58	-25.62	-38.40	2772.88	-8602.43	-3260.17
5	261	0.0	-1346.66	14.01	129.36	813.85	-2968.36	-3107.76
5	264	-360.00	-5026.07	17.71	-1141.47	-5484.25	8.275e+04	2746.10
5	264	-300.00	-4978.22	27.83	-1141.47	-2989.47	1.534e+04	2781.68
5	264	-240.00	-3992.70	11.26	-456.30	-1786.92	-6871.04	3106.40
5	264	-180.00	-3055.96	9.17	-87.56	-2159.56	-8067.40	3190.83
5	264	-120.00	-2172.48	15.96	10.59	-2850.82	-5914.27	3200.09
5	264	-60.00	-1303.59	44.35	31.27	-2628.20	-4286.16	3605.37
5	264	0.0	-369.18	70.21	22.38	566.74	315.74	3244.91
5	280	-360.00	-5141.75	134.19	-1110.07	687.38	8.051e+04	-2926.10
5	280	-300.00	-5367.80	105.75	-1110.07	1.043e+04	1.498e+04	-7283.35
5	280	-240.00	-4907.82	48.64	-260.48	2.014e+04	3302.96	-7316.28
5	280	-180.00	-4685.03	-99.74	-264.30	2.095e+04	-1.258e+04	-8681.26
5	280	-120.00	-4587.54	-100.44	53.45	1.949e+04	-6570.15	-9640.02
5	280	-60.00	-4440.55	-263.05	-411.56	8786.38	-3.547e+04	-1.032e+04
5	280	0.0	-3356.33	-13.66	453.70	-3077.99	-7839.75	-7338.01
5	304	-360.00	-4063.37	-66.32	-1326.51	-4.772e+04	8.580e+04	2956.65
5	304	-300.00	-3802.83	-70.07	-1326.51	-4.454e+04	1.685e+04	4432.39
5	304	-240.00	-2652.29	-116.33	-665.27	-3.522e+04	-1.709e+04	4723.10
5	304	-180.00	-1337.27	-275.24	90.11	-4.326e+04	-3466.10	6067.11
5	304	-120.00	5.05	-271.84	-18.80	-5.283e+04	-3813.75	7008.16
5	304	-60.00	1298.41	-282.87	482.20	-5.979e+04	3.094e+04	9386.81
5	304	0.0	1860.04	451.51	-431.41	-4.441e+04	6633.13	1.202e+04
5	308	-360.00	-3172.23	-80.96	-1416.32	-3.989e+04	8.567e+04	2733.73
5	308	-300.00	-3053.37	-89.71	-1416.32	-3.916e+04	1.608e+04	3892.82
5	308	-240.00	-2173.05	-138.78	-667.00	-3.224e+04	-1.728e+04	4240.05

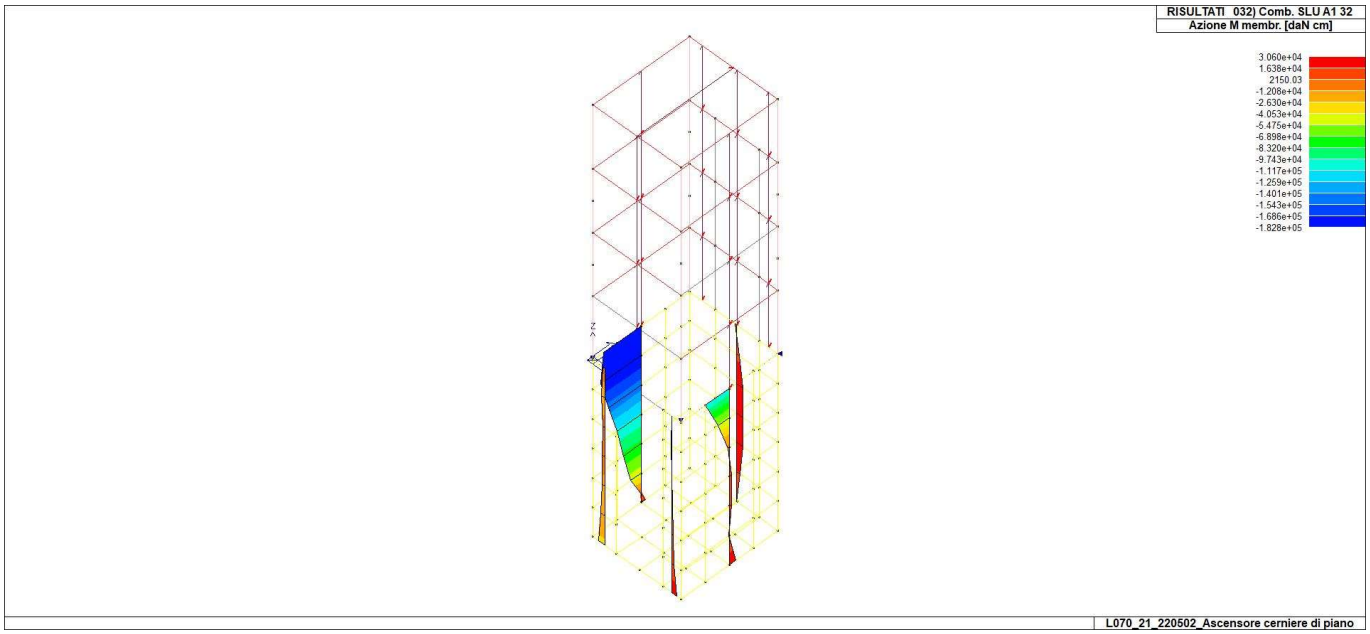
5	308	-180.00	-1048.48	-299.08	90.23	-4.122e+04	-3572.12	5514.31
5	308	-120.00	157.42	-297.48	-21.95	-5.158e+04	-4074.49	6416.94
5	308	-60.00	1345.09	-309.73	478.95	-5.941e+04	3.051e+04	8795.49
5	308	0.0	1860.59	435.97	-428.64	-4.480e+04	6522.86	1.164e+04
5	355	-360.00	-4144.32	-72.87	-1229.64	1.197e+04	8.148e+04	-6824.19
5	355	-300.00	-4272.47	-157.73	-1229.64	1.291e+04	1.477e+04	-1.587e+04
5	355	-240.00	-3692.79	-251.26	-447.22	1.380e+04	-7086.93	-1.506e+04
5	355	-180.00	-3142.50	-279.68	-74.36	8817.72	-7901.21	-1.651e+04
5	355	-120.00	-2613.26	-301.10	24.88	-5549.44	-5298.89	-1.784e+04
5	355	-60.00	-2047.97	-389.35	34.02	-2.958e+04	-3343.70	-1.647e+04
5	355	0.0	-1210.29	-203.52	31.69	-4.479e+04	-688.25	-5513.15
5	380	-360.00	-5133.42	101.82	-1126.27	-580.29	8.137e+04	-1852.21
5	380	-300.00	-5277.30	84.94	-1126.27	6986.68	1.527e+04	-4892.60
5	380	-240.00	-4684.25	35.93	-320.53	1.460e+04	190.44	-4982.42
5	380	-180.00	-4283.14	-70.76	-212.30	1.515e+04	-1.136e+04	-5984.16
5	380	-120.00	-3978.69	-71.06	37.48	1.390e+04	-6628.78	-6686.42
5	380	-60.00	-3639.26	-181.33	-289.16	6172.17	-2.676e+04	-7169.50
5	380	0.0	-2606.81	3.07	340.35	-1947.51	-5885.72	-5116.04
5	382	-360.00	-4369.58	89.27	-1203.25	6124.63	8.126e+04	-2043.28
5	382	-300.00	-4634.90	68.10	-1203.25	1.159e+04	1.461e+04	-5355.09
5	382	-240.00	-4273.47	16.70	-322.02	1.716e+04	23.62	-5396.46
5	382	-180.00	-4035.61	-91.19	-212.20	1.690e+04	-1.145e+04	-6457.99
5	382	-120.00	-3848.08	-93.04	34.78	1.497e+04	-6852.27	-7193.18
5	382	-60.00	-3599.24	-204.35	-291.95	6502.09	-2.713e+04	-7676.34
5	382	0.0	-2606.33	-10.24	342.73	-2284.97	-5980.24	-5439.43
5	396	-360.00	-4215.17	-1.54	-1301.94	-4.083e+04	8.532e+04	2202.42
5	396	-300.00	-4100.53	-1.52	-1301.94	-3.506e+04	1.631e+04	2902.71
5	396	-240.00	-3161.55	-44.50	-606.08	-2.419e+04	-1.435e+04	3056.13
5	396	-180.00	-2113.36	-157.29	31.61	-2.794e+04	-5510.07	3906.65
5	396	-120.00	-1039.53	-153.86	-26.61	-3.323e+04	-6121.95	4421.01
5	396	-60.00	28.29	-165.02	307.01	-3.708e+04	1.630e+04	5861.14
5	396	0.0	727.35	321.64	-233.71	-2.678e+04	3526.76	7340.54
5	400	-360.00	-3451.33	-14.08	-1378.92	-3.412e+04	8.520e+04	2011.35
5	400	-300.00	-3458.13	-18.35	-1378.92	-3.045e+04	1.565e+04	2440.22
5	400	-240.00	-2750.77	-63.74	-607.57	-2.163e+04	-1.452e+04	2642.09
5	400	-180.00	-1865.83	-177.72	31.71	-2.619e+04	-5600.94	3432.83
5	400	-120.00	-908.92	-175.83	-29.30	-3.216e+04	-6345.44	3914.25
5	400	-60.00	68.31	-188.04	304.22	-3.675e+04	1.593e+04	5354.30
5	400	0.0	727.83	308.32	-231.33	-2.712e+04	3432.24	7017.15
5	413	-360.00	-5130.64	91.02	-1131.66	-1002.84	8.166e+04	-1494.24
5	413	-300.00	-5247.13	78.00	-1131.66	5839.53	1.537e+04	-4095.69
5	413	-240.00	-4609.73	31.70	-340.54	1.275e+04	-847.07	-4204.47
5	413	-180.00	-4149.18	-61.10	-194.97	1.322e+04	-1.095e+04	-5085.13
5	413	-120.00	-3775.74	-61.27	32.15	1.203e+04	-6648.32	-5701.88
5	413	-60.00	-3372.16	-154.08	-248.36	5300.76	-2.386e+04	-6120.63
5	413	0.0	-2356.97	8.65	302.57	-1570.68	-5234.38	-4375.38
5	415	-360.00	-4366.80	78.48	-1208.65	5702.08	8.155e+04	-1685.31
5	415	-300.00	-4604.73	61.17	-1208.65	1.045e+04	1.471e+04	-4558.17
5	415	-240.00	-4198.95	12.46	-342.03	1.531e+04	-1013.88	-4618.51
5	415	-180.00	-3901.65	-81.53	-194.87	1.497e+04	-1.104e+04	-5558.96
5	415	-120.00	-3645.13	-83.25	29.45	1.310e+04	-6871.81	-6208.64
5	415	-60.00	-3332.15	-177.11	-251.15	5630.68	-2.423e+04	-6627.47
5	415	0.0	-2356.49	-4.67	304.95	-1908.14	-5328.89	-4698.77
5	418	-360.00	-4217.02	22.94	-1298.48	-4.061e+04	8.512e+04	2051.09
5	418	-300.00	-4151.07	24.65	-1298.48	-3.360e+04	1.613e+04	2544.47
5	418	-240.00	-3286.68	-17.37	-586.39	-2.157e+04	-1.341e+04	2658.63
5	418	-180.00	-2325.10	-114.80	12.53	-2.379e+04	-6133.29	3375.85
5	418	-120.00	-1336.87	-111.05	-27.72	-2.760e+04	-6732.85	3774.04
5	418	-60.00	-341.90	-120.67	252.17	-3.028e+04	1.182e+04	4931.28
5	418	0.0	395.20	285.38	-173.20	-2.127e+04	2575.81	6023.72
5	420	-360.00	-3453.19	10.40	-1375.47	-3.390e+04	8.501e+04	1860.02
5	420	-300.00	-3508.67	7.82	-1375.47	-2.899e+04	1.547e+04	2081.98
5	420	-240.00	-2875.90	-36.60	-587.88	-1.901e+04	-1.358e+04	2244.59
5	420	-180.00	-2077.57	-135.23	12.64	-2.204e+04	-6224.16	2902.02
5	420	-120.00	-1206.26	-133.03	-30.42	-2.653e+04	-6956.34	3267.28
5	420	-60.00	-301.88	-143.70	249.38	-2.995e+04	1.145e+04	4424.44
5	420	0.0	395.67	272.06	-170.82	-2.161e+04	2481.29	5700.33
M_S			**N memb.**	**V memb.**	**V orto**	**M memb.**	**M orto**	**T**
			-7046.83	-1862.86	-1758.70	-8.971e+04	-5.196e+04	-2.686e+04
			3228.63	1555.39	723.45	1.079e+05	1.121e+05	1.801e+04

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

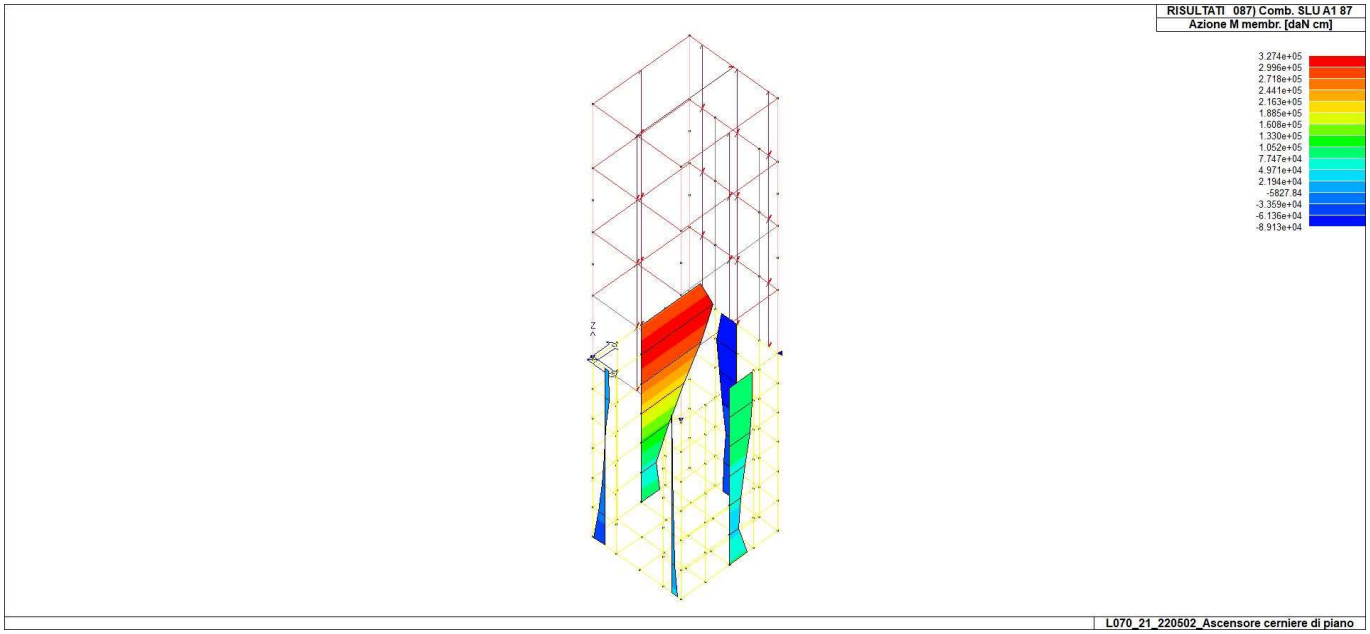
M_S	Cmb	Z	N memb.	V memb.	V orto	M memb.	M orto	T
		cm	daN	daN	daN	daN cm	daN cm	daN cm
6	37	-360.00	-8583.27	1261.86	1140.45	5.815e+04	-1.119e+05	-3.128e+04
6	37	-300.00	-7693.62	1820.58	1140.45	-3.445e+04	-4.441e+04	-4.401e+04
6	37	-240.00	-5641.95	2266.12	527.21	-4.634e+04	-1.471e+04	-1.236e+04
6	37	-180.00	-3795.50	2602.42	150.16	-7.261e+04	-8114.96	2622.88
6	37	-120.00	-1919.55	2746.09	54.86	-1.182e+05	-6277.81	1.261e+04
6	37	-60.00	-180.99	2647.55	120.30	-1.718e+05	32.83	2.332e+04
6	37	0.0	822.00	363.71	-32.25	-1.821e+05	1232.79	2.867e+04
6	38	-360.00	-6769.72	1339.54	881.00	4.872e+04	-8.688e+04	-2.424e+04
6	38	-300.00	-5991.54	1792.69	881.00	-3.309e+04	-3.443e+04	-3.223e+04
6	38	-240.00	-4230.19	2170.75	398.08	-4.477e+04	-1.204e+04	-6584.37
6	38	-180.00	-2645.78	2487.56	99.54	-7.328e+04	-7783.56	5932.49
6	38	-120.00	-1039.83	2627.20	30.90	-1.205e+05	-6972.21	1.493e+04
6	38	-60.00	402.47	2525.11	103.57	-1.728e+05	-1462.88	2.550e+04
6	38	0.0	1085.04	291.02	-15.47	-1.799e+05	898.50	3.006e+04
6	55	-360.00	-9064.31	-591.72	1190.45	8.267e+04	-1.170e+05	-4.399e+04
6	55	-300.00	-8333.84	-90.71	1190.45	4.877e+04	-4.667e+04	-7.276e+04
6	55	-240.00	-6731.94	-2.95	620.97	9.741e+04	-1.168e+04	-4.023e+04
6	55	-180.00	-5588.60	-119.37	283.56	1.473e+05	1539.17	-3.099e+04
6	55	-120.00	-4560.09	-183.43	124.43	1.973e+05	6924.35	-3.102e+04
6	55	-60.00	-3278.33	-48.00	-30.11	2.267e+05	3969.51	-4.172e+04
6	55	0.0	-1633.94	948.92	-27.89	1.750e+05	-108.93	-4.873e+04
6	87	-360.00	-8925.28	-1149.37	1175.80	8.451e+04	-1.157e+05	-4.461e+04
6	87	-300.00	-8272.07	-692.24	1175.80	6.801e+04	-4.637e+04	-7.590e+04
6	87	-240.00	-6828.69	-667.51	627.04	1.278e+05	-1.087e+04	-4.464e+04
6	87	-180.00	-5853.05	-861.71	298.86	1.957e+05	3234.94	-3.674e+04
6	87	-120.00	-4996.42	-958.67	121.78	2.714e+05	8531.83	-3.884e+04
6	87	-60.00	-3791.40	-758.77	-85.64	3.274e+05	2281.91	-5.458e+04
6	87	0.0	-2046.19	1017.59	1.79	2.692e+05	-879.06	-6.679e+04
6	202	-360.00	-5808.74	-230.56	726.16	3.114e+04	-7.606e+04	-1.835e+04
6	202	-300.00	-5439.93	117.90	726.16	-4612.83	-2.695e+04	-3.437e+04
6	202	-240.00	-4319.40	316.46	353.38	-1.220e+04	-9427.02	-1.451e+04
6	202	-180.00	-3242.28	337.03	104.27	-7883.50	-5788.72	-4782.29
6	202	-120.00	-2187.76	292.63	8.46	-1565.84	-6408.61	1930.43
6	202	-60.00	-1114.04	183.14	-10.61	3956.16	-8184.89	5988.36
6	202	0.0	-136.47	64.37	162.31	1.537e+04	-7045.78	7110.23
6	204	-360.00	-6161.22	577.02	1597.63	-1.742e+04	-1.215e+05	8387.96
6	204	-300.00	-6365.28	512.57	1597.63	-6.341e+04	-3.003e+04	4.341e+04
6	204	-240.00	-6267.19	505.28	590.88	-3.258e+04	7856.79	4.999e+04
6	204	-180.00	-5905.82	375.93	99.52	-6216.40	1.626e+04	4.835e+04
6	204	-120.00	-5039.00	126.86	-71.84	1.996e+04	1.556e+04	3.938e+04
6	204	-60.00	-3698.44	-158.46	-142.58	4.067e+04	1.125e+04	2.479e+04
6	204	0.0	-2066.99	-280.78	-282.55	3.099e+04	2763.36	1768.97
6	216	-360.00	-6152.11	586.80	1576.43	-1.885e+04	-1.211e+05	1.015e+04
6	216	-300.00	-6356.18	522.35	1576.43	-6.485e+04	-2.982e+04	4.500e+04
6	216	-240.00	-6240.51	497.94	569.30	-3.857e+04	6559.80	5.226e+04
6	216	-180.00	-5844.63	355.79	88.08	-1.313e+04	1.475e+04	5.110e+04
6	216	-120.00	-4975.99	99.20	-89.86	1.110e+04	1.310e+04	4.330e+04
6	216	-60.00	-3634.74	-202.92	-146.77	3.094e+04	8441.93	3.036e+04
6	216	0.0	-2053.76	-303.49	-247.65	2.534e+04	1038.49	9034.06
6	231	-360.00	-5935.16	1147.15	943.25	1.274e+04	-8.692e+04	-1.686e+04
6	231	-300.00	-5730.31	1432.42	943.25	-5.316e+04	-3.050e+04	-2.253e+04
6	231	-240.00	-4915.50	1261.80	374.67	-8.313e+04	-6331.58	-4757.89
6	231	-180.00	-4130.07	835.77	84.01	-9.507e+04	-2078.34	3844.53
6	231	-120.00	-3290.37	319.16	6.81	-9.489e+04	-1740.40	7940.49
6	231	-60.00	-2357.86	-227.74	11.51	-7.911e+04	-904.55	1.291e+04
6	231	0.0	-1371.60	-797.57	-33.18	-4.986e+04	-606.52	1.526e+04
6	236	-360.00	-6079.64	-384.08	928.12	3.370e+04	-8.605e+04	-2.627e+04
6	236	-300.00	-5710.84	-35.61	928.12	-2044.68	-3.612e+04	-4.176e+04
6	236	-240.00	-4828.14	193.37	473.87	4547.32	-8196.46	-2.234e+04
6	236	-180.00	-4072.41	281.37	204.81	1.747e+04	1988.02	-1.554e+04
6	236	-120.00	-3266.60	329.24	118.38	2.688e+04	7663.34	-1.464e+04
6	236	-60.00	-2349.51	421.17	72.71	2.167e+04	1.196e+04	-1.767e+04
6	236	0.0	-1206.64	374.77	-169.68	1108.51	5656.68	-1.607e+04
6	237	-360.00	-5878.00	-121.30	785.27	2.873e+04	-7.907e+04	-2.048e+04
6	237	-300.00	-5509.19	227.16	785.27	-7015.02	-2.972e+04	-3.622e+04
6	237	-240.00	-4452.23	445.05	380.43	-1.512e+04	-9210.08	-1.611e+04
6	237	-180.00	-3456.39	486.79	128.11	-1.337e+04	-4091.04	-6628.86
6	237	-120.00	-2460.03	467.04	39.44	-1.204e+04	-3063.28	-1025.18
6	237	-60.00	-1414.21	399.48	30.58	-1.500e+04	-2459.81	2885.90
6	237	0.0	-425.60	106.81	62.37	-1.471e+04	-3416.67	6060.46
6	261	-360.00	-5929.72	-30.15	829.79	2.736e+04	-8.110e+04	-2.247e+04
6	261	-300.00	-5560.91	318.32	829.79	-8387.26	-3.156e+04	-3.795e+04
6	261	-240.00	-4547.47	554.65	403.84	-1.655e+04	-8576.29	-1.793e+04

6	261	-180.00	-3609.08	613.37	144.76	-1.679e+04	-2560.14	-8743.32
6	261	-120.00	-2648.12	611.78	65.26	-1.897e+04	-222.63	-4212.79
6	261	-60.00	-1623.59	573.95	58.17	-2.794e+04	1981.52	-737.93
6	261	0.0	-611.90	131.54	-13.72	-3.615e+04	-571.43	3584.71
6	283	-360.00	-6512.22	808.05	873.53	4.287e+04	-8.553e+04	-2.393e+04
6	283	-300.00	-5870.22	1226.64	873.53	-2.361e+04	-3.396e+04	-3.448e+04
6	283	-240.00	-4373.00	1553.15	407.81	-3.165e+04	-1.098e+04	-1.076e+04
6	283	-180.00	-3025.06	1785.91	122.10	-4.822e+04	-5567.42	323.42
6	283	-120.00	-1654.35	1883.55	46.75	-7.794e+04	-3911.18	7428.71
6	283	-60.00	-364.62	1819.39	86.91	-1.142e+05	610.24	1.466e+04
6	283	0.0	444.73	274.54	-28.06	-1.223e+05	955.14	1.854e+04
6	292	-360.00	-6832.91	-427.68	906.87	5.922e+04	-8.890e+04	-3.240e+04
6	292	-300.00	-6297.04	-47.55	906.87	3.188e+04	-3.547e+04	-5.365e+04
6	292	-240.00	-5099.66	40.44	470.31	6.418e+04	-8954.83	-2.933e+04
6	292	-180.00	-4220.45	-28.61	211.04	9.838e+04	868.67	-2.209e+04
6	292	-120.00	-3414.71	-69.46	93.13	1.324e+05	4890.26	-2.166e+04
6	292	-60.00	-2429.51	22.36	-13.37	1.515e+05	3234.70	-2.870e+04
6	292	0.0	-1192.56	664.68	-25.16	1.157e+05	60.66	-3.306e+04
6	308	-360.00	-6740.23	-799.44	897.10	6.045e+04	-8.807e+04	-3.281e+04
6	308	-300.00	-6255.86	-448.57	897.10	4.470e+04	-3.527e+04	-5.574e+04
6	308	-240.00	-5164.16	-402.60	474.36	8.441e+04	-8417.93	-3.227e+04
6	308	-180.00	-4396.76	-523.51	221.23	1.306e+05	1999.18	-2.592e+04
6	308	-120.00	-3705.60	-586.29	91.37	1.818e+05	5961.91	-2.687e+04
6	308	-60.00	-2771.56	-451.49	-50.39	2.186e+05	2109.64	-3.728e+04
6	308	0.0	-1467.40	710.45	-5.37	1.785e+05	-452.76	-4.510e+04
6	383	-360.00	-6450.39	550.26	876.46	4.238e+04	-8.561e+04	-2.457e+04
6	383	-300.00	-5861.02	954.67	876.46	-1.647e+04	-3.402e+04	-3.675e+04
6	383	-240.00	-4476.54	1245.13	417.84	-2.019e+04	-1.049e+04	-1.355e+04
6	383	-180.00	-3250.56	1426.89	138.73	-2.953e+04	-4265.16	-3260.11
6	383	-120.00	-2010.17	1500.32	58.89	-4.967e+04	-1988.17	2692.50
6	383	-60.00	-804.12	1460.17	78.66	-7.805e+04	2007.64	7848.61
6	383	0.0	83.93	301.74	-37.46	-8.872e+04	1012.82	1.134e+04
6	388	-360.00	-6575.28	-274.13	880.00	5.346e+04	-8.634e+04	-3.026e+04
6	388	-300.00	-6069.37	107.42	880.00	2.058e+04	-3.456e+04	-5.018e+04
6	388	-240.00	-4895.44	216.24	449.36	4.211e+04	-9172.05	-2.689e+04
6	388	-180.00	-3993.89	163.10	194.23	6.662e+04	-160.16	-1.921e+04
6	388	-120.00	-3146.65	117.41	85.41	9.094e+04	3494.56	-1.767e+04
6	388	-60.00	-2163.09	159.51	2.22	1.035e+05	2872.24	-2.211e+04
6	388	0.0	-1000.76	513.29	-26.20	7.683e+04	201.73	-2.440e+04
6	400	-360.00	-6552.11	-418.86	878.65	5.396e+04	-8.622e+04	-3.045e+04
6	400	-300.00	-6064.50	-48.81	878.65	2.562e+04	-3.455e+04	-5.096e+04
6	400	-240.00	-4930.28	45.91	452.32	5.029e+04	-8958.93	-2.796e+04
6	400	-180.00	-4071.25	-23.96	198.86	7.952e+04	312.54	-2.062e+04
6	400	-120.00	-3267.42	-75.30	85.45	1.103e+05	3977.80	-1.963e+04
6	400	-60.00	-2302.03	-13.85	-10.98	1.292e+05	2563.10	-2.538e+04
6	400	0.0	-1111.46	537.76	-19.84	1.006e+05	30.20	-2.897e+04
6	416	-360.00	-6459.73	482.70	879.93	4.314e+04	-8.593e+04	-2.503e+04
6	416	-300.00	-5879.01	884.46	879.93	-1.365e+04	-3.415e+04	-3.780e+04
6	416	-240.00	-4518.30	1161.40	422.59	-1.527e+04	-1.038e+04	-1.457e+04
6	416	-180.00	-3327.01	1326.00	145.26	-2.217e+04	-3838.19	-4526.06
6	416	-120.00	-2126.78	1391.67	63.79	-3.940e+04	-1316.94	1035.07
6	416	-60.00	-946.13	1359.89	76.53	-6.567e+04	2528.89	5476.28
6	416	0.0	-30.85	322.08	-41.25	-7.781e+04	1041.01	8847.71
6	420	-360.00	-6527.07	-294.46	876.90	5.282e+04	-8.605e+04	-2.996e+04
6	420	-300.00	-6030.64	82.33	876.90	2.046e+04	-3.447e+04	-4.975e+04
6	420	-240.00	-4872.92	191.73	447.99	4.145e+04	-9154.06	-2.670e+04
6	420	-180.00	-3982.63	139.24	193.64	6.577e+04	-160.94	-1.906e+04
6	420	-120.00	-3143.19	93.68	84.95	9.025e+04	3472.68	-1.753e+04
6	420	-60.00	-2165.95	136.08	1.91	1.032e+05	2835.59	-2.194e+04
6	420	0.0	-1006.40	500.69	-25.55	7.717e+04	199.77	-2.425e+04

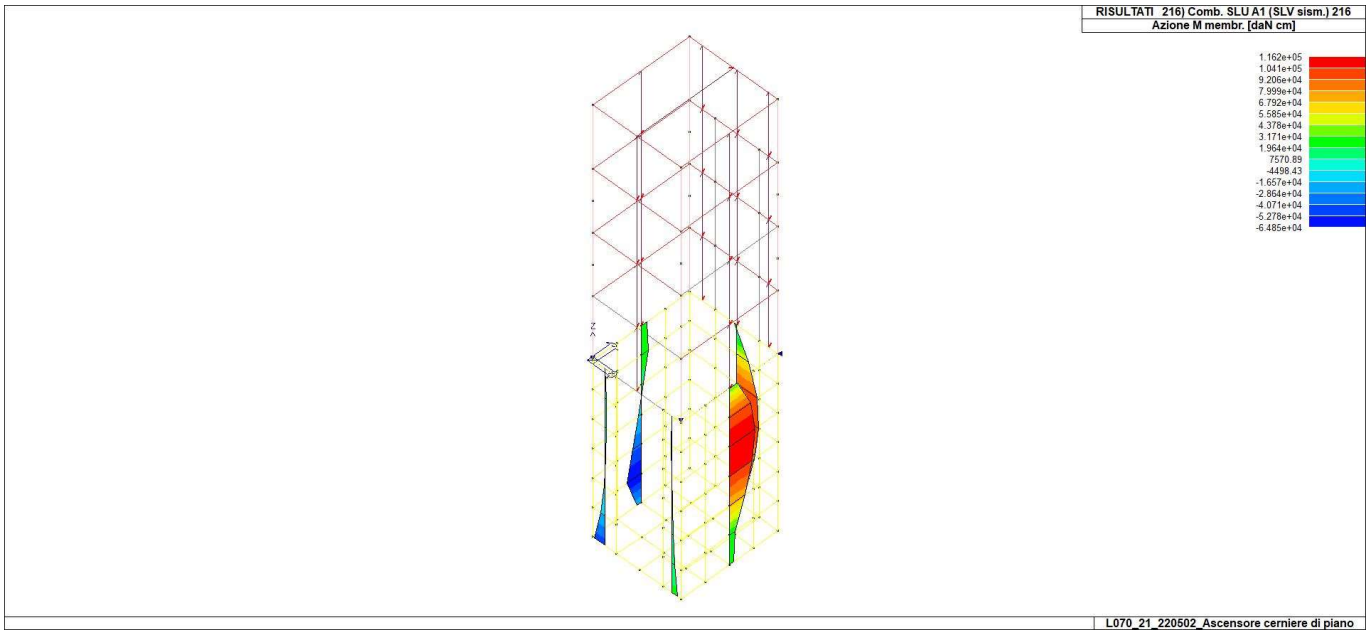
M_S	**N memb.**	**V memb.**	**V orto**	**M memb.**	**M orto**	**T**
	-9064.31	-1149.37	-282.55	-1.821e+05	-1.215e+05	-7.590e+04
	1085.04	2746.09	1597.63	3.274e+05	1.626e+04	5.226e+04



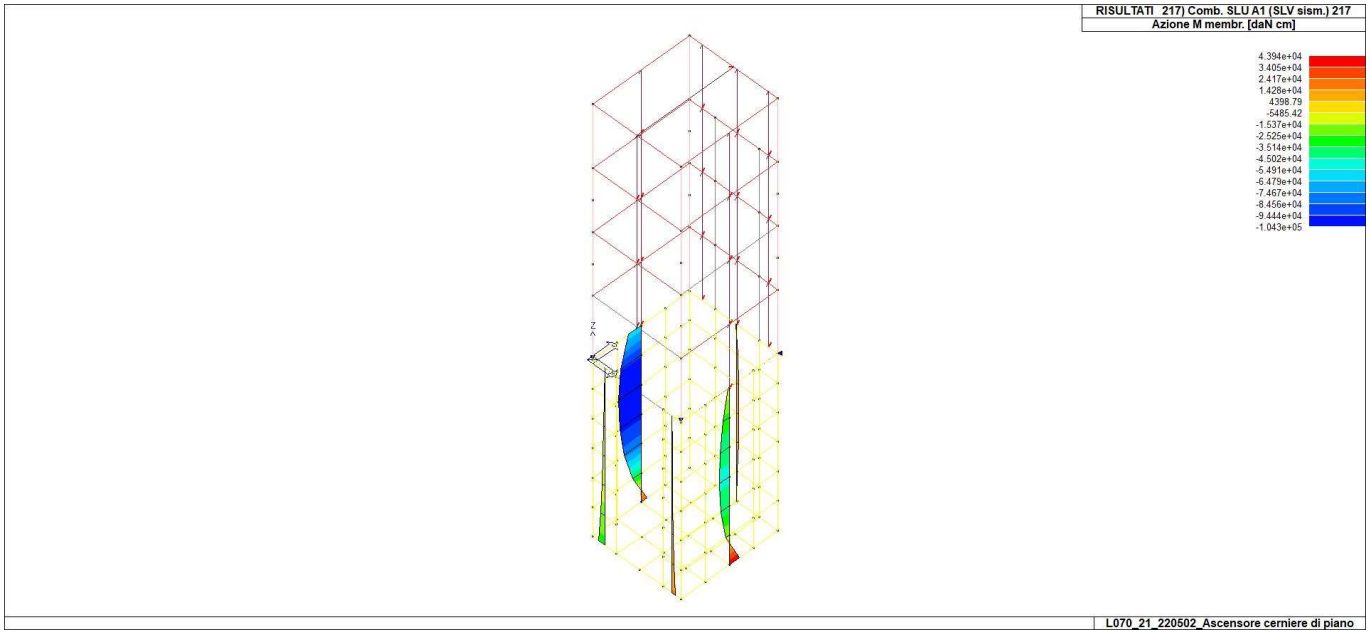
47_RIS_M_032_Comb. SLU A1 32



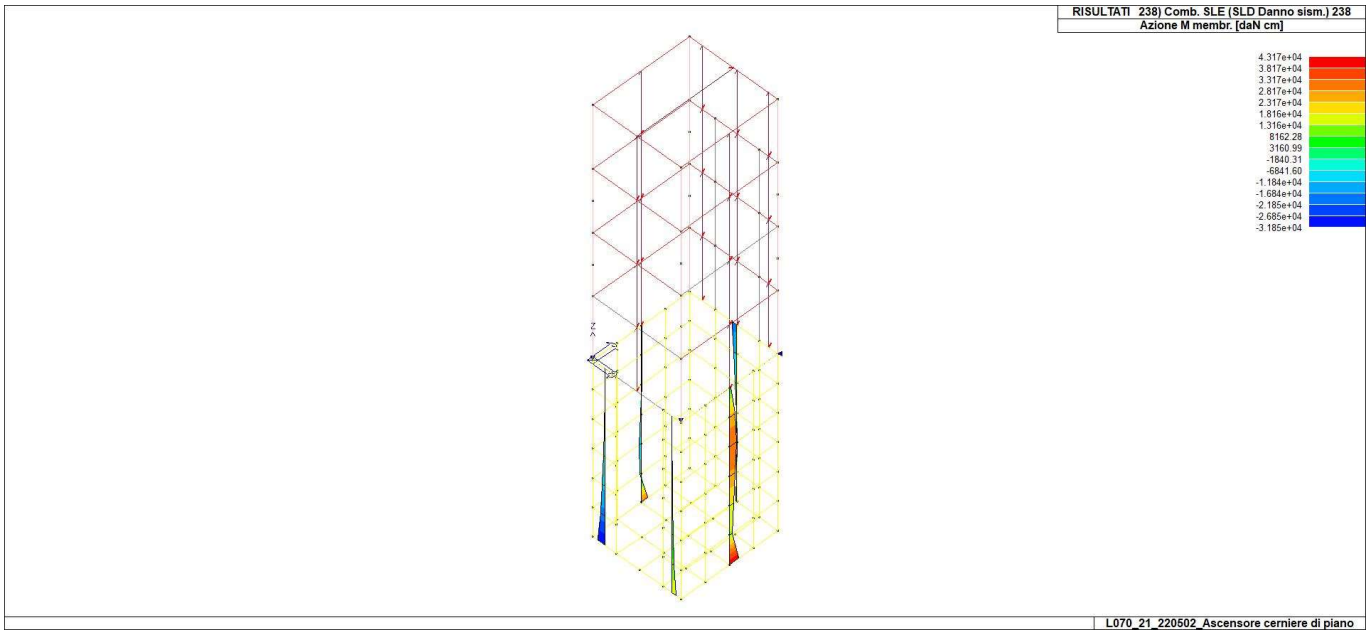
47_RIS_M_087_Comb. SLU A1 87



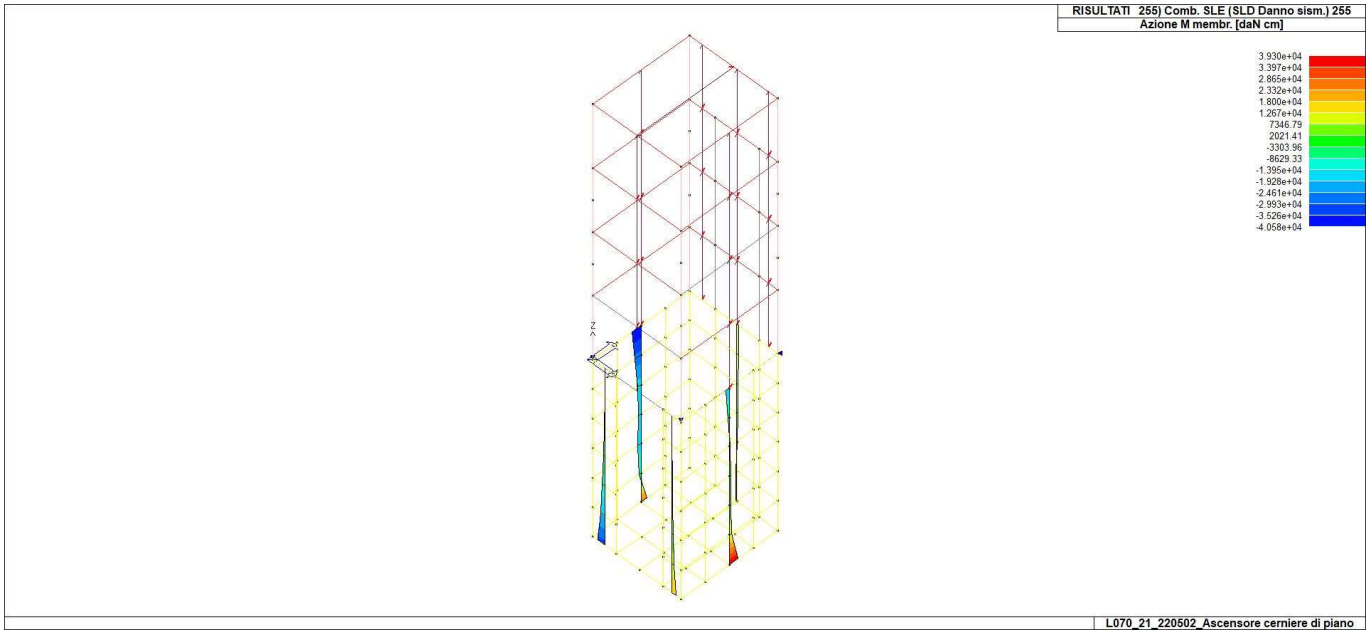
47_RIS_M_216_Comb. SLU A1 (SLV sism.) 216



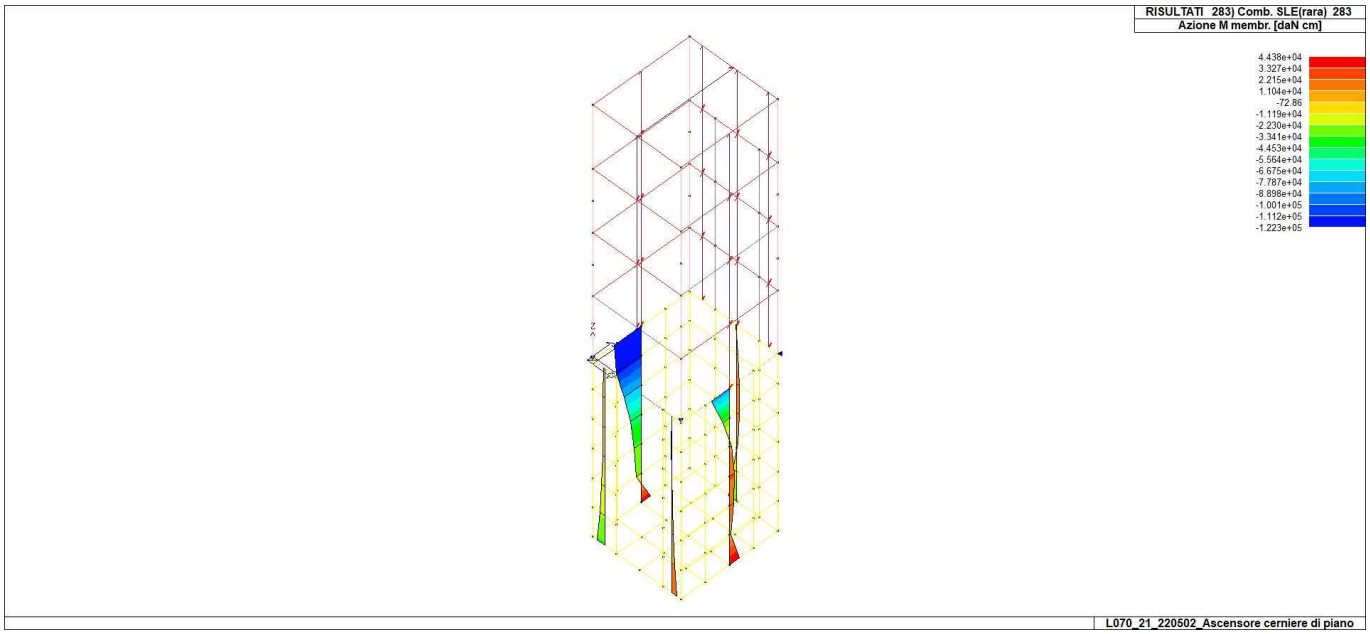
47_RIS_M_217_Comb. SLU A1 (SLV sism.) 217



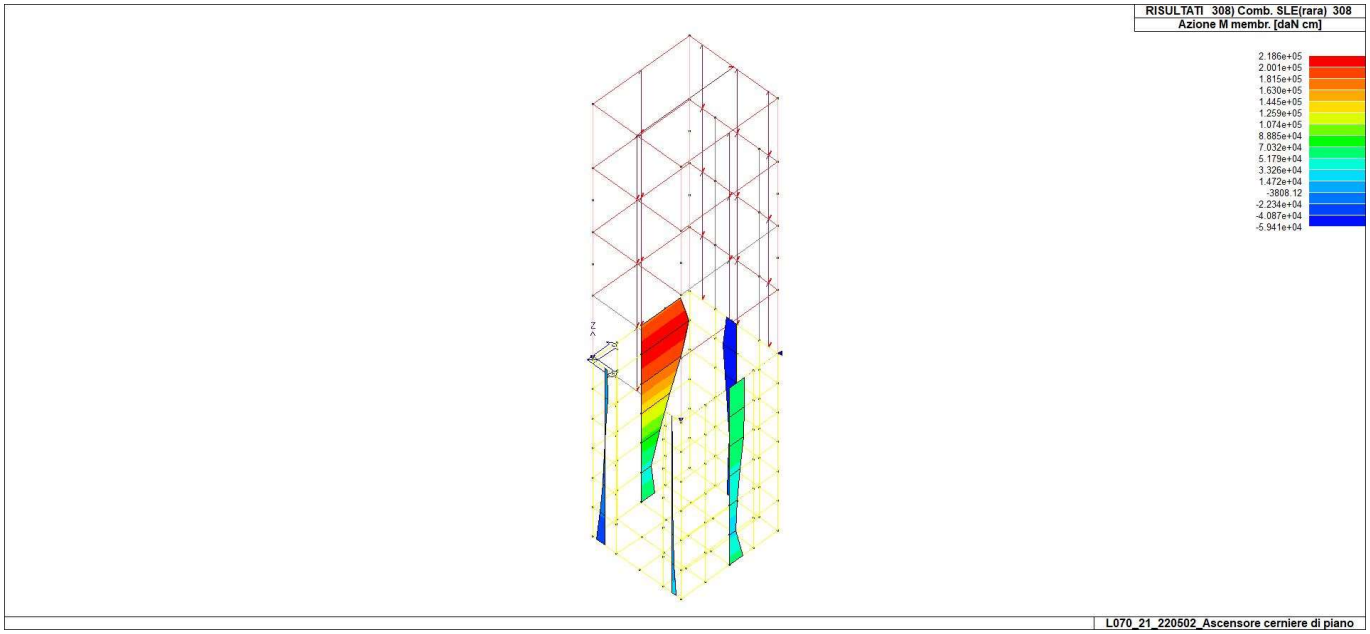
47_RIS_M_238_Comb. SLE (SLD Danno sism.) 238



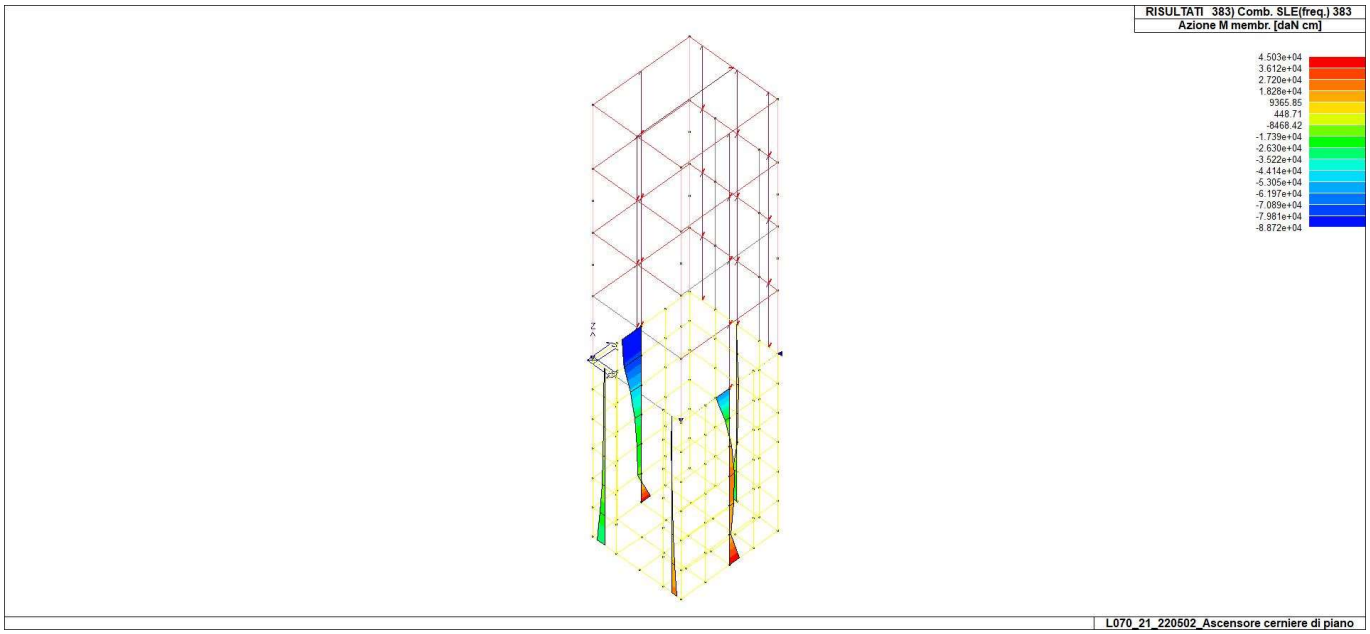
47_RIS_M_255_Comb. SLE (SLD Danno sism.) 255



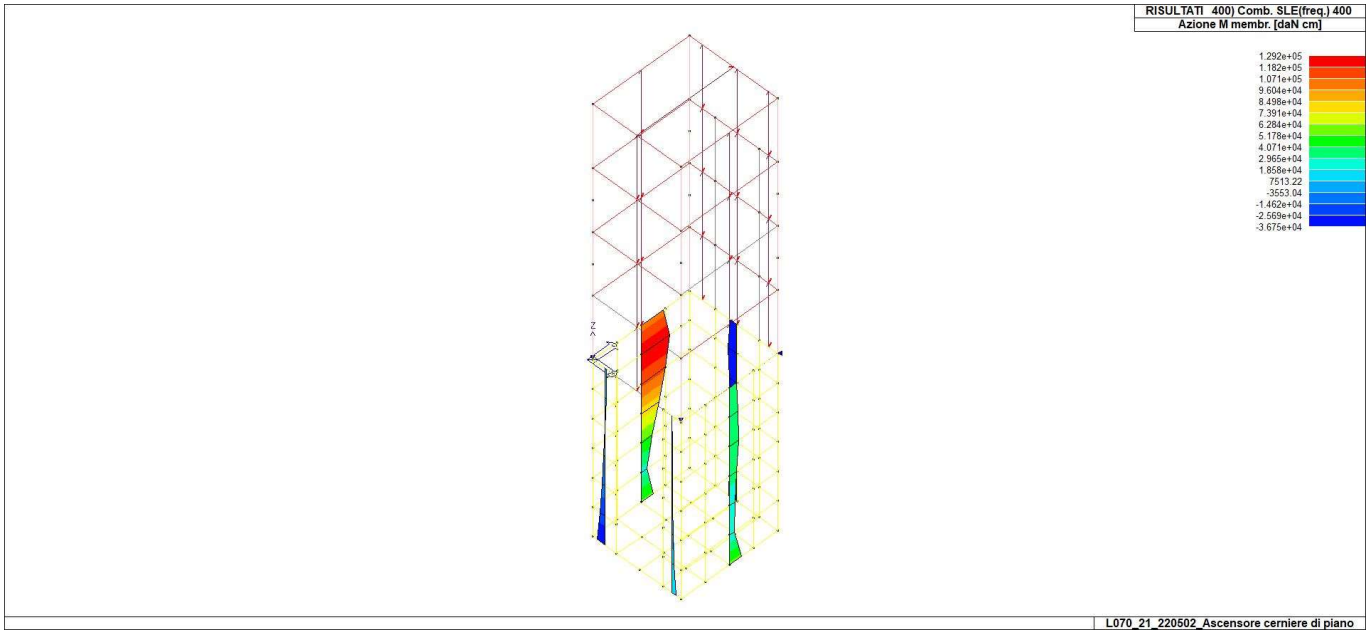
47_RIS_M_283_Comb. SLE(rara) 283



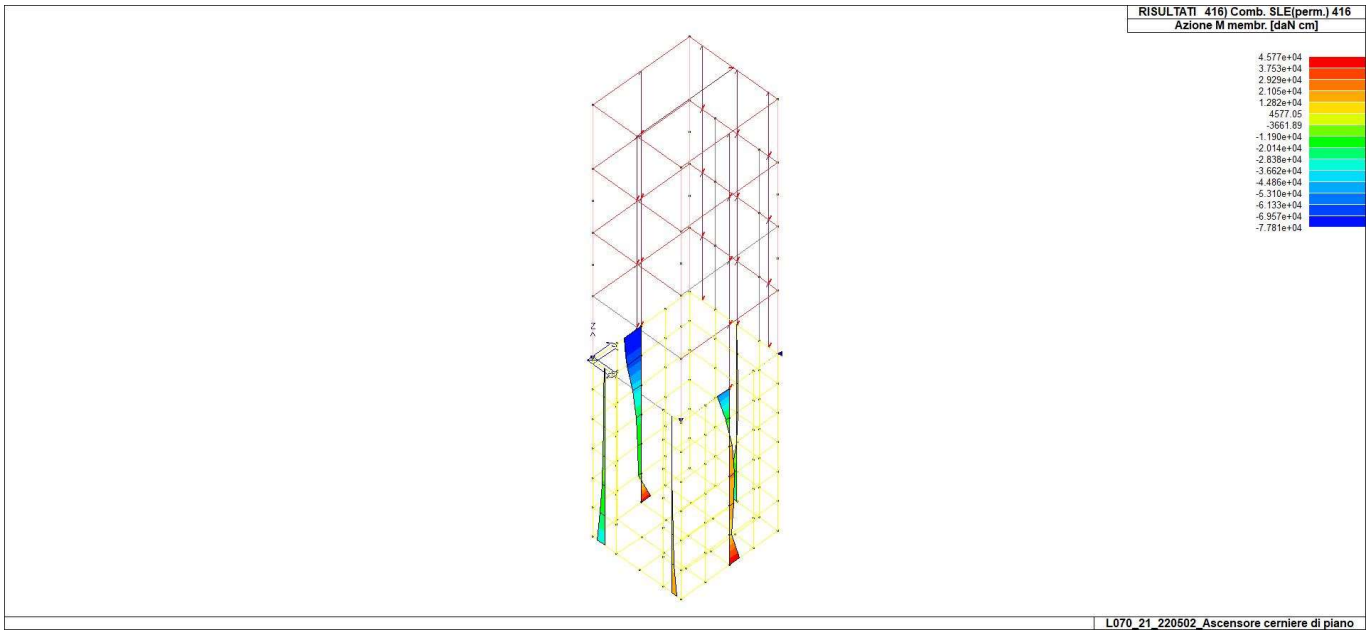
47_RIS_M_308_Comb. SLE(rara) 308



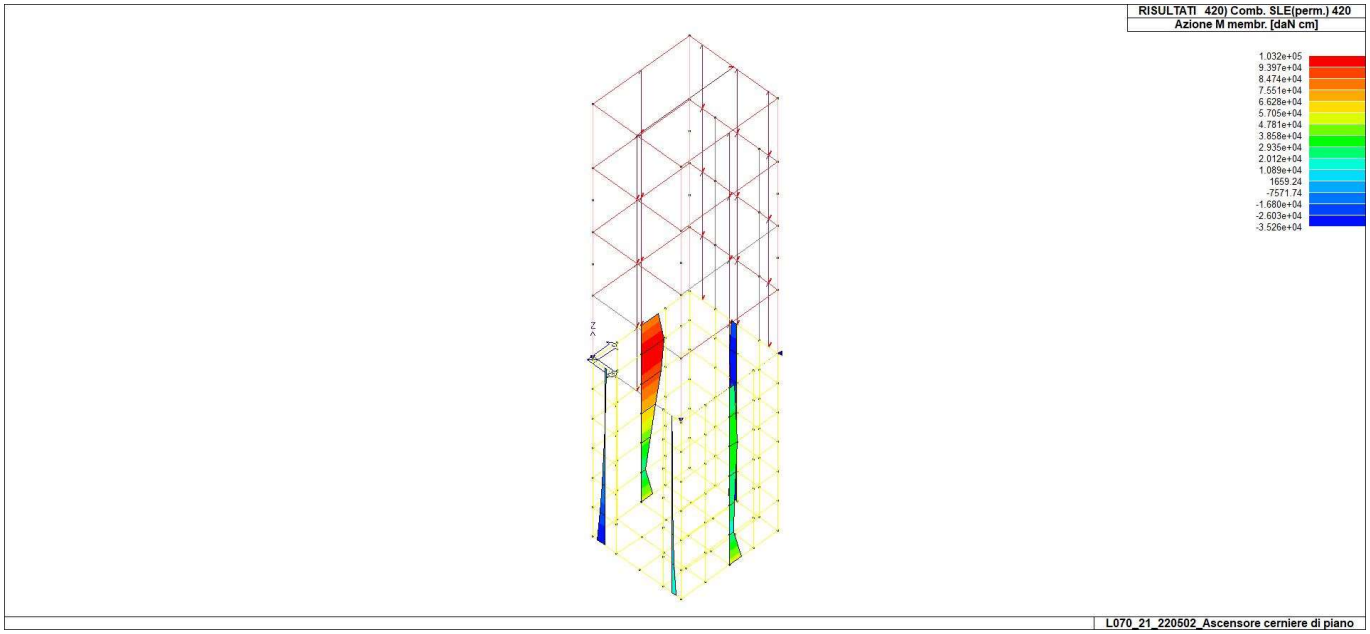
47_RIS_M_383_Comb. SLE(freq.) 383



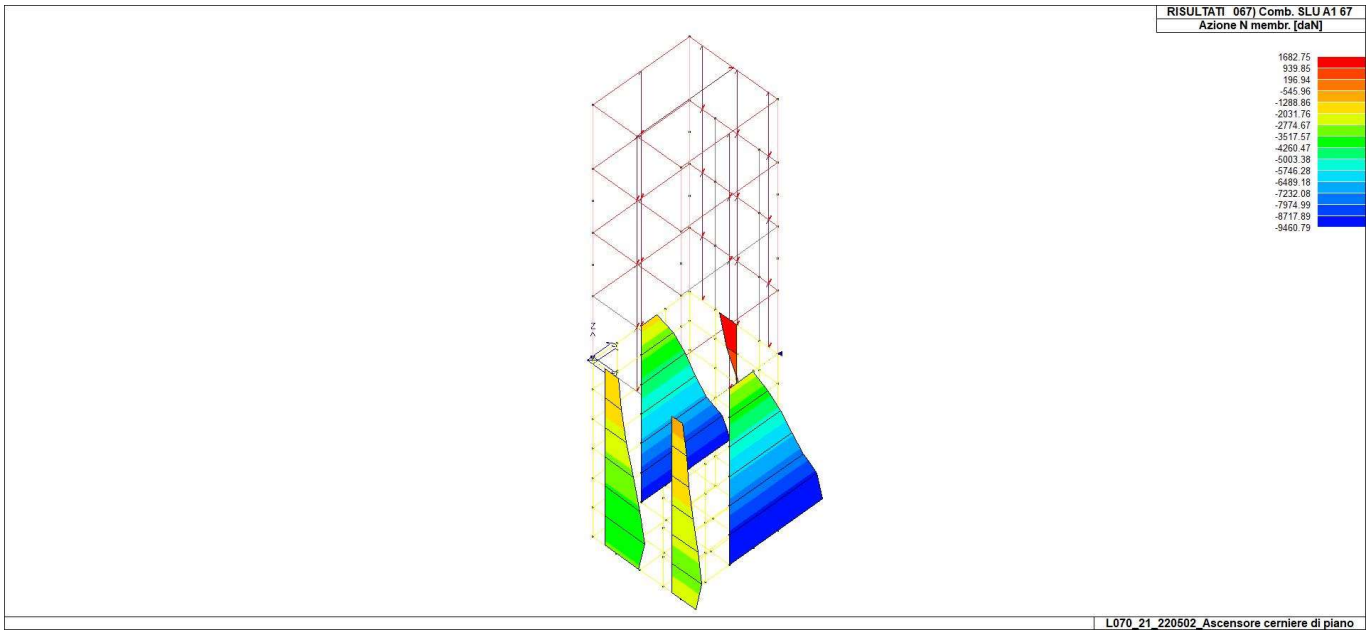
47_RIS_M_400_Comb. SLE(freq.) 400



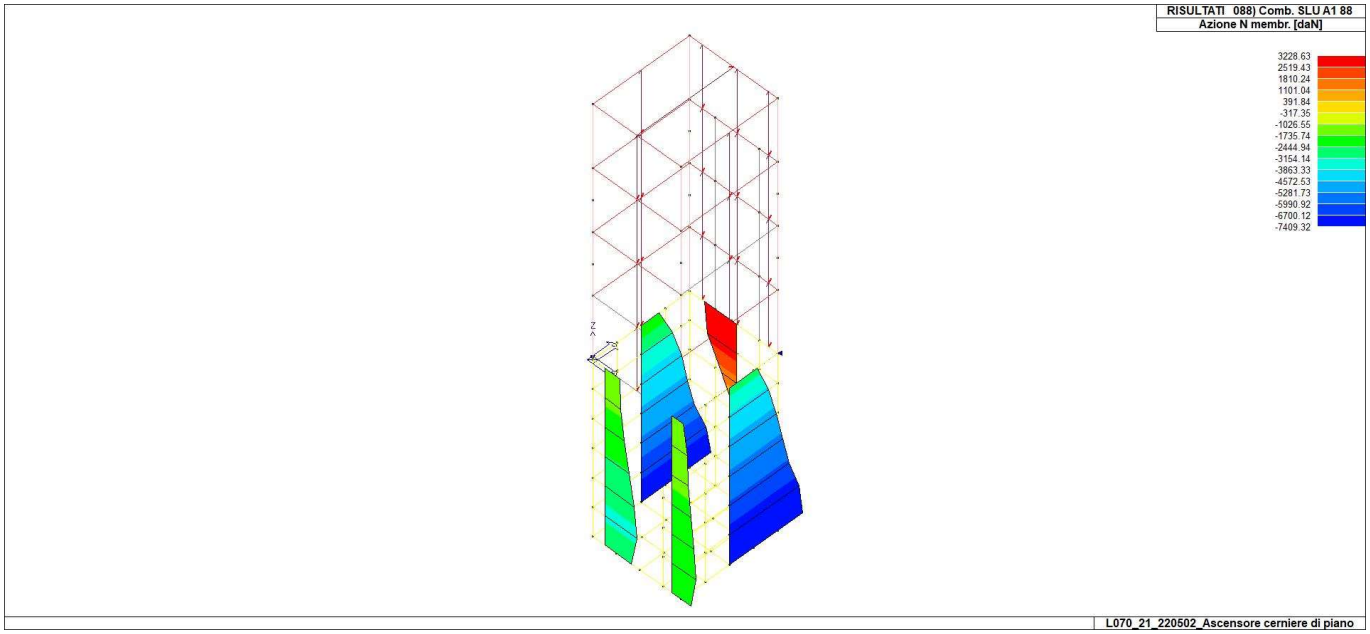
47_RIS_M_416_Comb. SLE(perm.) 416



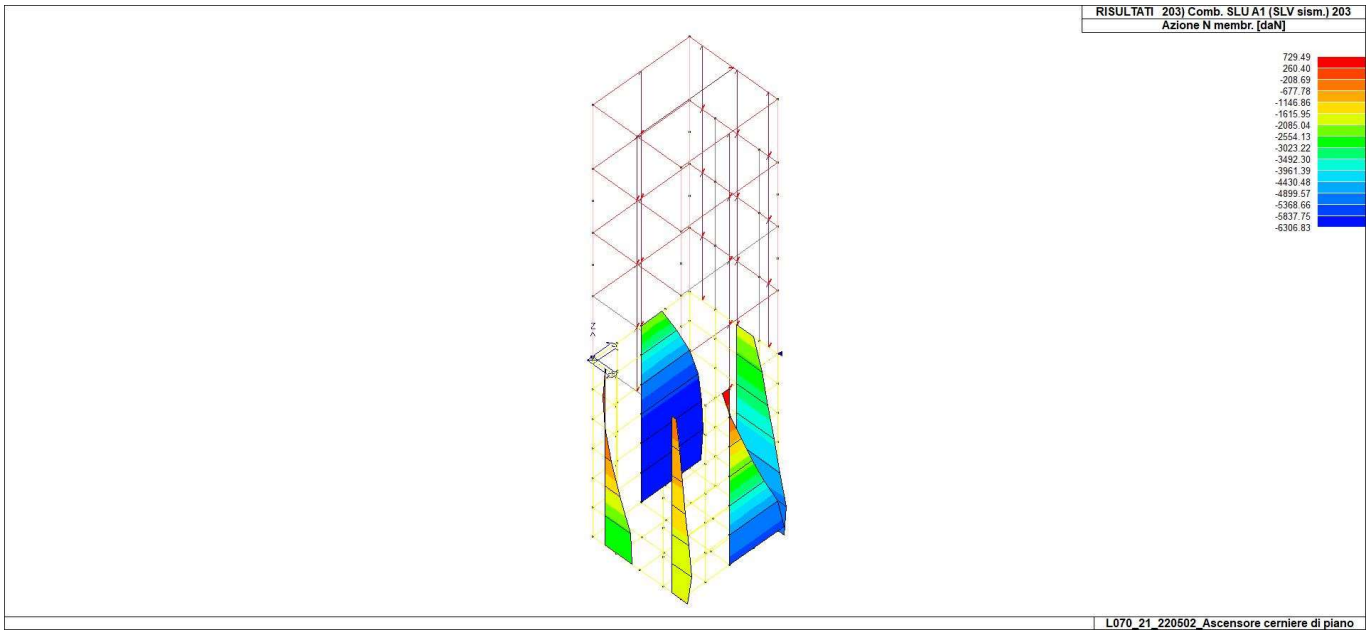
47_RIS_M_420_Comb. SLE(perm.) 420



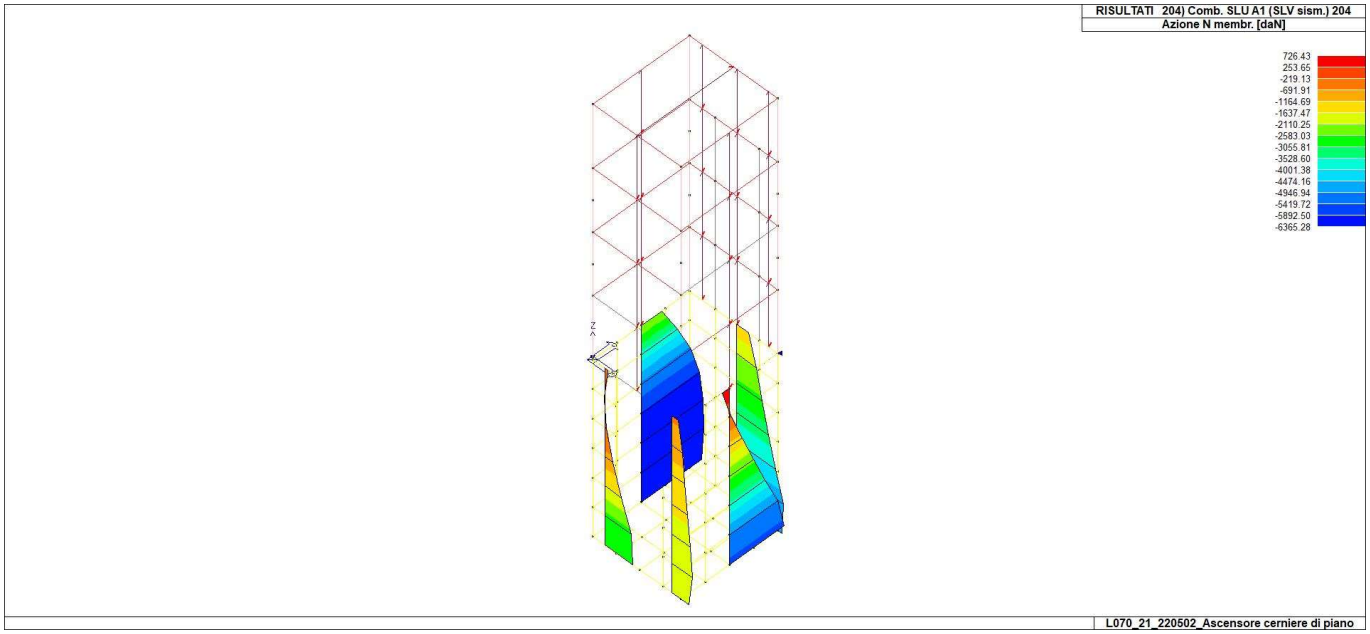
47_RIS_N_067_Comb. SLU A1 67



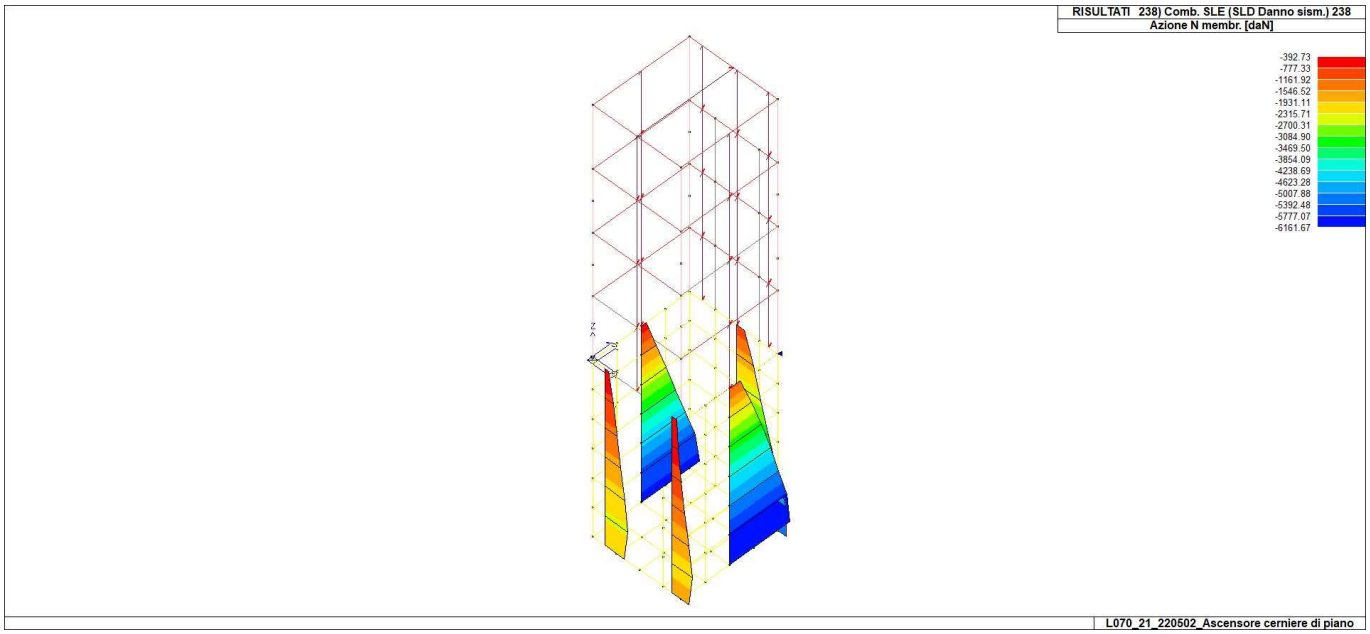
47_RIS_N_088_Comb. SLU A1 88



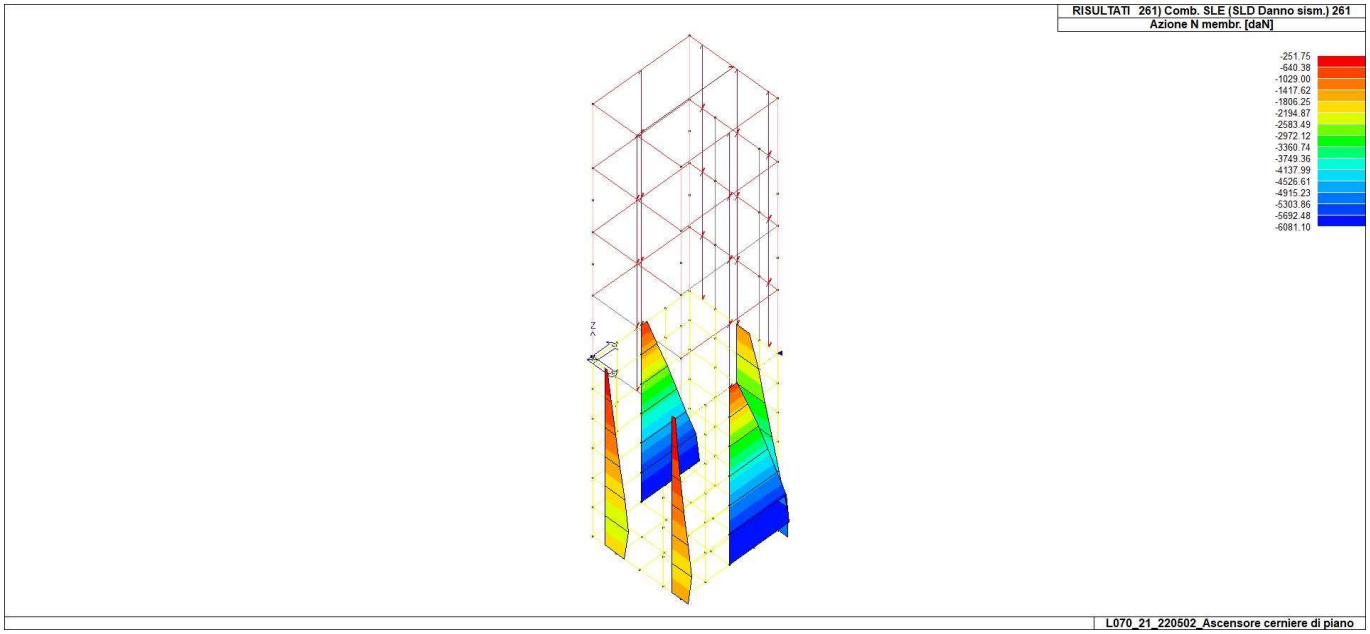
47_RIS_N_203_Comb. SLU A1 (SLV sism.) 203



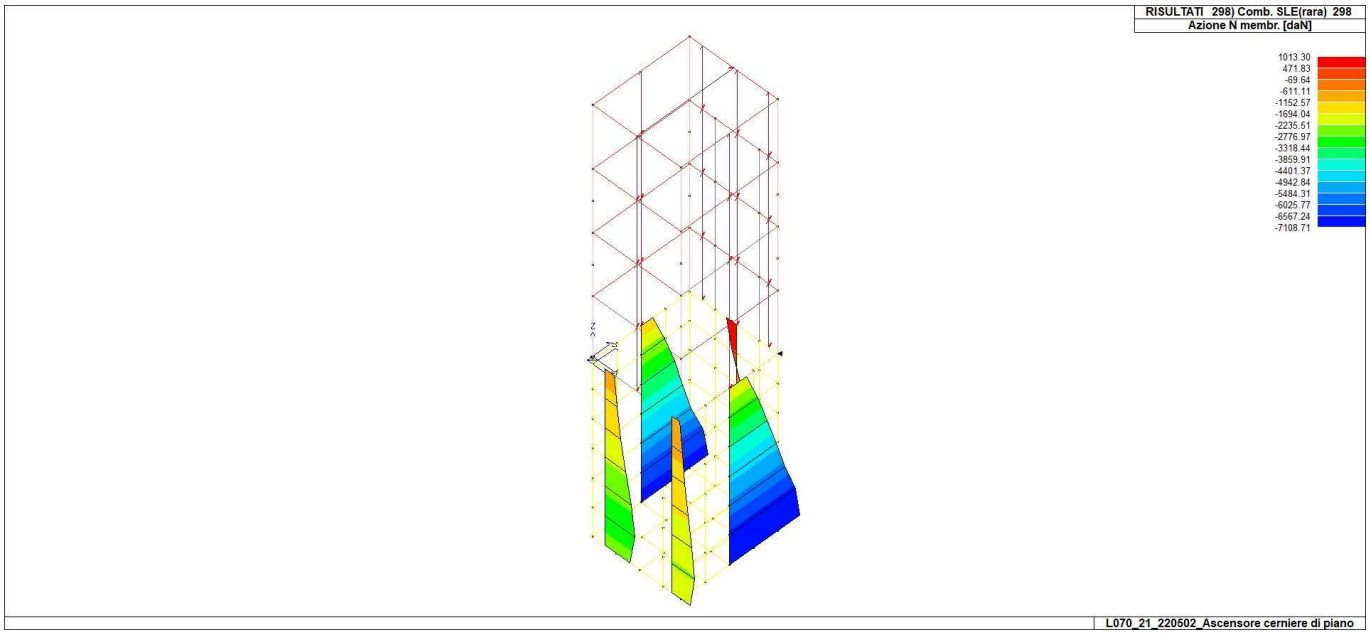
47_RIS_N_204_Comb. SLU A1 (SLV sism.) 204



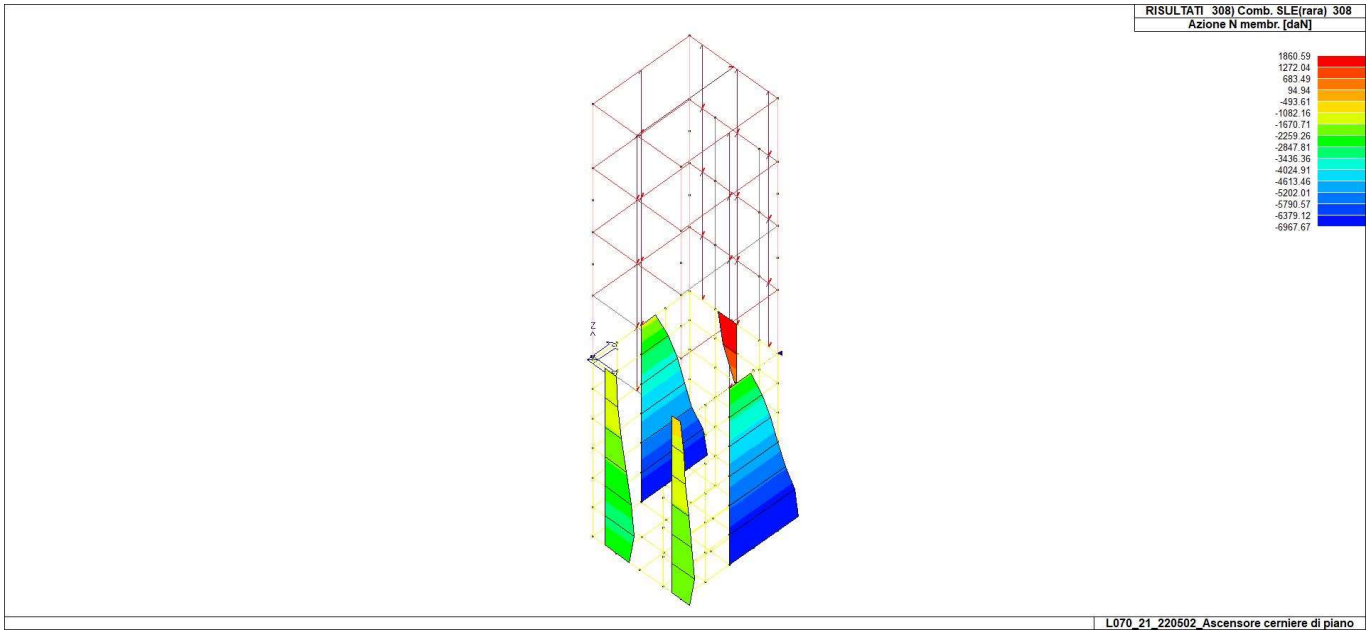
47_RIS_N_238_Comb. SLE (SLD Danno sism.) 238



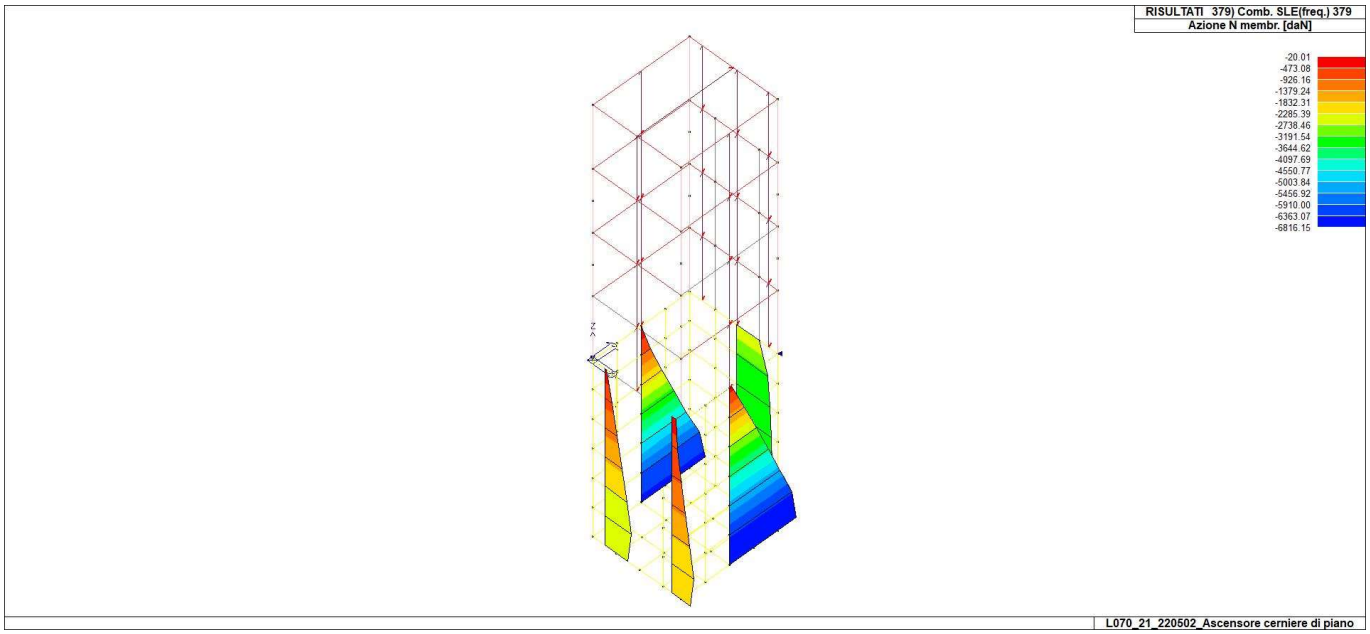
47_RIS_N_261_Comb. SLE (SLD Danno sism.) 261



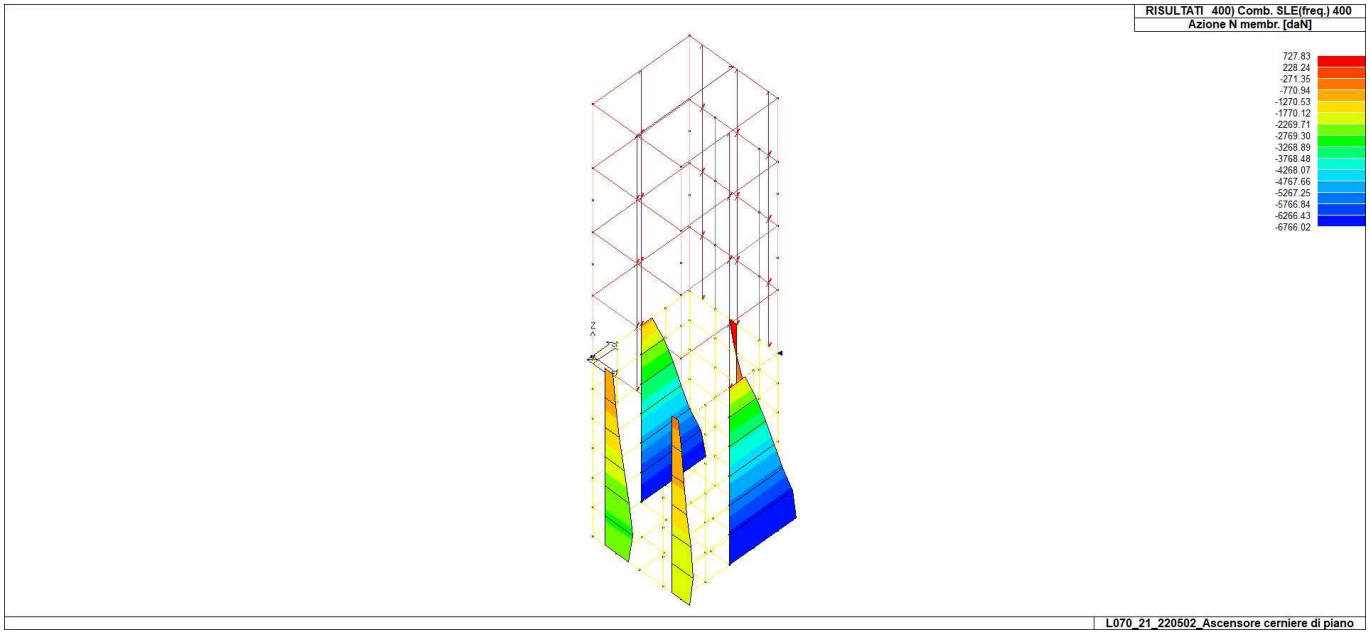
47_RIS_N_298_Comb. SLE(rara) 298



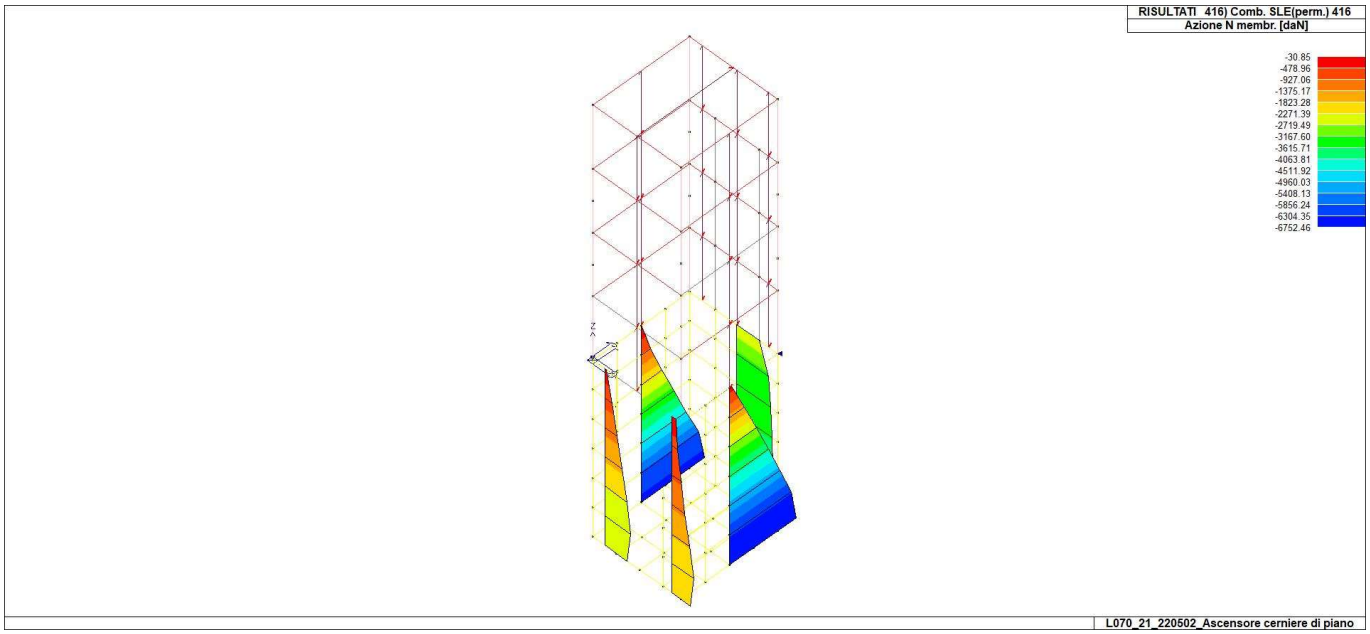
47_RIS_N_308_Comb. SLE(rara) 308



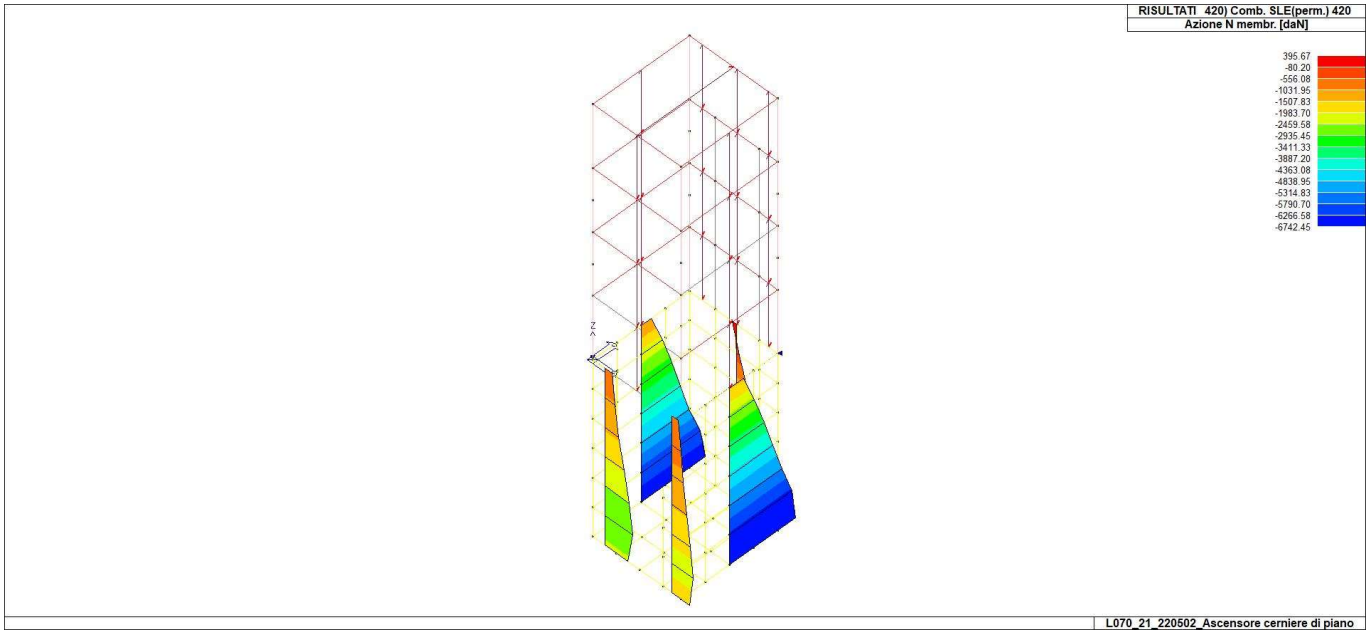
47_RIS_N_379_Comb. SLE(freq.) 379



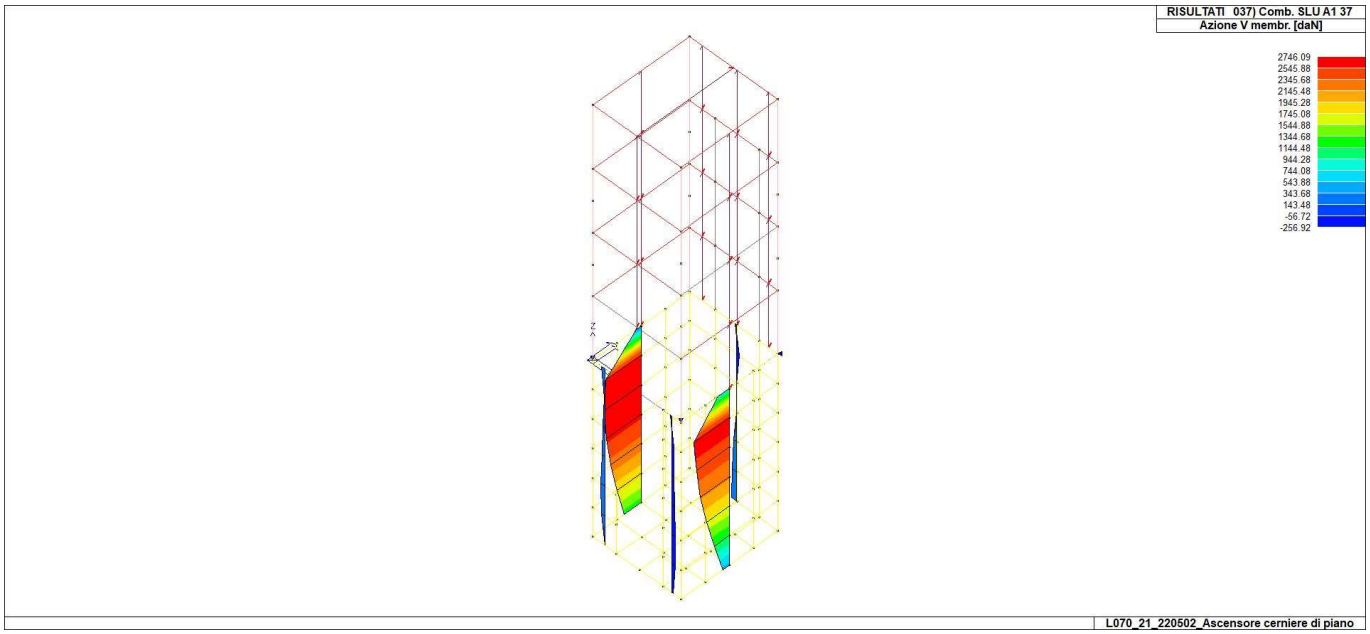
47_RIS_N_400_Comb. SLE(freq.) 400



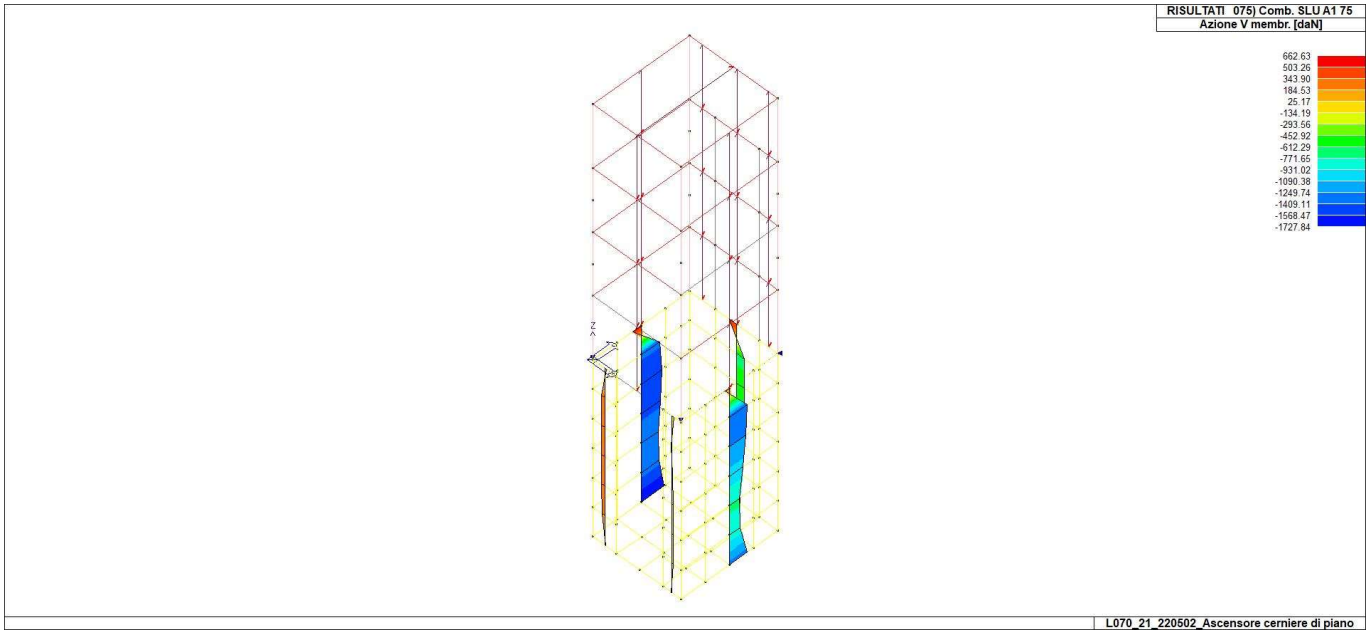
47_RIS_N_416_Comb. SLE(perm.) 416



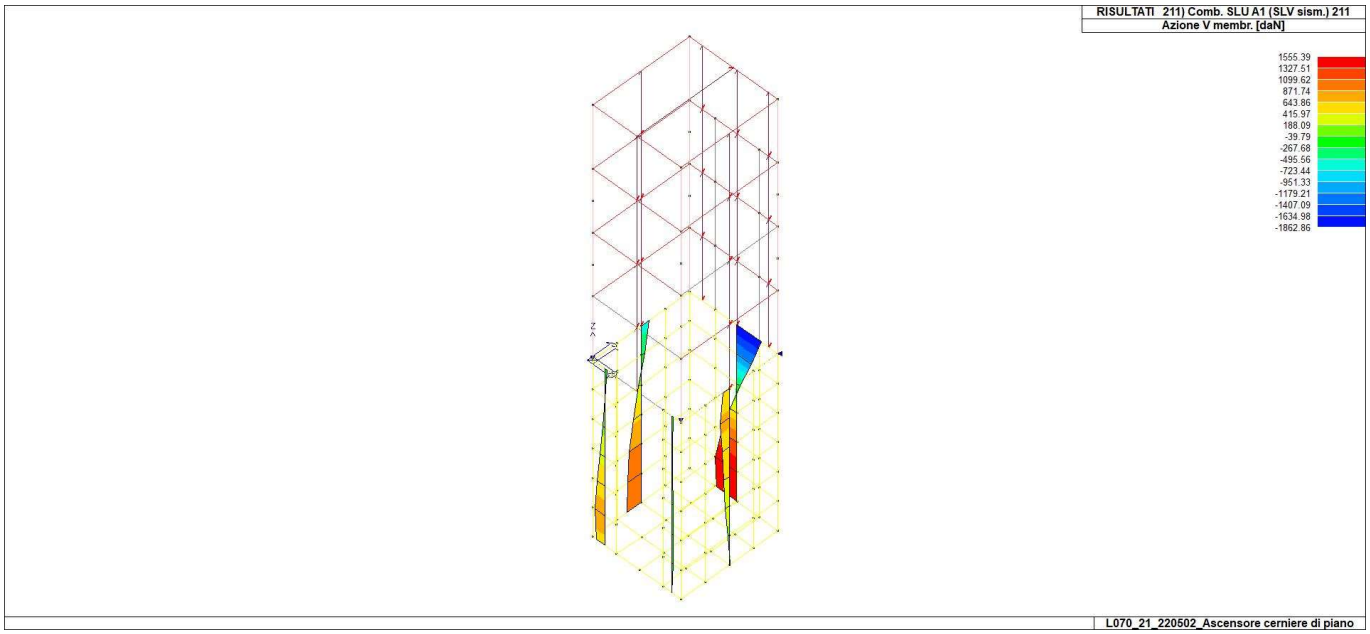
47_RIS_N_420_Comb. SLE(perm.) 420



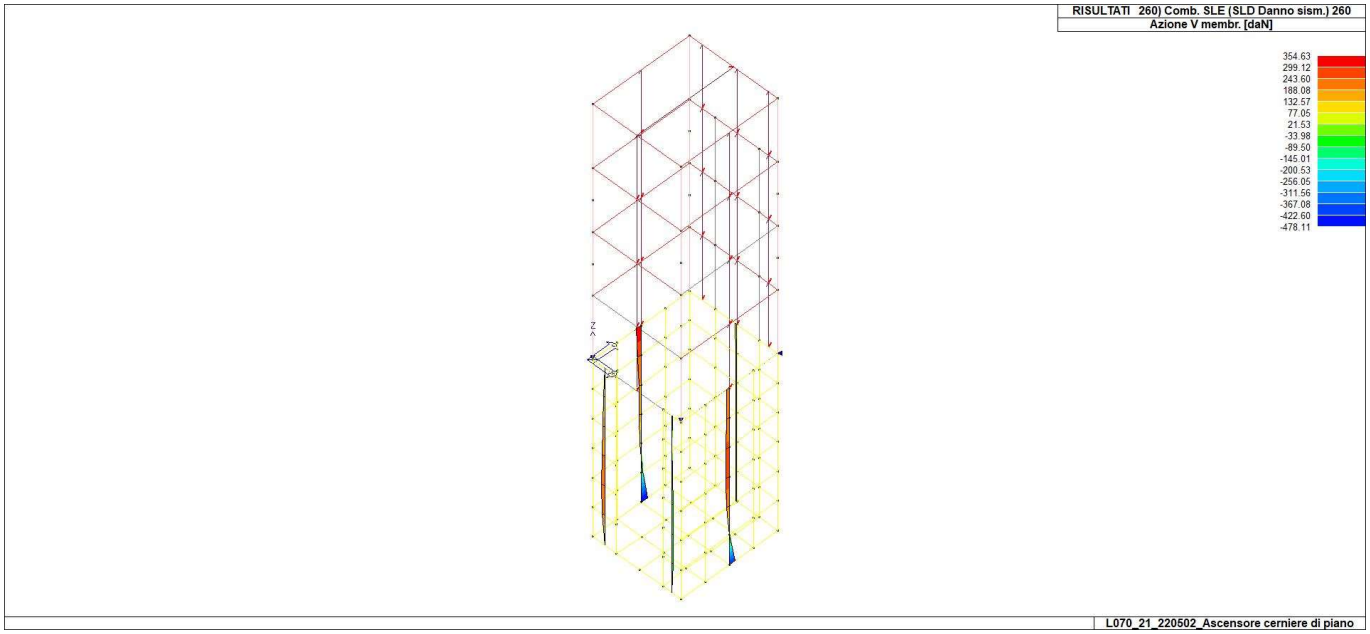
47_RIS_V_037_Comb. SLU A1 37



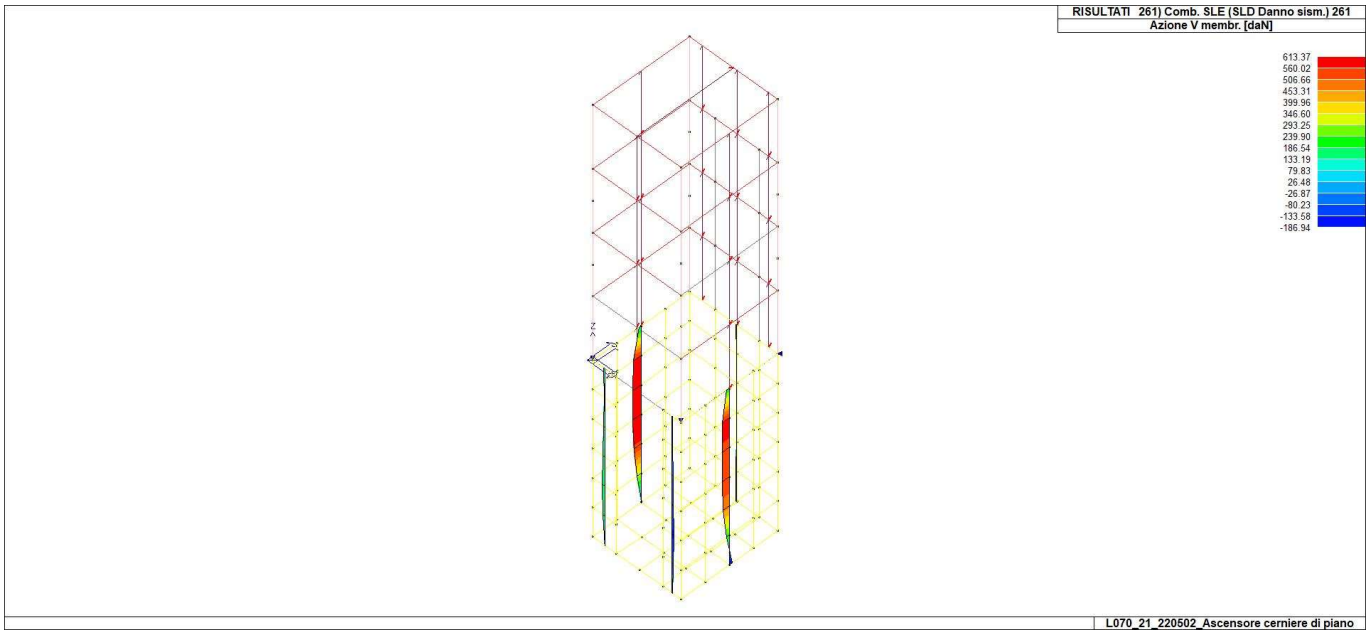
47_RIS_V_075_Comb. SLU A1 75



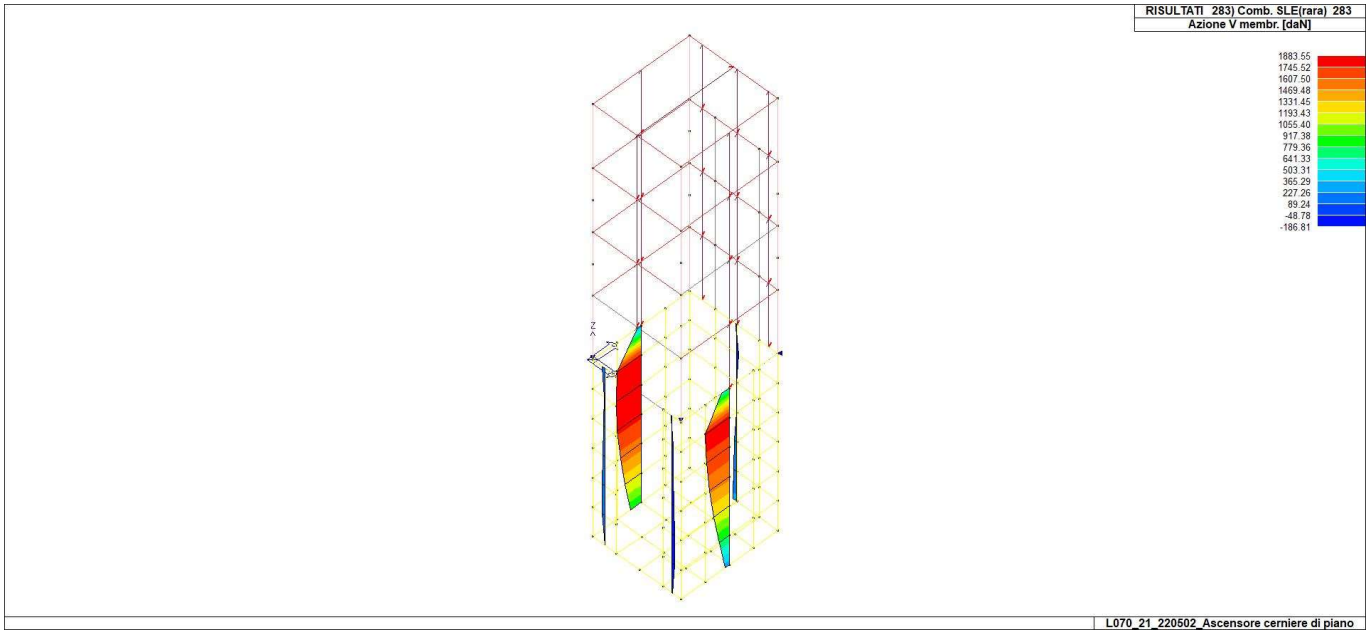
47_RIS_V_211_Comb. SLU A1 (SLV sism.) 211



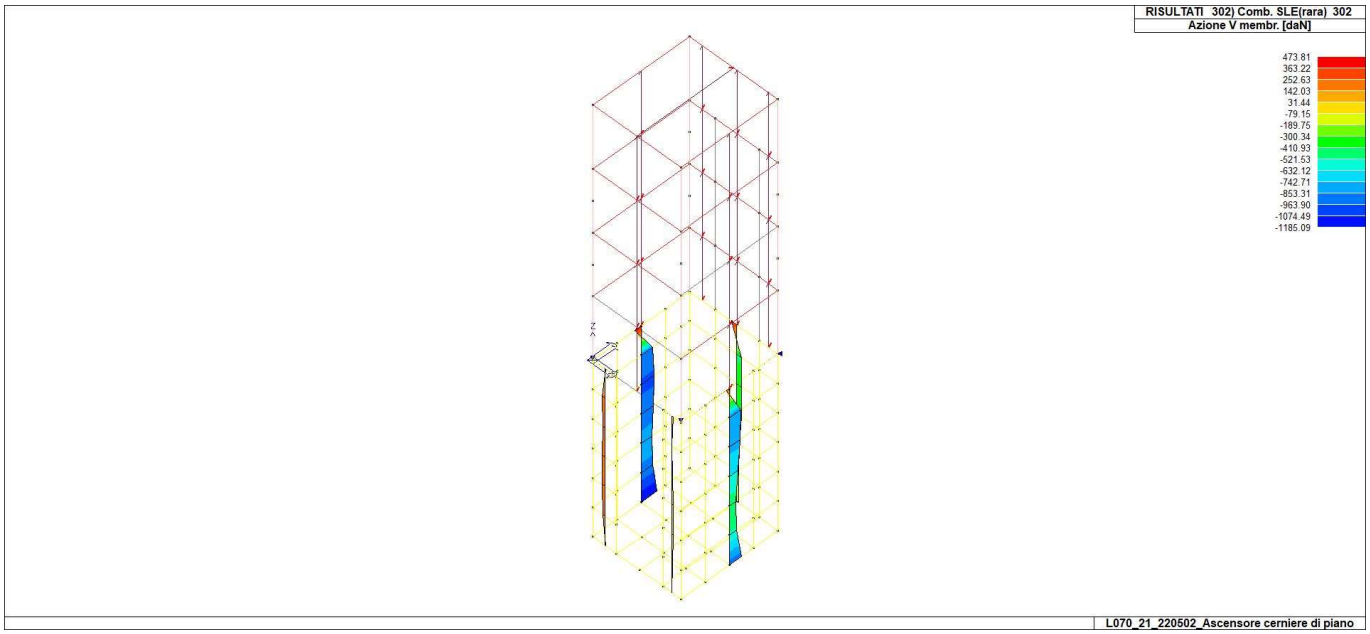
47_RIS_V_260_Comb. SLE (SLD Danno sism.) 260



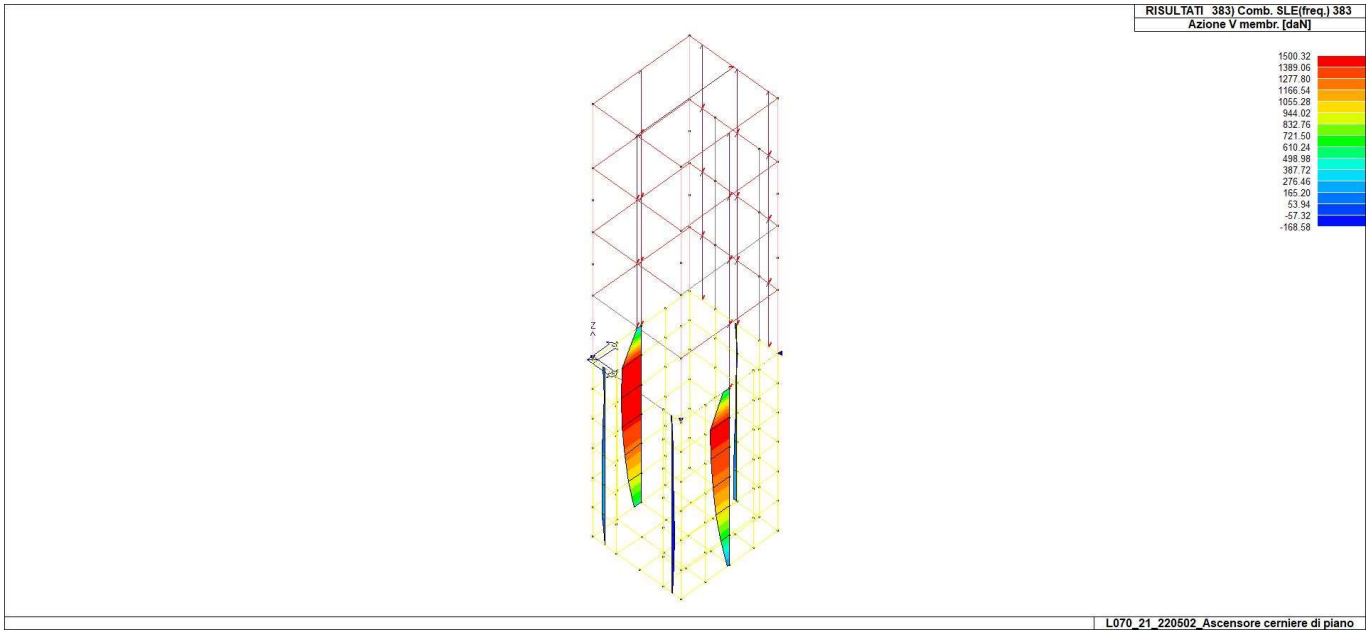
47_RIS_V_261_Comb. SLE (SLD Danno sism.) 261



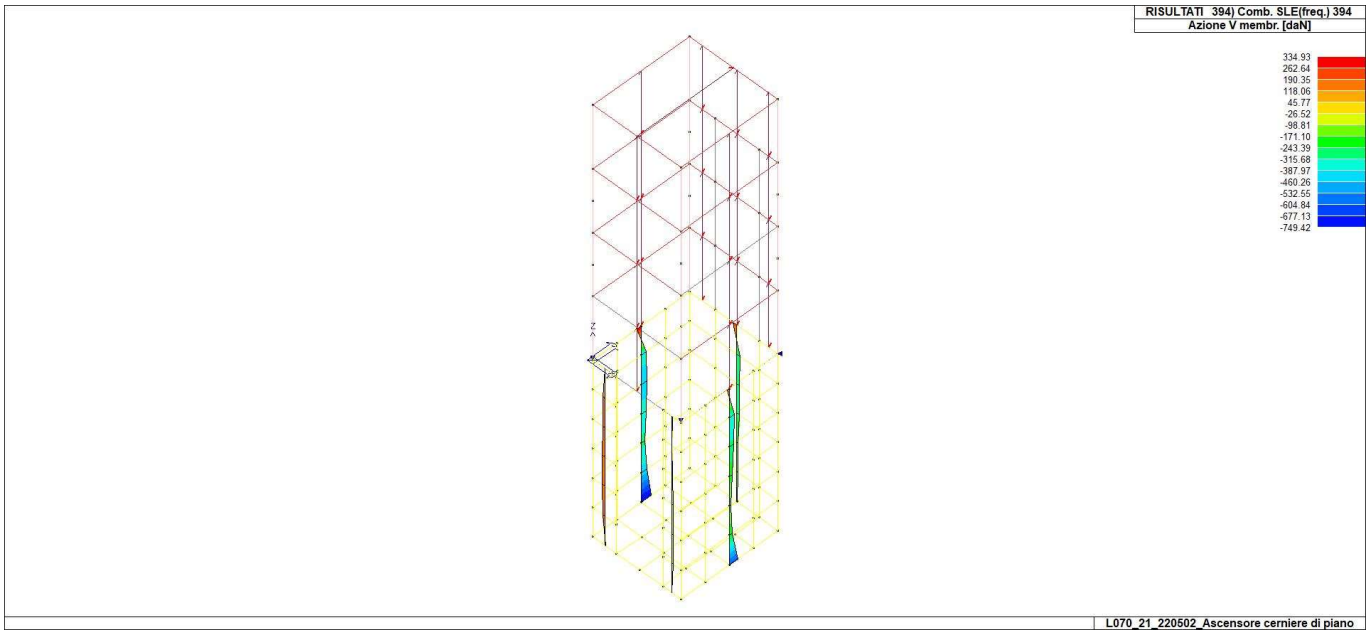
47_RIS_V_283_Comb. SLE(rara) 283



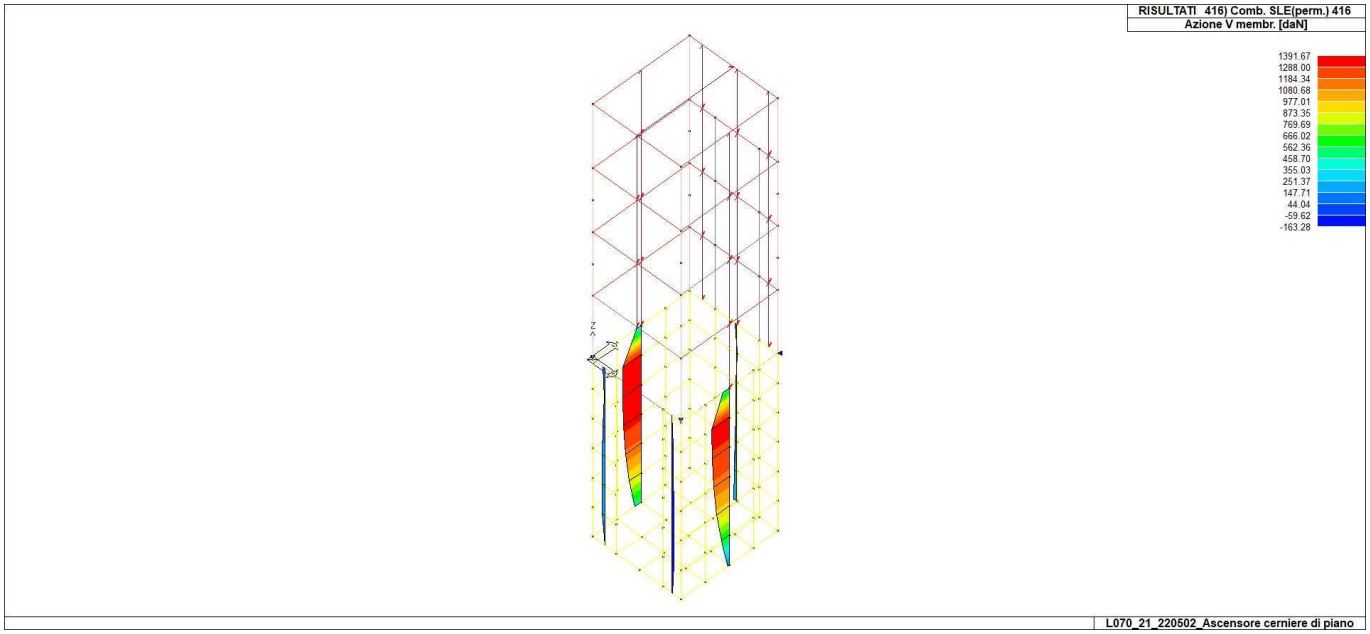
47_RIS_V_302_Comb. SLE(rara) 302



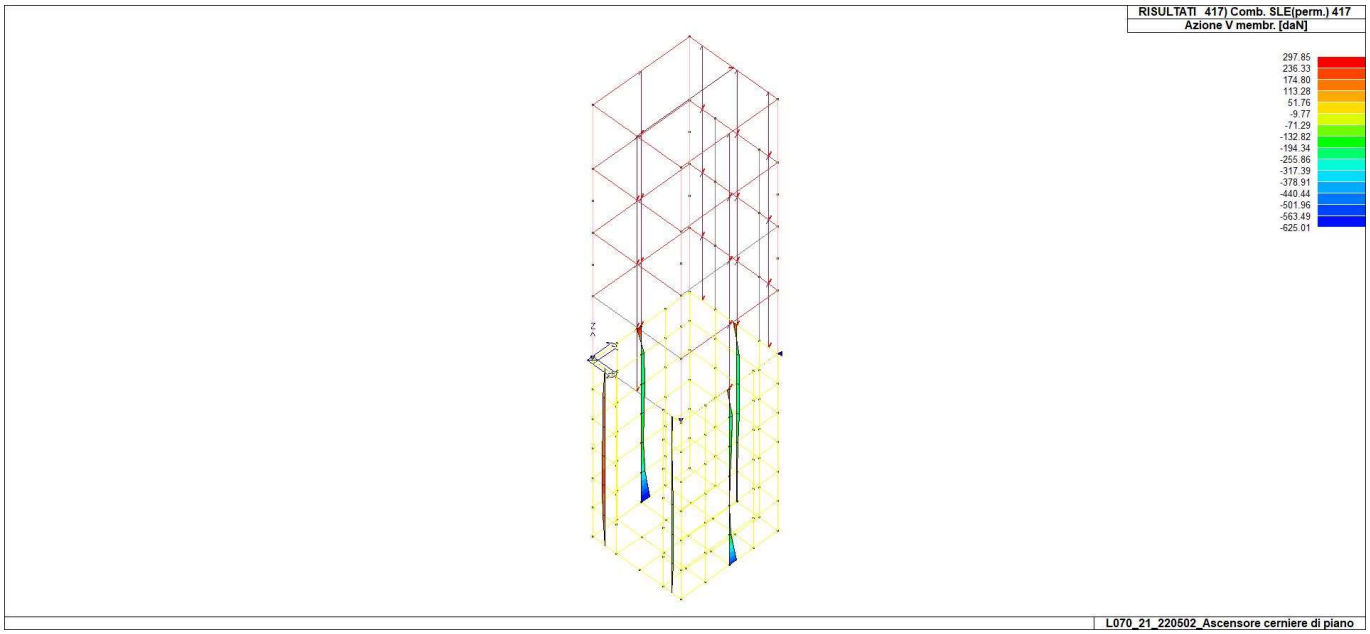
47_RIS_V_383_Comb. SLE(freq.) 383



47_RIS_V_394_Comb. SLE(freq.) 394



47_RIS_V_416_Comb. SLE(perm.) 416



47_RIS_V_417_Comb. SLE(perm.) 417

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	55	1	15.97	-12.22	14.74	-10.99	5.76	-129.76	-572.91	-465.31	-237.36	-190.02
1	55	2	26.32	6.22	25.95	6.60	-2.71	380.82	-176.81	351.41	-147.41	124.63
1	55	3	26.16	6.33	26.15	6.34	0.48	348.19	-144.36	333.13	-129.30	-84.82
1	55	4	14.87	-8.91	14.65	-8.69	-2.29	-127.48	-482.85	-435.26	-175.07	121.03
1	55	5	1.23	-10.82	-10.13	0.54	2.80	-70.49	-353.73	-136.02	-288.20	-119.44
1	55	6	-13.92	-19.91	-18.36	-15.47	2.62	173.00	-809.65	87.29	-723.94	-277.26
1	55	7	-4.19	-13.23	-6.05	-11.38	-3.65	-143.47	-1507.24	-198.64	-1452.07	268.68
1	55	8	-1.46	-14.98	-12.44	-4.00	-5.28	243.80	-275.73	27.11	-59.04	256.17
1	55	9	-4.92	-11.13	-5.42	-10.63	1.68	-252.93	-1934.13	-255.21	-1931.85	-61.88
1	55	10	-8.45	-21.27	-10.40	-19.32	-4.60	129.62	-949.93	-927.65	107.33	153.49
1	55	11	-1.15	-26.25	-7.46	-19.94	-10.89	193.36	-836.60	-831.15	187.91	-74.71
1	55	12	-7.28	-11.25	-7.40	-11.12	-0.69	62.16	-793.56	-658.33	-73.06	312.13
1	55	13	-8.57	-17.27	-9.52	-16.32	2.71	96.71	-913.95	-902.45	85.21	-107.18
1	55	14	-2.04	-22.71	-6.68	-18.07	8.62	171.48	-789.76	-789.14	170.86	24.40
1	55	15	-7.41	-9.77	-9.29	-7.89	0.94	50.95	-704.87	-627.64	-26.28	-228.92
1	55	16	-4.49	-12.77	-10.83	-6.44	3.51	1120.75	516.66	967.30	670.11	-262.96
1	55	17	-0.30	-7.82	-7.76	-0.36	0.69	1023.51	630.42	1019.47	634.45	-39.64
1	55	18	-5.76	-12.30	-7.54	-10.52	2.91	1083.01	-92.80	598.62	391.58	-578.72
1	55	19	-2.55	-11.06	-11.05	-2.56	-0.29	1600.17	1035.91	1599.70	1036.38	-16.17
1	55	20	0.74	-1.51	-1.41	0.64	-0.46	1816.88	728.85	1813.28	732.45	62.52
1	55	21	-8.02	-11.82	-11.33	-8.52	-1.28	951.87	661.86	930.92	682.82	-75.09
1	55	22	-2.52	-14.06	-12.04	-4.54	-4.38	1371.68	725.87	1244.15	853.40	257.09
1	55	23	1.77	-6.89	-6.88	1.76	-0.26	1237.66	787.73	1216.25	809.14	95.78
1	55	24	-5.42	-13.40	-10.21	-8.61	-3.91	1174.79	97.82	735.90	536.71	529.19
1	55	53	13.05	-3.59	13.04	-3.58	-0.31	2123.21	-240.33	2122.59	-239.70	38.35
1	67	1	16.19	-12.47	14.92	-11.21	5.89	-133.15	-584.95	-475.32	-242.78	-193.68
1	67	2	26.52	6.20	26.12	6.61	-2.83	359.66	-181.63	327.97	-149.94	127.07
1	67	3	26.13	6.26	26.12	6.27	0.43	372.92	-143.40	359.30	-129.77	-82.76
1	67	4	14.92	-8.74	14.70	-8.52	-2.26	-125.36	-473.86	-426.40	-172.83	119.53
1	67	5	1.29	-10.83	-10.16	0.63	2.76	-75.43	-359.23	-141.78	-292.88	-120.11
1	67	6	-13.71	-19.18	-18.30	-14.58	2.00	139.12	-844.34	62.17	-767.38	-264.13
1	67	7	1.28	-8.53	0.57	-7.82	-2.54	-334.07	-1798.08	-381.74	-1750.42	259.82
1	67	8	-2.76	-17.21	-14.13	-5.83	-5.91	361.30	-243.06	101.91	16.33	299.14
1	67	9	-9.58	-16.16	-11.62	-14.13	3.04	-84.16	-1679.57	-87.78	-1675.95	-75.92
1	67	10	-8.84	-21.41	-10.56	-19.69	-4.32	135.63	-968.09	-945.55	113.09	156.11
1	67	11	-1.28	-26.59	-7.61	-20.26	-10.96	197.05	-854.54	-848.94	191.45	-76.57
1	67	12	-6.49	-11.44	-6.55	-11.38	0.56	46.59	-814.47	-677.69	-90.20	314.75
1	67	13	-8.52	-17.32	-9.56	-16.28	2.84	96.99	-911.22	-899.94	85.70	-106.07

1	67	14	-2.00	-22.66	-6.61	-18.05	8.61	170.63	-780.70	-780.06	170.00	24.63
1	67	15	-7.13	-9.99	-9.52	-7.60	1.06	53.01	-711.15	-634.61	-23.53	-229.42
1	67	16	-4.54	-12.85	-10.75	-6.64	3.61	1129.41	525.84	983.25	672.01	-258.57
1	67	17	-0.35	-7.74	-7.67	-0.42	0.71	1038.97	631.49	1036.14	634.32	-33.85
1	67	18	-5.68	-13.34	-8.16	-10.86	3.58	1098.63	-68.20	621.55	408.88	-573.65
1	67	19	-2.74	-11.05	-11.03	-2.75	-0.37	1611.64	1041.49	1611.23	1041.90	-15.35
1	67	20	0.68	-1.54	-1.43	0.56	-0.49	1829.67	732.46	1824.93	737.20	71.95
1	67	21	-8.08	-11.45	-10.01	-9.52	-1.67	962.46	634.15	942.69	653.93	-78.11
1	67	22	-2.53	-14.35	-12.42	-4.46	-4.37	1377.30	733.14	1245.49	864.95	259.87
1	67	23	1.75	-7.07	-7.07	1.74	-0.18	1237.57	795.77	1213.56	819.78	100.16
1	67	24	-5.09	-14.34	-11.86	-7.58	-4.10	1185.67	112.91	725.46	573.11	530.94
1	67	53	13.03	-3.65	13.02	-3.64	-0.25	2136.72	-241.79	2135.86	-240.93	45.27
1	208	1	1.39	-6.72	-0.76	-4.56	3.58	-267.51	-617.55	-551.31	-333.75	-137.11
1	208	2	-8.89e-03	-28.03	-18.78	-9.26	-13.18	-329.81	-462.08	-427.40	-364.49	-58.18
1	208	3	9.19	-2.39	6.13	0.68	5.11	-98.94	-174.54	-107.23	-166.25	23.62
1	208	4	5.94	-6.83	5.60	-6.49	-2.05	-148.67	-372.31	-311.95	-209.02	99.27
1	208	5	-0.86	-6.36	-3.05	-4.17	2.69	-95.81	-196.02	-119.23	-172.61	-42.41
1	208	6	-1.27	-11.77	-5.77	-7.26	5.20	50.02	-458.91	1.33	-410.22	-149.70
1	208	7	5.57	-10.48	-1.28	-3.63	7.94	54.32	-495.01	19.05	-459.74	134.64
1	208	8	4.00	-2.44	1.58	-1.80e-02	3.12	-67.15	-277.59	-199.51	-145.23	101.66
1	208	9	1.32	-13.76	-6.25	-6.18	7.54	99.37	-576.18	98.81	-575.62	-19.47
1	208	10	-0.55	-13.62	-12.78	-1.39	3.21	6.08	-878.78	-878.78	6.08	1.14
1	208	11	-2.15	-12.49	-12.48	-2.16	-0.34	58.00	-900.86	-863.84	20.98	-184.73
1	208	12	4.13	-11.30	-9.26	2.10	5.22	-4.85	-631.91	-603.11	-33.65	131.26
1	208	13	-8.28	-18.38	-8.63	-18.03	1.85	49.84	-688.29	-687.72	49.27	-20.48
1	208	14	-4.76	-17.57	-7.92	-14.41	5.52	103.14	-626.43	-620.11	96.82	67.59
1	208	15	-7.45	-15.26	-7.57	-15.14	0.95	52.54	-494.67	-470.24	28.11	-113.02
1	208	16	-7.92	-10.35	-10.06	-8.22	0.80	581.90	352.68	512.96	421.62	-105.12
1	208	17	-2.96	-11.46	-10.67	-3.75	-2.47	476.74	376.59	461.89	391.44	35.59
1	208	18	-3.70	-12.21	-7.48	-8.42	4.23	691.21	15.55	364.32	342.44	-337.65
1	208	19	-4.15	-10.91	-10.91	-4.15	-0.11	904.45	652.01	901.57	654.90	-26.84
1	208	20	-1.26	-14.62	-12.00	-3.88	-5.31	893.87	432.91	892.74	434.05	22.81
1	208	21	-2.38	-10.80	-7.68	-5.50	4.07	653.06	472.36	613.04	512.37	-75.03
1	208	22	-2.24	-12.37	-12.30	-2.31	0.84	626.88	525.92	625.66	527.14	11.04
1	208	23	-4.52	-11.04	-11.03	-4.52	-6.59e-02	601.98	345.97	429.27	518.67	-119.95
1	208	24	-1.10	-10.01	-8.55	-2.56	3.30	651.39	210.00	456.27	405.13	219.21
1	208	53	0.83	-10.88	-10.37	0.32	2.39	1095.50	-107.57	1089.50	-101.57	84.73
1	221	1	9.72	-7.26	8.26	-5.80	4.77	-50.61	-286.47	-226.24	-110.84	-102.85
1	221	2	9.98	1.70	9.97	1.71	-0.29	338.00	-85.90	329.21	-77.12	60.39
1	221	3	11.62	2.84	11.62	2.84	-0.13	214.84	-74.92	194.93	-55.00	-73.31
1	221	4	9.84	-4.98	9.52	-4.66	-2.13	-57.42	-323.83	-305.61	-75.64	67.24
1	221	5	-3.07e-02	-6.26	-6.10	-0.19	-0.98	-103.54	-290.95	-139.42	-255.06	-73.74
1	221	6	-6.92	-12.28	-7.42	-11.78	-1.55	10.44	-634.14	-34.58	-589.12	-164.30
1	221	7	-6.70	-14.57	-7.64	-13.64	2.54	29.73	-723.52	9.54	-703.33	121.65
1	221	8	1.16	-4.35	-3.97	0.78	1.41	-99.09	-286.83	-151.50	-234.41	84.22
1	221	9	-10.17	-15.86	-10.17	-15.86	9.01e-02	56.87	-871.50	55.56	-870.19	-34.89
1	221	10	-4.94	-11.90	-5.76	-11.09	2.24	69.20	-576.02	-567.74	60.91	72.66
1	221	11	-3.44	-13.11	-4.03	-12.52	-2.31	126.96	-475.07	-469.38	121.26	-58.26
1	221	12	-2.47	-7.80	-5.75	-4.52	2.59	52.10	-513.47	-433.50	-27.88	197.06
1	221	13	-5.62	-11.89	-6.58	-10.93	-2.25	58.28	-616.15	-607.49	49.62	-75.92
1	221	14	-4.47	-12.46	-4.87	-12.07	1.73	108.51	-522.47	-522.41	108.44	6.43
1	221	15	-3.44	-8.21	-6.56	-5.08	-2.27	35.78	-505.81	-451.51	-18.51	-162.66
1	221	16	-6.63	-6.82	-6.63	-6.81	-2.17e-02	715.90	327.47	617.76	425.61	-168.79
1	221	17	-0.84	-6.80	-5.98	-1.66	-2.05	637.02	391.96	631.69	397.30	-35.76
1	221	18	-5.36	-10.33	-5.54	-10.15	0.92	730.89	-41.03	397.02	292.84	-382.43
1	221	19	-5.62	-6.25	-5.69	-6.18	0.20	1057.13	648.08	1054.84	650.37	-30.52
1	221	20	-1.49	-2.50	-1.60	-2.39	-0.31	1160.96	447.43	1160.93	447.47	4.91
1	221	21	-5.07	-12.75	-5.10	-12.72	0.42	679.81	432.23	662.41	449.63	-63.29
1	221	22	-5.78	-6.54	-5.99	-6.33	0.34	880.09	486.42	838.82	527.69	120.60
1	221	23	0.57	-6.17	-4.82	-0.79	2.70	815.71	480.34	813.75	482.30	25.57
1	221	24	-4.85	-11.27	-4.91	-11.21	-0.64	779.02	134.37	546.51	366.88	309.56
1	221	53	-0.47	-5.40	-0.47	-5.40	-0.17	1338.40	-150.35	1338.28	-150.23	-13.29
1	240	1	9.82	-7.83	9.06	-7.07	3.59	-106.25	-411.74	-352.46	-165.53	-120.82
1	240	2	15.97	2.98	15.49	3.46	-2.45	178.87	-130.90	157.46	-109.50	78.56
1	240	3	15.64	3.00	15.61	3.03	0.61	207.05	-104.63	204.89	-102.46	-25.89
1	240	4	8.48	-6.19	8.24	-5.95	-1.87	-83.38	-281.41	-239.67	-125.12	80.77
1	240	5	-0.40	-6.04	-5.60	-0.83	1.50	-105.25	-237.63	-136.89	-205.99	-56.46
1	240	6	-7.46	-9.90	-9.81	-7.55	-0.47	33.42	-531.08	-6.20	-491.46	-144.22
1	240	7	-8.42	-11.55	-11.06	-8.91	1.14	73.40	-623.59	35.80	-585.99	157.46
1	240	8	-0.58	-5.56	-4.66	-1.48	-1.91	-70.46	-275.40	-161.13	-184.73	101.79
1	240	9	-9.85	-13.85	-13.83	-9.86	0.24	96.82	-723.43	96.81	-723.43	-2.53
1	240	10	-5.90	-12.32	-7.61	-10.60	-2.84	62.32	-663.45	-651.82	50.69	91.12
1	240	11	-1.33	-15.96	-5.08	-12.21	-6.39	111.38	-584.35	-579.58	106.60	-57.43
1	240	12	-5.18	-8.20	-7.83	-5.55	-0.99	64.31	-562.25	-482.74	-15.21	208.56
1	240	13	-5.59	-10.83	-6.36	-10.06	1.86	50.37	-608.91	-605.59	47.05	-46.68
1	240	14	-1.16	-14.38	-4.11	-11.43	5.50	102.97	-503.97	-502.21	101.21	32.67
1	240	15	-4.63	-6.84	-6.78	-4.69	0.35	35.77	-489.19	-451.78	-1.64	-135.05

1	240	16	-3.06	-8.84	-7.21	-4.68	2.60	684.66	364.35	627.54	421.47	-122.61
1	240	17	-0.84	-5.02	-4.95	-0.91	0.54	649.80	390.49	649.39	390.89	10.23
1	240	18	-4.18	-9.46	-7.17	-6.47	2.62	706.36	17.43	409.89	313.90	-341.10
1	240	19	-2.87	-7.29	-7.28	-2.88	0.21	1052.45	652.33	1051.93	652.84	14.38
1	240	20	-0.22	-1.36	-1.30	-0.28	-0.26	1154.07	446.35	1148.28	452.14	63.76
1	240	21	-7.19	-8.14	-7.87	-7.47	0.43	678.22	472.53	675.11	475.64	-25.10
1	240	22	-2.36	-9.46	-8.06	-3.77	-2.82	867.47	469.96	802.15	535.28	147.31
1	240	23	0.72	-4.67	-4.63	0.68	-0.47	753.19	501.11	743.64	510.66	48.13
1	240	24	-4.79	-10.26	-7.92	-7.12	-2.71	801.38	117.02	533.72	384.68	333.97
1	240	53	7.83	-2.20	7.83	-2.20	-0.13	1337.20	-147.76	1334.80	-145.36	59.64
1	257	1	9.27	-8.29	7.99	-7.00	4.58	-84.87	-345.71	-274.77	-155.80	-116.06
1	257	2	14.45	2.68	14.24	2.90	-1.58	234.45	-128.48	226.16	-120.19	54.22
1	257	3	14.99	3.37	14.92	3.43	0.88	137.48	-105.78	125.92	-94.23	-51.74
1	257	4	8.81	-6.39	8.58	-6.15	-1.88	-101.83	-355.47	-329.25	-128.05	77.22
1	257	5	-0.98	-5.71	-5.28	-1.41	1.37	-99.77	-252.44	-143.90	-208.31	-69.21
1	257	6	-7.55	-9.49	-9.09	-7.96	-0.79	38.80	-546.60	-12.68	-495.12	-165.80
1	257	7	-7.79	-10.90	-9.86	-8.83	1.47	64.67	-618.31	36.97	-590.61	134.73
1	257	8	-0.34	-4.11	-3.72	-0.73	-1.15	-83.02	-262.84	-156.18	-189.68	88.34
1	257	9	-9.89	-12.48	-12.47	-9.90	0.13	93.47	-729.28	92.42	-728.24	-29.33
1	257	10	-6.38	-11.05	-6.84	-10.59	-1.39	62.12	-624.13	-616.54	54.52	71.79
1	257	11	-1.83	-14.89	-4.61	-12.12	-5.35	117.22	-532.92	-526.05	110.35	-66.45
1	257	12	-5.04	-6.96	-6.92	-5.07	0.26	56.12	-534.03	-462.89	-15.02	192.15
1	257	13	-6.58	-10.92	-7.18	-10.33	1.49	48.88	-652.78	-646.70	42.80	-65.01
1	257	14	-2.42	-14.53	-5.21	-11.74	5.10	101.63	-564.99	-564.28	100.91	21.78
1	257	15	-5.28	-7.40	-7.40	-5.29	8.32e-02	37.69	-519.13	-474.94	-6.50	-150.52
1	257	16	-3.54	-9.09	-7.80	-4.83	2.35	687.33	337.28	601.48	423.14	-150.61
1	257	17	-0.73	-5.76	-5.72	-0.77	0.46	607.38	400.09	606.09	401.38	-16.27
1	257	18	-4.76	-9.58	-7.46	-6.88	2.39	719.77	-16.85	393.74	309.18	-365.88
1	257	19	-2.98	-7.41	-7.37	-3.02	0.42	1048.49	650.38	1047.40	651.48	-20.82
1	257	20	-0.39	-1.71	-1.71	-0.39	-7.66e-02	1145.31	450.04	1144.90	450.45	16.83
1	257	21	-7.10	-8.13	-7.60	-7.63	0.51	685.23	458.50	670.86	472.86	-55.24
1	257	22	-3.11	-8.34	-7.58	-3.87	-1.83	862.71	488.07	820.45	530.33	118.52
1	257	23	0.43	-4.60	-4.57	0.40	0.40	780.12	494.37	778.52	495.97	21.34
1	257	24	-5.23	-9.16	-7.26	-7.13	-1.96	782.71	146.23	544.09	384.85	308.12
1	257	53	6.25	-2.45	6.25	-2.45	-0.11	1331.34	-146.68	1331.34	-146.68	0.76
1	292	1	11.90	-9.20	10.95	-8.25	4.37	-98.79	-430.44	-349.75	-179.49	-142.30
1	292	2	19.59	4.51	19.30	4.80	-2.06	282.36	-134.89	261.39	-113.92	91.15
1	292	3	19.51	4.65	19.49	4.67	0.44	252.90	-110.12	241.87	-99.09	-62.31
1	292	4	11.08	-6.76	10.91	-6.59	-1.75	-98.02	-366.10	-330.36	-133.76	91.12
1	292	5	0.72	-8.02	-7.50	0.19	2.08	-60.46	-268.41	-109.46	-219.41	-88.25
1	292	6	-10.45	-14.42	-13.52	-11.34	1.66	120.30	-611.22	56.84	-547.76	-205.90
1	292	7	-4.28	-9.92	-5.45	-8.75	-2.29	-86.61	-1086.51	-127.40	-1045.72	197.81
1	292	8	-1.02	-10.65	-8.87	-2.81	-3.74	152.18	-218.82	-2.65	-63.99	182.95
1	292	9	-5.02	-8.77	-5.40	-8.39	1.13	-155.95	-1385.35	-157.53	-1383.77	-44.08
1	292	10	-6.42	-15.74	-7.87	-14.29	-3.38	94.55	-717.29	-701.35	78.61	112.62
1	292	11	-0.94	-19.55	-5.59	-14.90	-8.06	143.99	-630.24	-625.83	139.58	-58.29
1	292	12	-5.78	-8.24	-5.89	-8.12	-0.53	49.12	-600.51	-500.84	-50.56	234.13
1	292	13	-6.51	-12.97	-7.27	-12.22	2.07	70.91	-693.93	-685.62	62.59	-79.33
1	292	14	-1.58	-17.08	-5.09	-13.58	6.48	127.66	-598.87	-598.34	127.13	19.62
1	292	15	-5.62	-7.47	-7.16	-5.93	0.69	38.77	-537.31	-480.40	-18.13	-171.88
1	292	16	-3.41	-9.73	-8.23	-4.91	2.69	837.85	390.21	725.47	502.60	-194.11
1	292	17	-0.29	-5.94	-5.88	-0.35	0.55	764.18	472.97	761.55	475.59	-27.52
1	292	18	-4.48	-9.43	-6.02	-7.90	2.29	816.63	-62.59	451.83	302.21	-433.20
1	292	19	-2.09	-8.34	-8.34	-2.09	-0.15	1205.63	776.75	1205.29	777.09	-12.12
1	292	20	0.45	-1.20	-1.13	0.38	-0.33	1363.07	545.39	1360.50	547.97	45.79
1	292	21	-6.38	-8.88	-8.59	-6.67	-0.80	724.89	502.74	709.65	517.98	-56.16
1	292	22	-2.03	-10.55	-9.05	-3.53	-3.25	1028.37	548.21	937.31	639.27	188.23
1	292	23	1.24	-5.18	-5.18	1.24	-0.18	926.74	591.27	912.43	605.57	67.77
1	292	24	-4.25	-10.23	-7.80	-6.67	-2.94	887.50	83.59	562.27	408.83	394.56
1	292	53	9.69	-2.69	9.69	-2.68	-0.22	1591.84	-179.55	1591.39	-179.11	28.00
1	298	1	12.05	-9.37	11.08	-8.40	4.46	-101.06	-438.46	-356.42	-183.10	-144.74
1	298	2	19.72	4.50	19.41	4.81	-2.15	268.19	-138.04	245.77	-115.61	92.78
1	298	3	19.49	4.61	19.47	4.62	0.41	269.39	-109.48	259.32	-99.41	-60.94
1	298	4	11.12	-6.65	10.95	-6.48	-1.73	-96.61	-360.10	-324.45	-132.26	90.12
1	298	5	0.76	-8.02	-7.52	0.25	2.05	-63.75	-272.08	-113.30	-222.54	-88.70
1	298	6	-10.26	-13.97	-13.49	-10.75	1.25	97.71	-634.35	40.09	-576.73	-197.15
1	298	7	-0.62	-6.79	-1.03	-6.38	-1.55	-213.74	-1280.34	-249.47	-1244.61	191.90
1	298	8	-1.89	-12.13	-10.00	-4.03	-4.16	230.51	-197.04	47.21	-13.75	211.59
1	298	9	-8.01	-12.24	-9.53	-10.72	2.03	-43.47	-1215.61	-45.92	-1213.16	-53.44
1	298	10	-6.68	-15.83	-7.98	-14.54	-3.19	98.56	-729.40	-713.29	82.45	114.36
1	298	11	-1.02	-19.78	-5.69	-15.11	-8.11	146.46	-642.21	-637.69	141.94	-59.53
1	298	12	-5.30	-8.31	-5.33	-8.28	0.30	38.73	-614.45	-513.74	-61.98	235.87
1	298	13	-6.48	-13.01	-7.29	-12.20	2.16	71.10	-692.12	-683.94	62.92	-78.59
1	298	14	-1.55	-17.05	-5.04	-13.56	6.47	127.10	-592.83	-592.29	126.56	19.77
1	298	15	-5.42	-7.63	-7.32	-5.73	0.77	40.17	-541.51	-485.04	-16.30	-172.22
1	298	16	-3.44	-9.79	-8.18	-5.05	2.76	843.66	396.30	736.10	503.86	-191.18
1	298	17	-0.33	-5.89	-5.83	-0.38	0.56	774.53	473.63	772.66	475.50	-23.65

1	298	18	-4.41	-10.14	-6.43	-8.12	2.73	827.03	-46.18	467.11	313.74	-429.82
1	298	19	-2.21	-8.33	-8.33	-2.22	-0.21	1213.28	780.47	1212.97	780.78	-11.57
1	298	20	0.41	-1.22	-1.14	0.34	-0.34	1371.57	547.83	1368.27	551.13	52.08
1	298	21	-6.45	-8.60	-7.71	-7.34	-1.06	732.00	484.21	717.49	498.72	-58.17
1	298	22	-2.03	-10.75	-9.30	-3.48	-3.24	1032.04	553.14	938.20	646.97	190.09
1	298	23	1.23	-5.31	-5.30	1.22	-0.13	926.56	596.74	910.64	612.66	70.69
1	298	24	-4.05	-10.84	-8.90	-5.99	-3.06	894.62	93.78	555.31	433.09	395.73
1	298	53	9.68	-2.73	9.68	-2.72	-0.18	1600.84	-180.52	1600.24	-179.92	32.61
1	388	1	11.30	-8.73	10.34	-7.78	4.27	-94.43	-409.77	-333.55	-170.65	-135.00
1	388	2	17.93	3.95	17.64	4.23	-1.97	271.82	-130.25	253.55	-111.98	83.73
1	388	3	18.03	4.23	18.01	4.25	0.54	230.41	-106.25	219.81	-95.65	-58.79
1	388	4	10.57	-6.50	10.39	-6.32	-1.74	-94.80	-355.48	-321.62	-128.65	87.64
1	388	5	0.31	-7.55	-7.08	-0.16	1.86	-70.44	-265.00	-116.73	-218.71	-82.84
1	388	6	-9.84	-12.57	-12.11	-10.31	1.03	93.67	-601.42	35.44	-543.18	-192.58
1	388	7	-4.66	-8.58	-5.07	-8.16	-1.21	-80.86	-1019.77	-117.36	-983.26	181.50
1	388	8	-1.08	-9.55	-8.05	-2.58	-3.23	114.77	-224.98	-26.29	-83.92	167.41
1	388	9	-6.91	-9.75	-7.46	-9.20	1.12	-75.83	-1195.90	-77.36	-1194.37	-41.35
1	388	10	-6.62	-14.38	-7.59	-13.41	-2.56	88.05	-691.73	-677.59	73.91	104.03
1	388	11	-1.33	-18.17	-5.30	-14.20	-7.15	137.18	-604.30	-599.62	132.50	-58.72
1	388	12	-5.97	-7.40	-5.98	-7.39	9.06e-02	48.85	-583.63	-490.14	-44.64	224.48
1	388	13	-6.62	-12.26	-7.15	-11.74	1.64	65.62	-677.54	-669.99	58.06	-74.55
1	388	14	-1.91	-16.16	-5.01	-13.05	5.89	121.18	-583.27	-582.69	120.59	20.35
1	388	15	-5.65	-7.21	-7.15	-5.71	0.29	38.22	-528.91	-475.61	-15.07	-165.49
1	388	16	-3.64	-9.32	-8.02	-4.94	2.39	799.70	377.09	695.39	481.40	-182.21
1	388	17	-0.51	-5.86	-5.85	-0.53	0.29	726.39	452.73	724.21	454.90	-24.29
1	388	18	-4.66	-9.29	-6.28	-7.67	2.21	791.94	-48.23	439.31	304.41	-414.64
1	388	19	-2.38	-8.01	-8.01	-2.38	-5.90e-02	1163.19	743.69	1162.75	744.12	-13.49
1	388	20	0.14	-1.38	-1.32	7.61e-02	-0.30	1305.66	520.48	1303.60	522.53	40.13
1	388	21	-6.76	-8.23	-7.97	-7.02	-0.56	711.89	485.27	697.17	499.99	-55.85
1	388	22	-2.42	-9.87	-8.68	-3.61	-2.73	984.08	532.59	904.54	612.13	172.00
1	388	23	0.98	-5.12	-5.11	0.97	0.13	886.76	566.43	876.04	577.16	57.61
1	388	24	-4.54	-9.80	-7.75	-6.60	-2.57	859.13	98.99	552.36	405.76	372.94
1	388	53	8.32	-2.81	8.31	-2.81	-0.18	1521.94	-170.93	1521.59	-170.58	24.54
1	391	1	11.35	-8.79	10.38	-7.83	4.30	-95.18	-412.44	-335.77	-171.85	-135.81
1	391	2	17.97	3.94	17.68	4.23	-2.00	267.05	-131.25	248.34	-112.55	84.27
1	391	3	18.03	4.21	18.01	4.23	0.53	235.88	-106.01	225.62	-95.75	-58.33
1	391	4	10.58	-6.46	10.40	-6.28	-1.73	-94.33	-353.48	-319.65	-128.15	87.30
1	391	5	0.32	-7.55	-7.09	-0.14	1.85	-71.53	-266.22	-118.00	-219.75	-82.99
1	391	6	-9.77	-12.44	-12.10	-10.11	0.89	86.15	-609.13	29.86	-552.84	-189.66
1	391	7	-3.37	-7.60	-3.60	-7.37	-0.96	-123.25	-1084.36	-158.05	-1049.56	179.53
1	391	8	-1.38	-10.04	-8.43	-2.99	-3.37	140.86	-217.70	-9.67	-67.17	176.96
1	391	9	-7.88	-10.94	-8.84	-9.97	1.42	-38.35	-1139.30	-40.15	-1137.50	-44.47
1	391	10	-6.70	-14.41	-7.63	-13.49	-2.50	89.39	-695.77	-681.57	75.19	104.61
1	391	11	-1.36	-18.25	-5.34	-14.27	-7.17	138.00	-608.29	-603.57	133.29	-59.14
1	391	12	-5.71	-7.52	-5.79	-7.45	0.37	45.38	-588.27	-494.44	-48.45	225.06
1	391	13	-6.61	-12.27	-7.16	-11.73	1.66	65.68	-676.94	-669.43	58.17	-74.30
1	391	14	-1.90	-16.15	-5.00	-13.05	5.88	120.99	-581.26	-580.67	120.40	20.40
1	391	15	-5.58	-7.27	-7.21	-5.64	0.31	38.70	-530.32	-477.16	-14.46	-165.60
1	391	16	-3.65	-9.34	-8.00	-4.99	2.41	801.64	379.12	698.94	481.82	-181.24
1	391	17	-0.53	-5.85	-5.83	-0.54	0.30	729.84	452.95	727.91	454.87	-23.00
1	391	18	-4.63	-9.53	-6.42	-7.74	2.36	795.40	-42.75	444.40	308.26	-413.51
1	391	19	-2.42	-8.01	-8.01	-2.42	-7.73e-02	1165.74	744.93	1165.31	745.35	-13.31
1	391	20	0.12	-1.39	-1.33	5.96e-02	-0.31	1308.46	521.32	1306.19	523.59	42.23
1	391	21	-6.78	-8.14	-7.68	-7.24	-0.65	714.26	479.09	699.78	493.57	-56.52
1	391	22	-2.42	-9.94	-8.77	-3.59	-2.73	985.25	534.28	904.83	614.70	172.62
1	391	23	0.97	-5.16	-5.16	0.97	0.15	886.62	568.34	875.44	579.52	58.58
1	391	24	-4.49	-9.99	-8.11	-6.37	-2.61	861.43	102.46	550.04	413.85	373.33
1	391	53	8.31	-2.82	8.31	-2.82	-0.17	1524.94	-171.25	1524.54	-170.85	26.08
1	420	1	11.20	-8.71	10.25	-7.77	4.24	-94.34	-407.31	-331.50	-170.15	-134.09
1	420	2	17.98	3.95	17.71	4.22	-1.95	268.42	-129.90	250.34	-111.82	82.92
1	420	3	18.04	4.21	18.02	4.23	0.53	230.23	-105.69	219.95	-95.41	-57.87
1	420	4	10.47	-6.47	10.30	-6.30	-1.72	-94.43	-351.98	-318.38	-128.03	86.75
1	420	5	0.30	-7.47	-7.00	-0.17	1.85	-73.49	-264.15	-119.36	-218.28	-81.49
1	420	6	-9.79	-12.39	-12.11	-10.07	0.81	85.92	-600.66	29.57	-544.31	-188.45
1	420	7	-4.77	-8.22	-5.08	-7.91	-0.98	-88.65	-1019.32	-123.80	-984.16	177.42
1	420	8	-1.11	-9.47	-7.97	-2.61	-3.21	112.03	-224.32	-28.41	-83.89	165.87
1	420	9	-8.06	-10.48	-8.84	-9.70	1.13	-45.14	-1134.96	-46.69	-1133.41	-41.13
1	420	10	-6.49	-14.29	-7.56	-13.23	-2.68	86.77	-688.40	-674.51	72.88	102.82
1	420	11	-1.23	-18.11	-5.26	-14.09	-7.19	135.77	-600.79	-596.08	131.07	-58.68
1	420	12	-5.99	-7.23	-5.99	-7.23	8.80e-03	48.31	-582.15	-489.73	-44.11	222.99
1	420	13	-6.48	-12.16	-7.11	-11.53	1.77	64.34	-673.25	-665.84	56.94	-73.54
1	420	14	-1.79	-16.08	-4.95	-12.92	5.93	119.62	-578.17	-577.58	119.02	20.41
1	420	15	-5.41	-7.27	-7.18	-5.51	0.41	38.18	-527.76	-475.24	-14.34	-164.21
1	420	16	-3.51	-9.36	-7.94	-4.92	2.51	793.02	375.41	691.56	476.87	-179.10
1	420	17	-0.49	-5.77	-5.74	-0.52	0.40	721.73	448.58	719.78	450.53	-23.00
1	420	18	-4.60	-9.49	-6.45	-7.64	2.37	787.82	-42.74	438.98	306.09	-409.93
1	420	19	-2.44	-7.92	-7.92	-2.44	-4.72e-02	1156.81	736.90	1156.41	737.31	-12.99

1	420	20	0.14	-1.29	-1.23	8.11e-02	-0.29	1296.94	515.54	1294.82	517.65	40.57
1	420	21	-6.90	-8.18	-7.86	-7.22	-0.55	711.09	480.18	697.03	494.24	-55.22
1	420	22	-2.35	-9.89	-8.62	-3.62	-2.83	976.73	529.11	898.90	606.94	169.65
1	420	23	0.97	-5.02	-5.02	0.97	3.72e-02	879.89	561.82	869.38	572.32	56.84
1	420	24	-4.46	-10.04	-7.93	-6.57	-2.70	855.22	103.01	550.92	407.32	369.19
1	420	53	8.53	-2.74	8.52	-2.74	-0.18	1511.19	-169.48	1510.82	-169.11	24.82

M_G			**N max**	**N min**	**N 1**	**N 2**	**N 1-2**	**M max**	**M min**	**M 1**	**M 2**	**M 1-2**
				-28.03	-18.78	-20.26	-13.18		-1934.13	-945.55	-1931.85	-578.72
			26.52		26.15	6.61	8.62	2136.72		2135.86	1041.90	530.94

VERIFICHE PER ELEMENTI IN ACCIAIO

LEGENDA TABELLA VERIFICHE PER ELEMENTI IN ACCIAIO

Il programma consente la verifica dei seguenti tipi di elementi:
1. **aste** 2. **travi** 3. **pilastri**
L'esito delle verifiche è espresso con un codice come di seguito indicato

Ok: verifica con esito positivo
NV: verifica con esito negativo
Nr: verifica non richiesta.

Per comodità gli elementi vengono raggruppati in tabelle in relazione al tipo.

Ai fini delle verifiche (come da D.M. 17 Gennaio 2018 e circolare 21 Gennaio 2019 n.7) i tipi elementi differiscono per i seguenti aspetti:

Verifica		**Aste**	**Travi**	**Pilastri**
4.2.3.1	Classificazione	X	X	X
4.2.4.1.2.1	Trazione	X	X	X
4.2.4.1.2.2	Compressione	X	X	X
4.2.4.1.2.4	Taglio		X	X
4.2.4.1.2.5	Torsione		X	X
	Flessione, taglio e forza assiale		X	X
4.2.4.1.3.1	Aste compresse	X	X	X
4.2.4.1.3.2	Instabilità flesso-torsionale		X	X
4.2.4.1.3.3	Membrature inflesse e compresse		X	X

Ai fini delle verifiche per strutture dissipative (come da D.M. 17 Gennaio 2018 e 2018 e circolare 21 Gennaio 2019 n.7) per strutture intelaiate e a controventi concentrici) si considerano le verifiche del capitolo 4 con azioni amplificate e le verifiche del capitolo 7:

Verifica		**Travi**	**Pilastri**
4.2.4.1.2.1	Trazione	X	X
4.2.4.1.2.2	Compressione	X	X
4.2.4.1.2.4	Taglio	X	X
4.2.4.1.2.5	Torsione	X	X
	Flessione, taglio e forza assiale	X	X
4.2.4.1.3.1	Aste compresse	X	X
4.2.4.1.3.2	Instabilità flesso-torsionale	X	X
4.2.4.1.3.3	Membrature inflesse e compresse	X	X
7.5.3	Sfruttamento per momento	X	
7.5.4	Sfruttamento per sforzo normale	X	
7.5.5	Sfruttamento per taglio da capacità flessionale	X	
7.5.9	Sfruttamento per taglio amplificato		X

Viene inoltre riportata la verifica della "Gerarchia delle resistenze trave-colonna" per ogni colonna, considerando piede e testa in entrambe le direzioni globali X e Y.

L' insieme delle verifiche sopra riportate è condotto sugli elementi purché dotati di sezione idonea come da tabella seguente:

Azione		SEZIONI GENERICHE	PROFILI SEMPLICI	PROFILI ACCOPPIATI
4.2.3.1	Classificazione automatica	L, doppio T, C,	Tutti	Da profilo semplice

		rettangolare cava, circolare cava		
4.2.3.1	Classificazione di default 2	Circolare		
4.2.3.1	Classificazione di default 3	restanti		
4.2.4.1.2.1	Trazione	si	si	si
4.2.4.1.2.2	Compressione	si	si	si
4.2.4.1.2.4	Taglio	si	si	si
4.2.4.1.2.5	Torsione	si	si	si
	Flessione, taglio e forza assiale	si	si	si
4.2.4.1.3.1	Aste compresse	si	si	per elementi ravvicinati e a croce o coppie calastrellate
4.2.4.1.3.2	Travi inflesse	doppio T simmetrica	doppio T	no

Le verifiche sono riportate in tabelle con il significato sotto indicato; le verifiche sono espresse dal rapporto tra l' azione di progetto e la capacità ultima, pertanto la verifica ha esito positivo per rapporti non superiori all' unità.

Asta **Trave** **Pilastro**	numero dell'elemento
Stato	codice di verifica per resistenza, stabilità, svergolamento
Note	sezione e materiali adottati per l'elemento
V N	(ASTE) verifica come da par. 4.2.4.1.2 per punto (4.2.6) e (4.2.10)
V V/T	(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni taglio-torsione (4.2.16 e 4.2.28)
V N/M	(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni composte (4.2.33) con riduzione per taglio (4.2.40) ove richiesto
N **M3** **M2** **V2** **V3** **T**	sollecitazioni di interesse per la verifica
V stab	(ASTE) verifica come da par. 4.2.4.1.3.1 per punto (4.2.41)
V stab	(TRAVI E PILASTRI) verifica come da par. 4.2.4.1.3 per punti (C4.2.32) o (C4.2.36) (membrature inflesse e compresse senza/con presenza di instabilità flesso-torsionale)
BetaxL **B22xL** **B33x L**	lunghezze libere di inflessione (se indicato riferiti al piano di normale 22 o 33 rispettivamente)
Snellezza	snellezza massima
Classe	classe del profilo
Chi mn	coefficiente di riduzione (della capacità) per la modalità di instabilità pertinente
Rif. cmb	combinazioni in cui si sono rispettivamente attinti i valori di verifica più elevati
V flst	(TRAVI E PILASTRI) verifica di stabilità come da par. 4.2.4.1.3.2 per punto (4.2.48)
B1-1 x L	Beta1-1 x L: interasse tra i ritegni torsionali
Chi LT	coefficiente di riduzione (della capacità) per la modalità di instabilità flesso-torsionale
Snell adim	Valore della snellezza adimensionale, utilizzato per il controllo previsto al par. 7.5.5
v.Omeg	Valore del rapporto capacità/domanda per l' azione di interesse (momento per travi e azione assiale per aste) utilizzato per l' amplificazione delle azioni
f.Om. N	Fattore di amplificazione delle azioni assiali per travi e colonne (prodotto di 1.1 x Omega x gamma rd materiale); utilizzato come specificato al par. 7.5.5
f.Om. T	Fattore di amplificazione delle azioni (assiali, flettenti e taglianti) per colonne (prodotto di 1.1 x Omega x gamma rd materiale); utilizzato come specificato al par. 7.5.4
V.7.5.4 M Ed	Verifica come prevista al punto 7.5.4 e valore dell' azione flettente
V.7.5.5 N Ed	Verifica come prevista al punto 7.5.5 e valore dell' azione assiale
V.7.5.6 V Ed,G V Ed,M	Verifica come prevista al punto 7.5.6 e valore dei tagli dovuti ai carichi e alla capacità
V.7.5.10 V Ed	Verifica come prevista al punto 7.5.10 e valore dell' azione di taglio
sovr. Xi (Xf, Yi, Yf)	Valore della sovraresistenza come prevista al par. 7.5.4.2 (i valori non sono normalizzati pertanto saranno maggiori uguali a gamma rd in base alla classe di duttilità)

Nel caso in cui lambdaS sia minore di 0.2, oppure nel caso in cui la sollecitazione di calcolo NEd sia inferiore

a 0.04 Ncr, gli effetti legati ai fenomeni di instabilità sono trascurati, come da paragrafo 4.2.4.1.3.1

Trave	Stato	Note	V V/T	V N/M	V stab	Cl.LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT	Rif. cmb
1	ok	s=9,m=12	0.02	0.17		1 0.7	0.4	59.6	0.73	0.04	0.2	1.00	83,87,0,84
2	ok	s=9,m=12	0.03	0.13		1 0.7	0.4	59.6	0.73	0.05	0.3	1.00	79,83,0,210
3	ok	s=9,m=12	0.03	0.16		1 0.7	0.4	59.6	0.73	0.05	0.2	1.00	84,84,0,211
4	ok	s=9,m=12	0.05	0.27		1 0.8	0.5	65.5	0.69	0.19	0.3	1.00	79,80,0,79
5	ok	s=9,m=12	0.02	0.05		1 0.7	0.4	59.6	0.73	0.04	0.4	1.00	83,83,0,204
6	ok	s=9,m=12	0.01	0.15		1 0.7	0.4	59.6	0.73	0.03	0.3	1.00	210,87,0,210
7	ok	s=9,m=12	0.08	0.43		1 0.8	0.5	65.5	0.69	0.32	0.3	1.00	79,80,0,88
8	ok	s=9,m=12	0.02	0.08		1 0.8	0.5	65.5	0.69	0.07	0.3	1.00	79,83,0,79
9	ok	s=9,m=12	0.07	0.37		1 0.8	0.5	65.5	0.69	0.28	0.3	1.00	83,84,0,83
10	ok	s=9,m=12	0.02	0.08		1 0.8	0.5	65.5	0.69	0.06	0.3	1.00	83,84,0,83
11	ok	s=9,m=12	0.02	0.05		1 0.7	0.4	59.6	0.73	0.05	0.4	1.00	83,83,0,83
24	ok	s=9,m=12	0.03	0.21		1 0.7	0.4	59.6	0.73	0.07	0.3	1.00	79,84,0,83
25	ok	s=9,m=12	0.03	0.19		1 0.7	0.4	59.6	0.73	0.06	0.2	1.00	84,84,0,84
30	ok	s=9,m=12	0.02	0.21		1 0.7	0.4	59.6	0.73	0.04	0.3	1.00	83,84,0,84
31	ok	s=9,m=12	0.03	0.17		1 0.7	0.4	59.6	0.73	0.06	0.3	1.00	79,79,0,83
32	ok	s=9,m=12	0.03	0.17		1 0.7	0.4	59.6	0.73	0.06	0.2	1.00	84,87,0,84
33	ok	s=9,m=12	0.06	0.37		1 0.8	0.5	65.5	0.69	0.25	0.3	1.00	83,84,0,83
34	ok	s=9,m=12	0.02	0.08		1 0.7	0.4	59.6	0.73	0.06	0.3	1.00	147,180,0,147
35	ok	s=9,m=12	0.01	0.06		1 0.7	0.4	59.6	0.73	0.04	0.3	1.00	147,148,0,179
36	ok	s=9,m=12	0.03	0.25		1 0.8	0.5	65.5	0.69	0.13	0.3	1.00	83,84,0,83

Trave	V V/T	V N/M	V stab	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT
							0.69			1.00
	0.08	0.43		0.75	0.47	65.53		0.32	0.42	

Trave	v.Omeg	f.Om. N	Stato	V N/M	V stab	Rif. cmb	V[7.5.4]	M Ed daN cm	V[7.5.5]	N Ed daN	V[7.5.6]	V Ed,G daN	V Ed,M daN
1							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2							0.0	0.0	0.0	0.0	0.0	0.0	0.0
3							0.0	0.0	0.0	0.0	0.0	0.0	0.0
4							0.0	0.0	0.0	0.0	0.0	0.0	0.0
5							0.0	0.0	0.0	0.0	0.0	0.0	0.0
6							0.0	0.0	0.0	0.0	0.0	0.0	0.0
7							0.0	0.0	0.0	0.0	0.0	0.0	0.0
8							0.0	0.0	0.0	0.0	0.0	0.0	0.0
9							0.0	0.0	0.0	0.0	0.0	0.0	0.0
10							0.0	0.0	0.0	0.0	0.0	0.0	0.0
11							0.0	0.0	0.0	0.0	0.0	0.0	0.0
24							0.0	0.0	0.0	0.0	0.0	0.0	0.0
25							0.0	0.0	0.0	0.0	0.0	0.0	0.0
30							0.0	0.0	0.0	0.0	0.0	0.0	0.0
31							0.0	0.0	0.0	0.0	0.0	0.0	0.0
32							0.0	0.0	0.0	0.0	0.0	0.0	0.0
33							0.0	0.0	0.0	0.0	0.0	0.0	0.0
34							0.0	0.0	0.0	0.0	0.0	0.0	0.0
35							0.0	0.0	0.0	0.0	0.0	0.0	0.0
36							0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trave	v.Omeg	V N/M	V stab	V[7.5.4]	M Ed	V[7.5.5]	N Ed	V[7.5.6]	V Ed,G	V Ed,M
					0.0		0.0		0.0	0.0
				0.0	0.0	0.0	0.0	0.0	0.0	0.0

Pilas.	Stato	Note	V V/T	V N/M	V stab	Cl.LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT	Rif. cmb
12	ok	s=8,m=12	9.75e-03	0.15		1 0.3	0.2	28.5	0.93	0.01	4.86e-02	1.00	146,87,0,146
13	ok	s=8,m=12	9.88e-03	0.11		1 0.3	0.2	28.5	0.93	6.61e-03	4.76e-02	1.00	87,87,0,204
14	ok	s=8,m=12	4.14e-03	0.06		1 0.7	0.4	56.9	0.75	8.97e-03	9.69e-02	1.00	201,76,0,201
15	ok	s=8,m=12	0.02	0.20		1 0.3	0.2	28.5	0.93	0.02	5.27e-02	1.00	80,80,0,79
16	ok	s=8,m=12	0.01	0.12		1 0.3	0.2	28.5	0.93	7.10e-03	5.16e-02	1.00	79,80,0,80
17	ok	s=8,m=12	0.01	0.06		1 0.7	0.4	56.9	0.75	0.01	0.1	1.00	79,79,0,83
18	ok	s=8,m=12	0.01	0.13		1 0.3	0.2	28.5	0.93	0.02	5.37e-02	1.00	76,76,0,84
19	ok	s=8,m=12	7.59e-03	0.05		1 0.3	0.2	28.5	0.93	7.99e-03	5.26e-02	1.00	84,75,0,83
20	ok	s=8,m=12	8.52e-03	0.04		1 0.7	0.4	56.9	0.75	9.73e-03	0.1	1.00	84,84,0,211
21	ok	s=8,m=12	0.02	0.32		1 0.7	0.4	56.9	0.75	0.03	0.1	1.00	75,87,0,146
22	ok	s=8,m=12	0.02	0.33		1 0.7	0.4	56.9	0.75	0.05	0.1	1.00	84,88,0,84
23	ok	s=8,m=12	0.02	0.33		1 0.7	0.4	56.9	0.75	0.04	0.1	1.00	88,87,0,79

26	ok	s=8,m=12	0.02	0.30		1	0.7	0.4	56.9	0.75	0.04	0.1	1.00	76,76,0,183
27	ok	s=8,m=12	0.01	0.11		1	0.3	0.2	28.5	0.93	8.86e-03	4.84e-02	1.00	87,75,0,204
28	ok	s=8,m=12	7.74e-03	0.04		1	0.3	0.2	28.5	0.93	6.20e-03	5.27e-02	1.00	83,76,0,183
29	ok	s=8,m=12	4.51e-03	0.05		1	0.7	0.4	56.9	0.75	9.26e-03	9.45e-02	1.00	204,83,0,204
37	ok	s=8,m=12	9.88e-03	0.19		1	0.3	0.2	28.5	0.93	0.01	6.19e-02	1.00	87,79,0,152
38	ok	s=8,m=12	0.01	0.16		1	0.3	0.2	28.5	0.93	0.01	6.23e-02	1.00	79,80,0,84
39	ok	s=8,m=12	7.59e-03	0.12		1	0.3	0.2	28.5	0.93	0.02	6.25e-02	1.00	84,84,0,83
40	ok	s=8,m=12	7.74e-03	0.11		1	0.3	0.2	28.5	0.93	0.01	6.23e-02	1.00	83,83,0,177
41	ok	s=8,m=12	9.75e-03	0.06		1	0.3	0.2	28.5	0.93	0.01	5.51e-02	1.00	146,87,0,178
42	ok	s=8,m=12	0.02	0.10		1	0.3	0.2	28.5	0.93	0.02	5.21e-02	1.00	80,87,0,79
43	ok	s=8,m=12	0.01	0.16		1	0.3	0.2	28.5	0.93	0.02	5.08e-02	1.00	76,84,0,84
44	ok	s=8,m=12	0.01	0.14		1	0.3	0.2	28.5	0.93	0.01	5.78e-02	1.00	87,76,0,151

Pilas.	**V V/T**	**V N/M**	**V stab**	**LamS 22**	**LamS 33**	**Snell.**	**Chi mn**	**V flst**	**LamS LT**	**Chi LT**
							0.75			1.00
	0.02	0.33		0.66	0.39	56.91		0.05	0.12	

Pilas.	**f.Om. N**	**f.Om. T**	**Stato**	**V V/T**	**V N/M**	**V stab**	**V flst**	**Rif. cmbV[7.5.10]**	**V Ed** daN	**sovr.**	**Xi sovr.**	**Xf sovr.**	**Yi sovr.**	**Yf**
12	0.0	0.0	ok	0.0	0.0			0,0,0,0						
13	0.0	0.0	ok	0.0	0.0			0,0,0,0						
14	0.0	0.0	ok	0.0	0.0			0,0,0,0						
15	0.0	0.0	ok	0.0	0.0			0,0,0,0						
16	0.0	0.0	ok	0.0	0.0			0,0,0,0						
17	0.0	0.0	ok	0.0	0.0			0,0,0,0						
18	0.0	0.0	ok	0.0	0.0			0,0,0,0						
19	0.0	0.0	ok	0.0	0.0			0,0,0,0						
20	0.0	0.0	ok	0.0	0.0			0,0,0,0						
21	0.0	0.0	ok	0.0	0.0			0,0,0,0						
22	0.0	0.0	ok	0.0	0.0			0,0,0,0						
23	0.0	0.0	ok	0.0	0.0			0,0,0,0						
26	0.0	0.0	ok	0.0	0.0			0,0,0,0						
27	0.0	0.0	ok	0.0	0.0			0,0,0,0						
28	0.0	0.0	ok	0.0	0.0			0,0,0,0						
29	0.0	0.0	ok	0.0	0.0			0,0,0,0						
37	0.0	0.0	ok	0.0	0.0			0,0,0,0						
38	0.0	0.0	ok	0.0	0.0			0,0,0,0						
39	0.0	0.0	ok	0.0	0.0			0,0,0,0						
40	0.0	0.0	ok	0.0	0.0			0,0,0,0						
41	0.0	0.0	ok	0.0	0.0			0,0,0,0						
42	0.0	0.0	ok	0.0	0.0			0,0,0,0						
43	0.0	0.0	ok	0.0	0.0			0,0,0,0						
44	0.0	0.0	ok	0.0	0.0			0,0,0,0						

Pilas.	**V V/T**	**V N/M**	**V stab**	**V flst**	**V[7.5.10]**	**V Ed**	**sovr.**	**Xi sovr.**	**Xf sovr.**	**Yi sovr.**	**Yf**
	0.0	0.0									

STATI LIMITE D' ESERCIZIO ACCIAIO

LEGENDA TABELLA STATI LIMITE D' ESERCIZIO ACCIAIO

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

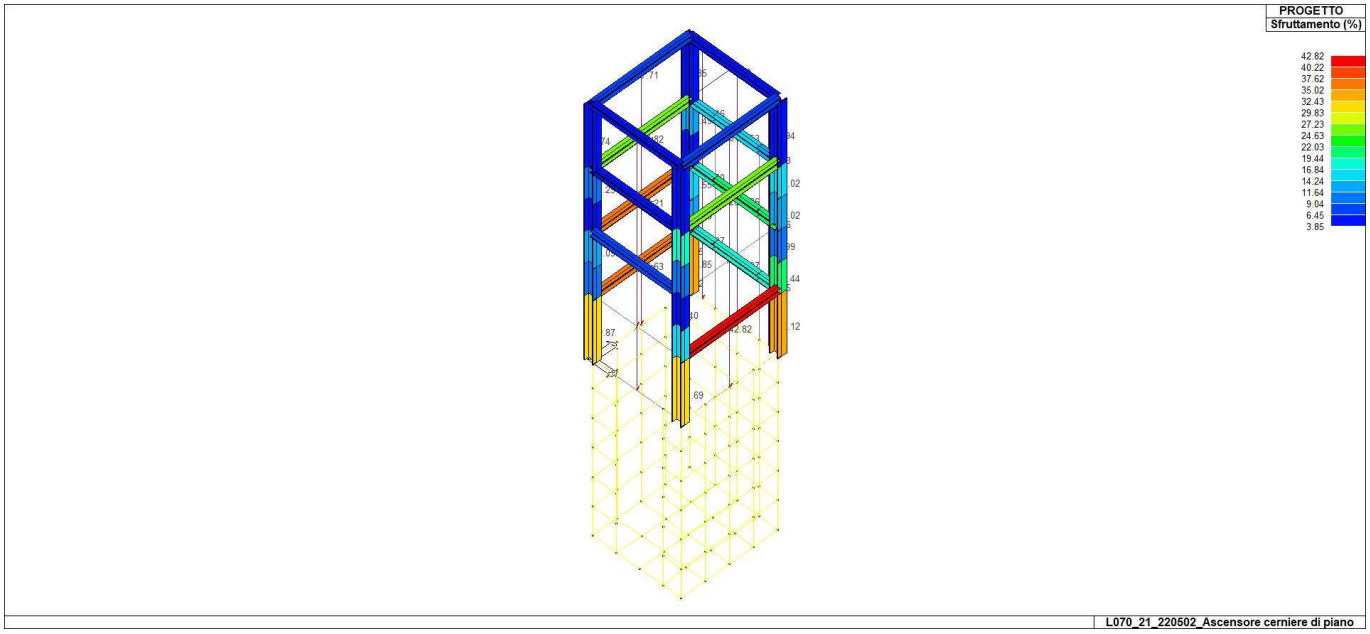
In particolare vengono riportati, per gli elementi trave, i risultati relativi alle combinazioni considerate (rare o caratteristiche).

I valori di interesse sono i seguenti:

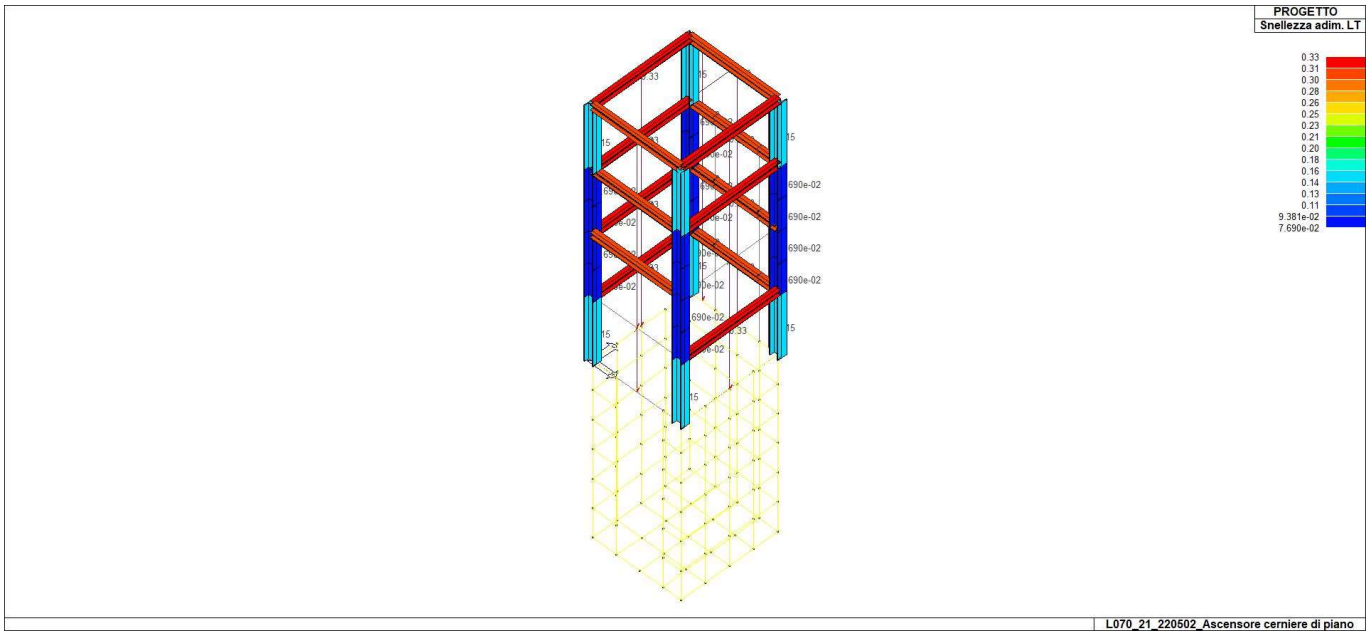
f*1000/L	massima deformazione normalizzata in combinazioni rare

Si precisa che i valori di massima deformazione per travi sono riferiti ai due piani locali (1-2 con momenti flettenti 3-3 e 1-3 con momenti flettenti 2-2). Il valore riportato (massimo) è espresso in 1000/L per rendere agevole il confronto di più valori e in particolare di più range di valori (ad esempio 2 rappresenta L/500, 4 L/250 e cosi via).

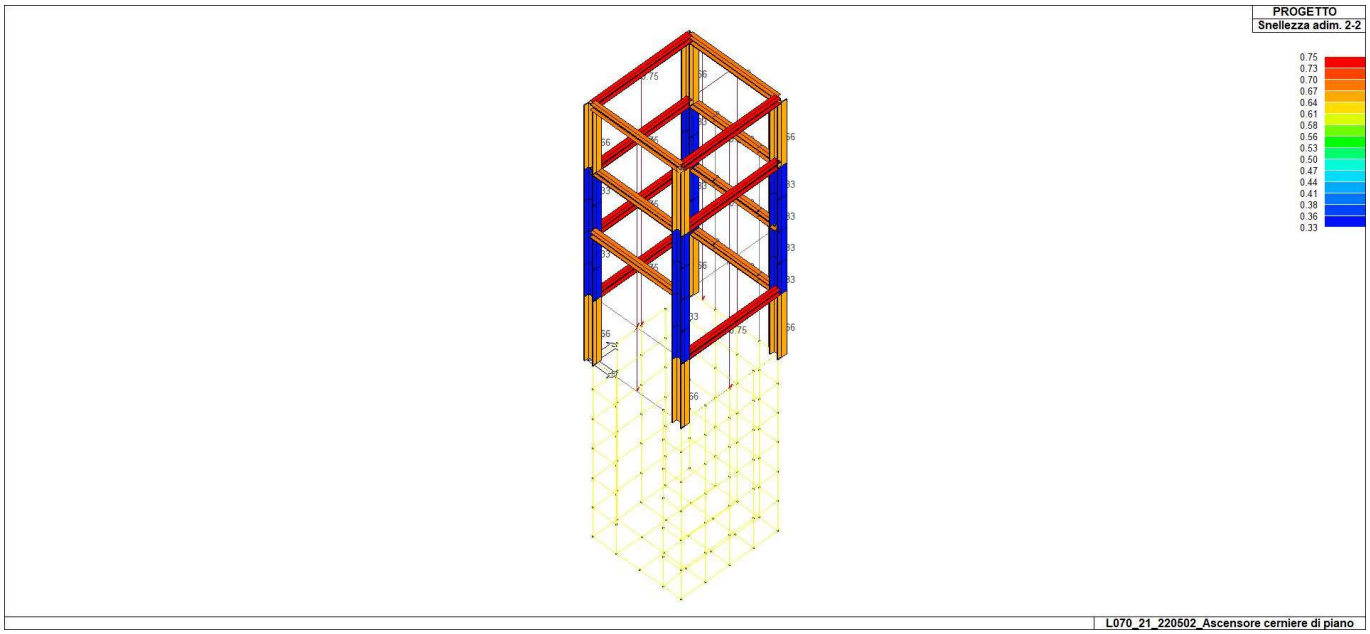
Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L
1	0.3	2	0.8	3	2.4	4	0.8	5	1.1	6	0.9	7	0.3
8	1.0	9	0.2	10	1.0	11	1.1	24	1.6	25	2.4	30	0.5
31	1.4	32	1.5	33	0.5	34	0.4	35	1.0	36	0.8		



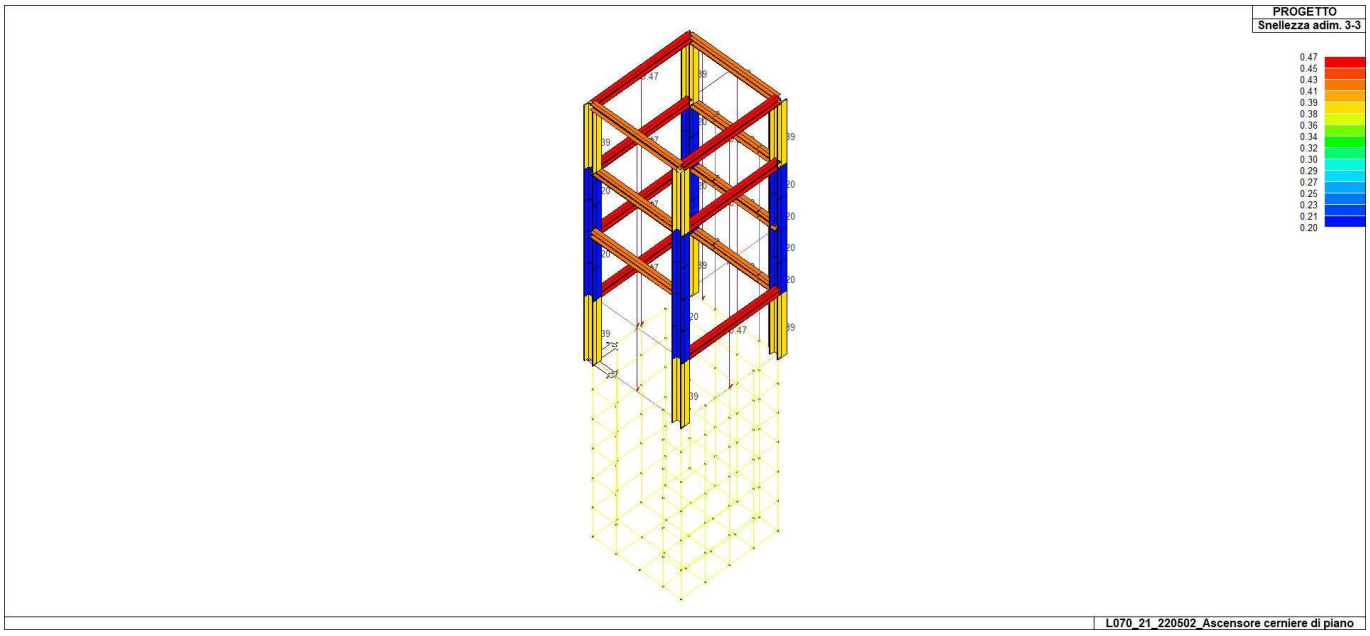
73_PRO_ST_SFRUTTAMENTO



73_PRO_ST_SNELLEZZATOR



73_PRO_ST_SNELLEZZAXX



73_PRO_ST_SNELLEZZAYY

VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

LEGENDA TABELLA VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

In tabella vengono riportati per ogni elemento il numero identificativo ed il codice di verifica con le sigle **Ok** o **NV**.

Nel caso in cui si sia proceduto alla progettazione con il metodo degli stati limite (**S.L.**) vengono riportati: il rapporto x/d, le verifiche per sollecitazioni proporzionali e la verifica per compressione media con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

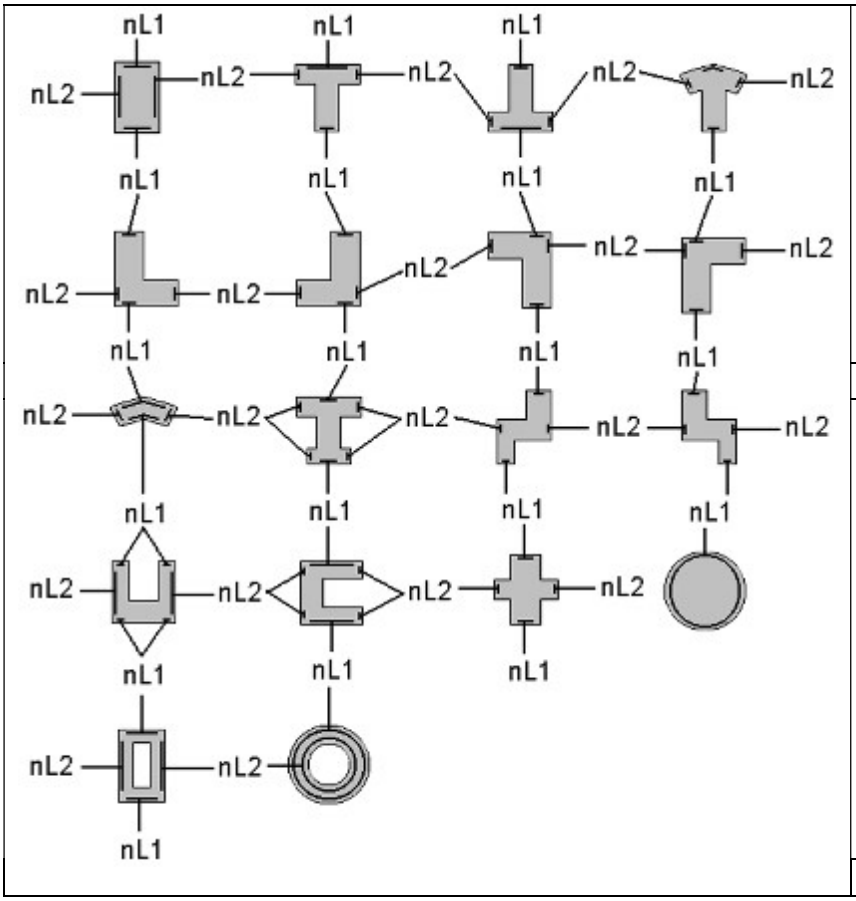
Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili (**T.A.**) vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio, massima tensione tangenziale) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

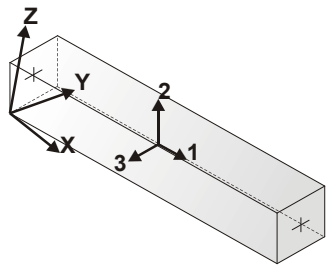
Nel caso in cui la struttura abbia comportamento dissipativo e sia prevista la progettazione con il criterio della gerarchia delle resistenze **(G.R.)** vengono riportate le verifiche di sovraresistenza e del nodo.

Per gli elementi tipo pilastro sono riportati numero e diametro dei ferri di vertice, numero e diametro di ferri disposti lungo i lati L1 (paralleli alla base della sezione) e lungo i lati L2 (paralleli all'altezza della sezione).

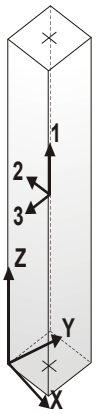
Per gli elementi tipo trave sono riportati infine le quantità di armatura inferiore e superiore.

Schema della distribuzione delle armature longitudinali





Orientamento elementi 2D non verticali



Orientamento elementi 2D verticali

PROGETTAZIONE DELLE FONDAZIONI

Il D.M.17/01/2018 - par: 7.2.5 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";

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.

La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO_SAP (per travi e platee) o da PRO_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma di un coefficiente pari 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.
Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore pari a 1.2 in CDB e 1.35 in CDA.
N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.
N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Simbologia adottata nelle tabelle di verifica

Per le verifiche agli S.L. dei pilastri è presente una tabella con i simboli di seguito descritti:

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
Pilas.	numero identificativo dell'elemento D2
Note	Codici identificativi delle sezione (s) e materiale (m) pilastro
Stato	Codici relativi all'esito delle verifiche effettuate appresso descritte
Quota	Quota sezione di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
r. snell.	Rapporto di snellezza λ su λ^*: valore superiore a 1 per elementi snelli nel caso in cui viene effettuata la verifica con il metodo diretto dello stato di equilibrio
Armat. long.	Numero e diametro (d) dei ferri di armatura longitudinale distinti in ferri di vertice + ferri di lato nelle posizioni nL1 e nL2, come da schemi in figura precedente
V N/M	Verifica a pressoflessione con rapporto Ed/Rd: valore minore o uguale a 1 per verifica positiva
V N sis	Verifica a compressione solo calcestruzzo con rapporto Nsd/Nrd ed Nrd calcolato come al punto 7.4.4.2.1: valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto Ved/Vrd: 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 alla G.R. dei pilastri è presente una tabella con i simboli di seguito descritti:

Pilas.	numero identificativo dell'elemento D2 pilastro
sovr. Xi (Xf)	Verifica sovraresistenza come da formula 7.4.4 in direzione X, alla base (i) ed alla sommità (f):

	rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del γ_{Rd} adottato
sovr. Yi (Yf)	Verifica sovraresistenza come da formula 7.4.4 in direzione Y, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del γ_{Rd} adottato
M 2-2 i (f)	Valore del momento resistente 2-2 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
M 3-3 i (f)	Valore del momento resistente 3-3 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M2-2 (M3-3)	Valore del taglio generato dai momenti resistenti 2-2 (3-3)

Per le verifiche dei dettagli costruttivi per la duttilità è presente una tabella con i simboli di seguito descritti:
(Non presente nel caso di comportamento strutturale non dissipativo)

Pilas	Numero identificativo D2 pilastro
ni	Sforzo assiale adimensionalizzato di progetto relativo alla combinazione sismica SLV
alfaomega	Prodotto tra il coefficiente di efficacia del confinamento e il rapporto meccanico dell'armatura trasversale di confinamento all'interno del nodo
V.7.4.29 2-2 (3-3)	Rapporto tra la domanda di staffe minima nel nodo e il rapporto meccanico dell'armatura trasversale di confinamento inserito all'interno del nodo in direzione 2 (3)
V. 7.4.29 Stato	Codici relativi all'esito della verifica 7.4.29
dmu_fi 2-2 (3-3)	Domanda in duttilità di curvatura in direzione 2 (3)
cmu_fi 2-2 (3-3)	Capacità in duttilità di curvatura in direzione 2 (3)
V. dutt. 2-2 (3-3)	Rapporto tra la domanda in duttilità di curvatura e la capacità in duttilità di curvatura in direzione 2 (3)

Per le verifiche nodi trave-pilastro di elementi nuovi è presente una tabella con i simboli di seguito descritti:

Nodo	Numero identificativo del nodo trave-pilastro
Stato	Esito delle verifiche
Pilastro	Numero identificativo D2 pilastro
Diam st	Diametro staffe nodo
Passo	Passo staffe nodo
n. br. 2 (3)	Numero braccia staffe per il taglio in direzione 2 (3)
Bj2 (3)	Larghezza effettiva del nodo per il taglio in direzione 2 (3)
Hjc2 (3)	Distanza tra le giaciture più esterne delle armature del pilastro per il taglio in direzione 2 (3)
V. 7.4.8	Rapporto tra il taglio Vjbd e il taglio resistente come da formula 7.4.8
V. Ash	Rapporto tra il passo staffe calcolato secondo il capitolo 7.4.4.3.1. e il passo staffe effattivamente inserita nel nodo. Nel caso di valore indica passo staffe utilizzato deriva dalle formule presenti nel paragrafo 7.4.4.3.1. Nel caso di valore minore di 1 il passo staffe utilizzato deriva del pilastro superiore o inferiore al nodo
7.4.10	Check passo staffe valutato in funzione della formula 7.4.10: • SI il passo staffe è calcolato utilizzando la formula 7.4.10; • NO il passo staffe è calcolato utilizzando le formule 7.4.11 e/o 7.4.12; • NR calcolo passo staffe non richiesto;
Rif. comb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il nodo

Per le verifiche nodi trave-pilastro di elementi esistenti è presente una tabella con i simboli di seguito descritti:

Pilastro I	Numero identificativo D2 del pilastro inferiore.

Pilastro S	Numero identificativo D2 del pilastro superiore.
Nodo	Numero identificativo del nodo trave-pilastro.
SL cod	Stato limite di riferimento e relativo esito delle verifiche.
ver. (+)	Coefficiente di sicurezza, calcolato come rapporto D/C, nei riguardi della verifica di resistenza a trazione
V +	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a trazione
V + af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a trazione
N +	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a trazione
ver. (-)	Coefficiente di sicurezza, calcolato come rapporto D/C, nei riguardi della verifica di resistenza a compressione
V -	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a compressione
V - af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a compressione
N -	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a compressione
AreaV2	Area resistente del nodo in direzione 2 ($A_{j2}=b_{j2}*h_{jc2}$).
AreaV3	Area resistente del nodo in direzione 3 ($A_{j3}=b_{j3}*h_{jc3}$).
Rif. comb.	Combinazione (direzione) di riferimento nella verifica di trazione.

Per le verifiche agli S.L. delle travi è presente una tabella con i simboli di seguito descritti:

M_T Z P P	Numero della travata (T), quota media (Z), n° pilastrata iniziale (P) e finale (P) (nodo in assenza di pilastrata)
Trave	numero identificativo dell'elemento D2
Note	Codici identificativi sezione (s) e materiale (m) trave; sono inoltre presenti le sigle relative all'esito delle verifiche effettuate appresso descritte
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Af inf.	Area di armatura longitudinale posta all'intradosso
Af sup	Area di armatura longitudinale posta all'estradosso
Af long.	Area complessiva armatura longitudinale
x/d	rapporto tra posizione dell'asse neutro e altezza utile
V N/M	Verifica a pressoflessione rapporto Ed/Rd: valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto Ved/Vrd: valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per la trave

Per le verifiche alla G.R. delle travi è presente una tabella con i simboli di seguito descritti:

Trave	numero identificativo dell'elemento D2 trave
M negativo i (f)	Valore del momento resistente negativo all' estremità iniziale i (finale f) della trave
M positivo i (f)	Valore del momento resistente positivo all' estremità iniziale i (finale f) della trave
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M-i M+f	Taglio generato dai momenti resistenti negativo i e positivo f
V M+i M-f	Taglio generato dai momenti resistenti positivo i e negativo f
VEd, min	Valore di taglio minimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
VEd, max	Valore di taglio massimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
Vr1	Valore di taglio come da formula 7.4.1 per armatura diagonale (solo per CD "A")
As	Area singolo ordine armature diagonali come da formula 7.4.2 (solo per CD "A")

Per le verifiche a taglio ciclico di travi e pilastri esistenti è presente una tabella con i simboli di seguito descritti:

Trave/Pilastro	Numero identificativo dell'elemento D2 trave/pilastro
V. SLV	Codice relativo all'esito delle verifiche
Nodo	Numero identificativo del nodo di verifica
Ver. VC	Fattore di sicurezza nei confronti della verifica a taglio ciclico (verificato se < 1.00)
Direz.	Direzione di verifica
N fr	Valore di sforzo normale calcolato con fattore di comportamento fragile
V fr	Valore di taglio calcolato con fattore di comportamento fragile
M fr	Valore di momento calcolato con fattore di comportamento fragile
N dutt	Valore di sforzo normale calcolato con fattore di comportamento duttile
LV	Lunghezza di taglio
Mud,pl	Parte plastica della domanda di duttilità
V cic	Resistenza a taglio in condizioni cicliche (C8.7.2.8)
Cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

Per le verifiche alle T.A. di pilastri e travi è presente una tabella con i simboli di seguito descritti:

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
M_T Z P P	Numero della travata, quota media pilastrata iniziale e finale (nodo in assenza di pilastrata)
Pilas. o Trave	numero identificativo dell'elemento D2
Note	Viene riportato il codice relativo alla sezione(s) e relativo al materiale(m); nella terza riga viene riportato il valore delle snellezze in direzione 2-2 e 3-3
Stato	Codici di verifica relativi alle tensioni normali e alle tensioni tangenziali
Quota	Ascissa del punto di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Armat. long.	Numero e diametro dei ferri di armatura longitudinale: ferri di vertice + ferri di lato (come da fig. precedente)
Af inf.	Area di armatura longitudinale posta all'intradosso della trave
Af sup	Area di armatura longitudinale posta all'estradosso della trave
Sc max	Massima tensione di compressione del calcestruzzo
Sc med	Massima tensione media di compressione del calcestruzzo
Sf max	Tensione massima nell'acciaio
staffe	Vengono riportati i dati del tratto di staffatura in cui cade la sezione di verifica; in particolare: numero dei bracci, diametro, passo, lunghezza tratto
Tau max	Tensione massima tangenziale nel cls
Rif. comb	Combinazioni in cui si generano i seguenti valori di tensione: Sc max, Sc med, Sf max, Tau max
AfV	area dell'armatura atta ad assorbire le azioni di taglio
AfT	area dell'armatura atta ad assorbire le azioni di torsione
Scorr. P	Scorrimento dei piegati
Af long.	Area del ferro longitudinale aggiuntivo per assorbire la torsione

VERIFICHE ELEMENTI PARETE E/O 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 inviluppo 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 fattorei 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.

Simbologia adottata nelle tabelle di verifica

Per gli elementi con progettazione "*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 "*Parete Sismica o 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

Per le verifiche degli elementi con progettazione "*Singolo Elemento …*" e *Progettazione Composta* 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** o **NV**
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
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 armatura in direzione 0 (o numero di braccia radiale)
n.ser 90	Numero di braccia delle armatura in direzione 90 (solo se armatura cruciforme)
Rif. cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

PROGETTAZIONE DELLE FONDAZIONI

Il D.M.17/01/2018 - par: 7.2.5 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";

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.

La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO_SAP (per travi e platee) o da PRO_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma di un coefficiente pari 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.
Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore pari a 1.2 in CDB e 1.35 in CDA.
N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.
N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
2	35.00	1	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1	ok	0.14	8.32e-02	3.29e-03	13.4	13.4	13.4	13.4	59.9	4.7	-25.7	-226.9	-17.7	39.1
2	ok	0.14	5.29e-02	4.41e-02	13.4	13.4	13.4	13.4	-176.2	-29.0	51.0	-772.5	-27.0	85.2
25	ok	0.14	1.25e-02	9.41e-03	13.4	13.4	13.4	13.4	-27.6	-6.8	20.8	13.0	11.5	-88.7
26	ok	0.14	3.48e-02	8.75e-03	13.4	13.4	13.4	13.4	-14.7	-10.1	39.0	-116.5	21.4	-73.4
27	ok	0.14	1.24e-02	1.33e-02	13.4	13.4	13.4	13.4	1.7	-2.1	1.9	-21.6	-36.3	-49.3
28	ok	0.14	9.74e-03	1.22e-02	13.4	13.4	13.4	13.4	-55.5	-1.2	11.4	26.1	-4.3	73.0
29	ok	0.14	2.06e-02	1.84e-02	13.4	13.4	13.4	13.4	-77.1	28.7	34.7	30.6	-288.2	-14.0
30	ok	0.14	2.71e-02	1.85e-02	13.4	13.4	13.4	13.4	-86.7	-9.0	10.6	174.9	38.7	116.7
39	ok	0.14	2.61e-02	3.27e-02	13.4	13.4	13.4	13.4	-154.7	-5.6	-9.4	-121.9	9.7	90.1
54	ok	0.14	1.58e-02	2.51e-02	13.4	13.4	13.4	13.4	-111.6	0.9	-1.1	-27.2	-3.2	-3.9
68	ok	0.14	1.34e-02	2.12e-02	13.4	13.4	13.4	13.4	-93.8	1.2	-2.1	-19.8	-0.9	-24.9
82	ok	0.14	2.21e-02	1.89e-02	13.4	13.4	13.4	13.4	-80.1	7.0	1.0	-31.1	-2.2	-49.2
96	ok	0.14	2.24e-02	1.97e-02	13.4	13.4	13.4	13.4	20.5	-15.4	7.6	99.0	-25.9	67.6
110	ok	0.14	1.73e-02	6.13e-03	13.4	13.4	13.4	13.4	8.5	13.3	-40.0	-22.5	30.8	11.9

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
								-176.25	-29.04	-39.96	-772.45	-288.24	-88.68
	0.14	0.08	0.04	13.40	13.40	13.40	13.40	59.89	28.66	50.98	174.94	38.74	116.67

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	0.25						
2	ok	0.25						
25	ok	0.07						
26	ok	0.27						
27	ok	0.06						
28	ok	0.02						
29	ok	0.18						
30	ok	0.18						
39	ok	0.27						
54	ok	0.07						
68	ok	0.02						
82	ok	0.06						
96	ok	0.18						
110	ok	0.18						

Nodo	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
	0.27						

Macro Setto	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
3	35.00	1	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
3	ok	0.14	4.31e-02	4.77e-02	13.4	13.4	13.4	13.4	-216.3	-8.3	-47.8	-282.2	-17.7	-60.1
4	ok	0.14	8.93e-02	3.29e-03	13.4	13.4	13.4	13.4	65.6	11.4	43.3	-232.6	-54.3	-77.8
40	ok	0.14	2.43e-02	3.20e-02	13.4	13.4	13.4	13.4	-150.3	-2.1	16.6	-114.3	9.9	-78.0
41	ok	0.14	1.48e-02	1.03e-02	13.4	13.4	13.4	13.4	-23.8	-11.4	-30.8	-90.4	6.5	-71.8

55	ok	0.14	1.44e-02	2.36e-02	13.4	13.4	13.4	13.4	-112.0	-3.3	0.5	-7.2	-2.5	-42.8
56	ok	0.14	7.77e-03	9.75e-03	13.4	13.4	13.4	13.4	-30.8	1.0	-6.0	-16.3	-14.3	-42.3
69	ok	0.14	1.12e-02	1.80e-02	13.4	13.4	13.4	13.4	-85.5	-1.0	1.0	-10.8	-1.8	-22.2
70	ok	0.14	8.17e-03	1.13e-02	13.4	13.4	13.4	13.4	-33.5	-0.2	-5.4	-25.1	-23.4	-22.9
83	ok	0.14	1.13e-02	1.44e-02	13.4	13.4	13.4	13.4	1.6	-6.4	2.4	52.1	-8.4	-46.1
84	ok	0.14	1.27e-02	1.23e-02	13.4	13.4	13.4	13.4	-44.5	4.1	-12.0	82.1	7.6	-48.2
97	ok	0.14	2.21e-02	1.25e-02	13.4	13.4	13.4	13.4	56.5	0.2	-6.3	195.1	-86.2	-136.0
98	ok	0.14	3.85e-02	2.11e-02	13.4	13.4	13.4	13.4	-93.0	-35.1	21.9	381.1	135.8	-123.5
111	ok	0.14	2.34e-02	8.55e-03	13.4	13.4	13.4	13.4	-19.2	11.9	32.7	-93.4	-14.4	-54.9
112	ok	0.14	2.74e-02	1.48e-02	13.4	13.4	13.4	13.4	-48.8	4.8	-40.4	136.7	13.4	66.4

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**
								-216.30	-35.12	-47.82	-282.24	-86.22	-136.05
	0.14	0.09	0.05	13.40	13.40	13.40	13.40	65.64	11.94	43.28	381.10	135.76	66.40

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
3	ok	0.14						
4	ok	0.14						
40	ok	0.13						
41	ok	0.13						
55	ok	0.06						
56	ok	0.06						
69	ok	0.03						
70	ok	0.03						
83	ok	0.09						
84	ok	0.09						
97	ok	0.26						
98	ok	0.26						
111	ok	0.26						
112	ok	0.26						

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	0.26						

Macro Setto	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
4	35.00	1	1	Singolo elemento

Nodo	**Stato**	**x/d**	**V N/M**	**ver. rid**	**Af pr-**	**Af pr+**	**Af sec-**	**Af sec+**	**N z**	**N o**	**N zo**	**M z**	**M o**	**M zo**
									daN/cm	daN/cm	daN/cm	daN	daN	daN
4	ok	0.14	3.75e-02	2.02e-03	13.4	13.4	13.4	13.4	9.2	-9.1	2.0	496.1	36.0	13.4
5	ok	0.14	2.79e-02	7.24e-04	13.4	13.4	13.4	13.4	20.1	7.1	-10.4	135.6	-90.3	-72.2
13	ok	0.14	7.41e-02	1.84e-02	13.4	13.4	13.4	13.4	-77.8	-31.0	23.7	981.4	213.0	-116.8
14	ok	0.14	6.71e-02	1.77e-02	13.4	13.4	13.4	13.4	-67.7	-28.2	17.2	890.1	158.3	-27.0
15	ok	0.14	5.36e-02	1.51e-02	13.4	13.4	13.4	13.4	-52.2	-15.1	-10.2	651.9	115.1	-219.8
41	ok	0.14	3.35e-02	5.28e-03	13.4	13.4	13.4	13.4	-11.5	2.6	-19.4	439.5	2.1	-89.2
42	ok	0.14	2.51e-02	5.53e-03	13.4	13.4	13.4	13.4	-5.3	12.7	13.5	24.2	-331.4	-20.7
50	ok	0.14	3.54e-02	1.49e-02	13.4	13.4	13.4	13.4	-66.4	12.3	15.5	301.0	112.8	-213.0
51	ok	0.14	3.84e-02	1.37e-02	13.4	13.4	13.4	13.4	-57.9	13.6	-22.9	372.3	78.4	-199.9
52	ok	0.14	2.74e-02	1.30e-02	13.4	13.4	13.4	13.4	-45.0	16.1	9.0	176.4	12.3	-173.3
56	ok	0.14	1.78e-02	8.29e-03	13.4	13.4	13.4	13.4	-36.7	-0.8	-2.7	198.1	8.4	-46.9
57	ok	0.14	2.60e-02	6.26e-03	13.4	13.4	13.4	13.4	-14.1	11.6	16.5	-55.7	-373.9	11.2
65	ok	0.14	1.61e-02	9.64e-03	13.4	13.4	13.4	13.4	-38.4	8.2	-3.9	110.4	68.6	-99.0
66	ok	0.14	2.01e-02	9.61e-03	13.4	13.4	13.4	13.4	-42.9	5.4	-1.9	174.2	57.8	-125.0
67	ok	0.14	1.30e-02	8.86e-03	13.4	13.4	13.4	13.4	-26.0	10.1	14.3	17.4	-126.4	11.7
70	ok	0.14	1.26e-02	1.05e-02	13.4	13.4	13.4	13.4	-49.5	-1.0	4.6	-22.7	6.7	-43.1
71	ok	0.14	2.62e-02	7.15e-03	13.4	13.4	13.4	13.4	-25.7	3.0	16.9	-56.5	-310.0	17.8
79	ok	0.14	1.17e-02	7.89e-03	13.4	13.4	13.4	13.4	-30.7	2.8	-1.3	41.0	36.9	-46.1
80	ok	0.14	1.23e-02	8.39e-03	13.4	13.4	13.4	13.4	-38.9	1.0	2.2	89.8	36.5	-59.9
81	ok	0.14	1.67e-02	7.10e-03	13.4	13.4	13.4	13.4	-22.5	3.5	14.6	-35.4	-201.5	35.7
84	ok	0.14	1.71e-02	1.16e-02	13.4	13.4	13.4	13.4	-54.9	-0.4	1.5	-155.9	-3.2	-45.4
85	ok	0.14	3.17e-02	8.12e-03	13.4	13.4	13.4	13.4	-30.9	4.3	17.8	-58.2	-344.4	28.0
93	ok	0.14	1.71e-02	7.59e-03	13.4	13.4	13.4	13.4	-28.7	-1.8	-8.7	31.3	36.0	-1.3
94	ok	0.14	1.84e-02	8.03e-03	13.4	13.4	13.4	13.4	-30.6	-5.9	2.6	-148.0	-67.4	-128.0
95	ok	0.14	2.42e-02	7.01e-03	13.4	13.4	13.4	13.4	-13.8	-2.7	20.7	-67.3	-282.9	7.2
98	ok	0.14	3.74e-02	2.05e-02	13.4	13.4	13.4	13.4	-67.6	-50.2	-31.6	-377.9	-110.5	-133.2
99	ok	0.14	5.81e-02	1.66e-02	13.4	13.4	13.4	13.4	-51.7	-58.7	23.6	-246.2	-626.5	33.9
107	ok	0.14	2.94e-02	1.11e-02	13.4	13.4	13.4	13.4	-9.9	-32.7	11.0	26.5	51.7	-6.0
108	ok	0.14	3.03e-02	1.27e-02	13.4	13.4	13.4	13.4	12.6	-17.2	13.7	-194.5	-14.3	-334.9

109	ok	0.14	3.21e-02	1.16e-02	13.4	13.4	13.4	13.4	15.4	10.2	21.2	-119.9	-304.3	-4.7
112	ok	0.14	7.11e-02	3.14e-02	13.4	13.4	13.4	13.4	-5.6	163.6	63.1	-65.9	132.0	-33.6
113	ok	0.14	5.26e-02	3.43e-02	13.4	13.4	13.4	13.4	68.5	-158.6	30.4	107.9	219.3	-74.1
121	ok	0.14	3.59e-02	1.29e-02	13.4	13.4	13.4	13.4	-12.3	78.3	-6.3	2.65e-02	-223.4	-31.2
122	ok	0.14	4.75e-02	1.35e-02	13.4	13.4	13.4	13.4	32.3	116.2	-4.5	24.4	-167.0	-102.2
123	ok	0.14	4.27e-02	2.82e-02	13.4	13.4	13.4	13.4	-82.5	-119.9	-1.5	-7.1	176.7	-62.0

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**
								-82.49	-158.57	-31.56	-377.86	-626.49	-334.86
	0.14	0.07	0.03	13.40	13.40	13.40	13.40	68.55	163.59	63.13	981.37	219.25	35.71

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
4	ok	0.16						
5	ok	0.36						
13	ok	0.37						
14	ok	0.33						
15	ok	0.37						
41	ok	0.16						
42	ok	0.36						
50	ok	0.37						
51	ok	0.33						
52	ok	0.37						
56	ok	0.11						
57	ok	0.26						
65	ok	0.22						
66	ok	0.18						
67	ok	0.26						
70	ok	0.07						
71	ok	0.14						
79	ok	0.13						
80	ok	0.12						
81	ok	0.14						
84	ok	0.07						
85	ok	0.11						
93	ok	0.10						
94	ok	0.08						
95	ok	0.11						
98	ok	0.18						
99	ok	0.23						
107	ok	0.12						
108	ok	0.18						
109	ok	0.23						
112	ok	0.43						
113	ok	0.23						
121	ok	0.24						
122	ok	0.43						
123	ok	0.23						

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	0.43						

Macro Setto	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
5	35.00	1	1	Singolo elemento

Nodo	**Stato**	**x/d**	**V N/M**	**ver. rid**	**Af pr-**	**Af pr+**	**Af sec-**	**Af sec+**	**N z**	**N o**	**N zo**	**M z**	**M o**	**M zo**
									daN/cm	daN/cm	daN/cm	daN	daN	daN
5	ok	0.14	3.33e-02	2.50e-03	13.4	13.4	13.4	13.4	15.0	-2.6	14.6	316.8	-77.3	44.4
6	ok	0.14	7.65e-02	1.63e-02	13.4	13.4	13.4	13.4	-75.6	-20.1	8.0	1016.5	178.2	257.2
7	ok	0.14	8.09e-02	1.84e-02	13.4	13.4	13.4	13.4	-56.6	-27.4	19.3	667.3	112.2	-86.6
8	ok	0.14	4.17e-02	5.98e-03	13.4	13.4	13.4	13.4	17.3	-3.4	-10.6	212.6	-33.9	-40.3
9	ok	0.14	9.44e-02	2.11e-02	13.4	13.4	13.4	13.4	-98.3	-30.7	11.3	1327.5	271.4	175.0
42	ok	0.14	2.63e-02	4.71e-03	13.4	13.4	13.4	13.4	-9.6	13.3	-3.8	10.0	-330.1	-31.6
43	ok	0.14	2.04e-02	1.08e-02	13.4	13.4	13.4	13.4	-29.0	10.5	-17.1	164.0	-53.5	-126.3
44	ok	0.14	2.94e-02	1.18e-02	13.4	13.4	13.4	13.4	-42.0	19.8	-9.2	142.9	104.0	15.4
45	ok	0.14	2.69e-02	5.36e-03	13.4	13.4	13.4	13.4	19.7	16.4	-8.7	-43.3	-252.2	163.1
46	ok	0.14	2.92e-02	1.22e-02	13.4	13.4	13.4	13.4	-48.6	16.1	1.5	193.2	184.1	37.3
57	ok	0.14	2.80e-02	5.97e-03	13.4	13.4	13.4	13.4	-24.8	4.9	6.0	-55.7	-406.0	7.8
58	ok	0.14	2.74e-02	6.98e-03	13.4	13.4	13.4	13.4	-18.0	9.6	-14.3	-156.0	-288.9	-106.3

59	ok	0.14	2.40e-02	8.83e-03	13.4	13.4	13.4	13.4	-41.4	8.4	5.5	87.4	155.6	69.1
60	ok	0.14	2.20e-02	7.59e-03	13.4	13.4	13.4	13.4	-35.5	-5.6	2.3	38.0	282.9	-31.3
61	ok	0.14	2.28e-02	8.86e-03	13.4	13.4	13.4	13.4	-35.0	12.5	1.9	47.9	54.5	44.3
71	ok	0.14	2.64e-02	6.64e-03	13.4	13.4	13.4	13.4	-29.2	1.2	8.8	-99.5	-283.1	3.6
72	ok	0.14	2.26e-02	6.94e-03	13.4	13.4	13.4	13.4	-23.9	4.0	7.3	-108.4	-111.8	33.5
73	ok	0.14	2.25e-02	8.17e-03	13.4	13.4	13.4	13.4	-28.1	-6.4	-2.7	18.4	213.5	49.5
74	ok	0.14	2.70e-02	8.73e-03	13.4	13.4	13.4	13.4	-40.9	-11.2	4.1	80.3	511.4	-27.4
75	ok	0.14	2.51e-02	7.61e-03	13.4	13.4	13.4	13.4	-35.9	3.1	-3.5	-72.6	70.5	46.1
85	ok	0.14	3.16e-02	7.49e-03	13.4	13.4	13.4	13.4	-33.3	-1.7	8.9	-97.6	-348.8	32.8
86	ok	0.14	2.70e-02	7.51e-03	13.4	13.4	13.4	13.4	-27.1	2.1	-3.6	-23.7	-14.6	102.6
87	ok	0.14	3.41e-02	8.01e-03	13.4	13.4	13.4	13.4	24.2	14.7	-15.8	-50.9	-438.5	36.5
88	ok	0.14	3.72e-02	9.68e-03	13.4	13.4	13.4	13.4	32.9	-3.4	6.6	-12.8	-234.3	14.5
89	ok	0.14	2.64e-02	6.58e-03	13.4	13.4	13.4	13.4	-24.5	-9.1	-2.5	-94.3	18.2	75.6
99	ok	0.14	8.54e-02	2.01e-02	13.4	13.4	13.4	13.4	-66.4	-19.9	-9.5	-359.7	-499.1	52.4
100	ok	0.14	3.34e-02	1.21e-02	13.4	13.4	13.4	13.4	-30.2	-12.6	-3.9	-340.9	-120.0	141.7
101	ok	0.14	4.69e-02	9.62e-03	13.4	13.4	13.4	13.4	-4.2	44.1	-26.4	249.9	-638.9	22.1
102	ok	0.14	5.27e-02	1.74e-02	13.4	13.4	13.4	13.4	110.8	71.1	3.8	684.5	-81.6	102.4
103	ok	0.14	3.68e-02	7.45e-03	13.4	13.4	13.4	13.4	-2.1	8.7	0.9	213.5	-485.7	-72.2
113	ok	0.14	5.91e-02	2.52e-02	13.4	13.4	13.4	13.4	21.3	-122.0	-48.2	54.2	-356.5	-7.5
114	ok	0.14	4.03e-02	1.70e-02	13.4	13.4	13.4	13.4	-44.6	-82.0	3.7	36.2	49.8	91.1
115	ok	0.14	6.05e-02	2.76e-02	13.4	13.4	13.4	13.4	21.3	-75.4	1.9	54.5	-739.7	-98.8
116	ok	0.14	7.95e-02	2.35e-02	13.4	13.4	13.4	13.4	132.1	-90.6	-45.9	-25.6	-488.6	-51.4
117	ok	0.14	4.07e-02	1.18e-02	13.4	13.4	13.4	13.4	-13.6	-53.8	5.8	21.5	-421.0	-72.4

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**
								-98.34	-121.97	-48.20	-359.72	-739.72	-126.33
	0.14	0.09	0.03	13.40	13.40	13.40	13.40	132.08	71.08	19.30	1327.50	511.37	257.17

Nodo	**Stato**	**Max tau** daN/cm2	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr** daN/cm	**V sec** daN/cm
5	ok	0.41						
6	ok	0.46						
7	ok	0.51						
8	ok	0.38						
9	ok	0.51						
42	ok	0.41						
43	ok	0.46						
44	ok	0.51						
45	ok	0.38						
46	ok	0.51						
57	ok	0.31						
58	ok	0.31						
59	ok	0.25						
60	ok	0.25						
61	ok	0.24						
71	ok	0.23						
72	ok	0.23						
73	ok	0.21						
74	ok	0.21						
75	ok	0.16						
85	ok	0.32						
86	ok	0.32						
87	ok	0.26						
88	ok	0.26						
89	ok	0.18						
99	ok	0.60						
100	ok	0.60						
101	ok	0.43						
102	ok	0.43						
103	ok	0.22						
113	ok	0.60						
114	ok	0.60						
115	ok	0.43						
116	ok	0.43						
117	ok	0.23						

Nodo	**Max tau**	**Ver V pr**	**Ver V sec**	**Af V pr**	**Af V sec**	**V pr**	**V sec**
	0.60						

Macro Setto	**Spessore**	**Id Materiale**	**Id Criterio**	**Progettazione**
	cm			
6	35.00	1	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N z	N o	N zo	M z	M o	M zo
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1	ok	0.14	4.62e-02	2.64e-03	13.4	13.4	13.4	13.4	17.8	2.4	11.2	-356.8	7.5	-35.1
8	ok	0.14	3.07e-02	1.53e-03	13.4	13.4	13.4	13.4	27.7	9.2	-11.2	-109.8	106.1	64.2
10	ok	0.14	6.89e-02	2.02e-02	13.4	13.4	13.4	13.4	-75.9	-28.1	-30.8	-884.3	-196.6	173.5
11	ok	0.14	5.94e-02	1.91e-02	13.4	13.4	13.4	13.4	-64.3	-30.0	25.0	-774.2	-144.9	-11.3
12	ok	0.14	4.79e-02	1.71e-02	13.4	13.4	13.4	13.4	-46.7	-13.8	-11.0	-568.5	-96.8	215.5
25	ok	0.14	1.53e-02	9.20e-03	13.4	13.4	13.4	13.4	-36.1	2.2	-0.8	-127.8	9.1	65.1
26	ok	0.14	2.95e-02	5.99e-03	13.4	13.4	13.4	13.4	-9.5	2.9	-24.4	-349.5	20.8	109.5
27	ok	0.14	2.43e-02	1.30e-02	13.4	13.4	13.4	13.4	-48.8	22.3	7.5	45.0	-35.2	52.1
28	ok	0.14	1.55e-02	1.17e-02	13.4	13.4	13.4	13.4	-47.9	3.7	3.1	-21.5	-4.2	54.5
29	ok	0.14	3.40e-02	3.49e-02	13.4	13.4	13.4	13.4	-94.7	-62.1	-85.1	158.8	-191.4	208.3
30	ok	0.14	3.96e-02	2.18e-02	13.4	13.4	13.4	13.4	-68.2	-30.2	31.6	243.0	12.7	46.5
45	ok	0.14	2.16e-02	7.78e-03	13.4	13.4	13.4	13.4	-4.4	13.0	17.3	-8.0	299.2	21.0
47	ok	0.14	3.34e-02	1.49e-02	13.4	13.4	13.4	13.4	-64.4	13.6	12.3	-267.9	-94.1	219.2
48	ok	0.14	3.41e-02	1.47e-02	13.4	13.4	13.4	13.4	-59.5	18.7	-3.6	-314.8	-62.4	230.2
49	ok	0.14	2.77e-02	1.40e-02	13.4	13.4	13.4	13.4	-38.2	16.4	10.6	-161.2	-26.6	163.1
60	ok	0.14	1.91e-02	8.30e-03	13.4	13.4	13.4	13.4	-28.0	6.0	18.2	60.4	276.4	3.0
62	ok	0.14	1.46e-02	9.34e-03	13.4	13.4	13.4	13.4	-36.2	9.7	-4.1	-72.8	-21.1	132.9
63	ok	0.14	1.92e-02	1.05e-02	13.4	13.4	13.4	13.4	-44.4	7.2	-6.0	-110.0	-30.3	176.9
64	ok	0.14	1.26e-02	9.49e-03	13.4	13.4	13.4	13.4	-32.5	8.9	23.2	-12.7	74.0	18.7
74	ok	0.14	3.03e-02	9.33e-03	13.4	13.4	13.4	13.4	-38.8	1.6	16.0	33.3	145.2	1.3
76	ok	0.14	1.21e-02	7.82e-03	13.4	13.4	13.4	13.4	-32.7	3.1	-4.5	15.7	37.2	110.3
77	ok	0.14	1.27e-02	9.79e-03	13.4	13.4	13.4	13.4	-38.7	1.2	-1.5	-9.0	3.9	144.4
78	ok	0.14	1.40e-02	7.85e-03	13.4	13.4	13.4	13.4	-24.5	2.3	22.5	2.6	80.8	-26.3
88	ok	0.14	4.07e-02	1.04e-02	13.4	13.4	13.4	13.4	-43.6	0.1	16.6	11.2	71.6	-12.4
90	ok	0.14	1.64e-02	7.64e-03	13.4	13.4	13.4	13.4	-28.5	-2.3	-1.8	37.3	71.5	117.6
91	ok	0.14	1.73e-02	1.03e-02	13.4	13.4	13.4	13.4	-47.8	-16.7	-4.9	59.4	33.9	145.4
92	ok	0.14	1.84e-02	7.01e-03	13.4	13.4	13.4	13.4	-0.7	-0.2	-14.6	20.8	122.5	79.5
102	ok	0.14	4.87e-02	1.88e-02	13.4	13.4	13.4	13.4	94.9	97.5	-14.0	-404.7	24.5	53.8
104	ok	0.14	2.11e-02	1.04e-02	13.4	13.4	13.4	13.4	-21.3	-30.8	23.1	21.8	104.6	226.1
105	ok	0.14	2.96e-02	1.42e-02	13.4	13.4	13.4	13.4	-36.5	-47.0	-17.0	106.2	-34.9	311.1
106	ok	0.14	2.91e-02	1.00e-02	13.4	13.4	13.4	13.4	-21.0	35.0	2.7	-72.9	308.2	246.0
116	ok	0.14	7.66e-02	3.96e-02	13.4	13.4	13.4	13.4	141.5	-188.2	-1.6	-174.6	429.7	189.5
118	ok	0.14	2.21e-02	1.31e-02	13.4	13.4	13.4	13.4	4.7	-54.1	2.3	-2.8	79.9	125.0
119	ok	0.14	1.90e-02	1.21e-02	13.4	13.4	13.4	13.4	33.6	-6.6	44.8	-52.3	112.5	173.1
120	ok	0.14	3.27e-02	3.50e-02	13.4	13.4	13.4	13.4	-21.5	-134.2	31.2	-9.3	168.0	139.7

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
									-94.69	-188.18	-85.08	-884.31	-196.57	-35.06
		0.14	0.08	0.04	13.40	13.40	13.40	13.40	141.51	97.49	44.84	242.96	429.69	311.12

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	0.26						
8	ok	0.30						
10	ok	0.40						
11	ok	0.40						
12	ok	0.35						
25	ok	0.13						
26	ok	0.24						
27	ok	0.07						
28	ok	0.09						
29	ok	0.35						
30	ok	0.14						
45	ok	0.30						
47	ok	0.39						
48	ok	0.39						
49	ok	0.36						
60	ok	0.22						
62	ok	0.18						
63	ok	0.17						
64	ok	0.22						
74	ok	0.30						
76	ok	0.17						
77	ok	0.09						
78	ok	0.30						
88	ok	0.36						
90	ok	0.20						
91	ok	0.07						
92	ok	0.36						
102	ok	0.36						
104	ok	0.23						

105	ok	0.14
106	ok	0.36
116	ok	0.45
118	ok	0.18
119	ok	0.35
120	ok	0.45

Nodo	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
	0.45						

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
1	35.00	1	1	Singolo elemento

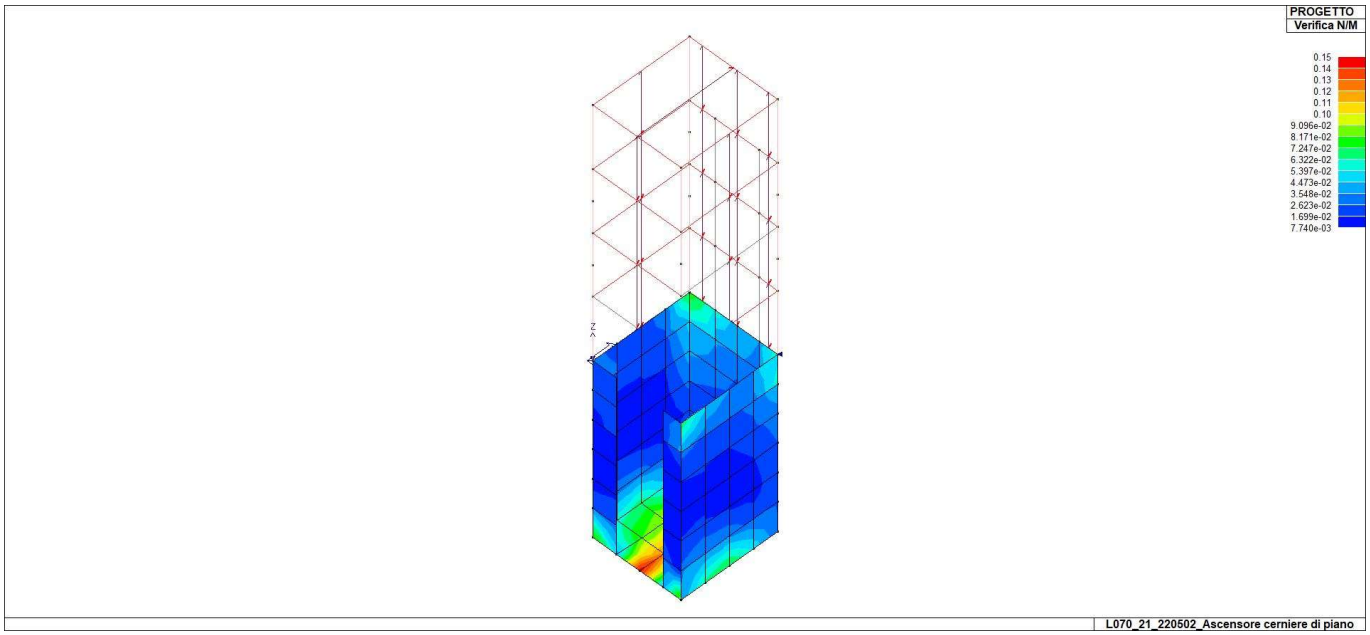
Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
									daN/cm	daN/cm	daN/cm	daN	daN	daN
1	ok	0.14	4.47e-02	2.65e-03	13.4	13.4	13.4	13.4	-0.8	-4.6	3.7	-548.4	-336.3	-140.1
2	ok	0.14	4.45e-02	7.29e-03	13.4	13.4	13.4	13.4	-1.8	-11.1	-13.8	-604.0	-510.8	-178.1
3	ok	0.14	3.89e-02	1.05e-03	13.4	13.4	13.4	13.4	18.6	5.3	-2.7	524.3	-50.6	-160.4
4	ok	0.14	4.03e-02	2.19e-03	13.4	13.4	13.4	13.4	14.0	-10.0	-2.6	-553.7	-189.6	139.7
5	ok	0.14	2.44e-02	2.29e-03	13.4	13.4	13.4	13.4	-9.6	-2.7	2.7	-151.7	-292.4	-123.3
6	ok	0.14	6.45e-02	5.02e-03	13.4	13.4	13.4	13.4	-10.6	-12.8	1.0	-94.6	-905.9	-195.3
7	ok	0.14	0.1	6.16e-03	13.4	13.4	13.4	13.4	8.49e-02	-4.2	-3.4	-411.6	-1816.8	478.1
8	ok	0.14	2.72e-02	3.62e-03	13.4	13.4	13.4	13.4	-14.1	-5.8	-5.9	101.9	16.3	299.1
9	ok	0.14	0.1	6.74e-03	13.4	13.4	13.4	13.4	-4.0	-9.0	-1.8	-330.7	-2079.1	282.3
10	ok	0.14	6.66e-02	5.02e-03	13.4	13.4	13.4	13.4	-10.6	-18.9	0.2	-978.3	123.8	128.0
11	ok	0.14	5.91e-02	6.53e-03	13.4	13.4	13.4	13.4	-7.6	-20.6	-14.6	-840.5	208.8	-96.3
12	ok	0.14	5.84e-02	4.08e-03	13.4	13.4	13.4	13.4	-4.2	-10.8	6.2	-759.3	-210.2	268.9
13	ok	0.14	7.02e-02	4.68e-03	13.4	13.4	13.4	13.4	-9.5	-15.7	2.3	-903.7	93.0	-107.0
14	ok	0.14	6.39e-02	5.52e-03	13.4	13.4	13.4	13.4	-9.7	-18.4	10.8	-946.8	193.9	46.8
15	ok	0.14	5.32e-02	3.79e-03	13.4	13.4	13.4	13.4	-10.7	-9.7	-2.6	-687.6	-74.6	-243.7
16	ok	0.14	8.22e-02	3.59e-03	13.4	13.4	13.4	13.4	-10.6	-7.7	3.6	1036.4	667.7	-328.3
17	ok	0.14	7.38e-02	4.75e-03	13.4	13.4	13.4	13.4	-14.4	2.7	-2.4	1097.7	770.4	16.1
18	ok	0.14	9.46e-02	3.78e-03	13.4	13.4	13.4	13.4	-8.2	-14.5	1.3	692.0	551.1	-794.1
19	ok	0.14	0.1	2.92e-03	13.4	13.4	13.4	13.4	-11.0	-3.6	-0.6	1640.3	1061.8	-51.9
20	ok	0.14	0.1	3.85e-03	13.4	13.4	13.4	13.4	-2.4	-0.1	0.6	1816.6	801.7	92.7
21	ok	0.14	8.57e-02	3.30e-03	13.4	13.4	13.4	13.4	-13.3	-9.6	-2.4	971.1	907.4	-344.7
22	ok	0.14	9.94e-02	3.89e-03	13.4	13.4	13.4	13.4	-12.6	-5.1	-4.2	1297.9	859.1	348.6
23	ok	0.14	8.59e-02	4.40e-03	13.4	13.4	13.4	13.4	-2.7	0.2	-0.5	1186.6	867.5	214.2
24	ok	0.14	0.1	4.64e-03	13.4	13.4	13.4	13.4	-14.8	-8.7	-4.6	842.4	777.7	860.0
53	ok	0.14	0.1	2.97e-03	13.4	13.4	13.4	13.4	13.1	-4.0	-0.9	2160.3	-233.8	240.7

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
								-14.76	-20.55	-14.56	-978.34	-2079.06	-794.12
	0.14	0.15	7.29e-03	13.40	13.40	13.40	13.40	18.62	5.25	10.81	2160.35	1061.78	860.03

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	1.14						
2	ok	1.14						
3	ok	1.21						
4	ok	1.21						
5	ok	0.47						
6	ok	1.29						
7	ok	1.46						
8	ok	0.53						
9	ok	1.46						
10	ok	1.46						
11	ok	1.46						
12	ok	1.23						
13	ok	1.64						
14	ok	1.64						
15	ok	1.41						
16	ok	1.64						
17	ok	1.64						
18	ok	1.41						
19	ok	0.70						
20	ok	0.82						
21	ok	1.46						
22	ok	1.46						

23	ok	1.46
24	ok	1.46
53	ok	0.82

Nodo	Max tau	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr	V sec
	1.64						



72_PRO_CA_D3_VER_NM

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:

pilastri	**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	
17	0.03	0.08	0.04	297,297,412	0.0	0.0	0.0	0,0,0
18	0.04	0.08	0.04	283,356,416	0.0	0.0	0.0	0,0,0
19	0.03	0.03	0.04	356,283,416	0.0	0.0	0.0	0,0,0
20	0.04	0.03	0.05	356,356,416	0.0	0.0	0.0	0,0,0
21	0.04	0.03	0.05	356,279,416	0.0	0.0	0.0	0,0,0
22	0.02	0.03	0.03	356,283,416	0.0	0.0	0.0	0,0,0
23	0.02	0.04	0.03	294,279,418	0.0	0.0	0.0	0,0,0
24	0.04	0.04	0.05	292,292,418	0.0	0.0	0.0	0,0,0
25	0.05	0.04	0.06	294,277,418	0.0	0.0	0.0	0,0,0
26	0.02	0.04	0.03	306,279,419	0.0	0.0	0.0	0,0,0
27	0.02	0.04	0.03	291,298,412	0.0	0.0	0.0	0,0,0
28	0.03	0.03	0.04	297,302,412	0.0	0.0	0.0	0,0,0
29	0.03	0.04	0.04	297,308,412	0.0	0.0	0.0	0,0,0
30	0.03	0.04	0.03	297,347,412	0.0	0.0	0.0	0,0,0
31	0.02	0.01	0.03	297,297,412	0.0	0.0	0.0	0,0,0
32	0.02	0.01	0.03	276,356,416	0.0	0.0	0.0	0,0,0
33	0.02	0.02	0.02	356,356,416	0.0	0.0	0.0	0,0,0
34	0.02	0.02	0.02	356,308,416	0.0	0.0	0.0	0,0,0
35	0.02	0.02	0.02	347,283,416	0.0	0.0	0.0	0,0,0
36	0.01	0.03	0.01	356,283,416	0.0	0.0	0.0	0,0,0
37	0.01	0.03	0.02	283,356,416	0.0	0.0	0.0	0,0,0
38	0.01	0.02	0.01	308,308,413	0.0	0.0	0.0	0,0,0
39	0.01	0.02	0.01	308,280,413	0.0	0.0	0.0	0,0,0
40	0.01	0.02	0.01	306,279,416	0.0	0.0	0.0	0,0,0
41	0.01	0.03	0.01	276,279,416	0.0	0.0	0.0	0,0,0
42	0.01	0.02	0.02	297,279,412	0.0	0.0	0.0	0,0,0
43	0.01	0.02	0.02	298,308,420	0.0	0.0	0.0	0,0,0
44	0.02	0.03	0.02	298,308,420	0.0	0.0	0.0	0,0,0
45	0.01	9.10e-03	0.02	356,356,416	0.0	0.0	0.0	0,0,0
46	0.01	8.28e-03	0.02	308,308,420	0.0	0.0	0.0	0,0,0
47	8.83e-03	0.01	0.01	308,308,420	0.0	0.0	0.0	0,0,0
48	8.45e-03	0.01	0.01	308,308,420	0.0	0.0	0.0	0,0,0
49	7.94e-03	0.02	9.54e-03	355,283,420	0.0	0.0	0.0	0,0,0
50	0.01	0.03	0.01	356,283,416	0.0	0.0	0.0	0,0,0
51	0.01	0.03	0.01	356,283,416	0.0	0.0	0.0	0,0,0
52	0.01	0.02	0.01	308,302,420	0.0	0.0	0.0	0,0,0
53	0.01	0.02	0.01	308,304,420	0.0	0.0	0.0	0,0,0
54	0.01	0.02	0.01	308,308,416	0.0	0.0	0.0	0,0,0
55	9.48e-03	0.03	0.01	297,283,412	0.0	0.0	0.0	0,0,0
56	6.70e-03	0.02	8.56e-03	315,279,412	0.0	0.0	0.0	0,0,0
57	8.00e-03	0.01	9.98e-03	308,308,420	0.0	0.0	0.0	0,0,0
58	8.78e-03	0.01	0.01	308,308,420	0.0	0.0	0.0	0,0,0
59	0.01	9.19e-03	0.01	356,337,416	0.0	0.0	0.0	0,0,0
60	0.01	6.23e-03	0.01	308,308,420	0.0	0.0	0.0	0,0,0
61	9.52e-03	5.64e-03	7.56e-03	356,283,420	0.0	0.0	0.0	0,0,0
62	7.88e-03	0.02	6.63e-03	356,283,420	0.0	0.0	0.0	0,0,0
63	0.01	0.02	8.84e-03	355,283,415	0.0	0.0	0.0	0,0,0
64	0.02	0.03	0.01	355,356,415	0.0	0.0	0.0	0,0,0
65	0.02	0.03	0.01	355,308,420	0.0	0.0	0.0	0,0,0
66	0.01	0.03	0.01	308,308,420	0.0	0.0	0.0	0,0,0
67	0.02	0.03	0.02	308,308,420	0.0	0.0	0.0	0,0,0
68	0.02	0.04	0.02	308,308,420	0.0	0.0	0.0	0,0,0
69	9.90e-03	0.02	0.01	308,308,420	0.0	0.0	0.0	0,0,0
70	7.05e-03	0.02	7.38e-03	308,279,420	0.0	0.0	0.0	0,0,0
71	7.93e-03	0.01	6.59e-03	308,340,420	0.0	0.0	0.0	0,0,0
72	8.56e-03	0.01	7.23e-03	308,338,420	0.0	0.0	0.0	0,0,0
73	0.01	0.03	0.01	308,337,420	0.0	0.0	0.0	0,0,0
74	0.01	0.05	8.12e-03	356,337,420	0.0	0.0	0.0	0,0,0
75	0.01	0.03	7.59e-03	356,283,420	0.0	0.0	0.0	0,0,0
76	0.01	0.03	4.50e-03	356,283,415	0.0	0.0	0.0	0,0,0
77	0.01	0.03	0.01	355,356,415	0.0	0.0	0.0	0,0,0
78	0.02	0.04	0.02	355,355,415	0.0	0.0	0.0	0,0,0
79	0.02	0.03	0.02	355,355,415	0.0	0.0	0.0	0,0,0
80	0.02	0.03	0.02	308,308,420	0.0	0.0	0.0	0,0,0
81	0.02	0.05	0.02	308,308,420	0.0	0.0	0.0	0,0,0
82	0.02	0.07	0.02	308,302,420	0.0	0.0	0.0	0,0,0
83	0.01	0.06	0.01	337,302,412	0.0	0.0	0.0	0,0,0
84	9.17e-03	0.02	7.33e-03	337,308,418	0.0	0.0	0.0	0,0,0
85	9.61e-03	0.03	7.11e-03	302,283,417	0.0	0.0	0.0	0,0,0
86	0.02	0.05	0.01	308,283,420	0.0	0.0	0.0	0,0,0
87	0.01	0.04	0.01	308,308,420	0.0	0.0	0.0	0,0,0
88	0.02	0.05	0.01	356,356,416	0.0	0.0	0.0	0,0,0
89	0.02	0.14	0.02	356,283,416	0.0	0.0	0.0	0,0,0

90	0.01	0.09	3.85e-03	355,283,417	0.0	0.0	0.0	0,0,0
91	0.02	0.10	0.01	304,283,415	0.0	0.0	0.0	0,0,0
92	0.02	0.13	0.02	304,282,415	0.0	0.0	0.0	0,0,0
93	0.03	0.07	0.02	355,302,416	0.0	0.0	0.0	0,0,0
94	0.02	0.04	0.02	308,308,419	0.0	0.0	0.0	0,0,0
95	0.03	0.05	0.02	308,304,420	0.0	0.0	0.0	0,0,0
96	0.02	0.11	0.02	308,302,420	0.0	0.0	0.0	0,0,0
97	0.03	0.10	0.02	308,280,420	0.0	0.0	0.0	0,0,0
98	0.02	0.08	0.01	304,283,418	0.0	0.0	0.0	0,0,0
99	0.01	0.06	7.98e-03	308,283,420	0.0	0.0	0.0	0,0,0
100	0.02	0.12	0.02	302,283,417	0.0	0.0	0.0	0,0,0

Setto	**rRfck**	**rRfyk**	**rPfck**		**wR**	**wF**	**wP**	
	0.05	0.14	0.06		0.0	0.0	0.0	

Guscio	**rRfck**	**rRfyk**	**rPfck**	**Rif. cmb**	**wR**	**wF**	**wP**	**Rif. cmb**
					mm	mm	mm	
1	0.04	0.06	0.06	292,298,420	0.0	0.0	0.0	0,0,0
2	0.07	0.13	0.09	298,308,420	0.0	0.0	0.0	0,0,0
3	0.07	0.13	0.09	298,308,420	0.0	0.0	0.0	0,0,0
4	0.04	0.05	0.05	298,308,420	0.0	0.0	0.0	0,0,0
5	0.05	0.07	0.06	298,279,420	0.0	0.0	0.0	0,0,0
6	0.06	0.10	0.08	298,308,420	0.0	0.0	0.0	0,0,0
7	0.06	0.10	0.08	298,308,420	0.0	0.0	0.0	0,0,0
8	0.04	0.06	0.05	298,315,420	0.0	0.0	0.0	0,0,0
9	0.05	0.07	0.07	298,298,420	0.0	0.0	0.0	0,0,0
10	0.06	0.08	0.07	298,308,420	0.0	0.0	0.0	0,0,0
11	0.06	0.08	0.07	298,298,420	0.0	0.0	0.0	0,0,0
12	0.04	0.06	0.05	298,298,420	0.0	0.0	0.0	0,0,0
13	0.06	0.09	0.07	298,279,420	0.0	0.0	0.0	0,0,0
14	0.06	0.10	0.07	290,313,419	0.0	0.0	0.0	0,0,0
15	0.07	0.11	0.08	292,312,420	0.0	0.0	0.0	0,0,0
16	0.05	0.07	0.06	347,276,416	0.0	0.0	0.0	0,0,0

Guscio	**rRfck**	**rRfyk**	**rPfck**		**wR**	**wF**	**wP**	
	0.07	0.13	0.09		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 Ed/Rd: valore minore o uguale a 1 per verifica positiva
V V/T cls	Verifica a taglio/torsione con rapporto Ved/Vrd lato cls: valore minore o uguale a 1 per verifica positiva
V V/T acc	Verifica a taglio/torsione con rapporto Ved/Vrd 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
	Per travi in muratura:
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
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 fibrorinforzi 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 questi elementi vengono effettuate le verifiche di resistenza previste al cap. 4.4.1.2 "Verifiche per azioni nel piano del pannello". 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 frp	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 frp	Area orizzontale complessiva di fibrorinforzo per metro lineare
AV frp	Area verticale complessiva di fibrorinforzo per metro lineare

Affinché l'elemento sia verificato deve essere:

V.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

17	ok	26	0.01	0.0	0.0	239,0,0	39	0.02	0.0	0.0	240,0,0
		2	0.03	0.0	0.0	240,0,0	1	0.07	0.0	0.0	237,0,0
18	ok	40	0.02	0.0	0.0	242,0,0	41	7.62e-03	0.0	0.0	249,0,0
		4	0.06	0.0	0.0	235,0,0	3	0.03	0.0	0.0	234,0,0
19	ok	4	0.02	0.0	0.0	241,0,0	14	0.02	0.0	0.0	233,0,0
		51	0.02	0.0	0.0	238,0,0	41	0.03	0.0	0.0	233,0,0
20	ok	14	0.02	0.0	0.0	233,0,0	13	0.03	0.0	0.0	233,0,0
		50	0.02	0.0	0.0	233,0,0	51	0.03	0.0	0.0	238,0,0
21	ok	13	0.03	0.0	0.0	233,0,0	15	0.02	0.0	0.0	233,0,0
		52	0.02	0.0	0.0	253,0,0	50	0.02	0.0	0.0	238,0,0
22	ok	15	0.02	0.0	0.0	233,0,0	5	0.03	0.0	0.0	258,0,0
		42	0.02	0.0	0.0	233,0,0	52	0.01	0.0	0.0	236,0,0
23	ok	43	0.01	0.0	0.0	233,0,0	42	0.02	0.0	0.0	233,0,0
		5	0.03	0.0	0.0	233,0,0	6	0.02	0.0	0.0	237,0,0
24	ok	46	0.02	0.0	0.0	261,0,0	43	0.02	0.0	0.0	236,0,0
		6	0.02	0.0	0.0	237,0,0	9	0.03	0.0	0.0	259,0,0
25	ok	44	0.02	0.0	0.0	233,0,0	46	0.02	0.0	0.0	259,0,0
		9	0.03	0.0	0.0	261,0,0	7	0.02	0.0	0.0	239,0,0
26	ok	45	0.02	0.0	0.0	236,0,0	44	0.01	0.0	0.0	233,0,0
		7	0.02	0.0	0.0	239,0,0	8	0.03	0.0	0.0	236,0,0
27	ok	12	0.02	0.0	0.0	239,0,0	8	0.03	0.0	0.0	252,0,0
		45	0.02	0.0	0.0	235,0,0	49	0.01	0.0	0.0	234,0,0
28	ok	10	0.03	0.0	0.0	240,0,0	12	0.02	0.0	0.0	252,0,0
		49	0.02	0.0	0.0	259,0,0	47	0.02	0.0	0.0	260,0,0
29	ok	11	0.02	0.0	0.0	240,0,0	10	0.03	0.0	0.0	240,0,0
		47	0.01	0.0	0.0	236,0,0	48	0.03	0.0	0.0	244,0,0
30	ok	1	0.02	0.0	0.0	255,0,0	11	0.02	0.0	0.0	240,0,0
		48	0.02	0.0	0.0	240,0,0	26	0.03	0.0	0.0	240,0,0
31	ok	25	4.70e-03	0.0	0.0	236,0,0	54	0.01	0.0	0.0	248,0,0
		39	0.02	0.0	0.0	248,0,0	26	0.01	0.0	0.0	239,0,0
32	ok	55	0.01	0.0	0.0	234,0,0	56	4.98e-03	0.0	0.0	234,0,0
		41	6.41e-03	0.0	0.0	233,0,0	40	0.02	0.0	0.0	242,0,0
33	ok	41	0.02	0.0	0.0	239,0,0	51	0.02	0.0	0.0	262,0,0
		66	8.30e-03	0.0	0.0	234,0,0	56	7.39e-03	0.0	0.0	242,0,0
34	ok	51	0.02	0.0	0.0	234,0,0	50	0.01	0.0	0.0	234,0,0
		65	8.34e-03	0.0	0.0	236,0,0	66	9.45e-03	0.0	0.0	252,0,0
35	ok	50	0.01	0.0	0.0	262,0,0	52	0.01	0.0	0.0	249,0,0
		67	0.01	0.0	0.0	233,0,0	65	9.42e-03	0.0	0.0	236,0,0
36	ok	52	0.01	0.0	0.0	233,0,0	42	0.02	0.0	0.0	233,0,0
		57	0.02	0.0	0.0	233,0,0	67	0.01	0.0	0.0	233,0,0
37	ok	58	0.01	0.0	0.0	233,0,0	57	0.02	0.0	0.0	233,0,0
		42	0.02	0.0	0.0	233,0,0	43	0.01	0.0	0.0	236,0,0
38	ok	61	0.01	0.0	0.0	233,0,0	58	0.01	0.0	0.0	233,0,0
		43	0.01	0.0	0.0	237,0,0	46	0.01	0.0	0.0	239,0,0
39	ok	59	0.01	0.0	0.0	236,0,0	61	0.01	0.0	0.0	236,0,0
		46	0.02	0.0	0.0	249,0,0	44	0.01	0.0	0.0	233,0,0
40	ok	60	0.02	0.0	0.0	236,0,0	59	0.01	0.0	0.0	236,0,0
		44	0.01	0.0	0.0	233,0,0	45	0.02	0.0	0.0	236,0,0
41	ok	49	0.01	0.0	0.0	239,0,0	45	0.02	0.0	0.0	239,0,0
		60	0.02	0.0	0.0	236,0,0	64	0.01	0.0	0.0	236,0,0
42	ok	47	0.01	0.0	0.0	264,0,0	49	0.01	0.0	0.0	239,0,0
		64	0.01	0.0	0.0	239,0,0	62	9.57e-03	0.0	0.0	233,0,0
43	ok	48	0.02	0.0	0.0	264,0,0	47	0.01	0.0	0.0	260,0,0
		62	8.52e-03	0.0	0.0	233,0,0	63	0.01	0.0	0.0	258,0,0
44	ok	26	0.02	0.0	0.0	249,0,0	48	0.02	0.0	0.0	264,0,0
		63	7.64e-03	0.0	0.0	264,0,0	25	6.21e-03	0.0	0.0	240,0,0
45	ok	28	5.02e-03	0.0	0.0	236,0,0	68	8.26e-03	0.0	0.0	264,0,0
		54	0.01	0.0	0.0	248,0,0	25	6.76e-03	0.0	0.0	239,0,0
46	ok	69	8.26e-03	0.0	0.0	254,0,0	70	4.76e-03	0.0	0.0	242,0,0
		56	4.03e-03	0.0	0.0	238,0,0	55	0.01	0.0	0.0	254,0,0
47	ok	56	6.85e-03	0.0	0.0	252,0,0	66	7.23e-03	0.0	0.0	234,0,0
		80	5.36e-03	0.0	0.0	234,0,0	70	5.81e-03	0.0	0.0	250,0,0
48	ok	66	9.47e-03	0.0	0.0	236,0,0	65	8.52e-03	0.0	0.0	236,0,0
		79	4.21e-03	0.0	0.0	233,0,0	80	4.91e-03	0.0	0.0	252,0,0
49	ok	65	9.37e-03	0.0	0.0	236,0,0	67	0.01	0.0	0.0	233,0,0
		81	8.62e-03	0.0	0.0	233,0,0	79	4.06e-03	0.0	0.0	236,0,0
50	ok	67	0.01	0.0	0.0	233,0,0	57	0.02	0.0	0.0	233,0,0
		71	0.01	0.0	0.0	233,0,0	81	9.02e-03	0.0	0.0	233,0,0
51	ok	72	0.01	0.0	0.0	233,0,0	71	0.02	0.0	0.0	233,0,0
		57	0.02	0.0	0.0	233,0,0	58	0.01	0.0	0.0	233,0,0
52	ok	75	0.01	0.0	0.0	233,0,0	72	0.01	0.0	0.0	233,0,0
		58	0.01	0.0	0.0	233,0,0	61	0.01	0.0	0.0	233,0,0
53	ok	73	0.01	0.0	0.0	236,0,0	75	9.72e-03	0.0	0.0	236,0,0
		61	0.01	0.0	0.0	236,0,0	59	0.01	0.0	0.0	236,0,0
54	ok	74	0.02	0.0	0.0	236,0,0	73	0.01	0.0	0.0	236,0,0
		59	0.01	0.0	0.0	236,0,0	60	0.02	0.0	0.0	236,0,0
55	ok	64	0.01	0.0	0.0	236,0,0	60	0.02	0.0	0.0	236,0,0

		74	0.02	0.0	0.0	236,0,0	78	0.01	0.0	0.0	236,0,0
56	ok	62	9.53e-03	0.0	0.0	233,0,0	64	0.01	0.0	0.0	236,0,0
		78	9.97e-03	0.0	0.0	236,0,0	76	5.27e-03	0.0	0.0	236,0,0
57	ok	63	0.01	0.0	0.0	238,0,0	62	8.65e-03	0.0	0.0	233,0,0
		76	5.60e-03	0.0	0.0	236,0,0	77	4.33e-03	0.0	0.0	236,0,0
58	ok	25	5.45e-03	0.0	0.0	233,0,0	63	7.97e-03	0.0	0.0	234,0,0
		77	5.18e-03	0.0	0.0	236,0,0	28	5.18e-03	0.0	0.0	240,0,0
59	ok	27	4.36e-03	0.0	0.0	252,0,0	82	5.42e-03	0.0	0.0	252,0,0
		68	7.51e-03	0.0	0.0	238,0,0	28	4.20e-03	0.0	0.0	239,0,0
60	ok	83	5.45e-03	0.0	0.0	250,0,0	84	4.25e-03	0.0	0.0	256,0,0
		70	3.98e-03	0.0	0.0	256,0,0	69	7.63e-03	0.0	0.0	252,0,0
61	ok	70	5.20e-03	0.0	0.0	252,0,0	80	4.55e-03	0.0	0.0	250,0,0
		94	3.91e-03	0.0	0.0	233,0,0	84	4.67e-03	0.0	0.0	233,0,0
62	ok	80	4.47e-03	0.0	0.0	236,0,0	79	5.80e-03	0.0	0.0	233,0,0
		93	4.26e-03	0.0	0.0	249,0,0	94	4.04e-03	0.0	0.0	233,0,0
63	ok	79	5.30e-03	0.0	0.0	233,0,0	81	0.01	0.0	0.0	233,0,0
		95	9.44e-03	0.0	0.0	233,0,0	93	4.80e-03	0.0	0.0	233,0,0
64	ok	81	0.01	0.0	0.0	233,0,0	71	0.02	0.0	0.0	233,0,0
		85	0.01	0.0	0.0	233,0,0	95	0.01	0.0	0.0	233,0,0
65	ok	86	0.01	0.0	0.0	233,0,0	85	0.01	0.0	0.0	233,0,0
		71	0.02	0.0	0.0	233,0,0	72	0.01	0.0	0.0	233,0,0
66	ok	89	0.01	0.0	0.0	238,0,0	86	0.01	0.0	0.0	238,0,0
		72	0.01	0.0	0.0	233,0,0	75	0.01	0.0	0.0	233,0,0
67	ok	87	0.01	0.0	0.0	236,0,0	89	9.68e-03	0.0	0.0	252,0,0
		75	0.01	0.0	0.0	236,0,0	73	0.01	0.0	0.0	236,0,0
68	ok	88	0.02	0.0	0.0	236,0,0	87	0.02	0.0	0.0	236,0,0
		73	0.01	0.0	0.0	236,0,0	74	0.02	0.0	0.0	236,0,0
69	ok	78	0.01	0.0	0.0	236,0,0	74	0.02	0.0	0.0	236,0,0
		88	0.02	0.0	0.0	236,0,0	92	0.01	0.0	0.0	236,0,0
70	ok	76	6.51e-03	0.0	0.0	236,0,0	78	0.01	0.0	0.0	236,0,0
		92	0.01	0.0	0.0	236,0,0	90	5.96e-03	0.0	0.0	236,0,0
71	ok	77	4.31e-03	0.0	0.0	238,0,0	76	7.09e-03	0.0	0.0	236,0,0
		90	5.21e-03	0.0	0.0	239,0,0	91	4.50e-03	0.0	0.0	236,0,0
72	ok	28	4.34e-03	0.0	0.0	260,0,0	77	4.39e-03	0.0	0.0	252,0,0
		91	4.18e-03	0.0	0.0	236,0,0	27	4.69e-03	0.0	0.0	236,0,0
73	ok	30	4.33e-03	0.0	0.0	260,0,0	96	3.97e-03	0.0	0.0	260,0,0
		82	4.53e-03	0.0	0.0	260,0,0	27	5.35e-03	0.0	0.0	233,0,0
74	ok	97	4.62e-03	0.0	0.0	250,0,0	98	4.46e-03	0.0	0.0	258,0,0
		84	4.37e-03	0.0	0.0	236,0,0	83	4.84e-03	0.0	0.0	236,0,0
75	ok	84	4.71e-03	0.0	0.0	233,0,0	94	4.08e-03	0.0	0.0	239,0,0
		108	4.81e-03	0.0	0.0	239,0,0	98	6.43e-03	0.0	0.0	233,0,0
76	ok	94	3.67e-03	0.0	0.0	233,0,0	93	6.87e-03	0.0	0.0	233,0,0
		107	0.01	0.0	0.0	233,0,0	108	4.97e-03	0.0	0.0	233,0,0
77	ok	93	6.29e-03	0.0	0.0	233,0,0	95	0.01	0.0	0.0	233,0,0
		109	0.01	0.0	0.0	233,0,0	107	0.01	0.0	0.0	233,0,0
78	ok	95	0.01	0.0	0.0	233,0,0	85	0.02	0.0	0.0	233,0,0
		99	0.02	0.0	0.0	233,0,0	109	0.01	0.0	0.0	233,0,0
79	ok	100	0.01	0.0	0.0	233,0,0	99	0.01	0.0	0.0	233,0,0
		85	0.02	0.0	0.0	233,0,0	86	0.02	0.0	0.0	233,0,0
80	ok	103	0.01	0.0	0.0	248,0,0	100	8.76e-03	0.0	0.0	233,0,0
		86	0.01	0.0	0.0	233,0,0	89	0.01	0.0	0.0	238,0,0
81	ok	101	0.01	0.0	0.0	236,0,0	103	0.01	0.0	0.0	236,0,0
		89	0.01	0.0	0.0	236,0,0	87	0.01	0.0	0.0	236,0,0
82	ok	102	0.02	0.0	0.0	236,0,0	101	0.02	0.0	0.0	236,0,0
		87	0.02	0.0	0.0	236,0,0	88	0.02	0.0	0.0	236,0,0
83	ok	92	0.01	0.0	0.0	236,0,0	88	0.02	0.0	0.0	236,0,0
		102	0.02	0.0	0.0	236,0,0	106	0.02	0.0	0.0	236,0,0
84	ok	90	7.49e-03	0.0	0.0	236,0,0	92	0.01	0.0	0.0	236,0,0
		106	0.02	0.0	0.0	236,0,0	104	0.01	0.0	0.0	236,0,0
85	ok	91	4.25e-03	0.0	0.0	236,0,0	90	7.96e-03	0.0	0.0	236,0,0
		104	0.01	0.0	0.0	239,0,0	105	5.08e-03	0.0	0.0	239,0,0
86	ok	27	4.56e-03	0.0	0.0	236,0,0	91	3.90e-03	0.0	0.0	236,0,0
		105	4.62e-03	0.0	0.0	261,0,0	30	6.34e-03	0.0	0.0	236,0,0
87	ok	29	0.01	0.0	0.0	236,0,0	110	0.02	0.0	0.0	236,0,0
		96	2.25e-03	0.0	0.0	236,0,0	30	6.08e-03	0.0	0.0	264,0,0
88	ok	111	0.02	0.0	0.0	233,0,0	112	0.01	0.0	0.0	239,0,0
		98	6.22e-03	0.0	0.0	258,0,0	97	3.13e-03	0.0	0.0	238,0,0
89	ok	98	6.42e-03	0.0	0.0	238,0,0	108	8.03e-03	0.0	0.0	249,0,0
		122	0.03	0.0	0.0	233,0,0	112	0.03	0.0	0.0	233,0,0
90	ok	108	8.74e-03	0.0	0.0	233,0,0	107	0.01	0.0	0.0	233,0,0
		121	0.03	0.0	0.0	233,0,0	122	0.03	0.0	0.0	233,0,0
91	ok	107	0.01	0.0	0.0	233,0,0	109	0.02	0.0	0.0	233,0,0
		123	0.02	0.0	0.0	233,0,0	121	0.02	0.0	0.0	233,0,0
92	ok	109	0.01	0.0	0.0	233,0,0	99	0.01	0.0	0.0	233,0,0
		113	0.03	0.0	0.0	233,0,0	123	0.03	0.0	0.0	233,0,0
93	ok	114	0.02	0.0	0.0	251,0,0	113	0.02	0.0	0.0	236,0,0
		99	0.01	0.0	0.0	233,0,0	100	0.01	0.0	0.0	233,0,0

94	ok	117	0.02	0.0	0.0	239,0,0	114	0.02	0.0	0.0	235,0,0
		100	9.08e-03	0.0	0.0	248,0,0	103	0.01	0.0	0.0	264,0,0
95	ok	115	0.03	0.0	0.0	235,0,0	117	0.03	0.0	0.0	235,0,0
		103	0.01	0.0	0.0	236,0,0	101	0.01	0.0	0.0	252,0,0
96	ok	116	0.03	0.0	0.0	239,0,0	115	0.04	0.0	0.0	239,0,0
		101	0.02	0.0	0.0	236,0,0	102	0.02	0.0	0.0	236,0,0
97	ok	106	0.02	0.0	0.0	236,0,0	102	0.02	0.0	0.0	236,0,0
		116	0.03	0.0	0.0	239,0,0	120	0.03	0.0	0.0	239,0,0
98	ok	104	0.01	0.0	0.0	236,0,0	106	0.02	0.0	0.0	236,0,0
		120	0.03	0.0	0.0	239,0,0	118	0.03	0.0	0.0	239,0,0
99	ok	105	9.65e-03	0.0	0.0	236,0,0	104	0.02	0.0	0.0	236,0,0
		118	0.03	0.0	0.0	236,0,0	119	0.03	0.0	0.0	236,0,0
100	ok	30	6.45e-03	0.0	0.0	236,0,0	105	9.68e-03	0.0	0.0	261,0,0
		119	0.03	0.0	0.0	235,0,0	29	0.04	0.0	0.0	239,0,0

Setto			**V N/M**	**V V/T cls**	**V V/T acc**			**V N/M**	**V V/T cls**	**V V/T acc**	
			0.07	0.0	0.0						

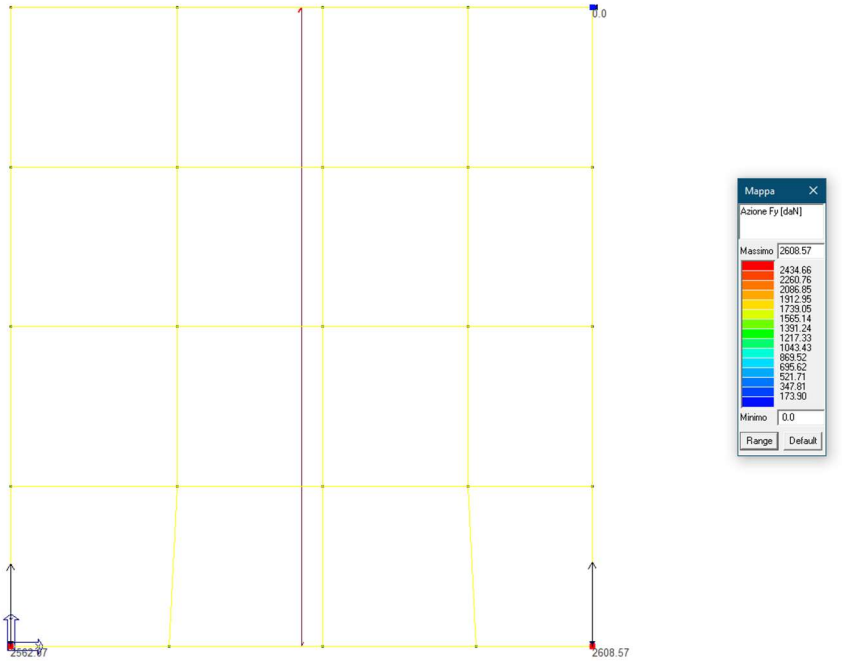
TABELLA VERIFICHE ELEMENTI D3 GUSCI C.A.

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	0.04	0.0	0.0	240,0,0	2	0.03	0.0	0.0	237,0,0
		23	0.05	0.0	0.0	237,0,0	11	0.04	0.0	0.0	240,0,0
2	ok	2	0.04	0.0	0.0	238,0,0	53	0.11	0.0	0.0	238,0,0
		20	0.08	0.0	0.0	234,0,0	23	0.05	0.0	0.0	252,0,0
3	ok	53	0.10	0.0	0.0	240,0,0	3	0.03	0.0	0.0	248,0,0
		17	0.04	0.0	0.0	240,0,0	20	0.08	0.0	0.0	240,0,0
4	ok	3	0.03	0.0	0.0	240,0,0	4	0.04	0.0	0.0	237,0,0
		14	0.04	0.0	0.0	237,0,0	17	0.04	0.0	0.0	240,0,0
5	ok	11	0.04	0.0	0.0	240,0,0	23	0.05	0.0	0.0	237,0,0
		22	0.06	0.0	0.0	237,0,0	10	0.04	0.0	0.0	240,0,0
6	ok	23	0.05	0.0	0.0	234,0,0	20	0.08	0.0	0.0	242,0,0
		19	0.07	0.0	0.0	234,0,0	22	0.05	0.0	0.0	236,0,0
7	ok	20	0.08	0.0	0.0	240,0,0	17	0.04	0.0	0.0	240,0,0
		16	0.04	0.0	0.0	237,0,0	19	0.07	0.0	0.0	240,0,0
8	ok	17	0.04	0.0	0.0	240,0,0	14	0.04	0.0	0.0	237,0,0
		13	0.04	0.0	0.0	237,0,0	16	0.04	0.0	0.0	239,0,0
9	ok	10	0.04	0.0	0.0	240,0,0	22	0.06	0.0	0.0	237,0,0
		24	0.05	0.0	0.0	261,0,0	12	0.03	0.0	0.0	236,0,0
10	ok	22	0.05	0.0	0.0	236,0,0	19	0.07	0.0	0.0	234,0,0
		21	0.04	0.0	0.0	237,0,0	24	0.04	0.0	0.0	239,0,0
11	ok	19	0.07	0.0	0.0	240,0,0	16	0.04	0.0	0.0	233,0,0
		18	0.04	0.0	0.0	237,0,0	21	0.04	0.0	0.0	261,0,0
12	ok	16	0.05	0.0	0.0	239,0,0	13	0.04	0.0	0.0	237,0,0
		15	0.03	0.0	0.0	238,0,0	18	0.04	0.0	0.0	259,0,0
13	ok	12	0.03	0.0	0.0	236,0,0	24	0.06	0.0	0.0	249,0,0
		7	0.03	0.0	0.0	236,0,0	8	0.02	0.0	0.0	239,0,0
14	ok	24	0.04	0.0	0.0	240,0,0	21	0.04	0.0	0.0	234,0,0
		9	0.04	0.0	0.0	257,0,0	7	0.04	0.0	0.0	239,0,0
15	ok	21	0.04	0.0	0.0	233,0,0	18	0.04	0.0	0.0	234,0,0
		6	0.03	0.0	0.0	249,0,0	9	0.04	0.0	0.0	261,0,0
16	ok	18	0.05	0.0	0.0	239,0,0	15	0.03	0.0	0.0	233,0,0
		5	0.02	0.0	0.0	245,0,0	6	0.03	0.0	0.0	238,0,0

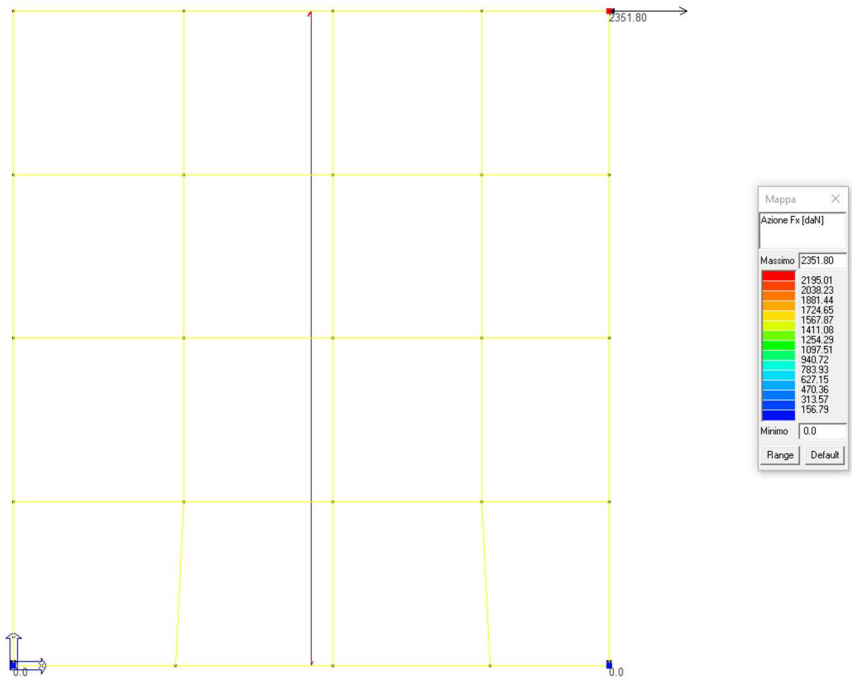
Guscio			**V N/M**	**V V/T cls**	**V V/T acc**			**V N/M**	**V V/T cls**	**V V/T acc**	
			0.11	0.0	0.0						

Verifica secondo il D.M. 17/01/2018 della connessione tra l'edificio esistente e la struttura della piattaforma elevatrice realizzana nel piano di campagna

La nuova struttura è connessa alla base alla struttura esistente in direzione y:



E in direzione x:



La trazione maggiore che è quella che viene studiata è

F=26.09kN

La connessione è realizzata tramite barre gettante in opera nei setti in c.a. e inghisate all'altezza del solaio di piano alla muratura o al cordolo esistente, da valutare in corso di realizzazione a causa della carenza di informazioni al momento disponibili sull'edificio esistente.

Utilizzando 1ϕ=16mm, la lunghezza minima di ancoraggio è di:

CALCOLO LUNGHEZZA DI ANCORAGGIO BARRE

CARATTERISTICHE CALCESTRUZZO 4.1.I NTC18		
Classe del calcestruzzo		C25/30
Resistenza cubica caratteristica	R_{ck}	30,00 N/mm²
Resistenza cilindrica media	f_{cm}	32,90 N/mm²
Resistenza cilindrica caratteristica	f_{ck}	24,90 N/mm²
Resistenza cilindrica di calcolo	f_{cd}	16,60 N/mm²
Resistenza a trazione caratteristica	f_{ctm}	2,56 N/mm²
Resistenza a trazione media	f_{ctk}	1,79 N/mm²
Resistenza a trazione di calcolo	f_{ctd}	1,19 N/mm²
Modulo di Young	Ec	31447 N/mm²
Coefficiente sicurezza calcestruzzo	γc	1,5

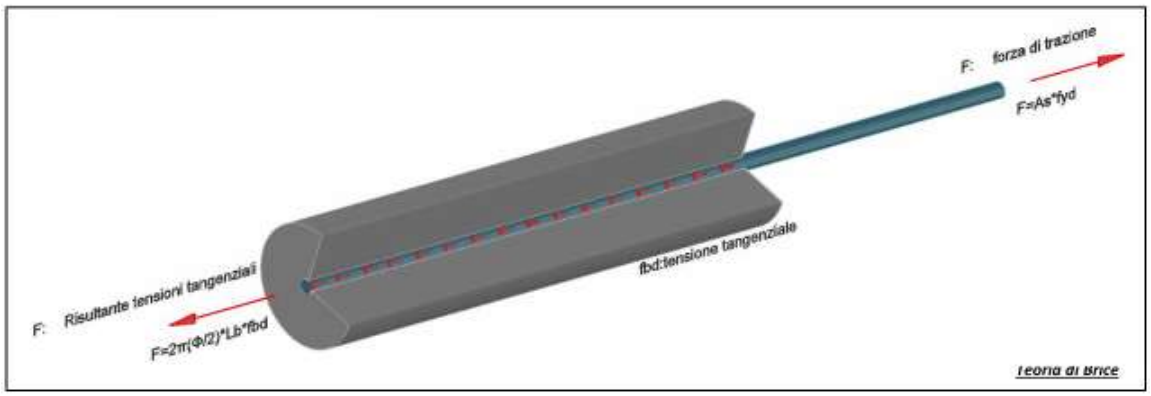
$$f_{ck} = 0{,}83\ R_{ck}$$
$$f_{cd} = \alpha_{cc}\ f_{ck} / \gamma_c$$
$$f_{ctm} = 0{,}3 \sqrt[3]{f_{ck}^2}$$
$$f_{ctk} = 0{,}70\ f_{ctm}$$
$$f_{ctd} = f_{ctk} / \gamma_c$$

CARATTERISTIHCE ACCIAIO		
Tipo Acciaio		Fe B450C
Tensione di Rottura	f_t	540,0 N/mm²
Tensione di snervamento	f_{yk}	450,0 N/mm²
Resistenza di calcolo	f_{yd}	391,3 N/mm²
Modulo di Young	Es	206000 N/mm²
Coefficiente sicurezza acciaio	γs	1,15

$$f_{yd} = f_{yk} / \gamma_s$$

LUNGHEZZA DI ANCORAGGIO §4.1.2.1.1.4 NTC18		
Diametro della barra		Φ 16 [mm]
Tipo aderenza		aderenza buona
Resistenza tangenziale di calcolo	fbd	2,69 N/mm²
Coefficiente	η=η1*η2	1
Coefficiente di aderenza	η1	1
Coefficiente di diametro	η2	1
Coefficiente sicurezza calcestruzzo	γc	1,5
Lunghezza di ancoraggio della barra	Lb	583 mm

$$f_{bd} = \frac{2{,}25 \cdot f_{ctk} \cdot \eta}{\gamma_c}$$
$$l_b = \frac{\phi \cdot f_{yd}}{4 \cdot f_{bd}}$$



F=2πc(16mm/2)x583mmx2.69MPa= 78.83kN < 26.09kN verificato

Per la verifica a trazione della singola barra abbiamo:

$$Trd = fyd\ x\ Ares = 391{,}3\ x\ 201 = 78675\ N = 78.7\ KN$$

Considerando la disposizione di 1ϕ16 abbiamo Trd= 78.7 KN > 26.09 KN (La verifica è soddisfatta)

La barra è ancorata all'edificio per sola trazione con un capochiave alla muratura esistente:

Relazione di calcolo del tirante

Il tirante è stato calcolato seguendo le prescrizioni delle vigenti normative (D.M. 17/01/2018 e Circolare 7/2019)

1. Dati

1.1 Dati geometrici e carichi

1.1.1 Dati relativi al cavo

Tipo di sezione: Circolare

Lunghezza del cavo: 1100 cm

Diametro del cavo: 28 mm

1.1.2 Dati relativi al capochiave

Tipo di sezione: Circolare

Diametro: 30 cm

Spessore della piastra: 10 mm

Spessore della nervatura: 10 mm

Altezza della nervatura: 48 mm

1.1.3 Dati relativi alla muratura

Spessore: 60 cm

Tensione media: 0.80 daN/cmq

1.2 Materiali

1.2.1 Muratura

Tipo muratura: Di pietra tenera irregolare (tufo, calcarenite, ecc.)

Livello di conoscenza: LC1

Coefficiente correttivo: 1.00

Coefficiente di sicurezza: 2.00

Fattore di confidenza: 1.35

Parametri di calcolo della muratura						
E [daN/cmq]	**G [daN/cmq]**	**fd [daN/cmq]**	**fvd0 [daN/cmq]**	**tau [daN/cmq]**	**ftd [daN/cmq]**	**w [daN/mc]**
10800	3600	5.185	0.104	0.104	0.156	1600

1.2.2 Acciaio

Parametri di calcolo dell'acciaio							
Cavo				**Capochiave**			
E [daN/cmq]	**fy [daN/cmq]**	**Peso specifico [daN/mc]**	**deformazione limite [%]**	**E [daN/cmq]**	**fy [daN/cmq]**	**Peso specifico [daN/mc]**	**deformazione limite [%]**
2100000	4500	7850	1.00	2100000	2750	7850	1.00

2. Risultati

2.1 Resistenza del tirante

La resistenza del tirante si ottiene dalla resistenza minima del cavo, della muratura (punzonamento) e della chiave.

Resistenza del tirante		
Resistenza del cavo [daN]	**Resistenza della muratura (punzonamento) [daN]**	**Resistenza della chiave [daN]**
27709	2639	6841

Il tirante resiste per una forza di trazione pari a 2639 daN. Dai risultati si evince che la rottura è fragile.

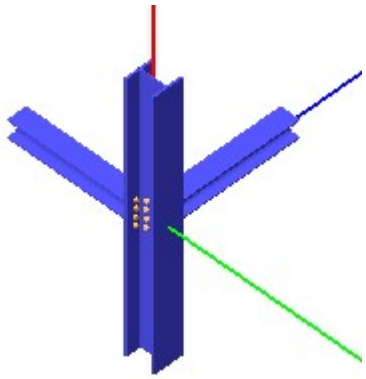
2.2 Deformabilità del tirante

La rottura del tirante è di tipo fragile per cui il cavo è ancora in fase elastica. Il valore della deformazione è 0.22 cm.

2.3 Tensione raggiunta nel tirante

Tensione massima raggiunta			
Cavo	**Capochiave**		
Tensione normale [daN/cmq]	**Tensione normale [daN/cmq]**	**Tensione tangenziale [daN/cmq]**	**Tensione ideale [daN/cmq]**
429	885	337	1060

Verifica secondo il D.M. 17/01/2018 del nodo 124



Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2-

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 192.0 x 10.0 mm
Spessore nervature verticali: 5.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 6580967000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
124.76	-1983.0	-7462.0	-190.4	1402000.0	1704530.0	1089.0
124.84	-1983.4	-7462.3	-199.9	1402000.0	1704494.0	1090.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]

1	17345.1	17345.1
2	17915.2	17915.2
3	17915.2	17915.2
4	17345.1	17345.1
5	17345.1	17345.1
6	17915.2	17915.2
7	17915.2	17915.2
8	17345.1	17345.1

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
2	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
3	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
4	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
5	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
6	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
7	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
8	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

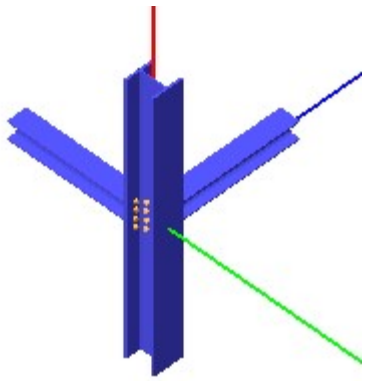
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 124, CMB n. 76)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-78.00	963.3	36419.7	5448.6	17345.1	0.250828	Ok
2	39.50	-28.00	964.7	44334.2	4479.8	17915.2	0.200369	Ok
3	39.50	28.00	966.1	44334.2	3394.7	17915.2	0.157140	Ok
4	39.50	78.00	967.5	36419.7	2425.9	17345.1	0.126464	Ok
5	-39.50	-78.00	962.8	36419.7	1993.4	17345.1	0.108527	Ok
6	-39.50	-28.00	964.1	44334.2	1024.6	17915.2	0.062599	Ok
7	-39.50	28.00	965.6	44334.2	0.0	17915.2	0.021780	Ok
8	-39.50	78.00	966.9	36419.7	0.0	17345.1	0.026549	Ok

2-Trazione (Nodo n. 124, CMB n. 76)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-78.00	5448.6	17345.1	0.314127	Ok
2	39.50	-28.00	4479.8	17915.2	0.250054	Ok
3	39.50	28.00	3394.7	17915.2	0.189488	Ok
4	39.50	78.00	2425.9	17345.1	0.139861	Ok

5	-39.50	-78.00	1993.4	17345.1	0.114928	Ok
6	-39.50	-28.00	1024.6	17915.2	0.057193	Ok
7	-39.50	28.00	0.0	17915.2	0.000000	Ok
8	-39.50	78.00	0.0	17345.1	0.000000	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)
Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 4.243$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 124, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Nervatura inferiore lato destro	33.0	17.84	0.00	-1.67	17.92	Ok
Nervatura inferiore lato sinistro	33.0	17.84	0.00	-1.67	17.92	Ok
Ala inferiore esterno	120.0	-23.70	0.00	-4.17	24.07	Ok
Ala inferiore interno lato destro	45.5	43.35	0.00	-4.17	43.55	Ok
Ala inferiore interno lato sinistro	45.5	-25.99	0.00	-4.17	26.32	Ok
Anima lato destro	74.0	-6.97	0.00	-1.67	7.17	Ok
Anima lato sinistro	74.0	-6.97	0.00	-1.67	7.17	Ok
Ala superiore interno lato destro	45.5	25.85	0.00	-4.17	26.19	Ok
Ala superiore interno lato sinistro	45.5	-43.48	0.00	-4.17	43.68	Ok
Ala superiore esterno	120.0	-45.76	0.00	-4.17	45.95	Ok
Nervatura superiore lato destro	33.0	-17.98	0.00	-1.67	18.06	Ok
Nervatura superiore lato sinistro	33.0	-17.98	0.00	-1.67	18.06	Ok

Verifica formula (4.2.85) (Nodo n. 124, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Nervatura inferiore lato destro	33.0	17.84	0.00	-1.67	17.84	Ok
Nervatura inferiore lato sinistro	33.0	17.84	0.00	-1.67	17.84	Ok
Ala inferiore esterno	120.0	-23.70	0.00	-4.17	23.70	Ok
Ala inferiore interno lato destro	45.5	43.35	0.00	-4.17	43.35	Ok
Ala inferiore interno lato sinistro	45.5	-25.99	0.00	-4.17	25.99	Ok
Anima lato destro	74.0	-6.97	0.00	-1.67	6.97	Ok
Anima lato sinistro	74.0	-6.97	0.00	-1.67	6.97	Ok
Ala superiore interno lato destro	45.5	25.85	0.00	-4.17	25.85	Ok
Ala superiore interno lato sinistro	45.5	-43.48	0.00	-4.17	43.48	Ok
Ala superiore esterno	120.0	-45.76	0.00	-4.17	45.76	Ok
Nervatura superiore lato destro	33.0	-17.98	0.00	-1.67	17.98	Ok
Nervatura superiore lato sinistro	33.0	-17.98	0.00	-1.67	17.98	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk} = 192.50$ N/mm^2 $\beta_2 \bullet f_{yk} = 233.75$ N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 124, CMB n. 84)

Momento resistente del giunto $M_{j,Rd}$ = 6099793.0 N mm
Momento di progetto $M_{j,Ed}$ = 1402000.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.229844 Ok

Trave lato 3+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 194.0 x 10.0 mm
Spessore nervature verticali: 5.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
124.84	-8637.8	709.2	-3849.1	-1372000.0	8643289.0	1569.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ = 66501.2 N
Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ = 142653.4 N
Resistenza a punzonamento anima passante $B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ = 121255.4 N

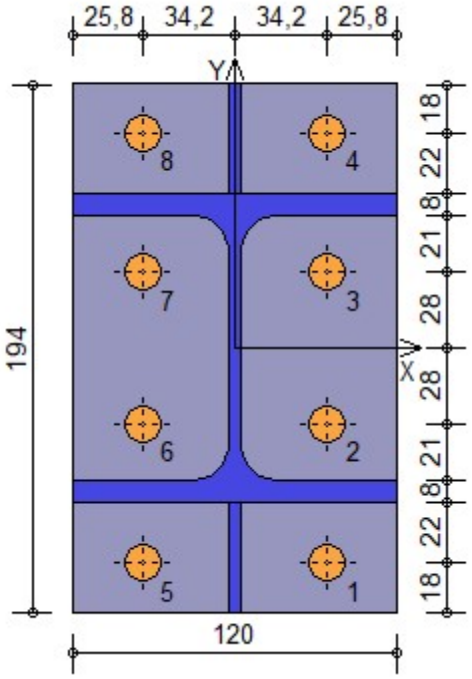
Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	20288.9	20288.9
2	21216.0	21216.0
3	21216.0	21216.0
4	20288.9	20288.9
5	20288.9	20288.9
6	21216.0	21216.0
7	21216.0	21216.0
8	20288.9	20288.9

Legenda
$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia
$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ = 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2
2	69029.3	102340.0	44334.2	106353.3	90400.3	44334.2
3	69029.3	102340.0	44334.2	106353.3	90400.3	44334.2
4	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2
5	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2
6	69029.3	102340.0	44334.2	106353.3	90400.3	44334.2
7	69029.3	102340.0	44334.2	106353.3	90400.3	44334.2
8	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2

Legenda
$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x
$F_{ba,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione x
$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x
$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y
$F_{ba,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione y
$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 124, CMB n. 84)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	34.20	-79.00	1085.1	44334.2	15562.1	20288.9	0.572352	Ok
2	34.20	-28.00	1084.9	44334.2	9648.9	21216.0	0.349324	Ok
3	34.20	28.00	1084.7	44334.2	3156.0	21216.0	0.130720	Ok
4	34.20	79.00	1084.5	44334.2	0.0	20288.9	0.024462	Ok
5	-34.20	-79.00	1082.2	44334.2	17613.0	20288.9	0.644490	Ok
6	-34.20	-28.00	1082.0	44334.2	11699.8	21216.0	0.418308	Ok
7	-34.20	28.00	1081.8	44334.2	5206.9	21216.0	0.199704	Ok
8	-34.20	79.00	1081.7	44334.2	0.0	20288.9	0.024398	Ok

2-Trazione (Nodo n. 124, CMB n. 84)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	34.20	-79.00	15562.1	20288.9	0.767028	Ok
2	34.20	-28.00	9648.9	21216.0	0.454795	Ok
3	34.20	28.00	3156.0	21216.0	0.148756	Ok
4	34.20	79.00	0.0	20288.9	0.000000	Ok
5	-34.20	-79.00	17613.0	20288.9	0.868112	Ok
6	-34.20	-28.00	11699.8	21216.0	0.551462	Ok
7	-34.20	28.00	5206.9	21216.0	0.245423	Ok
8	-34.20	79.00	0.0	20288.9	0.000000	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 4.243$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 124, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_{\parallel}$	FV_1	VER_1
Nervatura inferiore lato destro	34.0	88.93	0.00	-7.17	89.22	Ok
Nervatura inferiore lato sinistro	34.0	88.93	0.00	-7.17	89.22	Ok

Ala inferiore esterno	120.0	87.62	0.00	0.40	87.63	Ok
Ala inferiore interno lato destro	45.5	34.11	0.00	0.40	34.12	Ok
Ala inferiore interno lato sinistro	45.5	76.24	0.00	0.40	76.24	Ok
Anima lato destro	74.0	-35.70	0.00	-7.17	36.41	Ok
Anima lato sinistro	74.0	-35.70	0.00	-7.17	36.41	Ok
Ala superiore interno lato destro	45.5	-78.81	0.00	0.40	78.81	Ok
Ala superiore interno lato sinistro	45.5	-36.68	0.00	0.40	36.69	Ok
Ala superiore esterno	120.0	-56.27	0.00	0.40	56.27	Ok
Nervatura superiore lato destro	34.0	-91.50	0.00	-7.17	91.78	Ok
Nervatura superiore lato sinistro	34.0	-91.50	0.00	-7.17	91.78	Ok

Verifica formula (4.2.85) (Nodo n. 124, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Nervatura inferiore lato destro	34.0	88.93	0.00	-7.17	88.93	Ok
Nervatura inferiore lato sinistro	34.0	88.93	0.00	-7.17	88.93	Ok
Ala inferiore esterno	120.0	87.62	0.00	0.40	87.62	Ok
Ala inferiore interno lato destro	45.5	34.11	0.00	0.40	34.11	Ok
Ala inferiore interno lato sinistro	45.5	76.24	0.00	0.40	76.24	Ok
Anima lato destro	74.0	-35.70	0.00	-7.17	35.70	Ok
Anima lato sinistro	74.0	-35.70	0.00	-7.17	35.70	Ok
Ala superiore interno lato destro	45.5	-78.81	0.00	0.40	78.81	Ok
Ala superiore interno lato sinistro	45.5	-36.68	0.00	0.40	36.68	Ok
Ala superiore esterno	120.0	-56.27	0.00	0.40	56.27	Ok
Nervatura superiore lato destro	34.0	-91.50	0.00	-7.17	91.50	Ok
Nervatura superiore lato sinistro	34.0	-91.50	0.00	-7.17	91.50	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone

$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone

$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone

$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$

$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk} = 192.50$ N/mm^2 $\beta_2 \cdot f_{yk} = 233.75$ N/mm^2)

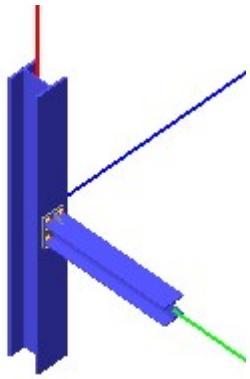
Verifica del momento di progetto del giunto (Nodo n. 124, CMB n. 84)

Momento resistente del giunto $M_{j,Rd}$ = 13806570.0 N mm

Momento di progetto $M_{j,Ed}$ = 8318006.0 N mm

$M_{j,Ed} / M_{j,Rd}$ = 0.602467 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 127



Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 192.0 x 10.0 mm
Spessore nervature verticali: 5.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 6580967000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
127.75	2426.8	7464.4	-1704.0	-76636.0	-1821588.0	4835.0
127.83	2427.4	7464.3	-1701.5	-76601.0	-1821534.0	4835.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]

1	17345.1	17345.1
2	17915.2	17915.2
3	17915.2	17915.2
4	17345.1	17345.1
5	17345.1	17345.1
6	17915.2	17915.2
7	17915.2	17915.2
8	17345.1	17345.1

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
2	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
3	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
4	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
5	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
6	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
7	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
8	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

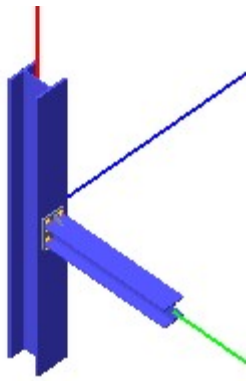
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 127, CMB n. 83)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-78.00	988.7	36419.7	0.0	17345.1	0.027146	Ok
2	39.50	-28.00	982.9	44334.2	746.0	17915.2	0.051914	Ok
3	39.50	28.00	976.4	44334.2	2102.5	17915.2	0.105852	Ok
4	39.50	78.00	970.7	36419.7	3313.7	17345.1	0.163112	Ok
5	-39.50	-78.00	991.6	36419.7	0.0	17345.1	0.027227	Ok
6	-39.50	-28.00	985.8	44334.2	868.3	17915.2	0.056855	Ok
7	-39.50	28.00	979.4	44334.2	2224.8	17915.2	0.110794	Ok
8	-39.50	78.00	973.7	36419.7	3435.9	17345.1	0.168229	Ok

2-Trazione (Nodo n. 127, CMB n. 83)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-78.00	0.0	17345.1	0.000000	Ok
2	39.50	-28.00	746.0	17915.2	0.041641	Ok
3	39.50	28.00	2102.5	17915.2	0.117359	Ok
4	39.50	78.00	3313.7	17345.1	0.191043	Ok

5	-39.50	-78.00	0.0	17345.1	0.000000	Ok
6	-39.50	-28.00	868.3	17915.2	0.048466	Ok
7	-39.50	28.00	2224.8	17915.2	0.124184	Ok
8	-39.50	78.00	3435.9	17345.1	0.198092	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \le 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 4.243$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 127, CMB n. 75)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Nervatura inferiore lato destro	33.0	-19.71	0.00	2.04	19.82	Ok
Nervatura inferiore lato sinistro	33.0	-19.71	0.00	2.04	19.82	Ok
Ala inferiore esterno	120.0	-12.36	0.00	4.17	13.04	Ok
Ala inferiore interno lato destro	45.5	-11.81	0.00	4.17	12.53	Ok
Ala inferiore interno lato sinistro	45.5	-9.46	0.00	4.17	10.34	Ok
Anima lato destro	74.0	-7.95	0.00	2.04	8.21	Ok
Anima lato sinistro	74.0	-7.95	0.00	2.04	8.21	Ok
Ala superiore interno lato destro	45.5	8.32	0.00	4.17	9.30	Ok
Ala superiore interno lato sinistro	45.5	10.67	0.00	4.17	11.46	Ok
Ala superiore esterno	120.0	13.11	0.00	4.17	13.76	Ok
Nervatura superiore lato destro	33.0	18.57	0.00	2.04	18.68	Ok
Nervatura superiore lato sinistro	33.0	18.57	0.00	2.04	18.68	Ok

Verifica formula (4.2.85) (Nodo n. 127, CMB n. 75)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Nervatura inferiore lato destro	33.0	-19.71	0.00	2.04	19.71	Ok
Nervatura inferiore lato sinistro	33.0	-19.71	0.00	2.04	19.71	Ok
Ala inferiore esterno	120.0	-12.36	0.00	4.17	12.36	Ok
Ala inferiore interno lato destro	45.5	-11.81	0.00	4.17	11.81	Ok
Ala inferiore interno lato sinistro	45.5	-9.46	0.00	4.17	9.46	Ok
Anima lato destro	74.0	-7.95	0.00	2.04	7.95	Ok
Anima lato sinistro	74.0	-7.95	0.00	2.04	7.95	Ok
Ala superiore interno lato destro	45.5	8.32	0.00	4.17	8.32	Ok
Ala superiore interno lato sinistro	45.5	10.67	0.00	4.17	10.67	Ok
Ala superiore esterno	120.0	13.11	0.00	4.17	13.11	Ok
Nervatura superiore lato destro	33.0	18.57	0.00	2.04	18.57	Ok
Nervatura superiore lato sinistro	33.0	18.57	0.00	2.04	18.57	Ok

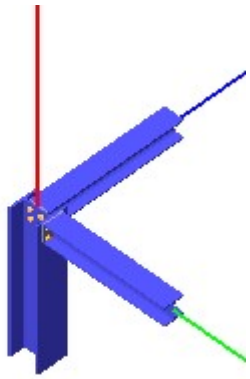
Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \le \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk} = 192.50$ N/mm^2 $\beta_2 \bullet f_{yk} = 233.75$ N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 127, CMB n. 83)

Momento resistente del giunto $M_{j,Rd}$ = 11676170.0 N mm
Momento di progetto $M_{j,Ed}$ = 1678018.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.143713 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 129



Colonna
Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati
γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2+
Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 1267809000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
129.75	3065.9	605.3	-700.1	61500.0	-1157069.0	337.0
129.83	3066.4	604.8	-700.1	61940.0	-1157024.0	338.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	17915.2	17915.2

2	17915.2	17915.2
3	17915.2	17915.2
4	17915.2	17915.2

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
2	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2
3	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
4	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

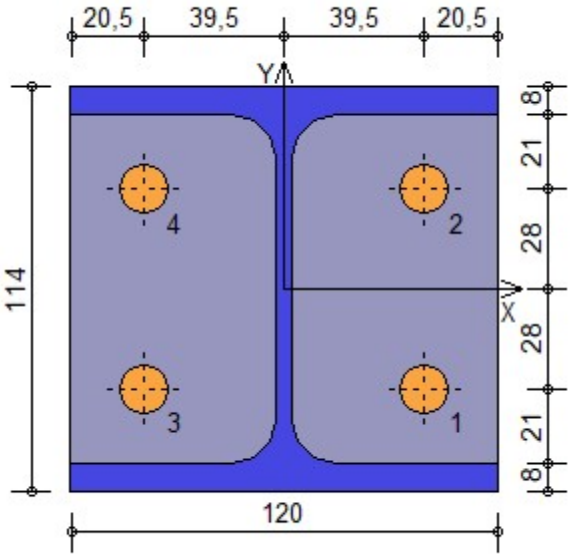
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 129, CMB n. 83)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-28.00	780.2	44334.2	1217.5	17915.2	0.066139	Ok
2	39.50	28.00	779.8	44334.2	6847.2	17915.2	0.290591	Ok
3	-39.50	-28.00	783.0	44334.2	1045.0	17915.2	0.059327	Ok
4	-39.50	28.00	782.6	44334.2	6674.8	17915.2	0.283779	Ok

2-Trazione (Nodo n. 129, CMB n. 83)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-28.00	1217.5	17915.2	0.067958	Ok
2	39.50	28.00	6847.2	17915.2	0.382204	Ok
3	-39.50	-28.00	1045.0	17915.2	0.058333	Ok
4	-39.50	28.00	6674.8	17915.2	0.372578	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)
Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 4.243) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 129, CMB n. 83)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	-27.08	0.00	0.78	27.10	Ok
Ala inferiore interno lato sinistro	45.5	-30.92	0.00	0.78	30.93	Ok
Anima lato destro	74.0	-22.07	0.00	4.88	22.60	Ok
Anima lato sinistro	74.0	-22.07	0.00	4.88	22.60	Ok
Ala superiore interno lato destro	45.5	29.92	0.00	0.78	29.93	Ok
Ala superiore interno lato sinistro	45.5	26.08	0.00	0.78	26.10	Ok

Verifica formula (4.2.85) (Nodo n. 129, CMB n. 83)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	-27.08	0.00	0.78	27.08	Ok
Ala inferiore interno lato sinistro	45.5	-30.92	0.00	0.78	30.92	Ok
Anima lato destro	74.0	-22.07	0.00	4.88	22.07	Ok
Anima lato sinistro	74.0	-22.07	0.00	4.88	22.07	Ok
Ala superiore interno lato destro	45.5	29.92	0.00	0.78	29.92	Ok
Ala superiore interno lato sinistro	45.5	26.08	0.00	0.78	26.08	Ok

Legenda
$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk}$ = 192.50 N/mm^2 $\beta_2 \bullet f_{yk}$ = 233.75 N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 129, CMB n. 75)
Momento resistente del giunto $M_{j,Rd}$ = 3659229.0 N mm
Momento di progetto $M_{j,Ed}$ = 1121320.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.306436 Ok

Trave lato 3+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
129.80	-2026.4	82.2	155.5	-8705.0	2187388.0	794.0
129.84	-2023.2	84.4	155.5	-10962.0	2184401.0	790.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 66501.2 N

Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2} =$ 142653.4 N

Resistenza a punzonamento anima passante $B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2} =$ 121255.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	21216.0	21216.0
2	21216.0	21216.0
3	21216.0	21216.0
4	21216.0	21216.0

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	69029.3	102340.0	44334.2	77591.1	102340.0	44334.2
2	69029.3	102340.0	44334.2	77591.1	65952.5	44334.2
3	69029.3	102340.0	44334.2	77591.1	102340.0	44334.2
4	69029.3	102340.0	44334.2	77591.1	65952.5	44334.2

Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

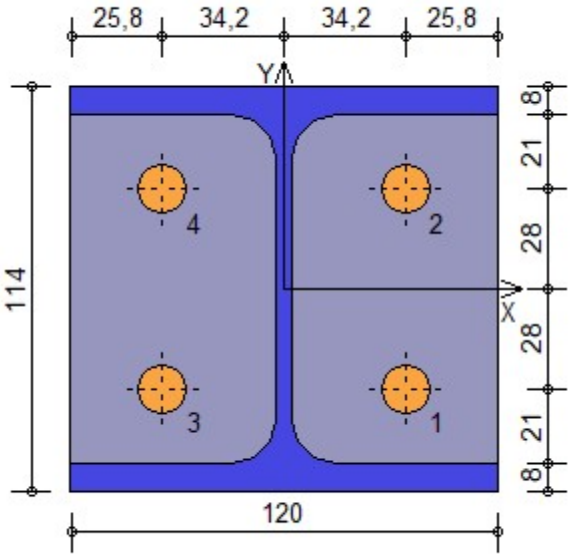
$F_{ba,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 129, CMB n. 80)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	34.20	-28.00	510.6	44334.2	13186.2	21216.0	0.455462	Ok

2	34.20	28.00	510.4	44334.2	2251.5	21216.0	0.087313	Ok
3	-34.20	-28.00	503.7	44334.2	13208.8	21216.0	0.456065	Ok
4	-34.20	28.00	503.4	44334.2	2274.0	21216.0	0.087916	Ok

2-Trazione (Nodo n. 129, CMB n. 80)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	34.20	-28.00	13186.2	21216.0	0.621522	Ok
2	34.20	28.00	2251.5	21216.0	0.106121	Ok
3	-34.20	-28.00	13208.8	21216.0	0.622586	Ok
4	-34.20	28.00	2274.0	21216.0	0.107184	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
$VER \rightarrow FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 4.243$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 129, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	51.58	0.00	0.11	51.58	Ok
Ala inferiore interno lato sinistro	45.5	52.26	0.00	0.11	52.26	Ok
Anima lato destro	74.0	40.84	0.00	-3.22	40.96	Ok
Anima lato sinistro	74.0	40.84	0.00	-3.22	40.96	Ok
Ala superiore interno lato destro	45.5	-52.03	0.00	0.11	52.03	Ok
Ala superiore interno lato sinistro	45.5	-51.36	0.00	0.11	51.36	Ok

Verifica formula (4.2.85) (Nodo n. 129, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	51.58	0.00	0.11	51.58	Ok
Ala inferiore interno lato sinistro	45.5	52.26	0.00	0.11	52.26	Ok
Anima lato destro	74.0	40.84	0.00	-3.22	40.84	Ok
Anima lato sinistro	74.0	40.84	0.00	-3.22	40.84	Ok
Ala superiore interno lato destro	45.5	-52.03	0.00	0.11	52.03	Ok
Ala superiore interno lato sinistro	45.5	-51.36	0.00	0.11	51.36	Ok

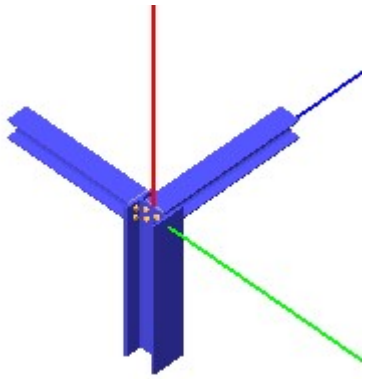
Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk} = 192.50$ N/mm^2 $\beta_2 \bullet f_{yk} = 233.75$ N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 129, CMB n. 80)

Momento resistente del giunto $M_{j,Rd}$ = 4344689.0 N mm
Momento di progetto $M_{j,Ed}$ = 2195349.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.505295 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 130



Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2-

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 1267809000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
130.150	-1678.8	-164.0	-282.1	227079.0	918908.0	-30.0
130.211	1793.4	-26.4	-179.9	24105.0	-1066594.0	-386.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	17915.2	17915.2

2	17915.2	17915.2
3	17915.2	17915.2
4	17915.2	17915.2

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
2	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2
3	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
4	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

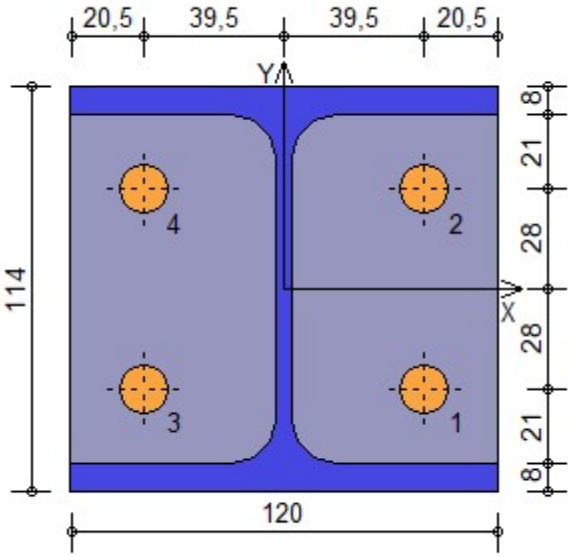
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 130, CMB n. 211)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-28.00	450.0	44334.2	1115.5	17915.2	0.054626	Ok
2	39.50	28.00	450.0	44334.2	6397.0	17915.2	0.265201	Ok
3	-39.50	-28.00	446.8	44334.2	1047.7	17915.2	0.051851	Ok
4	-39.50	28.00	446.8	44334.2	6329.2	17915.2	0.262426	Ok

2-Trazione (Nodo n. 130, CMB n. 211)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-28.00	1115.5	17915.2	0.062265	Ok
2	39.50	28.00	6397.0	17915.2	0.357070	Ok
3	-39.50	-28.00	1047.7	17915.2	0.058483	Ok
4	-39.50	28.00	6329.2	17915.2	0.353288	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)
Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 4.243) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 130, CMB n. 150)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	32.81	0.00	-0.21	32.82	Ok
Ala inferiore interno lato sinistro	45.5	18.77	0.00	-0.21	18.77	Ok
Anima lato destro	74.0	-17.33	0.00	-2.67	17.54	Ok
Anima lato sinistro	74.0	-17.33	0.00	-2.67	17.54	Ok
Ala superiore interno lato destro	45.5	-19.17	0.00	-0.21	19.18	Ok
Ala superiore interno lato sinistro	45.5	-33.22	0.00	-0.21	33.22	Ok

Verifica formula (4.2.85) (Nodo n. 130, CMB n. 150)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	32.81	0.00	-0.21	32.81	Ok
Ala inferiore interno lato sinistro	45.5	18.77	0.00	-0.21	18.77	Ok
Anima lato destro	74.0	-17.33	0.00	-2.67	17.33	Ok
Anima lato sinistro	74.0	-17.33	0.00	-2.67	17.33	Ok
Ala superiore interno lato destro	45.5	-19.17	0.00	-0.21	19.17	Ok
Ala superiore interno lato sinistro	45.5	-33.22	0.00	-0.21	33.22	Ok

Legenda
$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk}$ = 192.50 N/mm^2 $\beta_2 \bullet f_{yk}$ = 233.75 N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 130, CMB n. 211)
Momento resistente del giunto $M_{j,Rd}$ = 3665611.0 N mm
Momento di progetto $M_{j,Ed}$ = 1057392.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.288463 Ok

Trave lato 3+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
130.84	-1571.8	288.1	-498.0	-357237.0	1680320.0	769.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 66501.2 N

Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2} =$ 142653.4 N

Resistenza a punzonamento anima passante $B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2} =$ 121255.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	21216.0	21216.0
2	21216.0	21216.0
3	21216.0	21216.0
4	21216.0	21216.0

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	69029.3	102340.0	44334.2	77591.1	102340.0	44334.2
2	69029.3	102340.0	44334.2	77591.1	65952.5	44334.2
3	69029.3	102340.0	44334.2	77591.1	102340.0	44334.2
4	69029.3	102340.0	44334.2	77591.1	65952.5	44334.2

Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

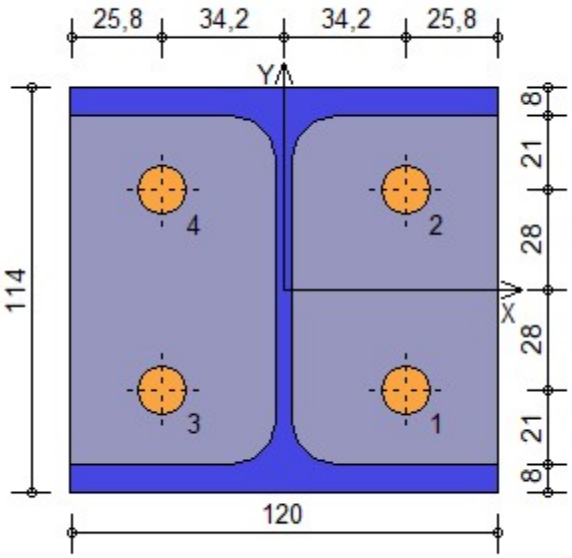
$F_{ba,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 130, CMB n. 84)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	34.20	-28.00	403.3	44334.2	9534.1	21216.0	0.330085	Ok
2	34.20	28.00	402.3	44334.2	1256.3	21216.0	0.051370	Ok

3	-34.20	-28.00	396.7	44334.2	10462.0	21216.0	0.361176	Ok
4	-34.20	28.00	395.7	44334.2	2184.2	21216.0	0.082460	Ok

2-Trazione (Nodo n. 130, CMB n. 84)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	34.20	-28.00	9534.1	21216.0	0.449384	Ok
2	34.20	28.00	1256.3	21216.0	0.059214	Ok
3	-34.20	-28.00	10462.0	21216.0	0.493119	Ok
4	-34.20	28.00	2184.2	21216.0	0.102949	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 4.243$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 130, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	35.04	0.00	0.37	35.04	Ok
Ala inferiore interno lato sinistro	45.5	57.13	0.00	0.37	57.13	Ok
Anima lato destro	74.0	-31.68	0.00	-2.50	31.78	Ok
Anima lato sinistro	74.0	-31.68	0.00	-2.50	31.78	Ok
Ala superiore interno lato destro	45.5	-57.84	0.00	0.37	57.84	Ok
Ala superiore interno lato sinistro	45.5	-35.75	0.00	0.37	35.75	Ok

Verifica formula (4.2.85) (Nodo n. 130, CMB n. 84)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	35.04	0.00	0.37	35.04	Ok
Ala inferiore interno lato sinistro	45.5	57.13	0.00	0.37	57.13	Ok
Anima lato destro	74.0	-31.68	0.00	-2.50	31.68	Ok
Anima lato sinistro	74.0	-31.68	0.00	-2.50	31.68	Ok
Ala superiore interno lato destro	45.5	-57.84	0.00	0.37	57.84	Ok
Ala superiore interno lato sinistro	45.5	-35.75	0.00	0.37	35.75	Ok

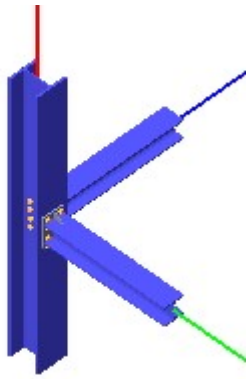
Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk} = 192.50$ N/mm^2 $\beta_2 \cdot f_{yk} = 233.75$ N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 130, CMB n. 84)

Momento resistente del giunto $M_{j,Rd}$ = 4314228.0 N mm
Momento di progetto $M_{j,Ed}$ = 1655003.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.383615 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 132



Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 192.0 x 10.0 mm
Spessore nervature verticali: 5.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 6580967000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
132.79	2391.9	8704.7	-2244.7	-1680000.0	-1805729.0	1091.0
132.80	2338.5	8704.3	-2270.2	-1681000.0	-1795535.0	1089.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]

1	17345.1	17345.1
2	17915.2	17915.2
3	17915.2	17915.2
4	17345.1	17345.1
5	17345.1	17345.1
6	17915.2	17915.2
7	17915.2	17915.2
8	17345.1	17345.1

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
2	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
3	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
4	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
5	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1
6	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
7	54848.9	168560.0	44334.2	88195.2	145148.9	44334.2
8	36419.7	168560.0	36419.7	40968.1	168560.0	40968.1

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet Ø \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

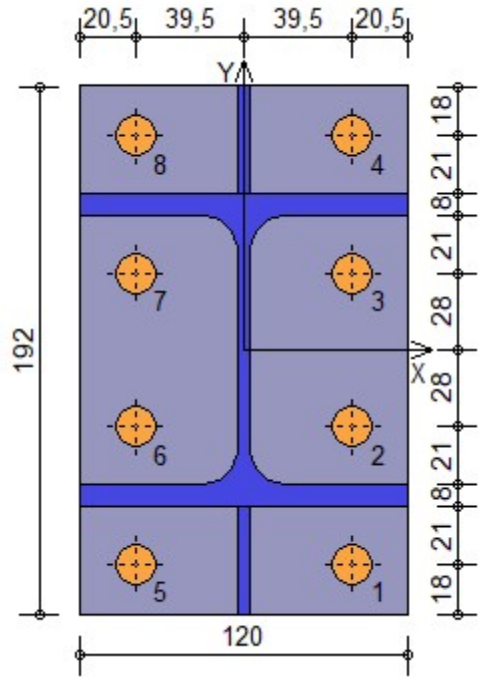
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet Ø \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet Ø \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet Ø \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 132, CMB n. 79)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-78.00	1130.2	36419.7	0.0	17345.1	0.031032	Ok
2	39.50	-28.00	1128.9	44334.2	0.0	17915.2	0.025463	Ok
3	39.50	28.00	1127.4	44334.2	850.0	17915.2	0.059319	Ok
4	39.50	78.00	1126.1	36419.7	1777.8	17345.1	0.104132	Ok
5	-39.50	-78.00	1130.8	36419.7	2959.7	17345.1	0.152932	Ok

6	-39.50	-28.00	1129.4	44334.2	3887.5	17915.2	0.180474	Ok
7	-39.50	28.00	1128.0	44334.2	4926.7	17915.2	0.221873	Ok
8	-39.50	78.00	1126.7	36419.7	5854.5	17345.1	0.272030	Ok

2-Trazione (Nodo n. 132, CMB n. 79)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-78.00	0.0	17345.1	0.000000	Ok
2	39.50	-28.00	0.0	17915.2	0.000000	Ok
3	39.50	28.00	850.0	17915.2	0.047446	Ok
4	39.50	78.00	1777.8	17345.1	0.102497	Ok
5	-39.50	-78.00	2959.7	17345.1	0.170637	Ok
6	-39.50	-28.00	3887.5	17915.2	0.216998	Ok
7	-39.50	28.00	4926.7	17915.2	0.275002	Ok
8	-39.50	78.00	5854.5	17345.1	0.337533	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 4.243$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 132, CMB n. 79)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Nervatura inferiore lato destro	33.0	-19.73	0.00	2.01	19.83	Ok
Nervatura inferiore lato sinistro	33.0	-19.73	0.00	2.01	19.83	Ok
Ala inferiore esterno	120.0	29.10	0.00	4.86	29.50	Ok
Ala inferiore interno lato destro	45.5	-51.56	0.00	4.86	51.79	Ok
Ala inferiore interno lato sinistro	45.5	31.52	0.00	4.86	31.89	Ok
Anima lato destro	74.0	-8.07	0.00	2.01	8.31	Ok
Anima lato sinistro	74.0	-8.07	0.00	2.01	8.31	Ok
Ala superiore interno lato destro	45.5	-33.03	0.00	4.86	33.38	Ok
Ala superiore interno lato sinistro	45.5	50.05	0.00	4.86	50.29	Ok
Ala superiore esterno	120.0	52.47	0.00	4.86	52.70	Ok
Nervatura superiore lato destro	33.0	18.22	0.00	2.01	18.33	Ok
Nervatura superiore lato sinistro	33.0	18.22	0.00	2.01	18.33	Ok

Verifica formula (4.2.85) (Nodo n. 132, CMB n. 79)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Nervatura inferiore lato destro	33.0	-19.73	0.00	2.01	19.73	Ok
Nervatura inferiore lato sinistro	33.0	-19.73	0.00	2.01	19.73	Ok
Ala inferiore esterno	120.0	29.10	0.00	4.86	29.10	Ok
Ala inferiore interno lato destro	45.5	-51.56	0.00	4.86	51.56	Ok
Ala inferiore interno lato sinistro	45.5	31.52	0.00	4.86	31.52	Ok
Anima lato destro	74.0	-8.07	0.00	2.01	8.07	Ok
Anima lato sinistro	74.0	-8.07	0.00	2.01	8.07	Ok
Ala superiore interno lato destro	45.5	-33.03	0.00	4.86	33.03	Ok
Ala superiore interno lato sinistro	45.5	50.05	0.00	4.86	50.05	Ok
Ala superiore esterno	120.0	52.47	0.00	4.86	52.47	Ok
Nervatura superiore lato destro	33.0	18.22	0.00	2.01	18.22	Ok
Nervatura superiore lato sinistro	33.0	18.22	0.00	2.01	18.22	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk}$ = 192.50 N/mm^2 $\beta_2 \cdot f_{yk}$ = 233.75 N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 132, CMB n. 80)

Momento resistente del giunto	$M_{j,Rd}$ =	6163110.0 N mm
Momento di progetto	$M_{j,Ed}$ =	1681000.0 N mm

$M_{j,Ed} / M_{j,Rd}$ = 0.272752 Ok

Trave lato 3+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 192.0 x 10.0 mm
Spessore nervature verticali: 5.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
132.80	-9878.7	-856.6	-7436.7	1651000.0	10008020.0	1782.0
132.88	-9878.1	-856.3	-7427.0	1651000.0	10008020.0	1789.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento anima passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	121255.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	20309.5	20309.5
2	21216.0	21216.0
3	21216.0	21216.0
4	20309.5	20309.5
5	20309.5	20309.5
6	21216.0	21216.0
7	21216.0	21216.0
8	20309.5	20309.5

Legenda
$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia
$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ = 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2
2	69029.3	102340.0	44334.2	103677.8	88126.1	44334.2
3	69029.3	102340.0	44334.2	103677.8	88126.1	44334.2
4	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2
5	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2

6	69029.3	102340.0	44334.2	103677.8	88126.1	44334.2
7	69029.3	102340.0	44334.2	103677.8	88126.1	44334.2
8	45835.5	102340.0	44334.2	48160.0	102340.0	44334.2

Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

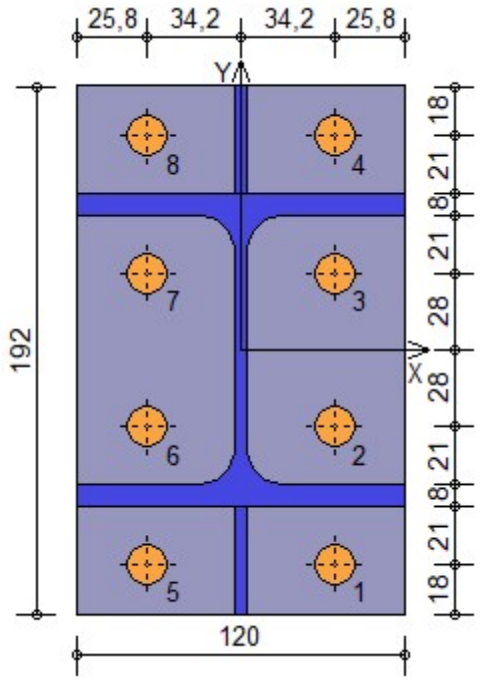
$F_{ba,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 132, CMB n. 88)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	34.20	-78.00	1240.7	44334.2	20200.4	20309.5	0.738433	Ok
2	34.20	-28.00	1240.9	44334.2	13459.7	21216.0	0.481142	Ok
3	34.20	28.00	1241.2	44334.2	5910.0	21216.0	0.226971	Ok
4	34.20	78.00	1241.4	44334.2	0.0	20309.5	0.028001	Ok
5	-34.20	-78.00	1237.4	44334.2	17752.7	20309.5	0.652274	Ok
6	-34.20	-28.00	1237.6	44334.2	11012.0	21216.0	0.398660	Ok
7	-34.20	28.00	1237.9	44334.2	3462.4	21216.0	0.144490	Ok
8	-34.20	78.00	1238.1	44334.2	0.0	20309.5	0.027926	Ok

2-Trazione (Nodo n. 132, CMB n. 88)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	34.20	-78.00	20200.4	20309.5	0.994626	Ok
2	34.20	-28.00	13459.7	21216.0	0.634412	Ok
3	34.20	28.00	5910.0	21216.0	0.278566	Ok
4	34.20	78.00	0.0	20309.5	0.000000	Ok
5	-34.20	-78.00	17752.7	20309.5	0.874108	Ok
6	-34.20	-28.00	11012.0	21216.0	0.519042	Ok
7	-34.20	28.00	3462.4	21216.0	0.163196	Ok
8	-34.20	78.00	0.0	20309.5	0.000000	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone

$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$

$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)
Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 4.243) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 132, CMB n. 80)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Nervatura inferiore lato destro	33.0	102.67	0.00	-8.32	103.01	Ok
Nervatura inferiore lato sinistro	33.0	102.67	0.00	-8.32	103.01	Ok
Ala inferiore esterno	120.0	62.27	0.00	-0.48	62.27	Ok
Ala inferiore interno lato destro	45.5	89.68	0.00	-0.48	89.68	Ok
Ala inferiore interno lato sinistro	45.5	38.99	0.00	-0.48	39.00	Ok
Anima lato destro	74.0	-43.03	0.00	-8.32	43.83	Ok
Anima lato sinistro	74.0	-43.03	0.00	-8.32	43.83	Ok
Ala superiore interno lato destro	45.5	-43.99	0.00	-0.48	43.99	Ok
Ala superiore interno lato sinistro	45.5	-94.68	0.00	-0.48	94.68	Ok
Ala superiore esterno	120.0	-108.09	0.00	-0.48	108.09	Ok
Nervatura superiore lato destro	33.0	-107.67	0.00	-8.32	107.99	Ok
Nervatura superiore lato sinistro	33.0	-107.67	0.00	-8.32	107.99	Ok

Verifica formula (4.2.85) (Nodo n. 132, CMB n. 80)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Nervatura inferiore lato destro	33.0	102.67	0.00	-8.32	102.67	Ok
Nervatura inferiore lato sinistro	33.0	102.67	0.00	-8.32	102.67	Ok
Ala inferiore esterno	120.0	62.27	0.00	-0.48	62.27	Ok
Ala inferiore interno lato destro	45.5	89.68	0.00	-0.48	89.68	Ok
Ala inferiore interno lato sinistro	45.5	38.99	0.00	-0.48	38.99	Ok
Anima lato destro	74.0	-43.03	0.00	-8.32	43.03	Ok
Anima lato sinistro	74.0	-43.03	0.00	-8.32	43.03	Ok
Ala superiore interno lato destro	45.5	-43.99	0.00	-0.48	43.99	Ok
Ala superiore interno lato sinistro	45.5	-94.68	0.00	-0.48	94.68	Ok
Ala superiore esterno	120.0	-108.09	0.00	-0.48	108.09	Ok
Nervatura superiore lato destro	33.0	-107.67	0.00	-8.32	107.67	Ok
Nervatura superiore lato sinistro	33.0	-107.67	0.00	-8.32	107.67	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone

$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone

$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone

$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$

$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk}$ = 192.50 N/mm^2 $\beta_2 \cdot f_{yk}$ = 233.75 N/mm^2)

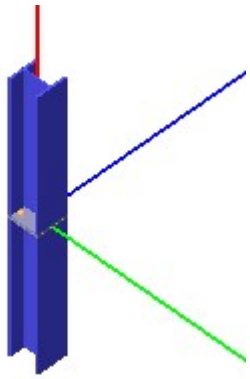
Verifica del momento di progetto del giunto (Nodo n. 132, CMB n. 88)

Momento resistente del giunto $M_{j,Rd}$ = 13626660.0 N mm

Momento di progetto $M_{j,Ed}$ = 9389015.0 N mm

$M_{j,Ed} / M_{j,Rd}$ = 0.689018 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 142



Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 180.0 x 180.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 3578957000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 8 mm

Sollecitazioni:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
142.87	-1827.8	-5850.6	-11625.4	2963000.0	-202028.0	9179.0
142.88	-1783.8	-5844.1	-10534.2	2958000.0	-185772.0	9253.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ = 66501.2 N
Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ = 142653.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	19657.1	19657.1
2	19657.1	19657.1
3	19657.1	19657.1
4	19657.1	19657.1

Legenda
$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia
$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	104346.7	44334.2	98995.6	44334.2
2	104346.7	44334.2	98995.6	44334.2
3	104346.7	44334.2	98995.6	44334.2
4	104346.7	44334.2	98995.6	44334.2

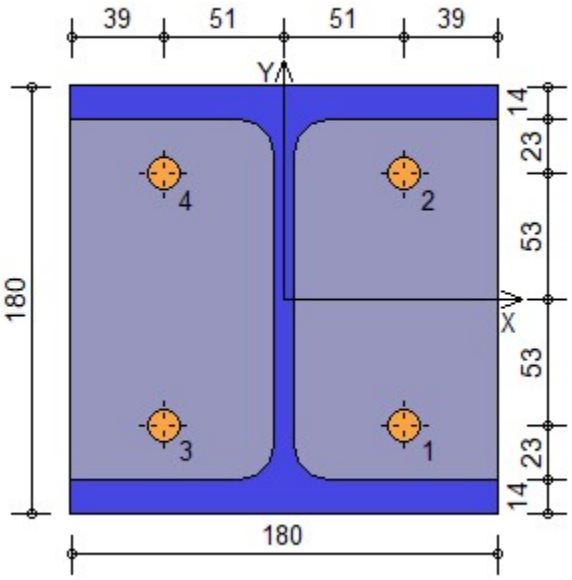
Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 142, CMB n. 88)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	51.00	-53.00	1512.5	44334.2	7532.9	19657.1	0.307839	Ok
2	51.00	53.00	1555.7	44334.2	7712.2	19657.1	0.315330	Ok
3	-51.00	-53.00	1499.6	44334.2	920.6	19657.1	0.067277	Ok
4	-51.00	53.00	1543.1	44334.2	1100.0	19657.1	0.074776	Ok

2-Trazione (Nodo n. 142, CMB n. 88)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	51.00	-53.00	7532.9	19657.1	0.383213	Ok
2	51.00	53.00	7712.2	19657.1	0.392336	Ok
3	-51.00	-53.00	920.6	19657.1	0.046834	Ok
4	-51.00	53.00	1100.0	19657.1	0.055957	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone

$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$

$FV_2 = F_{t,Ed} / F_{t,Rd}$

VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 5.657) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 142, CMB n. 87)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	70.8	43.64	0.00	-3.65	43.79	Ok
Ala inferiore interno lato sinistro	70.8	-54.31	0.00	-3.65	54.44	Ok
Anima lato destro	122.0	-5.10	0.00	-1.32	5.27	Ok
Anima lato sinistro	122.0	-5.10	0.00	-1.32	5.27	Ok
Ala superiore interno lato destro	70.8	46.52	0.00	-3.65	46.66	Ok
Ala superiore interno lato sinistro	70.8	-51.44	0.00	-3.65	51.57	Ok

Verifica formula (4.2.85) (Nodo n. 142, CMB n. 87)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	70.8	43.64	0.00	-3.65	43.64	Ok
Ala inferiore interno lato sinistro	70.8	-54.31	0.00	-3.65	54.31	Ok
Anima lato destro	122.0	-5.10	0.00	-1.32	5.10	Ok
Anima lato sinistro	122.0	-5.10	0.00	-1.32	5.10	Ok
Ala superiore interno lato destro	70.8	46.52	0.00	-3.65	46.52	Ok
Ala superiore interno lato sinistro	70.8	-51.44	0.00	-3.65	51.44	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone

$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone

$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone

$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$

$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk} = 192.50$ N/mm^2 $\beta_2 \cdot f_{yk} = 233.75$ N/mm^2)

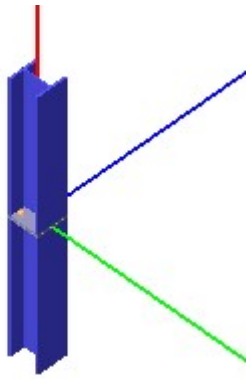
Verifica del momento di progetto del giunto (Nodo n. 142, CMB n. 87)

Momento resistente del giunto $M_{j,Rd}$ = 6443571.0 N mm

Momento di progetto $M_{j,Ed}$ = 2963000.0 N mm

$M_{j,Ed} / M_{j,Rd}$ = 0.459838 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 143



Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 180.0 x 180.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 3578957000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 8 mm

Sollecitazioni:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
143.79	3130.9	-9744.3	-1742.8	2479000.0	-34460.0	20396.0
143.80	3111.8	-9749.8	-653.9	2484000.0	-33882.0	20447.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ = 66501.2 N
Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ = 142653.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	19657.1	19657.1
2	19657.1	19657.1
3	19657.1	19657.1
4	19657.1	19657.1

Legenda
$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia
$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	104346.7	44334.2	98995.6	44334.2
2	104346.7	44334.2	98995.6	44334.2
3	104346.7	44334.2	98995.6	44334.2
4	104346.7	44334.2	98995.6	44334.2

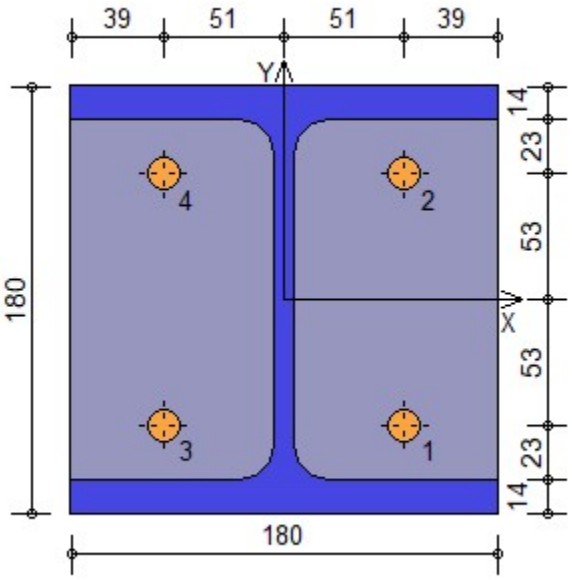
Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 143, CMB n. 80)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	51.00	-53.00	2496.4	44334.2	8668.8	19657.1	0.371311	Ok
2	51.00	53.00	2592.4	44334.2	8707.6	19657.1	0.374884	Ok
3	-51.00	-53.00	2526.3	44334.2	1384.3	19657.1	0.107285	Ok
4	-51.00	53.00	2621.1	44334.2	1423.1	19657.1	0.110833	Ok

2-Trazione (Nodo n. 143, CMB n. 80)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	51.00	-53.00	8668.8	19657.1	0.441003	Ok
2	51.00	53.00	8707.6	19657.1	0.442975	Ok
3	-51.00	-53.00	1384.3	19657.1	0.070424	Ok
4	-51.00	53.00	1423.1	19657.1	0.072395	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone

$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$

$FV_2 = F_{t,Ed} / F_{t,Rd}$

VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 5.657) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 143, CMB n. 79)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_{\parallel}$	FV_1	VER_1
Ala inferiore interno lato destro	70.8	40.15	0.00	-6.09	40.61	Ok
Ala inferiore interno lato sinistro	70.8	-41.81	0.00	-6.09	42.25	Ok
Anima lato destro	122.0	-0.79	0.00	2.27	2.40	Ok
Anima lato sinistro	122.0	-0.79	0.00	2.27	2.40	Ok
Ala superiore interno lato destro	70.8	40.64	0.00	-6.09	41.09	Ok
Ala superiore interno lato sinistro	70.8	-41.32	0.00	-6.09	41.76	Ok

Verifica formula (4.2.85) (Nodo n. 143, CMB n. 79)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_{\parallel}$	FV_2	VER_2
Ala inferiore interno lato destro	70.8	40.15	0.00	-6.09	40.15	Ok
Ala inferiore interno lato sinistro	70.8	-41.81	0.00	-6.09	41.81	Ok
Anima lato destro	122.0	-0.79	0.00	2.27	0.79	Ok
Anima lato sinistro	122.0	-0.79	0.00	2.27	0.79	Ok
Ala superiore interno lato destro	70.8	40.64	0.00	-6.09	40.64	Ok
Ala superiore interno lato sinistro	70.8	-41.32	0.00	-6.09	41.32	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone

$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone

$\tau_{\parallel}$ tensione tangenziale parallela all'asse del cordone

$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_{\parallel}^2)^{0.5}$

$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk} = 192.50$ N/mm^2 $\beta_2 \cdot f_{yk} = 233.75$ N/mm^2)

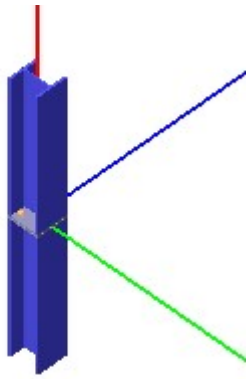
Verifica del momento di progetto del giunto (Nodo n. 143, CMB n. 80)

Momento resistente del giunto $M_{j,Rd}$ = 6569350.0 N mm

Momento di progetto $M_{j,Ed}$ = 2484000.0 N mm

$M_{j,Ed} / M_{j,Rd} = 0.378120$ Ok

Verifica secondo il D.M. 17/01/2018 del nodo 144



Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 180.0 x 180.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 3578957000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 8 mm

Sollecitazioni:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
144.84	3200.7	-9168.1	13846.2	-583473.0	-149179.0	-27059.0
144.88	3192.1	-9159.2	13828.5	-585769.0	-145493.0	-27067.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ = 66501.2 N
Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ = 142653.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	19657.1	19657.1
2	19657.1	19657.1
3	19657.1	19657.1
4	19657.1	19657.1

Legenda
$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia
$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	104346.7	44334.2	98995.6	44334.2
2	104346.7	44334.2	98995.6	44334.2
3	104346.7	44334.2	98995.6	44334.2
4	104346.7	44334.2	98995.6	44334.2

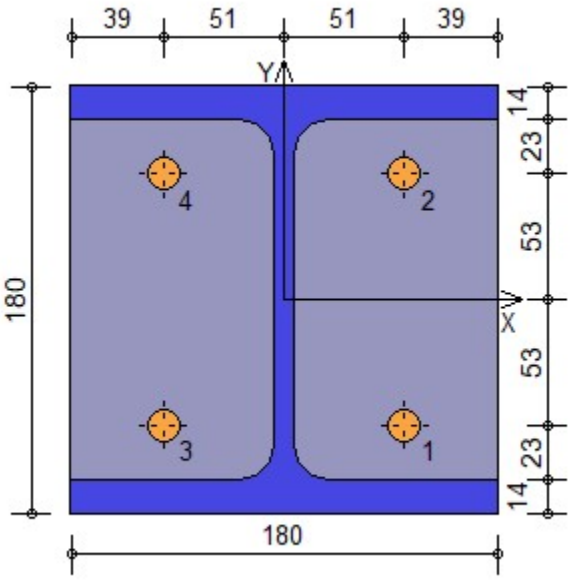
Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 144, CMB n. 84)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	51.00	-53.00	2511.6	44334.2	1295.5	19657.1	0.103727	Ok
2	51.00	53.00	2387.5	44334.2	1864.8	19657.1	0.121617	Ok
3	-51.00	-53.00	2470.6	44334.2	5784.4	19657.1	0.265918	Ok
4	-51.00	53.00	2344.4	44334.2	6353.8	19657.1	0.283759	Ok

2-Trazione (Nodo n. 144, CMB n. 84)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	51.00	-53.00	1295.5	19657.1	0.065906	Ok
2	51.00	53.00	1864.8	19657.1	0.094869	Ok
3	-51.00	-53.00	5784.4	19657.1	0.294267	Ok
4	-51.00	53.00	6353.8	19657.1	0.323230	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone

$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$

$FV_2 = F_{t,Ed} / F_{t,Rd}$

VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 5.657) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 144, CMB n. 88)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	70.8	-6.08	0.00	-5.72	8.35	Ok
Ala inferiore interno lato sinistro	70.8	13.29	0.00	-5.72	14.47	Ok
Anima lato destro	122.0	5.50	0.00	2.31	5.97	Ok
Anima lato sinistro	122.0	5.50	0.00	2.31	5.97	Ok
Ala superiore interno lato destro	70.8	-4.01	0.00	-5.72	6.99	Ok
Ala superiore interno lato sinistro	70.8	15.36	0.00	-5.72	16.39	Ok

Verifica formula (4.2.85) (Nodo n. 144, CMB n. 88)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	70.8	-6.08	0.00	-5.72	6.08	Ok
Ala inferiore interno lato sinistro	70.8	13.29	0.00	-5.72	13.29	Ok
Anima lato destro	122.0	5.50	0.00	2.31	5.50	Ok
Anima lato sinistro	122.0	5.50	0.00	2.31	5.50	Ok
Ala superiore interno lato destro	70.8	-4.01	0.00	-5.72	4.01	Ok
Ala superiore interno lato sinistro	70.8	15.36	0.00	-5.72	15.36	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone

$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone

$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone

$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$

$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk} = 192.50$ N/mm^2 $\beta_2 \cdot f_{yk} = 233.75$ N/mm^2)

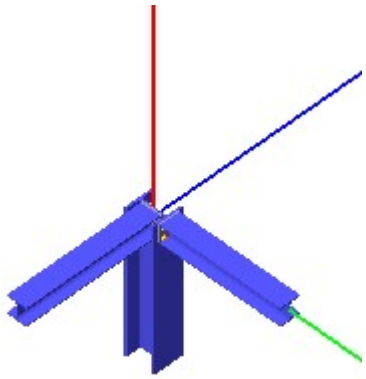
Verifica del momento di progetto del giunto (Nodo n. 144, CMB n. 84)

Momento resistente del giunto $M_{j,Rd}$ = 4809072.0 N mm

Momento di progetto $M_{j,Ed}$ = 996039.9 N mm

$M_{j,Ed} / M_{j,Rd}$ = 0.207117 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 34



Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2+

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 1267809000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
34.33	1442.5	335.7	-282.9	-292027.0	-612846.0	212.0
34.201	1688.6	9.4	-153.9	-8230.0	-981026.0	81.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	17915.2	17915.2

2	17915.2	17915.2
3	17915.2	17915.2
4	17915.2	17915.2

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
2	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2
3	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
4	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

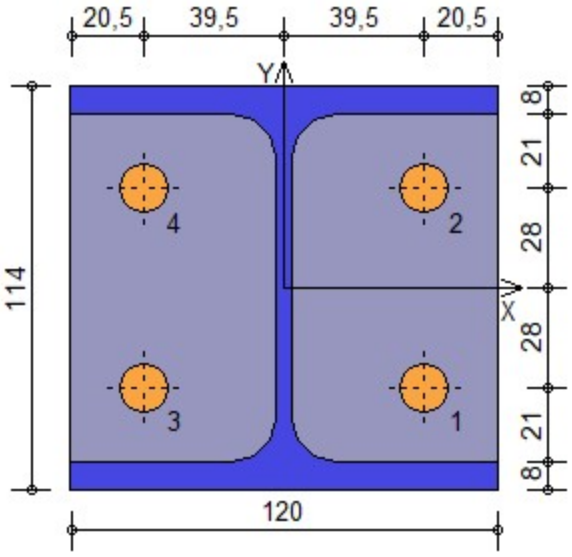
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 34, CMB n. 201)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-28.00	421.8	44334.2	984.1	17915.2	0.048750	Ok
2	39.50	28.00	421.8	44334.2	5844.1	17915.2	0.242523	Ok
3	-39.50	-28.00	422.5	44334.2	1007.2	17915.2	0.049688	Ok
4	-39.50	28.00	422.5	44334.2	5867.3	17915.2	0.243461	Ok

2-Trazione (Nodo n. 34, CMB n. 201)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-28.00	984.1	17915.2	0.054930	Ok
2	39.50	28.00	5844.1	17915.2	0.326212	Ok
3	-39.50	-28.00	1007.2	17915.2	0.056222	Ok
4	-39.50	28.00	5867.3	17915.2	0.327503	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)
Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 4.243) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 34, CMB n. 33)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	-29.22	0.00	0.43	29.23	Ok
Ala inferiore interno lato sinistro	45.5	-11.16	0.00	0.43	11.17	Ok
Anima lato destro	74.0	-11.63	0.00	2.30	11.85	Ok
Anima lato sinistro	74.0	-11.63	0.00	2.30	11.85	Ok
Ala superiore interno lato destro	45.5	10.76	0.00	0.43	10.77	Ok
Ala superiore interno lato sinistro	45.5	28.82	0.00	0.43	28.82	Ok

Verifica formula (4.2.85) (Nodo n. 34, CMB n. 33)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	-29.22	0.00	0.43	29.22	Ok
Ala inferiore interno lato sinistro	45.5	-11.16	0.00	0.43	11.16	Ok
Anima lato destro	74.0	-11.63	0.00	2.30	11.63	Ok
Anima lato sinistro	74.0	-11.63	0.00	2.30	11.63	Ok
Ala superiore interno lato destro	45.5	10.76	0.00	0.43	10.76	Ok
Ala superiore interno lato sinistro	45.5	28.82	0.00	0.43	28.82	Ok

Legenda
$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk}$ = 192.50 N/mm^2 $\beta_2 \bullet f_{yk}$ = 233.75 N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 34, CMB n. 201)
Momento resistente del giunto $M_{j,Rd}$ = 3665940.0 N mm
Momento di progetto $M_{j,Ed}$ = 973152.9 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.265458 Ok

Trave lato 3-

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 14.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 4 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
34.75	2476.2	83.9	132.3	-155681.0	-2210476.0	791.0
34.87	2478.3	82.5	133.4	-154307.0	-2212467.0	793.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 66501.2 N

Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2} =$ 199714.8 N

Resistenza a punzonamento anima passante $B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2} =$ 121255.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	42968.4	42968.4
2	42968.4	42968.4
3	42968.4	42968.4
4	42968.4	42968.4

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	100386.8	102340.0	44334.2	101136.0	102340.0	44334.2
2	100386.8	102340.0	44334.2	101136.0	61404.0	44334.2
3	100386.8	102340.0	44334.2	101136.0	102340.0	44334.2
4	100386.8	102340.0	44334.2	101136.0	61404.0	44334.2

Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

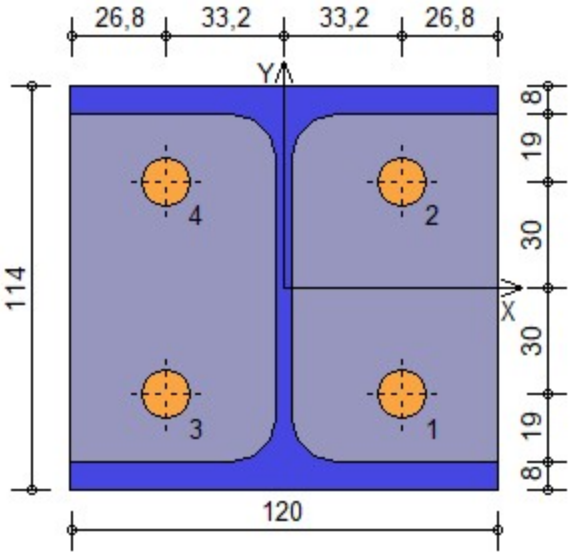
$F_{ba,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 34, CMB n. 87)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	33.20	-30.00	616.7	44334.2	1625.9	42968.4	0.040939	Ok

2	33.20	30.00	616.5	44334.2	13001.1	42968.4	0.230030	Ok
3	-33.20	-30.00	623.3	44334.2	2018.5	42968.4	0.047614	Ok
4	-33.20	30.00	623.1	44334.2	13393.7	42968.4	0.236705	Ok

2-Trazione (Nodo n. 34, CMB n. 87)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	33.20	-30.00	1625.9	42968.4	0.037839	Ok
2	33.20	30.00	13001.1	42968.4	0.302573	Ok
3	-33.20	-30.00	2018.5	42968.4	0.046976	Ok
4	-33.20	30.00	13393.7	42968.4	0.311710	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \le 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 2.828) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 34, CMB n. 75)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	-89.00	0.00	0.16	89.00	Ok
Ala inferiore interno lato sinistro	45.5	-74.56	0.00	0.16	74.56	Ok
Anima lato destro	74.0	60.41	0.00	5.92	60.70	Ok
Anima lato sinistro	74.0	60.41	0.00	5.92	60.70	Ok
Ala superiore interno lato destro	45.5	74.84	0.00	0.16	74.84	Ok
Ala superiore interno lato sinistro	45.5	89.29	0.00	0.16	89.29	Ok

Verifica formula (4.2.85) (Nodo n. 34, CMB n. 75)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	-89.00	0.00	0.16	89.00	Ok
Ala inferiore interno lato sinistro	45.5	-74.56	0.00	0.16	74.56	Ok
Anima lato destro	74.0	60.41	0.00	5.92	60.41	Ok
Anima lato sinistro	74.0	60.41	0.00	5.92	60.41	Ok
Ala superiore interno lato destro	45.5	74.84	0.00	0.16	74.84	Ok
Ala superiore interno lato sinistro	45.5	89.29	0.00	0.16	89.29	Ok

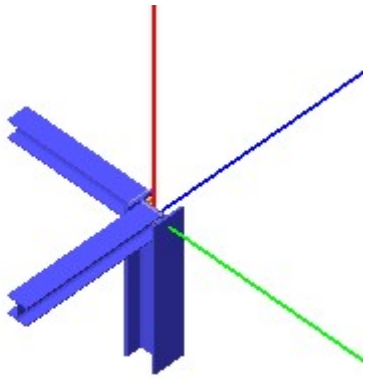
Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \le \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk}$ = 192.50 N/mm^2 $\beta_2 \bullet f_{yk}$ = 233.75 N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 34, CMB n. 87)

Momento resistente del giunto $M_{j,Rd}$ = 8792927.0 N mm
Momento di progetto $M_{j,Ed}$ = 2219292.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.252395 Ok

Verifica secondo il D.M. 17/01/2018 del nodo 37



Colonna

Tipo di profilo: HEB 180
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave lato 2-

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 10.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm², f_{tb} = 800 N/mm²)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm² (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ = 1267809000 N mm / rad

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm² f_t = 430 N/mm² β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 6 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
37.148	-1669.5	94.0	-286.3	-164076.0	911745.0	-22.0
37.204	1726.1	-33.3	-224.2	30161.0	-1012651.0	-66.0

Calcolo resistenze

Resistenza a trazione dei bulloni	$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2}$ =	66501.2 N
Resistenza a punzonamento flangia	$B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2}$ =	142653.4 N
Resistenza a punzonamento ala passante	$B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2}$ =	199714.8 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	17915.2	17915.2

2	17915.2	17915.2
3	17915.2	17915.2
4	17915.2	17915.2

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \bullet R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \bullet f_{tb} \bullet A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
2	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2
3	54848.9	168560.0	44334.2	66004.2	168560.0	44334.2
4	54848.9	168560.0	44334.2	66004.2	108627.6	44334.2

Legenda

$F_{bf,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

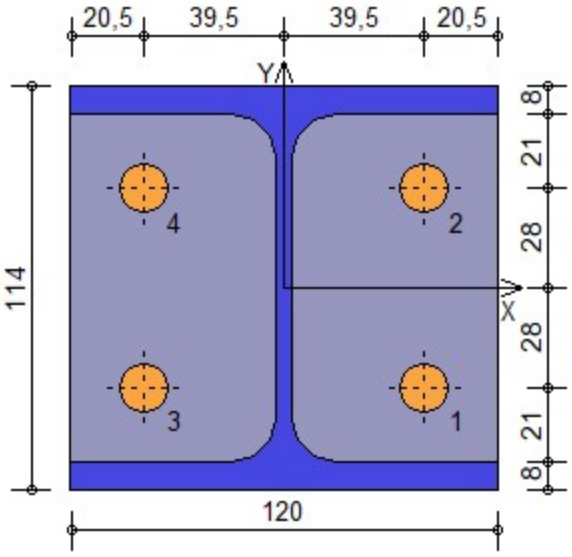
$F_{ba,x,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \bullet \alpha \bullet f_{tk} \bullet \varnothing \bullet t_a / \gamma_{M2}$ resistenza a rifollamento ala passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 37, CMB n. 204)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	39.50	-28.00	431.9	44334.2	1064.8	17915.2	0.052197	Ok
2	39.50	28.00	431.9	44334.2	6068.7	17915.2	0.251702	Ok
3	-39.50	-28.00	431.3	44334.2	980.1	17915.2	0.048808	Ok
4	-39.50	28.00	431.3	44334.2	5984.0	17915.2	0.248314	Ok

2-Trazione (Nodo n. 37, CMB n. 204)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	39.50	-28.00	1064.8	17915.2	0.059437	Ok
2	39.50	28.00	6068.7	17915.2	0.338745	Ok
3	-39.50	-28.00	980.1	17915.2	0.054710	Ok
4	-39.50	28.00	5984.0	17915.2	0.334018	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone

$F_{v,Rd}$ resistenza a taglio di progetto del bullone

$F_{t,Ed}$ forza di trazione agente sul bullone

$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)
Si considera la sezione di gola (avente altezza a = $s_c / 2^{0.5}$ = 4.243) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 37, CMB n. 148)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	19.36	0.00	0.12	19.36	Ok
Ala inferiore interno lato sinistro	45.5	29.50	0.00	0.12	29.50	Ok
Anima lato destro	74.0	-17.20	0.00	-2.66	17.41	Ok
Anima lato sinistro	74.0	-17.20	0.00	-2.66	17.41	Ok
Ala superiore interno lato destro	45.5	-29.91	0.00	0.12	29.91	Ok
Ala superiore interno lato sinistro	45.5	-19.77	0.00	0.12	19.77	Ok

Verifica formula (4.2.85) (Nodo n. 37, CMB n. 148)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	19.36	0.00	0.12	19.36	Ok
Ala inferiore interno lato sinistro	45.5	29.50	0.00	0.12	29.50	Ok
Anima lato destro	74.0	-17.20	0.00	-2.66	17.20	Ok
Anima lato sinistro	74.0	-17.20	0.00	-2.66	17.20	Ok
Ala superiore interno lato destro	45.5	-29.91	0.00	0.12	29.91	Ok
Ala superiore interno lato sinistro	45.5	-19.77	0.00	0.12	19.77	Ok

Legenda
$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_\parallel$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_\parallel^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk}$ = 192.50 N/mm^2 $\beta_2 \bullet f_{yk}$ = 233.75 N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 37, CMB n. 204)
Momento resistente del giunto $M_{j,Rd}$ = 3664806.0 N mm
Momento di progetto $M_{j,Ed}$ = 1001185.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.273189 Ok

Trave lato 3-

Tipo di profilo: HEA 120
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 120.0 x 114.0 x 14.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 14 mm A_{res} = 115.5 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 22 mm
Diametro foro $Ø_0$ = 15 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S275 f_y = 275 N/mm^2 f_t = 430 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 4 mm

Sollecitazioni nella sezione d'attacco dell'elemento:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
37.83	2023.8	288.0	-520.1	-213125.0	-1822399.0	769.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 66501.2 N

Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2} =$ 199714.8 N

Resistenza a punzonamento anima passante $B_{pa,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_a \cdot f_{tk} / \gamma_{M2} =$ 121255.4 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	42968.4	42968.4
2	42968.4	42968.4
3	42968.4	42968.4
4	42968.4	42968.4

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , B_{pa,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 44334.2 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{ba,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{ba,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	100386.8	102340.0	44334.2	101136.0	102340.0	44334.2
2	100386.8	102340.0	44334.2	101136.0	61404.0	44334.2
3	100386.8	102340.0	44334.2	101136.0	102340.0	44334.2
4	100386.8	102340.0	44334.2	101136.0	61404.0	44334.2

Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

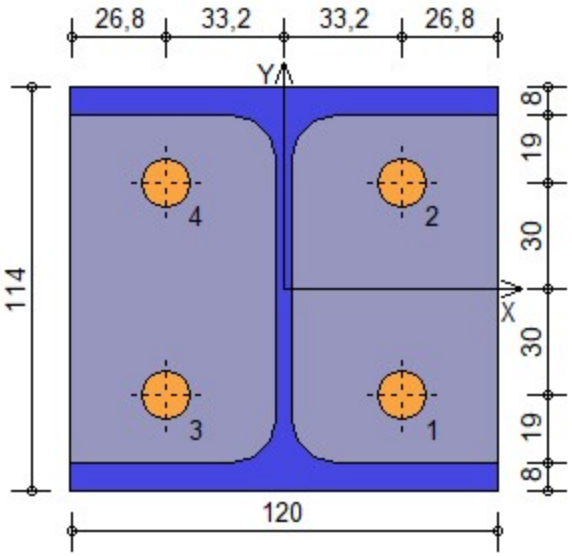
$F_{ba,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd} , F_{ba,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{ba,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \varnothing \cdot t_a / \gamma_{M2}$ resistenza a rifollamento anima passante in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd} , F_{ba,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 37, CMB n. 83)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	33.20	-30.00	508.3	44334.2	1190.5	42968.4	0.031256	Ok
2	33.20	30.00	507.5	44334.2	10432.5	42968.4	0.184872	Ok

3	-33.20	-30.00	514.6	44334.2	1729.3	42968.4	0.040355	Ok
4	-33.20	30.00	513.8	44334.2	10971.4	42968.4	0.193972	Ok

2-Trazione (Nodo n. 37, CMB n. 83)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	33.20	-30.00	1190.5	42968.4	0.027706	Ok
2	33.20	30.00	10432.5	42968.4	0.242795	Ok
3	-33.20	-30.00	1729.3	42968.4	0.040246	Ok
4	-33.20	30.00	10971.4	42968.4	0.255335	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 2.828$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 37, CMB n. 83)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_{\parallel}$	FV_1	VER_1
Ala inferiore interno lato destro	45.5	-80.38	0.00	0.56	80.39	Ok
Ala inferiore interno lato sinistro	45.5	-60.61	0.00	0.56	60.62	Ok
Anima lato destro	74.0	-50.25	0.00	4.83	50.48	Ok
Anima lato sinistro	74.0	-50.25	0.00	4.83	50.48	Ok
Ala superiore interno lato destro	45.5	59.50	0.00	0.56	59.50	Ok
Ala superiore interno lato sinistro	45.5	79.27	0.00	0.56	79.27	Ok

Verifica formula (4.2.85) (Nodo n. 37, CMB n. 83)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_{\parallel}$	FV_2	VER_2
Ala inferiore interno lato destro	45.5	-80.38	0.00	0.56	80.38	Ok
Ala inferiore interno lato sinistro	45.5	-60.61	0.00	0.56	60.61	Ok
Anima lato destro	74.0	-50.25	0.00	4.83	50.25	Ok
Anima lato sinistro	74.0	-50.25	0.00	4.83	50.25	Ok
Ala superiore interno lato destro	45.5	59.50	0.00	0.56	59.50	Ok
Ala superiore interno lato sinistro	45.5	79.27	0.00	0.56	79.27	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone
$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone
$\tau_{\parallel}$ tensione tangenziale parallela all'asse del cordone
$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_{\parallel}^2)^{0.5}$
$FV_2 = |n_\perp| + |t_\perp|$
$VER_i \rightarrow FV_i \leq \beta_i \bullet f_{yk}$ ($\beta_1 \bullet f_{yk} = 192.50$ N/mm^2 $\beta_2 \bullet f_{yk} = 233.75$ N/mm^2)

Verifica del momento di progetto del giunto (Nodo n. 37, CMB n. 83)

Momento resistente del giunto $M_{j,Rd}$ = 8771395.0 N mm
Momento di progetto $M_{j,Ed}$ = 1795856.0 N mm
$M_{j,Ed} / M_{j,Rd}$ = 0.204740 Ok